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Final Report

Assessment of the normative and policy framework governing the Chinese economy and its impact on international competition



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EXECUTIVE SUMMARY

This study examines the distortions in the Chinese economy that make it unsuitable for consideration as a market economy for the purposes of EU trade defence law.

Among the key elements examined in the Study are:

- the continued and central role of the Chinese Communist Party in the economy;
- the 71 detailed five-year government plans directing and managing the economy;
- the 22 national industrial sector plans;
- the Provincial and Local plans implementing national industry plans;
- the role of industry associations as arms of the state;
- the limited role of markets for consumer goods only;
- the absence of markets for capital, labour, land, energy and other factors of production;
- the pragmatic subordination of markets to state planning;
- the absence of true competition rules, bankruptcy laws and market exit mechanisms;
- the tools restricting imports into the Chinese market;
- the tools managing and directing exports to international markets;
- the state control and direction of outward foreign direct investment;
- the state direction and control of inward investment and ownership.

By analysing a very substantial number of primary Chinese documents, as well as secondary sources and academic studies, the study shows the inter-relationship between commercial enterprises and the Chinese Government as well as the Chinese Communist Party. These are the principles guiding the actions of these enterprises, not the market. Markets only play a secondary role.

Economic activity and the allocation of resources in China continue to be predominantly determined by a broad array of governmental programmes, subsidy schemes and arrangements to punish or promote specific behaviour. As a result, nearly fifteen years after accession to WTO, the patterns of economic interaction in the Chinese economy remain highly distorted and reflect neither the true scarcity of goods and resources nor the competitive strengths of market players.

Thus, China does not currently meet the criteria used by the European Union to evaluate whether an economy has made the transition from a state controlled market system to a normal market economy. The study shows that granting market economy status to China, when it does not meet the technical criteria to be considered a market economy, will be devastating for manufacturing in the EU. It will hit jobs, growth and innovation in industrial sectors made up of both small and medium sized enterprises and large scale transnational companies.

A More Detailed Summary of the Report

The study is divided into three parts covering:

- The Chinese Economy: Centralised Planning and Control Mechanisms
- The Interface with Global Markets
- The Impact of the Chinese Economy on the Global Economic System

Each of the three parts is divided into a series of sections and sub-sections covering more than 350 pages with 10 Figures, 85 Tables and 13 Boxes illustrating details of the functioning of the Chinese economy in practice. The tables show, for example, an overview of the State Planning System. The 85 tables show, for example, the different recipients of different support programmes with exact amounts of subsidies received. The boxes list for example the 83 five year plans currently framing the development of most sectors of the economy.

Part I: The Management of the Chinese Economy: Institutional Set-up and Policy Instruments

Chinese government organisations, at all levels of the national hierarchy, seek to control the economic activities of individual business entities and to direct their behaviour in directions considered necessary for the realisation of goals already fixed at the national level (Chinese Communist Party as well as the national government), the local and the individual levels. This Part of the Report demonstrates that this phenomenon is reflected in the complex system of planning documents that guide all economic activities in China (section 2.1) as well as a substantial number of specific programmes targeting specific objectives and developmental goals (section 2.2). In this context, the market is nothing more than a complementary instrument with a limited role on the allocation of resources, depending on sectors and products covered (section 2.3.)

Chapter 2.1: Centralised Planning in the Chinese Economy

Centralised planning has evolved over the years but change does not mean the plans are any the less centralised or controlling in their nature for that reason. A major change was implemented with the *10th Five Year Plan* (covering the period 2001-2005). At this time the tradition of providing concrete output-target figures was discontinued. Instead indicative planning mechanisms and indirect means of control and regulation were introduced. From the *11th Five Year Programme for Economic and Social Development*, covering 2006-2010, onwards, even the term 'plan' has been abandoned and been substituted for the label 'programme'. These new "Five Year Programmes", however, are no less comprehensive and complex than their 'plan'-forerunners. Like their predecessors, they comprise much more than just China's central government's vision and general outline for national economic development.

The plans operate at all levels of the economy. There are six levels of hierarchy in China from the Central to the Local. Each sub-level develops its five-year plan on the basis of the plan of the level above. Plans are also developed along Institutional lines for examples each government department will have its own plan, as well as on the basis of topics of concern such as air pollution or water conservation. Finally there are the sectoral plans which are developed industry sector by sector, again at various levels of the hierarchy and on the basis of groups of sectors with similar features.

Box 1 (page 36 of the Report) lists some of the more relevant sectoral plans. It can be seen that there are plans for Aluminium, Animal Feed, Automobiles, Ball Bearings, Bee Keeping, Biomass, Cement, etc. ending up with Vegetable Oils and finally the Wind Power Industry. The report lists 71 plans. No segment of the economy is excluded.

Box 2 (page 38 of the Report) lists the Key Technology Programmes for the 12th Five-year plan. There are 22 of these plans covering Basic Research, Broad Band Networks, Clean Coal, Cloud Computing, Commercialisation of new technologies, High Grade Steels etc up to Tourism, Waste Recycling and Wind Power.

In 2005, the State Council ruled that

“the people's governments of all provinces, autonomous regions, and municipalities directly under the Central Government, the relevant administrative departments of the state for development and reform, public finance, taxation, land resources, environmental protection, industry and commerce, quality inspection, banking supervision, electric power supervision, work safety supervision, as well as the administrative departments of all industries, etc. shall establish and improve the mechanism for organisation, supervision and inspection of the industrial structure adjustment work, perform their respective duties, cooperate with each other closely, form a resultant force, and effectively intensify the effectiveness of implementing industrial policies” (State Council 2005a in the preamble)

Chapter 2.2: Dedicated Government Programmes for the Guidance of Industry

The Chinese government remains committed to a hands-on approach to economic development. Industrial policies are employed to provide guidance to economic actors and steer the economy towards specific goals. This chapter examines some of the most important policy programmes. In this context the specific mechanisms that are employed in order to steer enterprises and whole industries in specific directions are outlined.

Among other features, these programmes provide significant subsidies to Chinese commercial entities. The Report shows that China has not fully reported all subsidy programmes to

the WTO as required by its WTO Membership. The first notifications in 2004 were thin and those in 2011 condemned by many WTO members as being insufficient.

Anti-subsidy investigations in the EU, the US, Canada, Australia and other WTO members have identified numerous grant giving operations conducted by the Chinese central government that were not included in the notification – many of which have been found to violate anti-subsidy law. Several academic and commercial studies have discovered numerous instances where subsidy programmes, tax breaks, discount loans and related measures have conferred unfair advantages to selected industries and enterprises (e.g. Price et al 2006; Price et al. 2007; Dewey & Le Boeuf LLP 2007; Haley 2008; Haley and Haley 2013; Ogilvy Renault LLP, 2007; Taube and in der Heiden 2009).

China's 2004 notification provided no information at all about industry support programmes and grant giving schemes operated by the country's 33 provincial and about 850 municipal-level jurisdictions. This fact is particularly relevant as the Chinese political-economic system transfers most policy implementation matters to the local government level. Furthermore, provinces, cities, districts and counties bear the responsibility for developing local economies and use financial incentives to compete for investment projects. Both factors suggest that subsidisation is prevalent and that most objectionable practices are anchored on lower administrative levels. The omission of subsidy programmes administered by sub-central governments thus creates a very large blank spot in the notification.

In 2011, China submitted its second subsidy notification which covered the period from 2005 to 2008. The second document displays the same shortcomings as the first and has to be considered significantly incomplete. Information provided on subsidy schemes administered by central government authorities was again found to have large gaps and again, not a single programme run by sub-central government bodies was mentioned. Overall, China did not honour the commitments it accepted at the time it joined the WTO in a complete, consistent and transparent fashion. It failed to disclose all relevant information in a timely manner. It also failed the obligation to publish policy documents on trade-related measures translated into at least one of the organisation's official languages in a single official journal.

Recently the United States has initiated WTO dispute settlement against China on the basis of 300 programmes identified by the US Department of Commerce. In addition, THINK!DESK has identified a number of subsidy programmes which appear to be unrelated to specific policy plans.

This Report, from pages 45 to 137 lists a whole series of subsidy programmes that it has been able to uncover on the basis of published programmes as well as the financial reports of a series of commercial entities.

A key conclusion is that China backs up its five-year plans with subsidies. However the provision of subsidies is only one feature of the Chinese way. The very fact of the plans and the willingness of commercial entities to comply with them is a central cartellising feature of the Chinese economy.

Chapter 2.3: Industry Associations carry out government functions

China's industry associations differ significantly from the standard concept of the role and function of industry associations are supposed to fulfil in market economies, as understood in the OECD framework. They are not restricted to representing the interests of their respective industries and member firms vis-à-vis the government and other market participants. In addition, China's industry associations double as spokespersons for government policies and interests and undertake regulatory functions on behalf of government. In these organisations the borderlines between "the regulated" and "the regulator" become blurred.

The role of the industry associations has expanded all the more with the abolition of certain line ministries. First these became bureaus only and slowly been converted into industry associations. The historical development of many associations shows the origin in the old Ministries. This can be seen for example in the metallurgical industry. In 1998 the Ministry was downgraded to a bureau and then in 2013 the responsibilities were transferred to the CISA, the China Iron and Steel Association. Besides data collection and the provision of consultation services the main responsibility of CISA is to maintain industry discipline. Boxes 4 (on page 140) and Box 5 (on page 142) of the Report explains this development in detail.

Today, 16 industry associations have formed out of the old line Ministries. The private sector is also organised in the All China Federation of Industry and Commerce (ACFIC). ACFIC, however is a bottom-up lobbying organisation in name only. The true role of the Federation as an agent of the CPC and government is set out on its homepage as follows:

"Established in 1953 under the leadership of the Communist Party of China, the All-China Federation of Industry and Commerce (ACFIC), also known as the All-China General Chamber of Industry and Commerce (ACGCIC), is a group of the masses and a chamber of commerce oriented toward the business circle and with the enterprises and personages of the non-public economy as its main entity. It is a channel for the CPC and the government to liaise with the personages of the non-public economy, and an aide of the government in administering and serving the non-public economy. The work of ACFIC is a key component of the CPC's united front and economic work. The cause of ACFIC is an important part of Socialism with Chinese characteristics."

(ACFIC, n. d.)

2.4: The subsidiary role of Markets in China

The litmus-test for the existence of a market system is the prevalence of prices that truly reflect relative scarcity, i.e. the relation between demand and supply of the factors of production as well as goods and services, based on the preferences of all individuals in an economic community. In a well-functioning competition-based market economy, scarcity-based pricing

es are responsible for the allocation of the resources available in an economy as well as the economic selection of investments and products.

Since the start of economic reforms in the late 1970s China's policy makers have gradually increased the scope that markets and supply-and-demand determined prices are allowed to play in the national economy. However, even though prices are beginning to have a role, the extensive network of planning documents and governmental guidance, prices are still not allowed to play a decisive role for the coordination of economic activity in most areas of the Chinese economy. Comparing various segments of the Chinese economy, it can be seen that prices do have an increasing role for consumer goods. However, the further up the value chain the analysis advances, the more restricted the role of markets and prices becomes. The prices of raw-materials and basic inputs to the production process continue to be strictly controlled and guided by the Chinese state and do not fully reflect the true degree of scarcity in the economy. And with regard to the allocation of the factors of production, i.e. capital, labour, and land, scarcity-based market prices eventually play only a subordinated role, being more or less entirely overshadowed by discretionary interventions of government bodies in the allocation process (Huang 2010a, Chen 2014).

This chapter looks at the role of scarcity-based market prices play in various segments of the Chinese economy in greater detail. Starting with the function of prices for the allocation of the factors of production, namely capital, labour and land it moves on to price setting mechanisms for raw materials, utilities as well as commercial goods and services.

Box 6 (on page 153 of the Report) looks at how the government controls the allocation of bank loans in Hubei Province. Box 7 (on page 154 of the Report) does the same for Gansu Province.

In the Chinese **capital markets** the price signals generated on the markets are subjected to government induced distortions first of all due to a repression of interest rates and a manipulation of the exchange rate. Both factors result in a constellation where capital is made available at too low prices and is utilised excessively by those having access to the formal financial system – which are China's state-owned enterprises and those actors upholding close relationships to local government agencies. According to calculations by IMF staff this has resulted in an investment ratio ten percentage points above its equilibrium value and costs to the economy in a range of about 4% of GDP per year (Lee/Syed/Liu 2012, Geng/N'Diaye 2012).

The **price of labour** continues to hover below its "fair" value due to an expressed low wage policy by Chinese government – at least until the recent initiative to boost domestic consumption –, highly immature wage bargaining processes and the household registration system (*hukou*) which prevents the constitution of a unified national labour market by effectively discriminating against labour originating in rural areas. These factors plus an inconsequential enforcement of social security systems result in a situation where firms are allowed to acquire labour with lower skill levels at bargain prices and expand business models making extensive use of such labour input.

Chinese **land markets** feature even higher degrees of distortion as on the one hand prices for commercial land use rights (LUR) are pushed up by local governments in order to generate high revenues from land sales. While on the other hand inter-jurisdictional competition for industrial investments pushes prices down for corresponding land uses. As such industrial LUR have been featuring much lower price increases (multiplied by a factor of 1.55 between 2000 and 2013) than LUR for commercial land (multiplied by a factor of 6.7) and residential land (multiplied by a factor of 4.5) (Chen 2014). As a result the allocation of land becomes removed from the true (national) economic necessities and rather favours industrial business models requiring large stretches of land.

The greatest distortions but in recent years also greatest improvements have been achieved with respect to the **pricing of nature**, which economists have in recent years learned to include in the concept of “land” as an elementary factor of production. After decades of reckless growth-fetishism, the wish to contain the on-going degradation of natural environments and attach a price to environmentally hazardous business activities has eventually become a major driver of social activism and elite policy making. As such the distortions resulting in an over-utilisation of natural environments are continuously being dismantled allowing for a better allocation of these resources.

The total costs these multifaceted distortions in the allocation of resources convey to the Chinese economy as a whole can only be estimated. Huang and Tao (2011) estimate the aggregate costs arising from the governmental interventions in the factor markets to lie in the range of about 10% of Chinese GDP each year during the first decade of the 21st century.

Chapter 2.4: Competition authorities, bankruptcy and market exit mechanisms

The Chapter also looks at some specific complementary market institutions that have to be in place in order to make the competition based pricing system work correctly. Markets can only direct economies towards high levels of welfare and development, if the signals generated are actually executed in the market place. Complementary institutional arrangements need to be in place, incentivising economic actors to act according to market signals. In order to uphold their capability to signal the best allocation of resources and goods in the economy, markets must furthermore be protected from a one-sided accumulation of power that might interfere with efficient competitive processes.

The chapter concludes that China has yet to implement these complementary market functions in a way that incentivises, or guides, economic actors. The state, through the five-year plans, remains the main guidance and incentive.

Functioning markets rely on the principle that the most productive and “best” players as determined in fair competitive processes are rewarded by being enabled to actually engage in business transactions and participate in the division of labour. As a consequence, however, functioning market systems must also make provisions for those market players that are re-

jected by the market. Firms which cannot compete successfully must be allowed to leave the market in an orderly manner.

Bankruptcy cases in China are relatively rare considering the size of the economy and population as well as the speed with which the country is transforming itself. Statistics provided by the Supreme People's Court indicate that only 2,059 bankruptcy cases have been filed with Chinese courts in 2014 (Supreme People's Court 2015). The small number relative to other countries may be partly explained by the fact that China does not allow for private bankruptcy. However, an even more striking finding is that the number of cases in China has dropped substantially in recent years. For 2010 and 2012, the case count stands at 3,573 and 2,531 respectively (Supreme People's Court various years).

A new bankruptcy law went into effect on June 1, 2007 (NPC 2006b). It eliminated provisions for policy bankruptcy effective January 1st, 2008 and thus reduced the incentives for SOE to seek bankruptcy protection. However, comparing to bankruptcy regulation in other countries, the new law is still relatively thin.

While the new law has added essential regulation on the handling of restructuring plans and debt disposition, it still has several limitations. The new law has a much wider scope as it covers bankruptcy of SOEs as well as private companies, foreign companies and Sino-foreign joint ventures. However, there are still no regulations governing insolvency of private individuals, public institutions or sole proprietorships. Furthermore, the new law offers little guidance for bankruptcies of banks, securities or insurance companies. Article 134 touches upon this briefly but refers to other laws and regulations that should be issued by the State Council.

Chapter 2.5: Markets and market players are subordinated to State interests

The Chinese Communist Party and Chinese government organisations continue to intervene massively in the economic process. Rather than establishing a sound macro-economic control system and an industry-oriented regulatory framework in which market forces determine the patterns of economic interaction, China's ruling elite believes in its ability to design an economy by decree which achieves better outcomes and higher economic dynamics. Its strategic aspirations and normative goals for the economy and its sub-sectors are outlined in a broad array of planning documents. These are complemented by a large arsenal of dedicated policy instruments which are designed and employed to steer economic agents towards these goals. 15 years after accession to WTO markets continue to play only a subordinated function in the overall working mechanism of the Chinese economy.

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tinue to play only a subordinated function in the overall working mechanism of the Chinese economy. In the word of renowned China scholar McNally:

“The defining characteristic of [China’s] modern state capitalism in comparison to liberal market capitalism is in the end a considerable distrust of markets and full-out economic liberalization. This does not mean that markets are unimportant, but that markets are used pragmatically.” (McNally 2013, p. 50)

Chapter 3: the Role of the Chinese Communist Party

In addition to Chinese government’s aspiration to guide industrial development, large parts of the Chinese economy in general and its industry in particular are subject to the direct control and governance of the Communist Party of China (CPC). The CPC reserves for itself a prominent role in economic matters, including the operation of commercial entities. 35 years after the onset of the economic reforms, the CPC has not relinquished its role in shaping economic behaviour at the grass roots level. The constitution of the CPC provides:

“In a state-owned or collective enterprise, the primary Party organisation acts as the political nucleus and works for the operation of the enterprise. The primary Party organisation guarantees and oversees the implementation of the principles and policies of the Party and the state in its own enterprise and backs the meeting of shareholders, board of directors, board of supervisors and manager (factory director) in the exercise of their functions and powers according to law. It relies wholeheartedly on the workers and office staff, supports the work of the congresses of representatives of workers and office staff and participates in making final decisions on major questions in the enterprise. It works to improve its own organisation and provides leadership over ideological and political work, efforts for cultural and ethical progress and the trade unions, the Communist Youth League and other mass organisations.

In a non-public economic institution, the primary Party organisation carries out the Party’s principles and policies, provides guidance to and oversees the enterprise in observing the laws and regulations of the state, exercises leadership over the trade union, the Communist Youth League organisation and other mass organisations, rallies the workers and office staff around it, safeguards the legitimate rights and interests of all quarters and stimulates the healthy development of the enterprise.” (CPC 2013 at 32)

The Report (see page 236 et seq.) details the overlapping roles between individual CPC members and specific enterprises. A systematic survey on 130 top leaders of SOEs controlled by the central government has been carried out by Li Cheng (2011) before the leadership transition of 2013. Li found that all of the 130 individuals were party members and that

- 59 simultaneously served as general manager and (deputy) party secretary

- 14 simultaneously served as general manager, board chairman and (deputy) party secretary

Other top managers of major Chinese corporations are simultaneously directing the operations of their firms and serving on the CPC Central Committee or the Central Commission of Discipline Inspection. Tables 62 and 63 (pages 242 and 244 of the Report) document prominent cases of the last years of the Hu/Wen administration.

This peculiar relationship between the Chinese State (i.e. the CPC and the government) and the business sector highlights the specific character of the Chinese economic system, which Bai/Hsieh/Song have been classifying as “Crony Capitalism with Chinese Characteristics” (Bai/Hsieh/Song 2014, 2). They understand that in this system “a *sine qua non* of successful capitalists in China is that they need to be cronies of political leaders” (Bai/Hsieh/Song 2014, 2). Given the deficient state of the formal institutional setting in China, the authors judge “the only way for entrepreneurs to succeed is to form special relationships with political leaders, which allows them to either break the formal rules or to obtain exclusive access to resources” (Bai, Hsieh and Song 2014, p. 2).

Part II: The Chinese Economic System at the Interface with the Global Markets

The second p of the Report investigates the organisation of the interface between the Chinese economic system and the global market system. It studies in how far at this critical junction of the global division of labour Chinese government organisations are intervening in market processes as well.

Chapter 4: Foreign Trade

The principle agency tasked with all matters related to foreign trade is the Ministry of Commerce (MOFCOM). Much of the current regulatory framework for foreign trade policy is laid out in the Foreign Trade Law of the People’s Republic of China (NPC 2004c). MOFCOM drafts policies, oversees their implementation and maintains control mechanisms to sanction rule violations. Like all ministries and commissions of the central government, MOFCOM is subordinate to the State Council, China’s cabinet. The State Council deals with foreign trade on a more selective basis and makes decisions on questions of long-term strategic importance for the national economy and public welfare.

The Chinese government also reserves itself the monopoly right to import a variety of commodities. Under regulation in force in May 2015, only selected SOEs are approved to handle imports of certain grains but also of sugar, cotton and tobacco. Table 62 provides a detailed overview. Other policy programmes identified in the Report include extensive import substitution schemes and state trading arrangements.

In order to promote export activity as well as steer the composition of China’s total export volumes, Chinese government agencies continue to employ a broad range of instruments

and dedicated policy programmes. This policy programmes include Export Constraints, Value Added Tax Rebates, Export Duties, State Trading, Export promotion, Export Subsidies, Prizes for Export performance, matching export performance with subsidies, Famous Brands export programme, Provincial Export Support Funds, and finally the Demonstration Bases programme.

Chapter 5.1: Inward Foreign Direct Investment

Throughout the 2000s, China has been the largest recipient of FDI among all emerging markets and developing countries. Inflows surged after China had joined the WTO in 2001 and growth rates remained high until the world financial crisis. In 2008, the value of FDI actually utilised had reached 95.3 billion USD. After a slight dip in 2009, growth resumed, albeit at a slower pace. Since 2011, inflows have stagnated at about 119 billion USD.

The Chinese government continues to regulate and restrict foreign direct investment in spite of a stream of previous reforms and liberalisation announcements, e.g. following the third plenum of the 18th CPC Central Committee in November 2013. After China joined the WTO in 2001, a large number of sectors were opened to overseas investors and China has acted largely in line with its liberalisation commitments from the accession protocol. However, by the time of writing in early 2015, a significant number of business areas still remained closed off for foreign direct investment (FDI) as the Chinese government sought to protect the market position of domestic companies in general and SOEs in particular.

The most recent revision of the *Catalogue for Guiding Foreign Investment Industries* was released by the NDRC and the MOFCOM on March 10th 2015 and entered into force one month later. It contains a total of 349 individual technologies and, like previous documents, divided them into three categories: encouraged, restricted and prohibited. Overall, the *Catalogue* opens more sectors of the Chinese economy to foreign competition and removes ownership restrictions in some areas. The number of restricted and prohibited items was cut while that of encouraged items increased. Starting from April 10th 2015, foreign invested enterprises (FIE) are explicitly encouraged to build and operate urban subways, light rail as well as other means of rail bound passenger transportation systems. The need for a domestic joint venture partner was eliminated. Wholly foreign owned accounting and auditing companies are encouraged as well, as long as the leading partner is a Chinese national. Similarly, FIE are welcome to construct and operate grids together with a domestic counterpart as the major shareholder.

The restricted category was streamlined compared to the 2011 document as the number of restricted areas dropped from 79 to 38. Restrictions were lifted on the production of drugs, chemicals and general apparatuses as well as several other manufacturing industries. In the service sector, FIEs are now allowed to build and operate high grade hotels, office buildings and exhibition centres. The development of land, investment in second hand real estate and operation of real estate brokerage agencies was upgraded to the permitted category. Importantly, FIEs are free to set up non-bank financial institutions and operate e-commerce

platforms independent from a local partner. In basic and value-added telecommunications services, FIEs may seek ownership shares of 50% and 49% respectively.

Even though the new version of the *Catalogue* is a marked improvement on past versions, its arrival has not been met with great excitement. Although welcoming the new revisions, the European Chamber of Commerce still criticised the *Catalogue* calling it

“only a small step for the Chinese Government’s own stated ambitions of giving full play to the market” (EUCCC 2014b).

The American Chamber of Commerce likewise welcomed the changes but immediately called for even bigger steps to be taken in order to promote freer trade (AmCham China 2015):

“While being a promising first step in the direction of a freer market in China, the Catalogue still discriminates against foreign businesses, thus making the Chinese economy a planned economy, not one based on a free priced system. Restricting which industries foreign companies may enter and subjecting them to different rules than domestic companies is blatantly protectionist and does not qualify the country as a market economy.”

Chapter 5.2: Outward Foreign Direct Investment

As early as 1999, the Chinese government introduced the “Going out” strategy to complement the earlier “Leading in” approach to investment inflows. The Going Out strategy has by now been fleshed out by a large number of detailed guidelines and administrative measures. The evolution of a regulatory framework combined with the strategy’s introduction in numerous government plans and programmes. A review of the FYP of provinces, autonomous regions and municipalities under the direct administration of the central government showed that all regions, with very few exceptions, promoted the Going Out strategy since the 11th planning period. The initiative has been positioned as an integral part of the Chinese economic development model and is frequently referenced in industrial policy guidelines.

The Report illustrates the governmental instrumentalization (and promotion) of outward foreign direct investment activities by Chinese firms for the reduction of industrial overcapacities in the domestic Chinese economy.

Chapter 6: Exchange Rate Regime

The Report discusses the institutional set up and working principles of China’s currency link-up to the global currency system. It analyses the exchange rate determination mechanisms in the Chinese “managed float” regime and the leeway existing for governmental interference. The Report concludes its investigation with the assessment that in its present state

the Chinese exchange rate system is neither designed nor able to transmit correct signals about respective competitive strengths between China and the global market place. As these signals are distorted the welfare creating function of a global division of labour and highly diversified international value chains is seriously inhibited.

Part III: China's impact on the global economic system

Chapter 7: Does China meet the EU's criteria to be considered a Market Economy?

In order to attain "market economy status" and become eligible for corresponding treatment in trade disputes, economies must concurrently fulfil all of the following five criteria (European Commission 2012):

1. Low degree of government influence over the allocation of resources and decisions of enterprises, whether directly or indirectly (e.g. public bodies), for example through the use of state-fixed prices, or discrimination in the tax, trade or currency regimes.
2. Absence of state-induced distortions in the operation of enterprises linked to privatisation (i.e. "carry over" from the old system). Absence of use of non-market trading or compensation systems (such as barter trade).
3. Existence and implementation of a transparent and non-discriminatory company law which ensures adequate corporate governance (application of international accounting standards, protection of shareholders, public availability of accurate company information).
4. Existence and implementation of a coherent, effective and transparent set of laws which ensure the respect of property rights and the operation of a functioning bankruptcy regime.
5. Existence of a genuine financial sector which operates independently from the State and which, in law and practice, is subject to sufficient guarantee provisions and adequate supervision.

In an appraisal conducted in 2008 EC staff concluded that criterion 2 should be assessed as having been met, while all other four criteria were not fulfilled by China. Summarizing China's compliance, or non-compliance, with the EU's five MES-criteria, the Report shows that today's Chinese economic system is still far from fulfilling the remaining four of the five criteria:

- Chinese government continues to wield substantial influence over the allocation of resources and the behaviour of individual economic entities thereby relegating markets into a secondary role (criterion 1).
- Chinese companies are embedded in close-meshed networks with representatives of Chinese government as well as the CPC. These connections prevail over and distort the existing OECD-style legal framework and result in non-market conforming corporate governance, accounting and transparency practices (criterion 3).

- The Chinese laws for the protection of (intellectual) property rights as well as its bankruptcy regime are not yet fully functional. As such “market” outcomes remain distorted and discriminate against economic subjects relying on the principles of fair competition (criterion 4).
- The Chinese financial sector does not operate independently from government, but must comply with government directives for capital allocation. The price of capital neither reflects its true scarcity nor the varying degrees of risk involved in different transactions (criterion 5).

The present Chinese economic system might be highly capital intensive in character, but its institutional set-up and ordering mechanisms do not comply with the principles present in competition based markets.

Furthermore, it also has be highlighted that a refusal by the EU to grant MES-status to China based on China’s non-fulfilment of the criteria outlined above, must not be misinterpreted as a protectionist measure on behalf of the EU. On the contrary, the welfare creating effects of a highly fragmented global value chain – in which China should, and can, play an important role – can only come into existence if the best entrepreneurial ideas and most competitive enterprises are selected through the functioning of fair competition. Underperforming enterprises that are allowed to remain players in the global value chain due to political protection and irregular cost structures harm global welfare and retard economic development and progress in all participating societies in all parts of the global economy.

The use of true market-determined external prices for determining whether there is dumping from non market economies is the only way to calculate the true measure of dumping and to prevent the distortions in the Chinese system from contaminating market based price setting in market economies. Any other approach will harm EU industries and discriminate against enterprises and economies complying with the principles of fair competition-based market processes worldwide.

Chapter 8: Impact of China on the global market

This study has amply documented the institutional set-up and working principles of the Chinese politico-economic system. The evidence shows that the Chinese economy does not have the minimum requirements necessary for a competition-based market economy as understood in OECD terms. Nor does China meet the hands-on MES criteria catalogue of the WTO and EU.

While China is free to choose the form of an economy that best suits its domestic situation, problems arise when it engages in international economic exchanges involving economic actors operating in different market contexts. Normal economic ordering regimes are always

based on a set of signals and incentives that, in equilibrium, are designed to coordinate the interaction of the most number of factors. If one economy does not comply with the normal signals and incentives distortions appear in every economy touched by it. The functionality of national economic systems is impaired and contemporary welfare as well as dynamic development impulses are lost.

In order to allow incompatible individual markets to continue to function in their own spheres, institutional air-locks or buffers must be established that neutralise or contain the alien economic signals and keep normal signalling intact.

China has been committed to the erection of such institutional air-locks between its domestic economy and the global market place since it started to re-engage into the global division of labour in the late 1970s. Specialized trading companies with monopolistic powers, import and export cartels, trade quota systems, bonded export and foreign investment zones, foreign investment catalogues, licensing systems for inward and outward bound investment activities, strict foreign exchange administration, current and capital account currency convertibility restrictions, a managed (multiple) exchange rate system etc. all constitute such air-locks with which the Chinese government has been trying to shield the domestic economy from unwanted external impulses.

This chapter of the Report – inter alia – analyses the efforts made by market economies to prevent the distortions from the China economic model from injuring market economies. In 2013 alone, 75 anti-dumping measures were introduced by different countries. In the first six months of 2014, China accounted for 45% of worldwide anti-subsidy cases.

The Report illustrates various transmission channels by which European firms become exposed to unfair competition from Chinese firms receiving governmental protection and operating in crony-capitalist structures.

Chapter 9: Concluding analysis

The Report concludes with an overview of the major insights derived in the run of the analysis. It comes to the final assessment that the Chinese economic system must be understood and classified as a state controlled market system that is distorting the global markets, thereby inhibiting their welfare creating function. It finds that:

The study has been able to identify a substantial number of mechanisms by which Chinese government interferes in the transmission of signals on economic strengths and competitiveness and also intervenes directly in the composition and intensity of cross border activities. Ranging from distortions of the exchange rate to explicit subsidies to preferential tax arrangements these governmental interventions distort the sectoral pattern and product specific structure as well as absolute intensity of China's integration in the global division of labour. As a consequence, the role Chinese firms

play in product specific global value chains are not compatible with any comparative advantages in China or and the individual firms' true competitive strengths. While this allows Chinese firms to gain unsustifiably large market shares and corresponding revenue income, other, actually more competitive firms are being crowded out and must leave the market.

As a consequence the Study comes to the conclusion that

the classification of China as a non-market economy constitutes a necessary “air-lock” mechanism shielding the European market system from alien, distorting influences. Only by withholding MES privileges and upholding the third-country-comparison methodology facilitated by treating China as a non-market economy can the real scope of price distortions in China's factor of production and goods markets be reveiled and true level of dumping be calculated. Any other approach will harm EU industries and discriminate against firms and economies upholding the principles of fair competition-based market processes worldwide.

Only by guaranteeing a fair competitive process that selects the best players for participation in the global value chain and weeds out those which are profiting from irregular practices, can welfare be created on an equitable and sustainable basis – for all societies participating – and dynamic economic development on a global scale be promoted.

1. INTRODUCTION

The exceptional dynamics of China's economic development and growth process since the country's departure from Maoist ideology and economic development programmes constitute one of the most remarkable phenomena of the 20th century's economic history and have continued to make a salient impression on the global economic development in the early 21st century. Economists are struggling to understand the underlying forces of China's unprecedentedly quick rise from a deeply underdeveloped economy to one that not only furnishes its population with considerable welfare but has also become a shaping force in the global division of labour. Today the prevailing approach is to highlight China's institutional transformations as the key explanatory variable. In the run of three decades the former set of comparatively unproductive economic institutions has been gradually replaced by a new set of institutions that now allow for a much more efficient allocation of resources and which have made completely new realms of productivity accessible to the Chinese economy.

The point of departure of this institutional transformation is well known, the Maoist system of central planning. But where have 35 years of institutional reform and transformation led the Chinese economy? Can the Chinese economic system of today be classified as a competition-based market economy – a market economy that is based on decentralised market processes where myriads of market actors determine their economic activities according to salient relative scarcities? Moving one step further and elevating the problem at hand to the global level, the question to be answered is in how far an unconditional, full integration of the Chinese economic system into the global market system and its decentralized division of labour can be achieved without any negative repercussions on the functionality and efficiency of this very system.

The study at hand looks exactly into these questions. In order to better understand the working mechanisms of China's contemporary economic system the study takes a close look at the Chinese economy's institutional set-up and the specific role Chinese government organisations at various levels, the Communist Party of China (CPC) as well as markets play for the co-ordination of economic transactions.

In the first part of the study, the analysis focuses on the organisation of China's domestic economic activities. Chapter 2 looks at the macro-economic coordination of economic interaction by analysing the respective role top-down implemented plans and programmes on the one hand and horizontally designed markets on the other hand command for the allocation of resources. This analysis is complemented with an examination of the direct impact of the CPC and its representatives on the microeconomic operations of China's economy and business entities in chapter 3.

Part II of this study is concerned with the organisation of the interface between the Chinese economic system and the global market system as well as the question in how far the specific ordering mechanisms of the Chinese economy interact with the organizational patterns of the global economic system.

In order to do so, chapter 4 takes a close look at the institutional set-up and role of active policy guidance for China's international goods trade (import and export activities). This analysis is complemented by a corresponding study of cross border capital flows in chapter 5. Chapter 6 deepens the analysis by taking a look at the determinants underlying the price of China's currency Renminbi vis-à-vis foreign currencies, understanding the exchange rate as the price linking domestic economies to the rest of the world.

Basing on the analysis of the preceding chapters, Part III of the study deals explicitly with the impact of the Chinese economic system on the viability and effectiveness of the global economic division of labour. Starting point for this endeavour is a benchmarking exercise: By summing up the insights of the preceding chapters and bringing them into a broader perspective, chapter 7 evaluates the institutional set-up of the Chinese economy and its working mechanisms in the framework of the Market Economy Status (MES) Framework as defined by WTO and EU statutes. This allows for a comprehensive evaluation of the role market principles play for economic processes in the Chinese economy and its compatibility with the global markets regime.

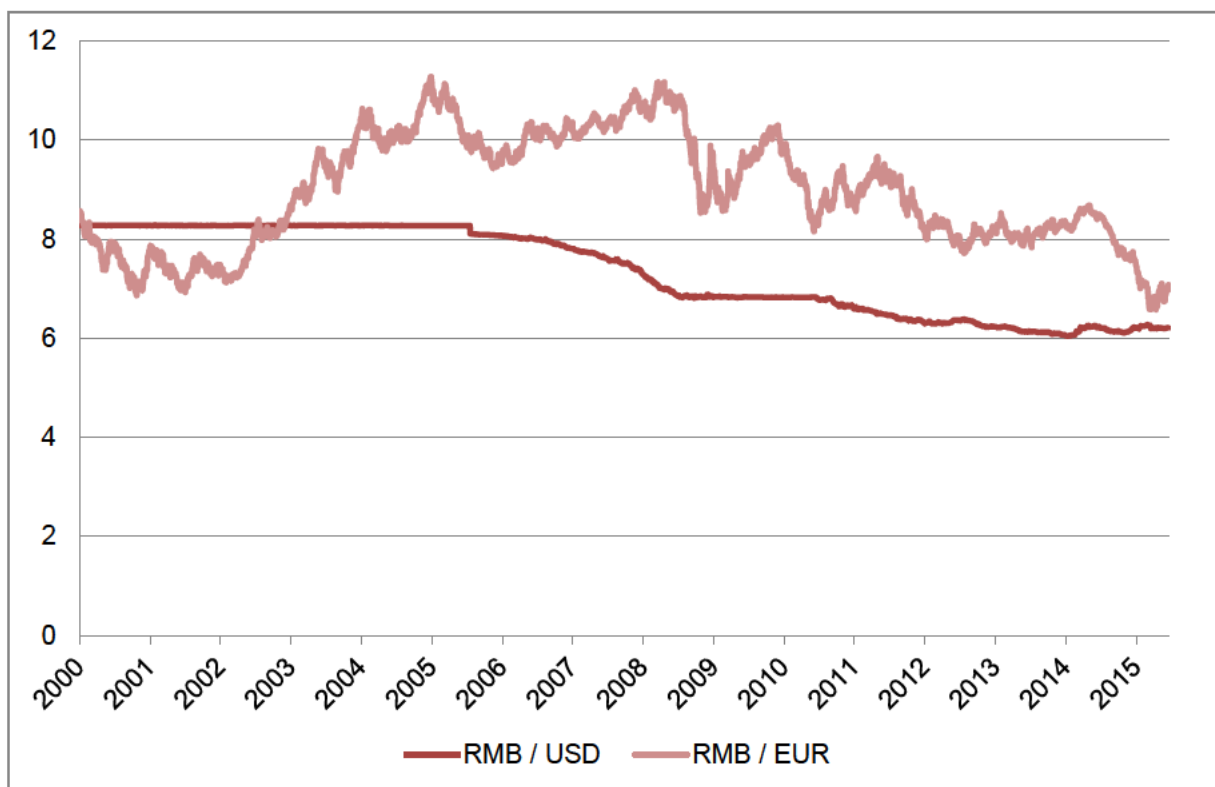
The following analysis (chapter 8) is based on the fundamental understanding that the idea of global markets hinges on the principle of a fair competitive process that selects the best players for participation in the global value chain and weeds out those which are profiting from irregular practices. Only in this institutional framework can welfare be created on an equitable and sustainable basis – for all societies participating – and dynamic economic development on a global scale be promoted. Chinese firms have in recent years become prominent players in the global markets, both as partners in the global value chain as well as competitors in the market place. But do they share the values of an economic community highlighting the idea of free and open competition? Given the very specific state-business nexus out of which Chinese firms are operating, the question arises in how far their unregulated participation in the global markets is promoting global welfare or rather eroding the functionality of the market system in the longer term.

Chapter 9 concludes the study with an assessment of the general character of the Chinese economic system and its impact on the global market system.

It should be noted that citations referencing specific pages in financial reports (AR, HYR) do not refer to the page numbers imprinted on the respective pages, but are taken as displayed by Adobe Acrobat. As several reports have more than one counting order and others lack page numbers altogether this approach was chosen for reasons of practicability and transparency.

In this report all monetary values are given in nominal Yuan Renminbi, if not indicated otherwise. During the period covered in this study the value of the Renminbi has been fluctuating and been subjected to some valuation changes that forbid a simple transformation of Renmibi values into Euro. In order to provide an indication of the corresponding Euro values (and US\$ equivalents) of the documented Yuan Renminbi figures the following figure 1 documents the movement of the nominal exchange rate of the Renminbi versus the Euro as well as the US\$.

Figure 1 Nominal Exchange Rate of the Renminbi versus the Euro as well as the US\$, 01.01.2000-18.06.2015 (Yuan RMB to 1.00 Euro respectively 1.00 US\$)



Source: IMF.

For ease of calculation Table 1 provides the yearly average exchange rates between the Renminbi and the Euro from 2000 to 2015:

Table 1: Average Nominal Exchange Rate Renminbi vs. Euro, 2000-2014

Rank	Bid	Ask/Offer
2000	7.42115	7.42933
2001	7.72653	7.74853
2002	9.20855	9.23433
2003	10.20163	10.23073
2004	10.32032	10.34904
2005	9.93658	9.96025
2006	10.36966	10.39986
2007	10.34055	10.37502
2008	9.44704	9.47793
2009	9.07375	9.10082
2010	9.02223	9.05071
2011	8.11562	8.14075
2012	8.20844	8.22070
2013	8.23421	8.24187
2014	6.93880	6.96630

Source: IMF, Oanda.

Part I

The Management of the Chinese Economy: Institutional Set-up and Policy Instruments

2. CENTRALISED PLANNING AND MARKET FORCES IN THE CHINESE ECONOMY

Chinese government organisations, at all levels of the national hierarchy, seek to control the economic activities of individual business entities and to direct their behaviour in directions considered necessary for the realisation of goals already fixed at the national level (Chinese Communist Party as well as the national government), the local and the individual levels. This Part of the Report demonstrates that this phenomenon is reflected in the complex system of planning documents that guide all economic activities in China (section 2.1) as well as a substantial number of specific programmes targeting specific objectives and developmental goals (section 2.2). In this context, the market is nothing more than a complementary instrument with a limited role for the allocation of resources, depending on sectors and products covered (section 2.3.)

2.1 The Role of Planning in the Chinese Economy

In the global economic community there are only three major countries left, which employ complex five-year plans as a key instrument to guide national economic development and growth: next to India, and Indonesia the PR China is one of them. The character of planning has changed over time, its relevance for economic development not.

In China a major change has been implemented with the *10th Five Year Plan* (covering the period 2001-2005). With this document the tradition of directive planning, which was providing concrete output-target figures, has been discontinued. Instead indicative planning mechanisms and indirect means of control and regulation are now being deployed. From the *11th Five Year Programme for Economic and Social Development*, covering 2006-2010, onwards, even the term 'plan' has been abandoned and been substituted for the label 'programme'. These new "Five Year Programmes", however, are no less comprehensive and complex than their 'plan'-forerunners. Like their predecessors, they comprise much more than just China's central government's vision and general outline for national economic development.

2.1.1 Types of Plans

As a matter of fact these highly publicised national "Five Year Plans/Programmes" (FYP) are nothing less than the flagship documents of a highly intricate set of planning that permeates the Chinese economic system. Originating from the national FYP, various sets of programmes branch off in multiple dimensions. Figure 2 provides a graphic illustration of the Chinese planning system.

1. Along the administrative hierarchy. Between national and village governments, the Chinese administrative hierarchy consists of six layers (centre, provinces, cit-

ies/prefectures, districts/counties as well as townships and villages in the countryside). Sub-national governments (for convenience referred to as “local”), draft their own FYP which are derivatives of the flagship document. Mostly, local FYP reproduce and translate the broad, macro-economic issues of economic and social development of the national flagship FYP to local contexts. While drafted within the general confines defined by the flagship plan, local authorities claim substantial policy space to address issues of particular relevance for their respective jurisdictions. In doing so, they take good care not to challenge the cornerstones of economic policy. However, local plans are not entirely consistent from beginning to end. Pledges to substantially reduce the ecological footprint maybe followed by ringing endorsements for polluting industries a few pages further on. Similarly, every plan contains language that promotes the role of free markets for factor allocation, income distribution and other issues. At the same time, most plans also emphasise the importance of policy guidance for achieving socially optimal outcomes. In a nutshell, local plans broadly mirror central level templates, but carry contradictory messages to ascertain local priority issues get treated in the desired manner. Only highly condensed versions, so called outline documents, are available to the public. The full text of plans/programmes are treated as secret and no instance is known to THINK!DESK where such documents were leaked.

2. Along institutional lines. A cascade of plans/programmes is drafted for/by all major government units. This includes government departments on all but the lowest administrative levels as well as state-owned enterprises, state-run research institutes and other state-affiliated organisations throughout the country. While these documents are not published, the limited information available suggests a neat integration of such plans/programmes with those of supervising authorities.
3. Along the lines of overarching topical areas. In order to provide additional detail on objectives and measures, the Chinese government released a large number of complementary FYPs. Such documents exist on issues such as developing indigenous innovation capabilities, preventing localised air pollution, conserving resources and reducing emissions, waste water treatment and recycling business or addressing population aging. These FYPs transcend many topical areas and separate FYPs. This category also includes FYPs on major national initiatives, like developing central and western regions, reviving old industrial bases, improving basic public services or supporting ethnic minorities. While some of these FYPs place the focus on economic policies, others are more anchored in engineering, geography or other fields.
4. Along sectoral lines. A cascade of dedicated plans/programmes exists for practically all types of economic activity. Plans for agriculture, industrial development and services have been a core element of economic policymaking since the pre-reform era. At a lower level, these plans are complemented by similar documents on particular industrial sectors, such as wine making, steel production or courier services. Finally,

plans exist to address sub-sectors of particular relevance, such as high grade special steel.¹

Sectoral plans do not appear to be integrated into a comprehensive framework, as provided by international commodity classification systems. In fact, they seem to be drafted as the need arises – which implies that while some commodities or economic activities do not have their “own” plan, others are governed by multiple plans that target individual sub-segments. Where economic or technology policy initiative transcends or bundles together products and technologies from various economic sub-sectors special FYPs are drafted as overarching guideline. This is the case for the ocean economy or strategic emerging industries. Rather than industrial sectors, the latter span seven topical areas, including energy efficient and environmental technologies, next generation IT, biotechnology, advanced equipment manufacture or new materials. In addition to an FYP for the development of strategic emerging industries, each of those “industries” is covered by its sector-specific plan.

There is little consistency across planning cycles. The scope of sectoral FYP may vary as items are included or assigned otherwise. Similarly, even major industrial sectors, like the steel industry, do not have an FYP issued in every planning cycle. The 11th FYP (covering the years 2006-2010) passed without such a document being released. Instead industry specific *Development Policies* filled this gap in industries like automobile, cement, steel or pulp and paper (NDRC 2004; NDRC 2005; NDRC 2006; NDRC 2007). Issued by the NDRC in between 2004 and 2007, the *Development Policies* were comprehensive and authoritative enough to skip work on separate FYPs.

In the case of sectoral plans, it becomes clear that no single government department is in charge of all plans. While this has been the case prior to China’s reform and opening policy, for the 12th planning circuit various ministries and commissions have put forth sectoral documents. For example, the 12th FYP for the natural gas industry was issued by the NDRC. MIIT is responsible for the petrochemical industry FYP while MOST took charge of the high grade special steel FYP. State Council, too, has released sectoral plans, such as one for the energy sector as a whole. Instead of a well integrated and consistent system of FYP, there to exist a broad array of separate documents that leaves blank some parts of economic activity while intensely regulating others. As the examples have shown, no universal agency appears to bundle all planning tasks.

A remarkable feature of sectoral FYP is the large variance in the time of publication. In theory, the 12th FYP cycle has started on January 1st, 2011. While the national master document was only ratified by the annual session of the National People’s Congress in March of that year, other FYPs have come out with a much greater delay. The FYP for the energy sector was only released in January 2013. Nevertheless, the document’s subtitle clearly indicates it to be effective starting two years earlier. In fact, such documents seem to come out only when some department identifies a need. While late publications may suggest a thorough

¹ However, there also exist national (sic) FYP for bee keeping and potato processing.

coordination and consensus building process between authorities, FYPs often show instances of overlap and contradiction.

Figure 2: Overview of the Chinese Planning System

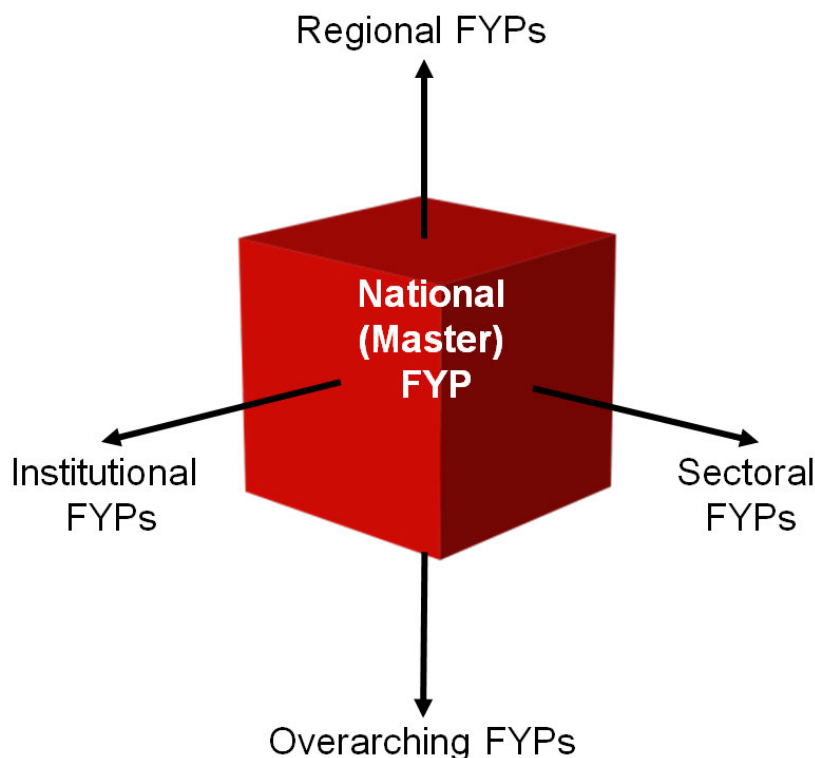


Illustration by THINK!DESK.

Overall, it does not appear that FYP for industrial sectors and overarching topical areas are issued in order to fill blanks in the overall comprehensive FYP matrix. This is different in case of regional and institution FYPs which are mandatory. However, at the sectoral level, government authorities are not pursuing the comprehensive universality of planning regimes known from the pre-reform era and the Soviet Union. FYPs are drafted when government bodies have a manifest interest in the underlying issues and want to specify objectives along with related measures. As such, FYP continue to be an important instrument of sectoral industrial policy and should be regarded as means to an end not an ends in themselves. An incomplete list of sectoral 12th FYPs is presented in box 1. Box 2 adds an incomplete list of key technology programmes for the 12th planning cycle which complement and provide additional detail to the sectoral FYPs.

Box 1 Incomplete List of Sectoral Five-year Programmes of the 12th Planning Cycle

- 12th Five-year Programme for the Aluminium Industry
- 12th Five-year Programme for the Animal Feed Industry
- 12th Five-year Programme for the Automobile Industry
- 12th Five-year Programme for the Bearing Manufacturing Industry
- 12th Five-year Programme for the Bee-keeping Industry
- 12th Five-year Programme for the Beverage Industry
- 12th Five-year Programme for the Biomass Industry
- 12th Five-year Programme for the Cement Industry
- 12th Five-year Programme for the Chemical Fibre Industry
- 12th Five-year Programme for the Civil Aviation Industry
- 12th Five-year Programme for the Civilian-use Explosives Industry
- 12th Five-year Programme for the Clock and Watch Industry
- 12th Five-year Programme for the Construction Decoration Industry
- 12th Five-year Programme for the Construction Materials
- 12th Five-year Programme for the Construction Industry
- 12th Five-year Programme for the Cosmetics Industry
- 12th Five-year Programme for the Dangerous Chemicals Industry
- 12th Five-year Programme for the Explosion-proof Electrical Industry
- 12th Five-year Programme for the Fertilizer Industry
- 12th Five-year Programme for the Fibreglass Industry
- 12th Five-year Programme for the Fluorine Chemical Industry
- 12th Five-year Programme for the Food Industry
- 12th Five-year Programme for the Furniture Industry
- 12th Five-year Programme for the Grape Wine Industry
- 12th Five-year Programme for the Healthcare Products Industry
- 12th Five-year Programme for the High-end Equipment Manufacturing Industry
- 12th Five-year Programme for the Home Appliances Industry
- 12th Five-year Programme for the Industrial-use Textile Industry
- 12th Five-year Programme for the Instruments Industry
- 12th Five-year Programme for the Integrated Circuit Industry
- 12th Five-year Programme for the Internal Combustion Engine Industry
- 12th Five-year Programme for the Internet Industry
- 12th Five-year Programme for the Leather Industry
- 12th Five-year Programme for the Light Industry
- 12th Five-year Programme for the Machine Tool Industry
- 12th Five-year Programme for the Machinery Industry
- 12th Five-year Programme for the Mechanical Engineering Industry
- 12th Five-year Programme for the Medicine

- continued -

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- 12th Five-year Programme for the Meat Industry
- 12th Five-year Programme for the Methanol Industry
- 12th Five-year Programme for the Natural Gas Industry
- 12th Five-year Programme for the New Materials Industry
- 12th Five-year Programme for the Non-ferrous Metals industry
- 12th Five-year Programme for the Non-material Resources Technology Projects
- 12th Five-year Programme for the Olefin Industry
- 12th Five-year Programme for the Optical Fibre and Optical Devices Industry
- 12th Five-year Programme for the Papermaking industry
- 12th Five-year Programme for the Pesticide Industry
- 12th Five-year Programme for the Petrochemical and Chemical Industry
- 12th Five-year Programme for the Plastic Door- and Windowmaking Industry
- 12th Five-year Programme for the Plate Glass
- 12th Five-year Programme for the Potato Processing Industry
- 12th Five-year Programme for the Power Industry
- 12th Five-year Programme for the Printing Industry
- 12th Five-year Programme for the Rubber Industry
- 12th Five-year Programme for the Security Industry
- 12th Five-year Programme for the Shipbuilding Industry
- 12th Five-year Programme for the Silkworm Industry
- 12th Five-year Programme for the Soda Ash Industry
- 12th Five-year Programme for the Solar Energy Industry
- 12th Five-year Programme for the Special Purpose Vehicle Industry
- 12th Five-year Programme for the Steel Industry
- 12th Five-year Programme for the Strategic and Emerging Industries
- 12th Five-year Programme for the Sugar Refining Industry
- 12th Five-year Programme for the Sulphuric Acid Industry
- 12th Five-year Programme for the Termite Control Industry
- 12th Five-year Programme for the Textile Industry
- 12th Five-year Programme for the Traffic and Transportation
- 12th Five-year Programme for the Vanadium and Titanium Comprehensive Resource Utilisation
- 12th Five-year Programme for the Vegetable Oil Processing Industry
- 12th Five-year Programme for the Wind Power Industry

Compilation by THINK!DESK.

Box 2 Incomplete List of Key Technology Programmes for the 12th Planning Cycle

- Key Technologies in the Field of Basic Research for Development during the 12th Five-year Programme
- Key Technologies in the Field of Broad Band Networks for Development during the 12th Five-year Programme
- Key Technologies in the Field of Clean Coal for Development during the 12th Five-year Programme
- Key Technologies in the Field of Cloud Computing for Development during the 12th Five-year Programme
- Key Technologies in the Field of Commercialisation of High and New Technologies and Establishing for Development during the 12th Five-year Programme Suitable Environments
- Key Technologies in the Field of High Grade Special Steel for Development during the 12th Five-year Programme
- Key Technologies in the Field of High-speed Railways for Development during the 12th Five-year Programme
- Key Technologies in the Field of Intelligent Manufacturing for Development during the 12th Five-year Programme
- Key Technologies in the Field of Lighting for Development during the 12th Five-year Programme
- Key Technologies in the Field of Medical Instruments for Development during the 12th Five-year Programme
- Key Technologies in the Field of Modern Services for Development during the 12th Five-year Programme
- Key Technologies in the Field of New Energy Vehicles for Development during the 12th Five-year Programme
- Key Technologies in the Field of New-type Display for Development during the 12th Five-year Programme
- Key Technologies in the Field of Regenerative Power for Development during the 12th Five-year Programme
- Key Technologies in the Field of Seawater Desalination for Development during the 12th Five-year Programme
- Key Technologies in the Field of Semiconductors for Development during the 12th Five-year Programme
- Key Technologies in the Field of Service Robots for Development during the 12th Five-year Programme
- Key Technologies in the Field of Smart Grid for Development during the 12th Five-year Programme
- Key Technologies in the Field of Solar Energy for Development during the 12th Five-year Programme

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- Key Technologies in the Field of Tourism Public Service for Development during the 12th Five-year Programme
- Key Technologies in the Field of Waste Recycling for Development during the 12th Five-year Programme
- Key Technologies in the Field of Wind Power for Development during the 12th Five-year Programme

Compilation by THINK!DESK.

As has been shown, the plethora of FYPs does not represent a puzzle where pieces neatly connect to each other and show a clear “grand picture”. Rather, FYPs can be grouped by importance, e. g. depending on the issuing agency’s authority (ranking from highest to lowest): (1) State Council, (2) NDRC and other central government commissions, (3) MIIT and other central government ministries as well as provincial level governments.

FYPs can also be grouped by regional scope, implying that – of course – national FYP trump provincial ones while provincial ones override municipal ones.

Another way to look at it would be to assign preference or priority to the FYP that were released more recently than others. This implies that more recent outcomes of the consensus building process carry more authority than older ones. In sectors, like energy, more scholarly attention is needed to explore the intricate interaction between government bodies and their respective planning documents.

Other meaningful ways exist to make sense of this complex situation but shall not be explored here for reasons of brevity. What has become clear, however, is that despite significant uncertainty and confusion, all FYP can be located inside a four-dimensional space that is defined by the factors outlined above, i.e. administrative hierarchy, institutional affiliation, topical area, sectoral connection. While all planning units enjoy a limited degree of discretion, they need to ensure their FYP are appropriately placed relative to “adjacent” documents in the policy space.

While the FYP cycle – by definition – outlines the cornerstones of public policy in the medium term, several long term plans form an enveloping layer. An example is the 9th *National FYP* (1996-2000) which included the *Long Range Development Objectives until 2010*. The fifth plenary session of the 14th Central Committee approved and issued both documents at the same time. This instance was exceptional, as the duration was synchronised with the FYP cycle. In most cases, these long term visions are issued in the middle of the FYP cycle and emphasise their strategic importance overrides the conventional five-year rhythm. Examples include the *National Medium to Long-term Development Plans* for:

- Nanotechnology (2001-2020)
- Nuclear Power (2005-2020)
- Science and Technology (2006-2020)
- Energy Conservation (2006-2020)
- Renewable Energy (2007-2020)
- Food Safety (2008-2020)
- Education Reform (2010-2020)
- Talent (2010-2020)
- Civil Aviation (2013-2020)
- Logistics (2014-2020) or the
- Strategic Action Programme for Energy Sector Development (2014-2020)

This list is by no means complete and would become substantially longer if sub-central government plans were included. Shandong (2006), Fujian (2006), Gansu (2006) and many other provincial-level jurisdictions have drafted their own *Medium to Long-term Development Plans for Science and Technology (2006-2020)*. Similarly, Hunan (2010), Guizhou (2013), Gansu (2010b) are just some of many locations that have released own *Medium to Long-term Development Plans for Talents*. Even some companies, such as Wuhan Steel have been found to draft such documents – customised to their particular business setting.

According to a Wall Street Journal (20.03.2014) report, the MIIT has commenced work on such a plan for iron ore mining. In early 2015, the drafting process began on various other long-term plans. In another article, Reuters (06.03.2015) cited National Business Daily newspaper, stating that China will launch a long-term plan for more efficient coal use and reduce coal consumption by 160 million tons by 2020.

Xinhua News (04.03.2015) revealed that central government authorities were in the final stages of compiling a long-term planning for the country's large manufacturing industries. The plan, supposedly running until 2025, is jointly prepared by the MIIT and the Chinese Academy of Engineering. According to the Xinhua report, the plan envisions China to have achieved comprehensive industrialisation by 2020 and the status of an industrialised country by 2050. Special emphasis is supposedly being placed on new-generation IT, biomedicine and bio-manufacturing as well as high-end equipment manufacturing and new energy.

One of the key characteristics of Chinese economic planning is long-term consistency. This may be due to the unique layout of China's meritocratic public administration or the absence of participatory mechanisms that could lead to policy swings or even ruptures. However, the overlay of medium and long term planning instruments play an important role in maintaining stable trajectories when it comes to development objectives. While some topics have almost disappeared, like price regulation, others have gradually grown from footnote to dominating scheme, like environmental protection, resource conservation and equitable development. Indigenous innovation is another paramount theme which grew out of the earlier isolationist strive for national self-sufficiency in output. No longer isolationist but vanguard, trade and

investment, China wants to take the lead in generating high tech expertise to become a global frontrunner in the future.

Since the 1990s, FYPs and long term plans have become increasingly indicative, as stated in the beginning. There are substantially fewer (hard) targets and the proposed implementation policies sound vague. Language has been softened considerably since China's accession to the WTO to avoid conflicts between its so called *Socialist Economy with Chinese Characteristics* and fellow member states over the state's role in the economy.

2.1.2 Plans and Complementary Documents

The “flagship”-character of the national “Five Year Plans/Programmes” is also exemplified by their leading role in the three-tiered structure of China's comprehensive system of planning and policy implementation. This is constituted by three major types of documents:

- *Plans and programmes* introduce general targets and provide guiding thoughts.
- *Catalogues* translate broadly defined targets into narrowly defined policy objects.
- *Implementation documents* outline the instruments and explicate the procedural detail necessary for plan implementation.

Ideally, plan and programme targets are accomplished through the successful application of implementation measures to catalogue items. In the following, the three categories are outlined in greater detail:

1. The “Five-Year Plans/Programmes” indicate broad development priorities for the medium term and provide further information as to what region or unit will be in charge of addressing them. The Plans/Programmes review the development experience and make an attempt to plan into the future based on a broad understanding of the current situation and a set of future expectations. They clarify policy orientation towards issues deemed important and elaborate on policy tools to meet objectives. Finally, they assign targets for jurisdictions on lower levels. As economic reforms have progressed, the FYPs have become less and less specific on individual matters, leaving more policy space for implementing agencies. Central government plans/programmes provide the official policy stance that has to be taken up by regional government when preparing their own plans/programmes. In order to ensure consistence, higher level government organisations are in charge of reviewing draft plans/programmes of lower levels before they are published or circulated amongst their target groups.

The national “Five Year Plans/Programmes” are guided by the Central Committee of the CPC and drafted by the National Development and Reform Commission in a process that allows input from other Ministries and provincial governments as well as industry associations and other NGOs. After the drafting process is complete – a procedure that takes more than one year – the National People's Congress, officially

China's highest political decision making body, approves the document during its annual session.

2. The *Catalogues for Investment Guidance* provide a very detailed listing of products and government attitudes toward them. The catalogues are structured in three parts, specifying items to be encouraged, restricted and prohibited. For practical reasons, products and processes that are not mentioned fall into a fourth category: they are permitted. The basic function of the catalogues is to

“encourage and support the development of advanced production capacities, restrict and eliminate outdated production capacities, prevent blind investments and low-level redundant construction, and effectively propel industrial structure optimisation and upgrading” (State Council 2005a at preamble).

Underlying themes of current catalogues are indigenous innovation, technological upgrading, environmental protection and resource conservation – in line with the current 12th Five Year Programme.

How a product is classified has a profound effect on its producers, traders and customers because all industrial policies reference to the catalogues. Classifications are observed by all relevant government departments and thus influence the treatment of products and enterprises in a profound way. In 2005, the State Council ruled that

“the people's governments of all provinces, autonomous regions, and municipalities directly under the Central Government, the relevant administrative departments of the state for development and reform, public finance, taxation, land resources, environmental protection, industry and commerce, quality inspection, banking supervision, electric power supervision, work safety supervision, as well as the administrative departments of all industries, etc. shall establish and improve the mechanism for organisation, supervision and inspection of the industrial structure adjustment work, perform their respective duties, cooperate with each other closely, form a resultant force, and effectively intensify the effectiveness of implementing industrial policies” (State Council 2005a in the preamble)

However, much depends on the actual situation and the interests of local authorities that are tasked with the implementation “according to the local situation” (State Council 2005a at preamble). Like passing through a filter, clear cut instructions lose focus – or get lost completely – as they get passed down the administrative hierarchy.

The two catalogues with the widest reach and the highest impact are the *Catalogue for the Guidance of Structural Adjustment of Industries* (NDRC various years) which directs investment decisions of domestic enterprises and the *Catalogue for the Guid-*

ance of Foreign Investment Industries (NDRC and MOFCOM 2011), which defines the legal scope of operation for companies with any degree of foreign capital participation. On the former, the State Council notes:

The Catalogue is the important basis for guiding investment direction and for government to manage investment projects as well as formulate and execute policies on public finance, taxation, credit, land and foreign trade etc. (State Council 2005a at 3.12).

Typically, both catalogues are updated once during every FYP period.

Additional catalogues exist to direct investments into specific regions, e.g. the *Catalogue of Priority Industries for Foreign Investment in Central and Western China* (NDRC and MOFCOM, 2013), and subsectors of the economy, e.g. the *Guidance Catalogue for Key Products and Services in Strategic Emerging Industries* (NDRC, 2013). Furthermore, some provinces and cities compile their own catalogues to drive their development agendas according to local conditions.

3. The policy documents drafted by government organisations on all levels complete the system for regulating business activities. According to the broad objectives defined in the planning documents and the limitations of business activities specified through the guidance catalogues, a large number of policy provisions cover all aspects of business activities.

The following table 2 offers a snapshot of several major Catalogues employed to support the transformation of the Chinese economy.

Table 2: Overview of Selected Guidance Catalogues Maintained at the Central Government Level

Catalogue	Remarks
Catalogue of Public Infrastructure Projects Eligible for Preferential Enterprise Income Tax Treatment (2008)	MOF, SAT and NDRC, 2008a, CaiShui 2008, No. 116.
Catalogue of Priority Industries for Foreign Investment in Central and Western China (2013)	NDRC and MOFCOM, 2013, Decree 2013, No. 1.
Catalogue of Encouraged Technology and Product Imports (2011)	NDRC, MOF and MOFCOM, 2011, FaGaiChanYe 2011, No. 937.
Catalogue of Comprehensive Use of Resources for Preferential Enterprise Income Tax Treatment	MOF, SAT, NDRC, 2008b, CaiShui 2008, No. 117.
Catalogue of Imported Products not subject to Tax Exemption in Foreign Investment Projects	GAC, 2008, Report 2008, No. 65.
Catalogue of Chinese High-Tech Products for Export (2006)	MOST, 2006, GuoKeFaJiZi 2006, No. 370.
Catalogue for the Guidance of Foreign Investment Industries	NDRC and MOFCOM, 2011, Order 2011, No. 12
Category of Non-Tax-Exempted Imported Items under Domestically Funded Projects	MOF, NDRC, GAC and SAT, 2012, Report 2012, No. 83.

Source: Based on WTO 2014 at 89-90

2.2 Dedicated Government Programmes for Industry Guidance

The Chinese government remains committed to a hands-on approach to economic development. Industrial policies are employed to provide guidance to economic actors and steer the economy towards specific goals. This chapter examines some of the most important policy programmes are being introduced. In this context the specific mechanisms that are employed in order to steer enterprises and whole industries in specific directions is outlined.

2.2.1 Subsidies – An Overview

When China joined the WTO on December 11th, 2001, it accepted the organisation's *Agreement on Subsidies and Countervailing Measures*. The document defines subsidies as

financial contributions by a government or any public body within the territory of a member which confers a benefit. All three of these elements must be satisfied in order for a subsidy to exist.

However, the *Agreement* only covers subsidies that are *specifically provided to an enterprise or industry or group of enterprises or industries*. It outlines that depending on their nature, subsidies may be actionable or prohibited.

Prohibited subsidies: Those contingent, in law or in fact, whether wholly or as one of several conditions, on export performance ("**export subsidies**") as well as those contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods ("**local content subsidies**"). Both kinds are prohibited as they may seriously damage the economic and trade interests of other member countries.

Actionable subsidies: This group includes most other types of specific subsidies that are not explicitly prohibited. The WTO allows its members to challenge these subsidies through countervailing measures imposed on the national level or through dispute settlement proceedings held in front of a WTO panel. Pursuant to the SCM Agreement (WTO 1994a), confronting actionable subsidies provided by another member requires that one of the following three conditions have to be met. Proceedings have to conclude that adverse effects from subsidisation in one member country

- causes injury to the domestic industry of another member through imports of subsidised goods.
- damages the interests of another member's industry through displacing the latter's products in third country markets (serious prejudice).
- leads to the exploitation of improved market access to another member's market through undercutting local prices (nullification or impairment)

The SCM Agreement introduces comprehensive rules for identifying and challenging prohibited or actionable subsidies. It provides a comprehensive system of laws and procedures that aims to discourage member countries from tilting the playing field in favour of domestic enterprises and help members affected by that practice to offset adverse effects.

In order to ensure a certain degree of transparency, members are required to notify the WTO of their subsidisation practices on a regular basis. China has accepted this obligation when it joined the WTO in 2001. However, it has failed to submit regular subsidy notifications. As the world's largest exporter and importer of goods this has created significant uncertainty regarding the scale and scope of government grants. China's first notification was received in 2006, a full five years after accession, and can at best be regarded as partial fulfilment of obligations under the SCM Agreement. The file covered the years 2001 to 2004 and was limited to subsidies provided by central government authorities. For the most part, the notification addressed support measures for agriculture and investment incentives for foreign invested enterprises.

Subsequent countervailing investigations conducted by the E.U., the U.S., Canada, Australia and other WTO members have identified numerous grant giving operations conducted by the Chinese central government that were not included in the notification – many of which have been found to violate the SCM Agreement. Several academic and commercial studies have discovered numerous instances where subsidy programmes, tax breaks, discount loans and related measures have conferred unfair advantages to selected industries and enterprises (e.g. Price et al 2006; Price et al. 2007; Dewey & Le Boeuf LLP 2007; Haley 2008; Ogilvy Renault LLP, 2007; Taube and in der Heiden 2009).

Furthermore China's 2006 notification provided no information at all about industry support programmes and grant giving schemes operated by the country's 33 provincial and about 850 municipal-level jurisdictions. This fact is particularly relevant as the Chinese political-economic system transfers most policy implementation matters to the local government level. Furthermore, provinces, cities, districts and counties bear the responsibility for developing local economies and use financial incentives to compete for investment projects. Both factors suggest that subsidisation is prevalent and that most objectionable practices are anchored on lower administrative levels. The omission of subsidy programmes administered by sub-central governments thus creates a very large blank spot in the notification.

In 2011, China submitted its second subsidy notification which covered the period from 2005 to 2008. The second document displays the same shortcomings as the first and has to be considered significantly incomplete. Information provided on subsidy schemes administered by central government authorities was again found to have large gaps and again, not a single programme run by sub-central government bodies was mentioned. Overall, China did not honour the commitments it accepted at the time it joined the WTO in a complete, consistent and transparent fashion. It failed to disclose all relevant information in a timely manner. It also failed the obligation to publish policy documents on trade-related measures translated into at least one of the organisation's official languages in a single official journal.

Considering the high importance of China as trading partner, manufacturing powerhouse, investment target and consumer market, the need to better understand the Chinese-brand of state-business interaction can hardly be overstated. The potential and actual adverse effects of subsidisation practices are of a magnitude that mandates more in-depth research outside China to compensate for a lack of openness inside it.

In light of the dissatisfactory information disclosure on subsidisation practices, researchers across OECD countries took the initiative to shed some light onto state-business dealings on all levels of government. Through the review of numerous government and corporate documents, several in-depth studies have turned up substantial evidence for continued and, in fact, ubiquitous subsidisation. The U.S. Department of Commerce, for example, has been able to locate information on over 300 programmes which had not been disclosed in China's two subsidy notifications. In 2011, the Department filed its first counter notification of about 200 individual subsidy schemes that had been missing in China's own notifications (WTO 2011b). Pursuant to article 25.8 of the SCM Agreement, it requested further information on the notified programmes but received none from the Chinese side. In 2014, the U.S. submitted a second counter notification under article 25.10 of the SCM Agreement (WTO 2014b). That document added another 100 programmes which had been identified in the course of several countervailing duty investigations since the Department's first counter notification two years earlier. Another call for comments was filed and is still awaiting response from Chinese authorities. Information on the roughly 300 programmes published by U.S. authorities confirmed earlier findings that sub-central government bodies have been heavily engaged in drawing up and implementing objectionable subsidy schemes.

A large part of the 300 programmes identified by the U.S. DOC covers policy documents that were released in the wake of the global financial crisis as part of China's massive economic stimulus package. So called *Restructuring and Revitalisation Programmes* have been issued by the central government for ten key industries. Provincial and municipal authorities have drafted their own *Restructuring and Revitalisation Programmes* to take account of local industry structures and investment priorities. Such documents contained targets for the development of technology and industry as well as domestic and foreign trade. Concrete financial and non-financial support measures were outlined to ensure successful structural transformation and upgrading of key industries.

A second part of the subsidy programmes notified by the U.S. covers the national and regional 12th FYP documents for various industries. Valid from 2011 to 2015, the national FYP represents the most comprehensive blueprint for all policies targeting development of the economy and society. Local governments have modelled their respective FYP on the national one. On all levels of the administrative hierarchy, FYP exist to direct the development of individual industries and key sectors.

A third part addresses promotion measures in place for so called strategic emerging industries. Conceived by a decision of the State Council in 2010, the cultivation and development of seven priority industries constitutes the cornerstone of China's strategy to boost the role of technology- and knowledge intensive sectors in the economy. As the nurturing of related

companies has been universally accepted as priority task by regional governments across the country, the list of promotion measures and preferential treatments is long.

A fourth part constitutes miscellaneous subsidies that target different aspects of company development across a large number of sectors. THINK!DESK research confirms that there exists a large number of economic, environmental and technology policies which involve the provision of financial incentives to companies which take on designated tasks, can meet certain performance requirements, or simply undertake their business in line with regulations. Such programmes provide institutional frameworks that can be understood and interpreted where underlying policy documents are available. The descriptions of individual subsidy receipts reported in the income statements of listed companies often indicate that certain transactions were based on particular support schemes. In this way, it is possible to fine tune the search for yet unknown subsidisation programmes and that add to the understanding of the state-business nexus in China. Furthermore, it becomes possible to link individual companies to certain development policies from which they have benefited. From the review of corporate documents filed with the China Securities Regulatory Commission, it has become clear that a sizable number of subsidy disbursements are tied to concrete programmes. Many of them are recurring benefits as a company that has qualified for a particular programme remains eligible for receipts in future periods.

However, THINK!DESK has uncovered a substantial number of subsidies which appear to be unrelated to any specific policy framework. While available information may indicate that such financial contributions were inspired by the intention to help improve innovative capabilities or support environmental protection, it is not immediately clear which government initiative has provided the regulatory basis for the payment. In some cases, companies disclose no information on the nature of the subsidies they have received. This makes it particularly difficult to understand the institutional background for payments that may number in the millions or even billions of RMB.

Since 2010, most companies have reported subsidy income that relates to specific projects. Such subsidies are typically made by regional governments and disbursed through the Finance Departments of either the city or the province where the operations in question are (to be) located. Most such grants do not take the form of recurrent payments as enterprises are typically awarded a financial support in a lump sum. This implies that for most companies a steady flow of government grants forms a basic subsidy income. Across time, the latter displays some highly erratic development because project specific funds cause total grant income to skyrocket in individual years.

From the above it has to be concluded that a significant share of government grants are made on an ad hoc basis. In fact, local governments enjoy a significant degree of discretion when it comes to supporting preferred enterprises. The local 12th FYP typically identifies such companies as pillar, backbone or “dragonhead” enterprises. Unless the purpose of subsidies are specified, corporate income statements have to be read together with local plans and policies in order to deduct the government’s intention behind a subsidy. This greatly compli-

cates the work of researchers trying to deepen the understanding of state-business interaction in general and subsidisation practices in particular.

Subsidies come with various labels. Most are designated as subsidies (补助 or 补贴) while others take the form of awards (奖). Many grants are disbursements from special funds (专项资金) or offered as loan interest subsidies (贴息). Tax refunds (税返还) and compensations for enterprise expenses (经费 / 补偿) are common and in some cases particularly large. And even beyond these various types of categories there exist additional forms of subsidies hidden behind China's specific accounting rules. Box 3 provides some details to this avail.

Box 3: Chinese Accounting Rules in the Context of Subsidy Payments

China's accounting rules hide the full extent of subsidisation, implicating that subsidy data presented in this study covers just one part of total subsidy disbursements in China. Three important limitations exist:

- 1) Pursuant to PRC GAAP, government grants made as investments by the state are credited to the capital reserve and not treated as subsidies. Subsidies related to technology research and upgrading projects are added to the capital reserve once construction of the underlying assets is complete. In contrast, IFRS stipulates that government grants related to the purchase or construction of fixed assets are treated as deferred income. As the underlying assets depreciate over their normal useful lifetime, the subsidy funds are converted into profit and loss relevant income.
- 2) Unless noted otherwise - information presented here only covers subsidies recognised as profit and loss (P/L) relevant income for one particular year. In many instances companies receive grants for use over multiple years. The funds are typically registered at fair value, credited to a deferred income account and gradually released in subsequent accounting periods as P/L relevant income:
 - a) Subsidies relating to assets are registered at fair value of said assets and kept as deferred income. The grant is then converted into the P/L relevant income in equal annual instalments over the asset's expected useful life.
 - b) Subsidies intended to compensate future expenses are booked as deferred income first and recognised as P/L relevant income in the periods in which the costs to be compensated are expensed. Subsidies related to cover expenses in the current or past periods are registered as P/L income directly.

The Chinese tax code provides special provisions on the treatment of deferred income for when it is received and while it is stored waiting to be spent.

- 3) Access to financial information in general and subsidy income in particular is limited to listed companies as only these are legally required to publicly disclose relevant data. The 2,784 companies listed inside China represent only a small fraction of the country's enterprise population. It must be noted that listed companies are a very unique subsec-

tion of the latter due to their significance for respective home localities. Both economic rationality and prestige considerations have put these companies in a favourable situation to benefit from preferential treatment in many regards. Chinese government documents emphasise the special importance and leadership function of key enterprises. This is also reflected in the designation individual subsidy payments. Consequently, it should be assumed that non-listed companies are less likely to receive financial support and, if they do, amounts are probably smaller. Similarly, SOEs have been found to be more prone to receive subsidies and, if they do, obtain larger amounts. Among listed firms, the share of state businesses is higher than in the general economy. This suggests that findings should not be used for simple extrapolation over the total enterprise population as that will likely overstate the extent of subsidisation.

In most cases, the government does not initiate subsidy payments on its own initiative. Instead, companies apply for participation in projects or programmes launched and administered by governments on the national and local level. These are predominantly related to research and development, environmental protection, resource conservation or industry consolidation. Naturally, the authorities in charge of most such schemes are the NDRC, the MIIT and the MOST as well as their subordinate bodies on lower levels. The number, funding volume, spending targets and other characteristics of subsidy schemes depend on the general economic situation and work priorities derived by the State Council and CPC Central Committee.

The objectives of subsidies are highly diverse, although descriptions indicate that most transactions are geared towards

- Technology innovation and commercialisation
- Technology renovation and upgrading
- Environmental protection (incl. energy conservation, pollution clean-up, emission reduction, waste water treatment, desulfurisation of gaseous exhaust)
- Transformation and adjustment of the industrial structure (e.g. M&A, relocations, compensations for enterprises leaving industries with high overcapacities)
- Employment and training (e.g. re-settlement of displaced workers, social security premiums, housing and amenities for employees, maintaining staff levels)
- Foreign trade (imports of encouraged goods, general export promotion, export brands, export insurance, foreign market exploration)

In all, the relationship between enterprises and local state organs is highly complex. Subsidies are not disbursed as a form of minimum income on an indiscriminate basis. Rather, the specific value of a production plant or service operation for the local economy, the provision of public services and the government authorities themselves have to be considered.

As much as local governments can impact on the operational success and financial performance of companies, the connection is far from being a one-way street. Enterprises provide much needed tax revenues, employment and economic stimulus. Large players are a scarce resource in a country where tens of thousands of jurisdictions vie for investment-led growth. Losing major local enterprises to bankruptcy or regulatory violations confronts government officials and party cadres with formidable challenges. This explains an important phenomenon of local level subsidisation: strong performance does not always translate into high subsidy incomes. As much as the central government seeks to accelerate the process of structural change and flush out outdated players, the local level is often found to be supportive to failing companies – even rescuing them. Faced with the immediate task to safeguard a steady level of economic growth inside their respective jurisdictions, localities have been found to retard structural change and “throw good money after bad”.

In terms of the sources of subsidy transactions, local governments are important providers. Despite their rather limited fiscal resources and high degree of indebtedness, cities and even counties have been found to find tens of millions of RMB in their budgets to boost competitive enterprises and rescue ailing ones. Unfortunately, the picture is incomplete as not all companies disclose the source of subsidy income. Furthermore, the picture may be blurred by the fact that payouts from higher level government authorities are forwarded and disbursed through the Finance Bureaus at the local level.

2.2.1.1 *Examples for Preferential Policies and Grant Giving Operations by Local Governments*

In the following the specific character and operational handling of subsidy disbursements by local governments are being illustrated by means of selected case studies.

Case 1: Zhejiang Province

Authorities in Zhejiang Province have followed the practice of identifying several *leading backbone industrial enterprises* on an annual basis. The provincial government has stated that it was committed to promoting the development of such enterprises and strove to create favourable operating conditions. The provincial leadership pledged to fully implement national fiscal support regulations, tax privileges and other preferential policies promoting enterprise development. Furthermore, it announced to introduce its own support measures and help companies in areas, such as technology innovation and renovation. Local firms are to be given support and preference in applications for key technology renovation and technology innovation projects of Zhejiang Province (2010).

Local policy makers have offered active support for companies applying for projects administered at the national level, such as high-technology centres, engineering centres and state key laboratories. To this end, the allocation and administration of land use rights for major

construction projects will be given high priority. Through government promotion, such projects are to reach implementation, launch and profitability stages earlier than anticipated (ibid).

To enable smooth favourable access to financial resources and ensure that credit demand for enterprise development can be met, Zhejiang authorities promised to guide commercial banks through twinning of companies and banks, expanding credit lines, providing syndicated loans and other measures. At the same time, enterprises are to enjoy support when listing at domestic and foreign stock exchanges, issuing corporate bonds or obtaining bridging finance (ibid).

The supply of coal, oil and electricity as well as transportation services are to be coordinated in ways that prioritises leading backbone enterprises and safeguards their supply. Companies are encouraged to invest overseas to set up raw material exploration, establish manufacturing centres, expand sales networks and engage in R&D activities (ibid).

Case 2: Jiaxing City

Jiaxing City's leadership, in its 12th FYP for industry development, outlined the development objectives for various sectors. Until 2015, companies should put emphasis on new wall materials, new waterproof building materials, new thermal insulation materials and new building decoration materials. Companies are urged to focus on deep processing activities in order to enhance production technology and upgrade product portfolios (Jiaxing City 2011 at 3.1.2).

In addition, the plan for industrial development in Jiaxing city's Binhai New Area states that special emphasis should be given to the development of a select number of products. Manufacturing enterprises were called to achieve high-technology content, excellent quality and a broad product spectrum (Jiaxing City 2007 at 3.3). In terms of industry support, the development plan announces the drafting of local development guidance catalogues. The document states that a system of supporting policies touching upon different areas, such as land utilisation, taxation, investment funding and legislation, should be put in place to support local industry (Ibid at 3.3).

Case 3: Jiujiang City

Jiujiang's municipal government in 2008 has set out to vigorously implement a new-type industrial development strategy. The approach was supposed to (1) focus on the cultivation and expansion of backbone enterprises in selected industries, (2) introduce large scale industrial projects and (3) speed up the industrialisation in the locality (ibid.).

Furthermore, Jiujiang city pledged to optimise the provision of important inputs and pledged that key projects would be prioritised in the provision of resources, energy, land and other important inputs so as to safeguard a stable supply. The planners outline preferential treatments for core enterprises and key projects regarding the supply of energy and financial re-

sources. The latter issue has been given particular emphasis in the strategy roadmap document. Policymakers announced that core enterprises and key projects would be made the main beneficiaries of credit support. More precisely, the Jiujiang municipal authorities announced their intention to actively coordinate with all commercial banks and actively seek their cooperation in attributing priority to meeting the financial needs of core enterprises and important projects (ibid.).

Moreover, Jiujiang city pledged to increase its support in making available land for development on a large scale. It assured that land demand of major projects would be given high priority and incorporated into the local land usage plan. Concerning technological upgrading, the document's authors urge the acceleration of the establishment of technology centres focusing on core enterprises as main parts (Jiujiang Municipality 2008).

The Jiujiang government announced in 2009 a large array of assistance measures to nurture high-tech industries in general and innovative enterprises in particular. Only a few hand-picked companies are entitled to take advantage of the provision of financial resources, policy guidance, management services and other benefits (Jiujiang Municipality 2009).

Case 4: Chengdu City

A policy providing loan interest subsidies to the local new materials industry has proven advantageous for a significant number of companies. Pursuant to a guideline promulgated in 2007, enterprises with a net increase in liquidity loans during the current year are qualified to receive liquidity loans at 70 percent of the current central bank benchmark lending rate for duration of one year. The amount of these special facilities matches the liquidity loans added during the current year to a maximum of RMB 1 million per company. Enterprises from the new materials industry that engage in key projects or possess a leading role for the industry as a whole may claim up to RMB 2 million in preferential loan support. To be deemed eligible for these preferential loan facilities, however, companies must have paid taxes in excess of RMB 10 million during either the previous or present reporting period (Chengdu City 2010a at 3) .

Enterprises that pay taxes under RMB 10 million in the current and previous reporting periods but with sales revenues of RMB 20 million or more from new material products in either reporting period can benefit from liquidity loans at only 50 percent of the central bank's benchmark lending rate to cover newly added liquidity loans. In these cases, the volume of preferential loans should not surpass RMB 1 million while the time span is set at one year (ibid.).

2.2.1.2 *Recent Initiatives by the Central Government Aimed at Restricting Local Government Activities*

Taking account of the facts that (1) local governments hand out substantial amounts of grants to local companies and that (2) the political intentions behind these payments are not always conforming to national strategies devised by the central government, the latter has taken an unusual move in December of 2014. The State Council (2014) issued the *Circular on Clearing and Standardizing Preferential Policies on Taxation and other Areas*. The document concedes that

“in recent years, to promote the regional economic development, some regions and departments have provided specific enterprises and the investors (or managers) thereof with preferential policies for taxation, non-taxable and other revenues, and fiscal expenditures (hereinafter referred to as “preferential policies for taxation and other aspects”), which have promoted the investment growth and industry concentration to some extent; however, some preferential policies for taxation and other aspects have disturbed the market order, affected the effects of the macro-adjustment and control policies of the state, and even are likely to violate China’s commitments to foreign countries and give rise to international trade conflicts” (State Council 2014).

In general, localities are warned to strictly implement rules on the administration of fiscal expenditures. All existing preferential policies involving government expenditures, including refund-after-payment schemes, fiscal rewards or subsidies have to be submitted to the State Council for review and approval. Similarly, a blanket ban has been put on the widely used practice of offering financial rewards and tax breaks in order to attract investors.

The document goes on to prohibit regional governments to develop preferential tax policies without the approval of the State Council. It also outlaws the provision of specific preferential tax policies in the context of other laws, regulations, rules, development plans or as part of regional development policies (at 3.1). The State Council explicitly forbids localities to reduce, waive or delay the collection of fees and other charging items. The same rule applies to the payment of enterprises' portion of social insurance premiums as well as penalties imposed for violation of laws, regulations and provisions of the State Council (at 3.2).

With regards to land, cities and counties are barred from assigning LUR for free or at preferential prices. The exemption or reduction of annual land use fees and any related subsidisation measures is to be cancelled. Similarly, localities are not allowed to transfer state-owned assets, equities of state-owned enterprises, mineral resources or other state-owned assets at a discounted price. Related policies that provide companies with discounts on electricity and water prices are to be cancelled universally. Furthermore, various preferential policies, like the payment of social insurance premiums and other operating costs by government bodies on behalf of enterprises are ruled out.

In order to implement the reforms, the State Council demands that all regions conduct an internal review of preferential policies that may violate the new rules. They are also called to screen all existing contracts with enterprises in order to locate and revoke incompatible commitments. This comprehensive review should lead to the termination of all subsidisation practices and repeal of all related policies. Where localities are confident that their procedures are in conformity with central government policy, they must submit relevant regulation to the MOF for review. If approved the MOF may file a special request with the State Council asking to keep the policy in question in place.

Before the end of March 2015, all governments below the provincial level were to comb through their policies and contracts, minutes of meetings, agreements and other documentation in order to compile lists of local practices. The lists were subjected to a review by provincial level authorities and the MOF which then report to the State Council.

Limited information has been disclosed on the review process which is so far largely taking place behind closed doors. At the time of writing, forecasts on the future of local subsidisation practices are hard to make. A look back at 35 years of China's post-reform economic development shows a substantial policy implementation gap. Local governments have proven adept at skirting central government rules in order to protect local – and at times even personal – business interests against outside scrutiny. Taking advantage of the institutional weaknesses of supervisory agencies, like serious understaffing and overextended responsibilities, the detection risk has been moderate. Geographical and popular dimensions of China have added to the administrative complexity faced by successive leadership generations. While the resolute moves and strong language used by Beijing might implicate some lasting success to be expected, past experience suggests that change will be slow in the making.

The most recent central government call to abolish electricity discount schemes on the local level was issued by the State Council in November 2014. It was part of a document that prohibited subsidization practices of local governments unless they have been vetted by central authorities. Importantly, the political drive to wind down local schemes that provide goods and services electricity, gas, water, coal at below market prices should not be interpreted as a realization on the part of central decision makers that such moves are inefficient and thus counterproductive per se. Much rather, the key question has been who – meaning which government bodies on which levels – should exercise the authority to employ them.

The central government itself has made no indication that it intends to stop subsidization of target industries, products or services. The SEI, which have been outlined in a previous section, have illustrated that point. Until the present, regulatory documents are replete with statements designating strategic sectors, core technologies and key products. Typically, administrative measures specify the strategic objectives and outline the type of preferential treatment that is to be provided. These draw on guidance catalogues which identifying specific items with detailed description to ensure for targeted support. In the following, brief accounts of three examples for industry specific support measures announced as late as 2014 are being provided.

Case 1: The Integrated Circuit Industry

Aiming to boost the competitiveness of China's rapidly expanding integrated circuit industry, the MIIT, the NDRC and the MOF have jointly drafted the *Guidelines for Promoting the Development of the National Integrated Circuits Industry*. The document, issued in June 2014, states the objective of promoting China to become a world leader in the industry by 2030. In order to accomplish this goal, the three central government bodies announce support measures helping companies expand their footprint in the value chain. This is to be achieved through the provision of special tax preferences and various means of credit support. Most importantly, a dedicated support fund will be set up by the MOF that will initially hold 100 billion RMB. The Guidelines order lower level governments to cooperate and establish own funds. In total, special support funds for nurturing the integrated circuit industry are aimed to reach a combined balance of 300 billion RMB.

In December 2013, the MIIT and three other central government bodies have issued the *Administrative Measures for the Accreditation of Integrated Circuit Design Companies*. The document outlines the government's intention to cultivate the sector in the long run. It lists performance requirements that companies have to meet to become eligible for special support and outlines the vetting procedures to be conducted by the MIIT and the NDRC.

In February 2015, the MOF followed up with detailed accounts of the tax breaks made available accredited companies in the integrated circuit industry. The *Circular concerning Enterprise Income Tax Policies for Further Encouraging the Development of the Integrated Circuit Industry* introduces the three-free-two-half system. Enterprise Income Tax will be waived for the first two years of profitable operation. Over the following three years, qualified enterprises enjoy a 50 percent discount on the regular tax rate.

Case 2: The Rare Earth Industry

Due to its strategic import in a variety of high technology applications, the rare earth sector has been singled out a target of reinforced financial support. The *Administrative Measures for Subsidy Funds for Developing the Internet of Things and the Rare Earth Industry*, issued in May 2014, aim, among other things, for technology upgrades throughout the rare earth value chain. The scope of the policy is very broad, encompassing the promotion of mining, smelting, processing and R&D activities along with environmental protection measures. The Administrative Measures identify existing businesses as subsidy target and call for the commercialisation of advanced technologies in support high end applications.

Case 3: Grain Production

In a bid to ensure supply safety for food items and boost agricultural incomes, the central government pledged subsidies to domestic producers of grain. The measure which was announced in March 2014, promised disbursements on the order of 100 billion RMB for coming years (EC 2014 at 14).

2.2.1.3 Subsidy Disbursements to Chinese Listed Companies

With well over 2,700 individual equities traded on the two domestic stock exchanges in April 2015 China features a comparatively large number of listed companies. Although transparency and information disclosure by China's stock listed companies remains unsatisfactory, the data made public by these companies provides some insights into the dimensions and practices of governmental subsidy pay-outs to the Chinese enterprise sector. Table 3 provides an overview of total subsidy payments to Chinese listed firms during 2010-2014.

Across all listed firms, more than 30,000 individual subsidy transfers were recorded in 2014. This represents an increase of almost 50 percent compared to just 21,090 transactions in 2010. During the past five years, both the number and the proportion of enterprises that take advantage of government grants have shown a marked increase. Some companies report individual subsidy items with great detail while others just provide a general total instead. In 2014, Kingfa Science and Technology Co., Ltd. reported 245 separate grant items while Jointown Pharmaceutical Group Co., Ltd. registered 190 individual receipts in 2013.

Table 3: Overview of Governmental Subsidy Payments to Chinese Listed Companies from 2010 to 2014

	2010	2011	2012	2013	2014
No. of beneficiaries	2,215	2,366	2,527	2,580	2,625
No. of transactions	21,090	19,635	23,458	28,361	30,338
Average no. of receipts	9.5	8.2	9.3	11.0	11.6

Source: Wind Data

During the fiscal year 2014, listed companies have benefited from a combined total of subsidies worth 126.1 billion RMB. Annual disbursements of government grants have continuously risen in previous years – effectively doubling since 2010 (64.7 million RMB).

In 2014, ten companies have been reporting grant receipts in excess of 1 billion RMB. The following two tables 4 and 5 identify these Top 10 beneficiaries of government transfers in 2014 and – separately – list the nine recipients of individual subsidy items of more than 1 billion RMB.

Table 4: The Top10 Recipients of Government Grants in 2014

Rank	Company	Subsidy income (in mln RMB)
1	PetroChina Co., Ltd.	10,931
2	China Eastern Airlines Co., Ltd.	3,627
3	China Petroleum & Chemical Co., Ltd.	3,165
4	SAIC Motor Co., Ltd.	2,672
5	Agricultural Bank of China Ltd.	1,969
6	China Yangtze Power Co., Ltd.	1,883
7	China COSCO Holdings Co., Ltd.	1,743
8	China Southern Airlines Co., Ltd.	1,728
9	Metallurgical Corporation of China Ltd.	1,066
10	Air China Ltd.	1,060
Total		29,844

Source: Wind Data

Table 5: Individual Subsidy Transfers Exceeding 1 billion RMB in 2014

Rank	Company	Subsidy income (in mln RMB)
1	PetroChina Co., Ltd.	10,931
2	China Petroleum & Chemical Co.	3,165
3	China Eastern Airlines Co., Ltd.	3,054
4	Agricultural Bank of China Ltd.	1,969
5	China Yangtze Power Co., Ltd.	1,881
6	SAIC Motor Co., Ltd.	1,803
7	China Southern Airlines Co., Ltd.	1,728
8	China COSCO Holdings Co., Ltd.	1,584
9	Air China Ltd.	1,060
Total		27,175

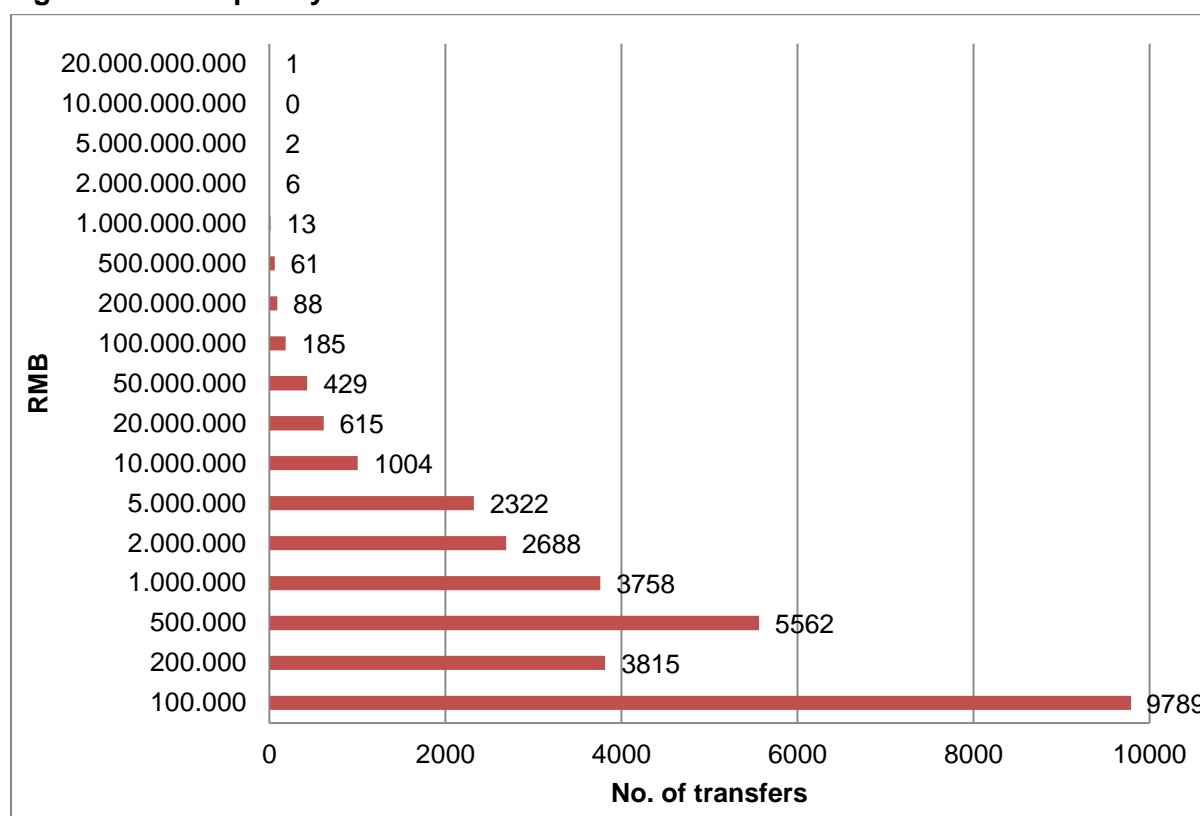
Source: Wind Data

These ten enterprises received sizable grants for different reasons. The largest positions for selected companies are outlined below. Unfortunately, not all enterprises publish a detailed breakdown of their respective grant incomes:

- **SAIC Motors** was transferred 600 million RMB for land in the context of plant relocations as well as 52 million RMB for purchases of undisclosed fixed assets (SAIC 2014 AR at 118).
- The **Metallurgical Corporation of China** received 164 million RMB as support for demolishing shantytowns on its land and resettling residents (Metallurgical Corporation of China 2014 AR at 168).
- **Chongqing Iron and Steel** was awarded 507 million RMB in order to relocate its production base to the outskirts of Chongqing City. Another 280 million RMB for environmental protection, energy conservation and emission reductions (Chongqing Iron and Steel 2014 AR at 130).

Unlike in the cases of PetroChina and the other enterprises listed in table 5, the vast majority of subsidy transfers do not exceed 1 million RMB. Figure 3 provides an overview of the separate amounts typically disbursed for single grant items.

Figure 3: Frequency Distribution of the Amounts of Individual Transfers



Source: Wind Data

Calculation by THINK!DESK.

Subsidy income plays an important role for many companies who suffer from meagre revenues and lacklustre profits. Grants boost available resources to safeguard liquidity and facilitate investment projects which the companies could not realise without outside help. Table 6

documents the situation of those (profitable) enterprises featuring the highest subsidy-net income ratio in 2014.

Table 6: Profitable Enterprises with the Highest Subsidy-Net Income Ratio in 2014

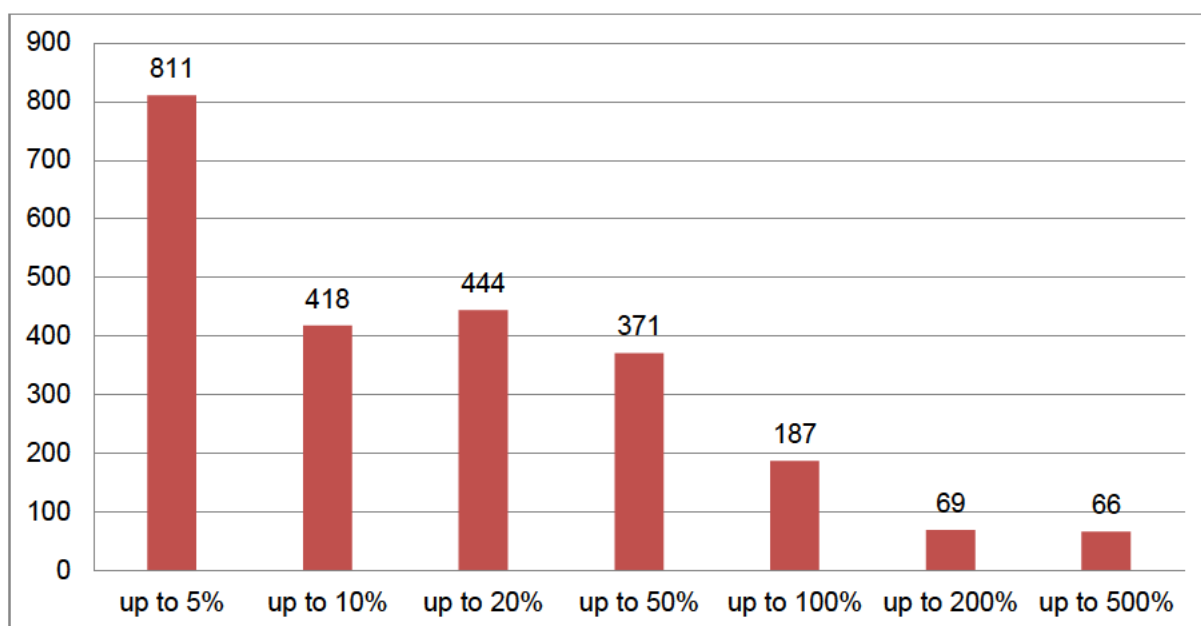
	Net income	Subsidy income	Subsidy/net income ratio
Xinjiang Qingsong Building Materials and Chemicals Co., Ltd.	6,442,377	379,992,472	5,898%
Xiamen XGMA Machinery Co. Ltd.	10,301,839	497,198,884	4,826%
Liaoning SG Automotive Group Co., Ltd.	10,196,038	239,790,036	2,352%
Chongqing Iron & Steel Co. Ltd.	51,431,000	923,283,000	1,795%
Tangshan Jidong Cement Co., Ltd.	34,707,565	503,165,000	1,450%
Shijiazhuang Changshan Textile Company Limited	24,284,736	348,030,314	1,433%
Jizhong Energy Resources Co., Ltd.	24,373,979	308,395,003	1,265%
Sunward Intelligent Equipment Co., Ltd.	6,535,518	76,327,027	1,168%
Elec-Tech International Co., Ltd.	13,950,995	156,916,546	1,125%
Anhui Ankai Automobile Co., Ltd	23,537,516	260,114,316	1,105%

Source: Wind Data

Calculation by THINK!DESK.

The subsidy-net income ratio is significant across a large proportion of enterprises, regardless of ownership, industry affiliation or location. The following figure 4 displays the frequency distribution of ratios across listed firms.

Figure 4: Frequency Distribution of Subsidy-Net Income Ratios for Chinese Listed Firms in 2014



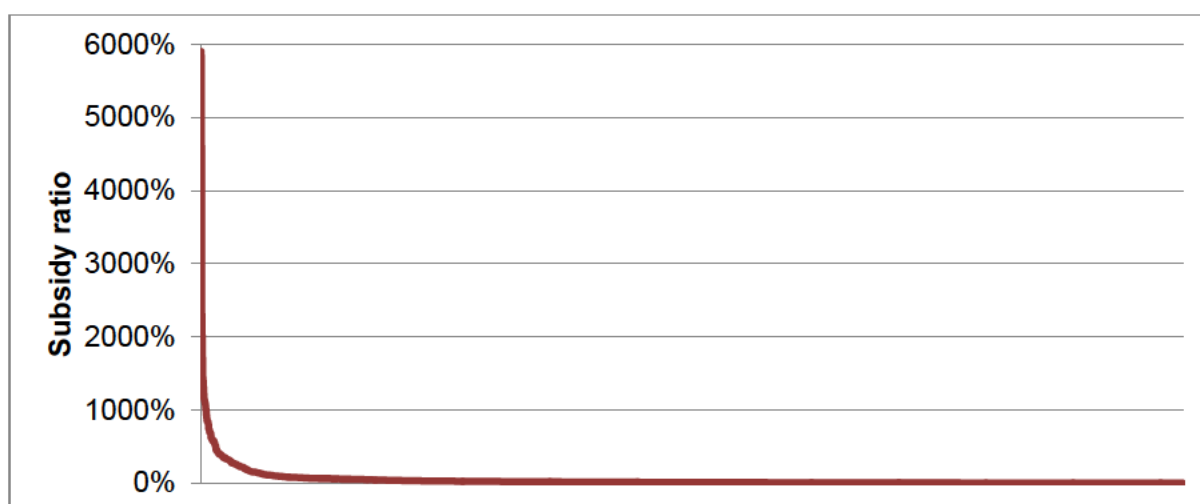
Comment: The diagram depicts only companies with a ratio greater than 1.

Source: Wind Data

Calculation by THINK!DESK.

The following figures 5, 6 and 7 provide illustrations of the frequency distribution of subsidy/net profit ratios.

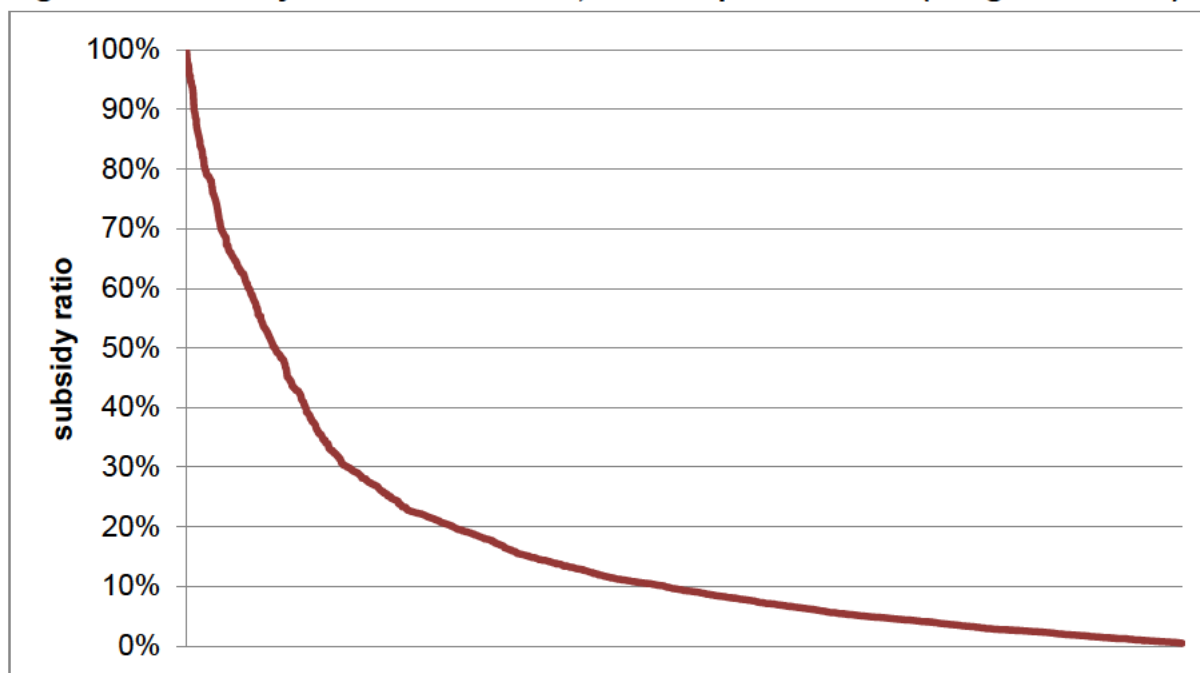
**Figure 5: Subsidy-Net Profit Ratio of 2,251 Enterprises in 2014
(Range 1% - 5,898%)**



Source: Wind Data

Calculation by THINK!DESK.

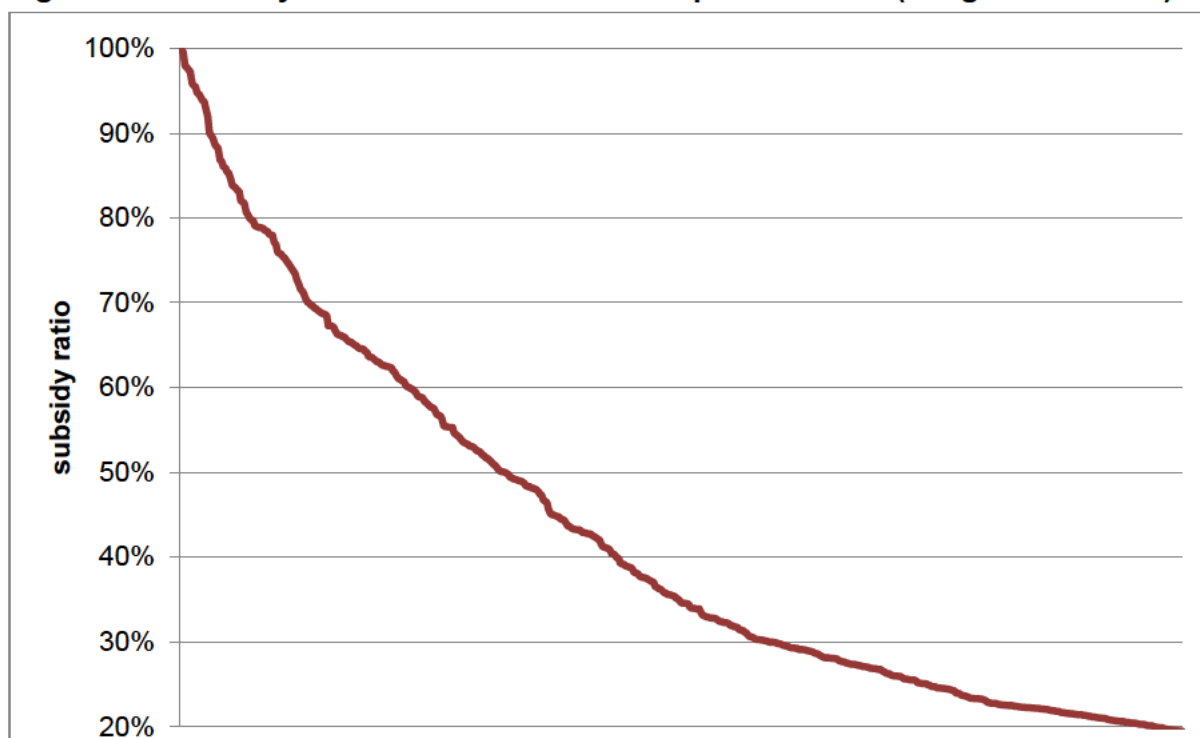
Figure 6: Subsidy-Net Profit Ratio of 2,082 Enterprises in 2014 (Range 1% - 100%)



Source: Wind Data

Calculation by THINK!DESK.

Figure 7: Subsidy-Net Profit Ratio of 574 Enterprises in 2014 (Range 20% - 100%)



Source: Wind Data

Calculation by THINK!DESK.

It is noteworthy that subsidisation does not seem to follow commercial considerations. While the Chinese government has emphasised the importance of leading, key or backbone enterprises, this classification apparently does not relate to the companies' financial performance.

It has been found in several cases that subsidy income exceeds operating incomes and net profits by a large margin. In this sense, government grants can no longer be regarded as negligible contributions to stabilise company revenues. The case of Chongqing Iron and Steel Group shows this problem. Suffering from a supply glut in the steel market, profitability is extremely low for the steelmaker. Subsidy income has thus by far exceeded net profits. The China Aluminium Corporation (Chalco) represents an even more striking example. Partly owing to overcapacities in the aluminium sector, a prolonged market slump, surging environmental protection costs and major resource acquisitions, the company has continued to run up losses of 16,217 million RMB in 2014. However, being a leading company in a key industry has still helped Chalco obtain 824 million in subsidies. Table 7 and figure 8 document this phenomenon for a larger sample of firms.

Table 7: Enterprises that Reduced their Losses by Means of Subsidy Income in 2014

	Net losses	Subsidy income	Reduction of net losses
Qinghai Huading Industrial Co., Ltd.	-5,387,138	25,963,808	-83%
Yangmei Chemical Co., Ltd.	-30,360,015	118,443,048	-80%
Shenzhen Topraysolar Co., Ltd.	-5,377,434	20,301,752	-79%
Wus Printed Circuit (Kunshan) Co., Ltd.	-12,109,197	39,784,879	-77%
Shenzhen Nanshan Power Co., Ltd.	-330,513,285	511,637,613	-61%
Shandong Jining Ruyi Woolen Textile Co., Ltd.	-1,794,185	2,326,651	-56%
Fujian Yong'an Forestry (Group) Joint-Stock Co., Ltd.	-20,665,872	20,245,406	-49%
Hunan Corun New Energy Co., Ltd.	-45,938,879	38,839,466	-46%
BGRIMM Magnetic Materials & Technology Co., Ltd.	-28,335,545	22,260,205	-44%
Hunan New Wellful Co., Ltd.	-48,963,311	36,918,160	-43%

Source: Wind Data

Calculation by THINK!DESK.

Figure 8: Proportion of Subsidy Induced Reduction of Net-Losses of 188 Enterprises



Source: Wind Data
Calculation by THINK!DESK.

From the available data it becomes clear that the selection of subsidy targets is not based on financial performance. In 2014, the proportion of profitable companies benefitting from grant income (96.3% of all profit making companies) was only slightly higher than the respective reading for loss making ones (90.2%). More important, however, is to read 2014 subsidy receipts in the context on past performance. To this end, THINK!DESK has compiled the following table which employs firms’ return on capital as performance benchmark. In order to provide a more balanced picture, the average value of the years 2012 and 2013 are used here. Table 8 presents relevant information for some of the largest subsidy beneficiaries in 2014. From this depiction it becomes obvious that these companies are significantly underperforming in comparison with their peers.

Table 8: Selected Firm Performance and Subsidisation

Enterprise	Subsidy amount	ROC (average last 2 years)
Average		8.51
China Eastern Airlines Co., Ltd.	3,627,000,000	3.54
China COSCO Holdings Co., Ltd.	1,742,719,823	-2.60
China Southern Airlines Co., Ltd.	1,728,000,000	3.61
Metallurgical Corporation of China Ltd.	1,066,485,000	-3.29
Air China Ltd.	1,059,996,000	3.68
SDIC Power Holdings Co., Ltd.	1,022,640,419	3.77
Chongqing Iron & Steel Co., Ltd.	923,283,000	-8.05
Huaneng Power International, Inc.	900,371,082	6.49
Datang International Power Generation Co., Ltd.	834,920,000	3.06
BOE Technology Group Co., Ltd.	830,471,170	3.13

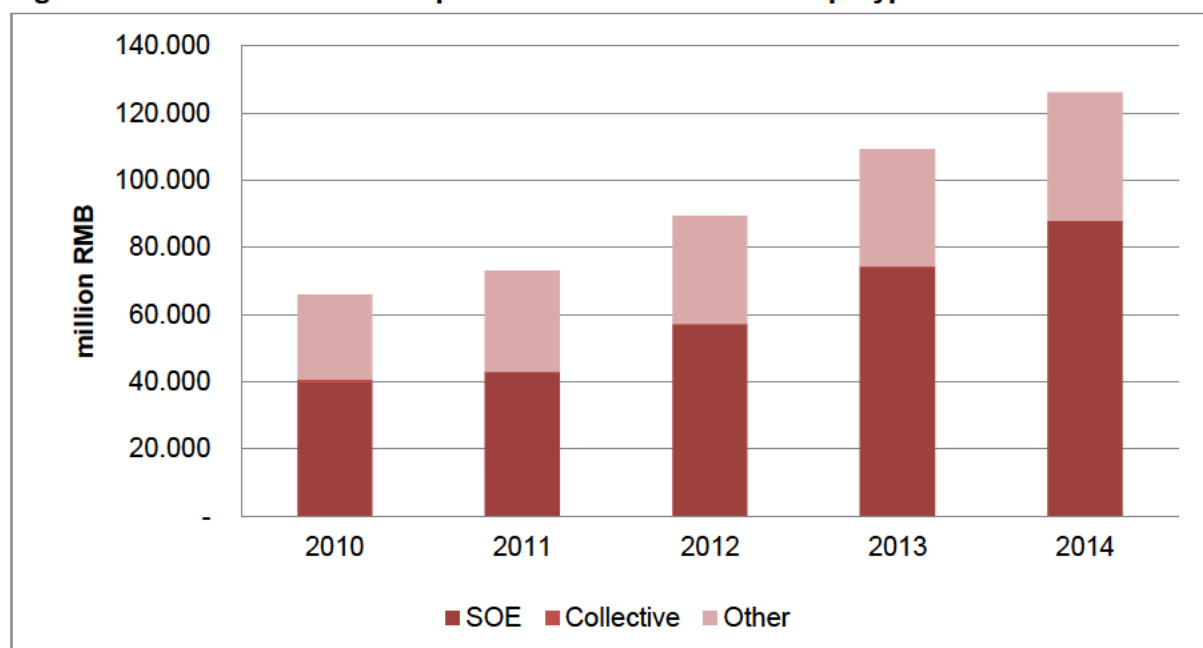
Comment: The average return on capital (ROC) is calculated on the basis of a sample of 2,715 listed firms at the stock exchanges in Shanghai and Shenzhen.

Source: Wind Data

Calculation by THINK!DESK.

Taking a closer look at the ownership structures of companies benefitting from governmental subsidies it appears that SOE are in an advantaged position. Remarkably, subsidy receipts by SOEs have not only dominated total such transfers, they also display the largest growth. SOEs also dominate the top 10 beneficiaries of subsidies. (cf. figures 9 and 10). This observation is not only based on the fact, that they are owned by government, but also on some characteristics resulting out of this ownership status. As interaction with government authorities is more frequent and supervision is more intense, such companies are better aware of support schemes. Furthermore, their business is more aligned with industrial policy than is the case with private enterprises. Subject to more direction, supervision and information exchange with relevant government bodies, SOEs stand a good chance to receive subsidies.

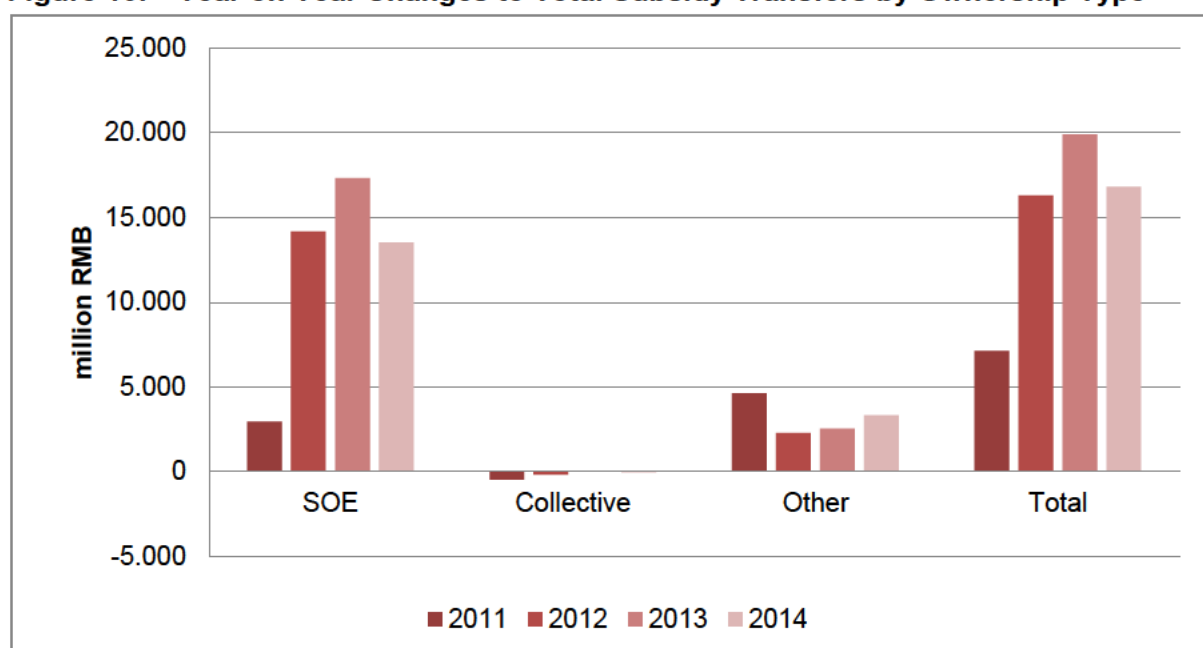
Figure 9: Subsidies to Enterprises of Different Ownership Types



Source: Wind Data

Calculation by THINK!DESK.

Figure 10: Year on Year Changes to Total Subsidy Transfers by Ownership Type



Source: Wind Data

Calculation by THINK!DESK.

Private enterprises, on the other hand, can enjoy opportunities for subsidisation if their business models are in line with industrial policies. Government allocations are concentrated primarily in promoted high technology sectors. BYD Co., Ltd. is a good example as the company has business units in three strategic emerging industries: new energy, new energy ve-

hicles and energy conservation. BYD Automobile is one of China's leading manufacturers of electric vehicles (EV) for use as city busses, taxis and fleet cars. The company has invested extensively in the development of technologies related to pure electric vehicles and plug-in hybrids as well as charging and supporting infrastructure. BYD PV, has expanded rapidly to capture market share in the photovoltaic industry. Closely connected with BYD's energy storage business, the operation has become an important pillar of the company. BYD LED was launched in 2003 and manufactures advanced lighting products for use in commercial and private settings. Products are distributed to industrial customers and retail outlets. The following table 9 shows the impact that government aid had on BYD's profitability.

Table 9: Subsidy Income of BYD Co., Ltd.

Year	Net profits (in mln RMB)	Subsidies (in mln RMB)	Subsidy ratio (in percent)
2010	2,919	354	12.1
2011	1,595	301	18.9
2012	213	550	258.2
2013	776	677	86.0
2014	740	798	107.8
2015 Q1	153	65	42.5

Source: Wind Data

Calculation by THINK!DESK.

Some private companies receive subsidies even though their business model does not appear to match industrial policy very closely. The rationale for this is to bolster enterprises that have special significance to the economies of host localities and spare the company the disadvantages of a forced delisting.

Ningbo Donly Co., Ltd. is a case in point. The company which makes brakes for vehicles, gearboxes for wind power generators, motors as well as electric machinery and equipment has been in the red for 2012 at 2013. Listed at the Shenzhen Stock Exchange since 2007, the company is subject to the newly tightened restrictions issued in 2014. Due to its bad financial health, Donly was at risk of being delisted if it reported yet another annual loss for 2014. In order to prevent this outcome, the governments of Jiangbei District of Ningbo City and municipal authorities themselves each injected 10 million RMB into the ailing enterprise. The company managed to turn a profit of 23.8 million RMB for 2014 with subsidies accounting for 22.8 million (Ningbo Donly 2014 AR at 125, 130). Between 2011 and 2014, Donly realised net losses of 8.3 million. However, owing to 65 million RMB in government grants disbursed over the same period, the company has managed to continue operating and retain its stock market listing.

Henan Yinge Industrial Investment Co., Ltd. is in a similar situation. The producer of pulp and paper has been listed in Shanghai since 1997. During the five years between 2010 and

2014, revenues have decreased by about ten percent. Operating incomes have been negative since 2011 and net incomes have been negative for four out of five years. Following a net profit of 8 million RMB in 2010, the company has accumulated losses of 1,870 million RMB since then. Over the same timeframe, various government bodies have supported Yinge with 471 million RMB.

In terms of the sectoral destination of subsidy transfers, a strong domination of the manufacturing sector is striking as documented in table 10.

Table 10: Target Sectors of Subsidy Transfers (in million RMB)

	2010	2011	2012	2013	2014	Total	Share of total
Manufacturing	58,582	65,453	81,938	101,337	116,889	424,198	91.9%
Electricity, heating, gas and water production and distribution	2,258	2,378	2,172	2,065	2,006	10,879	2.4%
Software and IT	655	643	845	1,086	1,278	4,507	1.0%
Real Estate	547	831	929	548	1,013	3,868	0.8%
Wholesale and retail	632	503	846	853	842	3,677	0.8%
Mining	931	438	492	468	559	2,889	0.6%
Agriculture	314	373	605	644	726	2,662	0.6%
Renting and business services	142	276	358	536	485	1,798	0.4%
Culture, education and entertainment	130	139	334	420	607	1,630	0.4%
Water, environment and public infrastructure management	127	74	99	484	547	1,331	0.3%
Transportation, storage and mail services	126	197	352	332	279	1,285	0.3%

	2010	2011	2012	2013	2014	Total	Share of total
Construction	112	154	198	280	322	1,066	0.2%
Miscellaneous	63	74	99	140	229	605	0.1%
Financial services	47	166	99	66	218	597	0.1%
Scientific research and technology services	31	52	57	55	56	251	0.1%
Hospitality	8	5	9	18	82	121	0.0%
Sanitary and social work	10	2	2	2	6	22	0.0%
Total	64,716	71,757	89,434	109,335	126,144	461,385	

Source: Wind Data

Calculation by THINK!DESK.

Regional variation is also particularly strong as documented in table 11. Data is only available on the location of enterprise headquarters. Depending on different business sectors, actual production is likely taking place in other locations across the country. As such, it does not surprise that Beijing and Shanghai host the largest number of firms. The large gap between average subsidy amounts obtained by enterprises in Beijing and less developed inland provinces is striking. Even the average for Shanghai-based firms just barely exceeds half the level found in Beijing. To a large extent, the difference can be explained by the fact that Beijing-based firms include many SOEs under the control of the central SASAC. As previous sections have shown, these companies enjoy preferred access to and obtain larger amounts of government funds.

Table 11: Regional Differences in Subsidisation in 2014 (in million RMB)

Province	Share of national subsidies	Number of recipients	Average subsidy amounts
Beijing	30%	232	161,420,598
Shanghai	13%	199	83,849,068
Guangdong	10%	384	34,415,040
Zhejiang	6%	283	24,479,172
Jiangsu	5%	266	21,555,596
Anhui	4%	84	52,773,095
Shandong	4%	145	32,221,508
Hebei	3%	50	63,345,752
Hubei	3%	79	44,094,976
Sichuan	2%	95	20,209,498
Tianjin	2%	40	74,890,340
Xinjiang	2%	41	46,884,950
Jiangxi	2%	34	55,749,018
Henan	2%	68	34,646,245
Hunan	2%	78	35,962,901
Fujian	2%	93	33,408,544
Liaoning	2%	67	35,216,500
Chongqing	2%	41	50,914,010
Jilin	1%	35	21,589,893
Inner Mongolia	1%	22	43,661,282
Yunnan	1%	27	24,894,598
Guangxi	1%	34	25,992,319
Hainan	1%	20	52,794,609
Guizhou	1%	20	45,398,745
Shaanxi	1%	42	20,051,720
Heilongjiang	1%	30	22,178,647
Ningxia	0.4%	10	45,137,117

Province	Share of national subsidies	Number of recipients	Average subsidy amounts
Shanxi	0.4%	32	15,803,674
Gansu	0.4%	24	18,624,504
Qinghai	0.3%	9	40,307,423
Tibet	0.1%	10	15,720,405
National Total		2,594	41,877,153

Comment: 31 companies have not been included in the table as their location could not be ascertained.

Source: Wind Data

Calculation by THINK!DESK.

2.2.2 Promotion of Domestic Technology Upgrading and High-tech Sectors

As the national economy is gradually losing its competitive advantages in labour intensive manufacturing and assembly trade, the Chinese government is determined to support domestic companies graduate into technology and knowledge intensive sectors. To this end, authorities have pursued an economic policy that places great emphasis on strengthening innovation and technology upgrading. As latecomers to many high tech sectors, Chinese companies find themselves at a disadvantage as their grasp of important technologies is lagging behind the more established players from the E.U., the U.S. and Japan. Consequently, the government is showing strong determination to help domestic companies catch up with the international competition in the race for technological development. Both the 11th and 12th FYP have announced strong incentives to boost innovative capacities. Similarly, the catalogues for adjusting the industrial structure have been amended in ways that concentrate selected high tech products and manufacturing processes in the encouraged category. Implementation measures released on all levels of government have introduced a wide spectrum of financial and non-financial support instruments.

The underlying strategy has a strong nationalistic component as the Chinese government is making every effort to anchor intellectual property (IP) inside the country. Following this approach, the entities owning and controlling critical IP should be localised in China. Related strategies have created a push for “indigenous innovation” which encourages Chinese players to invest more in own research and build up a portfolio of cutting edge technologies. For over ten years, FDI policies have been geared towards attracting advanced technology to China through forced partnerships with domestic counterparts, financial incentives and other means that facilitate technology spill-overs and outright transfers. At the same time, foreign companies have been invited to establish R&D centres in China and/or transfer their IP to China-based subsidiaries.

2.2.2.1 Policies Targeting Technology Upgrading

Hoping to jumpstart the country's nascent high-tech industry, the Chinese government has been active in supporting local Chinese businesses in their efforts to develop. One way the government does this is by giving generous financial support for upgrading industrial technology within Chinese businesses. This section outlines in what ways the Chinese government provides incentives for indigenous businesses to develop these technological innovations in a wide variety of areas related to scientific research, technology development, equipment upgrading, product portfolio, and quality improvement.

A brief review of industrial policy in this field illustrates the reasons behind such substantial transfers. It should be noted, however, that policy fields addressed in this report have some overlap. While THINK!DESK has refrained from double counting, it is not possible to determine to what extent a subsidy for improving energy efficiency, for instance, also serves the technology upgrading objective. The underlying plant upgrades certainly have a positive impact on key parameters, like production cost. In classifying subsidies by policy fields, THINK!DESK has relied on the descriptions provided in financial reports or other company documents these companies have made available. Considering the very large number of grant giving operations, it is impossible to independently verify the ultimate purpose of such funds for each project. Given the sometimes very detailed account of subsidy purposes, THINK!DESK is confident of the accuracy of the data provided within this report.

During the 1990s, the Chinese government realized that the country lagged significantly behind the developed world in the areas of science and technology. In order to get ahead, the Chinese government implemented significant measures in the 10th Five Year Plan (FYP) (2001-2005). This FYP represented a major policy push towards enhancing China's abilities in the field of science and technology. A lack of R&D activities and insufficient innovative capacities of companies was found to be a major obstacle for domestic companies in obtaining strong international competitiveness. Technological backwardness, high import dependence for technologies, and insufficient efforts to develop proprietary technologies were all regarded as major problems. A dearth of patent registrations and a lack of cooperation among top researchers, research institutes, universities, and companies compounded the crisis – which was particularly severe in the less developed central and western regions.

The Chinese leadership perceived other countries to be far ahead regarding investments in science and technology as well as being more successful in converting advanced research into competitive products. With the ultimate goal of creating a “*moderately well off society*” in mind, the State Council called for urgency and resolve to

“place the strengthening of indigenous innovative capability at the core of economic restructuring, growth model change, and national competitiveness enhancement. Building an innovation-oriented country is therefore a major strategic choice for China's future development” (NPC 2001).

As other developing countries have turned to generating innovative economies in order to advance technologically, China also hopes that prioritizing these policies will strengthen the Chinese economy's competitiveness in the global economy.

Emanating from the scientific advancement discourse of the 10th FYP, the State Council (2005) published the *National Medium- and Long-Term Science and Technology Development Plan* (MLP) (2006-2020) as a major guideline for remedying the endemic problems that inhibit Chinese businesses' technological development (MOST 2005b). This program reiterates the 10th FYP's stance on the need for promoting science and technology and warns that technology imports without sufficient assimilation, absorption, and re-innovation are bound to weaken China's domestic R&D capability in turn widening the gap between China and advanced international levels (at preface). In this sense, the program determines the following general objectives:

"noticeably enhance indigenous innovation capability and S&T [Science and Technology] level in promoting economic and social development and in maintaining national security, in an effort to provide powerful support for the building of a well-to-do society; noticeably improve comprehensive strength in basic research and frontier technology development; and attain a series of high world impact S&T achievements and join the ranks of innovative countries, thus paving the way for becoming a world S&T power by mid 21st century" (State Council 2005b at 2.2)

Pursuant to this plan, by 2020, Chinese companies in equipment manufacturing should have mastered critical technologies for raising international competitiveness. Also by 2020, gross expenditures on R&D should have reached at least 2.5 percent of GDP. Concurrently, the contribution of science and technology to the general economy should have climbed to 60 percent while import dependence in the technology sphere should have dropped to 30 percent or lower. Should China achieve these goals, towards the end of the planning period, China will be among the top five countries in the world in successful registration of invention patents (State Council 2005b at 2.2).

As this plan is rather ambitious, the government laid out an implementation plan within the MLP to ensure its success. The plan focuses its resources on eleven selected "priority areas" then, from within these areas chooses 68 "priority topics" that are each expected to see major technological breakthroughs. The program announces the initiation of major projects related to national development objectives that aim to accelerate development and fill holes in the domestic science and technology landscape. Furthermore, the MLP establishes a national innovation system as a framework for further policies and instruments (ibid at 2.3).

In additional efforts to promote the effective implementation of the *National Medium- and Long-Term Science and Technology Development Plan*, the MOST released a complementary *National Science and Technology Support Plan* in the same year. In a special circular,

the ministry provides an outline of tasks during the 11th FYP period (2006-2010). Importantly, the *Support Plan* does not specify any research focus of its own. Instead, it builds on the *Medium- and Long Term Development Plan* and provides more concrete information on priority tasks selected for the five year period until 2011. These tasks are categorized in eleven key areas: energy, resources, environment, agriculture, materials, industry, transportation, IT and modern services, population and health, urbanization and city development as well as public security and other social services (MOST 2005 at 4.1).

The government has announced its strong support for the adjustment of the industrial structure and improvement of industrial competitiveness. These measures demand the elimination of bottlenecks by encouraging technology research and commercial application as well as the renovation of traditional industries. Special emphasis is placed on breakthroughs in the fields of energy, natural resources, and environmental protection. The *Support Plan* treats proprietary intellectual property as a key factor and urges that the independent innovation capabilities of the corporate sector should improve substantially over the five year plan term. Enterprises should be guided to increase their R&D investment and become the main driver of national technology development efforts. The goal is to groom a number of internationally competitive companies that draw strength from independent innovation, proprietary intellectual property, and strong trademarks (at 2.2).

The MOST and the MOF jointly spelled out more concrete implementation measures in the *Provisional Measures for Managing the National Science and Technology Support Plan* (MOST and MOF 2006). This document establishes the operational framework and introduces the provisions for project application, verification, and supervision procedures. On an annual basis, budget plans are to be drawn up to indicate the amounts allocated. The two ministries explain that the plan is to be translated into several projects that are then broken down into several topics. See table 12.

Table 12: Total Disbursements of Subsidies for Enterprises Working on Priority Tasks from the *National Science and Technology Support Plan*

2010	2011	2012	2013	2014	Total
64,215,309	70,522,906	52,546,505	63,376,797	71,886,001	322,547,518

Source: Wind Data

In 2014, at least 52 enterprises have benefitted from government subsidies under this programme. The ten largest recipients are listed in the following table 13.

Table 13: Top 10 Recipients of Subsidies for Enterprises taking on Priority Tasks from the *National Science and Technology Support Plan* in 2014

Rank	Enterprise	Amount
1	Jiangxi Zhengbang Technology Co.,Ltd.	11,514,889
2	Time Publishing and Media Co., Ltd.	7,220,544
3	Pci-Suntek Technology Co., Ltd.	3,930,000
4	Hongbo Co.,Ltd.	3,864,486
5	Xi'An Tian He Defense Technology Co.,Ltd	3,718,715
6	Shandong Oriental Ocean Sci-Tech Co., Ltd	3,363,133
7	Beijing Chinese All Digital Publishing Co.,Ltd	2,856,667
8	Shandong Rike Chemical Co.,Ltd.	2,500,364
9	CITIC Heavy Industries Co., Ltd.	2,450,000
10	Shanghai DZH Limited	1,920,000
Total		43,338,798

Source: Wind Data

Chinese businesses needed another instrument from which to fund these programs since many of the aforementioned funding programs were set to expire. After the *Adjustment and Revitalization Programs* expired in 2011, all levels of the government rushed to increase their special funds for technology upgrading during the 12th FYP period (2011-2015). Through these various plans and funds, the Chinese government directly funds local technological development. National, state, and local governments all contribute to these funds and promote these plans. But, these plans also have spawned more indirect support of this technological development. In the following sections, tax privileges for qualified companies, and other instrumental schemes are explained.

The new national focus on technological advancement has encouraged government organizations on all levels to initiate policies aimed at spurring technological upgrading. In recent years, this field has been at the core of industrial policy with every regulatory or planning document issued stating or reiterating its importance. Since the security of supply for downstream users and the international competitiveness of Chinese businesses are deemed to be issues too important to be left to the market, the Chinese government has actively involved itself in encouraging, supporting, and even forcing companies to improve their capabilities, deepen their expertise, and focus on products with ever higher technological content. The rest of this section provides an overview of the instruments used to encourage technological advancement in the private sector.

2.2.2.1.1 State Key Technology Renovation Program

In 1999, the State Economic and Trade Commission initiated the State Key Technology Renovation Program for the purposes of

“implementing the decision of the CPC Central Committee and the State Council to support the technological renovation of key industries, key enterprises and key products by means of increasing the issuance of treasury bonds. [Its objective is] to promote technological advancement of the enterprises, upgrade product portfolios, improve product quality, promote import substitution, increase effective supply, increase domestic demand and safeguard the continuous, stable development of the national economy...” (SETC, SPC, MOF and PBoC 1999 at 1.1).

The *Administrative Measures for State Key Technology Renovation Projects* (SETC, SPC, MOF and PBoC 1999a) and *Administrative Measures for Treasury Bond Special Funds for State Key Technology Renovation Projects* (SETC, SPC, MOF and PBoC, 1999b) laid out the framework for this program. The former defines State Key Technology Renovation Projects as “*technology renovation projects that are organized and allocated by the state*” (at 1.2). While the latter defines “Special Treasury Bond Funds” as capital raised from treasury bonds issued by the central government – either in its own rights or on behalf of local governments (SETC, SPC, MOF and PBoC 1999b at 1.3).

According to the SETC, funds dispersed by the government should be allocated to companies that develop products that are marketable, profitable and competitive. Most importantly, these products should be able to replace imports. The selection of support targets should be based on quality, variety, and value in order to boost the prominence of key enterprises, key enterprises, and key products where the biggest effect can be expected. (SETC, SPC, MOF and PBoC 1999a at 1.3 and SETC, SPC, MOF and PBoC 1999b at 1.5).

The SETC chooses targets for support from 512 key enterprises, 120 experimental enterprise groups, industrial backbone enterprises, and large SOEs with competent leadership teams, sound management, and high credit ratings. The provisions give preference to companies located in Northeast China’s old industrial areas and in the central part of the country (SETC, SPC, MOF and PBoC 1999a at 1.4).

There are two forms of support that the SET Commission has announced: bank loans with subsidized interest rates and investment subsidies (at 1.7). Subsidized loans are to be handled by major commercial banks and the State Development Bank (SETC, SPC, MOF and PBoC 1999b at 2.6). Enterprises and banks are to establish business interactions on a voluntary basis with either side able to take the first step (SETC, SPC, MOF and PBoC 1999a at 1.5). For further details of loan interest subsidies, see SETC, SPC, MOF and PBoC 1999b (at 3.11).

Investment subsidies are calculated to match the total loan interest payable by a project or company over a two year period. For those located in the old industrial bases of Northeast or Central China, investment subsidies can be “appropriately raised” to cover interest payments for three years. In any case, financial support is capped at 15 percent of total investment (SETC, SPC, MOF and PBoC 1999b at 3.9).

From every administrative level, the government forms leading groups² to supervise the program, determine investment directions, coordinate between government departments and tackle operational issues (SETC, SPC, MOF and PBoC 1999a at 2.8). Even though it gives away some responsibilities, the State Council reserves for itself the final decision making authority thereby relieving itself of the duty while keeping the power. Including financial institutions and industry supervisory departments in the power structure also helps ensure compliance with industrial policy objectives.

State-owned-enterprises are also able to subsidize their research, but under different supervision. SOEs seeking funding support from this scheme must apply to the local departments in charge of economy and trade as well as development and planning who will then carry out verification and approval procedures. Financial support for companies affiliated with sub-central governments comes from capital raised on behalf of these authorities by the central government. According to Chinese law, local governments cannot issue bonds directly and thus need the cooperation of central authorities. However, support for local enterprises is completely financed by debt obligations of supervising local governments SETC, SPC, MOF and PBoC (1999a at 3.1).

The U.S. International Trade Administration determined in a series of countervailing duty investigations against Chinese product imports that the following industries have benefitted from the *State Key Technology Renovation Fund Programme* and follow up programmes, see table 14:

² Leading groups are to include representatives of the State Development and Planning Commission, the State Economic and Trade Commission, the Ministry of Finance, the Industrial and Commercial Bank of China, the China Construction Bank, the Bank of China, the State Development Bank, the Ministry of Information Industry, the China International Engineering Consulting Company and bureaus tasked with the supervision of individual industries of the various jurisdictions on levels of the administrative hierarchy (SETC, SPC, MOF and PBoC 1999a at 2.8).

Table 14: Industries Benefitting from the *State Key Technology Renovation Fund Programme* and Follow-up Programmes

Period under review	Industry (Subsidy rate)	Document
01.01.2006 - 31.12.2006	Coated Free Sheet (4.11)	Issues and Decision memorandum for the Final Determination in the Countervailing Duty Investigation of Coated Free Sheet from the People's Republic of China (U.S. ITA, 2007)
01.01.2006 - 31.12.2006	Raw Flexible Magnets (13.36 per-cent)	Issues and Decision Memorandum for Final Determination in the Countervailing Duty Investigation of Raw Flexible Magnets from the People's Republic of China (U.S. ITA, 2008)
01.01.2012 - 31.12.2012	Monosodium Glutamate (16.12 per-cent)	Decision Memorandum for the Preliminary Affirmative Countervailing Duty Determination in the Countervailing Duty Investigation of Monosodium Glutamate from the People's Republic of China; and Preliminary Affirmative Determination of Critical Circumstances (U.S. ITA, 2014a)
01.01.2012 - 31.12.2012	Non-oriented Electrical Steel (0.55 percent)	Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Non-oriented Electrical Steel from the People's Republic of China (U.S. ITA, 2014b)
01.01.2012 - 31.12.2012	Calcium Hypochlorite (0.55 percent)	Issues and Decision Memorandum for the Final Affirmative Determination in the Countervailing Duty Investigation of Calcium Hypochlorite from the People's Republic of China (U.S. ITA, 2014c)
01.01.2012 - 31.12.2012	Narrow Woven Ribbons with Woven Selvedge (0.55 percent)	Decision Memorandum for Final Results of Countervailing Duty Administrative Review: Narrow Woven Ribbons with Woven Selvedge from the People's Republic of China (U.S. ITA, 2014d)
01.01.2012 - 31.12.2012	Grain Oriented Electrical Steel (0.55 percent)	Issues and Decision Memorandum for the Final Affirmative Determination in the Countervailing Duty Investigation of Grain Oriented Electrical Steel from the People's Republic of China (U.S. ITA, 2014e)
01.01.2012 - 31.12.2012	Certain Magnesia Carbon	Issues and Decision memorandum for Certain Magnesia Carbon Bricks from the People's Republic of China: Final

Period under review	Industry (Subsidy rate)	Document
	Bricks (0.55 percent)	Results of the 2012 Administrative Review (U.S. ITA, 2014f)
01.01.2013 - 31.12.2013	Certain Passenger Vehicle and Light Truck Tires (0.55 percent)	Decision Memorandum for the Preliminary Affirmative Countervailing Duty Determination in the Countervailing Duty Investigation of Certain Passenger Vehicle and Light Truck Tires from the People's Republic of China (U.S. ITA, 2014g)

Compilation by THINK!DESK.

In 2004, the Chinese government discontinued and abolished the *State Key Technology Renovation Fund Programme*, but its effects can be clearly felt even at present as major modernization projects were carried out that will continue to benefit their owners for years to come. Even without this programme, other programmes more or less identical to the *State Key Technology Development Fund* continue to exist.³

The *Provisional Measures for the Management of Projects Receiving Investment Support and Loan Interest Subsidies from Funds Included in the Central Government Budget*, issued by the NDRC (2005b), indicated that support schemes should be closely aligned with the *State Key Technology Renovation Fund Programme*. This document introduces regulation for standardizing the administration and raising the efficiency of projects supported with central budget funds (at 1.1). To be sure, the authors define “investment support” as special funds granted to qualifying projects of enterprises and local governments by the NDRC. Furthermore, it specifies that “loan interest subsidies” are subsidies granted to qualifying projects that use medium to long term bank loans to compensate for interest payments. Article 2 states that the provisions are applicable to all projects benefiting from investment subsidies and loan interest subsidies – including longer term construction investment financed by treasury bonds.

³ The very term “State Key Technology Renovation Project” reappeared in the *Programme for Industrial Transformation and Upgrading (2011-2015)* (State Council 2011). The document calls for the improvement of the structure of industrial investments and the establishment of a database containing such projects. This is to be complemented by a guidance catalogue compiled on an annual basis in order to highlight priority areas and direct investments accordingly. Referencing to state support, the Plan urges “to optimize and implement policies supporting enterprises’ technology renovation projects in the area of public finance, financing, land use” (at 3.2). Furthermore, authorities should “support a group of key industries, key areas and large technology renovation projects ... to gradually raise the proportion of technology renovation investment in total industrial investment” (ibid.). However, no mention is made about particular lending schemes or the use of treasury bonds to finance them.

Companies that do participate in these “investment support” programs under the *Provisional Measures* document stand to lose nothing. The document explicitly states that both support instruments are offered without the necessity of repayment (i.e. they are subsidies) (at 3). Under normal circumstances, the maximum subsidy per project is given as 200 million RMB. Higher amounts may also be granted following additional verification and approval procedures (at 7).

Even though the government wants to encourage growth, not all companies that apply for such funding are accepted. Eligibility criteria specify that recipients of investment and loan interest subsidies should mainly be projects that remedy market failures. These occur where the allocation of resources by the market mechanism is inefficient or undesirable and the state has to intervene in order to protect economic and social benefits (at 5). While this certainly captures many investment projects launched by local governments, the policy does not rule out support for commercial operations, as the list of eligibility criteria includes “investment projects for protecting and optimizing the ecological environment, investment projects for promoting economic and social development in less developed regions, investment projects promoting progress in science and technology and the commercialization of high technologies and other projects meeting relevant requirements set forth by the state” (at 4.2-5).⁴

In 2005, the Ministry of Finance released special provisions⁵ to clarify the administrative framework for handling the provision of subsidies (MOF 2005a) and loan interest subsidies (MOF 2005b) from special funds contained in the central government budget. The Ministry seeks to “strengthen the budgetary administration and enhance the effectiveness of subsidy funds for fixed asset investment provided from the central budget” (MOF 2005a at 1.1). It determines that support funds in both forms should be used for projects that

- improve environmental conditions
- promote economic and social conditions in less developed regions
- promote the progress of science and technology as well as the commercialization of high and new technologies
- Other projects conforming to national policies.

Subsidies are not supposed to exceed half of the total investment volume of the project. Importantly, the Ministry stipulates that the investment subsidy funds must be matched with

⁴ In 2013, the NDRC updated the document. The amended version introduces changes to project approval and supervision procedures but does not alter the content discussed in the previous paragraphs. However, the NDRC (2013b) dropped the term “provisional” from the title, indicating that the *Measures the Management of Projects Receiving Investment Support and Loan Interest Subsidies from Funds Included in the Central Government Budget* would continue to be effective.

⁵ The *Provisional Measures for the Fiscal and Financial Administration of Subsidy Funds for Fixed Asset Investments from the Central Budget* (MOF 2005a) and the *Provisional Measures for the Fiscal and Financial Administration of Loan Interest Subsidy Funds for Fixed Asset Investments from the Central Budget* (2005b).

subsidies provided by local authorities, bank loans and other funds (MOF 2005a at 11). Businesses, obtaining these funds must treat them as capital reserves. Alternatively, enterprises may choose to conduct a capital increase and share expansion so the investment subsidies may be converted into state ownership stakes (at 14.2).

The *Interim Administrative Measures for Revitalizing Key Industries and Technology Renovation Project Investment*, issued by the NDRC in 2009, expand on the 2005 *Provisional Measures* and introduce a subsidy program similar in nature to the State Key Technology Development Project Fund. The NDRC states that the purpose of this program is

“to implement the policy measures issued by CPC Central Committee and the state council for expanding domestic demand and promoting economic growth ... make full use of special funds for key industry revitalization and technology renovation projects, raise the efficiency of fund use, standardize the management of technology renovation investment projects” (NDRC 2009a at 1).

The document defines special funds for key industry revitalization and technology renovation projects as additional investment from the central government budget to support revitalization and technology renovation projects in key industries by means of loan interest subsidies and support grants (NDRC 2009a at 2). Loan interest subsidies are to be made available to qualified enterprises that use medium and long term bank loans to finance their projects. In the case of the older program, the NDRC's new scheme provides loan interest subsidies according to a company's actual interest payments over a two year period. The maximum amount for loan interest subsidies is stated as 200 million RMB per project (at 3).

Only a few manufacturing industries are eligible. Furthermore, the conformity of supported projects with industrial policy (as specified in the various Adjustment and Revitalization Programmes released in 2009) needs to be documented. Furthermore, enterprises seeking approval have to demonstrate reasonable scale economies, a modern enterprise system, reputable creditor standing and compliance with all relevant laws and regulations (at 4).

The *State Key Technology Development Fund Programme* has been followed up by a series of similar policies. A striking continuity can be found regarding investment subsidies and loan interest subsidies provided by the state to priority projects. While regulation introducing the *State Key Technology Renovation Fund* has been very clear on the terms and conditions, more recent schemes are much vaguer. As less information is made available publicly about statutes and operations, newer schemes are better protected from being discovered by anti-subsidy investigations. Using similar tactics as this *Programme*, the *State Treasury Bond Programme for Enterprise Technological Progress and Industrial Upgrading* (NDRC and MOF 2003) has provided subsidies.

Since the passing of the *State Key Technology Renovation Programme* in 1999, the Chinese government has blatantly subsidized technological research within industries that politicians deem vital to advancing the economy. None of these subsidies are available to for-

foreign companies or even to Chinese industries not regarded as “key.” Through clever maneuvering, these subsidies are also not conspicuously advertised. A lack of publicly-accessible information and a historically opaque government structure have made these subsidies difficult to investigate for impartiality.

2.2.2.1.2 Local Technology Funds

As part of the national effort to support local businesses develop new technologies, local governments have begun to include special funds in government budgets, allocated specifically to support the technological advancement of local companies. One such example is the *Fund for the Transformation of Industrial Enterprises and Technology Upgrading*. This fund was established according to *Several Opinions of the People’s Government of Huzhou City Concerning the Further Promotion of Industrial Transformation and Upgrading*. Access to the fund, which is jointly administered by the Department of Finance and the Department of Economy and Information, is limited to local high and new technology companies in a wide range of industries. Priority support is provided for the development of strategic emerging industries, specifically in promoting the installation of complete set and core components of manufacturing equipment. Production equipment investments between 20 million RMB and 100 million RMB may claim a grant worth 4 percent (up to 2 million RMB) of the cost of the investment. Larger investments in production equipment are awarded as much as 3 million RMB (Huzhou City 2010 at 2.2).

The regulations regarding the disbursement of funds comprise a few other support schemes (below only the monetary components are listed).

- Increasing support for major special industries: grants up to 1 million RMB
- Support the development of other highly advanced industries: grants up to 2 million RMB
- Guiding enterprises to conserve land: up to 3 million RMB
- Cultivate large enterprises and large business group: grants up to 2 million RMB
- Support for industries that are key sources of tax revenues: grants up to 5 million RMB
- Support the accelerated development of industrial leading enterprises: monetary component unspecified
- Encourage increasing reinvestments: monetary component unspecified
- Attract the establishment of company headquarters: monetary component unspecified
- Strengthen the formation of entrepreneurs: monetary component unspecified
- Support enterprises to accelerate technology innovation: monetary component unspecified

- Encourage enterprises to strengthen brand building: monetary component unspecified

At the provincial level in Zhejiang, the government supports an *Innovative Experimental Enterprise Scheme* for cultivating innovative companies. The scheme which was initiated by the *Implementation Plan of Zhejiang Province for Establishing Innovative Enterprises* in 2007 is jointly administered by the Province's Departments in charge of Science and Technology, Finance, SASAC, Quality and Technology Supervision as well as the Party Committee for Economy and Trade, its Finance Work Leading Small Group, and the General Trade Union (ACTFU) of Zhejiang Province. Its stated aim is to "*further guide and encourage enterprises to reinforce their technology development efforts and further implement tax benefits related to expenses on technology development*" (Zhejiang Province 2007 at 5.1). Companies can deduct technology development costs at 150 percent of face value. Scientific instruments and equipment used in R&D of a unit value less than 300,000 RMB can be included in administrative expenses. For items worth more than that, companies can utilize shortened depreciation periods or accelerated depreciation (at 5.1).

This scheme pledges increased support for the construction and development of innovative experimental enterprises' R&D centres, laboratories, and experimental bases within the province. With this extra support and encouragement, the government hopes that qualified enterprises will be able to more quickly produce high-tech products and put them on the market. . In addition, key laboratories of universities and scientific research institutes are expected to cooperate with the private research centres in order to further promote technological advancement within the province (at 5.2).

Financial support through the banking system is another important facet of the scheme. The government explicitly hopes to

"encourage and guide financial institutions to increase credit support for enterprises with indigenous innovation. Relevant departments should actively widen finance channels for enterprises with indigenous innovation. Encourage guarantors to increase their support for the activities of enterprises with indigenous innovation. Institutions providing loan guarantees exceeding 70 percent of enterprises with indigenous innovation and private science and technology enterprises' total outstanding loans may enjoy the same preferential policies as those enterprises. Encourage insurance companies to develop special insurance products for the field of cutting edge science and technology & research and development. ... Support the creation of enterprise-oriented investment risk companies or funds that will then benefit from special tax breaks, such as tax exemptions or reductions for investment returns and special deduction opportunities according to their investment ratio... When providing credit support, financial institutions should prioritize the innovation projects of Innovative Experimental Enterprises. Government departments in charge of stock market listings should focus on cultivating and supporting Innovating and Experimental Enterprises in

raising finance from domestic and international securities markets” (Zhejiang Province 2007 at 5.4).

In 2007 and 2008, the provincial government selected a total of 150 enterprises for targeted support.

2.2.2.1.3 *Preferential Measures to Award Trademark and Patent Filings*

All across China, governmental bodies have instituted special financial provisions to encourage the establishment of proprietary patents and well recognized trademarks. Regulation follows the spirit of the 12th FYP in calling for stronger emphasis on developing proprietary intellectual property as a basis for future competitiveness. In its *Outline of the Intellectual Property Strategy of Jiangsu Province* from 2009, Jiangsu Province plans to raise the number of all patents by 15 percent and increase the number of invention patents by 20 percent. In comparison, the number of trademark and patent registrations in foreign countries should rise at an even faster pace of 30 percent per year (Jiangsu Province 2009a at 2.2). The province has set aside financial resources to support breakthrough technologies that are a result of indigenous innovation (at 3.2). In order to allow for better guidance, Jiangsu has also compiled a catalogue containing products and technologies on which research activities should focus (at 3.1).

As one tactic in the *Intellectual Property Strategy*, Jiangsu Province has put a focus on boosting local invention patents for cutting edge technologies that, when applied to business operations, can have a strong impact on boosting competitiveness on an international scale. Much attention is attributed to developing the province’s export business. This plan aspires to attract 60 famous export brands that could benefit from focused support from the Ministry of Commerce, hoping to eventually expand this number to 180 brands. (Jiangsu Province 2009a at 2.2). The province pledged to increase assistance for product exports sold under the companies’ own trademarks and to focus support on enterprises that use their trademarks to carry out overseas investments and strive for international operations in the R&D, production, sales, and services (at 3.2). The province has launched a wide array of related support policies – many of which confer monetary benefits. It provides special support funds from the government budget and offers preferential tax policies among other measures (at 4).

Zhejiang Province (2001) has issued similar regulations that are less concrete when it comes to promotion targets and less comprehensive with regard to support instruments. The province has also established a special fund, dedicated to disbursing financial rewards to enterprises that can claim patents as a result of independent research. Companies receive monetary rewards for every invention patent they register – with patents granted in other countries fetching ten times the regular sum (at 2.7). At the city level Huzhou and other municipalities have issued their own support policies in addition to the provincial ones.

The Science and Technology Bureau of Wuxing District of Huzhou City is the responsible authority.

Tianjin Municipality and Shandong Province have issued similar policies for offering financial rewards by means of transfers, tax breaks, and other instruments. For Shandong Province the *Interim Measures for the Administration of Special Funds for Developing Patents* (2009) apply while Tianjin City (2012) has introduced similar financial incentives to support patents registrations.

Chinese listed companies have made ample use of grant programmes connected to patent registrations. Judging from the financial data filed with the China Securities Regulatory Commission by listed firms, patent subsidies have been a boon for many companies. The following table 15 provides key information about these transfers.

Table 15: Total Disbursements of Patent Related Subsidies

2010	2011	2012	2013	2014	Total
112,935,220	160,379,490	247,041,738	367,782,970	200,803,529	1,088,942,947

Source: Wind Data

A total of 816 enterprises obtained subsidies related to patents in 2014. The ten largest recipients are listed in the following table 16.

Table 16: Top 10 Recipients of Patent Related Subsidies in 2014

Rank	Enterprise	Amount
1	Jiangxi Zhengbang Technology Co.,Ltd.	11,514,889
2	Huadian Heavy Industries Co., Ltd.	10,289,395
3	Shanghai CIMIC Holdings Co., Ltd.	10,275,300
4	Ocean'S King Lighting Science & Technology Co., Ltd.	6,043,000
5	Tasly Pharmaceutical Group Co., Ltd.	5,359,890
6	Shandong Wohua Pharmaceutical Co., Ltd.	4,597,909
7	Tsinghua Tongfang Co.,Ltd	4,469,440
8	Sichuan Yahua Industrial Group Co.,Ltd.	3,804,820
9	Sichuan Chemical Company Limited	3,600,000
10	Ningbo Gaofa Automotive Control System Co.,Ltd.	2,402,485
Total		62,357,128

Source: Wind Data

2.2.2.1.4 “Three Categories” Programme

Direct financial support of the costs involved in research and development can be partially financed by the central government’s Ministry of Finance. Before and after China’s ascension to the WTO, Chinese businesses have benefited from two specific programmes funded by the ministry. For Chinese companies, this ministry provides such benefits as funding research expenses and even travel expenses for employees. These benefits clearly provide unfair advantages to Chinese businesses for developing technologically.

As early as 1996, the Ministry of Finance issued the *Interim Measures for the Administration of Three Categories of Scientific and Technological Expenses*. The “three categories” mentioned are expenditures for trial manufacture of new products, related experimentation, and subsidies for key scientific research projects. The scheme is co-financed by central and local government budgets and aims to allocate public funds to entities carrying out science and technology work. These entities include universities, research institutes and SOEs. Allocations were planned as part of annual budgets administered by both central and local governments (MOF 1996).

In addition to the “three categories” program, similar programs administered by provincial and municipal governments have initiated their own programs to support Chinese businesses. Thanks to these schemes, SOEs – more than other enterprises – were able to absorb substantial amounts of government funds as compensation for a wide spectrum of research expenses spanning from equipment purchases to travel expenses. The “three categories” program was discontinued in 2006, five years after China’s WTO accession.

In order to replace the soon to be discontinued “three categories” program, the Ministry of Finance and the Ministry of Science and Technology jointly launched a replacement in January 2004: the *Interim Measures for the Administration of Applied Technology Research and Development Funds*. The program is jointly managed by the two central ministries and financed by the central government budget. It aims to support innovation and development in scientific and technological fields and strengthen the connection with the economic sphere. The six main components of fund are:

- (1) Spark program: Supports the commercialization of agricultural technology through application projects; promotes technology innovation at township and village enterprises; assists in the establishment of platforms for technology dissemination, services and training in towns and villages; seeks to create a favourable environment for technology innovation and commercialization of research results.
- (2) Torch program: Support for hi-tech commercialization projects; development of incubators for technology enterprises; establishment of service platforms for hi-tech commercialization
- (3) Engineering technology research centre program: Strengthens the intermediaries involved in the transformation of research results; supports the translation of cutting

edge research results into concrete projects; disseminates information on successful technology application; raises industrial technology levels; promote the rise of emerging industries and upgrading of traditional ones

- (4) Program for the dissemination of key research results: Supports dissemination applications and policies for research results in major common-use technologies and technologies improving public welfare. Establishes service systems for promotion and conversion of research results
- (5) Program for key new products: Support innovative products with high technology content; plays a significant role in the technological progress of industries; performs R&D on new products with own intellectual property rights.
- (6) Action program for expanding trade through science and technology: Seeks to raise international competitiveness, develops demonstration projects for improving export composition based on proprietary hi-technology contents; establishes a platform for the internationalization of technology-oriented enterprises (at 1.2.2).

This new program mimics the old *Three Categories of S&T Expenses Scheme* that came before it by offering two separate means of support: companies may seek refunds on their expenditures related to eligible projects or they may apply for subsidization of their activities (at 3.11). Different from its predecessor, the current program is open to enterprises of all ownership types that possess a strong capability for independent R&D and favourable conditions for carrying out cutting edge research (at 2.4). Similar to the previous *Three Categories of S&T Expenses Scheme*, supported companies can seek refunds for a wide variety of project-related expenses, including those for personnel, equipment, energy, and general administration (at 3.9).

In 2011, the government of Baoshan District has instituted the *Special Fund for Innovation in Science and Technology* in order to further the objectives laid out in the *National Medium- and Long-Term Science and Technology Development Plan (2006-2020)* introduced earlier in this study. Information gathered by the U.S. ITA (2014e) in its countervailing duty investigation against Chinese imports of grain-oriented electrical steel proves that the fund supports projects that involve technology research and the industrial application of its results. It emphasizes the close coordination between organizations involved in research and production activities in the development of technology-intensive industries and the creation of a local innovation system. The fund was scheduled to operate for a period of two years with an announced spending volume of 31 million RMB annually.

With this large collection of resources, the *Special Fund* provide grants and loan interest subsidies to supported companies. These have to prove eligibility by demonstrating adherence to industrial policies, owning proprietary intellectual property, and pursuing advanced, innovative approaches to developing technology with high practical relevance. The government distinguishes between regular and key projects, which may obtain grants worth up to 300,000 RMB and 500,000 RMB respectively. In the case of loan interest subsidies, the fund substantially reduces the financing costs of support companies – making it possible to obtain funding at rates as low as 50 percent of the national benchmark.

In 2014, at least 36 listed enterprises have benefitted from government subsidies under this programme. Key figures are presented in the following two tables 17 and 18.

Table 17: Total Disbursements of Subsidies under the *Three Categories Programme*

2010	2011	2012	2013	2014	Total
632,397,949	1,142,283,227	522,916,987	312,438,774	138,202,962	2,748,239,899

Source: Wind Data

Table 18: Top 10 Recipients of Subsidies under the *Three Categories Programme* in 2014

Rank	Enterprise	Amount
1	Sanan Optoelectronics Co.,Ltd.	51,291,900
2	GRG Banking Equipment Co., Ltd.	31,130,792
3	Harbin Gloria Pharmaceuticals Co., Ltd.	12,818,100
4	Shengyi Technology Co.,Ltd.	10,536,935
5	Xiamen Xindeco Ltd.	8,145,985
6	Zijin Mining Group Company Limited	6,945,023
7	Lens Technology Co., Ltd.	3,267,000
8	Sunflower Pharmaceutical Group Co.,Ltd	3,110,900
9	CPT Technology (Group) Co., Ltd.	2,915,132
10	Harbin Gong Da High-Tech Enterprise Development Co.,Ltd	1,655,396
Total		131,817,163

Source: Wind Data

2.2.2.1.5 Subsidization of Financing Costs

Many areas disperse funds to mitigate even financing costs. Zhejiang Province has launched a series of policies to reduce operating expenses and financing costs for enterprises engaged in the development and industrial application of advanced new technologies. In 2008, the Department of Finance of Zhejiang issued the *Interim Measures for the Administration of Provincial Level Grants and Loan Interest Subsidies for Completed Science and Technology Development and Commercialization Projects*. As the title suggests, the docu-

ment serves to outline ways and means employed by the Finance Department to ease the burden of financing costs after project completion.

As part of these measures, in 2010, the Departments of Finance and Science and Technology issued the *Interim Measures for the Administration of Expenses of Provincial Level Science and Technology Development and Commercialization Projects* (Zhejiang Province 2010). The *Interim Measures* provide an extensive portfolio of support measures, including provisions that help companies lower their financing costs through loan interest subsidies after supported projects have been complete (at 3).

In addition to the system of R&D grants run by the provincial government, municipalities and districts also offer support for R&D work. Wuxing District of Huzhou Municipality operates its own R&D assistance grant fund. The programme was launched in late 2005 and is managed by the District's Science and Technology Bureau. The latter selects eligible companies based on a vague set of criteria relating to innovative capabilities and technology development intending to cultivate high technology and pillar industries. These chosen companies then benefit from government grants for product and technology development, energy conservation, quality improvements, and export structure optimization.

2.2.2.1.6 *Enterprise Income Tax Rebates for the Purchase of Domestic Equipment*

In 1999, the Chinese government issued provisions allowing companies (including those with foreign capital participation) to benefit from special income tax credits based on the purchase of domestic production equipment (MOF 1999; MOF and SAT 2000). This measure conferred an unfair competitive advantage upon China's own equipment manufacturing and introduces tax incentives for industrial enterprises to upgrade their plant equipment. The program, which is administered by local tax offices, allows companies to directly deduct 40 percent of their expenses for domestic equipment from the increment of income tax of the year of the purchase compared to the previous year (MOF 1999 at 2). Should procurements costs exceed this increment, companies may carry on the remainder and realize further deductions for up to five years after the transaction (at 5). This benefit is preconditioned on the investment project conforming to relevant industrial policies (at 2).

The government enforces some stipulations in order to utilize these special tax rebates. To be eligible, such upgrades must aim to raise efficiency, raise product quality, increase variety of the product portfolio, upgrade products, expand exports, reduce costs, save energy, improve work safety, and promote the comprehensive utilization of resources. These upgrades must also help safely dispose of waste gas, waste water, and industrial residues (MOF 1999 at 6). It is notable that increasing exports is explicitly mentioned as viable reason for the tax benefits. At the same time, the underlying technology renovation project must involve advanced equipment, embodying new technologies, techniques, and materials.

All this implies a meaningful improvement of existing equipment and production techniques must be done (at 6). Remarkably, the granting of tax incentive under this program does not affect companies' ability to depreciate equipment at its full investment costs (at 9). While the scheme was not contained in the new enterprise income tax law which entered into force on January 1st, 2008, it was formally abolished by administrative order 62 of the Ministry of Finance in 2011. However, several provinces and municipalities, such as Huzhou City, have introduced special provisions making it possible for local companies to use this program after the new enterprise income tax came in to force on January 1, 2008.

2.2.2.2 *The High and New Technology Enterprise Programme*

Support for *High and New Technology Enterprises* (HNTE) is a case in point. Companies pioneering advanced technology research receive favourable tax conditions under the government's high-tech promotion initiatives.

The HNTE initiative has its roots in support for knowledge and technology intensive companies located in High and New Development Zones across the country. In 1991, the former Science and Technology Development Commission drafted the first regulations in this regard (STDC 1991). Five years later, the initiative was expanded to cover enterprises outside these zones as well (MOST 1996). Government departments on the provincial level are tasked with reviewing companies' applications and administering preferential tax policies. In order to be awarded HNTE status, enterprises had to engage in one of ten specified fields of technology research, including microelectronics and IT, aviation and aerospace, life science and biotech as well as seven others. Importantly, companies have to conduct their own research, possess proprietary technology and engage in the commercialisation of their own IP (STDC 1991 at 4; MOST 1996 at 4).

Furthermore, companies inside zones had to demonstrate that R&D related expenses accounted for 3 percent of gross revenues (4 percent for others). At least half of the latter has to be generated by marketing proprietary technology itself, through licensing, and sales of products which incorporate said technology (70 percent for other companies) (STDC 1991 at 5.7; MOST 1996 at 5.7). Furthermore, companies had to demonstrate that no less than 30 percent of their work force had college or university degrees (20 percent for service sector companies). 10 percent of the employees had to be directly occupied with R&D tasks (STDC 1991 at 5.4; MOST 1996 at 5.4). Benchmarks facing companies located outside of High and New Technology Zones were more demanding and comprehensive. However, requirements for "Zone companies" were raised in 2000 to further sharpen the focus on innovation and R&D (MOST 2000).

In mid 2008, shortly after the new EITL went into force, the current form of HNTE regulation took shape (MOST, MOF and SAT 2008). It draws heavily on previous provisions but puts away with location specific differences and strengthened regulation for research related

service providers. It introduced a list of 213 favoured technologies, subsumed under eight *National Supported Key High and New Technology Fields*, to replace the broadly outlined ten technology fields of earlier documents. The list is characterised by a high degree of detail and specificity with regard to preferred research areas.

Following the 2008 reform, the MOST is joined by the MOF and the SAT in administering the HNTE scheme. This move greatly strengthened the implementation of HNTE programmes as the SAT is tasked with handling tax breaks and the MOF is overseeing the disbursement of subsidies. Together, the three government bodies form a leading small group with an office based at the MOST (MOST, MOF and SAT 2008 at 2.6).

Against this background, the 2008 *Enterprise Income Tax Law (EITL)* grants HNTEs a reduced corporate income tax of 15 percent (instead of the regular 25 percent). Accreditation and supervisory work is handled by the State Administration of Taxation on the local government level (NPC 2007b).

According to the *Circular Concerning the Provision of Transitional Preferential Tax Treatments to High-tech Enterprises Newly Set up in Special Economic Zones and in Pudong District of Shanghai* (State Council 2007a), enterprises in the stated location and recognised as engaging in high-tech business operations can benefit from special tax breaks since January 1st, 2006. Corporate income tax was waived for the first two years a company made profits. For the following three years of profitable operation, profit was taxed at half the regular rate. Based on the *Circular of the State Administration of Taxation on the Issues Concerning Implementation of the Preferential Income Tax for Hi-Tech Enterprises* (MOF, GAC and SAT 2009), companies recognised as high and new technology enterprises before the new EITL entered into force on January 1st, 2008, could continue to benefit from the original terms.

Almost every company reviewed for this report was found to have at least one subsidiary that has been recognised as HNTE and can benefit from the reduced tax rate of 15 percent. The significance of this scheme, however, is not limited from favourable taxation provision. Instead, it has been found that the HNTE certification also serves a signalling function for other government administered support programmes. Put differently, HNTEs are earmarked for further support and may use their status as entrance ticket to a wide range of subsidy schemes and non-financial preferences. While neither the new EITL nor supplementary regulation provides detailed outlines of the nature of such benefits, THINK!DESK research has discovered several relevant instruments. Some companies have been found to have received so called “HNTE grants” as late as 2014. Unfortunately, financial statements do not provide further information on the government unit disbursing the payment or its ultimate purpose. The following table 19 contains a list of companies that have benefitted from said subsidies.

Thanks to their special status, HNTEs have obtained significant subsidies from (mostly local) government authorities. The following table presents key figures on HNTE subsidies.

Table 19: Total Disbursements of High and New Technology Enterprise Subsidies

2010	2011	2012	2013	2014	Total
121,797,224	124,807,550	96,310,759	99,615,154	56,609,121	499,139,808

Source: Wind Data

In 2014, at least 90 companies have obtained subsidies in recognition of their status as HNTes. The ten largest recipients are listed in the following table 20.

Table 20: Top 10 Recipients of High and New Technology Enterprise Subsidies in 2014

Rank	Enterprise	Amount
1	Loncin Motor Co., Ltd.	4,412,600
2	Ningbo Shanshan Co., Ltd.	4,382,381
3	AISINO CORPORATION	4,033,000
4	Songz Automobile Air Conditioning Co., Ltd.	3,889,500
5	Zhejiang Yankon Group Co., Ltd.	3,312,400
6	Xiamen Savings Environmental Co., Ltd	2,528,300
7	Hubei Dinglong Chemical Co., Ltd.	2,171,222
8	Shanghai Ganglian E-Commerce Holdings Co., Ltd.	2,020,000
9	Xiamen Academy of Building Research Group Co., Ltd.	1,855,008
10	Tongling Jingda Special Magnet Wire Co., Ltd.	1,842,498
Total		30,446,909

Source: Wind Data

2.2.2.3 Preferential lending scheme

In 2006, the CBRC has issued the *Guiding Opinions for Commercial Banks to Improve and Strengthen Financial Services to High and New Technology Enterprises*. Directed at all bank under the Commissions supervision, the document urges preferential treatment for HNTes in terms of service quality and credit support. An even higher level of support in line with sectoral industrial policies and investment policies is to be reserved for HTNEs that

Shortly after the *National Medium- and Long-Term Science and Technology Development Plan (2006-2020)* was released, the China Banking Regulatory Commission (CBRC) issued a circular to

“create a financial environment [suitable] for supporting and encouraging independent innovations, lead commercial banks to improve and strengthen the provision of financial services to high and new technology enterprises (HNTE)” (CBRC 2006 at preamble).

Banks were ordered to improve their understanding of the financial service requirements of such enterprises and adjust their work procedures accordingly. The CBRC clearly demands that commercial banks “actively provide credit support according to national industrial and investment policies” (at 4). The main beneficiaries were identified as follows:

- (1) Companies undertaking development work for key areas and priority tasks, major special projects and cutting edge technologies outlined in the MLP.
- (2) Companies engaged in high technology projects initiated at the national or provincial level upon approval of the State Council. Such enterprises should also have proprietary intellectual property, R&D results of great industrialisation potential in newly emerging high tech industries
- (3) Companies in high-tech content, high value-added or high-growth industries in the areas of electronics and information (especially software and integrate circuits), modern agriculture (especially projects of industrialisation of agricultural science and technology as well as technological extension projects of agricultural scientific research institutes), biological engineering, new medicines, new materials and the application thereof, advanced manufacturing, aviation, spaceflight, new energy, high efficiency, energy conservation, environmental protection, marine engineering, nuclear application technologies, etc.;
- (4) Companies whose products and technologies are at domestically leading level, who have good domestic and foreign market foreground, strong market competitive strength, optimistic economic and social benefits, as well as good credit standing; and
- (5) small scientific and technological enterprises which conform to the industrial policies of the state, have high technological content, strong creativity, grow well, and face promising industrial development prospects, especially the small scientific and technological enterprises which engage in R&D or application of new technologies or new techniques inside national hi-tech industry development zones, or outside of such zones if they have been recognised by the science and technology departments at or above the provincial level (at 4).

Furthermore, an HNTE must operate in accordance with laws, regulations, industrial policies, state planning in key industries and the MLP. Its general property rights structure must be clear and control of its IP must not be subject to disputes (at 5).

Commercial banks are specifically ordered to

“make necessary market subdivision of HNTEs and take into account the unique characteristics of enterprises in different industries and at different development stages. Bank should ... develop financial products and work procedures in order to meet the demands of HNTEs. Special services should be provided with regards to credit granting, fund settlement, foreign exchange settlement and sale, issue of bank cards, cash management, financial consulting etc.” (at 6).

Importantly, lenders are called upon to prioritise the provision of loans supporting business operations and exports products containing independent innovation. HNTEs which export such goods and have favourable credit ratings should be offered credit limits. Based on these limits, banks are to provide certain financial services in light of the requirements on credit and settlement management (at 7).

In general, commercial banks should model credit durations and repayment modalities in accordance with the individual demand profile and cash flow characteristics of HNTEs. They should exercise flexibility with regards to repayment options, offering repayment of fixed amounts by instalments, repayment of interest along with the principal and provide grace periods within which only interest has to be repaid (at 8).

In terms of credit guarantees lenders are to develop various customised service offerings for HNTEs, like pledges for export-contingent tax refunds, stocks, stock rights, insurance policies, bonds and warehouse certificates. The use of IP as collateral is also permissible.

Important, information exchanges between government agencies and financial institution is to be intensified. This should make it possible for banks to

“actively provide credit support to the enterprises which are supported by the government’s loan interest subsidy programmes, technology innovation funds for small science and technology enterprises, or guarantees by special government-invested guarantee institutions” (at 11).

In all, commercial lenders have to develop a strong understanding of the specific drivers of industry development and technology lifecycles for individual clients. This should banks in a position to adjust their loan business to in light of the maturity of a HNTE’s technologies. In this way, banks are supposed to cater to the shifting demand patters of its clients, as the latter evolve from technology development to commercialisation and mass marketisation stages (at 12). The task of banks is greatly complicated as they are told to develop the capability to appraise the IP of new technologies which in turn requires accurate forecasts on future developments of market and policy trends (at 14). In order to facilitate credit support for HNTEs, commercial banks were urged to improve risk pricing mechanisms so they may independently set the loan interest rates (at 15). Following the disbursement of loans, banks need to closely monitor the technology development process with a view on their client and the relevant market. This allows for timely adjustments of credit terms in order to limit risk exposure (at 17).

2.2.2.4 Local Government Funds Promoting New Technology Related Research

As part of the national effort to support local businesses develop new technologies, local governments have begun to include special funds in government budgets, allocated specifically to support the technological advancement of local companies. One such example is the *Fund for the Transformation of Industrial Enterprises and Technology Upgrading*. This fund was established according to *Several Opinions of the People's Government of Huzhou City concerning the Further Promotion of Industrial Transformation and Upgrading*. Access to the fund, which is jointly administered by the Department of Finance and the Department of Economy and Information, is limited to local high and new technology companies in a wide range of industries. Priority support is provided for the development of strategic emerging industries (SEI)⁶, specifically in promoting the installation of complete set and core components of manufacturing equipment. Production equipment investments between 20 million RMB and 100 million RMB may claim a grant worth 4 percent (up to 2 million RMB) of the cost of the investment. Larger investments in production equipment are awarded as much as 3 million RMB (Huzhou City 2010 at 2.2).

The regulations regarding the disbursement of funds comprise a few other support schemes (below only the monetary components are listed).

- Increasing support for major special industries: grants up to 1 million RMB
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- Support for industries that are key sources of tax revenues: grants up to 5 million RMB
- Support the accelerated development of industrial leading enterprises: monetary component unspecified
- Encourage increasing reinvestments: monetary component unspecified
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- Strengthen the formation of entrepreneurs: monetary component unspecified
- Support enterprises to accelerate technology innovation: monetary component unspecified
- Encourage enterprises to strengthen brand building: monetary component unspecified

At the provincial level in Zhejiang, the government supports an *Innovative Experimental Enterprise Scheme* for cultivating innovative companies. The scheme which was initiated by

⁶ For a detailed account of dedicated SEI promotion see chapter 2.2.3.

the *Implementation Plan of Zhejiang Province for Establishing Innovative Enterprises* and in 2007 is jointly administered by the Province's Departments in charge of Science and Technology, Finance, SASAC, Quality and Technology Supervision as well as the Party Committee for Economy and Trade, its Finance Work Leading Small Group, and the General Trade Union (ACTFU) of Zhejiang Province. Its stated aim is to

“further guide and encourage enterprises to reinforce their technology development efforts and further implement tax benefits related to expenses on technology development” (Zhejiang Province 2007 at 5.1).

Companies can deduct technology development costs at 150 percent of face value. Scientific instruments and equipment used in R&D of a unit value less than 300,000 RMB can be included in administrative expenses. For items worth more than that, companies can utilise shortened depreciation periods or accelerated depreciation (at 5.1).

This scheme pledges increased support for the construction and development of innovative experimental enterprises' R&D centres, laboratories, and experimental bases within the province. With this extra support and encouragement, the government hopes that qualified enterprises will be able to more quickly produce high-tech products and put them on the market. In addition, key laboratories of universities and scientific research institutes are expected to cooperate with the private research centres in order to further promote technological advancement within the province (at 5.2).

Financial support through the banking system is another important facet of the scheme. The government explicitly hopes to

“encourage and guide financial institutions to increase credit support for enterprises with indigenous innovation. Relevant departments should actively widen finance channels for enterprises with indigenous innovation. Encourage guarantors to increase their support for the activities of enterprises with indigenous innovation. Institutions providing loan guarantees exceeding 70 percent of enterprises with indigenous innovation and private science and technology enterprises' total outstanding loans may enjoy the same preferential policies as those enterprises. Encourage insurance companies to develop special insurance products for the field of cutting edge science and technology & research and development. ... Support the creation of enterprise-oriented investment risk companies or funds that will then benefit from special tax breaks, such as tax exemptions or reductions for investment returns and special deduction opportunities according to their investment ratio... When providing credit support, financial institutions should prioritise the innovation projects of Innovative Experimental Enterprises. Government departments in charge of stock market listings should focus on cultivating and supporting Innovating and Experimental Enterprises in raising finance from domestic and international securities markets” (Zhejiang Province 2010 at 5.4).

In 2007 and 2008, Zhejiang provincial government selected a total of 150 enterprises for targeted support.

Similarly, the government of Huangshi City (Hubei Province) draws on the support for HNTEs to rejuvenate its industrial base and drive technology upgrading. In its *Guiding Opinions on Financial Support for the Good and Rapid Development of the Economy*, the government of Huangshi City (2008) discusses at length how such companies may be the target of support measures through public funds, tax preferences and guided bank lending. It calls for financial institutions to link monetary policies with market realities and thoroughly research principles of credit support as well as focused and powerful measures.

Financial institutions must do their utmost to satisfy funding needs of new area construction, high and new technology enterprises, pillar industries, rapidly growing SMEs, new socialist country and disadvantaged groups. They should also forcefully support the development of strategic emerging industries, accelerate the transformation of the economic development mode and raise the core competitiveness of industries. All financial institutions must take pillar industries as focus and, by way of adjusting the credit structure, promote the transformation of the economy from growth to development. They should provide support through project construction and vigorously coordinate with functional government departments to carry out a new type of industrialisation (Huangshi City 2008 at 2).

In the same vein, the government of Hubei Province consistently emphasised the importance of HNTE. The *12th FYP of Hubei Province for the Restructuring and Upgrading of Industry* illustrates this phenomenon (Hubei Province 2012a). The *Programme* identifies eight pillar industries and highlights that the cultivation of favoured industries had continued without interruption during the previous 11th FYP period (2006-2010) and will be carried on into the future (at 1.1.1).

The current *Programme* emphasises the importance of strengthening the effectiveness of favourable tax provisions for HNTEs and states that the province would actively pursue various types of special funds administered at the national level, and comprehensively plan the allocation and use of special guidance funds administered by the province. In so doing, it should focus on supporting industrial technology innovation, technology transformation and other issues. Furthermore, Hubei Province declares in this *Programme* that priority should be given to HNTEs when it comes to the allocation of LUR (at 5.5).

2.2.2.5 *Forced Localisation of Intellectual Property Rights in the HNTE-Programme*

In the aftermath of the 2008 reorganisation of HNTE administration the new regulatory framework has put a stronger focus than before on the localisation of intellectual property (IP) inside China. HNTEs must be registered in mainland China and must carry out innovation oriented scientific research to make substantial improvements to technologies, products and services (at 3.10.4). They have to possess the IP of the core technologies embodied in their products or services which need to be part of one or more *National Supported Key High and New Technology Fields*. Alternatively, companies may hold the exclusive license to use IP worldwide for no less than five years. 60 percent of annual gross revenues have to originate from related sales activities (MOST, MOF and SAT 2008 at 3.10.5).

The current regulation maintained previous requirements pertaining to the educational attainment of staff and the condition that 10 percent of the work force had to engage in R&D work (at 3.10.3). It imposed more flexible benchmarks regarding the required R&D expenses relative to gross revenues. Companies with sales revenues in the previous fiscal year of less than 50 million RMB may not spend less than 6 percent. Those generating over 50 million RMB and over 20 million RMB need to spend at least 4 percent and 3 percent respectively. Every company has to prove that 60 percent of R&D expenses have taken place inside China (at 3.10.4).

The current regulation results in serious discrimination against foreign enterprises:

Firstly, the combination of R&D and manufacturing operations in a single China-based unit is not in line with international best practice. HNTE policy makes preferential treatment contingent on the bundling of R&D centres and related production facilities to allow for the most effective commercialisation of advanced technologies on an industrial scale. This may work well for Chinese companies with limited or no subsidiaries in other countries. The corporate structures of large and medium-sized multinationals do not allow a combination of both functions in a single China-based subsidiary. In many cases, R&D centres are not dedicated to serving only one production base. This bundling solution is incompatible with modern globalised business as companies cannot reasonably be expected to create proprietary technologies in R&D centres attached to every manufacturing subsidiary. The current HNTE provisions effectively exclude the China subsidiaries of many (of the most advanced) technology companies from tax breaks and other financial support. This occurs when they (1) conduct R&D but do not produce locally; (2) have manufacturing operations without attached R&D centres or (3) have both in place but do not sell the product or service inside China.

Secondly, the market mechanism – not the government policy – should guide IP allocation in the internationalised world of research and innovation. The localisation of the scheme presents a number of serious challenges that tilt the playing field by putting foreign enter-

prises at a disadvantage. De jure, the scheme is open to all companies registered in China, including those with foreign investment. De facto, it is incompatible with modern IP management methods by requiring the localisation of proprietary technologies in mainland China. In order to be eligible to tax breaks and other means of preferential treatment, companies have to possess either the core IP for their business or the exclusive right to use it for at least five years.

This is not feasible for multinational enterprises which manage large and complex IP portfolios. It is unreasonable to demand a transfer of all patents related to a particular technology or product to their Chinese subsidiary (USCBC 2014). Limitations are particularly severe for companies in businesses where operation is only permitted through joint ventures with domestic partners. The dangers of losing key technologies – the same that must be localised under the HNTE regulation – are significant. In these cases, a concentration of IP in China may put the international company's global business at risk. In the same vein, company may worry about a drain in core technologies during the application process with local and provincial authorities. The latter requires enterprises to provide detailed information on the technologies in question. Authorities even demand to know the identities of research personnel. Disclosing sensitive details on general R&D plans and international activities in this regard may not be in the applicants' interest as the protection of trade secrets cannot be guaranteed.

In determining the proper subsidiary and location for holding critical IP, multinationals typically consider a wide range of factors, like the stability of the legal system, the share of global manufacturing and sales or the availability of qualified R&D personnel or other vital resources. Demanding companies to bundle proprietary technologies in their China subsidiaries does not take into account the commercial factors that enterprises from market economies base their allocation decisions on. The intricacies of global R&D networks and cross border collaboration on future innovations require a high degree of flexibility regarding the flow of information and personnel. They are hardly compatible with the Chinese government's strategy to attract and accumulate worldwide patents within national borders.

2.2.3 *Promotion of Strategic Emerging Industries*

Against the backdrop of rising fears that China's growth and development dynamics might get stuck in what the World Bank has termed the "middle income trap" (ADB 2012), the Chinese government seeks to localise intellectual property for cutting edge technologies in China. While support has been strong for industry-wide upgrading, a special focus has been put on a carefully selected group of advanced and (potentially) disruptive, path-breaking technologies. These are considered crucial enablers for profound improvements to future ways of living and doing business in China and worldwide. Research subsidies in areas like fuel cell powered transport solutions, the internet of things or satellite technology are not inspired by a desire to close the gap to more advanced competitors from other countries. Rather than de-

velop “me too” products to expand sales of China-made products at the expense of imported ones, these select few technologies are expected to serve as true paradigm changers.

2.2.3.1 *General Concept for the Promotion of Strategic Emerging Industries*

In late 2010, the top leadership of both the CPC and the state decided to prioritise a set of industries for fast-tracked development. To this end, the State Council released the *Decision of on Accelerating the Cultivation and Development of Strategic Emerging Industries*, identifying the following seven industries for special promotion:

- (1) energy conservation and environmental protection,
- (2) information technology,
- (3) biotechnology,
- (4) high-end equipment manufacturing,
- (5) renewable energy sources,
- (6) new materials and
- (7) new energy vehicles (State Council 2010a).

These are broadly elaborated upon as

“knowledge and technology intensive industries with less material resource consumption, huge growth potential and good comprehensive benefits based on significant technological breakthroughs and large development demands, playing a significant leading and driving role in the overall and long-term social and economic development. Accelerating the fostering and development of strategic emerging industries is of great strategic significance in promoting the modernisation construction of our country” (State Council 2010a at 1)

According to the initiation document, nurturing these industries, respectively technologies, through state policies is understood to be

“an important measure for promoting the upgrading of the industrial structure and accelerating the transformation of the economic development mode” (at 1.2) and “an inevitable choice for accomplishing a well-off society and sustainable development” (at 1.1).

The State Council has explained that the practice of nurturing industries of high strategic relevance had been pioneered by other countries. It argued that the Chinese economy had developed to a point where such an approach would make a great contribution to sustaining growth in the future. Escalating environmental vulnerabilities resulting from rapid urbanisation and industrialisation had brought up the need for new sources of growth in the face of

intensifying resource constraints. SEIs are expected to form a nucleus of future development, create employment opportunities and support environmental preservation as well as resource conservation.⁷

It is hoped that the outcomes of vigorous SEI promotion will produce spill-over effects in other sectors and inspire technology upgrades throughout the economy. Consequently, the SEI strategy is intended to improve the international competitiveness of Chinese products in a comprehensive manner. This issue reflects concerns that Chinese companies might lose out to overseas competitors, which, allegedly, have benefitted from systematic support from their respective governments. It demands to act quickly and forcefully in order to master core technologies and secure related intellectual property rights.⁸

A more detailed overview of priority technologies under the umbrella of SEI promotion is provided in table 21:

⁷ SC (2010).

⁸ Ibid.

Table 21: Technologies Covered by the Strategic Emerging Industries Strategy

<p>Energy efficiency and environmental conservation</p> <ul style="list-style-type: none"> • Research, develop, and promote energy-efficient technology products in order to make technology breakthroughs and raise overall energy efficiency; • Accelerate the R&D and production of broadly applicable technology that can be used for resource recycling and remanufacturing industrialisation; • Test and promote advanced environmental technologies and products; • Promote a market-oriented service system for environmental protection and energy efficiency; • Employ advanced technology to create a recycling system for waste commodities; and • Promote clean coal and seawater use.
<p>Next generation information technology</p> <ul style="list-style-type: none"> • Accelerate the construction of vast, integrated, and safe information network facilities, promote the R&D and production of new-generation mobile communication, as well as core equipment and intelligent terminals for next-generation Internet; • Accelerate the convergence of telecom, broadcasting, Internet networks; promote R&D in the "Internet of things" and cloud computing; • Focus on developing core and basic sectors such as integrated circuits, new-mode displays, high-end software, and high-end servers; • Upgrade software and value-added Internet services; promote smart renovation of infrastructure; and • Develop digital and virtual technologies to promote creative industries.
<p>Biotechnology</p> <ul style="list-style-type: none"> • Develop biotech-derived pharmaceuticals, new vaccines, diagnostic reagents, chemical drugs, modern Chinese medicine, and innovative drugs that prevent major critical diseases; • Accelerate the R&D, production, and large-scale development of biological and medical engineering products such as medical equipment and medical materials; • Promote bio-agriculture development, including the biological breeding industry, green agriculture, and biological production; • Advance the exploration, demonstration, and application of core technologies in biological manufacturing; and • Accelerate the R&D and production of marine biology technologies and products.

High-end equipment manufacturing

- Strengthen and expand the aviation industry, focusing on the development of key aviation equipment for trunk line and regional flights as well as utility aircraft;
- Promote aerospace infrastructure construction to develop satellites and related industries;
- Develop rail equipment used during the construction of passenger lines and urban metro systems;
- Develop marine engineering equipment to develop marine resources; and
- Develop intelligent manufacturing equipment with digitally-integrated systems as core components.

New energy

- Research and develop new-generation nuclear power technology and advanced reactors;
- Accelerate the application of solar-power technologies and explore diversified power-generation markets of solar photovoltaic and photo-thermal energy;
- Improve wind-power technology equipment to promote large-scale development of wind power and to develop an intelligent grid as well as new-energy systems; and
- Explore and use biomass energy according to local conditions.

New materials

- Develop new materials such as rare earths, high-performance membrane materials, special glass, functional ceramics, and semiconductor lighting materials;
- Develop advanced structural materials, such as high-quality special steel, new-mode alloy material, and engineering plastics;
- Develop high-performance fibre and composite materials, such as carbon fibre, aramid fibre, and ultra-high molecular weight polyethylene; and
- Research general and basic materials such as nano-, super-conductor, and intelligent materials.

New-energy vehicles

- Make core technology breakthroughs in motor batteries, drive motors, and electronic controls to promote the application and commercialisation of plug-in hybrid and pure electric vehicles; and
- Research leading and core technologies for fuel-cell vehicles; and vigorously promote low-emissions, energy-efficient vehicles.

Source: Replicated from USCBC 2013

2.2.3.2 *Implementation of SEI Policies*

In line with established administrative practice, central government departments have drafted the key policy documents, like FYP programmes, guidance catalogues and implementation measures. The *Special Decision* of the State Council served to emphasise the extra-ordinary importance of the policy and remove any doubts that central government authorities were serious about putting strategic plans into business practice.

In December 2012, the MOF and the NDRC (2012) jointly issued the *Interim Measures for the Administration of Special Funds for the Development of Strategic Emerging Industries* to clarify the conditions for use of financial support by government agencies. Special funds are managed by the NDRC, the MOF and other ministries (at 3). They are contained in the central government budget and allocated to support technology innovation, the operation of application demonstration projects, the development of regional clusters and related tasks (at 2). In defining the scope, the Interim Measures specify that

“We shall select the industries or technologies that are seriously restricted by key technologies and that are of strong relevance, of fundamental significance and really concern public welfare, support industrial backbone enterprises in integrating innovation resources at industrial chains” (at 5.2).

The NDRC and the MIIT have compiled catalogues which go in great detail to outline the SEI products and technologies subject to special promotion measures. The approach is akin to other guidance catalogues that identify encouraged investment priorities in order to earmark them for heightened support.

In 2012, the State Council issued development objectives for IP in SEI. Until 2015, the capabilities for creating, utilizing and managing IP are to improve substantially. In order to meet these targets, the number of invention patents and patents registered overseas should double 2010 values. Furthermore, an integrated IP service system is to be set up. Additionally, a small group of leading enterprises with advantages in the field of IP should be cultivated and companies in SEI should form IP alliances spanning across sectoral (State Council 2012a).

Actual implementation work was delegated to provincial and municipal level authorities as they have more administrative resources available to oversee projects and adjust measures to local circumstances. Putting local governments in charge of SEI promotion “on the ground” proved to have both advantages and disadvantages. It was a prudent move as state-business interaction is much more intense on the local level and both sides can cooperate closely on carrying out demonstration projects, identifying problems, finding innovative solutions and ensuring the commercialisation of advanced technologies.

With regard to SEI strategy, provincial and municipal government have drafted their own set of development programmes, guidance catalogues and implementation measures. These do not uniformly follow the model provided by central authorities but are based on pre-existing

industry development plans as well as characteristics of the regional economy. Through consultations with provincial officials, the USCBC found the Hunan Province has substituted new-energy vehicle industry by cultural innovation. Such deviations from the national strategy appear reasonable as local differences in economic layout imply that regions are not equally suited to pursue a uniform set of SEI. The same survey has discovered that some provinces assign different priorities to their SEIs. It cites a practice from Sichuan province which assigns top priority to next-generation IT and reserves a quarter of provincial support funding to this sector (USCBC 2013b at 16).

Table 22 below provides an overview of the government agencies tasked with SEI promotion on both central and local government level along with brief outlines of their respective duties.

Despite of the significant advantages involved in the collective commitment of so many government agencies in the implementation process, substantial coordination problems amongst all these actors have arisen as well. The initiation document of the SEI strategy emphasised comprehensive planning and guidance. By way of a national development plan for SEIs in general, special plans for each SEI as well as the integration with other relevant plans and policies, it was hoped to maintain a tight grip on the development process. The regular collection of statistical data and compilation of progress reports was intended to facilitate effective supervision and direction. Furthermore, strong guidance of the local governments' development strategies was announced so as to ensure an optimal regional layout and the formation of comparative advantages through coordinated efforts. Even at this early stage, the SC warned that blind development and redundant construction could undermine progress (State Council, 2010a at 8.3).

The high profile nature of the SEI strategy and its continuing endorsement by top government decision makers has not prevented a range of coordination shortfalls from impairing development from the very beginning. In order to avoid such problems, the 12th FYP for the development of SEI has introduced an inter-departmental working group that includes the MOST, the MIIT and the MOFCOM and is led by the NDRC. The group monitors developments trends and coordinates the implementation of policies. However, as the case of new-energy vehicles shows, the coordination between different government departments – or rather a lack thereof – has discouraged investments by further adding to the uncertainty.⁹

Heavy involvement of administrations at and below the provincial level has reduced the control and sanctioning abilities of central government decision makers. The latter could thus bring to bear little influence to counter excessive subsidisation as well as anti-competitive practices. Furthermore, access to accurate information concerning government policies and procedures becomes more difficult towards the lower rungs of the administrative hierarchy. With regards to SEI promotion, this has led to low levels of transparency and high levels of uncertainty – a phenomenon particularly affecting foreign invested enterprises.

⁹ USCBC, *China's Strategic Emerging Industries: Policy, Implementation, Challenges & Recommendations* (2013), 1.

Table 22: Participating Chinese Government Organisations in SEI Policies

Central government body	Local government body	Tasks
National Development and Reform Commission (NDRC)	Development and Reform Commissions (DRCs)	<ul style="list-style-type: none"> • Directs SEI policy implementation • Drafts SEI documents, for example the key SEI products and services catalogue
Ministry of Industry and Information Technology (MIIT)	Economic and Information Technology Commissions (EITCs)	<ul style="list-style-type: none"> • Involved in SEI policy development, especially for the following SEIs: new materials, next generation information technology, energy efficient technologies, and equipment manufacturing • Creates own catalogues
Ministry of Commerce (MOFCOM)	Commerce Commissions (CCs) or Departments of Commerce	<ul style="list-style-type: none"> • Collaboration with other organisations to enforce SEI policies
Ministry of Science and Technology (MOST)	Science and Technology Commissions (STCs)	<ul style="list-style-type: none"> • Assists with R&D for SEIs • Manages national science and technology (S&T) financed programs • Participates with other organisations in developing SEI policies, specifically supporting domestic technology and domestic innovation
Ministry of Finance (MOF)	Departments of Finance	<ul style="list-style-type: none"> • Controls SEI finances
State Intellectual Property Office (SIPO)	Intellectual Property Bureau (IPB) or Intellectual Property Administration (IPA)	<ul style="list-style-type: none"> • Protects SEI intellectual property rights (IPR) in collaboration with other agencies

Source: Replicated from USCBC 2013.

2.2.3.3 *General Support Measures for SEI Enterprises*

The State Council (2010a) pledges to increase financial support to corporate R&D as well as to technology commercialisation and demonstration projects. It promised to set up a “*stable financial input growth mechanism*” and dedicate significant resources from the central government’s budget (at 7.1). Enterprises can benefit from special tax breaks and receive subsidies from the SEI development fund.

Concerning tax incentives, the central government pledged to fully implement all current tax policies for promoting scientific inputs, commercializing technological breakthroughs and supporting the development of high-tech industries. At the same time, amendments have been made to better meet the needs of SEI (ibid).

Regarding bank lending, the Chinese leadership “*encourages financial institutions to increase credit support*” (at 7.3). Government policies direct banks to tailor credit management and loan evaluation systems to the specific characteristics of SEI, create innovative financing solutions and step up support for SEI development.

In May 2015, the Shanghai Stock Exchange revealed plans for establishing a special SEI board for trading stocks of related companies. Listing will initially be limited to companies that have been recognised by supervising authorities as engaged in SEI business but may later be opened to encompass more companies from related high-tech fields. Remarkably, the official announcement indicated that companies whose financial performance may not warrant a stock market listing may take advantage of special financing options under a diversified rating system (Global Times 20.05.2015).

Since the launch of the SEI initiative, substantial amounts of state funds have been dedicated to jumpstart technology innovation and facilitate its commercialisation. According to Ren Zhiwu, Deputy Director General of the High Technology Division at the NDRC, the central government provides only about a quarter of all SEI financing. (State Council 2010a) Most of the government’s financial support comes from the budgets of sub-central government instead.

The 12th FYP for SEI development mandates that every province has to create SEI development funds with provincial officials in charge of making allocations to localities in line with SEI policies. Fujian Province, for example, intends to set aside 1 billion RMB for an SEI venture capital fund. Similarly, Tianjin City created a 970 million RMB fund for high-tech and innovation projects (USCBC 2013b).

Since early 2011, provinces and cities have invested heavily in numerous large-scale demonstration projects that facilitate the testing of experimental technologies under real life conditions. Furthermore, major state-funded science and technology projects have provided opportunities for the application of technological breakthroughs on a large scale (at 4).

In fact, provincial governments resort to SEI promotion measures which go beyond what central government documents suggest. According to research conducted by the USCBC (2013b), these include the allocation of LUR at discount prices, preferential access to public utilities at below market prices, subsidies for attracting skilled professionals or expedited licensing approvals.

Despite the large spectrum of support measures introduced by government documents, subsidies and tax incentives have so far served as the principal instruments for promoting technology development, commercialisation and application in demonstration projects. Both have conferred substantial benefits on eligible companies during the four and a half years since the SEI initiative was launched. Table 23 provides an overview of subsidies paid for the development and commercialisation of new-energy vehicle technologies to selected companies in the automobile manufacturing industry:

Enterprises belonging to one or more of the seven SEI can benefit from strong financial backing of various government bodies. Taken together, all companies listed at stock exchanges on the Chinese Mainland have obtained a grant total of 1.08 billion RMB in the five years between 2010 and 2014. Total disbursements per year have risen quickly during this time. The following tables illustrate the surge in subsidies for the seven SEI.

Table 23: Total Disbursements of Subsidies for Strategic Emerging Industries

2010	2011	2012	2013	2014	Total
5,250,000	124,267,008	288,454,355	364,868,724	297,370,803	1,080,210,890

Source: Wind Data

In 2014, at least 143 enterprises have benefitted from government subsidies because their activities for SEIs. The ten largest recipients are listed in the following table 24.

Table 24: Top 10 Recipients of Subsidies for Promoting Strategic Emerging Industries

Rank	Enterprise	Amount
1	Ningbo Donly Co., Ltd.	20,533,799
2	Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.	14,000,000
3	BYD Company Limited	12,349,000
4	Ourpalm Co., Ltd	12,087,000
5	Sichuan Kexin Mechanical and Electrical Equipment Co., Ltd.	12,000,000
6	Henan Hanwei Electronics Co., Ltd.	12,000,000
7	Yunnan Baiyao Group Co., Ltd.	11,000,000
8	Yunnan Baiyao Group Co., Ltd.	10,000,000
9	Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.	7,000,000
10	Zhejiang Narada Power Source Co., Ltd.	7,000,000
Total		117,969,799

Source: Wind Data

These amounts represent only a fraction of total SEI subsidisation. This is because the designations of most transfers contain the specific technology project that is to be funded and not the general term *SEI subsidy*. Hence it is important to take a closer look at one specific sector.

Taking the New-energy Vehicle sector as an example, THINK!DESK has calculated that companies involved in the development and commercialisation of related technologies have received at least 1.5 billion RMB. Even this number does not yet include the entirety of grants provided for key technologies, like high performance batteries, electric engines and control system. See table 25.

Table 25: Total Disbursements of Subsidies Related to New-Energy Vehicle Technology Development and Commercialisation under the SEI Initiative

2010	2011	2012	2013	2014	Total
29,085,877	193,234,575	246,032,187	476,148,784	597,772,340	1,542,273,763

Source: Wind Data

In 2014, at least 39 enterprises have obtained grants for developing and commercializing key technologies for application in new-electric vehicles. The ten largest recipients are listed in the following table 26. See table 27 for further details.

Table 26: Top 10 Recipients of Subsidies Related to New-Energy Vehicle Technology Development and Commercialisation under the SEI Initiative in 2014

Rank	Enterprise	Amount
1	Anhui Ankai Automobile Co., Ltd.	221,750,000
2	Beiqi Foton Motor Co., Ltd.	117,843,346
3	BYD Company Limited	105,090,000
4	Beiqi Foton Motor Co., Ltd.	34,119,425
5	Chongqing Changan Automobile Company Limited	17,977,999
6	Lifan Industry (Group) Co., Ltd.	14,690,000
7	Beiqi Foton Motor Co., Ltd.	8,000,000
8	BYD Company Limited	6,166,000
9	Chongqing Changan Automobile Company Limited	5,000,000
10	Qingdao TGOOD Electric Co., Ltd.	4,845,000
Total		535,481,770

Source: Wind Data

Table 27: Subsidies for the Promotion of New Energy Vehicles (NEV)

Enterprise	Year	Description	Amount	Source
China Southern Rolling Stock Co. Ltd.	2014	Subsidies from the Finance Department of Zhuzhou City for the development of new-electric vehicles	445,550,000 (DI/NCL)	2014 at 131
Anhui Ankai Automobile Co., Ltd.	2010	Subsidies for R&D on and the commercialisation of key power train technologies of New Energy Busses Amortisation in 2010: 2,375,000 RMB Amortisation in 2011: 2,375,000 RMB	4,750,000 (DI/NCL)	2012 at 121
		Subsidies for R&D on key technologies and complete new energy vehicles	1,200,000 (NOI)	2011 at 133
	2011	Subsidies for R&D and commercialisation of electronic control systems for NEVs	660,000 (NOI)	2011 at 132
		Subsidies of Hefei City for projects related to the application and demonstration of key NEV technologies Amortisation in 2011: 1,333,333 RMB Amortisation in 2012: 666,667 RMB	2,000,000 (DI/NCL)	2012 at 121
		Subsidies for setting up projects for R&D on key technologies related to plug-in hybrid electric busses (complete vehicles) and their commercialisation Amortisation in 2011: 1,060,000 RMB Amortisation in 2012 and 2013: 470,000 RMB p.a.	2,000,000 (DI/NCL)	2012 at 121
	2012	Subsidies for the development and commercialisation of a new generation of core technologies related to NEVs	3,000,000 (NOI)	2012 at 131
		Amortisation of deferred income subsidies for NEV R&D promotion	1,000,000 (NOI)	2012 at 131

Enterprise	Year	Description	Amount	Source
Xiamen King Long Motor Group Co., Ltd.		Subsidies for innovation on key technologies of plug-in hybrid electric busses Amortisation 2012-2014: 168,100 RMB p.a.	504,300 (DI/NCL)	2012 at 121
		Subsidies for industrial 3-high projects Amortisation in 2012 and 2013: 1,600,000 RMB p.a. Amortisation in 2014: 800,000 RMB	4,000,000 (DI/NCL)	2012 at 122
		Subsidies for the commercialisation of a new generation of core technologies related to NEVs Amortisation in 2012: 1,000,000 RMB	2,000,000 (DI/NCL)	2012 at 122
	2011	Subsidies for the "10 Cities 1000 Vehicles" NEV popularisation and demonstration project.	240,000 (NOI)	2011 at 80
		Subsidies from the central government for NEV development projects	1,188,000.00 (NOI)	2011 at 86
		Compensation of expenses related to the commercialisation of NEV and hybrid drive technology	500,000 (NOI)	2011 at 86
		Subsidies for pure electric bus project	800,000 (DI/NCL)	2011 at 80
		Subsidies in compensation of expenses related to new electric bus platforms in 2010	10,000,000 (NOI)	2011 at 86
	2012	Investment increase from the central government for NEV projects (amortisation of deferred income subsidies)	1,188,000 (NOI)	2012 at 86
		Subsidies for equipment related to R&D on light pure electric busses as well as the commercialisation thereof	800,000 (NOI)	2012 at 93

Enterprise	Year	Description	Amount	Source
	2013	Subsidies for components of energy-saving and new energy busses	51,468,800 (NOI)	2014 at 113
		Subsidies for R&D and commercialisation of NEV related technologies	3,088,800 (NOI)	2013 at 99
		Subsidies for promoting the popularisation of NEV	600,000 (NOI)	2013 at 99
		Subsidies for the commercialisation of complete vehicle controls and battery management systems of NEV	660,000 (NOI)	2013 at 99
	2014	Special funds for major technology projects related to pure electric vehicles	1,103,140 (NOI)	2014 at 107
		Subsidies for the commercialisation of complete vehicle controls and battery management systems of NEV	382,400 (NOI)	2014 at 107
		Subsidies for building the capabilities for NEV technology development and commercialisation	2,482,300 (NOI)	2014 at 107
		Subsidies for components of energy-saving and new electric busses	4,719,000 (NOI)	2014 at 113
		Subsidies for major technology and commercialisation projects for NEV	1,635,540 (NOI)	2014 at 113
	2010	Subsidies for R&D and commercialisation of new energy city busses	7,100,000 (DI/NCL)	2010 at 73
	2011	Subsidies for R&D projects related to energy-saving and new-energy busses	13,500,000 (DI/NCL)	2011 at 77
	2012	Subsidies for NEV technology demonstration and operation projects	28,119,000 (DI/NCL)	2012 at 92

Enterprise	Year	Description	Amount	Source
	2013	Subsidies for energy-saving and new energy bus project	70,000,000 (DI/NCL)	2013 at 95
		NEV Industry Technology Engineering Innovation Award	32,000,000 (DI/NCL)	2013 at 96
		Support funds for new energy bus project	88,319,600 (NOI)	2014 at 118
		Subsidies for NEV technology innovation engineering project	26,723,200 (NOI)	2014 at 118
	2014	Subsidies for the operation of NEV technology development and demonstration projects	3,000,000 (DI/NCL)	2014 at 110
		Subsidies for the operation of NEV technology development and demonstration projects	6,606,410 (NOI)	2014 at 110
		Subsidies for R&D and demonstration projects for pure electric commercial vehicles	12,000,000 (DI/NCL)	2014 at 110
		Awards for NEV body	2,100,000 (NOI)	2014 at 118
Chongqing Changan Automobile Company Limited	2014	Subsidies for special R&D projects related to NEV	17,977,999 (NOI)	2014 at 132
		NEV subsidies	5,000,000 (NOI)	
Anhui Jianghuai Automobile Co., Ltd.	2012	Subsidies related to NEV technology development and commercialisation	129,770,000 NOI	2012 at 107
	2013	Compensation of expenses related to 863 project of the Ministry of Science and Technology (Next generation power trains for pure electric vehicles)	1,500,000 (DI/NCL)	2013 at 95
		Subsidies for development projects for Jianghuai's fifth generation pure electric vehicle platform technologies	191,460,000 (DI/NCL)	2013 at 95

Enterprise	Year	Description	Amount	Source
	2014	Subsidies related to NEV development and commercialisation	213,420,000 (NOI)	2014 at 140
		Subsidies for projects relating to the development of technology platforms for Jianghuai's fifth generation new energy passenger car	102,509,000 (DI/NCL)	2014 at 104
Liaoning SG Automotive Group Co., Ltd.	2010	Special funds for the development of electric city busses	3,000,000 (NOI)	2010 at 91, 99
	2011	Special funds from Changzhou City for project development in Changzhou Innovative Science and Technology Park	16,000,000 (DI/NCL)	2011 at 97
		Special funds for the development of electric city busses	2,000,000 (NOI)	2011 at 105
	2012	Subsidies for the development and commercialisation of 12 meter, low-entry pure electric city buses	1,000,000 (NOI)	2012 at 108
	2013	Subsidies from a common service platform	10,000,000 (special payables)	2013 at 97
		Loan interest subsidies from the Finance Department of Liaoning Province for technology renovation projects at Huanghai Bus	30,000,000 (special payables)	2013 at 97
Tianjin FAW Xiali Automobile Co., Ltd.	2013	Subsidies for the development and commercialisation of the V5 pure electric vehicle	350,000 (NOI)	2013 at 74
	2014	Subsidies for the development and commercialisation of the V5 pure electric vehicle	3,984,102 (NOI)	2014 at 70
Dongfeng Automobile Co., Ltd.	2010	Subsidies for the development of electric vehicles (Component of the 2010 Science and Technology Development Programme of Hubei Province)	3,500,000 (DI/NCL)	2010 at 94

Enterprise	Year	Description	Amount	Source
	2011	Subsidies from Zhengzhou City compensating for expenses on the operation of the NEV demonstration project in the city	1,000,000 (NOI)	2011 at 124
		Quality award of the governor of Henan Province	1,000,000 (NOI)	2011 at 124
		Subsidies from the Departments of Science and Technology, Finance as well as Industry and Information Technology for the conversion of conventional gasoline powered cars	2,000,000 (NOI)	2011 at 124
	2014	Subsidies for the development of electric vehicles	875,000 (NIO)	2014 at 93

NOI : Non-operating income

DI/NCL: Deferred income as part of non-current liabilities

Compilation by THINK!DESK.

2.2.3.4 *Internationalisation of SEI*

The Chinese government assigns a large amount of significance to the internationalisation of SEIs. During the 12th FYP, SEIs are expected to strengthen their competitiveness and increase the scale of international trade and investment. The latter should be accomplished, inter alia, by establishing overseas high-tech industrial parks, demonstration bases and innovation bases.

Government organisations were urged to subscribe themselves to creating a

“favourable environment for encouraging and directing enterprises to actively exploit the international market” (MOFCOM et al. 2011 at 1.2).

Targeted trade policy measures are to improve the structure of imports and exports (at 1.4.6). In order to guide and direct trade flows more effectively, special support measures for encouraged products were announced. A new catalogue covering encouraged SEI products for import and export was to serve as foundation for more targeted promotion efforts.

In September of 2011, ten ministries and commission of the central governmental together issued the *Guiding Opinions on Promoting the International Development of SEI*. The document argues that comprehensive internationalisation of R&D, manufacturing, marketing and other aspects of SEI was deemed paramount for enhancing innovative capabilities and core competitiveness (ibid at 1).

Export promotion in SEI was announced as well:

“We shall fully leverage institutions stationed abroad, industrial organisations and other relevant intermediaries to provide international market information services for enterprises and encourage and support various professional exhibitions and promotion activities for important export products in a targeted manner” (ibid at 3.15).

However, the *Guiding Opinions* makes it abundantly clear that raising technology content in Chinese SEI exports contains a high level of importance (ibid at 3.12).

On top of several general provisions, the *Guiding Opinions* introduced specific instruments and instructions for each SEI individually. Support for the new material industry, for example, targeted overseas M&A transactions as a means to strengthen competitiveness and innovativeness. The policy demanded that the state should increase support for the import of new material products and technologies, and strengthen the presence of Chinese high value-added new material products on the world market.

Enterprises are encouraged to set up R&D centres in foreign countries – by M&A, equity or contractual joint ventures, purchasing shares or other means – and pursue strategic coop-

erative partnerships with foreign research institutions and industrial clusters (ibid). The Chinese government also supports companies in establishing overseas marketing centres, maintenance service outlets and other projects. Special support is available for the registration of overseas patents (MOFCOM et al. 2011 at 4.22). A small group of leading enterprises with independent intellectual property rights, well-known brands and strong international competitiveness are to serve as vanguard. These national champions are to lead the way in exploring international markets (ibid at 1.3).

Companies from SEI planning to expand overseas can count on state support in public offerings of stocks or bonds. They may also take advantage of more convenient ways for cross border fund transfers. Furthermore, they are eligible for export insurance and export credit at preferential conditions (State Council 2010a; MOFCOM et al. 2011).

The central government has promised to adjust the structure of foreign development aid in order to create favourable investment environments for its companies in foreign countries (ibid).

It should be pointed out that a significant overlap exists between the group of recognised HNTes and companies taking advantage of SEI promotion policies. Other strategic technology initiatives, such as the *863 Programme*, the *973 Programme*, the *Torch Programme*, the *Spark Programme* which provide similar benefits for related projects together lead to a substantial reduction of tax payments and install technology subsidies as a significant source of revenue. In fact, the multitude of support schemes oriented towards strengthening capabilities in science and technology has led companies to devote resources to navigating between numerous available support measures. Various objectives, performance requirements and eligibility criteria create incentives for adjusting operations in order to maximise subsidy income rather than realise the development of marketable products. Rent seeking behaviour may thus undermine the freedom to undertake genuine innovation.

2.2.3.5 *Integration of Foreign Invested Enterprises in the SEI Initiative*

The Chinese government promotes Sino-foreign cooperation and joint investments in SEI (State Council 2010a at 4.2). The 2015 revision of the *Catalogue for Guiding Foreign Investment* has accordingly put a clear focus on technologies related to SEI. Foreign investors are welcome to form joint ventures with Chinese partners and contribute advanced technologies and financial resources (MOFCOM et al. 2011 at 1.4.6).

Foreign enterprises are allowed to participate in SEIs. Several high-ranking Chinese officials such as former Premier Wen Jiabao stipulated that foreign and Chinese companies will receive equal treatment. (USCBC 2013b at 7). De jure, foreign firms enjoy equal access to SEI development benefits as Chinese firms. De facto, international enterprises have encountered severe difficulty to even obtain necessary information. Companies even had trouble to

determine if there are eligible for SEI promotion measures. Additionally, foreign firms have complained that it is almost impossible for them to tap into the government's special funds and access other benefits that are naturally available for domestic companies. Furthermore, international players are burdened by localisation requirements. As companies have to be registered in the province in which they file funding applications, branch offices are often excluded from this opportunity (ibid).

In its 2014 Report on Potentially Trade Restrictive Measures, the European Commission (EC) has warned against

“provisions that could compel foreign auto-makers that want to produce critical components (e.g., vehicle traction battery, drive motor, basic materials for complete vehicle control system, battery and motor, etc.) in China to share critical technologies by requiring the companies to ‘present independent R&D capability and intellectual property rights, with the equity of the Chinese party no less than 51%’. The recently revised Catalogue for Guidance of Foreign Investment has for the first time formalised this investment restriction on automotive components but limited it to the battery systems by stipulating the following: ‘Manufacture of key parts and components of new energy automobiles: high energy power batteries (with the proportion of foreign investment not exceeding 50%)’” (EC 2014 at 149).

Participants in a 2013 member survey of the U.S. – China Business Council have reported mixed success in their efforts to participate in SEI schemes. Only a quarter of respondents stated they had been successful while 57 percent had met with moderate success (USCBC 2013b at 6).

The Chinese government has introduced SEI product catalogues. All local companies can apply with relevant authorities to have one or several of their products included. Listed items enjoy preferential treatment in government procurement and may provide buyers with tax discounts. While a vast majority of companies that has succeeded to add products to the list are Chinese firms, a number of Sino-foreign joint ventures have managed to include their manufactures as well. However, the benefits are often unclear as the catalogues themselves offer no further information on the nature or extent of associated preferential treatment. Local officials have reportedly promised access to subsidies to companies that make products contained in local catalogues.

Confusion arises also from the fact that the number of such catalogues has increased in recent years. Soon after the NDRC issued the first national product catalogue, the MIIT released a separate version. Some of China's 33 provincial level jurisdictions have compiled their own catalogues as well. Much confusion surrounds the question of how different catalogues are ranked or related.

Even though some foreign companies have succeeded in adding environmentally friendly or energy-saving products to several lists, limitations for non-Chinese enterprises to enter the

government procurement market has put into question the value of such accomplishments (USCBC 2013b at 11. China's vast government procurement market does provide for powerful ways to promote certain products. However, foreign companies have found themselves at a disadvantage as they typically do not get the chance to supply government agencies.

Finally, foreign companies have to agree to rigorous requirements for basing (and accumulating) their IP in China. To be eligible for subsidies, tax breaks and other measures, technologies and associated IP must have been developed and/or owned inside the country. Multi-national companies that manage large and complex IP portfolios as part of an efficient global operation may thus not qualified if their core IP is registered in a country other than the People's Republic of China. Restrictions are akin to those applying to HNTes. The USCBC has reported that some provincial jurisdiction have gone even further by restricting access to government support to companies with enterprise and core IP ownership both registered inside their territory. (USCBC 2013b at 9).

In the new-energy vehicle market, international brands have been excluded from generous government support. Foreign enterprises are not eligible for subsidies and have long been left out of pilot demonstration projects. Vehicles sold under foreign brand names do not qualify for purchase premiums or any other type of monetary or non-monetary incentive scheme. In fact, if Chinese buyers of electric vehicle opt for an overseas product, they have to pay import tariffs instead of receiving buying subsidies. A change has occurred with regards to vehicles manufactured under joint venture brands which are the result of transferred technology development and shared intellectual property. Cars marketed under new brands, like Tantus, may take part in government-sponsored fleet trials and provide their buyers with access to purchase incentives.

2.2.3.6 SEI Initiative – Market-driven or State-directed?

Celebrated as a landmark project that is meant to represent the foundation of future economic success, in the eyes of China's political leadership the fate of SEI has obviously proven too important to leave it at the hands of market forces. Even though the State Council promised to

“give full play to the fundamental role of market, [...] actively foster market [...] and create a fair and favourable environment for the sound development of various types of enterprises”;

at the same time it set out to

“select important technologies and products in the initial stage of industrialization with remarkable social benefits where the market mechanism cannot function effectively”.

Market forces play a decidedly subordinate role as the state undertakes

“overall development planning. It determines the sequence of developments and assists selected firms to achieve innovations.”(State Council 2010a).

In order to turn the SEI initiative into reality, government organisations have intervened strongly, first by injecting significant funds into the development of prioritised technologies and later as a means to protect their investments.

The State Council (2010a) highlighted to all Chinese government organisations that policies such as R&D, taxation and human resources should be put to use for development SEI (ibid). It pledged to *“undertake overall planning and systematic layout on the development of SEI, clarify the sequence of development, and promote coordinated development”* (at 2.2). Through a *“basic pattern of healthy development and coordinated progression”* (at 3), SEIs were envisioned to account for eight percent of national GDP and reach 15 percent by 2020 (ibid). At that time, energy conservation, environmental protection, new generation information technology, biology and high-end equipment manufacturing industries will have become the pillar industries of the national economy, while new energy resources, new energy vehicles and new materials industries will have become the pioneer industries of the national economy. Until 2030, Chinese companies should have completely closed the developmental gap separating them from the world’s leading actors and function at the vanguard of technological development (Proff et al. 2012).

In the vision laid out by the State Council (2010a) enterprises should serve as the principal actors in a *market-oriented technology innovation system*. They are to work closely with universities and research institutes in order to accomplish breakthroughs in core technologies. It follows that corporate R&D is to assume a key role in promoting indigenous innovation and advancing SEI development. Key enterprises should take the lead in government-sponsored projects while scientific research institutions and are to universities participate in the implementation. In the *market-oriented technology innovation system* the state is called upon to propel and direct the SEI promotion process.

2.2.4 Special Funds for the Revitalisation and Technology Renovation in Key Industries

The Chinese government has repeatedly emphasised the importance of restructuring and upgrading traditional industries. Documents frequently call for encouraging and supporting the development of the real economy. A focus is put on ten *key industries* for which *Adjustment and Revitalisation Programmes* were drafted in the wake of the global financial crisis. These are coal, steel, non-ferrous metals, petrochemicals, equipment manufacturing, light industry, IT, textiles, ship building and automobile manufacturing. In time with the release of the ten *Programmes*, central authorities created the *Special Fund for Revitalisation and Technology Renovation in Key Industries*.

In 2010, the fund allocated subsidies worth 20 billion RMB to 5,051 individual projects (NPC 2011a at 1.3). In 2011, the central government provided a total of 15 billion RMB to support the rejuvenation of key industries (NPC 2012 at 3.5.2). The funds were distributed to support over 4,000 corporate technology renovation projects (NPC 2012 at 1.4). According to the 2012 resolution of the NPC, the amount was to increase by another billion RMB in that year.

The Special Fund is complemented by an investment plan which specifies priorities for state investment across sectors. While the plan itself is not available in the public domain, the MIIT and the NDRC have issued a variety of policies that provide good insights into its contents. As such, in 2009, the latter released the *Administrative Measures (for Trial Implementation) concerning Investments related to the Revitalisation and Technology Renovation in Key Industries* (NDRC 2009a).

The *Administrative Measures* provide the regulatory framework for additional government investments made to strengthen key industries both in the form of investment subsidies or loan interest subsidies. In any case, the maximum amount of government support per project is limited to 200 million RMB. The document identifies loan interest subsidies as the preferred instrument and determines that subsidies should compensate for the actual loan interest of two years. The interest rates should not exceed that normally charged by commercial banks for medium to long term loans (NDRC 2009a at 2). In order to qualify, projects need to conform to the development priorities laid out in the respective *Adjustment and Revitalisation Programmes*.

Applicant enterprises have to possess economies of scale, operate under the “modern enterprise system”, have good financial credentials and must not have violated any laws or regulations. The NDRC and the MIIT jointly receive and review applications. While SOEs subordinate to the SASAC of the State Council can submit their applications directly to the two central government bodies, all other enterprises – regardless of ownership – have to file their applications with provincial level authorities. Upon initial review and approval, the latter will then forward the application to the NDRC and MIIT (NDRC 2009a at 6).

The MIIT clarified that supported projects should aim to improve product quality and raise technology levels as well as strengthen companies' abilities for technology renovation and innovation. The Ministry stipulated that funds distributed under this scheme and other special support funds managed by the central government should lead to the development of new projects, new production processes and quality guarantee management safeguards (MIIT 2011 at 2.4).

In the framework of this programme a large number of firms have received governmental subsidies. These include e.g., Cuihuaji Co., Ltd., a subsidiary of CPI Yuanda Environmental Protection (Group) Co., Ltd., which in 2010 has got the green light on 10 million RMB in subsidies for purchasing essential production equipment. 8 million RMB were disbursed to the company in the same year through the Finance Department of Nan'an District (CPI Yuanda Environmental Protection (Group) Co., Ltd. 2010 AR at 90, 94, 95; 2011 at 76, 81, 83). In 2011, the company received the remaining 2 million RMB (ibid at 105, 106, 113; 2013 at 69, 70, 75). As the underlying project progressed and expenses were made, the 10 million RMB deferred income subsidy was gradually amortised and converted into profit and loss relevant subsidy income. At the end of 2014, the remaining balance was 4,916,667 RMB (ibid 2014 at 91, 92, 98).

In the framework of this study, it is not possible to elaborate on the *Adjustment and Revitalization Programmes* for all ten key sectors. Instead, the shipbuilding industry will be used as a case study.

Burgeoning foreign trade was led Chinese shipbuilders to vastly expand capacities in order to keep up with vessel demand. With two large SOEs dominating the industry, i.e. China State Shipbuilding Co., Ltd. (CSSC) and China Shipbuilding Industries Co., Ltd. (CSIC), investments and output skyrocketed. The global financial crisis hit the shipbuilding sector worldwide and exposed severe overcapacities. Declining orders, project cancellations and intensifying price competition all led to significant financial losses. In order to key shipbuilders afloat and prevent mass-layoffs, the Chinese government launched a wide array of support measures through the *Adjustment and Revitalization Programme* for the sector (NDRC 2009b). These include

- low interest loans to help state-owned shipping companies carry out fleet upgrades and renewals
- low interest loans for overseas buyers and improved access to credit for export customers
- low interest loans to replenish liquidity of ailing ship builders. Bridge loans at preferential lending rates were provided to maintain normal operations. Special mortgaging arrangements were introduced to improve credit access for struggling companies
- subsidies supporting purchases of China-made ocean going vessels. Until 2012, customers could claim government grants worth up to 17 percent of the ship price.

On the demand side, the *Programme* urged the country's three largest cargo shippers, all SOEs, to revoke order cancellation and stand by their pre-crisis plans for fleet expansion and renewal. On the supply side, the *Programme* called for a regrouping of shipyards to promote the formation of larger and more competitive players. The government explicitly encouraged the creation of a shipbuilding juggernaut through the merger of CSSC and CSIC. In spite of pre-existing structural weaknesses and uncertain demand prospects, the authors of the *Programme* demanded that shipbuilding capacities increase to 50 million deadweight tons before the end of 2011 (NDRC 2009b; EC 2014 at 174-175).

THINK!DESK research revealed that numerous companies have benefitted from subsidies disbursed based on the ten Adjustment and Revitalization Programmes, issued in 2009. A comprehensive overview for listed companies is presented in tables 28 and 29.

Table 28: Total Disbursements of Subsidies for the Adjustment and Revitalization of Key Industries

2010	2011	2012	2013	2014	Total
90,130,344	109,995,768	58,108,634	49,066,930	62,129,091	369,430,767

Source: Wind Data

Although the Programmes were issued to guide operations and direct investments until 2011, THINK!DESK research found evidence that subsidy payouts have continued even until 2014. During that year, at least 45 enterprises have benefitted from government subsidies for the adjustment and revitalization of key industries. The ten largest recipients are listed in the following table 29.

Table 29: Top 10 Recipients of Subsidies for the Adjustment and Revitalization of Key Industries in 2014

Rank	Enterprise	Amount
1	Shenyang Machine Tool Co., Ltd.	7,560,000
2	Tellhow Sci-Tech Co., Ltd.	7,500,000
3	Zhejiang Yongtai Technology Co., Ltd.	5,141,698
4	Tong Oil Tools Co., Ltd.	2,900,783
5	Yunnan Coal & Energy Co., Ltd.	2,365,000
6	Ningbo Donly Co., Ltd.	2,264,800
7	Beijing New Building Materials Public Limited Company	1,960,000
8	Beijing New Building Materials Public Limited Company	1,948,000
9	Shandong Molong Petroleum Machinery Co., Ltd.	1,808,000
10	Jinxi Axle Company Limited	1,657,143
Total		35,105,424

Source: Wind Data

However, these subsidies represent just a small fraction of the sums that have been transferred to subsidise preferred industries. Enterprises in key or pillar industries have enjoyed favourable access to public funds. The following table 30 offers a concise overview.

Table 30: Total disbursements of Key Industry Subsidies

	2010	2011	2012	2013	2014	Total
Key Industries	213,983,645	192,777,426	322,407,619	145,653,872	180,272,353	1,055,094,915
Pillar Industries	1,800,201	950,050	913,000	372,000	575,000	4,610,251

Source: Wind Data

In 2014, a total of 78 companies have received subsidies thanks to the affiliation with preferred industrial sectors. Remarkably, the government prioritisation extends to the level of individual firms. Authorities throughout the administrative hierarchy have the discretion to label preferred companies as Key, Backbone or Dragonhead enterprises. THINK!DESK research has not found any universal recognition principles across jurisdictions. Available information suggests that government organisations do not differentiate much between the

three groups but opt for designations on a rather arbitrary basis. This is to say that the three categories of preferred enterprises are not differentiated by any clear cut criteria. Owing to significant freedom to select from the general enterprise population, localities mostly favour high technology companies. The following table 31 presents essential information on the subsidy receipts of Key, Backbone and Dragonhead enterprises listed on China's stock exchanges.

Table 31: Disbursements of Key, Backbone and Dragonhead Enterprise Subsidies

	2010	2011	2012	2013	2014	Total
Key Enterprises	67,143,698	33,502,909	265,177,953	237,456,194	258,934,215	862,214,969
Backbone Enterprises	46,911,818	24,193,976	14,496,900	20,873,724	14,750,835	121,227,253
Dragonhead enterprises	33,005,182	58,131,175	14,343,167	45,515,335	136,066,579	287,061,438

Source: Wind Data

Subsidy income of these companies is not limited to the grants covered by the table as this list only contains subsidies that were designated especially for the three preferred enterprise categories.

2.2.5 Policies Targeting Green Development

Due to the considerably high demand and consumption of natural and environmental resources in China, the need to adjust the current growth model towards cleaner production and resource conservation has become a key concern of the government. During the annual session of the National People's Congress in March of 2014, Premier Li Keqiang announced that the government will "declare war on pollution". At the same venue one year earlier he stated that he was "quite upset" about the poor air quality in Beijing and other cities. Following the Premier's statements, in spring of 2014, the *Environmental Protection Law* (NPC 2014) was revised to provide greater powers to environmental protection agencies on all levels of government. As documented in tables 32 and 33 below, subsidies formally targeted at environmental protection have been very substantial in recent years.

Table 32: Total Subsidies for Environmental Protection (2010-2014)

2010	2011	2012	2013	2014	Total
562,302,617	1,912,356,798	914,091,372	1,023,305,815	1,143,105,084	5,555,161,686

Source: Wind Data

Table 33: Top 10 Individual Subsidy Transfers Promoting Environmental Protection (2010-2014)

Enterprise	Year	Amount
Hunan Valin Steel Co., Ltd.	2011	860,000,000
Chongqing Iron & Steel Co., Ltd.	2014	280,000,000
Hunan Valin Steel Co., Ltd.	2011	246,000,000
Tsingtao Brewery Co., Ltd.	2012	196,830,544
Tsingtao Brewery Co., Ltd.	2013	168,456,377
Angang Steel Co., Ltd.	2011	132,000,000
Inner Mongolia Eerduosi Resources Co., Ltd.	2011	118,160,000
Tsingtao Brewery Co., Ltd.	2011	93,027,249
Inner Mongolia Eerduosi Resources Co., Ltd.	2010	79,324,268
Zhejiang Haiyue Co., Ltd.	2012	79,020,654
Total (Top 10 subsidy transfers)		2,252,819,092

Source: Wind Data

Green development policies have become increasingly prominent as concerns for the environmental protection have grown. The central government is the main driver pushing for higher emission standards, lower tolerance for violations and increased supervision. Local governments are more immediately confronted with the economic fallout from continuously rising green performance benchmarks. They have to compensate the adverse social and economic consequences when forced plant closures lead to layoffs or reductions in economic activity. Furthermore, the coincidence of a reduction in tax revenues and an increase in social welfare spending creates important incentives to protect plants that are harmful to the environment and operate in violation of national standards.

Since the Chinese environmental policy framework was fleshed out by a large number of laws and regulations, cities, districts, counties and township governments have proved highly adept at skirting the rules. At first glance, planning and regulatory documents are replete with mention of these topics. Goals are formulated and concrete targets are set, both derived from respective documents of the central, or next higher level of government. As well, there is by no means a shortage of measures, some of which highlight the local authorities creativity on how to encourage green growth.

Until at least 2012, concealing the existence of local polluters was a common practice. Not reporting such companies to higher level authorities offers two important benefits. On the one hand, the enterprise in question can be spared significant expenses for, e.g. installing particle filters against air pollution. On the other hand, incomplete statistics understate pollution problems and overstate environmental performance for the jurisdiction as a whole. As ecological indicators have been included and play an increasing role in the key performance indicators used to evaluate government officials, concealing dirty operations is beneficial for personal career advancement.

However, detection risks have increased significantly during the 12th FYP period (2011-2015) as environmental protection departments have added staff and resources to carry out more frequent inspections. At the same time, public discontent with heavy smog, polluted water and contaminated soil – to name only a few ecological crises – has become more vocal. As the long term consequences of excessive pollution become visible in the form of health defects and other ways, acceptance of pollution has waned. Official complaints and mass protests have increased in number. In light of these developments, concealing the dirtiest companies has become a lot harder. As a consequence, local governments have stepped up their subsidization of environmental protection projects. How to alleviate the cost burden of companies has become a vital component of state-firm interaction on the local level.

This practice has the added benefit that ecologically motivated grants appear less objectionable than cash injections for, e.g. increasing output volumes. Anecdotal evidence suggests that in no few cases, subsidies intended to green plant operations have been used for other purposes, like maintaining liquidity in times of negative cash flows. Even where environmental protection grants are applied as intended, effects are rarely limited to the shrinking the ecological footprint. Instead, projects may involve equipment upgrades that increase produc-

tivity, lower costs, boost output, improve quality levels or improve the product line up. Chongqing Iron & Steel Co., Ltd. is a case in point. Between 2012 and 2014, the company received 2.5 billion RMB for an environmental relocation. While it can be argued that removing blast furnaces from the vicinity of residential areas is in and of itself environmentally sensible, the new plant set up in a more remote part of the city features some of the most advanced production equipment available worldwide. Clearly, the move has allowed – and co-financed – a comprehensive technology upgrade for the overall benefit of the company.

Local government budgets now include special funds for pollution prevention and clean-up. A wide array of environmental awards and prizes are handed out based on locally defined and mostly intransparent standards. At the same time support measures for companies are also heavily relying on tax incentives. For example, the provincial government of Shandong states that tax incentives will be implemented to put energy saving economic policy into practice. Income tax and value added tax are to be reduced by increasing the deductions of expenses on projects relating to the comprehensive utilization of resources, energy-saving equipment and other environmental protection.

Tax preferences have also been implemented by the central government and at the provincial level for the sake of promoting resource conservation. Sichuan and Shandong are prominent cases where the local administration sought to increase the reuse and recycling of waste.

The 2008 *Enterprise Income Tax Law* was superimposed on these provisions as a guidance framework. It states that

“revenues from the manufacture of products that are consistent with national industrial policy and involve the synergistic utilization of resources maybe reduced when calculating taxable income” (NPC 2007b at 33).

The *Implementation Rules for the Enterprise Income Tax Law* (State Council 2007b) outline the conditions under which companies may obtain tax benefits. They specify that an enterprise can take into account 90 percent of the revenues from the resources identified in the *Catalogue of Preferential Enterprise Income Tax Treatments for the Synergistic Utilization of Resources* (MIIT 2008), e.g. metallurgical slag). This applies to the production of goods that are not restricted or prohibited by the state and that are in line with the relevant national and industrial standards (State Council 2007b at 99).

Since the early 2000s, the Chinese government has issued several laws that aim to protect the environment. Almost all of these documents promise preferential treatments for companies meeting certain criteria. The following list provides an overview of support measures in selected laws.

Environmental Protection Law of the People’s Republic of China (NPC 2014c)

- Government organisations at all levels are ordered to devote more financial resources to the protection and improvement of the environment as well as the prevention and control of pollution and other public nuisances (at 8).
- Government authorities are called up to reward entities and individuals for outstanding performance in protecting and improving environment (at 11).
- Government organisations are required to adopt policies and measures in finance, taxation, price, and government procurement, among others, to encourage and support the development of green industries, like equipment for environmental protection and environmental services (at 14).
- The state is to adopt policies and measures in finance, taxation, price, and government procurement, among others, to encourage and support a continuous reduction in pollutant discharge of enterprises, public institutions, and other businesses that go beyond statutory requirements (at 22).

Energy Conservation Law of the People's Republic of China (NPC 2007c)

- Special energy conservation funds are to be established drawing on resources from central and local governments. Funds are to support R&D on energy conservation technologies, the demonstration and popularization of energy conservation technologies and products, the implementation of key energy conservation projects and other measures (at 60)
- Tax breaks and other support policies are to be provided in order to promote energy conservation technologies and products. The State supports the popularization and use of energy-saving lighting instruments and other energy-saving products through financial subsidies (at 61).
- Tax policies are to be adjusted in order to help conserve energy resources mineral resources through improving exploitation and utilization capabilities (at 62).
- Tax policies and other instruments are to be employed to encourage the import of advanced energy conservation technologies and equipment. The export of energy and pollution intensive products is to be restricted (at 63).
- Products and equipment that have been certified as energy-saving should receive priority treatment in government procurement plans.
- Financial institutions are ordered to increase credit support to energy conservation projects. They should provide discount loans to qualified projects conducting R&D on energy-saving technologies and manufacturing energy-saving products. Furthermore, the State encourages and guides relevant social funding to invest in energy-saving projects and speed up technology progress (at 65).
- Government departments are tasked to implement price policies favourable to energy conservation and guide energy consuming entities and individuals to conserve energy. The State adopts finance, tax, price and other policies to support the populariza-

tion of power demand side management, contract energy management, voluntary energy conservation agreements and other energy conservation measures (at 66).

- Authorities at all levels are called to praise and award entities and individuals that have made outstanding achievements in energy conservation management, research, popularization and application (at 67).

Circular Economy Promotion Law of the People's Republic of China (NPC 2008b)

- The State Council and provincial level governments are tasked to set up special funds for the development of circular economy in order to support R&D on relevant technologies, the demonstration and promotion of relevant products, the implementation of important circular economy projects and complementing information services. The specific measures shall be formulated by the MOF and other central government bodies (at 42).
- The State Council and provincial level governments are to incorporate the development, commercialization, demonstration and application of key green technologies in their respective development plans for high-technology industry. Furthermore, they should allocate financial resources to support the implementation of these measures.
- Entities using public funds for the development of key circular economy technologies or equipment have to submit a detailed plan for the digestion, absorption and innovation to supervising government department. The latter will review the plan and – in case of approval - oversee its implementation. The department are to offer financial support (at 43).
- Government organizations on all levels are tasked to offer tax preferences to industrial activities promoting the development of circular economy, and use tax measures to encourage the import of advanced energy-saving, water-saving and material-saving technologies, equipment and products. They are also order to limit the export of energy and pollution intensive products. Enterprises using or producing technologies, techniques or products listed in the *Catalogue of Clean Production*, the *Catalogue of Synergistic Utilization of Resources* or any other encouraged catalogue are to enjoy tax preferences in accordance with relevant state provisions (at 44).
- Financial institutions are provide credit support for energy-saving, water-saving, land-saving and material-saving projects as well as projects for the synergistic utilization of resources that are in line with industrial policies. No financial institution may provide any form of credit support to enterprises that produce, import, distribute or use any of the technologies, techniques, equipment, materials or products listed in the “eliminated” category of catalogues (at 45).
- Price policies are to contribute to the conservation and reasonable utilization of resources in order to guide entities and individuals to save water, electricity, gas and other resources. Government departments tasked with price administration shall apply restrictive price policies to the restricted items in industries of high resource consumption.

- Commodity pricing departments are to determine favourable on-grid power prices for power generation projects that utilize waste heat, waste pressure, coal bed gas, coal slack, coal slime, refuse and other low-calorie fuels (at 46).
- Government procurement policy should be supportive of the circular economy. Entities and individuals purchasing goods with public funds are to give preference to energy-saving, water-saving, material-saving and environment-friendly and recycled products (at 47).
- Government organisation at or above the county level are to reward entities and individuals that have made great contributions to the management, research, development, demonstration and promotion of the circular economy (at 48).

Renewable Energy Law of the People's Republic of China (NPC 2009)

- A special fund dedicated to the development of renewable energy is to be established drawing on finances from annual special-purpose funds of the central government budget and revenues from differential electricity pricing. The mission of the fund was outline as promoting scientific research, formulating technical standards and organising demonstration projects. As a key source of financing in the field of renewable energy, the fund is envisioned to support a large variety of related purposes (at 24).
- Financial institutions may offer discount loans for renewable energy development and utilization projects contained in the renewable energy industry development guidance catalogue and meeting basic credit requirements (at 25).
- Preferential tax policies are to be put in place to support projects listed in the renewable energy industry development guidance catalogue (at 26).

Cleaner Production Promotion Law of the People's Republic of China (NPC 2012b)

- The government is tasked to set up a cleaner production commendation and award system. Authorities on all levels of the administrative hierarchy shall commend and grant awards to entities and individuals with outstanding performance in cleaner production (at 30).
- Government administration at or above the county level are ordered to provide financial support for cleaner production research, demonstration, and training. Funding is to be made available for the implementation of key national technical improvement projects for cleaner production and technical improvement projects under agreements on voluntarily conserving resources or reducing discharge of pollutants (at 31).
- Enterprises using waste or raw materials reclaimed from waste as inputs shall enjoy tax preferences (at 33).

In 2010, the MIIT, the MOF and the MOST have launched a joint initiative to guide, support and monitor 121 manufacturing enterprises from nine different industries in becoming re-

source-saving and environmentally-friendly companies. Designated as “two type enterprises” the companies were to strictly comply with environmental policies and make every effort to improve their ecological performance. As pilot enterprises, the group was to try out benchmarking standards for different industries and experiment with different supervision and monitoring methods. The three central government bodies, in turn, pledged to grant preferential support to the pilot enterprises in the field of energy conservation, clean production, comprehensive resource use and other major technology innovation and renovation projects. According to the outline document, government organizations at all levels were tasked to offer their assistance where needed (MOF, MIIT and MOST 2010). The move is important as pilot enterprises were predominantly anchored in heavy industry. The selection included most of the leading producers in sectors like steel, aluminium, cement and petrochemicals. As such, the list is dominated by large SOEs – many of them owned by the SASAC of the State Council. After initial evaluations came back positive, a second batch of companies was added in 2012 (MIIT, MOF and MOST 2012).

One example for a specific programme under the general theme of “green policies” constitute the so *Demonstration Bases for the Synergistic Utilisation of Resources*. Enterprises located inside these bases have to comply with high standards for resource reuse and waste recycling. However, they may benefit from substantial subsidies that help alleviate the cost pressures. In 2011, the MOF and the MLR jointly released the *Notice concerning the Construction of Demonstration Bases for the Synergistic Utilisation of Mineral Resources* (MOF and MLR 2011a). The new scheme targeted seven industrial sectors: (1) oil and gas, (2) coal, (3) ferrous metals, (4) non-ferrous metals, (5) rare earth elements, (6) non-metals, and (7) uranium. In September of that year, both ministries released the first batch of 40 companies that were approved to participate in the scheme (MOF and MLR 2011b).

One of them is Jinduicheng Molybdenum Co., Ltd. Between 2011 and 2014, the company has received a total of 400 million RMB in subsidies. The transfers are registered as deferred income under non-current liabilities. As the company engages in research and business activities covered by the scope of the scheme, the amount is gradually used for expenditures and thus converted into profit and loss relevant subsidies (Jinduicheng Molybdenum 2011 AR at 104; 2012 at 103; 2013 AR at 102; 2014 AR at 88).

Another example is the Aluminium Corporation of China (Chalco). The subsidiary selected for participation specialises in the utilisation of low grade bauxite in Guangxi Zhuang Autonomous Region. The funds are treated and booked in the same fashion as is the case with Jinduicheng Molybdenum. Unfortunately, Chalco's annual reports do not show additions and deductions of individual items in the deferred income category. Consequently, the extent of subsidisation is hard to determine. The largest balance was registered for the end of 2012 at a level of 160 million RMB, indicating that the company has received at least this much (Chalco 2011 AR at 133; 2012 AR at 149; 2013 AR at 175; 2014 AR at 146).

THINK!DESK has found that Chinese companies have received substantial subsidy transfers in the name of synergistic resource utilisation. The following tables 34 and 35 provide an overview.

Table 34: Total Disbursements of Subsidies for the Synergistic Utilisation of Resources

2010	2011	2012	2013	2014	Total
851,466,091	1,585,687,113	1,479,414,484	2,192,474,052	2,622,857,739	8,731,899,479

Source: Wind Data

In 2014, at least 108 companies have obtained subsidies for various projects in the context of synergistic resource utilisation. 355 million RMB were granted specifically companies recognised as demonstration bases. The ten largest recipients are listed in the following table 35.

Table 35: Top 10 Recipients of Subsidies for the Synergistic Utilisation of Resources in 2014

Rank	Enterprise	Amount
1	Tangshan Jidong Cement Co., Ltd.	440,031,000
2	Anhui Conch Cement Company Limited	325,798,915
3	Henan Tongli Cement Co., Ltd.	202,443,726
4	Ningxia Building Materials Group Co., Ltd.	196,515,925
5	Xinjiang Tianshan Cement Co., Ltd.	189,174,599
6	Huaxin Cement Co., Ltd.	171,117,755
7	China Gezhouba Group Company Limited	156,852,647
8	Hunan Valin Steel Co., Ltd.	131,437,587
9	Henan Yuguang Gold&Lead Co., Ltd.	101,240,157
10	Jiangxi Wannianqing Cement Co., Ltd.	89,387,579
Total		2,003,999,890

Source: Wind Data

The central government also maintains and manages a special fund for handing out prizes for supporting conservation and comprehensive utilisation of mineral resources. Companies seeking to become eligible for subsidies paid out of this fund have to seek support from provincial level authorities first which will then make the application with the central government.

For example, Binchang Mining, a subsidiary of Shaanxi Coal Co., has received 8 million RMB out of this facility from the central government. The funds disbursed through the Finance Department of Shaanxi Province were earmarked for technology renovation and R&D projects seeking to increase the recovery rate of ores and improve the efficiency of the dressing process (Shaanxi Coal 2013 AR at 180).

2.2.6 Subsidies from Special Funds for Infrastructure Construction

Both central and provincial governments provide major companies in supported industries with special funds for constructing basic infrastructure. The allocations are made from special funds dedicated to compensate companies for infrastructure related expenses. The firms benefitting from such subsidies register them as deferred income under other non-current liabilities until construction of the infrastructure projects in question is complete. During that time, the amount is gradually reduced as expenses for buildings and equipment are made.

In 2011, Baotou City Xibao Baowei Medical Systems Co., Ltd., a subsidiary of Northern Rare Earth, received 13 million RMB from the central government. The funds were dedicated to help the company commercialise its research results in MRI technology and set up a production line capable of manufacturing 300 MRI machines per year. Another 3 million RMB were contributed by the government of Inner Mongolia Autonomous Region to procure and install relevant instruments (Baotou City Xibao Baowei Medical Systems 2011 AR at 126).

In 2012, Tongchuan Mining Co., a subsidiary of Shaanxi Coal Co., Ltd., received 53.7 million RMB from the central government's fund in order to establish emergency response teams. Another 10 million RMB were awarded to the same subsidiary for construction of a road. As work on that road had already been complete by the time of the transfer, it was considered a subsidy. In the same year, Huangling Mining Co., another subsidiary received 6 million RMB for dealing with a ground settlement resulting from underground mining. However, the project had already been concluded before the transfer so that the funds were booked as subsidies (Shaanxi Coal 2013 AR at 179).

Another one of Shaanxi Coal's subsidiaries was awarded 4.13 million RMB in order to conduct geological research and exploration work on coal deposits (Shaanxi Coal 2013 AR at 180).

Two subsidiaries of Yangquan Coal Co. received a total of 7.84 million RMB to fund construction and renovation works on two coal dressing plants (Yangquan Coal 2010 AR at 122). In 2012, both projects were completed and put into operation. As a consequence, the subsidy funds which were initially registered as deferred income under non-current liabilities were amortised based on the expected useful lifetime of the plants. Annual amortisation became profit and loss relevant subsidies (Yangquan Coal 2012 AR at 123; Yangquan Coal 2013 AR at 120; Yangquan Coal 2014 AR at 109).

2.3 Industry Associations as Hybrid Institutions Straddling Government Bodies and the Corporate Sector

China's industry associations differ significantly from the standard concept of the role and functions of industry associations are supposed to fulfil in market economies, as understood in the OECD framework. They are not restricted to representing the interests of their respective industries and member firms vis-à-vis the government and other market participants. In addition, China's industry associations also double as spokespersons for government policies and interests and take over regulatory functions from government. As already documented above, in these organisations the borderlines between "the regulated" and "the regulator" become blurred.

In order to understand the specific characteristics of China's contemporary industry associations, it is necessary to look back in time to the very design of China's central command economy in the 1950s. With the dissolution of private property of productive assets and – in line with socialist ideology – the transfer of the means of production to ownership by "all people" a constellation was created where the CPC and the Chinese government started to exercise ownership rights and manage production across the economy. Industrial units now operated as productive arms of the national government and were subordinate to different line ministries based on their industry affiliation. Under the central command economy, both inputs and outputs of production were part of material balances compiled by the State Planning Commission (SPC). In a bottom-up process, the Commission collected and processed relevant information that was handed to it by the line ministries. After weighing the political, social, economic and military priorities specified by the senior leadership, the SPC defined output targets for individual units and allocated certain inputs to be used in the production. The latter represents a top-down approach that is commonly believed to be a source of great power for the SPC. In fact, the Commission was in a reasonably weak position as (the quality of) its work depended entirely on (the quality of) information fed to it after filtering through multiple administrative layers. As such, the line ministries which presided over specific industries enjoyed a strong position by bridging the gap between planning and production.

Although this concept of line ministries may sound like a thing from the distant past, the last remaining body was dissolved not any earlier than in 2013. The abolition of the Ministry of Railways, after the discovery of a massive corruption scandal, marked the end point to a process that had started twenty years earlier. In 1998, several central line ministries were downgraded to bureau status, and staff levels were reduced. Five years later, the remaining central line ministries – with the sole exception of the railway ministry – were dissolved. Those, that had become bureaus in 1998 were now deprived of their government status and converted into business associations. Taking the steel industry as an example, the Ministry of Metallurgical Industry was demoted to the Bureau of Metallurgical Industry in 1998 and then transferred into the China Iron and Steel Association (CISA) five years later. The created associations were tasked to act as liaison between the government and respective business sectors. Their main responsibilities included data collection (taking over roles of the National

Bureau of Statistics (NBS)), consultation services and the development of industry standards as well as the enforcement of policy implementation through maintaining industry discipline. Originating in the central command economy, industry associations were tied to the state-owned enterprises they had previously controlled for years or even decades. This legacy implied a serious disconnect with the private sector which had grown rapidly during the reform era. Consequently, such associations cannot be regarded as representing the interest of their respective industry as a whole. Even after having suffered a series of administrative downgrades and the loss of government authority, industry associations are powerful players. Reminiscent of their initial role as linchpins of central planning, they now connect state-owned enterprises with the central government charged with industrial oversight and policy-making.

In the late 1990s, then Premier Zhu Rongji introduced a consultation mechanism to include industry associations in the policymaking process under the general leadership of the SPC. This approach was of course welcomed by associations, as it offered them a seat at the table for drafting industrial policy. The institutional set-up, however, is not supportive to the interests of private companies who do not have a voice in consultation mechanisms of the central government and can only seek to influence policymaking on sub-national levels. It is unclear if the central government is unprepared or unwilling to allow greater participation of organised private business interest into this system which evolved as integral part of the state sector (Shih, 2015). Wei (2008) suggests that the SOE-dominated associations seek to monopolise their position as the only qualified representatives for their respective industrial sectors.

Today there exist 16 industry associations which have grown out of the now defunct line ministries. These 16 industry associations are active on the central level, forming umbrella organisations for 313 smaller federations from across the manufacturing sector. These 313 sub-ordinate federations used to be departments of the very line ministries, which lead them now in the shape of industry associations.

Box 4: The China Iron & Steel Association (CISA)

The China Iron and Steel Association (CISA) is nominally the lobbying arm of China's steel industry vis-à-vis the government and other market participants. In reality, however, CISA stands in the middle between being a lobbyist for industry and a spokesman for government. CISA has not been founded as a bottom-up initiative by the Chinese steel industry but is rather a successor organisation of the no longer existing branch ministry for the steel industry. As such CISA has not only inherited the office buildings of the Ministry of Metallurgical Industries, but also most of its staff and administrative tasks. Formally registered as a non-profit-organisation, CISA is therefore not only representing the interests of the Chinese steel industry vis-à-vis other (mostly foreign) market participants, but also exclusively collects statistical data for the Chinese steel industry (in this function CISA acts in the name of and for the Chinese National Bureau of Statistics), prepares and coordinates industry development guidelines and technical standards, etc.

The semi-governmental role of CISA becomes obvious in the Association's substantial entanglement in the design and execution of regulatory measures:

- CISA has been entrusted with the supervision and coordination of all import/export activities of the industry including the administration of value added tax rebates for steel exporters.¹⁰
- In the *Circular on Controlling of Total Output, Eliminating of Obsolete Capacity and Accelerating Structural Adjustment in the Steel Industry*, from 2006, CISA is mandated to ensure that all the various policies outlined in the *Iron and Steel Industry Development Policy* (NDRC 2005a) will be implemented as well as to prevent disorderly competition in and blind development of the industry.
- Since 2005, CISA has not only taken an active part in the definition of the requirements Chinese enterprises would have to meet in order to qualify as iron ore importers. In the campaign to reduce the number of then 523 iron ore importers and curb "blind competition", i.e. install an iron ore import cartel, CISA has also taken up the role of checking the qualifications of the importers and determining those enterprises which would lose their import licenses.¹¹ Steel enterprises wishing to obtain an iron ore importing license are obliged to formerly report both to CISA and the China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters (CCCME) in how far they comply with the requirements.
- In 2006/7 CISA executive vice president Luo Bingsheng declared that his organisation would have a say – i.e. veto right – in the approval of M&A transactions involving foreign steel producers.

How close the relationship between the government and CISA still is may also be seen in

¹⁰ Such reported in the outline of the organization's role and function on the official CISA website. See also WTO 2005, paragraph 5.

¹¹ The number of qualified iron ore importers was cut to 118 in 2006 and 90 in 2007.

the continued usage of the internet address belonging to the former Ministry of Metallurgical Industries, <http://www.mmi.gov.cn> by CISA. Up to the present day CISA continues to update the webpage – classified as a government webpage by the suffix “.gov.cn” – with steel industry relevant news and information.

While not being adequately represented by these 16 line ministries-turned-industry associations, the private sector is organised in the All China Federation of Industry and Commerce (ACFIC). ACFIC, however as well is a bottom-up lobbying organisation by name only. The Federation rather stresses its function as an agent of the CPC and government. On its homepage it outlines its self-understanding as follows:

“Established in 1953 under the leadership of the Communist Party of China, the All-China Federation of Industry and Commerce (ACFIC), also known as the All-China General Chamber of Industry and Commerce (ACGCIC), is a group of the masses and a chamber of commerce oriented toward the business circle and with the enterprises and personages of the non-public economy as its main entity. It is a channel for the CPC and the government to liaise with the personages of the non-public economy, and an aide of the government in administering and serving the non-public economy. The work of ACFIC is a key component of the CPC’s united front and economic work. The cause of ACFIC is an important part of Socialism with Chinese characteristics.” (ACFIC, n. d.).

Box 5: China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCC MC)

The China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCC MC), founded in 1988, served to coordinate exports in the metallurgical industry and improve their competitiveness in world markets. Today the chamber defines itself as a comprehensive service provider to its member (CCC MC 2010). But CCC MC does not conform to the Western understanding of industry associations as being platforms. Instead, CCC MC has assumed some regulatory power from the MOFCOM to support the implementation of their industrial strategies and engage in active supervision. As such, CCC MC is under the authority of MOFCOM and acts on its behalf. Several sub-organisations are in charge of coordination activities regarding various commodities, such as coke and zinc (USA 2010). These units are authorised to audit member companies to assess their compliance with coordination programs and set penalties for violators.

According to the self-introduction found on the CCC MC website, services include:

“coordination service in metals, minerals, chemicals exports, coordination service in bidding commodities, organisation service at the Chinese Export Commodities Fair, organizing response to anti-dumping lawsuits, verifying export prices for customs clearance , Internet information service, overseas exhibition & training service” (CCC MC 2010)

Export price coordination, i.e. enforcing a minimum price for exports, serves to restrict outflows and at the same time maximise returns of such transactions on the national level. In 2014, a WTO panel on Chinese export restraints for coke, zinc and other raw materials confirmed this and determined that

“the authority to coordinate export prices and enforce these prices through the imposition of penalties on exporting enterprises, or on export licensing entities that issue licences to exporters that do not follow the coordinated export prices, amounts to a requirement to coordinate export prices for the raw materials at issue. The requirement derives from the fact that failure to comply with the coordinated price will result in punishment that rises to a level to prevent an enterprise from exporting altogether. In addition, under the measures at issue, export licensing entities may be punished for failing to enforce a given coordinated price. The measures do not permit exporting enterprises to deviate from coordinated export prices, or otherwise grant discretion to export licensing agencies to make exceptions. Thus, coordinated export prices must be adhered to whenever set by the CCC MC.” (WTO 2011a at 7.1064).

In the course of the dispute settlement process, Chinese authorities acknowledged they had delegated the authority for export price coordination to the Chamber. The officially sanc-

tioned mechanisms for setting binding export prices and sanctioning non-compliant traders implied that CCCMC acted as part of the government.

2.4 The Role of Markets in the Chinese Economy

The litmus-test for the existence of a market system is the prevalence of prices that truly reflect relative scarcity, i.e. the relation between demand and supply of the factors of production as well as goods and services, based on the preferences of all individuals in an economic community. In a well-functioning competition-based market economy, scarcity-based prices are responsible for the allocation of the resources available in an economy as well as the economic selection of investments and products.

Since the start of economic reforms in the late 1970s China's policy makers have gradually increased the scope that markets and supply-and-demand determined prices are allowed to play in the national economy. However, even though prices are beginning to have a role, the extensive network of planning documents and governmental guidance, prices are still not allowed to play a decisive role for the coordination of economic activity in most areas of the Chinese economy. Comparing various segments of the Chinese economy, it can be seen that prices do have an increasing role for consumer goods. However, the further up the value chain the analysis advances, the more restricted the role of markets and prices becomes. The prices of raw-materials and basic inputs to the production process continue to be strictly controlled and guided by the Chinese state and do not fully reflect the true degree of scarcity in the economy. And with regard to the allocation of the factors of production, i.e. capital, labour, and land, scarcity-based market prices eventually play only a subordinated role, being more or less entirely overshadowed by discretionary interventions of government bodies in the allocation process (Huang 2010a, Chen 2014).

This chapter looks at the role of scarcity-based market prices play in various segments of the Chinese economy in greater detail. Starting with the function of prices for the allocation of the factors of production, namely capital, labour and land, in section 2.4.1, the chapter then examines the role prices in the markets for raw materials, intermediate inputs and final goods in section 2.4.2. In 2.4.3 the analysis goes a step further and focuses on some specific complementary market institutions that have to be in place in order to make the competition based pricing system work correctly.

2.4.1 Markets for Factors of Production

Constituting the elementary inputs to any economic activity, the factors of production provide maximum leverage for governmental bodies intending to steer the economic process towards pre-determined outcomes. As such government interventions are most pronounced in this segment of the economy and drive market forces back to subordinated functions. In addition to discretionary steering mechanisms and governmental interventions in the national economy's factor allocation, as being documented in chapters 2, 4, and 5 of this report, government bodies are also intervening in the price building process at the existing markets. The following overview highlights the most important features.

In the Chinese **capital markets** the price signals generated on the markets are subjected to government induced distortions first of all due to a repression of interest rates and a manipulation of the exchange rate. Both factors result in a constellation where capital is made available at too low prices and is utilised excessively by those having access to the formal financial system – which are China’s state-owned enterprises and those actors upholding close relationships to local government agencies. According to calculations by IMF staff this has resulted in an investment ratio ten percentage points above its equilibrium value and costs to the economy in a range of about four percent of GDP per year (Lee, Syed and Liu 2012, Geng and N’Diaye 2012).

The **price of labour** continues to hover below its “fair” value due to an expressed low wage policy by Chinese government – at least until the recent initiative to boost domestic consumption –, highly immature wage bargaining processes and the household registration system (*hukou*) which prevents the constitution of a unified national labour market by effectively discriminating against labour originating in rural areas. These factors plus an inconsequential enforcement of social security systems result in a situation where firms are allowed to acquire labour with lower skill levels at bargain prices and expand business models making extensive use of such labour input.

Chinese **land markets** feature even higher degrees of distortion as on the one hand prices for commercial land use rights (LUR) are pushed up by local governments in order to generate high revenues from land sales. While on the other hand inter-jurisdictional competition for industrial investments pushes prices down for corresponding land uses. As such industrial LUR have been featuring much lower price increases (multiplied by a factor of 1.55 between 2000 and 2013) than LUR for commercial land (multiplied by a factor of 6.7) and residential land (multiplied by a factor of 4.5) (Chen 2014). As a result the allocation of land becomes removed from the true (national) economic necessities and rather favours industrial business models requiring large stretches of land.

The greatest distortions but in recent years also greatest improvements have been achieved with respect to the **pricing of nature**, which economists have in recent years leaned to include in the concept of “land” as an elementary factor of production. After decades of reckless growth-fetishism, the wish to contain the ongoing degradation of natural environments and attach a price to environmentally hazardous business activities has eventually become a major driver of social activism and elite policy making. As such the distortions resulting in an over-utilisation of natural environments are continuously being dismantled allowing for a better allocation of these resources.

The total costs these multifaceted distortions in the allocation of resources convey to the Chinese economy as a whole can only be estimated. Huang and Tao (2011) estimate the aggregate costs arising from the governmental interventions in the factor markets to lie in the range of about 10 percent of Chinese GDP each year during the first decade of the 21st century.

At the same time that these costs are being created in the Chinese economic system – and are predominantly born by the Chinese consumers – specific industries and individual firms are standing to profit from this nation-wide phenomenon of distorted factor prices. Furthermore, in addition to these generally manipulated price levels some players can be shown to profit from even more beneficial conditions which are the result of discretionary interventions in allocation processes by local governments. In the following this report looks in more detail at the benefits various industries and specific players have been able to receive from governmental interventions in the capital and land markets.

2.4.1.1 *Capital Markets*

Institutional reorganisation of China's financial system started comparatively early in the reform process. An interbank money market was set up in the 1980s and stock exchanges opened in the early 1990s while a bond market followed in the early 2000s. In 1983, commercial banking functions were devolved from the People's Bank of China and shifted to four state-owned banks. These were transformed into state-owned commercial banks (SOCB) in 1994 as policy related activities were transferred to three dedicated policy banks. The Commercial Bank Law, issued the following year cleared legal and organisation issues to establish a comprehensive regulatory framework. The China Banking Regulatory Commission was created in 2003 to supervise the banking industry and improve its performance. Corporate governance reforms of all major state-owned commercial banks were carried out to allow for stock market listings of these institutions in the 2000s. Foreign banks have been allowed to operate in the country since the mid 1980s, but their services were initially limited to foreign clients in special economic zones and coastal open cities. Market access expanded gradually and made significant progress after China joined the WTO. However, significant restrictions for foreign financial institutions remain in place.

Since the global economic crisis, financial market reform has accelerated but progress only came in small doses. The breadth and depth of financial markets increased substantially. China's stock and bond markets grew to become second and third largest in the world in 2014 (Bloomberg 11.03.2014). Regulation of both markets does not reflect the spirit of free markets but is influenced by sectoral industrial policy considerations. The *China Securities Law* (NPC 2014a) still maintains that

“The state encourages the listing of corporate stocks that comply with the relevant industrial policies and meet the relevant requirements of listing” (at 51).

The law also stipulates that

“the investment of raised funds must comply with the industrial policies of the state” (NPC 2014a at 16.4).

According to research by J. P. Morgan (2014), the Chinese banking sector covers 140 trillion RMB in deposits spread out over 1 billion customers of about 2,500 individual banking institutions. The industry landscape has changed substantially during the reform era and now includes state-owned commercial banks, privately-owned joint-stock banks, municipal and rural commercial banks, various types of credit cooperatives, a postal savings system and foreign bank branches.

Commercial banks are no longer bound to treat deposits and loans strictly based on the PBoC's benchmark interest rates. Put in place in order to guarantee China's – predominantly state-owned – banks comfortable profit margins, it also caused systemic problems as it limited the space in which banks can compete with one another. Furthermore, banks naturally sought out the lending clients with the lowest risk profile, i.e. state businesses and government-backed projects. Privately-owned companies and those with riskier business models were practically excluded as clients (WSJ 26.03.2015). Eventually, the PBoC granted banks limited authority to adjust deposit and loan interest rates within a narrow band. This band was gradually expanded and lending rates were finally liberalised in 2013. With regards to deposits, regulators have abolished the floor on rates in 2014 allowing banks to pay savers as little as they want. On the upside, the rate ceiling was raised to 10 percent above the PBoC's benchmark in 2012. Two years later, the ceiling was raised by another 10 percentage points. This already provides for some limited space for commercial bank competition. However, the weakening of economic activity has led the central bank to lower lending rates. In order to avoid a squeeze of their profit margin, commercial banks are likely to refrain from voluntarily offering higher interest rates on savings. Zhou Xiaochuan, the head of China's central bank has announced in early 2014 that the liberalisation of deposit rates would occur in 2015 or 2016 (The Diplomat 12.03.2014). However, by the time of writing, in March 2015, no time table had been presented.

Until 2015, reforms have not yet produced a free capital market nor have they removed state intervention. Regulatory and legal frameworks are still patchy and the role of large state-owned commercial banks in financial intermediation has remained prominent. In fact, the Commercial Banking Law prescribes that "financial institutions carry out their business in order to meet the requirements of national economic and social development. They should develop their lending business under the guidance of sectoral industrial policies of the state" (NPC 2003 at 4.34). This provision appears to conflict directly with article 41 which provides that "No entity or individual may coerce a commercial bank into granting loans or providing guarantee. A commercial bank shall have the right to refuse any entity or individual to force it to do so." Pursuant to this rule, the directives of government organisations demanding bank lending to preferred companies have no legal underpinning.

Nevertheless, government influence on the banking sector has remained significant (J. P. Morgan 2014). In June 2006, Guo Shuqing, then chairman of China Construction Bank has complained about Government interference at banks. Guo said that government influence on the lending business of China's four large SOCBs was not sufficiently based on commercial

considerations (Finanznachrichten.de 29.06.2006). In a 2010 OECD discussion paper, Herd, Pigott and Hill suggest that

“Active efforts by the authorities to promote greater private control of financial institutions would help to improve the financial system’s capabilities to serve the private sector and to eliminate interference by government entities, particularly local governments, in lending decisions. Consideration should be given to requiring local authorities to reduce their ownership stakes in commercial banks over a reasonable period” (p. 36).

Local governments commonly offer special assistance to companies or industrial sectors with large contributions to local industrial value added, tax revenues or employment. The special appreciation is expressed by local authorities openly or covertly lobbying local bank branches to expand lending and provide favourable conditions to selected companies. Several examples for this practice have been identified in a recent study on state intervention in the Chinese seamless tube and pipe industry (Taube and in der Heiden 2015).

Huang (2010a) found that distortions in capital markets have had the largest effects on economic growth compared to markets for labour and other production inputs. Distortions in the financial market are threefold. Firstly, capital was made artificially cheap to stimulate investment growth. Low interest rates and complementary measures have kept borrowing costs at disproportionately low levels. Secondly, a strong bias for lending to SOEs and local governments implied that the availability and cost of capital was far from equal. Finally, access to capital and the terms at which it is provided serve as important tools for industrial policy making. By offering loan interest subsidies, loan guarantees and other means of reducing capital costs, government organisations seek to direct investment into key projects and industries. Similarly, in sectors where industrial policies seek the removal of obsolete production capacities, the closure of polluting plant facilities or the reduction of independent players through M&A, capital availability is tightened. Lending costs are increased indirectly through directives asking banks to re-evaluate their exposure to particular industry risks. The following sections elaborate on these aspects in greater detail:

(i) The costs of capital is kept artificially low

A large body of research emerging since 2001 argues that capital is intentionally underpriced as a means to stimulate investment-driven economic growth. Huang (2010a) maintains that an international comparison of the ratio of nominal GDP growth potential and government bond yields can reveal distortions. The former stands for the average investment returns while the latter represents risk free investments returns. Under ideal conditions, the two indicators should converge – signifying the absence of distortions. In the case of China, an obvious gap separates the two: five-year government bond yields averaged 3.2 percent between 2005 and 2014 while nominal economic growth has been around 9.9 percent. The gap of almost 7 percentage points is significantly larger than comparable data from many other de-

veloped countries and emerging markets. This suggests that China does indeed have distorted capital markets (Huang 2010a).

Chen (2014) points to an established causality between economic growth and lending rates. A faster expansion of economic activity should translate into higher lending rates. Based on the average GDP growth observed between 1980 and 2010, he calculates that China's lending rate should have averaged 7 percent when in fact, it stood at a mere 2 percent.

Commercial banks have fared very well under the semi-reformed financial market conditions. They accumulate deposits from China's large population which is also characterised by high savings rate. As individual savers are unable to make bank deposit or by securities overseas, due to China's closed capital account, commercial banks offer a limited portfolio of investment products. Because savers only need to be compensated with low interest rates, commercial banks enjoy access to a very large pool of very cheap capital as a basis for undertaking their lending business. Aidan Shevlin and Wu Lan, the authors of a recent research note of investment bank J. P. Morgan (2014 at 13) state that

"The modest interest rate liberalisation implemented by the government, after more than two decades of financial market reforms, has benefitted only a small minority of Chinese investors. The majority of China's 1.4 billion population find themselves with few investment and interest rate choices beyond time deposits."

(ii) Local governments and SOEs are the principal beneficiaries

Local governments cannot lend from banks directly. Instead they used to direct special investment companies owned by them to borrow from banks and finance infrastructure or social housing projects. These companies have become important vehicles for localities to tap bank finance since local governments have been prohibited from issuing bonds.¹² Squeezed between rapidly increasing spending obligations and limited revenues, cities have made ample use of this instrument to cover budget short falls. A series of economic stimulus packages implemented since the onset of the global economic crisis has strained local finances. Furthermore, increasing outlays for healthcare, education, social housing and other public services have added to the pressure. Municipal government investment companies are welcome loan customers due to their favourable risk profile. Backed by supervising government agencies, these enterprises are unlikely to default on their debt. Explicit and implicit government guarantees allow for low financing costs and favourable conditions. As the financing requirements of Chinese localities have risen, so have the debt load and leverage ratio of investment companies run by them.

¹² In late 2014 this policy has been amended. Now local governments are no longer permitted to raise capital via special investment companies or local state-owned enterprises. Instead they are permitted to emit bonds at the capital markets. Emission of bonds and utilization of funds raised are subjected to a quota system administered by central government. In earlier years central government had in some specific cases helped localities to raise funds from the bond market by issuing notes in its own name and channelling the money to the respective province or city.

The privileged status of SOEs as pillar of China's "Socialist market Economy" manifests itself in the commercial loan business. Owing to explicit and implicit guarantees by supervising government organisations, lending to SOEs is regarded as bearing significantly lower risk, compared to private enterprises. Financial institutions, state- or privately owned, face similar incentives which work in favour of SOEs. The latter can thus benefit from preferred credit allocation, lower interest rates, lower collateral requirements, deeper credit lines, less restrictive oversight and easier refinancing of existing debt (Gao 2013; Liu and Siu 2006). Through their analysis of 12,000 companies from across China, Dollar and Wei (2007) have not only confirmed this finding. They have also calculated that the investment rate could be reduced by eight percentage points without impairing economic growth under the condition that the SOE bias in lending was cancelled. Similarly, Lee, Syed and Liu (2012 at 16) argue that

"In China, a large burden of the financing of over-investment is borne by households, estimated at close to 4 percent of GDP per year, while SMEs are paying a higher price of capital because of the funding priority given to larger corporations."

An increasing share of these funds is not bearing productive returns but serves to keep over-indebted entities afloat. Slowing economic growth and stagnating demand has revealed excess supply and brought about significant price declines in many industries. As sales revenues have stopped in their upwards trend, liquidity management assumed increased importance – especially as high leverage ratios imply significant costs for meeting repayment obligations on loan interest and principal. With more capital tied up for debt service, fewer resources are available to finance R&D and other activities that add value to companies. In this situation, injecting fresh loans helps SOEs refinance existing debt but creates little economic value or public welfare (Quartz 22.07.2014 and 20.09.2013).

2.4.1.1.1 Dividend Policies as a Means of Subsidisation

SOEs may retain most for their profits for internal use and only need to hand over a fraction to the Ministry of Finance as dividends. As a legacy from the last major wave of SOE reforms in the late 1990s, this arrangement frees up additional capital for investments. Confronted with steep losses and escalating leverage ratios of hundreds of thousands of SOEs, the government initiated the "grasp the big, let go of the small" strategy. Across all industries, large companies had to undergo restructuring and shed loss-making assets. At the same time, they have received significant subsidies to shore up liquidity and promote modernisation. Capital injections reduced liabilities and freed up capital that was otherwise reserved for debt service. Small SOEs were either closed, merged or integrated into bigger ones. The large-scale rescue operation took about five years to complete and put a heavy burden on the state budget.

The government waived its dividend claims to surviving SOEs in order to shore up their financial strength. Retained profits served to repair their balance sheets, upgrade production technologies and improve competitiveness. As the economy improved in the early 2000s, the revitalised state business sector registered substantial profits but government budgets did not benefit. Funding shortfalls in China's fledgling social security system highlighted the need to reclaim the right to dividends and in 2007 for modest reforms were initiated. The central government started to demand dividend payments worth ten percent of after-tax profits from SOEs in particularly profitable monopoly industries such as resources, petrochemicals and tobacco. Companies operating in competitive sectors, e.g. steel, had to pay a reduced rate of five percent while research and military oriented companies continued to be exempt from dividend payment (Sina 15.11.2013).

In a second step, dividend regulation was adjusted upwards in 2011, targeting SOEs affiliated to five central ministries and two enterprise groups (1,631 entities in total) were ordered to give up variable shares of their after tax profits. The Ministry of Finance increased its dividend claims across the public business sector. Starting from January of 2011, companies in particularly profitable industries (like telecommunication) were required to submit 15 percent of their net profits. Steel enterprises and firms in other areas of the economy only needed to give up ten percent. With just five percent, SOEs involved in the production of military goods and research focused organisations benefitted from the lowest rate.

Furthermore, all SOEs which had issued shares on China's stock exchanges between 2006 and 2009 were forced to retroactively submit ten percent of the proceeds. These funds were to be used to shore up the ailing social security system. In November 2012, the *Decision of the Central Committee of the Communist Party of China on Comprehensively and Thoroughly Addressing Several Key Problems* ruled that 30 percent of SOE profits would have to be paid to the central government by 2020. Again, the social security fund was earmarked as the principal beneficiary (CPC Central Committee 2013). However, a senior representative of IMF has called on the Chinese government to increase dividend payments by its SOEs. Speaking at a press conference in Beijing, David Lipton, first deputy general director of the Fund has pointed out the need for more complete submission of SOE profits (FT 26.05.2015).

Since the first profit sharing reforms were enacted in 2007, the provinces, autonomous regions and cities directly under the central government have implemented their own dividend regulation for the SOEs under their control. Most have adopted the central government standard of 30 percent to be reached by 2020.

The government of Shanxi Province stated that its planned capital budget for state-owned business operations in 2013 expected 500 million RMB in revenues from immediate profits and SOE dividends – split almost evenly (MOF 2014). On the expenditure side, Shanxi Province prepared to spend the same 500 million RMB for supporting industrial upgrading and technology improvements across its company portfolio (SASAC 2011).

A similar situation exists in Hebei Province where the capital budget for state-owned business operations for 2014 is expected to reach 310 million RMB received from transferred profits. Hebei indicated it will spend the same amount, investing about two thirds of it in the development of key projects (MOF 2014).

2.4.1.1.2 *Industrial Policy Compliance as a Precondition to Access to Low Cost Capital*

Reforms of the banking sector have substantially reduced the opportunities for government organisations to intervene in normal business operations at commercial banks. Directed lending to preferred companies led to major inefficiencies (and substantial losses) during the 1980s and 1990s and was thus prohibited in the early 2000s. The reporting and incentive structures were adjusted to reinforce these reforms. According to law, all banks based their business on commercial principles only so that the ownership type of either banks or clients becomes irrelevant for its decision making.

In spite of reforms, the Chinese banking sector has to cooperate with government authorities in supporting industrial policy. Bank managers have to be aware of industrial policy and conduct business operations accordingly. Through directives of the PBoC or the CBRC, the state continues to order banks to conform to sectoral policies and contribute to the overall policy implementation effort. Banks are asked to improve their service offering, create customised solutions and expand lending to strategic emerging, pillar or key industries. At the same time, they have to scale back or even stop lending to businesses which are operating in violation of industrial policy for their respective sector. This does not only amount to direct intervention in the way banks do business. It also puts an additional burden on financial institutions as they are required to develop both a deep understanding of various sectoral industrial policy concepts and the ability to determine if its client are conforming or violating such policies.

Producers of goods and services that are especially promoted by the government enjoy easier access to bank loans. The investment guidance catalogues issued by the central government indicate priority areas for industrial development. Products and technologies contained in the “encouraged” category are regarded as important, if not critical, to successful long term economic growth. Companies engaged in relevant development or production activities qualify for preferential treatment. In a similar fashion, enterprises anchored in one of the seven designated strategic emerging industries (SEI) can benefit from favourable arrangements for meeting their funding needs. In light of this, banks are urged to provide special support and services. Further details on lending support under the SEI initiative are provided in chapter 2.2.3. In the following boxes 6 and 7, several examples will be presented to illustrate the subordination of financial services to industrial policy.

Box 6: Government Interventions in Bank Loan Allocation in Hubei Province

In its *Implementation Measures for the Adjustment and Revitalisation Programme for the Steel and Non-ferrous Metals Industries (2009-2011)* which were cited earlier in this report, the government of Hubei Province (2010) has indicated its readiness to improve access to bank loans to key companies in key sectors of the local economy. Other provinces go even further and introduce more concrete instruments. Gansu Province in Western China is a case in point. Authorities there have called for establishing an advanced financial system to the cooperation of local players with the China Development Bank and other financial institutions. Municipal governments are to intensify their cooperation with banks in order to set up a credit operating system that accommodates the financial requirements of companies (Gansu Province 2010a at 6.20). Furthermore, the Governor's Office of Gansu Province regularly gives awards to financial institutions that have contributed to advancing the development of the local industrial economy (Gansu Province 2012 and 2013). The governor's prize is a high profile affair and is meant as an expression of gratitude and appreciation for lending policies that supported local industrial policy strategies. Winners include the local office of the China Development Bank, as well as the local branches of major commercial banks, agricultural credit unions and other financial institutions.

Box 7: Governmental Interventions in Capital Allocation in Gansu Province

In 2011, Gansu Province has openly announced to “strengthen the refinancing capabilities of 22 stock market listed companies” based in the province. The list includes Lanzhou Greatwall Electric Co., Ltd., Gansu Jingyuan Coal Industry and Electric Power Co., Ltd. and Gansu Jiu Steel Group Hongxing Iron & Steel Co., Ltd. (Gansu Province 2011a).

The authorities of Jiayuguan City (Gansu Province) issue *Guiding Opinions on Expanding Bank Lending* on an annual basis, however, only the editions for 2008, 2010 and 2011 were obtained by THINK!DESK (Jiayuguan City 2008, 2010 and 2011). The documents have proven very instructive and relevant passages from the 2010 and 2011 versions are reproduced here in translated form:

Strengthen the coordination between credit policies and agricultural industrial policies. Accelerate the industrial development of agriculture. Increase support to advantageous industries. Meet the financial needs of leading agricultural industry companies like Hongfeng Industrial Co., Zixuan Wine industry and Xingsheng Beer Processing. Support the upgrading of the deep processing of agricultural commodities at these companies and raise their overall competitiveness. Focus on supporting the cultivation of a group of companies engaged in the deep processing of agricultural commodities that have adapted to special types of agricultural development, market their products to end consumers and have a strong radiating effect on the industry. Increase financial support for development the dairy industry. Support the healthy development of dairy farmers, cooperatives and processing enterprises that can meet credit conditions (Jiayuguan City 2011 at 3.2).

Focus support on the construction of bases for leading industries and renewable energy. Continuously promote implementation of the strategy of industrial strengthening. Banks and financial institutions are to closely adhere to the provincial government's and the provincial CPC commission's general ideas on “Catch Four with Three Branches of Support” and their “Centre Promotion, Flying with Two Wings, Group Development and Comprehensive Promotion” strategy for regional development. Financial institutions should make full use of their function for adjusting the allocation of resources. They should promote the structural adjustment and upgrading of industry, actively implement policy measures for increasing domestic consumption and step up credit support for key projects relating to indigenous innovation, energy conservation, emissions reduction and recycling economy. Further promote the optimisation industrial layout, industrial clusters and extending operations both up- and downstream. We should seize the opportunity of national revitalisation measures for steel and nine other pillar industries and continue to expand loan commitments to developing the steel industry, the equipment manufacturing industry as well as

high and new technology industries. Centred on the national demands to forcefully develop high and new technology industries, we should focus support on the development of new materials, new energy, sophisticated chemical engineering and the other advantageous industries which are special to our city and form a group of new nuclei for economic growth and credit growth.

Firstly, we should offer full support to Jiu Steel Group Co. to continuously raise its output capacity for products related to high-speed railways, steel and steel products; support the construction of a 1,800 m³ blast furnace, the second stage of stainless steel mill, new coking facilities and other key engineering projects. The value added of output should increase and the company should realise an operating income of 50 billion RMB. At the same time, we should continue our support for Jiu Steel Co. issuing short-term bills and medium term notes.

Secondly, we should establish the accelerated construction of new energy bases as the centrepiece of our SEI cultivation efforts. By way of injecting credit finance from banks, we should fully bring to bear our city's competitive advantages in solar and wind power resources, comprehensively strengthen the strategic cooperation with Huandian New energy Co., launch the Jiadong solar thermal power plant project, diligently form "new energy – high energy – downstream products" as a new mode for comprehensively developing and using regional resources. We should promote the construction of several production line projects, including 1 million tons of ferroalloys, 100 thousand tons of chromium salt, 1.6 million tons of new type dry quenched cement.

Thirdly, we should actively do a good job in providing credit support for the equipment manufacturing industry. Support should be focussed on expanding production capacities at Western Heavy Industry Co., China Nuclear Power Jiayuguan Co., Haite Co., Daluqiao Steel Tubes and other companies in the equipment manufacturing sector. At the same time, taking new energy related equipment manufacturing as leading sector, we should fully support the development of equipment manufacturing and stainless steel deep processing.

Fourthly, we should continue to strengthen credit for the construction of basic infrastructure in industrial parks, diligently promote the second stage of the Jiabei project and the third stage of the Jiadong project road network construction ...

Fifthly, we should forcefully promote technology innovation and renovation of enterprises, upgrade traditional industries, increase nurturing of SEI, implement the cultivation plan for small and mid-sized enterprises, raise the quality and effectiveness of the development of the industrial economy.

Sixthly, we should step up support for exporting enterprises and companies with foreign investment. We should promote outward-oriented economic development. Increase credit for the service industry and support qualified enterprises to attract foreign investment and invest overseas to continuously expand the development potential of companies. Focus support of Jiu Steel Group Co. to expand exports, support small and mid-sized enterprises to improve foreign market exploration abilities.... (Jiayuguan City 2010 at 3.1)

The provisions of Gansu Province and Jiayuguan City, illustrated here, showcase the continued intervention of local governments in the banking sector. Officially, the direction of lending activities of local banks by local government authorities was outlawed in the early 2000s. Far reaching reforms of accountability and reporting duties have been instituted to prevent rent seeking behaviour, cronyism and corruption. However, as the examples have showed, directed lending is continuing even today. It is important to note, that the statements here are not limited to this particular case, but hold broad relevance for local lending business across the country.

2.4.1.1.3 Governmental Market-Interventions Conducted via the People's Bank of China

Government influence over the financial sector is concentrated in the People's Bank of China (PBoC), the country's central bank, as well as three state policy banks, the China Export-Import Bank and the China Development Bank and the Agricultural Development Bank of China. Different from central banks in OECD countries, the PBoC is subordinate to the government and reports to the State Council, China's cabinet. Besides its three main (formal) duties to address financial risks, maintain financial stability and carry out monetary policy, the PBoC supports economic development strategies, e.g. sectoral industrial policy, by own measures. It sets depository and lending benchmark interest rates and determines the required reserve ratio (RRR), i.e. the share of deposits commercial banks cannot use for making loans but have to keep in a central bank account as a precaution against financial risk. Exchange rate policy is also firmly under the PBoC's control as the bank carries out open market operations, window guidance and other measures to keep the external value of the RMB within a prescribed range relative to other currencies. More on exchange rate related interventions of the PBoC will be discussed in chapter 6.

Evidence suggests that even the People's Bank of China (PBoC), the country's central bank, is involved in sector-specific lending promotion. In 2010, for example, the bank's Wuhan Branch expresses its intent to provide special loan support of ten "key industries". These include the automobile industry, the steel industry, the petrochemical industry, light industry, the textile industry, the non-ferrous metals industry, the equipment manufacturing industry,

the shipbuilding industry, the IT industry and the logistics industry. In its *Opinions concerning the Financial Support for the Adjustment and Revitalisation of Ten Key Industries in Hubei Province*, the Wuhan PBoC demand to “increase the financial support for technological transformation and enhance the independent R&D capability of enterprises” (PBoC Wuhan 2010 at 1). The authors have devoted a separate section to outline banking support for the steel and non-ferrous metals industries, stating that “all financial institutions should improve and optimise credit services offered to deep processing projects of the steel and non-ferrous metals industries in order to meet the financial needs of relevant companies with regard to investment, exports and other vital areas” (PBoC Wuhan 2010 at 4.2).

While the example of Hubei Province and its capital Wuhan documents the involvement of the PBoC in the implementation of governmental guidance to the economy, the full importance of the PBoC for the transmission of government policies into concrete lending activities of the Chinese banking sector becomes even obvious in the case of Shanghai as documented in box 8.

Box 8: The Role of PBoC Shanghai Branch Office for the Industrial Policy Implementation

Individual provinces, autonomous regions and cities under the direct administration of the central government draft their own guidance documents for local banks. Shanghai Municipality is a case in point. The city’s branch of the PBoC has issued annual *Credit Orientation Guidelines* in order to align business operations of financial institutions with industrial policy priorities. The documents spell out in detail the priorities that lenders should set in their work and draw attention to particular government initiatives that are to be supported (PBoC Shanghai 2012).

The 2012 document states that its provisions base on the national 12th FYP, the 12th FYP of Shanghai and various policies documents recently issued by the municipal government. It orders all financial institutions to pay close attention to national investment policies and sectoral industrial policies. They have to familiarise themselves with industrial development plans and related documents released by the municipal government in order to “correctly determine the direction of macro-economic policies” (at 1). Banks and other lenders have to follow the principle of differential treatment of businesses and technologies that are promoted and discouraged by national industrial and investment policies so as to implement relevant national guidelines (at 2).

The document outlines the main requirements for lending activities in 2012 as: thoroughly implement the spirit of the Central Committee Economic Work Meeting, the National Financial Work Conference and the PBoC Work Conference. Lenders are to closely align themselves with the main line of science and technology promotion as well as economic transformation and restructuring. They should pay more attention to credit and sectoral industrial

policies as well as welfare and redistributive policies.

Special credit support is to be granted to SEI according to the 12th FYP for the development of SEI in Shanghai City. Banks are called to contribute to the implementation of the programme in a variety of ways. They are to develop innovative and specialised financial products and services to best meet the demand of SEI firms. The Credit Orientation Guidelines urge banks to step of credit support and improve services for firms engaged in the development of energy-saving and environmental technologies, next generation IT, biotechnology, high-end equipment manufacturing, new energy, new energy vehicles and new materials. Through innovative financing products and a stronger focus on increasing support, the banking sector is urged to help establish national key science and technology infrastructure, national engineering labs, national engineering technology research centres, nationally certified enterprise-based technology centres, strategic industry alliances aimed at technology innovation and other important platforms. Lenders are ordered to expand financing services to projects contained in the Catalogue of Supported Key Technology Renovation Projects in Shanghai City 2011 and vigorously develop discount loans and other credit services to accommodate technological renovation (at 1.1).

A key focus of the *Credit Orientation Guide* is the customisation of financing products to the needs of technology companies. In this vein, lenders are asked to strengthen their communication with relevant government departments to come up with new credit solutions. The Zhangjiang “One Area Twelve Parks” concept is identified as a particular focus of bank lending support. The construction of Zhangjiang Hi-Tech Park and Zhangjiang Eastern Area are to be understood as core areas for practicing financing innovation for science and technology promotion. Supported regions are to extent to Jiading Park and several other areas (at 1.1).

All financial institutions have to support the development and application of technologies for environmental protection, energy conservation, emission reduction and materials recycling as starting point for improving their credit structure and vigorously innovate credit products. Banks should pay close attention to development and upgrading trends in these industries and strive to promote the manufacture of energy-saving refrigerators, engines, washing machines, air conditioners, lighting, hybrid and pure electric vehicles as well as other energy efficient products (at 1.2). Banks should monitor the progress in solar energy, smart grids, clean coal, liquid and solid waste treatment as well as the synergistic utilisation of sea water. They should increase credit support to energy conservation service providers and contract energy management firms. The Guideline also mentions specific key environmental protection projects, like the phase 2 expansion project of the waste water treatment plant at Bailong Port, for which lenders should meet financing demand (1.2).

With regards to other major projects pursued by the Shanghai government, the local PBoC branch advises local banks to assist the establishment of the Shanghai International Trade Centre, the Shanghai International Financial Centre and the Shanghai International Shipping

Centre. Bank are urged to vigorously development discount loans and other credit products with medium to long periods to support the importation of advanced technologies, key equipment and special resources that are in short supply on the domestic market (at 2.1).

The tourism industry serves as another key focus of the PBoC lending strategy. All financial institutions should capitalise on the city's historic opportunity to build Shanghai into a world renowned tourism city. Banks are to contribute by providing various types of financing services to famous companies taking part in the Shanghai Tourism Festival and other signature events. Based on the city government's Guiding Opinions on Financing Support for Developing the Tourism Industry, local lenders should explore new services, like pledges of on entrance ticket earnings. Loss-making companies from the tourism industry possess competitive advantages should receive credit support.

Finally, the cultural industry receives strong attention by the PBoC. Pursuant to the *Guiding Opinions on Financing Support for the Rejuvenation and Prosperous Development of the Cultural Industry*, local financial institutions are asked to further improve their product offerings to related companies. Support targets are identified as the National digital publishing base, the China (Shanghai) Network Audiovisual Industry Base, the National Music Industry Base, the National Green Innovative Printing Demonstration Park as well as other national level cultural industry parks.

With regards to industries restricted by the national investment guidance catalogues, the PBoC warns banks to strictly control loans to industrial sectors like, cement, plate glass and coal chemistry as well as to industries with overcapacities, obsolete production plants, high resource consumption and serious pollution. Banks are called upon to take the initiative and assist relevant government authorities in flushing out obsolete capacities and stopping the production of sporadic chemicals, textile dyes, leather manufacturing and other goods. Furthermore, banks should work to contribute to a drastic reduction in the production and storage of dangerous chemicals. Finally, they should help to cut in half the total output of materials that are electric coated, heat treated, forged or cast.

2.4.1.1.4 *Debt-Equity Swaps as a Means to Unburden Corporate Balance Sheets*

Finally, debt-to-equity swaps have rescued several hundred over-indebted SOEs in the run up to China's WTO accession in December 2001. Although these transactions date back to the years 1998-2000 the magnitude of debt relief has been so large that effects can still be felt today. Up until the late 1990s, SOEs had accumulated debt to a degree that threatened firm survival. Chinese industrial planners worried about the viability of many large industrial SOEs after China joined the WTO in December 2001. In order to reduce debt burdens and

shore up corporate finances of enterprises in various sectors, the central government resorted to debt to equity swaps. In a massive grant giving operation, all major state-owned mills could significantly reduce their leverage. Debts held by state-owned commercial banks were transferred to four Asset Management Companies (AMCs). In return for obtaining the financial obligations, AMCs were given additional ownership shares in client companies. In other words, the state, acting as creditor, received an (additional) ownership stake in exchange for cancelling existing debt at state-owned companies (Taube and in der Heiden 2009).

This approach does not seem to follow commercial considerations, since the government had already held controlling stakes before the debt-equity swaps took place. Consequently, the acquisition of additional shares did not influence the government's control rights.

Government agencies would not have regarded the transactions as equity investments because the desolate condition of the SOEs rendered investment returns a rather distant prospect. It is unlikely that private investors, had they been permitted to acquire ownership stakes, would have volunteered to obtain SOE shares in return for debt forgiveness. These transactions can only be regarded as direct cash infusions intended to lower companies' debt-asset-ratios as purely commercial considerations would have precluded this approach.

2.4.1.1.5 *Loan Interest Subsidies and Treasury Bond On-Lending*

Treasury bond on-lending is a common way of providing low interest loans to favoured companies. Owing to the lower risk premium of government debt, this financing channel significantly reduces the cost of capital. Like access to loans from state policy banks, only selected companies which comply with government regulations qualify for treasury bond on-lending.

Loan interest subsidies are awarded by government department to promote technological upgrading and other policy objectives. More information on the volume of the benefits obtained by listed companies is provided in the following tables 36-39.

Table 36: Total Disbursements of Treasury Bonds Subsidies

2010	2011	2012	2013	2014	Total
79,469,980	61,988,574	62,827,566	65,108,482	45,252,002	314,646,604

Source: Wind Data

In 2014, at least 34 enterprises have obtained funds raised through state treasury bonds. The ten largest recipients are listed in the following table 37.

Table 37: Top 10 Recipients of Treasury Bonds Subsidies in 2014

Rank	Enterprise	Amount
1	Shenyang Chemical Industry Co., Ltd.	20,177,143
2	Sound Environmental Resources Co., Ltd.	4,271,632
3	Guizhou Chitianhua Co., Ltd.	2,293,500
4	Shaanxi Xinghua Chemistry Co., Ltd.	1,428,571
5	Yangmei Chemical Co., Ltd.	1,171,000
6	Qinchuan Machine Tool & Tool Group Share Co., Ltd	1,083,333
7	Shenyang Brilliant Elevator Co., Ltd.	1,080,000
8	Liaoning SG Automotive Group Co., Ltd.	1,019,286
9	Xi'an Shaangu Power Co., Ltd.	1,014,000
10	Shanghai Automation Instrumentation Co., Ltd.	965,900
Total		34,504,365

Source: Wind Data

Table 38: Total Disbursements of Loan Interest Subsidies

2010	2011	2012	2013	2014	Total
2,173,512,395	1,796,559,447	3,147,022,982	2,751,477,410	2,798,043,658	12,666,615,892

Source: Wind Data

In 2014, at least 792 enterprises have benefitted from loan interest subsidies. The ten largest recipients are listed in the following table 39.

Table 39: Top 10 Recipients of Loan Interest Subsidies in 2014

Rank	Enterprise	Amount
1	China Shipbuilding Industry Company Limited	250,274,000
2	Xiamen XGMA Machinery Company Limited.	230,000,000
3	BOE Technology Group Co., Ltd.	172,327,800
4	Shandong Huatai Paper Co., Ltd.	158,581,952
5	Metallurgical Corporation of China Ltd.	74,490,000
6	Tongling Nonferrous Metals Group Co., Ltd.	74,369,049
7	Ningxia Zhongyin Cashmere Co., Ltd.	71,426,920
8	Huatian Hotel Group Co., Ltd.	65,308,300
9	AVIC Aircraft Co., Ltd.	61,937,700
10	Beijing Capital Retailing Group Co., Ltd.	61,590,000
Total		1,220,305,721

Source: Wind Data

2.4.1.1.6 Loans from State Policy Banks

In 1994, a major overhaul of the banking sector introduced separate entities for policy and commercial lending. Policy banks are tasked to carry out lending in support of government policies. Reporting to the State Council, the business operations are guided by national development objectives as well as economic and foreign policies. The **China Exim Bank** promotes foreign trade and investment by handing out concessional loans and providing export credit. As such, it is a major facilitator of overseas projects related to infrastructure construction, high technology and other state-endorsed fields. The **China Development Bank** has a domestic orientation and supports government strategy for national (economic) development. Its operations focus on raising funds for large scale (high profile) infrastructure projects, like the Three Gorges Dam. It supports corporate projects for industrial upgrading and technology renovation as well as environmental protection and resource conservation with discounted loan facilities. As suggested by its name, the **Agricultural Development Bank of China** is tasked to support rural and agricultural development projects. The bank offers concessional finance to its clients which have to be in compliance with government policy. The following table 40 provides an overview of the loan positions of selected listed companies.

Table 40: Loans from Policy Banks Obtained by Selected Enterprises

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
Shanghai Aero-space Automobile Electromechanical Co., Ltd.	China EXIM Bank	31.08.2010	31.08.2012	RMB	3.51	190,000,000	2010 AR at 100
	China Development Bank	24.12.2012	23.12.2027	RMB	6.55	104,060,000	2012 AR at 115
	China Development Bank	20.12.2013	19.12.2028	RMB	6.55	143,050,000	2013 AR at 113
	China Development Bank	24.12.2012	23.12.2027	RMB	6.55	102,000,000	2013 AR at 113
	China Development Bank	25.09.2013	24.09.2028	RMB	6.55	101,620,000	2013 AR at 113
TCL Corporation	China EXIM Bank Shenzhen Branch	05.2009	12.2010	RMB	5.76	37,500,000	2009 AR at 198
	China Development Bank Guangdong Branch	05.2009	12.2010	RMB	5.76	18,750,000	2009 AR at 198
	China EXIM Bank Guangdong Branch	09.2009	08.2011	RMB	3.51	585,000,000	2010 AR at 215
	China EXIM Bank Shenzhen Branch	05.2009	03.2014	RMB	5.76	162,500,000	2009 AR at 200
	China EXIM Bank Guangdong Branch	09.2009	08.2011	RMB	3.51	160,000,000	2010 AR at 215
	China EXIM Bank Guangdong Branch	09.2009	08.2011	RMB	3.51	140,000,000	2010 AR at 215
	Consortium incl. China EXIM Bank, China Development Bank	06.2009	09.2012	RMB	5.76	100,000,000	2011 AR at 203
	Consortium incl. China EXIM Bank, China Development Bank	03.2009	09.2012	RMB	6.45	72,000,000	2011 AR at 203

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
TCL Corporation (continued)	Consortium incl. China EXIM Bank, China Development Bank	02.2011	02.2019	USD	2.95	5,930,670,000	2011 a 205
	China EXIM Bank Guangdong Branch	09.2011	09.2013	RMB	5.48	300,000,000	2011 a 205
	China EXIM Bank Guangdong Branch	07.2011	07.2013	RMB	5.48	160,000,000	2011 a 205
	Consortium incl. China EXIM Bank, China Development Bank	02.2011	02.2019	USD	LIBOR+2.5%	7,711,834	2012 AR at 209
	China Development Bank Guangdong Branch	10.2013	10.2018	RMB	5.89	430,000,000	2013 AR at 2013
	China EXIM Bank Guangdong Branch	06.2013	06.2015	RMB	4.20	300,000,000	2013 AR at 2013
	China EXIM Bank Guangdong Branch	08.2013	07.2015	RMB	4.20	300,000,000	2013 AR at 2013
	Consortium incl. China EXIM Bank, China Development Bank	02.2011	05.2015	USD	3.01	1,566,464,000	2014 AR at 224
	China EXIM Bank Guangdong Branch	06.2014	06.2017	RMB	4.20	500,000,000	2014 AR at 225
	China EXIM Bank Guangdong Branch	10.2013	10.2018	RMB	5.89	370,000,000	2014 AR at 225
China Northern Rare Earth (Group) High-tech Co., Ltd.	China EXIM Bank	14.10.2011	13.10.2014	RMB	Benchmark rate	180,000,000	2011 AR at 124
	China EXIM Bank	30.10.2014	29.10.2016	RMB	5.535	155,000,000	2014 AR at 136
AVIC Heavy Machinery Co., Ltd.	China Development Bank	15.11.2013	14.11.2028	RMB	6.55	113,000,000	2013 AR at 156
	China Development	09.07.2013	08.07.2028	RMB	*1	64,000,000	2013 AR at 157

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
	Bank						
	China EXIM Bank	28.10.2014	28.10.2022	RMB	4.20	55,150,000	2014 AR at 135
	China EXIM Bank	01.09.2014	01.09.2022	RMB	4.20	37,229,000	2014 AR at 135
AVIC Aviation Engine Co.	China Development Bank Shaanxi Branch	08.11.2007	07.11.2010	RMB	3.60	200,000,000	2010 AR at 117
	China Development Bank Shaanxi Branch	28.12.2006	28.12.2021	USD	1.7996	52,600,000	2010 AR at 118
AVIC Electronics Co., Ltd.	China Development Bank Gansu Branch	25.12.2007	21.11.2011	RMB	5.76	5,000,000	2010 AR at 81
	China Development Bank Gansu Branch	25.12.2007	25.12.2012	RMB	6.65	5,000,000	2011 AR at 110
	China Development Bank Gansu Branch	10.06.2005	20.05.2012	RMB	6.81	6,000,000	2011 AR at 110
China CSSC Holdings Ltd.	China Development Bank Shanghai Branch	22.02.2010	24.08.2011	USD	Floating	120,000,000	2010 AR at 120
	China Development Bank Shanghai Branch	27.05.2010	28.05.2011	USD	Floating	50,000,000	2010 AR at 120
	China Development Bank Shanghai Branch	12.01.2010	28.05.2011	USD	Floating	33,000,000	2010 AR at 120
	China Development Bank Shanghai Branch	20.08.2009	24.08.2011	USD	Floating	26,660,000	2010 AR at 120
	China Development Bank Shanghai Branch	28.11.2008	27.11.2026	RMB	5.346	1,780,000,000	2010 AR at 122
	China EXIM Bank Shanghai Branch	26.12.2008	31.12.2012	RMB	5.346	796,000,000	2010 AR at 122
	China EXIM Bank Shanghai Branch	26.12.2008	23.12.2019	RMB	6.35	1,002,000,000	2011 AR at 116
	China Development Bank Shanghai Branch	28.11.2008	30.11.2024	RMB	5.895	1,300,000,000	2012 AR at 119

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
	China EXIM Bank	26.12.2008	23.12.2019	RMB	5.895	600,000,000	2012 AR at 119
	China EXIM Bank	20.10.2012	20.01.2014	RMB	3.39	300,000,000	2013 AR at 123
	China EXIM Bank Shanghai Branch	07.06.2012	31.08.2014	RMB	3.39	250,000,000	2013 AR at 123
	China EXIM Bank Shanghai Branch	07.06.2012	20.10.2014	RMB	3.39	250,000,000	2013 AR at 123
China Shipbuilding Industry Co., Ltd.	China EXIM Bank	20.05.2009	20.12.2012	RMB	3.95	900,000,000	2011 AR at 187
	China Development Bank	01.02.2008	31.01.2014	USD	1-yr Li-bor+180 bp	899,000,000	2011 AR at 188
	China Development Bank	29.10.2009	25.06.2014	USD	3-m Libor+60 bp	150,000,000	2011 AR at 189
	China Development Bank Dalian Branch	01.02.2008	10.11.2013	USD	1-yr Li-bor+180 bp	600,000,000	2012 AR at 166
	China EXIM Bank	24.12.2010	24.12.2013	RMB	3.45	700,000,000	2012 AR at 166
	China Development Bank Dalian Branch	25.06.2008	25.06.2014	USD	3-m Li-bor+110 bp	397,000,000	2012 AR at 167
	China Development Bank Dalian Branch	01.02.2008	31.01.2014	USD	1-yr Li-bor+180 bp	299,000,000	2013 AR at 175
CPCC	China Development Bank	20.01.2005	20.12.2013	RMB	5.35	10,000,000,000	2010 AR at 153
Zoomlion Heavy Industry Science and Technology Co., Ltd.	China EXIM Bank Hunan Branch	28.04.2007	27.04.2009	RMB		200,000,000	2009 AR at 101
	China EXIM Bank Hunan Branch	26.06.2009	28.06.2011	RMB		200,000,000	2010 AR at 136
	China EXIM Bank Hunan Branch	21.09.2009	21.09.2011	RMB		100,000,000	2010 AR at 136

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
	China EXIM Bank Hunan Branch	28.04.2009	28.04.2011	RMB		88,480,000	2010 AR at 136
	China Development Bank Hunan Branch	07.05.2010	28.06.2013	USD		60,000,000	2010 AR at 137
	China Development Bank Hunan Branch	28.09.2010	26.09.2012	RMB		230,000,000	2011 AR at 129
	China Development Bank Hunan Branch	23.09.2011	22.09.2014	USD		153,000,000	2011 AR at 130
	China Development Bank Hunan Branch	05.07.2010	28.06.2013	USD		60,000,000	2011 AR at 130
	China Development Bank Hunan Branch	29.06.2010	28.06.2013	USD		40,000,000	2012 AR at 152
	China EXIM Bank Hunan Branch	12.09.2012	10.09.2015	RMB		998,000,000	2013 AR at 152
	China Development Bank Hunan Branch	13.06.2013	12.06.2016	USD		270,000,000	2013 AR at 152
Weichai Power Co., Ltd.	China EXIM Bank Shaanxi Branch	28.09.2011	09.08.2013	RMB	4.76	100,000,000	2011 AR at 153
	China EXIM Bank Shaanxi Branch	12.01.2012	12.09.2013	RMB	4.76	100,000,000	2012 AR at 158
	China Development Bank	27.12.2012	27.12.2020	EUR	2.818	4,608,187,469 (RMB)	2012 AR at 160
	China EXIM Bank Shaanxi Branch	16.11.2012	15.11.2014	EUR	4.20	200,000,000 (RMB)	2013 AR at 168
	China Development Bank Hong Kong Branch	27.12.2012	15.10.2014	EUR	2.82	118,701,569 (RMB)	2013 AR at 170
	China Development Bank Hong Kong Branch	15.06.2013	13.06.2014	EUR	3.04	33,674,204 (RMB)	2013 AR at 168, 170
	China Development Bank Honking Branch	15.06.2013	14.06.2021	EUR	3.041	2,489,447,820 (RMB)	2013 AR at 170

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
	China EXIM Bank Shaanxi Branch	10.09.2013	09.09.2015	RMB	4.20	200,000,000	2013 AR at 170
	China EXIM Bank Shaanxi Branch	04.12.2013	03.12.2015	RMB	4.20	100,000,000	2013 AR at 170
China First Heavy Industries Co., Ltd.	China EXIM Bank Da-lian Branch	22.09.2008	22.09.2010	RMB	Floating	480,000,000	2010 AR at 122
	China EXIM Bank Hei-longjiang Branch	30.08.2012	27.08.2014	RMB	4.20	200,000,000	2012 AR at 113
	China EXIM Bank Hei-longjiang Branch	12.06.2012	11.06.2014	RMB	4.51	200,000,000	2012 AR at 113
China Yangtze Power Co., Ltd.	China Development Bank	28.10.1997	21.11.2011	USD	Libor+0.675%	32,890,447	2010 AR at 105
	China Development Bank	23.09.1997	18.10.2011	USD	Libor+0.7%	16,401,843	2010 AR at 105
	China Development Bank	23.09.1997	22.08.2017	USD	Libor+0.5%	62,906,039	2010 AR at 105
	China Development Bank	28.10.1997	18.10.2017	USD	7.2% principal / 7.35% int.	52,972,575	2010 AR at 106
	China Development Bank	28.10.1997	21.05.2012	USD	Libor+0.675%	16,445,224	2011 AR at 110
	China Development Bank	23.09.1997	18.10.2012	USD	Libor+0.7%	16,401,843	2011 AR at 110
	China Development Bank	23.09.1997	22.08.2012	USD	Libor+0.5%	10,484,340	2011 AR at 110
	China Development Bank	23.09.1997	18.10.2013	USD	Libor+0.7%	16,401,843	2012 AR at 95
	China Development Bank	02.09.1997	18.10.2015	USD	6.4375	6,997,188	2012 AR at 96
	China Development Bank	20.03.1998	22.08.2017	USD	7.20	5,431,304	2013 AR at 97

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
Huaneng Power Int. Co., Ltd.	China EXIM Bank	18.03.2008	30.09.2011	RMB	1.44-2.94	417,495,008	2010 AR at 113
	China EXIM Bank	18.03.2008	17.03.2023	USD	1.44-2.94	719,100,925	2010 AR at 117
	China Development Bank Yunnan Branch	23.11.2005	23.11.2023	RMB	5.35-6.35	6,288,000,000	2011 AR at 134
	China Development Bank Beijing Branch	22.04.2011	25.08.2013	RMB	5.54	1,600,000,000	2012 AR at 154
	China Development Bank Yunnan Branch	23.11.2005	26.11.2028	RMB	5.90-6.55	6,457,780,000	2012 AR at 159
Datang Int. Power Generation Co., Ltd.	China Development Bank	28.03.2011	27.03.2014	RMB	5.895	1,250,000,000	2013 AR at 130
	China Development Bank Ningbo Branch	24.06.2006	23.06.2014	RMB	5.895	360,000,000	2013 AR at 130
	China Development Bank	30.12.2010	29.12.2028	RMB	5.895	3,055,000,000	2013 AR at 132
Shaanxi Coal Industry Co., Ltd.	China Development Bank Shaanxi Branch	26.03.2010	20.05.2014	RMB	6.00	40,000,000	2013 AR at 176
	China Development Bank Shaanxi Branch	26.03.2010	20.11.2014	RMB	6.00	40,000,000	2013 AR at 176
	China Development Bank Shaanxi Branch	07.03.2011	06.03.2026	RMB	6.55	1,920,000,000	2013 AR at 174
Aluminium Corp. of China Ltd.	China EXIM Bank	30.06.2008	30.06.2011	RMB	4.86	2,000,000,000	2010 AR at 116
	China EXIM Bank	29.04.2011	29.04.2013	RMB	6.080	1,000,000,000	2011 AR at 129
	China EXIM Bank	31.10.2011	31.10.2014	RMB	6.650	1,000,000,000	2011 AR at 129
	China Development Bank	19.04.2012	19.04.2019	USD	6-m Li-bor+3.3%	2,771,594,000 (RMB)	2012 AR at 145
	China Development Bank	14.02.2012	13.02.2015	RMB	5.535	2,000,000,000	2012 AR at 145

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
Aluminium Corp. of China Ltd. (continued)	China EXIM Bank	31.10.2011	31.10.2014	RMB	5.535	1,000,000,000	2012 AR at 145
	China Development Bank Ningxia Branch	31.03.2011	30.03.2014	RMB	6.15	100,000,000	2013 AR at 169
	China Development Bank Ningxia Branch	23.04.2009	22.04.2024	RMB	5.895	990,400,000	2013 AR at 171
	China Development Bank Ningxia Branch	14.01.2010	13.01.2030	RMB	6.55	896,000,000	2013 AR at 171
	China Development Bank Ningxia Branch	28.12.2012	27.11.2027	RMB	6.55	770,000,000	2013 AR at 171
Shanxi Lu'an Environment Energy Development Co. Ltd.	China Development Bank	16.03.1994	30.11.2013	RMB	4.68	5,200,000	2010 AR at 98
Tiandi Science & Technology Co. Ltd.	China Development Bank Inner Mongolia Br.	30.11.2009	29.11.2017	RMB	6.40	58,000,000	2010 AR at 127
Jinduicheng Molybdenum Co., Ltd.	China EXIM Bank Shaanxi Branch	22.12.2014	21.12.2017	RMB	3.90	248,952,000	2014 AR at 87
Fiberhome Telecommunication Technology Co., Ltd.	China Development Bank	22.06.2011	26.11.2012	USD	floating	40,000,000	2012 AR at 102
	China Development Bank	01.04.2013	31.03.2016	USD		20,000,000	2013 AR at 105
	China EXIM Bank	29.03.2013	29.03.2015	USD		40,000,000	2013 AR at 105
	China EXIM Bank	21.05.2013	28.02.2015	USD		17,000,000	2013 AR at 106
	China EXIM Bank	30.09.2013	30.09.2015	USD		23,000,000	2013 AR at 106

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
	China EXIM Bank	15.10.2013	31.08.2015	USD		15,000,000	2013 AR at 106
	China EXIM Bank	02.12.2013	01.06.2015	USD		19,200,000	2013 AR at 106
China Northern Rolling Stock Co. Ltd.	China Development Bank	22.12.2005	26.01.2039	EUR	0.20	2,311,000	2010 AR at 151
	China Development Bank	20.12.2005	26.01.2039	EUR	3.37	157,000	2010 AR at 151
	China Development Bank	21.12.2005	26.01.2039	EUR	3.23	71,000	2010 AR at 151
	China Development Bank	26.01.2005	26.01.2039	EUR	0.20-3.37	2,409,000	2011 AR at 170
	China EXIM Bank	23.07.2013	22.07.2015	RMB	4.20	400,000,000	2013 AR at 187
	China EXIM Bank	23.07.2013	22.07.2015	RMB	4.20	490,000,000	2013 AR at 187
	China EXIM Bank Hei-longjiang Branch	18.02.2013	09.01.2015	RMB	4.20	200,000,000	2013 AR at 187
	China EXIM Bank Hei-longjiang Branch	01.04.2013	09.01.2015	RMB	4.20	150,000,000	2013 AR at 187
	China EXIM Bank Hei-longjiang Branch	26.08.2013	09.01.2015	RMB	4.20	150,000,000	2013 AR at 187
Guodian Power Development Co., Ltd.	China Development Bank			RMB		4,021,125,000	2013 AR at 182
	China Development Bank			RMB		18,445,897,500	2013 AR at 184
Xinjiang Goldwind Science and Technology Co., Ltd.	China Development Bank Inner Mongolia Branch	26.05.2009	25.05.2024	RMB	Floating	257,000,000	2009 AR at 133
	China Development Bank Jilin Branch	13.10.2009	23.05.2024	RMB	5.346	193,000,000	2009 AR at 133

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
Xinjiang Goldwind Science and Technology Co., Ltd. (continued)	China Development Bank	26.07.2012	19.07.2013 – 20.11.2013	RMB	*2)	20,000,000	2012 AR at 173
	China Development Bank	28.06.2011	20.05.2013 – 20.11.2013	RMB	*2)	11,600,000	2012 AR at 173
	China Development Bank	28.05.2010	10.04.2013 – 11.11.2013	RMB	*1)	11,400,000	2012 AR at 173
	China Development Bank	27.12.2011	23.05.2013 – 27.11.2013	RMB	Benchmark rate	10,500,000	2012 AR at 173
	China Development Bank	11.02.2011 – 08.04.2011	20.04.2013 – 20.10.2013	RMB	*1)	10,000,000	2012 AR at 173
	China Development Bank	28.11.2011	20.05.2013 – 20.11.2013	RMB	Benchmark rate	10,000,000	2012 AR at 173
	China Development Bank	28.11.2011	20.05.2013 – 20.11.2013	RMB	Benchmark rate	10,000,000	2012 AR at 173
	China Development Bank	28.06.2011 – 15.06.2012	20.05.2014 – 27.06.2026	RMB	*2)	304,400,000	2012 AR at 176
	China Development Bank	08.04.2011 – 09.02.2012	20.04.2014 – 10.02.2026	RMB	*1)	303,800,000	2012 AR at 176
	China Development Bank	28.11.2011 – 27.12.2012	20.05.2014 – 20.11.2025	RMB	Benchmark rate	298,000,000	2012 AR at 176
	China Development Bank	28.11.2011 –	20.05.2014 –	RMB	Benchmark rate	262,000,000	2012 AR at 176

Enterprise	Bank	Start date	End date	Currency	Interest rate	Amount	Source
Xinjiang Goldwind Science and Technology Co., Ltd. (continued)		27.12.2012	20.11.2024				
	China Development Bank	28.05.2010 — 10.11.2010	10.04.2014 — 27.05.2025	RMB	*1)	238,600,000	2012 AR at 176
	China Development Bank	26.07.2012 — 04.11.2013	20.05.2015 — 20.05.2022	RMB	*2)	620,000,000	2013 AR at 216
	China Development Bank	17.05.2012 — 16.05.2013	22.06.2015 — 16.05.2027	RMB	Benchmark rate	297,600,000	2013 AR at 216
	China Development Bank	28.06.2011 — 15.06.2012	20.05.2015 — 27.06.2026	RMB	*2)	291,200,000	2013 AR at 216
	China Development Bank	08.04.2011 — 09.02.2012	20.04.2015 — 10.02.2026	RMB	*1)	287,800,000	2013 AR at 216
	China Development Bank	26.07.2012	19.07.2014 — 20.11.2014	RMB	*2)	40,000,000	2013 AR at 213
	China Development Bank	08.04.2011	20.04.2014 — 20.10.2014	RMB	*1)	16,000,000	2013 AR at 213
	China Development Bank	28.06.2011	20.05.2014 — 20.11.2014	RMB	*2)	13,200,000	2013 AR at 213

*1) 5-year benchmark interest rate that can float up and down by 10 percent (of that rate)

*2) 5-year benchmark interest rate that can float up and down by 5 percent (of that rate)

2.4.1.2 *Labour Markets*

Given the specific role of labour in the “People’s Republic of China”, the definition of adequate remuneration and the determination of concrete wages and salaries have been and continue to be subjected to strong ideological doctrines. The implementation of market principles in this segment of the economy therefore constitutes a specific challenge.

In contrast to general expectation, strict governmental control of the labour market does not result in a general preferential treatment of labour, but rather manifests itself in a labour market characterised by significant distortions and artificial segmentation. Labour prices are subjected to various government interventions resulting in wages especially for unskilled (migrant) workers being repressed.

As a matter of fact, both government and CPC have long been unwilling to allow independent bargaining between employees and employers – as well as the formation of independent organisations that could act as facilitating vehicles. State and party both actively intervene in the labour market, seeking to perpetuate their monopoly control of representative institutions.

Legal restrictions prohibit the formation of labour unions outside the scope of the All China Federation of Trade Unions (ACFTU). Founded in 1925, this organisation is closely linked to the CPC and tasked to coordinate labour relations. In 2008, the labour contract introduced the right to collective bargaining on the part of workers, but the applicability was limited to ACFTU and the enterprise union committees under its lead. In fact, ACFTU’s role in lobbying for higher pay, better working conditions or related issues is insignificant. Instead, the union, its regional federations and enterprise committees, are enforcing discipline among workers and safeguard against production disruptions. In this sense, ACFTU operates as an efficient tool for quelling unrest and grooming labour relations in line with corporate (and arguably national economic) interests. Besides organizing cultural activities, ACFTU used to administer social security benefits until authority for the latter was transferred to provincial governments. Chinese labour laws have been amended in recent years to improve working conditions and ensure certain minimum standards are met for employment contracts, work safety and layoffs. However, without effective representation in wage negotiations and deprived of the right to go on strike, employees have very limited means to press for higher salaries.

Lacking genuine union representation and collective bargaining rights, growing frustration over unpaid wages and other grievances has sparked labour unrest. This phenomenon grew more prominent in the aftermath of the global financial crisis. The sometimes violent mass incidents at Japanese automobile manufacturing plants in Southern China and Taiwanese electronics makers throughout the country were covered extensively in the media. In fact, the number of strikes across China more than doubled in 2014 to 1,378, according to information provided by China Labour Bulletin, labour rights organisation based in Hong Kong. Media reporting inside China is prohibited and social media are cleansed of references while riot policy is dispatched to restore order.

Attempts at improving the bargaining position of workers have been made in recent years by the government. However, these initiatives have oftentimes fallen short of expectations as implementation by companies and enforcement by local governments has been lacking. The Labour Contract Law (NPC 2007a), in force since January 2008, stipulates that workers must be given written contracts and strengthens their legal rights against employers in many other respects. However, the economic downturn brought about by the global financial crisis has illustrated that enforcement of the (then) new law is weak when local heavyweights complain and/or economic growth is at risk.

Wary of an upsurge in strikes and riots, the central government has issued a circular in 2015 that warns local authorities to pay greater attention to fostering industrial harmony, even when economic growth targets are at stake. The document (People Daily, 09.04.2015) reflects the growing awareness of implementation shortfalls and reiterates existing regulation supposed to protect workers' interests. However, initiatives for genuine labour market liberalisations are sparse. In April 2015, the Wall Street Journal (08.04.2015) cited Qiao Jian, a professor at the China Institute of Industrial Relations, a university affiliated with China's official union federation as saying "*The opinion emphasises a state-centric approach to managing labour relations, based on the rule of law, as directed by the government, and facilitated by state-controlled trade unions*".

As labour markets continue to be regulated and efficient equilibrium wages cannot form through the free interaction of market forces, the government has made a limited push for income increases. The 11th FYP (2006-2010) stipulated average annual income increases of 5 percent (NPC 2006a). The target was over-fulfilled as income growth reached 9.7 percent and 8.9 percent for urban and rural residents respectively.¹³ The 12th FYP raised target for income growth to 7 percent per year. By 2015, urban and rural incomes were to reach 26,810 RMB and 8,310 RMB respectively (NPC 2011a).

China maintains minimum income standards for monthly and hourly wages that are set at provincial and municipal levels. Cross regional variation is high because socio-economic conditions and living expenses differ substantially. In early 2015, the highest minimum wages were found in Shenzhen with 1,808 RMB per month (17 RMB per hour) while the lowest were offered by several county level cities in Guangxi Zhuang Autonomous Region with 830 RMB per month (7.5 RMB per hour). The *National Employment Promotion Programme* requires at least one increase every two years. In 2013, the average rise in minimum wages across 27 provincial-level jurisdictions was 17 percent while incomplete data suggests increases closer to 10 percent for 2014. The sole exception was Shanghai, which hiked hourly wages by 21 percent (China Briefing 11.06.2014).

¹³ Income targets for urban and rural citizens are specified as disposable incomes and net incomes respectively. The differentiation takes account of varying living and working conditions.

Minimum levels for monthly salaries and hourly wages are not as low as their designation suggests. Considering the rate of increases registered so far, employees earning minimum salary in Shenzhen come close to reaching the national urban income target of the 12th FYP. The values are not necessarily low when compared to entry level jobs for university graduates. In a nationwide study conducted in 2014, researchers from Peking University found that graduates earned 2,443 RMB a month during their first year of employment. In a separate survey on the income of China's 274 million migrant workers, the Ministry of Human Resources and Social Security reported average monthly wages of 2,864 RMB (People.com.cn 28.02.2015).

The Chinese labour market is divided in an urban and a rural segment. The separation results from the household registration system (Hukou in Chinese) that was introduced in 1958 to prevent the free movement of workers around the country. In order to facilitate the central planning process under the command economy, it was important to prevent labour migration (Naughton 2007).

At the onset of economic reforms in the early 1980s, the difference between the two labour forces was substantial. With regards to disposable incomes, living standards, social security benefits, education opportunities and in many other respects, the urban population fared significantly better than their peers in the countryside. Even the abolition of state-purchasing systems for agricultural products combined with the reintroduction of family farming did not equal out urban-rural differences. The loss of guaranteed lifetime employment and subsidised amenities for urban dwellers eroded their privileges but the gap between the two labour markets still remained. Until 2015, the wage differential has narrowed while healthcare, social security and education provision in the countryside have all improved significantly. Nevertheless, the (registered) urban population still enjoys substantial advantages in all these regards.

The Hukou system is still in place and despite an extraordinarily large number of labour migrants, it continues to restrict mobility (Liu, Yi and Yu 2014). Several reform steps have weakened its effectiveness, so unlike in the past, people can relocate freely without fear of starvation or persecution. However, rural migrants living (and working) in cities are still treated as second class citizens. They are not covered by local social welfare benefits, like medical, unemployment, maternity and pension insurance (Huang 2010c). Accessing healthcare, buying real estate and other elements of ordinary life are fraught with administrative restrictions. In most cities, the children of migrant workers are still not allowed to attend municipal schools and need to stay in the countryside to receive (inferior) education there. Chen (2014 at 64) concludes that *"low-wage policy and the household registration control system significantly depress the price of labour."*

However, this phenomenon has not taken hold everywhere as large numbers of workers, especially migrant labourers, continue to be underpaid. Even where migrants perform identical job functions, they receive half the pay of local residents. However, migrant workers have often been denied their pay as companies either rejected valid claims or found themselves

unable to meet payroll obligations. In his 2015 work report to the annual session of the National People's Congress, Premier Li Keqiang promised the government would undertake steps to reduce the amount of unpaid wages for migrant workers. *"The government is acknowledging the reality of rising worker unrest and wants to make this a bigger priority"* (WSJ 08.04.2015).

In addition to wages that seldom meet and often undercut local minimum standards, employers commonly under-contribute to social security. Even local governments are known to use reductions in social security premium payments by firms as an incentive to attract investors to their localities (EIU 2015). Total labour costs would increase by 35-40 percent if social welfare policies were strictly followed (Huang and Tao 2011). Migrant workers are particularly vulnerable as they are excluded from the social security systems in the urban areas where they toil. Those finding work are typically not entitled to any benefits – from healthcare and pensions to school education for children. Companies can thus save on payroll expenses by hiring migrants from outside the province. While government documents specify mandatory increases labour income and government statistics mark a steep rise in absolute wage incomes, the picture remains incomplete as a large share of employment is based in grey areas where migrant workers form a parallel labour market.

Reforms of the Hukou system have proven very difficult as local governments and local residents opposed such moves (Chen 2014). The former fear rising expenses for public services if migrants were awarded equal access. Furthermore, local authorities are concerned about the loss of competitive advantages should wage differences disappear and social welfare benefits apply universally. The pool of cheap labour which has supported manufacturing growth in many areas would dry up quickly with profound implications on the local economy, tax revenues and employment. Significantly, abolishing the hukou system puts locals and migrants in competition for jobs, public services and welfare system. (Chen 2014 at 74).

Another segmentation of the urban labour is linked to company ownership. As Liu, Yi and Yu (2014) have pointed out, employees of SOEs benefit from higher pay, better social welfare benefits and stronger job security. While workers in state business have lost eligibility for lifelong tenure in their respective units in the 1980s and 1990s, they are still privileged compared to their peers in private companies. Wang (2015) writes about the dual labour market in a recent paper proposing that

"a political elite is able to extract surplus from state firms and tax the private sector, however, it faces a political constraint, that is, support from sufficiently many citizens. To gain the support, it implements the "divide-and-rule" strategy. It creates a dual labour market, in which state workers receive high wages and private workers' wages are reduced due to the policy distortion. The state workers who benefit from the policy become the elite's supporters. Furthermore, to satisfy the political constraint, the elite finds it optimal to distort the allocation of capital between state and private sector" (Wang 2015 at 3)

In addition to immediate government concerns, private employers are more likely to skirt labour laws, under-pay wages and under-contribute to social security funds. Partly due to higher business risk, wage arrears are significantly more common and unpaid labourers have become a source of (localised) unrest.

In order to maintain employment levels, boost training and support contributions to social security funds, Chinese government organisations, particularly on the local level, are offering generous financial support to selected companies. The following table 41 presents an outline of the grants obtained by companies listed in Shanghai and Shenzhen.

Table 41: Total Disbursements Subsidies Related to Labour

2010	2011	2012	2013	2014	Total
1,172,257,042	679,237,166	1,429,016,729	1,221,751,078	766,355,046	5,268,617,061

Source: Wind Data

In 2014, at least 656 enterprises have benefitted from government subsidies depressing the cost of labour. The ten largest recipients are listed in the following table 42.

Table 42: Top 10 Recipients of Subsidies Related to Labour in 2014

Rank	Enterprise	Amount
1	Sinoma Science & Technology Co., Ltd.	39,096,500
2	Sanquan Food Co., Ltd.	31,820,607
3	Baoshan Iron & Steel Co., Ltd.	31,503,257
4	Fangda Carbon New Material Co., Ltd.	26,776,400
5	Xinjiang Sayram Modern Agriculture Co., Ltd.	25,152,886
6	Nanning Sugar Industry Co., Ltd.	22,902,077
7	Great Wall Motor Company Limited	20,953,352
8	Ningbo Donly Co., Ltd.	20,533,799
9	Sanan Optoelectronics Co., Ltd.	15,525,709
10	Shanghai Bailian Group Co., Ltd.	11,767,031
Total		246,031,618

Source: Wind Data

2.4.1.3 *Land Markets*

Directly or indirectly, the Chinese government is the sole owner of all land inside the country. Its prominent status is manifested in the national constitution which provides for a basic legal framework on questions of ownership, usage and administration. Chinese law segregates rural and urban land. The difference, however, is not so much rooted in location or type of usage but centres on the question of ownership. According to the constitution, rural and urban land is owned and controlled by collectives and the state respectively. In the following, the terms rural land and collectively-owned land are used as synonyms while the terms urban land and state-owned land are interchangeable as well.

In the countryside, the land administration distinguishes between agricultural land and rural construction land. While the former is reserved for farming and animal husbandry, the latter may be used for development, i.e. the construction of housing, factories and infrastructure. In urban areas, three usage classes distinguish between residential, commercial and industrial land. All parcels of land in the country have a particular classification and, according to Chinese law, land may only be utilised for specified purposes.

In the pre-reform era, no land markets existed in China and parcels were allocated at no cost to whichever unit needed them. A sea change reform occurred in 1986 with the promulgation of China's *Land Administration Law*. It legalised the transfer of land use rights (LUR) to enterprises against payment of a fee. In the following year, the city of Shenzhen became pilot for a land-for-fee scheme that was quickly adopted by other cities. Initially, the objective was to provide relatively reliable LUR in order to attract investors (Peterson 2006). After the concept had spread, essential regulation on LUR transfers was added to the constitution through an amendment in 1988. The *Provisions (for Trial Implementation) for the Sale and Transfer of Land Use Rights in Cities and Towns* (State Council 1990) clarified critical issues and strengthened the regulatory framework on the national level. The *Urban Real Estate Administration Law*, which went into effect at the beginning of the same year, permitted auctions, bidding and negotiations as legal procedures for government LUR sales. It also stipulated that written contracts had to be concluded for any such transaction.

Until spring 2015, China's land administration reforms have produced a large body of regulatory literature. However, the re-basing of land transactions on market principles has remained highly incomplete. Liberalisation has thus far targeted the demand side, allowing business and other organisations the opportunity to buy and sell LUR. The supply side, on the other hand, was not subject to meaningful market opening.

State actors exercise strong control over the distribution of LUR and completely dominate the land market. Urban LUR are transferable and work like financial assets. For rural ones the transferability is restricted as agricultural land is considered a social security resource for the people living on and of it. Collectively-owned land cannot be leased or mortgaged (World Bank and PRC 2014).

As the remainder of this section will show, the bifurcation of ownership and usage rights combined with the duality of collectively-owned rural land and state-owned urban land create a system that is conducive to selective support for favoured industries and companies.

Important differences exist between “allocated” and “granted” LUR for state-owned LUR:

Allocated LUR represent the traditional form of making parcels available to government (affiliated) units without payment and for an indefinite length of time. Land and Resource Bureaus (LRB) at or above the county level can provide allocated LUR for use by government and military units. The process is also admissible for urban infrastructure as well as energy, water and transportation projects. Furthermore, projects which are legally allowed and in the public interest are eligible, too. Allocated LUR cannot be transferred, leased or mortgaged without the local government’s consent. The latter also has the right to revoke allocated LUR and retrieve the land at any point without paying compensation. SOEs which date back to the pre-reform era typically continue to benefit from allocated LUR. Such companies were provided the land they continue to use at no cost. Due to the expansion of cities and the general increase in land values, parcels occupied by SOEs have evolved into prime real estate.

With the special permission of local LRBs, allocated LUR may serve as collateral for bank loans. The reduced default risk translates into lower credit costs and provides SOEs with financial benefits. When China began a campaign several years ago to move heavy industry outside densely populated areas, municipal governments did not exercise their right to revoke allocated LUR without compensation. Where localities reclaimed and resold land, the proceeds were then transferred to the enterprise which had to vacate the parcel in question. Since companies had to relocate to areas further outside the city, the cost for obtaining new land was substantially less than the funds received for surrendering their original location. In some cases, local governments provided additional steep price discounts on replacement land.

WISCO Wuhan River North Co., Ltd. is a case in point. The SOE was asked to give up part of its production plant in the heart of Wuhan as it had become increasingly incompatible with local land use plans. The company returned its LUR and established a new production base in a more remote location. As rapid economic development had driven up land demand over the years, the value of the operation’s old base had increased significantly. Consequently, the swap of location turned out to be highly profitable for River North: The land premium paid for the LUR to its new site cost the company significantly less than the compensation it received for giving up its original production base. Consequently, the enterprise was able to invest the difference on technology upgrades and product development.

Granted LUR are based on contracts between the local government and the land user which specify the types of economic activity allowed, the duration of the usage period and the amount of a grant premium that has to be paid in return for LUR. The latter depends on the size, location, quality, approved usage as well as other characteristics and represents the LUR price. Premiums have to exceed certain minimum levels specified for every locality or

supervisory bodies on the next higher level of government will reject the contract. However, local governments have significant influence in setting the minimum prices for land use in different usage classes for their jurisdiction – a policy space which provides them the opportunity for offering industrial LUR at depressed prices.

After the contract has been signed, the premium paid and all regulatory filings completed, the LUR bearer may begin to construct buildings and use the land for approved activities as well as transfer, lease or mortgages it. When LUR are transferred, all terms of the land grant contract the previous holder initially signed with the local LRB are automatically and completely transferred to the new holder (World Bank and PRC 2014). The buyers and sellers of LUR cannot determine the price only based on their relative bargaining positions. In fact, the local government can exercise a pre-emptive right to purchase the LUR in question if the agreed upon price is significantly below the local average (Xiao and Zhao 2015).

Granted LUR allow their bearer the use of land for only a limited period of time. Residential, industrial and commercial LUR are valid for a maximum of 70 years, 50 years and 40 years respectively. If the LUR bearer wants to continue using the land after the valid time has expired, he needs to file an application with the relevant LRBs at or above the county level. If approved, a new LUR contract has to be signed and a new land premium has to be paid. In case the LUR bearer does not file an application or his application is rejected, the local government will retake ownership of the land as well as all buildings on it. The Chinese land administration regards LUR and buildings thereon as inseparable. As even the earliest LUR were only transferred in the late 1980s and expiry is due in the late 2010s there is almost no experience with LUR renewal procedures.

All LUR bearers have to pay land use tax on an annual basis. The tax is calculated based on the size of the parcel with square meter prices varying significantly from region to region. Larger and more developed cities charge significantly higher rates than remote county cities. While the price in the centre of Shanghai is 30 RMB, land in the suburbs costs only 1.5 RMB per square meter and year (China Briefing 19.02.2014).

Reforms in recent years have opened up limited opportunities for trading LUR. However, they can only be transferred within usage categories – not across them. Even though the final communiqué of the third plenary session of the 18th CPC Central Committee in November 2013 has hinted at reforms towards a unified market for LUR to be established in the future, the duality between rural and urban land remains. The same applies to sub-categories in both areas.

2.4.1.3.1 *Conversion of Rural Land to Urban Land*

The reclamation of agricultural land by local governments has been a source of conflict as local residents are often not sufficiently compensated for their loss. Chinese land law man-

dates that compensation has to base on the expected future income generated under current usage classification. As returns from agricultural production are low, relative to other types of use, compensations to farmers are small.

Without physically changing the structure or quality of the parcels involved, local land administration departments change its usage classification before reselling it to developers or industrial investors. Due to the substantial price gap between LUR of different usage classifications, land usage conversion generates windfall profits. This remains true even where localities offer steep discounts on industrial LUR to new investment projects.

Farmers have little bargaining power in negotiating their compensations as there is no market mechanism to assign a universal price for land. Farmers losing land attain an average compensation of 17 thousand per acre (median is 12 thousand), while the expropriated land fetches an average price of 778 thousand RMB (median is 200 thousand RMB) (Chen 2014). Until a few years ago, farmers were not able to buy, sell or mortgage their land. Furthermore, agricultural land that was not cultivated, for example because peasant farmers had gone to find work in urban centres, was forcibly reclaimed by the authorities. Recent reforms have strengthened the property rights regime for rural land and improved its marketability.

Due to the land administration regime, cities have expanded at the expense of agricultural land. Large industrial and infrastructure projects have reduced the amount of farmland as well. In order to prevent urban sprawl and arbitrary land reclamation by local governments, rural-urban land conversion quotas were introduced in the early 2000s (Cai 2012). As mounting environmental problems and rapid urbanisation accelerated the loss of farmland, central government changed the status of conversion quotas from guiding to binding. Additional concerns included safeguarding the country's food supply and preventing social unrest from forced land takings (Zhang et al. 2014).

This adjusted quota system limits the amount of rural land that localities may convert for urban use every year. The exact annual quotas for every locality are laid out in their respective land use plans. All such plans are contained in the *National Plan for Land Use 2006-2020*. The latter marks a departure from previous land management practice that endorsed or at least tolerated the reclamation of arable land for urbanisation and industrialisation for the benefit of national economic development. In contrast, the *National Plan* prescribed the preservation of as much arable land as possible. Planning for a 15 year period from 2006 to 2020, it allowed for only a minute reduction in arable land: from 122.1 million hectares in 2005 to 120 million hectares in 2020. In order to reconcile growing land demand and farmland protection, planners called for increased reclamation and consolidation efforts. The farmland created in this way was supposed to compensate for areas lost to urban development (Xiao and Zhao 2015).

The unified, nationwide administration of conversion quotas is reminiscent of the central command economy. The *National Plan* is broken down into provincial plans. Provincial authorities then allocate quotas to subordinate prefectures which in turn make allocations for

counties under their control. The system is highly rigid and does not sufficiently take into account the actual economic and social development characteristics which determine the individual demand for land conversion (Xiao 2015).

Furthermore, the need for adjustments is significant as the *National Plan* was drafted based on development projections dating back to 2005. Considering the long time horizon, it does not come as surprise that forecasts turned out wrong in many cases. These errors continue to cause a mismatch between the demand from urban economic activities and the supply of land that can be converted. Localities where development has been vibrant found their development constrained by conversion quotas while other cities converted arable land in the absence of promising development opportunities. The latter are disadvantaged because under the current system it is impossible to save up unused quotas for future use (Tan 2011).

In order to offset conversions of arable land beyond the quota limitation, localities have to return an equal area of urban land to farming use. This is irrespective of local geography, soil quality or the relative scarcity of land. The static nature of land use plans is a major source of inefficiency as the annual quotas for rural-to-urban land conversion are more based on the political importance of cities than their economic dynamism (Tan 2011; Xiao and Zhao 2015).

In recent years, local governments have developed creative solutions in order to circumvent the stifling effect of conversion quotas: markets. Quota markets do allow the trade of unused conversion quotas across jurisdictions albeit with certain limitations. More importantly, the concept bases on the creation of “virtual quotas” through increasing the usage intensity of rural construction land. This frees up more rural areas for agricultural use and thus expands the conversion limit. Xiao and Zhao (2015) explain that village residents are resettled from individual farm houses into large apartment buildings which occupy significantly less space. The old dwellings are then demolished and the rural construction land converted to agricultural use. The resulting increase in farmland can then be credited against an equivalent area of land for rural-urban conversion.

However, it is important to note that local government organisations and officials still enjoy a significant degree of discretion in managing LUR. Especially in less developed areas, authorities have proven adept at skirting the regulatory straightjacket the central government has prescribed over the years. In fact, a lack of transparency and public oversight has allowed for internal directives and policies to influence decisions. Such practices exploit grey areas or cover up rule violations. Through interviews with local officials, Xiao and Zhao (2015) discovered that industrial parks and SOEs often received preferential treatment outside the regular conversion quota system. They write

“Quotas allocated to a locality at the beginning of each year, as prescribed in the annual plan, are only an initial allocation. In fact, higher levels of government often reserve some quota as a “contingency” for “special case” projects not included in the annual plan. How much contingency quota is available and what pro-

jects can be considered to be “special” is, not surprisingly, subject to negotiation” (Xiao and Zhao 2015 at 12).

Before new regulation was released in 2002, local authorities preferred to sell granted LUR by way of bilateral negotiation rather than auction or bidding. The lack of transparency invited frequent rule violations which led to corruption in the form of cronyism and embezzlement of public funds. Even though local governments were ordered to employ auctions and invited bidding in setting the LUR premiums. In fact, however, localities have often ignored central government regulation and continued to employ non-transparent negotiations to determine the conditions of LUR transactions. Opportunities for corrupt behaviour thus survived and allowed decision makers to retain profits (U.S. ITA 2008 at 16). In its final affirmative countervailing duty determination against imports of laminated woven sacks from China, the U.S. International Trade Administration concluded that

“There is a wide divergence between the de jure reforms of the market for land-use rights and the de facto implementation of such reforms. [...] Also, commercial land sales are often conducted illegally” (U.S. ITA 2008 at 16).

2.4.1.3.2 *Influence of Sectoral Industrial Policy on Land Regulation*

The Land Administration Law orders localities to improve the administration of land use plans. The latter

“shall be compiled in line with the national economic and social development plan, the State industrial policies, general plans for land and the actual situation about the land for construction uses and the land utilisation”(NPC 2004b at 24).

Regarding the allocation of land to different projects, the State Council has urged local governments to implement differential treatment which is protecting advantageous projects and discriminates against others. Relevant departments should formulate and implement standards for land use in line with national sector industrial policies. LRBs around are ordered to execute LUR allocations in accordance with industrial guidance catalogues. The affiliation of a proposed investment project to an industry that is encouraged, permitted, restricted or prohibited, is to determine the treatment received by LBRs (State Council 2004 at 1.18).

In 2012, the MLR released the *Opinions on promoting differential administration of land use plans* to affirm its previous stance. The document rules that LUR should first and foremost be allocated to projects that serve the public interest and are in compliance with sectoral industrial policies and investment policies. Preference is to be given to projects from the SEI as well as those related to high technology and high added value manufacturing (MLR 2012 at 3.8).

Localities have found to be using exemptions from local land use tax as incentive for attracting investors or for rewarding important projects. In 2007, the MOF and the SAT have issued a circular warning local LBRs to observe national regulation and not to make too generous concessions.

“Each region shall rigidly control tax reductions and exemptions, and comply with the relevant state requirements for strengthening land administration, rigidly control the reduction and exemption of land tax on various development zones, parks or projects whose development is restricted by State industrial policies; and shall not reduce or exempt the land tax on the projects inconsistent with the industrial policies of the state” (MOF and SAT 2007 at 2).

Regulation governing both the allocation of LUR - regardless if by way of negotiation, bidding, auction or quotation - requires local LBRs to consider sectoral industrial policies.

“Where any assignment is based on a base price, The administrative department of land and resources at the municipal or county level or the organ in charge of the coordination and decision-making of the assignment of the state-owned land use right shall, according to the result of land price evaluation, industrial policies and the current land market, make a collective decision on determining the base price and the deposits for bid tendering and purchase in a comprehensive manner” (MLR 2006 at 7.2).

The same document contains similar provisions for the verification of the assignment sum as well as the drafting of assignment plans (MLR 2006 at 6.3.3 and 7.3.3).

2.4.1.3.3 LUR Allocation as Instrument for Selective Subsidisation

Since the early 2000s, the LUR premiums of the three separate usage classes in the urban context (residential, commercial and industrial use) have followed diverging trends. On the one hand, residential and commercial LUR have displayed strong price increases. The price of residential land sold to developers has risen particularly quickly as investment in housing has skyrocketed across the country. Similarly, prices for commercial land have risen considerably.

In contrast, industrial land has seen a much less pronounced price increase. Cities and subordinate jurisdictions are locked in an intense competition for investment projects that promise to boost local GDP, employment and other economic indicators. The latter serve as vital benchmarks for the annual performance assessment of government and party units as well as individual government officials and party cadres. Successfully attracting major projects thus has the potential to boost the standing of the units in charge and propel the careers of

relevant staff. Localities are thus weighing the benefits of landing large-scale investment projects against the costs of providing land use rights at discounted prices. By pushing up the valuations of residential and commercial land, localities are compensating for revenues forgone on free or cheap transfers of industrial land.

As a result of highly investment friendly market intervention, land is not being allocated or priced based on its true value. Instead, the artificial segmentation of the land market implies that both aspects are largely determined at the discretion of local officials which guided by a narrow set of pro-investment incentives.

“The government by virtue of its monopoly position in the land market provides a lot of cheap industrial land to enterprises, greatly encouraged business enthusiasm” (Chen 2014 at 65).

Similarly, the U.S. International Trade Administration found that

“Due to the overwhelming presence of government involvement in the land-use rights market, as well as the widespread and documented deviation from the authorised methods of pricing and allocating land, purchase of land-use rights in China is not conducted in accordance with market principles” (U.S. ITA 2008 at 16).

The U.S. International Trade Administration also concluded that the role of private LUR market has become stronger. However, the organisation found that favoured enterprises, such as SOEs benefitted from LUR obtained at little or no cost. Indeed, paragraph 17 of *the Land Administration Law* mandates that all levels must take into account the national programme for economic and social development in drafting their land use plans. More explicitly, paragraph 24 states that in the preparation of annual land use plans, proper regard should be given to sectoral industrial policy guidelines.

The provision of land under favourable conditions has been identified as a legitimate incentive for enterprises engagement in M&A by China’s central government. Favourable treatment of land use rights were also confirmed in *The Opinions Concerning the Promotion of Enterprise M&A* (State Council, 2010b), in which e.g. steel is classified as a special policy target. Similarly, the *Several Opinions on Further Strengthening Energy Conservation and Emissions Reduction and Accelerate the Structural Adjustment of the Steel Industry* (GOSC 2010) also notes that the field of land use should be utilised by local government policies in order to promote M&A. In 2013, the MIIT’s *Guiding Opinions on Accelerating the Promotion of M&A for Enterprises in Key Industries* required local M&A promotion measures to include provisions on land administration.

Gansu Province (2011a) announced in its *Plan on Accelerating the Development and Cooperation of Industrial Enterprises*, that “full use should be made of the control over land utilisation planning to prioritise land usage of key projects”. This plan, based on the lowest national

industrial land utilisation price, aims to reduce from 15 up to 50 percent on the fees for wasteland. Land demand from major industrial projects is to be protected and a “green channel” is to be established that offers an accelerated approval process for listed companies (app. 6). Gansu Jiuquan Steel has been identified in several documents as a key provincial project and it is highly likely that the company is eligible for land use rights on preferential terms and at reduced prices. Hardly surprising, this mill is owned by the Province.

Shandong Province (2011e) has also committed to the provision of land on favourable conditions. In its *Implementation Opinions on Accelerating the Development of Strategic Emerging Industries*, the government requires that “Governments at all levels should give priority to land demand from projects of strategic emerging industries.” A rebate of up to 30 percent is promised in the document, based on the lowest land leasing price that was obtained by other industrial projects (at 6.27).

Subsidies related to land use are substantial and show a consistent increase over the past five years. In comparison, the annual total for all listed companies in 2010 represents just one quarter of transfers made in 2014. The following tables 43 and 44 present data to illustrate this development.

Table 43: Total Disbursements of Subsidies Related to the Use of Land

2010	2011	2012	2013	2014	Total
552,081,335	859,673,480	1,208,223,808	1,801,106,794	2,305,902,573	6,726,987,990

Source: Wind Data

In 2014, at least 279 enterprises have benefitted from subsidies related to the use of land. The ten largest recipients are listed in the following table 44.

Table 44: Top 10 Recipients of Subsidies Related to the Use of Land in 2014

Rank	Enterprise	Amount
1	SAIC Motor Corporation Limited	600,360,271
2	Ma'anshan Iron & Steel Company Limited	307,861,681
3	Metallurgical Corporation of China Ltd.	163,563,000
4	Anhui Heli Co., Ltd	100,830,251
5	Guangzhou Zhujiang Brewery Co., Ltd.	98,479,283
6	Yangzhou Asiastar Bus Co., Ltd.	67,000,000
7	Huatian Hotel Group Co., Ltd.	65,308,300
8	Beijing Jingneng Power Co., Ltd.	64,922,404

Rank	Enterprise	Amount
9	Luoyang Glass Company Limited	60,012,700
10	Tianjin FAW Xiali Automobile Co., Ltd.	55,589,000
Total		1,583,926,890

Source: Wind Data

2.4.1.3.4 Relocation Subsidies

In recent years, the Chinese government – especially lower level authorities – have launched a major push to remove industrial production from (the vicinity of) city centres and residential areas. Rapid urban development and economic growth have had a substantial impact on local land use plans. The expansion and upgrading of metropolitan areas have rendered many heavy industry bases increasingly incompatible with their surrounding areas. In order to promote economic development, alleviate pollution pressures in densely populated urban districts and improving the living environment for the local population industrial plants have been forced to relocate to more remote sites outside the city. Cities oftentimes sweeten the deal by sponsoring the compulsory relocation. However, support goes beyond compensating for lost buildings and moving expenses. In many cases it also includes land use rights at reduced cost and the renovation of production technology. These schemes may also include subsidies for constructing housing for workers and a variety of other cost items.

The case of Jinmu Guangming Co., Ltd. is a case in point. The subsidiary of state-owned Jinduicheng Molybdenum Co., Ltd. was founded in 1959 and has started the making of tungsten and molybdenum products in the early 1970s. Today, the company's product portfolio includes pure molybdenum trioxide, molybdenum powder, molybdenum rod, molybdenum wire and tungsten rods. The company has registered capital of 164 million RMB and employs over 600 workers at its base in Zibo City, Shandong Province (Jinmu Guangming n.d.). In 2012, the local government announced its plan to convert the area occupied by Jinmu Guangming's two production plants into commercial land. It ordered the company to relocate away from its bases east of national road 309 and south of Mihe Road, both in Zhoucun District. In September of the same year, the local government and the company agreed that former will reclaim the LUR from Jinum Guangming and cover the latter's expenses for land and materials up to 44.94 million RMB. In addition, district authorities pledged to waive land premiums for the new production base up to 2.05 million RMB.

When the agreement was concluded, Jinmu Guangming reported that the two parcels held buildings and structures of an original cost and book value of 20.24 million RMB and 12.48 million RMB respectively. LUR were registered at original cost and book value of 10.11 RMB and 8.80 million RMB respectively. By the end of 2014, the company had received relocation subsidies worth 37.77 million RMB. At the same time, regular depreciation had decreased

the book value of buildings and structures to 16.91 million RMB as the relocation had not yet taken place (Jinduicheng 2012 AR at 127; 2013 AR at 101 and 2014 AR at 107).

It is difficult to gauge the net effects of the move and related subsidies on the company's financial performance. Crucial factors like the cost for disassembling, transporting and re-assembling production equipment, environmental clean-up or lost production output cannot be calculated with the little information provided by publicly available company reports. However, assuming the move took place immediately following the end of fiscal year 2014, the company appears to have been granted sufficient subsidies to alleviate the financial burden involved.

Listed companies have received large amounts of relocation subsidies. The following two tables 45 and 46 offer a detailed account of these transfers.

Table 45: Total Disbursements of Relocation Subsidies

2010	2011	2012	2013	2014	Total
1,596,441,845	1,650,691,478	4,754,555,413	2,916,933,221	4,423,035,152	15,341,657,109

Source: Wind Data

In 2014, at least 211 enterprises have benefitted from grants for moving their facilities to new locations. The ten largest recipients are listed in the following table 46.

Table 46: Top 10 Recipients of Relocation Subsidies in 2014

Rank	Enterprise	Amount
1	SAIC Motor Corporation Limited	600,360,271
2	Chongqing Iron & Steel Company Limited	506,983,000
3	Shijiazhuang Changshan Textile Company Limited	337,137,312
4	CSR Corporation Limited	241,385,474
5	Metallurgical Corporation of China Ltd.	163,563,000
6	Tsingtao Brewery Company Limited	160,855,912
7	Weifu High-Technology Group Co., Ltd.	152,620,735
8	Nanning Chemical Industry Co., Ltd.	105,090,335
9	AVIC Aero-Engine Controls Co., Ltd.	104,645,799
10	Guangzhou Baiyunshan Pharmaceutical Holdings Company Limited	97,605,261
Total		2,470,247,099

Source: Wind Data

Unfortunately, financial support for the demolition and relocation is not always visible as part of non-operating income. For that reason, the following table 47 present information on subsidies as deferred income for selected listed companies.

Table 47: Subsidies for Plant Demolition and Relocation

Enterprise	Year	Amount	Source
Zhangzhou Pientzehuang Pharmaceutical Co., Ltd.	2008-2014	9,600,000 (DI/NCL)	2010 at 112
	2014	6,712,016 (DI/NCL)	2014 at 117
China United Network Communications Ltd.	2013	8,964,673 (NIO)	2013 at 145
China National Accord Medicines Co., Ltd.	2012	120,250,000 (DI/NCL)	2013 at 147
		28,504,107 (NOI)	2012 at 154
	2013	2,698,409 (NOI)	2013 at 131
	2014	2,698,409 (NOI)	2014 at 128
Weifu High-Technology Group Co., Ltd.	2013	7,900,000 19,707,000 (both DI/NCL)	2013 at 138
		509,265 (NOI)	2013 at 147
	2014	152,620,735 (NOI)	2014 at 134
AVIC Aviation Electronics Co., Ltd.	2012	3,191,990 (NOI)	2012 at 140
	2013	5,109,953 (NOI)	2013 at 114
Jinduicheng Molybdenum Co., Ltd.	2012	44,940,960 (DI/NCL)	2012 at 127
		15,000,000 (special payables)	2012 at 102

Enterprise	Year	Amount	Source
	2013	10,000,000 (special payables)	2013 at 101
		16,098,667 (NOI)	2013 at 106
	2014	13,083,504 (special payables)	2014 at 87
		15,033,929 (NIO)	2014 at 92
China Resources Double-crane Pharmaceutical Co., Ltd.	2012	6,500,000 2,549,600 (both NIO)	2012 at 123
	2013	744,600 (NIO)	2013 at 125
China Resources Sanjiu Medical & Pharmaceutical Co., Ltd.	2012	89,601,477 (DI/NCL)	2012 at 126
		51,591,612 (NIO)	2012 at 132
	2013	551,188 (DI/NCL)	2013 at 147
		1,010,000 (NIO)	2013 at 155
China Northern Rolling Stock Co., Ltd.	2011	71,258,000 (NIO)	2012 at 183
	2012	41,881,000 (NIO)	2012 at 183
	2013	39,546,000 (NIO)	2013 at 188
	2014	39,266,000 747,000 (both NIO)	2014 at 122
Tianjin Zhonghuan Semiconductor Co., Ltd.	2011	11,268,808 (NOI)	2011 at 137
	2014	2,199,279 (NOI)	2014 at 145
China Southern Rolling Stock Co., Ltd.	2014	172,848,624	2014 at 151

Enterprise	Year	Amount	Source
		(DI/NCL)	
		241,385,474	
		(NOI)	
Sinochem International Corporation	2012	6,787,646	2012 at 193
		(DI/NCL)	
	2014	510,000	2014 at 144
		(DI/NCL)	
China Shipbuilding Industry Co., Ltd.	2012	26,758,524	2012 at 158
		(DI/NCL)	
	2013	26,758,524	2014 at 160
		(DI/NCL)	
	2014	41,463,143	2014 at 160
		(DI/NCL)	

NOI : Non-operating income

DI/NCL: Deferred income as part of non-current liabilities

Compilation by THINK!DESK.

2.4.2 Markets for Goods and Services

Chinese government agencies are not only intervening in the allocation and pricing of the factors of production capital, labour and land, but also intervene in specific product markets. The following chapters document the character of these interventions and the instruments applied.

2.4.2.1 Price Controls and Market Distortions in the Field of Utilities

2.4.2.1.1 Electricity

The price of electricity in China is relatively low. In April 2015, consumers in Sichuan Province only paid 0.44 RMB (0.064 Euro) per kilowatt hour (Sichuan 2015). Energy generation capacity increased at a brisk pace since the turn of the millennium. In 2007, it was reported that on average China built two large power plants per week (BBC 19.06.2007). As China possesses large reserves of coal, thermal power plants have traditionally been the mainstay of electricity production. Between 2005 and 2009, China added coal-fired power plants equal to the total plant capacity of the United States. The rapid build-up of new capacities led to a substantial improvement of the supply situation. Supply bottlenecks that had plagued private households and manufacturing businesses alike since the early 1990s were resolved for the most part during the 10th FYP period (2001-2005). Following a rapid rise until 2010, the construction of new plants has slowed in the years following the global financial crisis. In 2014, the average new plants per week dropped to below one. But this rapid expansion has not only brought about supply safety - it has also contributed to a situation of overcapacity. In fact, energy demand has been flat in the past two years as industrial activity suffered from a broad based economic slowdown. Additional pressures come from a rapid policy-driven increase in the output of renewable and nuclear energy. Under the influence of these factors, the output of coal-fired power plants has actually dropped slightly in 2014 (Greenpeace 2015).

The oversupply situation combined with a sharp drop in coal prices have allowed electricity prices to stay relatively low – even though an environmental protection fee is levied per kilowatt hour. Energy production is concentrated in the hands of a small group of giant SOEs. This oligopoly controls the electricity production while prices for private and industrial consumers are dictated by the Commodity Pricing Office of the NDRC and the SERC. Power grids throughout the country are owned and operated by just two enterprises: State Grid and China Southern Grid. Both are SOEs controlled by the SASAC of the State Council. They do not compete against each other but divide up the Chinese territory in regional (and exclusive) spheres. City governments have a limited say in the setting of electricity prices for their jurisdictions as local social and economic conditions as well as regional variations in the consumer structure are taken into account. Local authorities also have a limited influence on the

grid operation and can connect or disconnect individual electricity consumers. As part of the large portfolio of incentive policies offered to potential investors, cities have granted large discounts on electricity rates or even arranged for free power supply. High Technology Zones have been found to provide more or less uniform benefits to resident companies. In many cases, however, practices have been case specific, meaning that preferential supply arrangements were crafted according to the business model and relative attractiveness of the new investor. Discounts could be temporary or permanent as the government either agreed to pay a certain share of an enterprise's power bill to the grid company or disbursed electricity subsidies to the enterprise.

Due to the environmental problems associated with China's heavy reliance on burning coal, the Chinese government has introduced a series of measures to curb negative externalities from overly cheap power and discourage excessive consumption. While laws and regulation on preventing air pollution order power plants to upgrade technologies and install filtering equipment, electricity users had to meet certain energy conservation standards and abide by the relevant industrial policies for their sectors. In May 2007, then Premier Wen Jiabao called for limits on enterprises that waste energy or damage the environment. He emphasized that reducing energy consumption was a critical element in bringing about a sustainable economic growth model for the country. China's official China Daily (08.05.2007) cited Wen as saying that "We are left with no choice but to develop in an economical, clean and safe way". Wen blamed the unchecked growth of energy intensive industries like metals, petrochemicals and building materials for much of the ecological footprint left by the energy sector. In the same speech, Wen pledged to employ a combination of policy measures in the fields of commodity pricing, environmental protection, foreign trade and others to confront six industries that accounted for 70 percent of industrial electricity use. In an unusually direct way, Wen criticized the broad bandwidth of preferential policies employed by localities to lure investors in energy intensive industries. In this context, he explicitly warned against the practice of subsidizing the cost of electricity and underlined the importance of pricing reforms towards differential energy pricing for different users (China Daily 08.05.2007).

Beginning in 2006, the central government has launched reforms to implement a differential pricing system for electricity. Similar schemes for natural gas, water and other utilities were introduced shortly thereafter. In 2006, the NDRC issued the *Circular on Opinions concerning optimizing differential electricity pricing policies*. The document established energy pricing as regular tool for pursuing national industrial policies for fighting overcapacities, eliminating obsolete capacities, streamlining industrial structures, upgrading production technologies, cutting power consumption and protecting the environment. The Opinions called on local governments to monitor and evaluate the performance of enterprises inside their jurisdiction with regards to energy conservation. Producers of steel, ferroalloys, electrolytic aluminium, zinc, calcium carbide, caustic soda, phosphorus and cement received special attention. The NDRC order energy prices increases specifically for companies that employed production technologies listed in the restricted or prohibited categories of the *Catalogue for the Guidance of Structural Adjustment of Industries*. A timetable specified exactly when and by how much electricity rates would have to be raised for said products.

Dissatisfied with nationwide implementation efforts, the NDRC and the State Electricity Regulatory Commission (SERC) issued the *Circular on resolutely implementing differential electricity pricing policies and strictly prohibiting any preferential pricing schemes*. It complained that seven provincial level jurisdictions, including Beijing City, had made no visible efforts in compiling lists of companies to be targeted by increased electricity prices. Another eight provinces had not even communicated the NDRC's directive to their local businesses. Remarkably, 14 regions had continued to negotiate individual power rates with large industrial consumers or used other practices to provide electricity discounts. The two commissions warned municipal governments to observe national policy and ensure their swift implementation. While cities were largely left to control themselves, the Circular threatened that future violations would be criticized and reported to the State Council. It warned that the jurisdictions in questions might be punished with reduced investment in their power infrastructures (NDRC and SERC 2007a).

In the same month, the NDRC and the SERC (2007b) directly addressed 17 provincial Energy Supervision Commissions demanding status updates on the policy implementation. The local organizations were to report in detail about their work and the problems encountered. The document announced that representatives from the two central government commissions would hold meetings with their provincial counterparts to seek more information. The delegation would be dispatched to meet with provincial energy officials, review available documentation and make 2-3 inspection visits to randomly selected cities in every province. Considering the very large number of cities and companies located in the 17 provinces, this approach proved largely ineffective. Both central government bodies suffered from serious understaffing which made it almost impossible to safeguard effective supervision and increase detection risks. Municipal officials enjoyed relatively large decision making space and faced strong disincentives to raise the cost burden of local companies. Local authorities forwarded central directives, formed leading small groups and appeared to act in line with national policy while finding creative ways to skirt the very same.

Fifteen months after the differential pricing system was established, progress on the implementation had been sluggish. Energy consumption from the eight focus sectors had continued to increase at a fast pace and little success was visible with respect to the ultimate policy aims, like adjusting the industrial structure or phasing out outdated plant equipment. Implementation of the mandatory price increases had been patchy as localities either lacked the information or the resolve necessary. Even where prices had been adjusted, the effects on company operations had been mostly negligible. Fines for non-compliance were relatively low as was the detection risk. In September 2007, the NDRC and two other central government bodies released the *Circular on problems related to the continued implementation of the differential electricity pricing policy*. The document announced some minor changes in the composition of the industrial processes to be hit by higher energy costs. Importantly, it tried to increase acceptance on the local level by reserving additional revenues from higher priced electricity for local usage in energy conservation projects. Importantly, The Circular

also announced more inspections to take place later that year (NDRC, MOF and SERC 2007).

In 2008, central government regulators continued to overcome local government resistance to the highly unpopular measures. Progress was slow and accomplishments had been modest when the global financial crisis threw the Chinese manufacturing industry into turmoil. Confronted with substantial economic challenges and struggling companies, local governments became even less willing to enforce the differential pricing approach. After the financial crisis, the situation improved further and a number of adjustments to the policy greatly improve its effect.

By 2015, the practice has not only been implemented nationwide, it has also been generally accepted as a way to guide corporate decision making. While the actual contribution of differential energy pricing is hard to gauge and has been overshadowed by changing economic trends and policy strategies, differential pricing has become a mainstay of the industrial policy tool box. The number of laws, circulars, opinions, guidelines and measures that include this concept and similar approaches has increased across a wide range of policy fields. By the time of writing, the pricing system in place allowed economic policy makers to fine tune production activities in line with their preferences. Over the years, utility pricing has evolved to also encourage investment activities in desired areas, e.g. SEI. In retrospect, the measures employed in 2015 are akin to those used a decade earlier as the provision of utilities at below market prices continues. A change has occurred with regard to the leading actors. As principal actors, the NDRC and the MIIT have wrest the power of differential pricing out of the hands of local governments and made it instrumental to national policy. Through strengthening its ability to supervise and sanction local government behaviour, central authorities have reclaimed the authority to select sectoral investment targets and channel local resources in the encouraged direction.

As the following table demonstrates, government organizations around the country have continued to hand out electricity subsidies to prioritized companies. Remarkably, the list of firms benefitting from these transfers includes major players in energy intensive industries that are subject to strict industrial policies for overcapacity elimination and industrial streamlining, like electrolytic aluminium. Many of said companies, like the Aluminium Corporation of China, Yunnan Aluminium and China Nonferrous Metal Industry, are large SOEs controlled by the SASAC of the State Council – a fact that highlights a distinct pro-state bias in regulatory restrictions. Table 48 identifies the recipients of the largest electricity subsidies.

Table 48: Top 10 Individual Electricity Subsidies (2010-2014)

	Year	Subsidy income
Aluminium Corporation of China Ltd.	2012	560,376,000
Yunnan Aluminium Co., Ltd.	2013	256,000,000
Inner Mongolia Erduosi Resources Co., Ltd.	2013	176,390,000
Yunnan Aluminium Co., Ltd.	2012	62,401,118
Inner Mongolia Erduosi Resources Co., Ltd.	2014	50,000,000
Zhejiang Xinan Chemical Industrial Group Co., Ltd.	2011	29,326,800
Guangxi Guidong Electric Power Co., Ltd.	2014	25,920,000
Jiangsu Akcome Science & Technology Co., Ltd.	2012	22,063,481
China Nonferrous Metal Industry's Foreign Engineering and Construction Co., Ltd.	2013	19,152,745
Anhui Huilong Agricultural Means of Production Co., Ltd.	2010	15,000,000
Total (Top 10 subsidy transfers)		1,216,630,144

Source: Wind Data

Remarkably, the ten largest recipients account for almost 80 percent of total electricity subsidies of 1,532 billion RMB. Subsidies included in this analysis are limited to grants intended to reduce electricity cost of production operations. They do not account for government transfers for cutting residential energy rates for employees. Neither do they include subsidies related to setting up power lines and related infrastructures. In order ensure accuracy, THINK!DESK has excluded feed-in tariffs paid to producers of renewable energy.

An even more prominent way for governments to help companies meet tightened energy conservation requirements is the subsidization of necessary upgrading measures. Such practices are very common and close to 40 percent of all listed companies have reported receipts of subsidies related to energy conservation over the past five years. At least one fifth of listed firms registered such grants in 2014 alone (see tables 49 and 50).

Table 49: Total Subsidies for Energy Conservation (2010-2014)

2010	2011	2012	2013	2014	Total
868,544,356	1,029,164,834	1,270,379,528	1,043,110,150	1,971,629,104	6.182.827.972

Source: Wind Data

Table 50: Top 10 Individual Subsidy Transfers Promoting Energy Conservation (2010-2014)

Enterprise	Year	Amount
China Merchants Energy Shipping Co., Ltd.	2014	521,621,000
Shanghai Electric Power Co., Ltd.	2011	281,060,000
Chongqing Iron & Steel Co., Ltd.	2014	280,000,000
Lingyuan Iron & Steel Co., Ltd.	2012	150,000,000
China Eastern Airlines Co., Ltd.	2013	114,480,000
Hebei Jinniu Chemical Industry Co., Ltd.	2012	106,000,000
Wanhua Chemical Group Co., Ltd.	2010	105,601,439
China Eastern Airlines Co., Ltd.	2014	104,000,000
Zhongtian Urban Development Group Co., Ltd.	2014	103,931,816
Wanhua Chemical Group Co., Ltd.	2011	93,904,900
Total (Top 10 subsidy transfers)		1,949,986,734

Source: Wind Data

The amounts stated here refer only to subsidies for supporting energy conservation measures of the benefitting companies. They are exclusive of transfer made to promote the development and manufacture of energy-saving products, like white goods, brown goods and vehicles. In the interest of accuracy, THINK!DESK research has also removed payments supporting the production of certain industrial goods, like renewable power generation equipment.

2.4.2.1.2 Water

While the administration of electricity prices is mainly controlled by the commodity pricing offices under the provincial Development Reform Commissions, city governments have a relatively strong influence on the pricing for fresh and waste water as well as related upkeep fees. Like electricity charges, water prices have been selectively adjusted to encourage or discourage investment projects. The basic principles at work are akin to the differential pricing mechanism outlined in the previous section.

Where local governments sought to offer water related price discounts, they could either lower the prices or provide subsidies as compensation. Unfortunately, pricing data for individual industrial users is not available in China. However, THINK!DESK found ample subsidization in this field as the following tables 51 and 52 will illustrate:

Table 51: Total Water Subsidies (2010-2014)

2010	2011	2012	2013	2014	Total
15,886,573	7,921,849	9,380,337	4,323,884	12,009,887	49,522,530

Source: Wind Data

Table 52: Top 10 Individual Water Subsidies (2010-2014)

Enterprise	Year	Amount
Beijing Capital Co., Ltd.	2010	11,411,573
Heilongjiang Interchina Watertreatment Co., Ltd.	2014	11,409,887
Heilongjiang Interchina Watertreatment Co., Ltd.	2011	5,659,767
Heilongjiang Interchina Watertreatment Co., Ltd.	2010	4,400,000
Jilin Chemical Fibre Co., Ltd.	2012	3,998,200
Heilongjiang Interchina Watertreatment Co., Ltd.	2013	3,206,269
Heilongjiang Interchina Watertreatment Co., Ltd.	2012	2,707,137
Hunan Chendian International Development Share-Holding Co., Ltd.	2012	2,100,000
Hunan Chendian International Development Share-Holding Co., Ltd.	2011	1,494,700
Qian Jiang Water Resources Development Co., Ltd.	2013	942,615
Total (Top 10 subsidy transfers)		47,330,148

Source: Wind Data

The values contained in the table include water users and do not contain subsidies to producers. Furthermore, the data was been cleared from subsidies supporting the construction or improvement of distribution networks and storage facilities.

2.4.2.1.3 Coal

Several companies have received subsidies to reduce the average price paid for coal. Remarkably, state-owned electricity generators are the main beneficiaries. The following tables 53 and 54 hold more detailed information on coal subsidies.

Table 53: Total Coal Subsidies (2010-2014)

2010	2011	2012	2013	2014	Total
121,049,342	576,181,763	152,036,410	152,036,410	152,036,410	1,153,340,335

Source: Wind Data

Table 54: Top 10 Individual Coal Subsidies (2010-2014)

Enterprise	Year	Amount
Huaneng Power International, Inc.	2011	400,650,000
Huaneng Power International, Inc.	2012	178,703,600
Huadian Power International Co., Ltd.	2012	150,170,000
Huaneng Power International, Inc.	2010	117,960,000
Huadian Power International Co., Ltd.	2011	116,224,000
Huaneng Power International, Inc.	2013	108,210,000
CCS Supply Chain Management Co., Ltd.	2014	68,000,000
Huaneng Power International, Inc.	2014	60,680,000
CPI Yuanda Environmental-Protection (Group) Co., Ltd.	2011	56,520,000
CPI Yuanda Environmental-Protection (Group) Co., Ltd.	2012	37,990,000
Total (Top 10 subsidy transfers)		1,295,107,600

Source: Wind Data

2.4.2.1.4 Heating

State owned companies are responsible for operating centralized heating systems in cities and towns. Government organizations on different levels provide subsidies to these companies as the retail price for heating is kept artificially low to reduce the cost of living. The following tables 55 and 56 give an overview of heating subsidies provided between 2010 and 2014.

Table 55: Total Heating Subsidies (2010-2014)

2010	2011	2012	2013	2014	Total
288,454,026	287,307,368	634,218,196	576,764,788	441,880,336	2,228,624,714

Source: Wind Data

Table 56: Top 10 Individual Heating Subsidies (2010-2014)

Enterprise	Year	Amount
Huadian Power International Co., Ltd.	2012	228,324,000
Shuangliang Eco-Energy Systems Co., Ltd.	2014	138,954,700
Shuangliang Eco-Energy Systems Co., Ltd.	2012	134,793,100
Shuangliang Eco-Energy Systems Co., Ltd.	2013	130,670,000
Huadian Power International Co., Ltd.	2013	121,230,000
Huadian Power International Co., Ltd.	2011	89,738,000
Huadian Power International Co., Ltd.	2014	86,062,000
Shenyang Huitian Thermal Power Co., Ltd.	2010	68,878,445
Huadian Energy Co., Ltd.	2014	56,727,759
Jilin Power Share Co., Ltd.	2013	49,555,036
Total (Top 10 subsidy transfers)		1,104,933,040

Source: Wind Data

2.4.2.1.5 Natural Gas

Subsidies for natural gas are particularly high. This is because PetroChina has received (and continues to receive) substantial tax refunds on imported liquefied natural gas. In both 2013 and 2014, grant receipts have exceeded 10 billion RMB per year. However, Fuyao Glass Industry, one of the world's leading manufacturers of wind shields and other glass components for vehicles, and China Jushi, China's leading producers of fibre glass products, have also registered substantial transfers. The following tables 57 and 58 outline some essential information on subsidies related to natural gas.

Table 57: Total Natural Gas Subsidies (2010-2014)

2010	2011	2012	2013	2014	Total
29,684,667	42,493,291	64,852,302	10,396,895,352	11,187,289,623	21,721,215,235

Source: Wind Data

Table 58: Top 10 Individual Natural Gas Subsidies (2010-2014)

Enterprise	Year	Amount
Petrochina Co., Ltd.	2014	10,931,000,000
Petrochina Co., Ltd.	2013	10,347,000,000
Guanghui Energy Co., Ltd.	2014	208,820,000
Fuyao Glass Industry Group Co., Ltd.	2012	50,000,000
Shanghai CIMIC Holdings Co., Ltd.	2013	21,585,000
Shenzhen Energy Group Co., Ltd.	2010	20,417,067
Fuyao Glass Industry Group Co., Ltd.	2011	16,339,500
China Gezhoubu Group Co., Ltd.	2014	12,460,127
China Gezhoubu Group Co., Ltd.	2013	10,724,877
China Jushi Co., Ltd.	2012	7,830,000
Total (Top 10 subsidy transfers)		21,626,176,571

Source: Wind Data

2.4.2.2 Price Controls Targeting Goods and Services

China continues to maintain a system of direct price controls. The number of commodities and services covered, however, has been gradually reduced in recent years. The administration of prices for goods and services is governed by the *Price Law* of the People's Republic of China which entered into force on May 1st, 1998 (NPC 1997). Until the time of writing, the government reserved itself the right to enforce price controls for “an extremely small number” of goods and services that are deemed to be of major importance to national economic development and have strong implications for people's livelihood, plus some rare resources, natural monopolies as well as major utilities and public services (NPC 1997 at 18). Price controls are not limited to SOE sales but have to be observed by all suppliers of subject goods.

In fact, not all articles that match the criteria of article 18 are still subject to price regulation. Agricultural and other commodities which are covered under state stockpiling programs ergo ipso possess the required strategic importance qualifying them for direct price regulation. However, the procurement for national reserves is carried out through competitive bidding. Government influence is limited to raising or lowering prices indirectly by adjusting the amount of purchases.

Direct government price controls fall in two categories: fixed prices and guided prices. The former imply that a certain amount of RMB has to be charged on a per unit basis. The latter allows for prices to move within a band delimited by specified upper and lower bounds. In 2001, the State Development Planning Commission, a precursor of today's NDRC, issued

the *Catalogue of Price Controls by the State Planning Commission and other Departments of the State Council*. The catalogue identifies the commodities and services that are subject to price controls and specifies the central government bodies in charge of price regulation (SDPC 2001).

The NDRC has inherited responsibility for price controls from the State Planning Commission, its predecessor which had retained this authority since the time of central planning. In addition, Commodity Pricing Bureaus attached to provincial-level governments fine tune price regulation handed down from the central government to take account of the specific socio-economic conditions of their respective jurisdictions. Supreme authority for any kind of price regulation rests with the State Council which reviews such moves before they can take effect. Despite unified price regulation procedures across the country, regional variations exist with regards to the level of government administered prices.

The central government (through NDRC) has retained immediate control over the prices of some tobacco products, explosives, edible salt, natural gas, electric power, rail and civil aviation transport as well as postal and telecom services. However, the scope has dropped in January 2015 as prices for numerous commodities have been freed in early 2015, such as tobacco leaves. Prices of transportation services have gradually been freed over the years. In January 2015, the government pulled out of areas like railway bulk cargo, parcel and privately funded cargo as well passenger transport. At the same time, price administration has been abolished for air cargo and passenger tickets on some carriers. China Daily (05.01.2015) reported that price regulation on port service fees, including fees on container loading, ship rubbish treatment as well as water supply would be scrapped along with factory prices of explosives for civil use. However, the NDRC has not been willing to completely forfeit its market influence over these products as the same China Daily article cautions that “the NDRC will prevent high price volatility and keep a close eye on market order after controls are lifted” (China Daily 05.01.2015).

Provincial-level commodity pricing Bureaus are in charge of setting prices for healthcare services, road transport and – in several cases – also for wheat and/or rice (WTO 2014a at 101). An overview of the commodities and services covered for which the government continued to determine prices in 2013, is presented in table 59 below.

Table 59: Government-fixed and Government-guided Prices in 2013

Product	Type of control/rationale
Tobacco, salt and explosive materials	Government price. State monopoly. Establishment of purchasing price of tobacco leaves, wholesale price of salt. Guided price of explosive materials.
Fertilizers	Guided price: benchmark factory prices and fluctuations, port settlement prices.
Educational material	Government price The rationale is public interest.
Refined oil	The retail price is government-guided. Managed prices are determined on the basis of the price of crude oil on the international market plus the average processing fee, taxes and reasonable transportation fees in China. The rationale is the lack of adequate market competition.
Natural gas	The factory price of onshore gas is Central Government-guided while the pipeline transportation price is Central Government-set. The sales price of gas is controlled by the local government and is generally set by the latter. The rationale for maintaining price controls is that natural gas is considered a crucial public utility and the need to complete a full reform of the electricity system before liberalizing prices.
Military products	Factory government price. The rationale is defence and national security.
Electricity	The price of electricity is mainly set by the Government and monitored by the competent price authority. The price of electricity generated by power grids across provinces, autonomous regions and municipalities directly under the competent authority of the State Council at Central Government level and provincial-level power grids is approved by the competent price authority of the State Council, and the price of electricity generated by independent power grids below the provincial level is monitored by the governments of the provinces, autonomous regions and municipalities. The rationale for maintaining price controls is the nature of electricity prices as a crucial public utility price, as well as the lack of a fully completed reform of the electricity system.

Product	Type of control/rationale
Environment protection charges	<p>Pollutant discharge levies mainly include sewage, waste gas, solid wastes and noise-discharge fees and are subject to Central Government-set prices.</p> <p>The rationale for maintaining price controls is that pollutant discharge levies are administrative charges and hence, must be controlled, as mandated by Article 47 of the Price Law, and stipulated in Article 36 of the Regulations on Price Control. The specific rationale for each charge is formulated by the State Council separately.</p>
Urban household garbage disposal charges	<p>Prices are set by local governments.</p> <p>The rationale for maintaining price control is that garbage disposal is a main public utility.</p>
Water	<p>Urban water prices are subject to price control by local governments.</p> <p>The rationale for maintaining this price control is that water supply is a natural monopoly.</p>
Sewage disposal charges	<p>Set by local governments.</p> <p>The rationale for maintaining price control is that sewage disposal is a main public utility.</p>
Financial settlement and trading service fees	<p>Fees for basic settlements such as bank drafts, cash remittances, acceptance of bills of exchange, promissory notes and cheques, and foreign exchange are set by the Central Government. Bank card-swiping service fees are Central Government-guided.</p> <p>The rationale for maintaining price controls is lack of full competition.</p>
Charges of some construction projects	<p>Land-expropriation administrative charges and house-ownership registration charges are set by the Central Government.</p> <p>The rationale is that they are administrative affairs charges.</p>
Operational service charges	<p>Subject to government prices or government-guided prices. The rationale is public interest or lack of full competition.</p>
Real estate prices and charges of related services	<p>Benchmark land prices, economic housing prices, low-price house rental and property service charges are subject to local government-guided prices.</p> <p>The rationale is public interest.</p>
Entrance to sightseeing sites	<p>Local government-guided prices. The rationale is public interests.</p>

Product	Type of control/rationale
Railway transportation fares	<p>Railway-passenger and cargo-transportation fares and miscellaneous charges are mainly government-set or government-guided prices.</p> <p>The rationale is that railway transport closely relates to national economic and social development and people's livelihoods and is to some extent a monopoly.</p>
Harbour charges	<p>Mainly subject to government-set prices and government-guided prices. Charges of major harbours along coastal lines and the Yangtze River and all harbours opened up to the world are administered by the Central Government; charges of other domestic trade harbours are administered by local governments.</p> <p>The rationale is that harbours are important public infrastructure that closely relate to national economic and social development and are to some extent a regional monopoly business.</p>
Air transport prices and airport charges	<p>Civil domestic flight prices are mainly government-guided prices; both the benchmark rates and their fluctuation range are determined by the Central Government.</p> <p>The rationale is that the civil domestic flight market is still developing and civil aviation does not fully compete with other means of transport.</p>
Civil airport charges	<p>Mainly government-guided, the benchmark rates and fluctuation range of which are determined by the Central Government.</p> <p>The rationale is that airports closely relate to national economic and social development and people's livelihood and are to some extent natural monopolies.</p>
Basic postal service fees	<p>Government-set.</p> <p>The rationale relates to people's livelihoods.</p>
Basic telecommunication service charges	<p>Mainly government-set and government-guided. The rationale is inadequate competition and close relation to the national economic and social development and people's livelihood.</p>
Medicines and medical services	<p>Government-set prices or government-guided prices are applied for medicines listed in the catalogue of medicines covered by the basic medical insurance and for medicines outside the said catalogue but in monopoly operation. Government-guided prices apply to basic medical services provided by non-profit medical institutions.</p> <p>The rationale is economic importance and effect on people's livelihoods, public interest and, to some extent, lack of market competition.</p>
Source: WTO 2014, p. 100-1.	

Price adjustments are enacted in irregular intervals, but are most frequent in the field of fuels. Table 60 documents price adjustments as announced by NDRC in 2013. The adjustment of the prices for oil and refined petroleum products are governed by the *Trial Administrative Measures on Oil Price* which went into effect in 2009.¹⁴ Fuel prices are determined by the NDRC and implemented by China's three large petroleum companies, i.e. China National Petroleum Co., Sinopec Co. and China National Offshore Oil Co (Bloomberg 11.11.2013). During 2013 and 2014, 32 changes occurred. During the first three months of 2015, prices were raised twice and lowered three times. In order to take into account distribution costs and buying power, the NDRC sets different vehicle fuel prices for different provinces and regions. Regional variations are quite low – fluctuating between 5 and 10 percent. According to an adjustment in April 2015, fuel is most expensive in Chongqing (7,760 RMB per ton) and cheapest in Xinjiang Autonomous Region (7,325 RMB per ton). In most cases, the respective prices are universal, i.e. they have to be used throughout the province (NDRC 2015).

Table 60: Announcements of Price Adjustment by NDRC in 2013

Areas	Announcement	Basic changes
Electrical power	Nos. 973 and 1942 of 2013	Adjusting the price categories of electrical power
		Regulating the price of nuclear electrical power
Domestic fuels	13 announcements, the latest being issued on 28.11.2013	Adjusting the domestic price of processed oil and other fuels
Natural gas	No. 1246 of 2013	Adjusting the price ceiling of natural gas
Some key medicines	No. 4134 of 2013	Adjusting the price ceiling of some medicines
Water resources	No. 29 of 2013	Formulating the minimum purchase price of water resources in different regions
Key reserve materials of the State	No. 193 of 2013	Regulating the minimum procurement prices for rice
	No. 947 of 2013 No. 205 of 2013	Regulating the initial minimum procurement prices for wheat

Source: WTO 2014 at 101-2

¹⁴ http://news.xinhuanet.com/fortune/2009-05/08/content_11336876.htm

Another heavily regulated sector is the pharmaceutical industry and the industry for medical equipment. In the pharmaceutical industry, the NRDC, as chief regulator, has ordered price reductions of 10-40 percent for several thousand individual drugs. These have been contained in 32 batches issued between January 2000 and January 2014. The methodology employed by the Commission for Fixing Price Ceilings is based on production cost and allows for a limited profit. Procurement of drugs is ruled by the National Essential Drugs List. However, as the underlying decision making processes are not published and price has been given overriding importance, high quality drugs are less likely to enter the *List* (EUCCC 2014 at 34).

International companies especially report to have been negatively affected by price controls for medical equipment. These are administered on the provincial level which maintains a narrow focus on the price, sometimes disregarding differences in quality and innovativeness.

In the healthcare equipment industry, prices are determined by the *National Pricing Code for Medical Service Items* which is drafted and adjusted by the NDRC. The document is concerned with product affordability and specifies a basic testing method rather than high sensitivity ones (ibid).

The final communiqué of the third plenary session of the 18th CPC Central Committee in November 2013 stated the intention to further reform in the field of medicine and healthcare. However, little progress has been made in the time since. Administrative price controls prevalent in China do not account for the real market value of medical equipment and thus obstruct the normal operation of market forces. While the financial constraints of the Chinese healthcare system make it necessary to keep rising costs in check, forced price reductions and administrative controls run counter to economic efficiency. A narrow focus on prices limits hospitals in their purchasing decisions and hinders improvements in product quality and performance that would allow for cost savings over the long-term. The latter could result from better diagnose and treatment options, improved health and higher economic welfare. Price ceilings that hold back the innovativeness of companies, in final analysis just pitch short-term savings against long-term gains (EUCCC 2015 at 33)

2.4.3 Complementary Ordering Mechanisms for Effective Market Coordination

Markets can only direct economies towards high levels of welfare and development, if the signals generated are actually executed in the market place. To this avail complementary institutional arrangements need to be in place, which incentivise economic actors to act according to these market signals. In order to uphold their capability to signal the best allocation of resources and goods in the economy, markets must furthermore be protected from a one-sided accumulation of power that might interfere with efficient competitive processes. The following sections take a closer look at the design of two such ordering mechanisms in the Chinese economy.

2.4.3.1 Anti-Monopoly Regulation

After 13 years of deliberation and multiple rounds of public consultation, the *Anti-monopoly Law* (AML) finally went into force on August 1st, 2007. To date, the AML (NPC 2007d) represents the most comprehensive legal document since the foundation of the People's Republic in 1949 in that it addresses competition in a holistic manner. Previous legislation, like the *Law Against Unfair Competition* (NPC 1993) and the *Price Law* (NPC 1997) have been very limited in scope. Enforcement was hindered by the relevant agencies' lack of the administrative tools and manpower. The AML spurred the creation of new units in existing agencies dedicated to supervising market order and fair competition. The responsibilities for monitoring and enforcement were distributed to three separate organisations, the NDRC, the MOFCOM and the SAIC, that are supervised and coordinated by an Anti-monopoly Commission. The latter has also been created by the AML (at 9) and is composed of representatives of the three anti-monopoly enforcement agencies (AMEA) as well as eleven other government departments. The AMC is based at the MOFCOM and provides a channel for interdepartmental communication and coordination. The following table 61 outlines the individual responsibilities of the three AMEA:

Table 61: Tasks and Responsibilities of China's Anti-competitive Enforcement Agencies

Competent authority	Laws, administrative regulations and ministerial rules	Responsibilities	Enforcement delegation
MOFCOM	<p>AML</p> <ol style="list-style-type: none"> 1. Rules of the State Council on Thresholds for Reporting Concentration of Undertakings. 2. Measures on the Examination of Concentration of Undertakings. 3. Measures on the Notification of Concentration of Undertakings. 4. Interim Rules on Assessment of Impact of Concentration of Undertakings on Competition 5. Interim Provision on Investigations of Un-notified Concentrations of Undertakings. 6. Measures for Calculating the Turnover for the Declaration of Business Concentration in the Financial Industry. 7. Interim Provisions on the Implementation of Divestiture of Assets or Businesses for Concentrations of Undertakings. 	Anti-monopoly review of concentrations of undertakings.	No delegation.

Competent authority	Laws, administrative regulations and ministerial rules	Responsibilities	Enforcement delegation
NDRC	<p>AML; Price Law</p> <ol style="list-style-type: none"> 1. State Council Provisions on the Administrative Punishment of Price-related Violations. 2. Provisions on Prohibition of Price Monopoly. 3. Procedural Provisions on Administrative Punishment in relation to Prices. 4. Provisions on the Administrative Procedures for Law Enforcement against Price Fixing. 	<ol style="list-style-type: none"> 1. To investigate and punish price monopoly acts in accordance with the law, including price-related monopoly agreements, abuse of market dominance and abuse of administrative powers to eliminate and restrict competition. 2. To investigate and punish price-related violations in accordance with the law. 3. To investigate and punish arbitrarily charged administrative fees in accordance with the law. 	<p>Anti-monopoly enforcement may be delegated to the authorities at or below the provincial level.</p> <p>Price Law enforcement may be exercised at the local level.</p>
SAIC	<p>AML; Anti-Unfair Competition</p> <ol style="list-style-type: none"> 1. SAIC Procedural Provisions on Prohibition of the Abuse of Administrative Power to Exclude or Restrain Competition. 2. SAIC Provisions on the Prohibition of Monopoly Agreement. 3. SAIC Provisions on the Prohibition of Abuse of Dominant Market Positions. 4. SAIC Provisions on the Suppression of Abuse of Administrative Power to Eliminate and Restrict Competitive Conduct. 5. SAIC Provisions on Investigating and Handling <p>Cases Concerning Monopoly Agreements and Abuse of Dominant Market Positions.</p>	<ol style="list-style-type: none"> 1. Sanctions against non-price-related monopolistic agreements. 2. Regulation on non-price-related market dominant abuses. 3. Sanctions against administrative monopolies. 	<p>Anti-monopoly enforcement may be delegated to the authorities at the provincial level, but not further down.</p> <p>Cases must be registered at SAIC before delegation.</p>

Source: WTO 2014a at 94-5

The AML represents a cornerstone of China's competition policy and has been subject to contention – not least due to the strong concentration of market share in several sectors in the hands of state business. Article 1 states that the law is enacted for the purpose of preventing and restraining monopolistic conduct, protecting fair competition in the market, enhancing economic efficiency, safeguarding the interests of consumers and social public interest. It serves to safeguard against monopolistic agreements among business operators, abuse of dominant market positions by business operators; and concentration of business operators that does or may restrict competition (NPC 2007d at 1.2). The document specifies that its provision are applicable to all instances of monopolistic conduct affecting the Chinese market, regardless whether they are to take place domestically or overseas (ibid at 1.3).

The law has a number of peculiarities which appear inconsistent with international best practice and are obviously tailored to the idiosyncrasies of the Chinese politico-economic system. The initial paragraphs emphasise that the law should be enforced in line with the country's socialist market economy, which views state businesses as backbone of the economy. The concept of upholding free market competition based on the socialist market economy presents some paradoxes which will be highlighted later in this section.

Similarly, the law is influenced by major economic policy strategies. Article 15 allows potentially anti-competitive collaboration between enterprises for the sake of carrying out R&D and developing cutting edge products. It also permits such arrangements when it comes to conserving energy and improving efficiency. M&A, which have been promoted as a major tool for streamlining industries with fragmentation and overcapacities, are permitted by the AML as a means to create scale economies (at 5). The endorsement of industry concentration for supporting sectoral industrial policy objectives may prove incompatible to the AML's mission to prevent the formation and abuse of market dominance.

In recent years, the authorities in charge of investigating, sanctioning and preventing anti-competitive behaviour in the market place have greatly increased their efforts. The NDRC, the MOFCOM and the SAIC have each expanded the number of personnel and administrative capacities to becoming more effective. A flurry of documents has been issued creating a dense regulatory fabric. This has been complemented by even more measures that outline administrative procedures specify the concrete instruments for implementation. This has allowed the system to become operational and ensured enforcement. More active investigation of alleged anti-competitive behaviour has increasingly affected foreign companies and invited heavy coverage in Western media. This has sparked the question whether or not Chinese authorities treat foreign companies fairly and on equal footing with home grown competitors. In July of 2014, a joint statement of the U.S. China Strategic Economic and Economic Dialogue stipulated that

“the objective competition policy is to promote consumer welfare and economic efficiency rather than promote individual competitors or industries, and that enforcement of their respective competition laws should be fair, objective, transparent and non-discriminatory” (USTR 2014b).

2.4.3.1.1 *Pricing investigations*

With regards to pricing investigations, enforcement activity has surged since 2008. According to statements by Chinese officials cited by the USCBC (2015 at 18), the NDRC handled a total number of 335 cases between August 2008 and September 2014. Through much of that year, a spotlight was put on international companies for alleged anti-competitive conduct. Naturally, international news media have focussed their attention on cases involving international companies. However, the domestic reporting by state media has put on intense focus on alleged rule violations by foreign companies.

Outside China, the large number of investigations targeting domestic companies went unreported and concealed the fact that only a fraction of all cases have involved foreign players. Sectors subjected to scrutiny by the NDRC for alleged uncompetitive pricing practices include dairy products, pharmaceuticals, automobile companies and various high technology industries. The U.S. China Business Council has pointed out that foreign companies were assessed in the same way as domestic ones, and that sanctions have been determined on the same basis: sales revenues in the Chinese market. Regarding the investigation outcomes, the Council found that international players were fined at a higher average rate than their domestic counterparts: 3.3 percent vs. 1.9 percent (USCBC 2015). So far, Chinese regulation does not specify the method for calculating the rate of fines – the AML caps fines at 10 percent of relevant revenues.

Box 9: AML-Ruling: Mead Johnson Nutrition / Danone / Fonterra / Abbott Laboratories / FrieslandCampina / Biostime International (August 2013)

The six companies listed above were fined a combined total of 110 USD for fixing prices of baby formula in the Chinese markets. Following a scandal in 2008 when several hundred babies became sick from adulterated milk powder that contained industrial chemicals, the reputation of China's domestic dairy industry is badly hurt. Formula imports have surged and foreign products increased their market share in certain segments to about 50 percent. Much coveted by Chinese consumers, imported infant formula in some cases sells at twice the price of comparable domestic products. Because China is the world's largest market for such product and sales have been growing a pace of about 20 percent in recent years, international companies have found their China businesses particularly promising. In its decision, the NDRC has ruled that eight companies (two were not fined because they had cooperated with investigators) had engaged in anti-competitive conduct by enforcing minimum prices for distributors and punishing non-compliance on their part (Reuters 07.08.2013). Furthermore, the companies were found to restrict competition by discouraging regional distributors to sell outside their designated territories. Most companies announced not to contest the ruling and lowered their retail prices for the product in question. While the fines were likely part of a larger government strategy to support domestic manufacturers, analysts have questioned that the forced price reductions of imported formula products would actually have this effect (SCMP 29.08.2013).

Box 10: Various automobile manufacturers (August/September 2014)

The NDRC and its provincial branches have carried out several anti-trust investigations against automobile manufacturers and part makers. The Commission stated that the companies had overcharged Chinese customers demanding prices significantly higher than in other markets. The commission was convinced that foreign carmakers had abused their strong market position to boost profits by fixing prices. Industry representatives justify pricing policies with unprecedented demand surges and the costs structures of local production in China. However, a consensus has emerged among market observers that the ultimate aim is to force down prices of automobiles, spare parts and services (DW 11.09.2014).

A joint venture company of VW and FAW manufacturing Audi limousines was found guilty of anti-competitive conduct and fined 250 million USD (FT 03.11.2015). Allegedly, the company had ordered eight dealerships in Hubei Province to fix prices for cars and after-sales services beginning in 2012. The NDRC ruled that the practice had impaired free competition by hindering dealers to adjust prices according to the market and harmed the interest of consumers. Along with the manufacturer, eight of its dealers were ordered to pay a combined total of 30 million RMB (DW 05.08.2014).

Similarly, a sales division of Fiat SPA-owned Chrysler Motors was fined 31.7 million RMB for allegedly forbidding dealerships in Shanghai to undercut the manufacturer's reference since 2012. In addition, three dealerships had to pay 2.1 million RMB for violating competition rules by fixing prices for repairs, spare parts and paint jobs for Chrysler, Jeep and Dodge branded cars (Xinhua 23.04.2015).

In August 2014, the offices of a joint venture between Daimler and Beijing Automobile Industry Co. offices were raided by NDRC investigators on suspicion of price fixing and anti-competitive conduct (DW 05.08.2014). The Commission determined that the German company had enforced minimum prices for its S and E series limousines through phone calls, personal meetings and dealership conferences. Joined by the Pricing Bureau of Jiangsu Province, the investigation also fined Mercedes dealerships in Suzhou, Nanjing, Wuxi and various other cities which had signed up on a price fixing agreement. Based on articles 46 and 49 of the AML, the carmaker was fined seven percent of its 2013 revenues from sales in Jiangsu Province or 350 million RMB. The cooperating dealerships were ordered to pay one percent of their sales revenues during the previous year, or 7.9 million RMB (Xinhua 23.04.2015).

In reaction to the accumulation of probes and rulings, most car makers cut prices of their vehicles, spare parts and repair services. In August 2014, Daimler implemented a blanket 15 percent discount on spare parts. As a precaution, BMW, which itself had not been targeted by the NDRC, reduced prices of 3,300 parts by an average 15 percent the first half of 2014. In August, the company followed up with another 20 percent discount on 2,000 parts. Following the probe, even unaffected automakers moved quickly to lower prices. Further-

more, companies expanded sales channels to make original parts available to independent garages. (Reuters 08.08.2014).

The developments documented in boxes 9 and 10 above, have led to concerns that foreign companies may be discriminated on the grounds of protectionist or industrial policy considerations. In fact, the AML (NPC 2007d at 4 and 27) and related regulation stipulate that the latter must be taken into account during the decision making process. This also includes a practice whereby industry regulators, such as the MIIT, have to be consulted during the review process. Beyond industrial policy, national security considerations are weighed by government bodies and may stop transactions that would not have been objectionable otherwise (at 31). Overall, the inclusion of these non-commercial factors adds considerable uncertainty to investigations as the transparency of interdepartmental consultations is low. The integration of considerations unrelated to market competition into procedures aimed at upholding the very same market competition creates opportunities for protectionist behaviour. This is particularly relevant as the NDRC and other bodies tasked with protecting the market enjoy considerable discretion in how they choose their targets and conduct their investigations. In spite of substantial reform efforts, foreign companies are still exposed to a significant degree of risk. Further reform is necessary to divorce industrial policy from competition policy and open up the decision making process for greater transparency.

In fact, the review of price related anti-competitive conduct appears to collide at times with policy considerations. The Chinese banking industry provides a telling example. In October 2013, the NDRC launched a probe to protect bank customers from paying excessive fees. Based on news reports, the investigation has targeted commercial banks of all types and resulted in the imposition of fines totalling 825 million RMB (Xinhua 20.02.2014). While this move was intended to protect the interests of consumers, it seems to contradict more recent government directions of bank business. When the PBoC lowered its benchmark interest rates by 25 basis points in mid May 2015, the regulator also eased the restrictions on deposit rates. This allowed banks to pay their depositors a legal maximum of 1.5 times the PBoC benchmark rate compared to 1.3 before the move. However, the Wall Street Journal reported that the central bank had quietly asked banks not to make use of the new space for raising deposit rates. The paper cited two unnamed bankers saying that the PBoC told them to leave rates unchanged after a previous round of rate cuts in February (WSJ 14.05.2015).

2.4.3.1.2 *Merger reviews (MOFCOM)*

In its review of proposed M&A transactions, Chinese authorities also appear to have been critical of international companies. Since the AML entered into force in August 2008, the MOFCOM has examined well over one thousand such cases. Since the beginning of 2014, the number of proposed deals surged – the six months from October 2014 to March

2015 saw 137 separate applications. All of these transactions were approved unconditionally, and most of them have been examined by the Ministry's new simplified review procedures which were introduced in April 2014. The recent pick-up in the number of proposed M&A deals is likely connected to industrial policies promoting a streamlining of various sectors, like steel, aluminium and cement, with fiscal resources. Furthermore, the simplified approval procedures and the prolonged cooling of activity throughout the economy have contributed as well. Remarkable, all of the 26 transactions which were subjected to conditions or rejected involved international companies. In the following, two examples of merger reviews involving E.U. companies are presented.

Glencore/Xstrata (approved with conditions in April 2013). This has been the first deal in which the MOFCOM ordered divestitures of overseas assets as condition for its approval. The Ministry's concerns centred on the supply safety of Chinese consumers of copper, copper concentrate and a variety of other raw materials. It was feared that vertical integration of the merged entity might have adverse effects on Chinese downstream industries. In order to remedy the issue, the MOFCOM mandated that Glencore has to divest its Las Bambas project until June 30th, 2015 through a binding agreement in place no later than September 30th, 2014. Additionally, the merged entity must sell an annual 900,000 tons of copper concentrate to Chinese consumers through long term contracts from 2013 to 2020. Prices are largely based on international benchmarks and quantities are tied to the company's output. Glencore must continue selling zinc and lead concentrates to Chinese downstream consumers under long-term contracts and based on reasonable terms (Poddar 2013; Mayer Brown JSM 2013).

Maersk/MSC/CMA CGM (rejected in June 2014). This was the first time the MOFCOM has rejected a proposed alliance involving only overseas companies. It also marks a case in which the Ministry diverged from affirmative rulings issued in the United States and the European Union. Being the world's top three container shipping lines, the China business of all companies is extensive. A plan to create an operational alliance under the designation P3, floated in October 2013, aims for the coordination of shipping business on various routes through a Network Centre in England and Wales. The MOFCOM objected to the potentially profound effects the planned coordination might have on trans-pacific, trans-atlantic and Asia-Europe trade. The Ministry determined that the deal would severely restrict competition. It argued that the P3 alliance would evolve into a tight consortium where the scale and scope of cooperation was higher than acceptable. Moreover, it concluded that the combined market shares of the three parties would translate into anti-competitive market power. The increased level of concentration along with the increased barriers of entry in container shipping was regarded as detrimental to free competition.

Consequently, other market players might see their development space significantly reduced in the long term. Noteworthy is the MOFCOM's concern for the adverse effects industry concentration and resulting market power might have on other players. The documents published by the Ministry do not contain detailed explanations or estimates on why and how the interests of competitors might be hurt. This is especially questionable as Chinese container shipping line COSCO has entered into similar cooperation agreements with overseas coun-

terparts. While article 28 of the AML allows potentially anti-competitive asset deals on the grounds that they generate efficiencies that serve public interest, cost savings and related benefits to international trade are not addressed in the Ministry's decision. In line with standard practice, the MOFCOM consulted with the NDRC, Chinese industry associations and domestic container shipping lines as well as other interested parties during the review process. Opposition to the P3 alliance was significant and seems to have found manifestation in the MOFCOM's final decision. As overcapacities in international shipping have formed since the onset of the global financial crisis, industry consolidation and streamlining is widely regarded as a rational and necessary process (Freshfields Burckhaus Deringer 2014).

2.4.3.1.3 *Non-price related anti-monopoly investigations (SAIC)*

Information on investigations regarding non-price based abuse of market power is sparse. According to the USCBC (2015), only two such proceedings have been launched against Western companies. Probes are ongoing on alleged anti-competitive behaviour by Microsoft and TetraPak (NYT 05.06.2013). The investigation is ongoing and little information has emerged to suggest whether or not the Swedish food packaging company will be found guilty. In a separate case, Microsoft was blamed for designing its Windows operating system in a way that forces users to purchase more of the American company's software products. In the summer of 2014, four of Microsoft's China offices were raided by SAIC investigators looking for evidence. Employees were questioned and data was seized to inform the investigation (CNBC 06.08.2014).

2.4.3.1.4 *Specific challenges to foreign invested enterprises*

While the AMEA have improved the degree of transparency of their anti-monopoly proceedings, affected companies are often still in the dark about the agencies' work practices and decision making. In recent years, the NDRC, the SAIC and the MOFCOM have all launched websites where they post information on relevant regulations and ongoing investigations. Further improvements are necessary to create the degree of transparency maintained by the government departments tasked with anti-trust work in other major economies.

However, a rise in the number of foreign companies under review has sparked worries about procedural fairness. In its 11th *Report on Potentially Trade-restrictive Measures*, the EC remarked that

“anti-trust proceedings seem to have been polluted by some issues extraneous to genuine competition considerations, which can seriously affect investment and business activity of foreign companies” (EC 2014 at 16).

The USCBC has pointed out a number of procedural shortcomings and major problems that U.S. companies had faced with Chinese the AMEA since the AML went into force. These include:

- Pressure to confess. Unaware of the grounds of the investigation and denied the opportunity to review the evidence, firms cannot mount any meaningful response. Even though the charges remained unknown, the AMEA urged company representatives to admit guilt in order to receive lenient treatment. Still in the dark about the nature of their case, enterprises are forced to cooperate with the authorities to reduce their penalties (USCBC 2014).
- Denial of legal counsel. Companies reported that regulators arrived at their doorstep without advance notice and insisted to commence a search of the premises immediately. In these cases it was not possible to convince the AMEA to wait even a short while for legal counsel to arrive on the scene. Consequently, agents, raided, searched and seized at will without allowing the company proper legal representation. In subsequent meetings, companies were either denied or discouraged from having their legal counsel present. In at least one instance, the representatives of the foreign company were told that asking for legal representation during the proceedings would be regarded as admission of guilt. They were told that not involving lawyers would make the procedure go more smoothly (USCBC 2014).

2.4.3.1.5 *Special Treatment for State-owned Enterprises and Buy-Local Policies*

Taking account of the special situation of state business in the socialist market economy, the AML reserves special rights

“With respect to the industries controlled by the State-owned economy and concerning the lifeline of national economy and national security or the industries implementing exclusive operation and sales according to law, the state protects the lawful business operations conducted by the business operators therein. The state also lawfully regulates and controls their business operations and the prices of their commodities and services so as to safeguard the interests of consumers and promote technical progresses. The business operators as mentioned above shall lawfully operate, be honest and faithful, be strictly self-disciplined, accept social supervision, shall not damage the interests of consumers by virtue of their dominant or exclusive positions” (NPC 2007d at 7).

The wording of the *Law* is vague on which sectors are to remain a domain of SOE monopolies. The term “lifeline of the national economy and security” has been in use since the State-owned Asset Supervision and Administration Commission (SASAC) came into existence in 2003. Article 2 of its constituting document also promised the government would “*maintain and increase the control power and competitiveness of the state-owned sectors that have*

bearings on the national economic lifeline and the state security” (State Council 2003a at 14.2). This has not kept SOEs to flourish and even expand into sectors like hotels or real estate over the past ten years. As late as May 2015, David Lipton, the first deputy managing director of the IMF, expressed frustration at the slow pace of SOE reforms in China. He emphasized that “Levelling the playing field between the private and public sectors is a key goal of the [reforms]” (cited by FT, 26.05.2015).

However, the AML imposes a constraint on administrative interference. Article 8 explicitly prohibits “*any administrative organ or organisation empowered by a law or administrative regulation to administer public affairs*” to employ their legal authority in order to limit free competition. They are forbidden to abuse their administrative power to

- restrict entities and individuals to operate, purchase or use the commodities provided by business operators designated by it (at 32).
- reject or restrict business operators from outside the locality
 - to participate in local tendering and bidding activities by such means as imposing discriminative qualification requirements or assessment standards or releasing information in an unlawful manner (at 34)
 - to invest or set up branches in the locality by imposing unequal treatment thereupon compared to that upon local business operators (at 35)
- force business operators to engage in the monopolistic conducts (at 36)
- set down such provisions in respect of eliminating or restricting competition (at 37)
- block free circulation of commodities between regions by imposing:
 - discriminative charge items, discriminative charge standards or discriminative prices upon outside commodities
 - different technical requirements and inspection standards on commodities of the same classification from local and outside sources
 - discriminative technical measures, such as repeated inspections or repeated certifications to outside commodities
 - special licensing administration on outside commodities
 - barriers to hinder outside commodities from entering the local market or local commodities from moving outside the local region. All measures intended to obstruct the free flow of commodities between regions are outlawed (at 33)

If an organisation is found to violate these rules, its superior authority shall order it to make correction and impose punishments on the people directly liable (at 51). Overall, the AML specifies some very comprehensive regulation to limit government and party organisations from infringing on fair competition. However, implementation and enforcement of the law has to be questioned. Sub-national jurisdictions have continued to issue legislation that codifies preference for purchases of domestic goods through catalogues of encouraged suppliers, local content requirements and a variety of other means. Chongqing Municipality located in Western China is a case in point. In 2012, the local government has launched the *Made in Chongqing Sold Worldwide* initiative which seeks to increase the market share of the municipality’s products on domestic and international markets. The approach represents a concert-

ed effort supported by various government departments to raise the competitiveness and profile of local manufactures. With regards to the Chinese market, Chongqing's Economic and Informatisation Commission targets to maintain a market share in excess of ten percent for motorcycles, water heaters and glass fibre products. The policy supports manufacturers of automobiles and air-conditioners to reach that level.

Buy-local policies have been a vital instrument to improve capacity utilisation and boost sales for local companies. To this end, the municipality has promulgated the *Guidance Catalogue for Focussed Purchasing of Supported Goods*. The accompanying policy document states that purchasing decisions should be guided towards commodities produced inside Chongqing in order to “further increase the level of support for the local economy, help Chongqing enterprises strengthen their market presence and boost their competitiveness” (Chongqing City 2012). To become part of the *Catalogue*, local companies had to apply to the Economic and Informatisation Commissions and Development and Reform Commissions of their districts or counties. The applications were forwarded to the counterparts of these commissions on the municipal level for evaluation and final approval. The 2012 edition of the *Catalogue* lists 683 companies and for each of them specifies a person and/or a phone number to make contact. The *Catalogue* features well over one thousand individual products in seven broad categories¹⁵ which are then broken down into 32 sub-categories (Chongqing City 2012).

In the field of electronics and IT products, the *Catalogue* lists laptop and desktop computer, printers, servers, displays and various peripherals. While the vast majority of companies contained are Chinese, prominent international companies on the list include HP, Asus, Acer, CISCO and Toshiba. Large SOEs like Chongqing Iron and Steel Group and Chang'an Automobile are included.

Under equal conditions, all units are ordered to give preference to companies contained in the *Catalogue* when making purchasing decision. Government bodies on all levels are urged to lean towards manufactures produced inside the city. SOEs and other large enterprises are asked to follow the principles of proximity and convenience in their purchasing activities. In order to further strengthen support for local industry coordination and lower costs for inbound logistics, local equipment manufacturing, automobile and motorcycle manufacturing, electronics, IT, metallurgy and construction materials industries should be favoured (Chongqing City 2012).

The logistics and distribution industry and its individual companies are encouraged to step up purchases of locally manufactured automobiles, motorcycles, consumer goods, electronic and IT products. Enterprises in areas like public hygiene, education, social security and culture are called to buy more locally made consumer goods; medical and pharmaceutical products as well as related equipment; electronic and IT products as well as software. The municipal government also demands that major contractors involved in the construction of

¹⁵ (1) equipment manufacturing; (2) automobile and motor cycle manufacturing; (3) electronics and IT; (4) construction materials; (5) metallurgy; (6) light industry and textiles; and (7) chemical and medical products.

key engineering projects in the areas of transportation, electricity, water supply, environmental protection and other basic infrastructure projects give preference to local suppliers of machinery, construction materials, electronics, IT and metallurgical products (Chongqing City 2012).

In the steel industry, city governments have struck strategic offtake agreements with local plants. In 2013, Taiyuan City, the capital of Shanxi Province, has signed such a document with Shougang Changzhi Iron and Steel Co., Ltd. The company, which had been acquired by Shougang Group two years earlier, is Shanxi Province's largest steel mill by output. Owing to outdated production technology and unfavourable cost structures, the financial performance of the enterprise has deteriorated rapidly in recent years. The strategic purchasing deal thus served to support sales and shore up finances of the ailing mill. At the ceremony, representatives of the Taiyuan Municipal government announced to source all steel products required exclusively from Changzhi (Taiyuan City 2013). Geng Yanbo, the mayor of Taiyuan City, discussed plans to construct all of the city's new schools, hospitals, libraries, roads social housing from materials supplied by Changzhi (Mysteel 15.04.2013). Concluded for an unspecified number of years, the strategic framework agreement allows the steel mill to take advantage of high and rising steel demand. It also provides the company with a captive market for its output (Taiyuan City 2013). The offtake agreement followed a similar deal concluded between the same company and Datong City, after Taiyuan the second largest municipality in Shanxi Province (Mysteel 15.04.2013).

In a similar fashion, Benxi City has signed a framework agreement on strategic cooperation with Benxi Steel Group in April 2012. Two years later, shortly before the demerger of Benxi Steel Group and Anshan Steel Group was made public, Benxi City struck a strategic offtake agreement.

In mid-2014 intensive exchanges took place between city authorities and the steel mill that reviewed the outcomes of previous cooperation. Both sides planned for the future development of Benxi City into a "green capital of steelmaking" and Benxi Steel Group as the backbone of this strategy. In September 2014, the Economic and Finance Commission of the city's People's Congress, released a comprehensive survey report which is highly instructive as it showcases in unusual detail the state-business interaction on the local level. The report explained that the agreements were signed to

"stimulate the adjustment of the industrial structure of Benxi City, further local economic development and promote the Benxi Iron and Steel to grow large and strong under the city government's support" (Benxi City 2014).

"uphold the City's idea to 'mobilise all the city's energy in support of the development of Benxi Iron and Steel Group" (ibid).

The Commission urges that greater attention should be paid to explore new mechanisms and new concepts to continue the closely intertwined development of both city and company. As

a “starting point”, problems that have accumulated in the past should be resolved. A phrase that may relate to the failed merger with Anshan Steel but certainly captures the very high leverage ratio and weak financial situation of Benxi Steel Group. The “main focus” is to be placed on creating and optimizing favourable conditions for the company’s development. Finally, the city government pledges to help Benxi Steel Group to weather the current crisis and return to healthy development. In return for the locality’s care, the steel mill vigorously promotes local economic development and progress in social services by contributions related to financial cooperation, attracting investment, realizing major projects, establishing industrial parks and constructing basic urban infrastructure. A direct liaison mechanism was established between the offices of the city’s mayor and the company’s chairman. One level down, a direct connection ties the city’s Economic and Informatisation Commission to the company’s strategic planning department – as the “standing offices” of both units – to discuss roadmaps and time schedules of joint projects. As the state-business relationship deepened, the municipal government set up a special bureau for handling matters of the steelmaker. Based at the General Office of the Governor the bureau is staffed by a director who doubles as deputy party secretary.

The standing committee of the city government has made clear that the mayor and his deputies will work closely with Benxi Steel Group in order to effectively solve any problems arising in the steel mill’s operations or development. When necessary, a high level conference with the participation of all relevant local government departments will be convened to address the issues together with the steel mill. While some of Benxi’s districts have established their own organisations to better serve Benxi Steel Group, all departments under the direct control of the municipal government are to give full play to their respective functions, like handling environmental impact assessments, the administration of land use rights or the control of production factors, to fully support Benxi Steel Group.

In its survey report, the Economic and Finance Committee of the People’s Congress of Benxi City highlights that the municipal authorities have been very successful in solving problems put in front of them by the steelmaker. Out of 34 cases in which Benxi Steel Group has sought the authorities’ assistance, the latter were able to offer basic solutions for 18 and offered their opinion on a further 12.

The same report puts emphasis on the financial contribution Benxi Steel Group has made for the benefit of local economic development. It explicitly points out that the steelmaker has provided entrusted loans worth 1.06 billion RMB to the city’s investment company through the local branches of the China Construction Bank, the Industrial and Commercial Bank of China, and the Guangdong Development Bank. According to the document, the cost of these loans has been significantly lower than alternative bank credit alternatives available to Benxi’s investment company. Furthermore, the steelmaker and of its two subsidiaries have contributed 362.9 million RMB as shares to help a concerted debt restructuring of the city’s debt held by various commercial banks.

The Commission expresses its satisfaction that Benxi Steel Group covers a large and growing part of its procurement needs from local sources. It praises the steelmaker's contribution to the local economy as a rising number of local companies supply it with a larger and larger number of commodities.

Benxi owes its life to steelmaking and the industry has made the locality flourish. The steel industry represents the city's most important pillar industry. As one of the largest state-owned steel mills of Liaoning Province, Benxi Steel Group is to play a leading role in the revamping of the local industrial base into a "green capital of steelmaking". For the structural adjustment of the local economy, the mill is indispensable. Consequently, the city has to rely on Benxi Steel Group for realizing its development concept. This argument is driven even further by saying that "supporting development of Benxi Steel Group means supporting development of Benxi City".

The spirit of China's AML is frustrated by the widespread use of local protectionism resulting in the creation of strictly segregated local markets in which some firms benefit from monopolistic market power and exclusive government promotion. The New Energy Vehicle (NEV) industry constitutes a case in point that is presented in greater detail in Box 11.

Box 11: Local Protectionism in the New Energy Vehicle Industry

Chinese industry experts agreed that local protectionism is the biggest obstacle impeding NEV market development. Frustration about this is best illustrated by an article authored by Chinese premier Wen Jiabao that was published in the Chinese Communist Party's bi-monthly official journal Qiushi (Wen, 2011). In the paper, Wen expresses dissatisfaction at the oftentimes uncoordinated and incoherent efforts at developing and commercializing electric drive technology. In this regard, he cited administrative failures, such as the tiao-kuai problem, as blocking development progress. He concludes that the direction of development strategies has not been understood by all stakeholders and demands improvements in the coordination mechanisms.

The Chinese central government's efforts to establish a strong national NEV industry have been substantially inhibited by local authorities have crafted their own localised development strategies and support incentives. The resulting patchwork of different guidelines has reduced the transparency of policy support measures and – more importantly – contributed to the formation of inter-jurisdictional barriers. Fragmentation of the potentially large national market was exacerbated by cities' efforts to reserve local markets for local companies (Sina, 08.09.2012). Local governments use a large variety of methods to advance "their" companies at the expense of outside competitors.

1. Special incentives were created for encouraging enterprises and individuals to "buy local". Zhengzhou City (2011 at 3.3.5), for example, offers purchasing premiums for locally produced BEVs and PHEVs amounting to RMB 60,000 and RMB 50,000 re-

spectively. The cities of Dongguan (2010 at 3.3), Chengdu (2010b at 9) and Zhuhai (2011 at 5.3.8) have drafted similar regulations.

2. Municipal governments typically prefer local companies in public procurement and encourage affiliated businesses to follow suit (Ifeng, 13.01.2012). The municipal governments of Chengdu (2010b at 8), Zhengzhou (2011 at 3.3.4), Nanjing (2012 at 3.8.28), Zhuhai (2011 at 5.3.8) and Hangzhou (2012 at 6.4) have ordered all government departments and affiliated organisations to give preference to locally produced EVs if the latter can meet national industry standards and has equal performance.
3. City government look to expand their local automotive bases and increase outside sales. The outline of the 12th FYP for Jilin Province (2011b at 3.2.) stipulates that a major development and production base should be set up with FAW at its centre to manufacture 200,000 EVs annually and capture a 10 percent share of the domestic market until 2015. Shanghai (2012 at 3.3.1) even aims to reach a national market share of 20 percent over the same timeframe.
4. In order to ensure that local suppliers of parts and components capture a sizable share of the market, numerous provinces and municipalities have introduced local content regulation. While some regions, such as Jiangsu Province (2012b at 1) and Shanxi Province (2011 at 5.9.) as well as Nanchang City (2010 at 5.2.4.3) and Weifang City (2010 at 3.5.2), just urge to increase the localisation of key components, other jurisdictions specify concrete targets. Anhui Province (2011 at 3.1.), for instance, calls on NEV manufacturers to direct more than 70 percent of their procurement volume to local suppliers. Jilin Province (2011a at 3.1) and Hubei Province (2012b at 2.7.2) as well as Anyang City (2011 at 2.3) set the target ratio at 50 percent while Xi'an City (2011 at 6.1) demands that over 60 percent of inputs are purchased within the city limits. Yet other jurisdictions have drawn up even more elaborate schemes. Zhengzhou City (2011 at 3.2.4) and Chengdu City (2010b at 3), for example, encourage local NEV manufacturers to purchase locally produced traction batteries, electric engines, power controls and other key components. As an incentive, authorities pledge to refund a certain proportion of the total purchasing value from local suppliers.
5. Other means of support for local NEV manufacturers include discounts on locally administered vehicle taxes and fees for buyers of local products, as in the case of Nanchang City (2010). Zhengzhou has introduced a practice to reward OEMs with special grants for achieving a certain number of NEV sales (Zhengzhou City 2011).

For public officials in sub-central government organisations, promoting the local economy takes top priority as the evaluation of their individual work performance is measured by indicators like GDP growth, tax revenues or job creation. In order to ensure career advancement, officials are forced to devote themselves to attract corporate investments which address these requirements (Zhou, 2007). NEV manufacturing is highly welcome, as it is expected to stimulate economic growth and technological upgrading of its host cities in a profound and lasting way. Furthermore, as the automotive value chain is among the longest in

the manufacturing sector, NEV operations are envisioned to bring along a large numbers of suppliers and related businesses. In terms of employment effects, complete vehicle manufacturing looks exceptionally promising as well: for every job created in automobile production, 11 more will be created in related industries (Sina, 08.09.2012).

The example of Chengdu shall serve to illustrate local government behaviour. In 2010, authorities announced that supporting policies would be customised to the specific requirements of leading local manufacturers of NEVs, traction batteries, electric motors or power controls. (Chengdu, 2010b at 3.3.2). In some cases, such as Shenzhen, preferential policies have accelerated the development of “local champions” whose products enjoy special promotion. Despite their short-term benefits for local economies, it is highly uncertain if local champions can grow into national or even global champions as administrative barriers are both a blessing and a curse. While protected local markets allow companies to grow in the beginning, the parcelling of the national market keeps companies from realizing scale economies and acquiring genuine competitive advantages.

Among the cities taking part in the *10 Cities 1000 Vehicle Program*, Hangzhou, Suzhou, Zhengzhou and Beijing stood out for their achievements in introducing EVs into their fleets. Collusion between local administrations and companies and “buy local” regulations played a major role in these cases. While the *Program* dictated that participating municipalities had to base vehicle procurement on a formal bidding process (MOF and MOST, 2009 at 3.8), the experts consulted held the opinion that government favouritism had been strong and widespread. While several cities organised public tender proceedings, Zhengzhou, Changchun, Wuhan, Xiamen, Guangzhou, Shanghai and four others simply appointed local OEMs to supply the needed vehicles (Gasgoo, 01.09.2012).

Hangzhou, praised for its relatively high goal attainment of 47 percent, had supported local Zotye Motors to supply vehicles for use as taxis. Zhengzhou, Suzhou and Beijing had procured EVs in significant numbers from local bus manufacturers benefitting Yutong (based in Zhengzhou), Kinglong Higer (based in Suzhou) and Beiqi Foton (based in Beijing) (AutoQQ, 31.07.2012). With the sole exception of Chongqing, it is instructive that cities with goal attainments below 10 percent (Hohot, Haikou, Nantong, Chengdu, Tangshan, Xiangyang and Jinan) neither host major OEMs nor does the automobile industry play a significant role in their economies (21st Century Business Herald, 01.10.2012). According to industry experts, these cities are typically unwilling to experiment with promotion measures and assume a wait-and-see attitude instead. Officials are said to observe the developments in other cities to seek out and imitate the most promising approaches. This strategy of playing safe is attractive to many cities without a stake in the auto industry as it prevents the drain of funds through failed investments.

Source: This box is based on: in der Heiden, Peter (forthcoming): in der Heiden, Peter, 2015, Development Perspectives of the Chinese Electric Vehicles, In: Campen, Antje et al., 2015, Future Mobility. Springer-Gabler Verlag, Wiesbaden.

2.4.3.2 Bankruptcy Regime and Market Exit Mechanisms

Functioning markets rely on the principle that the most productive and “best” players as determined in fair competitive processes are rewarded by being enabled to actually engage in business transactions and participate in the division of labour. As a consequence, however, functioning market systems must also make provisions for those market players that are rejected by the market. Firms which cannot compete successfully must be allowed to leave the market in an orderly manner. As highlighted by the World Bank:

A robust bankruptcy system functions as a filter, ensuring the survival of economically efficient companies and reallocating the resources of inefficient ones. Fast and cheap insolvency proceedings result in the speedy return of businesses to normal operation and increase returns to creditors. By improving the expectations of creditors and debtors about the outcome of insolvency proceedings, well-functioning insolvency systems can facilitate access to finance, save more viable businesses and thereby improve growth and sustainability in the economy overall.
(World Bank 2014a, p. 106)

In light of sustained economic cooling, the question of market exit has in recent years assumed increasing prominence in China. It has, however, remained a complicated issue as legal frameworks are not yet mature. Furthermore, government authorities, especially on the local level, have taken a strong interest in the issue of firm survival. They have shaped incentive structures and interfered with the regular operation of established institutions. This section is to shed some light on bankruptcy laws and their implementation.

Bankruptcy cases in China are relatively rare considering the size of the economy and population as well as the speed with which the country is transforming itself. Statistics provided by the Supreme People’s Court indicate that only 2,059 bankruptcy cases have been filed with Chinese courts in 2014 (Supreme People’s Court 2015). The small number relative to other countries may be partly explained by the fact that China does not allow for private bankruptcy. However, an even more striking finding is that the number of cases in China has dropped substantially in recent years. For 2010 and 2012, the case count stands at 3,573 and 2,531 respectively (Supreme People’s Court various years).

Most firms that have entered bankruptcy in recent years have been privately-owned. Examples include Chaori Solar Energy and Zhejiang Xingrun Properties which became unable to service bank loans, corporate bonds and other debt obligations. In some cases, failing private companies have been bailed out by government organisations, as was the case with Rongsheng Heavy Industry, a major shipbuilder. The main reasons behind those cases are typically a combination of excess production capacity on the part of the companies combined with a pronounced market slump. Over-investment has more often than not occurred with the tacit consent of (local) governments which endorse the addition of new, larger or more modern plants. Especially in the wake of the financial crisis, investment incentives and other growth enhancing policies have created an accommodative environment. This has been

compounded by the unchecked liberalisation of financial markets through the back door of a flourishing shadow banking system. The lack of regulatory oversight opened up access to credit for projects that cannot meet banks regular viability standards and thus cannot – and in fact should not – obtain loans. Stagnating liberalisation of the formal financial sector has driven much of the loan business underground where free markets have broken ground.

Explicit and implicit government guarantees have cultivated a tolerance of high leverage ratios. In this environment, the continued accumulation of debt appears relatively low-risk. Even though the new leadership under Xi Jinping and Li Keqiang has urged a more open approach to addressing loan issues and pledged to gradually remove the government's safety net, the priority can be expected to continue to be on avoiding any abrupt changes to the system that might spark panic.

China's bankruptcy law is still relatively new and experience is limited. The first bankruptcy law since the foundation of the People's Republic was drafted in 1986 and covered only state-owned enterprises as other ownership types had not yet risen to prominence (NPC 1986). The law was the result of a compromise between conservative and reform-oriented forces inside the party. As such it is very brief, unspecific and inadequate (Hui 2013). Pursuing to the law, insolvent enterprises should undergo "policy bankruptcy". In order to file a case, the insolvent companies can notify the court after obtaining the approval from its supervising authorities. Alternatively, a creditor can initiate the proceeding if he can prove that the enterprise in question is indeed unable to service its obligations. Both conditions were relatively hard to meet, so the first case was registered only in 1992 – six years after the law had entered into force.

A major concern was that failing companies should be restructured in order to continue operation rather than being dissolved. Fung points out that

"the 1986 Enterprise Bankruptcy Law was not viewed as adequately effective in regulating bankruptcy issues and was to a general extent applicable only to State-owned enterprises. As a result, a large number of State-owned enterprises incurred significant losses, but had their debts and loans written off by State-controlled banks." (Fung 2007 at 1).

The treatment of employees which had relied on their insolvent employer for lifelong employment, social security, housing and other critical issues was a major issue. In order to protect employee welfare and avoid social unrest, the government would inject funds into the failing company and state-owned banks would waive (part of) their claims. After the financial distress had been reduced, attempts would be made to integrate certain assets into other SOEs.

A new bankruptcy law went into effect on June 1, 2007 (NPC 2006b). It eliminated provisions for policy bankruptcy effective January 1st, 2008 and thus reduced the incentives for SOE to seek bankruptcy protection. However, the new law has cleared a number of procedural is-

sues which had been subject to criticism about the previous version. However, comparing to bankruptcy regulation in other countries, the new law is still relatively short and does not present the degree of detail understood to be required in mature market economies.

2.4.3.2.1 *Implementational Issues*

Government agencies enjoy a strong position during the proceeding. Both before and after June 2007, courts are in charge of appointing a third party to take control of the enterprise in question and lead debt disposal or work out restructuring plans. Before June 2007, the law allowed only the selection of government officials to serve on so called liquidation teams. Complaints about insufficient expertise in business management and bureaucratic working practices were common. Under the new law, courts appoint a bankruptcy administrator who may be a government official but is also required to possess relevant expertise. Lawyers, accountants and other professionals can thus qualify as well (NPC 2006b at 24). The appointment of bankruptcy administrators at the court's discretion is very different from the practice in U.S., Canadian and other countries where creditors have the right of appointment (Tang 2008). However, in China the administrator may not be an interested party to the case and has to meet a number of other requirements. Duties involve

- assuming control of the failing company's property, including accounting documents, seals and other articles
- Performing due diligence and compiles reports evaluating the debtor's assets
- Handling internal management affairs
- Determining operating costs and necessary expenses
- Deciding whether or not to continue operation of the business (before the initial creditor meeting)
- Managing and disposing of the debtor company's assets
- Representing the debtor company in legal proceedings
- Calling the creditor meeting (NPC 2006b at 25)

The administrator has to report to and answer inquiries from the creditor meeting, which can request his replacement if he cannot live up to his task or does not perform his duties in accordance with the law (NPC 2006b at 22 and 23).

There is still a dearth of regulation on the treatment of financial institutions and state-owned enterprises. While the new bankruptcy law technically covers those companies as well, the failure of such companies is still a sensitive issue. The high degree of complexity and profound socio-economic implications of such cases have discouraged bankruptcy filings due to the uncertainty of outcomes.

Similar to its predecessor, the current bankruptcy law sets favourable conditions for restructuring solutions that would allow a company to emerge from insolvency. Court-appointed

administrators ensure that the court is well informed about the entire proceedings and they mitigate the interest of creditors. It is upon the debtor or the administrator to submit a restructuring plan to the court at least six months prior to the scheduled ruling. The order in which claims are ranked has changed since the first bankruptcy law, as labour claims no longer come in first positions. Instead, secured claims over specific assets now take precedence (NPC 2006b at 81).

2.4.3.2.2 *Limiting Factors for Bankruptcy Incidences*

While the new law has added essential regulation on the handling of restructuring plans and debt disposition, it still has several limitations. The new law has a much wider scope as it covers bankruptcy of SOEs as well as private companies, foreign companies and Sino-foreign joint ventures. However, there are still no regulations governing insolvency of private individuals, public institutions or sole proprietorships. Furthermore, the new law offers little guidance for bankruptcies of banks, securities or insurance companies. Article 134 touches upon this briefly but refers to other laws and regulations that should be issued by the State Council.

Outside the large cities, experienced professionals, such as judges and lawyers, are not widely available. Similarly, specialised bankruptcy courts have been few and far between. As bankruptcy filings have to be submitted to courts on the “grassroots” level, where familiarity and experience with the intricacies of restructuring plans and debt disposal is limited it may happen that courts reject bankruptcy applications.

Pedone and Liu (2010) cite the Supreme People’s Court complaining about a lack of experienced and capable administrators. According to that report, many administrators are unable or unwilling to take decisions by themselves and frequently seek approval of the appointing court for small matter.

It has been reported that companies exiting the market shun bankruptcy law and prefer instead to “wind down” their business. While this process of solvent liquidation also requires the services of independent accountants, control over the company remains in the hand of management and owners. Without a court appointed administrator, the management needs to seek consensus from stakeholders. While finding an agreeable compromise with creditors and employees may be difficult, this is not out of the questions. Following a final audit and deregistration, the company can be terminated.

However, in a number of cases, owners have chosen to commit suicide or flee with the property they can take. In any case, China’s legal system is lacking necessary sanctions to prevent enterprises from going out of business without undergoing proper procedures. This implies that many companies do not concern themselves with an orderly exit but just walk away from their business (Tang 2008).

Companies that have become unable to take out additional loans from the banking system have turned to shadow banking in order to obtain much needed liquidity. This is especially the case for companies so cash-strapped, that servicing existing loan obligations is problematic. Some industries which are suffering from high leverage ratios and low (or negative) profitability, like steel, have become flashpoints for bankruptcy risks. However, the shadow banking sector has thus had some impact on reducing the number of bankruptcies or rather a substantial impact on delaying them.

Similarly, local government intervention has limited the occurrence of bankruptcies as affected companies were often deemed “too big to fail”. On the one hand, the socio-economic consequences of plant closures and layoffs spell serious problems for government organisations and individual officials whose appreciation and careers are tied to stability and growth. On the other hand, the tradition of state-business interaction at arm’s length precludes the passive acceptance of bankruptcies. Even in cases involving private companies, local governments fear the consequences arising from a legacy of interventions, such as (minority) ownership stakes, loan guarantees, or subsidy funds. The write down of public resources is an unattractive prospect that is avoided wherever possible.

Personal ties play a role as well. In some cases, local officials, their relatives or close acquaintances serve as senior management staff in failing businesses. Insufficient confidence in bankruptcy procedures compounds with personal preference for firm survival to create strong incentives for mounting rescue efforts. Obviously, increasing government exposure can fuel a vicious cycle of throwing good money after bad.

Since the global financial crisis hit, the financial position of local governments has weakened considerably. As key players in mounting China’s economic stimulus policy, local governments shouldered the bulk of the 4 trillion RMB rescue spending. Large investments in infrastructure projects, affordable housing and many other areas have kept China out of recession but caused significant strain on local government finances. Local government debt surged and has become an economic risk of its own. This phenomenon has greatly weakened the ability of local authorities to prop up failing companies and keep them out of bankruptcy. As the potential for emergency subsidies and other financial support measures waned, corporate insolvencies have increased.

2.5 Conclusion: Markets are Sub-ordinated to State Interests

The discussion above has shown that the Chinese Communist Party and Chinese government organisations continue to intervene massively in the economic process. Rather than establishing a sound macro-economic control system and an industry-oriented regulatory framework in which market forces determine the patterns of economic interaction, China's ruling elite believes in its ability to design an economy by decree which achieves better outcomes and higher economic dynamics. Its strategic aspirations and normative goals for the economy and its sub-sectors are outlined in a broad array of planning documents. These are complemented by a large arsenal of dedicated policy instruments which are designed and employed to steer economic agents towards these goals. 15 years after accession to WTO markets continue to play only a subordinated function in the overall working mechanism of the Chinese economy.

The strategic aspirations and normative goals of Chinese government for the economy and its sub-sectors are outlined in a broad array of planning documents. These are complemented by a large arsenal of dedicated policy instruments which are designed and employed to steer economic agents towards these goals. 15 years after accession to WTO, markets continue to play only a subordinated function in the overall working mechanism of the Chinese economy. In the word of renowned China scholar McNally:

“The defining characteristic of [China’s] modern state capitalism in comparison to liberal market capitalism is in the end a considerable distrust of markets and full-out economic liberalization. This does not mean that markets are unimportant, but that markets are used pragmatically.” (McNally 2013, p. 50)

The very specific – i.e. non-market – environment in which all economic actors in China are conducting their businesses, has also been formally documented by Chinese corporations seeking a listing at Stock Exchanges outside China. In its 2014 IPO filing documents with the U.S. Securities and Exchange Commission the Chinese e-commerce giant Alibaba describes the business environment in which it operates as follows:

“Risks Related to Doing Business in the People’s Republic of China

The PRC economy differs from the economies of most developed countries in many respects, including the extent of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. Although the PRC government has implemented measures emphasizing the utilisation of market forces for economic reform, the reduction of state ownership of productive assets, and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. In addition, the PRC government continues to play a significant role in regulating industry development by imposing industrial policies. The PRC government also exercises significant control over China’s economic

growth by allocating resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, regulating financial services and institutions and providing preferential treatment to particular industries or companies.

[...] The PRC government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall PRC economy, but may also have a negative effect on us. Our financial condition and results of operation could be materially and adversely affected by government control over capital investments [...].” (Securities and Exchange Commission, 2014 at 43)

In the same document Alibaba outlines the role of China’s law system for the company’s operations, thereby highlighting the risks (sic!) of the Chinese law system to the company and its ability to comply with its obligations agreed upon in contracts closed with its business partners:

“There are uncertainties regarding the interpretation and enforcement of PRC laws, rules and regulations.

[...] In 1979, the PRC government began to promulgate a comprehensive system of laws, rules and regulations governing economic matters in general. The overall effect of legislation over the past three decades has significantly enhanced the protections afforded to various forms of foreign investment in China. However, China has not developed a fully integrated legal system, and recently enacted laws, rules and regulations may not sufficiently cover all aspects of economic activities in China or may be subject to significant degrees of interpretation by PRC regulatory agencies. In particular, because these laws, rules and regulations are relatively new, and because of the limited number of published decisions and the nonbinding nature of such decisions, and because the laws, rules and regulations often give the relevant regulator significant discretion in how to enforce them, the interpretation and enforcement of these laws, rules and regulations involve uncertainties and can be inconsistent and unpredictable. In addition, the PRC legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all, and which may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until after the occurrence of the violation.

Any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy than in more developed legal systems. These uncertain-

ties may impede our ability to enforce the contracts we have entered into and could materially and adversely affect our business, financial condition and results of operations.” (Securities and Exchange Commission, 2014 at 44).

These statements – made by a major non-state-owned Chinese company in a formal document addressing the American and global investors community – leave no doubt that the Chinese economic system is

- neither operating according to the price signals determined by the voluntary interaction of myriads of independent markets actors on market places;
- nor featuring a reliable and transparent system of laws and regulations that should provide a level playing field for all market participants.

As such it must be postulated that the two key elements constituting a functioning competition-based market system do not exist in the Chinese economy.

3 THE ROLE OF THE CHINESE COMMUNIST PARTY IN ECONOMY AND BUSINESS

As shown in the preceding chapter the Chinese economy continues to be coordinated by an intricate web of plans and programmes designed by governments on all levels to steer economic activity in specific directions.

In addition to Chinese government's aspiration to guide industry development, large parts of the Chinese economy in general and its industry in particular are also subjected to direct control and governance by the CPC. The party reserves itself a prominent role in economic matters, including the operation of enterprises. 35 years after the onset of reforms, it has not relinquished its claims on shaping the economic behaviour at the grass roots level.

3.1 Embeddedness of CPC Organisations in the Corporate Sector

The CPC understands itself as an inalienable constituent and key decision maker in all enterprises featuring state as well as collective ownership shares. The CPC constitution clarifies:

"In a state-owned or collective enterprise, the primary Party organisation acts as the political nucleus and works for the operation of the enterprise. The primary Party organisation guarantees and oversees the implementation of the principles and policies of the Party and the state in its own enterprise and backs the meeting of shareholders, board of directors, board of supervisors and manager (factory director) in the exercise of their functions and powers according to law. It relies wholeheartedly on the workers and office staff, supports the work of the congresses of representatives of workers and office staff and participates in making final decisions on major questions in the enterprise. It works to improve its own organisation and provides leadership over ideological and political work, efforts for cultural and ethical progress and the trade unions, the Communist Youth League and other mass organisations.

In a non-public economic institution, the primary Party organisation carries out the Party's principles and policies, provides guidance to and oversees the enterprise in observing the laws and regulations of the state, exercises leadership over the trade union, the Communist Youth League organisation and other mass organisations, rallies the workers and office staff around it, safeguards the legitimate rights and interests of all quarters and stimulates the healthy development of the enterprise." (CPC 2013 at 32).

The reach of the CPC into the business sector, however, is not restricted to state-owned or collective enterprises but permeates all business activities and firms of all ownership types exceeding a minimum size and relevance for the economic process – including foreign invested enterprises. The CPC has established Party cells in all such firms.

In SOEs, top management typically doubles as party leadership for the enterprise. The individuals heading China's SOEs hold different ranks in the party hierarchy. While some are ranked as ministers or vice-ministers others are only ranked as "bureau chief". It is important to note that these titles are unrelated to the government posts of identical designation but serve to place the country's 85 million party members along a hierarchical rank ladder. While party rank has significant influence on the assigned job positions in the corporate sphere, unfortunately, hardly any information is disclosed in the public domain (Li 2011).

In the policymaking process, the amalgamation of party and state makes it almost impossible to discern party and government initiatives. The overlap is most complete when it comes to social policy that is shaping the interaction mechanisms between the leadership and society as well as between people, e.g. education, culture and ethnic minority issues. However, party influence transcends economic and industrial policy as well. This is not limited to broad national strategies but equally includes the more technical areas of macroeconomic policy. The China Banking Regulatory Commission (CBRC) is a case in point. Instituted in 2003, the Commission acts as supervisory and regulatory body for the sector. Reporting to the State Council directly, the CBRC governor holds cabinet minister rank.

The Commission was instituted based on the *Circular of the General Office of the State Council on Promulgating Regulation on the Main Functions, Internal Institutions and Staffing of the China Banking Regulatory Commission*. It posits that the CBRC should combine "the supervision and management functions assumed by the People's Bank of China for the banking financial institutions" with "the relevant functions of the former Central Financial Work Commission of the People's Communist Party of China" (GOSC 2003 at 1.1 and 1.2).

The internal structure of new regulatory body provides for a strong CPC presence as five of the 15 departments are under its immediate control.

"General Office (The Office of the Party Committee)"

It shall organize and coordinate the routine work of the organ; be responsible for the drafting of relevant documents, the organisation of important meetings, confidentiality, secretary, documentation, complaint letters and visits, secrecy, information synthesis, news release and safety, etc." (GOSC 2003 at 3.1).

"Personnel Department (Organisation Department of the Party Committee)"

It shall create regulations, rules and measures concerning the management of the human resources of the CBRC and its branches in other places; conduct personnel management of the CBRC, its branches and the relevant entities; be responsible for the routine management of the leading groups and leaders of the

relevant financial institutions; be responsible for guiding the organisation construction of the Party and the education and management of the Party members of the entities within its jurisdiction; and shall be responsible for the training of the carders of the CBRC and the entities within its jurisdiction.

Publicity Department (Publicity Department of the Party Committee)

It shall be responsible for the ideological construction and publicity of the Party and shall take charge of the ideological and political work and the construction of spiritual civilisation.

Mass Work Department (Mass Work Department of the Party Committee)

It shall be responsible for the guidance and coordination of the mass work of the entities within its jurisdiction.

Work Department of the Board of Supervisors

It shall be responsible for the concrete management of the Board of Supervisors; shall create rules and regulations concerning the work of the Board of Supervisors; be responsible for the review and submission of inspection reports; and shall be responsible for the coordination work between the Board of Supervisors and other relevant departments.

The Department Party Committee shall be responsible for the work between the Party and the masses of the departments of the CBRC and the entities directly under the CBRC” (GOSC 2003 at 3.12 to 3.15; underlining by THINK!DESK).

Based on these organisational structures, the CPC is in full control of all major decision making processes in CBRC and is able to direct its reach into the corporate sector and the economy in general.

By means of its embedded party organisations, China’s ruling elite – i.e. the CPC leadership – has established a highly efficient channel of communication and command with the national corporate sector, allowing for more effective direction, control and sanctioning of corporate action.

3.2 Dual Party/Management Careers

THINK!DESK investigations into the individual backgrounds of the members of the boards of directors and the supervisory councils of major industrial enterprises have revealed that a large majority of them are not only party members, but also hold senior positions in the government and CPC hierarchy – or have done so previous to serving in the corporate sector.

In the following, Air China, the national flag carrier, and its parent, the China National Aviation Holding, may serve as an example to illustrate the prevalence of overlaps between political and managerial careers. The company's website openly presents the party credentials of the top management team. All members are presented in detail. In the following representation from the Air China website, some parts of their credentials have been omitted for the sake of brevity and clarity:

Mr. Cai Jianjiang (President)

Mr. Cai serves as President, Deputy Party Secretary of China National Aviation Holding Company [authors comment: the website also uses the abbreviation ANAHC] and Chairman of Air China Limited. [...] In October 2002, he was appointed as Vice President of Air China International Corporation, and subsequently was appointed as Secretary of the Communist Party Committee and Vice President of the Company in September 2004. He had been serving as President and Deputy Secretary of the Communist Party Committee of the Company and a member of the Communist Party Group of CNAHC since February 2007. In January, 2014, Mr. Cai was appointed as the President, Deputy Party Secretary of China National Aviation Holding Company and in February he was elected as Chairman of Air China Limited.

Ms. Wang Yinxiang (Party Secretary & Vice President)

Ms. Wang joined the Group in July 1988. She graduated from Party School of the Central Committee of the Communist Party of China majoring in economics and management. Ms. Wang is a senior engineer of political work and a senior flight attendant. Ms. Wang served several positions in Air China International Corporation, including Vice Captain of the in-flight service team of the Chief Flight Team, Deputy Manager of the in-flight service division, Deputy Manager of the passenger cabin service division and Deputy Secretary of the Communist Party Committee, etc. In October 2002, Ms. Wang served several positions in CNAH, including Deputy General Manager, Head of the Disciplinary and Supervisory Committee of the Communist Party Group and Secretary of the Communist Party Committee of CNAH. Since March 2008, Ms. Wang has been serving as Secretary of the Communist Party Group, Deputy General Manager and Secretary of the Communist Party Committee of CNAH, and was appointed as President of Trade Union of CNAH from July 2003 to July 2009.

Mr. Cao Jianxiong (Vice President)

Mr. Cao joined the Group in June 2009. [...] he served as Vice President and a member of Communist Party Group of China Eastern Airlines Group Corporation and was also Secretary of the Communist Party Committee of China Eastern Airlines Northwest Company from December 2002 to September 2004. From October 2006 to December 2008, he served as the President and the Deputy Party Secretary of the Communist Party Committee of China Eastern Airlines Corpora-

tion Limited. Since December 2008, Mr. Cao has been serving as the Deputy General Manager and a member of Communist Party Group of CNAHC.

Mr. Li Qinglin (Chairman of Disciplinary and Supervisory Committee)

Mr. Li served as Chairman of Disciplinary and Supervisory Committee and member of the party group of CNAH. Before joining CNAH, he served as deputy director and director of Administration Management Bureau of State Council, deputy director of Administration Department of State Assets Supervision & Administration Commission. He graduated in Chinese Language major from Beijing Radio & TV Broadcasting Institute.

Mr. Song Zhiyong (Member of the Party Group)

Mr. Song serves as Member of the Party Group of China National Aviation Holding Company and President of Air China Limited. [...] in October 2002 he took the position as Managing Director and Deputy Party Secretary of the General Flight Fleet. [...] Mr. Song has been serving as Vice President and Member of the Party Group of China National Aviation Holding Company since December 2010. In January, 2014, He was appointed as Member of the Party Group of China National Aviation Holding Company and President of Air China Limited.

Mr. Fan Cheng (Member of the Party Group)

Mr. Fan is Member of the Party Group of China National Aviation Holding Company and Party Secretary of Air China Limited. From December 2009 to May 2010, he served as Secretary of the Communist Party Committee of Shenzhen Airlines. Since February 2011, he has served as Secretary of the Communist Party Committee, Vice President and CFO of Air China Limited. Since April, 2014, Mr. Fan has been serving as Member of the Party Group of China National Aviation Holding Company, Party Secretary, Vice President and CFO of Air China Limited.

Mr. Feng Gang (Vice President)

Mr. Feng Gang serves as the Vice President and Member of the Party Group of China National Aviation Holding Company. He started his career in July, 1984. He served as Deputy General Manager of China Southwest Airlines in October 1995 and in October 2002 he was assigned as Assistant President of Air China Limited. In February 2003, Mr. Feng took the position as General Manager and Party Secretary of China National Aviation Holding Asset Management Company and in May 2007 he served as Chairman, President and Deputy Party Secretary of Shandong Airlines Group. In April 2010, Mr. Feng served as Vice President of Air China Limited and from May 2010 to May 2014, he served as Director, President and Deputy Party Secretary of Shenzhen Airlines simultaneously. Since April 2014, Mr. Feng has been serving as the Vice President and Member of the Party Group of CNAH.

This example is representative for SOEs, especially those controlled directly by the central government. From the above, a number of characteristics can be identified:

- Firstly, all members of Air China's top management are not only party members but possess strong party credentials.
- Secondly, all top management appointees can look back on illustrious party careers – in some cases dating back decades. Corporate and party careers have progressed in sync as all individuals at the helm of Air China have simultaneously performed management and political functions in previous appointments.
- Thirdly, appointments to senior management and party organisation positions occur simultaneously, suggesting that particular management positions are tied to responsibilities in the party group (or committee). Promotions in the corporate and party hierarchies thus go hand in hand. This brings up the question which of the two concurrent tracks dominates individuals' career path.
- Fourthly, almost all individuals have been circulated through different state-owned aviation companies suggesting that they have been placed in their function as CPC representatives and bureaucrats. This raises the question if the core qualification of executives derives from bureaucratic or management merits.

The board of directors comprises twelve individuals, including Mr. Cai, Ms. Wang, Mr. Cao, Mr. Fan (who were all mentioned above) as well as two foreigners. Four of the six remaining Chinese nationals on the board are also strongly anchored in the political sphere. One of them is Mr. Wang Changshun:

“Mr. Wang was ever Secretary of Communist Party Committee and Deputy Director of Xinjiang Regional Administration and served as Deputy General Manager, a Member of the Standing Committee to the Communist Party Committee and Secretary of Communist Party Committee of Xinjiang Airlines. From October 2000 to September 2002, Mr. Wang worked as General Manager, Deputy Chairman of the Board and Deputy Secretary of Communist Party Committee of China Southern Airlines Company Limited. Mr. Wang served as Deputy General Manager and a Member of Communist Party Committee of China Southern Air Holding Company and General Manager, Deputy Chairman of the Board and Deputy Secretary of Communist Party Committee of China Southern Airlines Company Limited from September 2002 to August 2004. Mr. Wang became Deputy Director and a Member of Communist Party Committee of General Administration of Civil Aviation of China from August 2004 to March 2008. Mr. Wang served as a Member of Communist Party Committee and Deputy Director of Civil Aviation Administration of China (“CAAC”) and Secretary of Communist Party Committee of the department directly administered by CAAC and

Chairman of National Labor Union of Civil Aviation from March 2008 to October 2011. Mr. Wang has served as General Manager and Deputy Secretary of Communist Party Committee of China National Aviation Holding Company since October 2011” (Air China website).

- A fifth notable aspect regards the overlap between CPC/corporate and labour union offices. During his time at the Civil Aviation Administration of China (CAAC) from March 2008 until October 2011, Wang Changshun simultaneously acted as
 - *deputy director*
 - *member of the CPC committee*
 - *secretary of the CPC committee of various departments*
 - *chairman of the labour union*

Even more impressive, Ms. Wang Yinxiang simultaneously took on many diverse functions while at CNAHC. Between October 2002 and July 2009 she acted as:

- deputy general manager (after 10/2002)
- head of the Disciplinary & Supervisory Committee of the CPC group (after 10/2002)
- secretary CPC committee (after 10/2002)
- president of the labour union (after 7/2003)

It is telling that a deputy general manager who doubles as CPC committee secretary can also be president of the labour union – especially at a company with high international profile like Air China. The prioritisation of goals and responsibilities as well as the resolution of conflicts between different stakeholders present formidable challenges to corporate governance.

The information presented here draws on – and is limited to – the official Air China website as opened on April 19th, 2015. Further research into the individual backgrounds of the individuals discussed here may yield more detail on overlapping and perhaps contradicting responsibilities.

A systematic survey on 130 top leaders of SOEs controlled by the central government has been carried out by Li (2011) before the leadership transition of 2013. Li found that all of the 130 individuals were party members and that

- 59 simultaneously served as general manager and (deputy) party secretary
- 14 simultaneously served as general manager, board chairman and (deputy) party secretary

Other top managers of major Chinese corporations are simultaneously directing the operations of their firms and serving on the CPC Central Committee or the Central Commission of Discipline Inspection. Table 62 documents prominent cases of the last years of the Hu/Wen administration.

Table 62: Business Leaders Serving on the 17th CPC Central Committee or the Central Commission of Discipline Inspection

Name	Position in 2011	Since
Zhang Qingwei	Chairman, Commercial Aircraft Corp. of China	2008
Xiang Junbo	Chairman, Agricultural Bank of China	2007
Jiang Jianqing	Chairman, Industrial & Commercial Bank of China	2005
Xiao Gang	Chairman, Bank of China	2003
Chen Yuan	Chairman, China Development Bank	1998
Lou Jiwei	Chairman, China Investment Corp.	2007
Wang Xiaochu	Chairman, China Telecom	2008
Zhang Guoqing	CEO, China North Industries Group Corp.	2004
Xu Lejiang	Chairman, Shanghai Baosteel Group Corp.	2007
Zhang Xiaogang	GM, Anshan Iron & Steel Group Corp.	2008
Guo Shuqing	Chairman, China Construction Bank Corp.	2005
Jiang Jiemin	Chairman, China National Petroleum Corp.	2006
Liu Zhenya	General Manager, State Grid	2004
Li Changyin	GM, China Shipbuilding Industry Corporation	2001
Zhang Ruimin	CEO, Haier Group	2000
Liu Shiquan	Party secretary, No. 9 Institute of China Aerospace Science & Industry Corp.	2001
Lin Zuoming	GM, China First Aviation Industry Corporation	2008
Shi Dahua	Chairman, China Railway Engineering Corp.	2006
Yuan Jiajun	Deputy General Manager, China Aerospace Science & Technology Corp.	2007
Jin Zhuanglong	GM, Commercial Aircraft Corporation of China	2008
Su Shulin	Chairman, Sinopec Group	2007
Li Jincheng	Deputy Chief Engineer, China Railway Construction Corp.	2003
Wei Jiafu	CEO, China Ocean Shipping Companies Group	1998
Wang Zhigang	GM, China Electronics Technology Group Corp.	2003
Xu Dazhe	GM, China Aerospace Science & Industry Corp.	2007
Xu Bin	GM, China South Industries Group Corp.	2003
Fu Chengyu	Chairman, China National Offshore Oil Corp.	2003

Source: Li 2011 at 25.

Li's review found that more than half of state business leaders included in this study was promoted within the company they headed while a majority of those who were transferred came from companies within the same industry. The number of leaders in central government SOEs who transferred from government positions is relatively small. Prominent examples includes Zhang Qingwei, who held a cabinet position as head of the Commission for Science, Technology and Industry for National Defence before becoming Chairman of the Commercial Aircraft Corporation of China in 2007. After a four year stint at the company, he was promoted to become governor and deputy party secretary of Hebei Province – positions he still held in early 2015. Mr. Zhang is currently a member of the 18th CPC Central Committee and has been part of the 16th and 17th as well.

As a matter of fact, experience as a top manager in China's leading state-owned enterprises must be understood as a powerful catalyst for careers in high CPC and government functions. While some examples are being outlined in greater detail below, table 63 provides a list of high ranking cadres having served in state-owned enterprise boards before changing into prestigious CPC or government positions.

Table 63: Prominent Political Leaders with Administrative Experience in SASAC Companies and other Large SOEs (2011)

Name	Current position	CC membership	SASAC/ major company experience
Jia Qinglin	Chairman, Chinese People's Political Consultative Conference	Politburo Standing Committee member	General manager, China National Machinery & Equipment Import & Export Corporation (1978–1983)
Liu Qi	Party secretary, Beijing	Politburo member	General manager, Wuhan Iron and Steel Company (1990–93)
Wang Qishan	Vice premier	Politburo member	President, China Construction Bank (1994–97)
Xie Xuren	Minister, Finance	Full member	President, China Agricultural Development Bank (1998–2000)
Wei Liucheng	Party secretary, Hainan Province	Full member	Chairman and CEO, China National Offshore Oil Company (1999–2003)
Zhang Chunxian	Party secretary, Xinjiang	Full member	General Manager, China National Packaging and Food Machinery Corporation (1993–1995)
Guo Shengkun	Party secretary, Guangxi Province	Alternate member	General manager, Aluminium Corporation of China (2001–04)
Xiao Ya-qing	Deputy secretary general, State Council	Alternate member	CEO, Aluminium Corporation of China (2004–09)
Zhu Yanfeng	Executive vice governor, Jilin Province	Alternate member	General manager, First Auto Work Group Corporation (1999–2007)
Wang Yupu	First secretary, All-China Federation of Trade Unions	Alternate member	Chairman, Daqing Oilfield Company (2003–09)
Chen Chuan-ping	Party secretary, Taiyuan City	Alternate member	General manager, Taiyuan Iron and Steel Company (2000–08)
Miao Wei	Minister, Industry and Information Technology	Alternate member	General manager, Dongfeng Auto Corporation (1999–2005)
Li Xiao-peng	Executive vice governor, Shanxi Province	None	General manager, China Huaneng Group (1999–2008)
Xi Guo-hua	Executive vice minister, Ministry of Industry and Information	CCDI member	General manager, China Netcom (2002–03)
Li	Executive vice minis-	None	General manager, China National

Name	Current position	CC membership	SASAC/ major company experience
Jiaxiang	ter, Ministry of Transportation		Aviation Holding Company (2004–08)

Source: Li 2011 at 24

Mr. Guo Shuqing concurrently served as vice-governor of the People's Bank of China and Director of the State Administration of Foreign Exchange before being promoted as chairman of China Construction Bank in 2005. After six years at the helm of China's third largest bank, he became head of the China Securities Regulatory Commission before accepting the office as governor and deputy party secretary of Shandong Province. Like Mr. Zhang, he is a member of the 18th CPC Central Committee.

Like Guo, several prominent leaders of party and state organisations have held top management positions in China's state-owned commercial banks during their careers. Wang Qishan, as head the Central Commission for Discipline Inspection currently in charge of China's anti-corruption campaign, has served in various top management positions for the China Construction Bank during the 1990s. Zhou Xiaochuan, governor of the People's Bank of China since 2002, has been employed in leadership capacity at both the China Construction Bank and the Bank of China during the 1990s.

The national oil and gas industry has been another hotbed for political careers. Most famous is the case of Zhou Yongkang, "China's former domestic security tsar" (Guardian, 03.04.2015) who was brought down by a massive anti-graft campaign launched immediately after the Xi/Li administration entered office. Zhou had started as worker in oil field exploration projects in the early 1970s and made a stellar career in the petroleum industry. During the 1990s, he served in various top management positions for CNPC and its party organisation before being promoted to head the Ministry of Land and Resources in 1998 under then premier Zhu Rongji. The following year, Zhou was sent to serve as party chief in Sichuan Province. He was called back to Beijing to become minister of public security in the cabinet of then premier Wen Jiabao. Five years later, he established himself as head of the Commission of Political and Legal Affairs of the CPC Central Committee and member its standing committee.

Mr. Jiang Jiemin, who headed the State-owned Asset Supervision and Administration Commission of the State Council for less than a year before being removed on allegation of discipline violations presents another case of a career official who rose through the petroleum industry. After heading the government departments in charge of the petroleum industry in various provinces, Liu became vice governor (and later) deputy party secretary of Qinghai Province. In 2004, he transferred to Beijing to serve as vice general manager and deputy party secretary of CNPC. Two years later he graduated to become the company's general

manager and party secretary. In 2013 he was promoted to lead the State-owned Asset Supervision and Administration Commission of the State Council.

The bribery charges against Zhou Yongkang and his eventual expulsion from the party has led to the downfalls of several senior management and party personnel at CNPC. Besides Jiang Jiemin, mentioned above, this includes

- Shen Dingcheng, vice president and party secretary of PetroChina International,
- Wang Daofu, CNPC's chief geologist,
- Wang Yongchun, CNPC's deputy general manager,
- Li Hualin, board secretary of CNPC,
- Tao Yuchun, Executive of CNPC's Kunlun Energy division

However, many other individuals with petroleum industry backgrounds were not brought down by the campaign. These include

Mr. Wei Liucheng, began working in the petroleum industry in the early 1970s - his work unit later became part of China National Offshore Oil Corp. (CNOOC). He rapidly progressed in the company so that by 1999 he was CEO, general manager and party secretary of CNOOC. In 2003, Wei moved to Hainan Province, where he became governor, party secretary and chairman of the standing committee of the provincial people's congress (2007). Wei had been a member of the 17th CPC Central Committee.

Mr. Su Shulin, too spent a successful career in the petroleum industry, Su was appointed as deputy general manager and member of the party committee at China National Petroleum Corp. (CNPC) in 2003. In late 2006, he left the company after being named a member of the standing committee of the party committee of Liaoning Province and head of the provincial party committee's organisation department. In the summer of 2007, Su was appointed president and party secretary of Sinopec Group Corp. Four years later he then transferred again to take his current office as governor of Fujian Province. Su is a member of the 18th CPC Central Committee.

The automobile industry serves as yet another launch pad for government and party careers, as the following two examples will illustrate. Mr. Xu Jianyi, served as president and general manager of FAW, China's oldest and largest automobile manufacturer, before being detained on suspected serious violations of party discipline and law in March 2015 (SCMP 19.03.2015). Xu had started his career in the automobile industry in the 1970s and rose through the ranks at FAW based in Changchun City, Jilin Province. In 2004, then a senior manager, Xu was appointed as Mayor of Jilin City. After two years in office, he was named party secretary of Jilin Province. In late 2007, Xu returned to FAW as the company's president and general manager.

Mr. Miao Wei, currently head of the MIIT worked in various functions at Dongfeng Automobile Corp. in Wuhan City, Hubei Province. He was appointed secretary of Dongfeng's party com-

mittee in 1997 general manager in 1999 – positions he held until 2005. In 2003, Miao joined the provincial party committee and its standing committee. After leaving Dongfeng, he also became member of the municipal party committee of Wuhan and the chairman of the city's people's congress. In 2008, he was called to Beijing to serve as vice-minister and deputy party secretary of the MIIT. After two years in office, he was promoted to lead the ministry and its party committee.

In sum, it can be postulated that in China's socio-economic system political and party careers go hand in hand with corporate careers. As a matter of fact, at least in the state-owned enterprise sector, success in the latter sphere is impossible without corresponding accomplishments in the CPC hierarchy.

3.3 Government Institutions as Meeting-Points and “Market-Places” for China's Elites

Given the close interdependence between the political (government, CPC) sphere and the business sector in China, there exists a substantial demand for fora at which representatives of these two spheres can meet – especially by those who are not already integrated in formal institutional settings linking politics and business.

The multi-tiered system of People's Congresses, reaching from the village level via the township, town, district, and provincial level up to the National People's Congress, constitute such meeting points and play an important role for the interaction between entrepreneurs, politicians and administrative bureaucrats in China. Although the National People's Congress (NPC), is – in theory – the highest political body in China and holds substantial law-making powers, membership in the various levels of People's Congresses is not restricted to members of the CPC, but extends to representatives of all groups of the population.¹⁶ This allows these Congresses to function as market places for the elites in the different spheres of social and economic life in China. It is here that politicians and entrepreneurs, Party members and non-Party members can meet and explore their respective demand and supply structures. While entrepreneurs and enterprise leaders look for the resources, business licensees, promotional programmes and protective measures administered discretionarily by (local) politicians, the latter are in demand of savvy businessmen that can drive local economic development, implement green business models, etc. and thereby help them in their career advancement.¹⁷

It therefore does not come as a surprise that, for example, among the directors of China's leading state-owned steel mills, several are delegates (or alternate) delegates to the National

¹⁶ De facto the CPC controls all activities of the various People's Congresses and in real live has degraded the NPC to an entity which exists first of all only to rubber stamp decisions made in the confines of the CPC.

¹⁷ See in this context also: Heberer/Trappel 2013, Edin 2003.

People's Congress, China's national legislature. Examples include Zhang Xiaogang, board chairman and general manager of Anshan Steel and Li Xiaobo, board chairman of Taiyuan Steel. Chief executives of smaller as well as private companies are often delegates to provincial or municipal people's congresses, like Zhou Zhijiang, the chairman of the board of directors of Jiuli Pipe.

To just a trifle smaller extent the "market-making" function between business, politics and the Party sphere is also realised in the context of the People's Political Consultative Conferences (PPCC) at various levels of the administrative hierarchy. The PPCCs are advisory bodies present on all administrative levels in China (Teufel-Dreyer 2013). They discuss important socio-economic issues and are supposed to give groups outside the CPC a (consultative) voice in the political process. It is common that board members of important local firms are functioning as representatives in local or higher level PPCC, where they can establish close relationships with cadres from the government and Party hierarchies. Examples include Zhou Xinhua, vice chairman of the board and managing director of Kingland Pipe, who simultaneously serves as representative of Zhejiang Province's PPCC.

3.4 Conclusion: China's State-Business Nexus

The observations made in the preceding sections clearly show that Chinese government bodies at all levels of hierarchy as well as the CPC as the overpowering ruling body, continue to exert tremendous influence on the macro- as well as micro-development of China's economy and business operations.

This peculiar relationship between the Chinese State (i.e. the CPC and the government) and the business sector highlights the specific character of the Chinese economic system, which Bai, Hsieh and Song have been classifying as "Crony Capitalism with Chinese Characteristics" (Bai, Hsieh and Song 2014, p. 2). They understand that in this system "*a sine qua non of successful capitalists in China is that they need to be cronies of political leaders*" (Bai, Hsieh and Song 2014, 2). Given the deficient state of the formal institutional setting in China, the authors judge "the only way for entrepreneurs to succeed is to form special relationships with political leaders, which allows them to either break the formal rules or to obtain exclusive access to resources" (Bai, Hsieh and Song 2014, p. 2)

The authors of this report fully agree with this assessment, but see a need to extend the understanding of the Chinese State-Business nexus. It is not only that business representatives are dependent on government and Party cadres in order to bring their business models to success. At the same time, (local) cadres have also become reliant on "their" entrepreneurs and business leaders in order to advance their policy programmes and – last not least – individual careers (Xu 2011).

The central institutional arrangement underlying the CPC's rule of the country and the organisation of the national economy can be understood to be a regime of "regionally decentralised authoritarianism" (Xu 2011), where on the national level the CPC concentrates on appointing and controlling all major decision making personnel of subnational governments and key economic entities (i.e. SASAC controlled SOE). This direct control over individual careers is deemed (and factually appears to be) sufficient to align subnational decision makers with the general gist of central government policies and therefore allow for a far reaching delegation of powers to subnational entities in the governance of local economies and operational guidance of local economic development processes.

The substantial regional autonomy granted in this regime is highly incentivised in so far as local cadre career advancement is dependent on performance indicators highly biased towards economic goals (Edin 2003) and measured in terms of inter-regional competition. In this system regions – or rather their decision making elites – are being pitched against each other in order to push local cadres to ever higher levels of performance (in terms of the performance parameters defined). In order to excel local cadres must rely on their local business constituency and their entrepreneurial savvy (Nee and Oppen 2012). As such local government officials are willing to provide local firms with any support and protection deemed necessary to achieve outstanding economic results – irrespective of any negative externalities to other localities or the nation as a whole. Central government interventions to rein in excessive local activity usually come only very late and then function as ex-post macro-economic control measures, i.e. only once damage has already been generated.

Part II

The Chinese Economic System at the Interface with the Global Markets

4. INTERNATIONAL TRADE

Since the foundation of the PR China, the China's government has followed a policy of tight regulation and active control of all international trade activities. In the following the most important contemporary programmes and policy tools are being discussed.

4.1 Organisational Structures of China's Foreign Trade Administration

The principle agency tasked with all matters related to foreign trade is the Ministry of Commerce (MOFCOM). Much of the current regulatory framework for foreign trade policy is laid out in the Foreign Trade Law of the People's Republic of China (NPC 2004c). The MOFCOM drafts policies, oversees their implementation and maintains control mechanisms to sanction rule violations. Like all ministries and commissions of the central government, the MOFCOM is subordinate to the State Council, China's cabinet. The State Council deals with foreign trade on a more selective basis and makes decisions on questions of long term strategic importance for the national economy and public welfare.

Lower level government, like provinces and cities, also have departments for foreign trade which are generally tasked with monitoring trade related issues within their respective jurisdictions. These departments supervise policy implementation and enforcement on the local level and report back to the MOFCOM unit at the next higher hierarchy level.

In its work, MOFCOM maintains close cooperation with the Ministry of Industry and Information Technology (MIIT) on matters related to domestic industrial policy. As policies for developing and upgrading domestic industries are closely connected to foreign trade, MOFCOM helps to integrate trade policy into the broader industrial policy framework. MOFCOM thus oversees important aspects of the regulatory framework.

The General Administration of Customs (GAC) has the status of a central government ministry but is dealing with implementation policies drafted by MOFCOM. GAC has a variety of tasks beyond the execution of measures related to foreign trade. However, it is tasked to supervise inflows and outflows of goods, collect import and export duties as well as value added tax.

4.2 Import-Targeting Policy Measures

4.2.1 Import substitution

The Chinese government actively promotes the localization of technology development and product manufacturing in order to substitute imports by domestic supply. Since China joined the WTO in 2001, the number of related promotion programmes and the frequency with which localization objectives are specified has decreased. Neither the 11th nor the 12th national FYP explicitly call for the displacement of imports. However, measures targeting the localization of intellectual property and location specific subsidies create an uneven playing field for imported goods to compete on. Furthermore, the vanquishing of direct language from most documents issued by the central government obscures the fact that import substitution targets can still be found in the policies published on the sub-national level. In the following, a few instances are presented where local and even central authorities indicate their continued preference for replacing imports by local supply.

- The National Work Safety Administration, for example, has stated that during the upcoming 13th FYP period, all projects under the 863 National Plan Technology Research should address supply bottlenecks and technological weaknesses in the field of advanced accident protection equipment. To this end, all players were called upon to vigorously work towards replacing imports by domestic solutions (NWSA 2015).
- In 2014, the MIIT released the *Plan for Preventing and Addressing Atmospheric Pollution and the Promotion of Clean Production Technologies in Key Industries*. The document urges to improve technology and quality levels in the field of vanadium sulphate catalysts in order to replace imports by local production (MIIT 2014).
- In 2013, the MIIT and the MOST jointly released a circular urging companies to put forth suggestions for a planned revision of the *National Catalogue for Encouraging the Development of Major Technologies and Equipments for Environmental Protection*. Enterprises were invited to submit proposals of products and technologies to be reviewed by the two ministries. In order to guide corporate inputs, the joint circular outlined key criteria that suggested technologies would have to meet. The instructions stipulate that the approval process for technologies and products recommended for application and popularization would take into account the potential for replacing imports (MIIT and MOST 2013).
- In 2013, the MOST released the *Guidelines for the Technology Innovation Fund for Supporting Science and Technology-oriented SMEs*. The Guidelines stated that for new-type control technologies and in the front-end research of new products, that promoted technologies should meet advanced international levels and companies need to possess their proprietary intellectual property. Furthermore, they should offer the potential to replace imports and boost exports (MOST 2013).

In the field of machine components, the policy supports the use of high speed, high precision heavy rail bearings which allow the displacement of imported goods (ibid).

In the field of seawater desalination, the policy calls for significant increases in product performance and production scale. Technology breakthroughs and the replacement of imports by domestic supply are to facilitate the application of critical technologies on a large scale (ibid).

- In 2013, the MIIT published the *Circular on Applications for Priority Tasks of Major Science and Technology Projects in the Field of High-grade CNC Machine Tools and other Manufacturing Equipment*. In line with the National Science and Technology Support Plan, the document outlines (in detail) numerous priority tasks (MIIT 2013b).

Task #31 addresses high speed, high precision, digitally controlled blanking lines for silicon steel plate. Major research aims include a 5-8 times productivity increase, a 50 percent reduction of energy use, an 80 percent saving in labour inputs, a 50 percent cut in occupied area and the replacement of imports by domestic output (ibid).

Tasks #60 (and 61) involve demonstration projects for the application of localised production lines for cylinders and flexible cylinder heads used in medium- (large-) sized diesel engines. The task descriptions emphasize the importance of relying on domestic materials, products and technologies for raising local efficiency and quality to advanced international levels. Implicitly and explicitly, the outline calls for replacing imports and boosting localization (ibid).

- In 2012, the MOF and the State Oceanic Administration (SOA) issued the joint *Circular on the Promoting Regional Demonstration for Oceanic Economic Innovation and Development*. The document identifies several key points for future development under state support. These include new-type marine biology materials. The latter are to be supported if they are shown to possess unique functionalities or replace imports, e.g. haemostatic materials, anti-adhesion materials, slow-release materials, embolisation materials (MOF and SOA 2012).
- In 2009, the MOST, the NDRC and the MOF jointly issued the *Circular on Launching Accreditation Work for National Indigenous Innovation Products*. The document invites companies to submit certification applications for *Indigenous Innovation Products* based on the National Medium and Long-term Plan for the Development of Science and Technology (2006-2020). In the annex, it provides an application form to collect information and submit applications in a standardized format. One of the first questions companies have to answer about their products is whether it can contribute to replacing imports. Complementing instructions specify that “*Products have started selling on the market, possess economic value and relatively large market potential or can replace imports*” (MOST, NDRC and MOF 2009 at 4.7).
- The formulation has been adopted almost unchanged from the *Administrative Measures for the Accreditation of National Indigenous Innovation Products (for Trial Implementation)* that was released in 2006. Article 4.7 reads: “*The product has potential economic proceeds and a large market prospect or can be substituted for imports*” (MOST, NDRC and MOF 2006).

As can be seen from the preceding paragraphs, central government bodies have not shied away from calls for substituting imports with local manufactures. As the following table 64 illustrates, such calls are even more common on the provincial and even municipal levels.

Table 64: Import Substitution Provisions Included in Selected Government Documents Issued at the Sub-central Level

Regional authority	Type of support	Target of support	Source document
Jiangsu Province Science and Technology Department	Technology demonstration projects Construction of science and technology communities Applied research on key technologies	Focus on biotechnology and medical equipment Development of high grade wound dressings, fully digitized diagnostic equipment and artificial organs	Guideline for social development projects under the Science and Technology Support Plan for Jiangsu Province in 2013 SuKeJi 2013, No. 38
Shandong Province Finance Department and Science and Technology Department	Disbursements of grants from a Special Fund	Accomplish the displacement of imported medical equipment and generate exports Step up support for key common use technology projects. Special promotion of projects for developing core technologies in key industries to fill banks in the domestic market, replace imported products or break the blockage of foreign patents.	Work distribution for the implementation plan for the Special Fund for Indigenous Innovation of Shandong Province LuCaiJiao 2012, No. 72
Hunan Province Economic and Information Technology Department	Unspecified promotion measures	Special promotion for the localisation of large electric wheel dump truck technologies. R&D and technology industrialization should speed up domestic manufacturing and replace imports.	Guidance Catalogue for the development of major key technologies in strategic emerging industries in Hunan Province XiangTuiXinGongBan 2013, No. 13
Shenzhen City	Fiscal support, demonstration projects, promotion of talent development, branding etc	Replacement of imports in the field of components and complementary products, such as packaging equipment and solid crystals	LED industry development programme of Shenzhen City (2009-2015) ShenFu 2009, No. 41
Shandong Province	Fiscal support, provision of subsidies from special funds, credit support from financial institutions, streamlining of administrative procedures etc.	Replacement of imports is specified as goal in the field of high performance and high value added copper products	Action plan for promoting the transformation and upgrading of industries in Shandong Province (2015-2020) LuZheng BanFa 2015, No. 13

Regional authority	Type of support	Target of support	Source document
Chongqing City	Investment subsidies and discount loans	Replacement of imports through the fast tracked development and commercialization of technologies relating to medical materials and packaging materials. Particular focus on Cellulose acetate, high viscosity hydroxypropyl methyl cellulose, high molecular weight poly (ethylene oxide), medium-chain fatty acid	Circular on the organization and launch of project application work for 2015 industrial rejuvenation and technology renovation projects in Chongqing Municipality
Shandong Province	Disbursement of grants from a special fund	Replace imports, break through foreign patents and technology barriers. Support for projects targeting key industries in the development of core technologies and critical segments of the value chain	Circular concerning doing well in the competitiveness-oriented distribution of special funds supporting indigenous innovation in Shandong Province LuZhengBanFa 2012, No. 49
Zhejiang Province Science and Technology Department	Disbursement of grants from various special fund, fiscal support in HR and other areas	Vigorously support R&D and the commercialization of technologies in key areas of the manufacturing equipment industry. Companies are encouraged and promoted to pursue major projects financed by central and local governments and strive for replacing imports with local production.	11 th FYP for the Manufacturing Industry in Zhejiang Province
Henan Province Industry and Informatisation Department	Disbursement of award funds	Application criteria: Ability to digest and absorb advanced international technology, re-engineer it and accomplish localized production capabilities to replace imports	Circular on recommendations for the 2009 Prize for Industry and Information Technology Commercialization in Henan Province
Zhejiang Province Economy and Informatisation Commission	Unspecified support measures	For the sake of provincial promotion schemes, "new products" are defined as having the potential to displace imports and promote localization.	Circular on further strengthening the administrative work for new products (new technologies) in Zhejiang Province ZheJingXinJiShu 2013, No. 118
Henan Province Industry and Informatisation Department	Disbursement of award funds	Application criteria: Ability to digest and absorb advanced international technology, re-engineer it and accomplish localized production capabilities to replace imports	Circular on the organization and launch of the recommendation work for the 2015 Prize for Accomplishments in Science and

Regional authority	Type of support	Target of support	Source document
			Technology in Henan Province YuGongXinBanKe 2015, No. 83
Jiangsu Province Science and Technology Department	Unspecified support measures	Priority support under the New Product Plan of Jiangsu Province targets, inter alia, items that generate foreign exchange through exports, displace imported products and lead to the localization of production to a degree of 80 percent or more.	Administrative (trial) measures for the Key New Product Plan for Jiangsu Province SuKeJi 2009, No. 106
Beijing City Administration Committee of the Beijing Economic and Technology Development Zone	Compensation of 10-30 percent of R&D expenses as subsidies	Promotion of projects that are recognized as key Enterprise-Education-Research innovation projects, that generate proprietary intellectual property rights through R&D and those that allow for the displacement of imports	Preferential Policies for Companies Located in the Beijing Economic and Technology Development Zone 2009
Shandong Province	Disbursement of grants from a special fund	Conduct R&D in order to displace imports and break international monopoly barriers in fields like integrated circuits, semiconductors and new energy battery materials.	Circular on organizing project applications for the special fund for the development of the IT industry in Shandong Province
Heilongjiang Province	Provision of grants and various other financial benefits. Focus on the cultivation of a group of champion enterprises	In the field of heavy machinery, local companies should strive to displace imports and safeguard their leading position in the domestic market.	11 th FYP of Heilongjiang Province for the development of the equipment manufacturing industry
Guangdong Province Science and Technology Department, Finance Department	Unspecified support measures	Promotion for automated manufacturing equipment for traction batteries as well as the development and commercialization of critical technologies for battery production lines Companies should realize technology breakthroughs to create their own property rights, accomplish localization of technologies and the replacement of imports.	Circular on project applications for the 2014 cutting edge and key technology innovation special fund (major provincial science and technology projects) YueKeHanGuiCaiZi 2014, No. 1454

4.2.2 Government Procurement

Chinese government is not only implementing import substitution schemes in the way outlined above, but is also instrumentalizing government procurement as a means to promote domestic Chinese firms versus their foreign competitors.

Public procurement policies in China have in recent years been explicitly geared to support the development of domestic suppliers. China has not signed the *WTO Agreement on Government Procurement* (GPA) to which most OECD countries, including all 28 European Union member states, are parties. The *Agreement* compels signatories to maintain transparent procedures and practice non-discriminatory in public purchasing. As ratification is not mandatory for WTO membership, China has so far refused to fully commit itself to the stringent requirements it imposes.¹⁸ The Chinese government thus acts within its legal rights in professing to buy-local policies. While temporary regulations governing public purchasing have existed in China since 1999, the current legal basis for all such transactions from the central government down to the village administration level, is specified by the *Government Procurement Law* passed in 2002 (NPC 2002). The law mandates that “Government procurement should be based on the procurement of domestic goods, projects and services” (Art.10) Exceptions are made in cases where articles are unavailable in China or cannot be obtained under “reasonable commercial circumstances”¹⁹ (Art. 10a). Although the *Government Procurement Law* was amended in 2014 (NPC 2014c) and complemented by a set of *Implementation Conditions* (State Council 2015), new regulations do not change the previous buy-local bias.

Since 2007, regulation is in place to guide government procurement of imported products and services. Authorities have also implemented complicated and partly intransparent approval requirements that complicated bidding by foreign companies. The *Administrative Measures for Government Procurement of Imported Products* (MOF 2007a) introduced additional bureaucratic procedures, requiring the approval of government administrations in charge of certain industries before purchases can be made. E.g. offices planning to buy foreign IT products would have to seek approval from the MIIT. Furthermore, the document mandates the institution of separate review panels serving to decide on a case by case basis whether or not a superior bid from a foreign supplier can be accepted. Finally, every individual transaction has to be reviewed and approved by the MOF and its branch office on the local level. The market for railway rolling stock is a case in point. Here, highly restrictive qual-

¹⁸ Several tentative offers to join the GPA have been rejected by the other parties as not being far reaching and comprehensive enough. By the time of writing, in June 2015, China had observer status at GPA proceedings.

¹⁹ A draft version of the *Implementation Regulations of the Government Procurement Law* clarify that reasonable circumstances are present as long as the price of a domestic good that meets the required specifications is not more than 20 percent above the lowest offered price for foreign goods (Art. 10). This may only serve as an indication, as until September 2014, the *Implementation Regulations* had not yet entered into law.

ification requirements continued to exclude even leading foreign suppliers from being admitted to participate in public tendering (ibid).

While discrimination against imported products and services remains prevalent, several foreign companies have successfully entered the government procurement market. However, such examples are more the exception than the rule. Even where enterprises have made inroads in recent years, like in the case of the automobile industry, Chinese authorities attempt to roll back this development. In April of 2012, central authorities published a catalogue of passenger vehicles approved for government procurement. The list only contained products manufactured under domestic brands (Panjin City 2012). Similarly, new regulations forbid military personnel to buy imported vehicles or those manufactured by foreign brands (Sina 13.01.2014).

Tensions with international trading partners have erupted after the State Council drafted a series of laws in the wake of the global financial crisis that tied government procurement to policies promoting indigenous innovation. The *Circular on Further Strengthening the Administration of Government Procurement Work* (GOSC 2009), issued by the State Council in April 2009, adds further weight to the discrimination against imports prescribed in the *Government Procurement Law*. It narrows market access for foreign rules by ruling that all equipment in the field of high technology has to be sourced locally as long as a domestic supplier is available. The State Council explicitly reinforced the preference of local contractors and orders government organizations on all levels to abolish any form of discrimination against domestic suppliers.

The *Opinions on the Implementation of Decision Concerning the Expansion of Domestic Demand, Promotion of Economic Growth and Further Strengthening the Supervision of Tendering and Bidding for Construction Projects* jointly passed by the NDRC, MIIT and seven other ministries the following month reinforce and emphasize the requirement to give preference to indigenous innovation products when it comes to state-financed key projects (EC 2014). It is doubtful that local governments needed to be reminded of supporting local companies before all others. As the case of electric vehicles contained in the study illustrates, provincial and municipal authorities have continuously displayed a strong by-local preference – to the point where local protectionism has impeded the efficient functioning of a unified national market.

In recent years, the combination and integration of buy-local and indigenous innovation policies have been viewed with particular concern by China's foreign trading partners. Starting with the promulgation of the *Medium and Long-term Science and Technology Development Plan* (2006-2020), the Chinese government has indicated its intention to support domestic companies active in R&D. It states that

"Implementation regulations for the Government Procurement Law should be drafted to encourage and protect indigenous innovation." [and announces that] *"A policy of preferential procurement of high and new technology equipment and*

products developed by domestic companies that hold relevant intellectual property rights would be implemented.” (at 8.3)

The *Plan* calls for setting technical standards and establishing a coordination mechanism for state purchases of such products.

During the following year, a flurry of regulatory documents was published, outlining in great detail the certification criteria and supporting measures for indigenous innovation products.²⁰ Based on the evaluation standards drafted by the MOST, the MOF should compile a catalogue, listing all accredited indigenous innovation products that would be

“given priority in government procurement, procurement for national key projects or other procurement using government funds and will be given further support in the accreditation process for new- and high-technology enterprises.”

Plans also included a special system for channelling public funds into the procurement of indigenous innovation products and a minimum threshold of 60 percent to which these need to be contained in key projects financed by any government organization. Government agencies were supposed to act as first or early buyers of new products in order to advance industrial policy and national development targets. This type of purchasing was largely released from the constraints of commercial rationality and market competitiveness. It does not come as a surprise that the buy-local practice is the cause of much inefficiency and corrupt transactions. In a press interview, Liu Kun, head of the Finance Bureau of Guangdong Province, pointed out that high prices, low quality are common problems (Jingji Cankao Bao 12.08.2009).

Facing stiff resistance from the U.S. and other countries, in early 2011 the Chinese government agreed to abandon preferential procurement policies for indigenous innovation products and in November of that year, the State Council released a circular ordering all local governments to stop the practice completely. Provincial and municipal governments, many of which had made active use of special catalogues and provisions to support local new- and high technology enterprises, had to repeal any buy-local policies before the end of that year. While the majority of government organizations have reported back to confirm the elimination of such provisions, some jurisdictions have not complied with the new directive. In May 2015, a survey carried out by the US-China Business Council has found, however, that 12 provincial level jurisdictions, including Sichuan and Zhejiang, had not yet formally renounced previous policies tying indigenous innovation to government procurement. Furthermore, numerous municipalities had not yet abolished obsolete pieces of regulation (USCBC 2015). While it is remarkable that 12 regions have not complied with central government directives for a full three years, disregard on the local level is even more pronounced. This is because municipal

²⁰ *Circular of Supporting Policies, Trial Measures for Managing the Accreditation of National Indigenous Innovation Products (MOF 2006a), Evaluation Measures on Indigenous Innovation Products for Government Procurement and Administrative Measures for the Government to Initially and Selectively Purchase Indigenous Innovation Products (MOF 2007b).*

governments control the largest segment of China's government procurement market. Indeed, in a recent report, the EC pointed out that

"The nationwide 'Buy Chinese' measures have been echoed by numerous 'Buy Chinese' or even 'Buy Local' initiatives taken by provincial or municipal authorities" (EC 2014 at 132).

The *Government Procurement Law* applies to government organization throughout the administrative hierarchy, but excludes purchases made by SOEs. The *Government Procurement Law* thus governs purchases made with fiscal funds by government departments, institutions and public organizations where the goods, services and construction projects are contained in a centralized procurement catalogue. The catalogue is managed by the MOF and applies to procurement items exceeding a threshold of 500,000 RMB for goods and services and 600,000 RMB for construction projects. The thresholds are not uniform across the country as sub-central governments can adjust them to local conditions.

While the Chinese government has made efforts to improve the transparency of procurement activities by publishing bidding information online, clarifying procedures through additional regulation and introducing strong sanctions on rule violations by purchasing officials, major problems remain. For example, the definition of domestic goods and local content are unclear. While the MOF has ruled in 2004 that bidders must be registered in China and their products manufactured inside the country, it does not appear that China-based subsidiaries enjoy the same access to government procurement as do local companies. The European Commission (2014 at 133) has pointed out that *"Central and local entities tend to implement in a very broad manner those provision, going far beyond discrimination already imposed by the law"*.

In executing purchases, some improvement with regard to the adherence to market principles is reflected in the increasing use of competitive bidding vis-à-vis the other four admissible methods: selective tendering, competitive negotiations, request for quotation and single-source procurement. Public tendering has become the most commonly used method, accounting for over 80 percent of all transactions (WTO 2014a).

However, in several industries even the prevalence of competitive bidding has not offered fair market access to foreign companies manufacturing inside China. The wind power sector is a case in point. As a report released by the European Commission in 2014 has showed, restrictive qualification requirements and opaque bidding procedures threaten to shut out foreign player of this important market. Furthermore, a narrow focus on unit prices as key criterion and the disregard of quality, efficiency and lifetime cost considerations amounts to de facto discrimination against manufacturers of advance equipment (EC 2014).

In the absence of concrete data, the market share of foreign suppliers and contractors is very hard to gauge. Anecdotal evidence suggests, however, that import penetration in the government procurement market has remained minute.

4.2.3 Import Cartels

Until 2013, the Chinese government maintained a system of controls for imports of different raw materials, like iron ore. The latter case is instructive and is used here to represent similar practices and arrangements in other areas.

In the mid 2000s, the price of seaborne iron ore skyrocketed under the influence of surging Chinese demand. Rapid expansion of iron and steel smelting strained global iron ore supplies and led miners to a series of strong price hikes. Because the international iron ore trade was dominated by a narrow oligopoly of only three miners, price setting power was relatively high. Representative of Chinese steel mills, on the other hand, had little bargaining power because the number of iron ore importers was large. This situation led the Chinese government and the China Iron and Steel Association (CISA) to appoint Baosteel Co. as the sole legal representative of Chinese iron ore buyers at the international iron ore price talks.

Furthermore, the central government tasked CISA to set up an import coordination scheme in order to streamline the Chinese iron ore import market and ensure that imported resources would only be available to approved companies. A catalogue with performance criteria was drawn up to serve as benchmark for determining which companies would qualify to access import ores. Responsibility for carrying out the review and approval process was delegated to the CISA. Once or twice a year, the association released lists identifying the companies which had been cleared to buy and trade imported ores. A comprehensive regulatory framework on import market guidance mechanisms was set up to establish a buyers' cartel in the iron ore market. Most of the administrative tasks and responsibilities have been entrusted to the CISA and the China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters (CCCME). The two organisations were granted the permission to act as gatekeepers and restrict market access where they deemed necessary. In order to prevent arbitrary decision making, the discretion of CISA and CCCME was curtailed by more or less transparent criteria for market entry. The criteria, however, required that applicants proved large iron ore consumption and steel output in previous years. These and several other provisions limited the scope of eligible companies to only the largest and most potent players. As a consequence the list of qualified iron ore importers and traders displayed a heavy dominance by SOEs.

The import cartel under the influence of SOEs exercised control over the iron ore market for only a few years. Since early 2013, iron ore supply from Australia and Brazil surged on the back of new mining capacities coming on stream. Additional supplies were met by stagnating steel output growth and lacklustre iron ore demand. Falling iron ore prices and institutional changes to the way iron ore prices are formed robbed the cartel of its significance. It was cancelled in July 2013.

While the regulatory framework has been put out of use, it has not vanished. As the institutions tasked with the supervision of imports remain active, import coordination may be re-

vived once the economic situation requires decisive action to support local players, e.g. in the course of a sharp economic downturn.

4.2.4 State trading

According to WTO rules, state trading enterprises (STE) defined as companies “which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports” (WTO 1994b at 2). While the WTO permits the operation of STEs, they have to operate in a non-discriminatory manner and solely according to commercial considerations. Furthermore, WTO members are required to identify such companies in special notifications to the organization. By the time of writing, China’s last such notification was submitted in 2003 and is out of date. In August 2014, the US has itself identified 153 Chinese STEs, 44 of which had thus far gone un-notified. These companies are active in businesses like agriculture, mining and minerals, oil and gas, chemicals, textiles, and machinery and equipment (Wiley Rein 25.08.2014).

The practice of controlling international trade through STEs has a long tradition in China, dating back to the days of the central command economy when all cross-border trade was strictly controlled. Granting the rights to engage in foreign trade to all companies has been an important reform accomplishment in the context of China’s WTO accession. However, in line with WTO regulation, the 2004 Foreign Trade Law allows the government to subject certain goods to state trading. The 2014 WTO Trade Policy Review of China identifies the following reasons for maintaining the practice until the present:

- ensure stable supply and prices of the products concerned
- safeguard food security
- protect exhaustible and non-recyclable natural resources and the environment

The report finds that neither the motives nor the functioning of STEs have undergone much change in recent years. The products covered by state trading include various types of grain, vegetable oil, cotton, chemical fertilizer. A detailed overview can be found in the following table. It should be noted that so called tariff rate quotas reserve only a certain share of import and export volumes for STEs. Ranging from 10 to 90 percent of the total, non-STE are allowed to handle the balance.

The non-STE share of trade volumes for every commodity is allocated either by the NDRC or the MOFCOM. Both central government bodies publish catalogues of qualification requirements to determine which non-STE are eligible to receive trading right allocations.

Table 65: Imports Under State Trading, 2011-13

Product	HS code	Percentage of TRQ allocated to state-trading enterprises in		
		2011	2012	2013
Wheat	10011000; 10019010; 10019090; 11010000; 11031100; 11032100	90	90	90
Maize	10051000; 10059000 11022000; 11031300 11042300	60	60	60
Rice	10061011; 10061019 10061091; 10061099 10062010; 10062090 10063010; 10063090 10064010; 10064090 11023010; 11023090 11031921; 11031929	50	50	50
Cotton	52010000; 52030000	33	33	33
Sugar	17011100; 17011200 17019100; 17019910 17019920; 17019990	70	70	70
Urea	31021000	90	90	90
NPK	31052000	51	51	51
Diammonium phosphate	31053000	51	51	51
Other chemical fertilizer	31022100; 31022900 31023000; 31024000 31025000; 31026000 31027000; 31028000 31029000; 31031000 31032000; 31039000 31041000; 31042000 31043000; 31049000 31051000	n.a.	n.a.	n.a.
Tobacco	24011010; 24011090 24012010; 24012090	n.a.	n.a.	n.a.

Product	HS code	Percentage of TRQ allocated to state-trading enterprises in		
	24013000; 24021000 24022000; 24029000 24029000; 24031000 24039100; 24039900 48131000; 48132000 48139000; 55020010 56012210; 84781000 84789000			
Crude oil	27090000	n.a.	n.a.	n.a.
Processed oil	27100011; 27100013 27100023; 27100024 27100031; 27100033 27100039	n.a.	n.a.	n.a.

Source: WTO 2014 at 102-3

4.2.5 Product Testing and the CCC Mark

Since 2002 China requires certain products to be approved by the China National Certification and Accreditation Administration (CNCAA), the organisation charged with performing safety testing before a product may be imported or sold in China. Once approved, the CNCAA allows the product to bear the China Compulsory Certification (CCC) mark. While this is an important step in ensuring that products sold in China meet certain safety standards, the CNCAA makes the process unnecessarily difficult for foreign companies' products to be approved. The US-China Business Council regularly petitions China to change the application procedure as it is inefficient and expensive (USCBC 2013a).

The rules that outline the approval of products for the CCC mark in some cases differ significantly from international standards. In 2009, for example, the EU banned cosmetics testing on animals while in the US, many cosmetics companies have moved away from testing these same products on animals, largely in response to public pressure. But in order to import products into China, the CNCAA's requirements stipulate that the products be tested on animals by the administration's own lab technicians in China (HIS 30.06.2014). As of June 2014, domestic companies are no longer required to test on animals, but products imported into China or sold by foreign companies must still test the product on animals. Adding even just one more stipulation for foreign companies to comply with can significantly slow down a company's product's factory to market speed, thus making the company less competitive.

The approval process for the CCC mark can also be long and drawn out as it is subject to the regulatory authorities' testing centres' availability. The authorities estimate that the process can take between 60 and 90 days and in some circumstances longer (Export.gov n.d.). Furthermore, these tests must be carried out in China regardless of a product's proven safety record abroad or tests already done by US or EU authorities. This therefore forces the products to undergo multiple tests by various authorities worldwide, which slows companies down and costs more money. Meanwhile, for many years prior, the CNCAA accredited many Chinese companies to conduct their own safety tests and self-award the CCC mark (EIU 2010 at 7). As of June 2014, foreign companies are now allowed to have this ability as well, but so far, very few have been approved (ANSI 16.06.2014). The special regulations in order to achieve the CCC mark are in many cases unnecessary and slow down the process for foreign companies to introduce products into the Chinese market.

Although the Chinese government has implemented numerous reforms in order to make the domestic market more accessible to foreign goods and services, the list of restrictions on importers remains long and complex. The following table 66 is based on information collected by the Directorate General Trade of the EC (2014).

Table 66: Selected Restrictions on Imports

Industry	Trade barrier / protectionist practice
Food and beverages	<ul style="list-style-type: none"> • Since May 2013, imported milk, formula and similar products are subject to increased scrutiny for chemical and microbiological contamination. Additionally, every foreign supplier needs to undergo burdensome registration procedures with the State Food and Drug Administration. Details on the administrative process are insufficient and murky. The simultaneous implementation of increased checks and intransparent registration procedures constitute non-tariff trade barriers. • Additional restrictions, imposed in December 2013, required that producers of baby formula that is based on imported base milk powder relocate their base milk powder production lines to other processes. • In February 2014, Chinese authorities forbid imports of pigs and related products from Poland, following the occurrence of the African Swine Fever in that country. Unfortunately, the Chinese side did not take account of the very limited scope of the outbreak or comprehensive countermeasures taken by Polish authorities. The import restrictions go against WTO regulations as food safety was guaranteed through strict adherence to international standards. The Chinese food safety administration denied recognition of disease free areas and put in place a blanket ban in violation of WTO rules. • Beginning in March 2014, Chinese customs require additional customs certificates for imports of wine. While previous rules demanded certificates on a per brand basis, the revised regulation mandate separate certificates for every production batch.

	<ul style="list-style-type: none"> • In May 2014, new regulations introduced the obligation for producers of formula that is based on imported milk powder to combine wet and dry mixing processes in one location. • During the following month, the revised Food Safety Law tightened standards and introduced cumbersome and intransparent application procedures for food importers. The new regulations are especially obstructive in the field of animal products. Furthermore, they prohibit the preparation of food products based on ingredients from diverse origins. • Since June 2014, imports of alcoholic drinks have been severely impacted by new provisions on the risk assessment of phthalates.
Cosmetics	<ul style="list-style-type: none"> • In July 2011, the Chinese government has put in place new testing and approval requirements for new ingredients. However, approval procedures have been progressing in a very slow fashion and only four new ingredients out of 120 applications filed since 2010 have received the green light. The slow pace of evaluation procedures poses significant problems for the industry as innovation in product development is proceeding quickly. This implies that the composition of product exports to China do not incorporate the full extent of product innovation and undermine the competitive position of imported cosmetics. • In December 2013, the State Food and Drug Administration ordered that all imported cosmetics also have to be sold in their producer's home market. Free Sales Certificates were no longer accepted and cargos were rejected.
Power generation equipment	<ul style="list-style-type: none"> • In January 2011, the National Energy Administration (NEA) issued new policy guidelines introducing mandatory certificates for wind turbines. This move has damaged the interests of foreign manufacturers and suppliers as relevant authorities only accept certificates issued in China. Obtaining proper certification under the new standards implies significant efforts on the part of overseas companies. Furthermore, the process is time consuming and removes imported products from the Chinese market until suppliers have been able to complete certification procedures.

Source: EC 2014.

4.3 Export-Targeting Policy Measures

In order to promote export activity as well as steer the composition of China's total export volumes, Chinese government agencies continue to employ a broad range of instruments and dedicated policy programmes. In the following some of the most important of these will be introduced in some detail.

4.3.1 Export Constraints

Export licenses, quotas, duties and other administrative instruments are regularly used to direct export business according to policy priorities and macroeconomic situations. In der Heiden and Taube (2011) have shown that export restrictions have been tightened as authorities have tried to curb the outflow of resource-intensive and polluting products. In a flexible reaction to changing circumstances, authorities relaxed – if not reversed – export restrictions during the economic downturn following the global financial crisis so as to accommodate ailing enterprises.

4.3.1.1 Value Added Tax Rebates on Exported Goods

In 1994 China has introduced a value added tax (VAT) affecting all enterprises and individuals engaged in the sale of goods, the provision of processing, repair and replacement services, as well as the import of goods. VAT rates vary depending on product category between five and 17 percent with steel products and most resources generally taxed at the full rate. While all imported goods will be subjected to the tax, certain products are eligible for rebates upon export. These rebates do not apply uniformly to all goods but are administered on a product-specific basis to support Chinese industry policies. In order to adjust the VAT rebate scheme to changing macroeconomic environments and development priorities, tax and customs authorities revise the catalogue of products eligible for rebates and/or change product specific rebate rates several times per year. Operating such a flexible rebate system allows economic policy decision makers to align the volume and composition of exports with industrial policy strategies. Because of their immediate effect on companies' propensity to export, rebate rates have proven to be a very effective instrument of foreign trade policy.

Since the VAT rebate program has the effect of influencing export incentives, it can be utilised to adjust the share of exports. In the case of international trade frictions, which have become increasingly frequent since the global economic downturn, Chinese authorities may withdraw steel products from export markets and reroute them to the domestic market simply by lowering or eliminating pre-existing VAT rebates. The opportunity to artificially increase or reduce the supply of certain goods on the home market also plays a significant role for Chinese industrial policy (Taube and in der Heiden 2009). By pushing up domestic supply, the government can intensify competitive pressures and drive down prices. While this creates problems for steel producers, it confers benefits upon steel users in downstream industries. At the same time, the fierce competition that follows from bottling up supplies in the Chinese market strains the profitability of companies and forces weaker players to exit. Determined to reduce the large number of small-scale inefficient operations and to consolidate the industry around a competitive core of only a few dozen firms, Chinese authorities have consistently cancelled VAT rebates in the lower market segments worst affected by overcapacities (PWC 2006).

One of the most important reasons for Chinese authorities to resort to VAT rebate adjustments is to discourage the exportation of products commonly referred to as 'two high, one resource'. This term is used to characterise energy intensive, resource intensive and polluting products that are mostly located towards the low end of the market and have a low value added relative to inputs (GOSC 2010). Chinese policy documents state that it is in the national interest to prevent the exportation of goods that put a large burden on the environment and resource use while yielding little in the way of profits or learning advantages for companies. This should also prevent China to play host to the dirtiest, least profitable low tech elements of the international value chain for steel. While this is of course reasonable for a country like China, which is already suffering from severe environmental damage, there are also purely economic reasons shaping this approach as will be demonstrated next.

Reductions and cancellations of VAT rebates on exports have led to sharp drops in export quantities of raw materials (if export volumes were not already limited by quotas) and a domestic price level which is lower than it should be under normal circumstances. Limiting outflows is pursued in line with China's industrial policy frameworks. Firstly, downstream production processes can benefit from cheaper access to an important input. Secondly, market potential and profitability of upstream producers is largely reduced, paving the way for industry consolidation.

It is important to highlight that the mechanisms used to curb exports in some areas can be reversed depending on the situation. In the years preceding the world financial crisis, the Chinese government has undertaken a series of VAT rebate cuts in order to put an end to soaring exports of raw materials and commodity grade products. The crisis changed hit many Chinese producers hard as export volumes and prices plummeted. Diminished profit margins further reduced outflows of commodities already subject to export constraints (Taube and in der Heiden 2009).

Eventually, the State Council and the MOFCOM decided to rescue distressed industries by reinstating or re-raising VAT rebates on many products. This caused a rebound in export activity as commodities regained competitiveness in major export markets. As China and the world economy gradually turned toward economic recovery, exports soared again, leading the government to once again terminate VAT rebates on polluting and low value added commodities from 2010.

Industrial policies for the aluminium and steel industries established a clear case for product-specific, technology-sensitive discretionary application of the VAT export rebate system. It has become clear, that the Chinese government considers VAT rebates a legitimate and effective tool to steer exports in ways conducive to its industrial policy framework. The real application of the program closely follows provisions cited in various policy documents. Export restrictions did not target technology intensive products.

4.3.1.2 *Export Duties*

Duties take the form of ad valorem taxes levied on the price of certain goods upon exportation. In many cases, such duties have been imposed in lieu with VAT rebate cancellation in order to amplify the trade constraining effect. According to Chinese Regulations on Import and Export Duties, duties shall be imposed on any good upon entering or leaving the country unless decided otherwise by the state council. There are two government agencies trusted with administering import and export duties: the Customs Tariff Commission is mainly in charge of determining which goods are subjected to duties and adjusting relevant duty rates (State Council 2003b). The GAC is tasked with the actual supervision and control of goods entering or leaving the country. As such, it collects duties as well as other charges related to goods crossing the border into or out of China.

4.3.1.3 *State Trading*

The 2004 *Foreign Trade Law of the People's Republic of China*, allows the government to limit international trade in certain goods to state-trading companies. The key reasons for maintaining these businesses under government control are:

- (1) safeguard sufficient supplies to meet domestic demand,
- (2) protect the environment,
- (3) conserve limited resources,
- (4) ensure food security, and
- (5) prevent large price fluctuations.

Coal exports can serve as an example here. While imports are not subject to state-trading, only four enterprises have the legal right to export. The list of approved coal state-trading enterprises for the coal sector has remained unchanged 2011. It only covers the following companies:

- China National Coal Group Co.
- Shanxi Coal Import & Export Group Co.
- Shenhua Group Co., Ltd.
- China Minmetals Co.

The following table 67 lists all commodities that were still subject to state trading provisions by late 2014.

Table 67: Export Products Subject to State-Trading Arrangements, 2011-13

Product (HS code)	Enterprises
Rice 10061011; 10061019; 10061091; 10061099; 10062010; 10062090; 10063010; 10063090; 10064010; 10064090	China National Cereals, Oil and Foodstuffs Import & Export Co. (renamed as COFCO in April 2007); and Jilin Grain Group Import & Export Co. Ltd.
Maize 10051000; 10059000; 11042300	China National Cereals, Oil and Foodstuffs Import & Export Co. (renamed as COFCO in April 2007); and Jilin Grain Group Import & Export Co. Ltd.
Cotton 52010000; 52030000	Chinatex Cotton Import & Export Corporation; Xinjiang Uygur Autonomous Region Cotton and Jute Import & Export Co.; Xinjiang NongKen (Group) Import & Export Co. Ltd.; China National Cotton Reserve Corporation.
Coal 27011100; 27011210; 27011290; 27011900; 27021000	China National Coal Group Corporation; Shanxi Coal Import & Export Group Co. Ltd.; Shenhua Group Corporation Ltd.; China Minmetals Corporation.
Crude oil 27090000	SINOCHEN Corporation; China International United Petroleum & Chemicals Co.; China National United Oil Co.
Processed oil 27101110 (from 2012, change to 27101210); 27101120 (from 2012, change to 27101220); 27101191 (from 2012, change to 27101291); 27101199 (from 2012, change to 27101299); 27101911; 27101912; 27101919; 27101921; 27101922; 27101929; 27101991; 27101992; 27101999; 27111100; 27102000 (start from 2012)	SINOCHEN Corporation; China International United Petroleum & Chemicals Co.; China National United Oil Co.; China National Offshore Oil Corporation; China National Aviation Fuel Group Corporation.
Tungsten ore and products 26110000; 26209910; 26209090; 28418010; 28418040; 28259012; 28259019; 28259011; 28418020; 28418030; 28499020; 81011000; 81019400; 81019700	STEs are listed in MOFCOM Circular Shang Mao Han No. 1135 of 2012.

Product (HS code)	Enterprises
Antimony ore and products 26171010; 26171090; 28258000; 81101010; 81101020; 81102000; 81109000	STEs are listed in MOFCOM Circular ShangMaoHan No. 1135 of 2012.
Silver 71061011; 71061019; 71061021; 70161029; 71069110; 71069190; 71069210; 71069290	STEs are listed in MOFCOM Circular ShangMaoHan No. 1135 of 2012.
Tobacco and by-products 55020010; 24011010; 24011090; 24012010; 24012090; 24013000; 24021000; 24022000; 24029000; 24031000; 24039100; 24039900; 48131000; 48132000; 48139000; 56012210; 84781000; 84789000	STEs are listed in MOFTEC Announcement No. 44 of 2001a.
Tea 09021010; 09021090; 09022010; 09022090	State trading temporarily abolished since 2005.
Soybeans 12011000; 12019010; 12019020; 12019030; 12019090	China has not applied state trading since it joined the WTO.
Silk 5001; 5002; 5003; 5004; 5005	State trading temporarily abolished since 2005.
Unbleached silk 50071010; 50072011; 50072021; 50072031	China has not applied state trading since it joined the WTO.
Cotton yarn 520411; 5205 (excluding 520528; 520547; 520548); 520710; 520419; 5206; 520790	China has not applied state trading since it joined the WTO.
Woven fabrics of cotton 520811; 520812; 520813; 520819; 520911; 520912; 520919; 521011; 521019; 521111; 521112; 521119	China has not applied state trading since it joined the WTO.

Source: WTO 2014 at 104-5

4.3.2 Export Promotion

The following documentation focusses on some of the most important policy instruments designed to promote export activities of Chinese firms.

4.3.2.1 Export Subsidies Provided by the Chinese Government

As one tactic in its attempt to promote exporting more goods, the Chinese government directly subsidises companies that export products abroad. Chinese firms from industries such as solar panel producers, steel makers, and auto makers all receive much international press for the subsidies they receive in China, a benefit that foreign competition argues is egregiously unfair. Should China be given market economy status as some lobbyists in Brussels desire, penalizing China or Chinese companies for unfairly undercutting foreign competition would become significantly more difficult as the underlying assumption of a market economy is that businesses are able to compete equally. Drawing from THINK!DESK's past studies in export subsidies, the following paragraphs list the various promotions that the Chinese government offers to companies which engage in significant amounts of foreign trade. The following table 68 provide an overview of subsidy payments.

Table 68: Total Disbursements of Export Promotion Subsidies

2010	2011	2012	2013	2014	Total
387,149,855	356,800,485	481,742,107	725,202,653	502,174,762	2,453,069,862

Source: Wind Data

In 2014, at least 399 enterprises have benefitted from various types of export promotion subsidies. The ten largest recipients are listed in the following table 69.

Table 69: Top 10 Recipients of Export Promotion Subsidies in 2014

Rank	Enterprise	Amount
1	China Railway Group Limited	100,300,000
2	China Greatwall Computer Shenzhen Co., Ltd.	22,551,005
3	Jinjian Cereals Industry Co.,Ltd.	15,522,418
4	Angel Yeast Co.,Ltd	11,706,695
5	Jihua Group Corporation Limited	10,280,000
6	Jiangsu Hengli Highpressure Oil Cylinder Co., Ltd	10,221,867
7	Zhengzhou Yutong Bus Co.,Ltd.	9,860,000
8	Xiamen King Long Motor Group Co.,Ltd.	7,113,032
9	Xiamen ITG Group Corp.,Ltd	7,034,657
10	Xiamen XGMA Machinery Company Limited.	6,444,915
Total		201,034,589

Source: Wind Data

4.3.2.1 Prizes for Export Performance

Government bodies regularly award monetary prizes to export oriented companies. To create export incentives, the government of Hunan Province has handed out prizes based on export performance. These were awarded to local companies that registered exceptionally strong export growth in the preceding year. The program was launched in 2005 and discontinued in 2008 (Hunan Province 2005). Other provinces and cities maintain similar arrangements. The following table 70 provide data on export performance awards received by companies at China's two stock exchanges.

Table 70: Total Disbursements of Awards for Export Performance

2010	2011	2012	2013	2014	Total
2,152,141	1,299,600	909,010	34,180,324	5,981,842	44,522,917

Source: Wind Data

In 2014, at least 17 enterprises have obtained export performance awards. The ten largest recipients are listed in the following table 71.

Table 71: Top 10 Recipients of Export Awards in 2014

Rank	Enterprise	Amount
1	Shenzhen Zhongheng Huafa Co.,Ltd.	3,393,000
2	Zhejiang East Crystal Electronic Co., Ltd.	896,780
3	Luxshare Precision Industry Co., Ltd.	360,813
4	Jiangsu Akcome Science & Technology Co.,Ltd.	324,000
5	Chaozhou Three-Circle (Group) Co.,Ltd	217,500
6	Guangdong Orient Zirconic Ind Sci & Tech Co.,Ltd.	200,000
7	Zhejiang East Crystal Electronic Co., Ltd.	146,920
8	Lianhe Chemical Technology Co.,Ltd.	126,000
9	Baiyang Aquatic Group,Inc.	105,729
10	Hubei Fuxing Science and Technology Co.,Ltd	65,000
Total		5,835,742

Source: Wind Data

4.3.2.2 *Upgrading of companies' export product portfolios*

The strong technology-orientation that guides general industrial policy guidelines also represents a key feature of strategic trade policy. Enterprises across all manufacturing sectors are called upon to shift the focus of their export business to high technology products. Various government agencies provide financial support to help companies position themselves in market segments for high value added goods. Tables 72 and 73 showcase the grant giving operation.

Table 72: Total Disbursements of Export Products Subsidies

2010	2011	2012	2013	2014	Total
31,725,426	22,433,672	28,517,753	44,687,355	16,989,114	144,353,320

Source: Wind Data

In 2014, at least 21 enterprises have benefitted from government subsidies under this programme. The ten largest recipients are listed in the following table 73.

Table 73: Top 10 Recipients of Subsidies for Upgrading the Export Structure

Rank	Enterprise	Amount
1	Jiangsu Hengli Highpressure Oil Cylinder Co., Ltd	10,221,867
2	Wuhan Fingu Electronic Technology Co., Ltd.	913,698
3	Lanpec Technologies Limited	700,000
4	Xiamen Kehua Hengsheng Co.,Ltd.	600,000
5	Hubei Dinglong Chemical Co.,Ltd.	586,342
6	Xiamen Kehua Hengsheng Co.,Ltd.	500,000
7	Wuhan Golden Laser Co., Ltd.	498,059
8	Jiangsu Hongda New Material Co.,Ltd.	480,000
9	Fujian Longxi Bearing (Group)Co.,Ltd	426,189
10	Wuhan Guide Infrared Co.,Ltd.	422,769
Total		15,348,924

Source: Wind Data

4.3.2.3 *Matching Export Revenues with Subsidies*

A company that exports products is in some localities eligible to receive subsidies based on the value of the goods the company exports. The CPC Working Committee of the Administrative Committee of Xi'an Economic and Technology Development Zones provides export incentives by paying exporters 0.01 RMB for every USD they generate in export sales. In this way, AVIC Aviation Engine obtained 133,510 RMB in 2011 and 2012 (AVIC Aviation Engine 2012 AR at 124, 126). Linking the amount of exported value to the amount of money given in subsidies is blatantly unfair to foreign companies as it could immediately discount the price of the goods in proportion to the subsidies they receive.

4.3.2.4 *Subsidies for Offsetting Domestic Transportation Costs for Export Goods*

In order to lower the cost of exporting goods, some localities compensate companies for the domestic component of shipping costs on products to be exported. Shaanxi Province manages a special fund to make disbursement under this scheme. In 2014, Jinduicheng Molybdenum Co., Ltd. obtained allocations worth 2 million RMB from this fund through the provincial Finance Department (Jinduicheng Molybdenum 2014 AR at 93). Avic Aviation Engine Co., Ltd. has received a total of 3,470,900 RMB between 2012 and 2014 from this scheme (Avic Aviation Engine 2012 AR at 125; 2014 AR at 157, 158). With essentially a “free ship-

ping to the border” benefit for these companies, the cost of doing business is significantly lower. In 2014, at least 11 enterprises have benefitted from government subsidies under this programme, cf. table 74.

Table 74: Total Disbursements of Subsidies Offsetting Domestic Transportation Costs for Export Goods

2010	2011	2012	2013	2014	Total
1.195.188	-	5.864.158	2.197.700	6.595.200	15.852.246

Source: Wind Data

4.3.2.5 Subsidies for the Steady Increase of Export Trade

Companies that steadily increase export trade are also rewarded with subsidies to further increase exports. The government of Shanxi Province has created a programme in this style to stimulate exports of local businesses. The additional financial incentives are clearly contingent on increasing export volumes. In 2013 and 2014, AVIC Aviation Engine Co., Ltd. has received a total of 1,007,840 RMB from this scheme (AVIC Aviation Engine 2013 AR at 118; 2014 AR at 157). This policy, along with several other of the aforementioned benefits, clearly links exports with subsidies.

Export Contingent Subsidies in Xi'an City / Shaanxi Province

In the context of the China Western Development plan, Xi'an has sought to encourage an export oriented economy like that of the neighbouring eastern provinces that allowed them to develop more quickly. At both provincial and municipal levels of government, the government in Shaanxi gives subsidies to companies contingent on their exporting abilities. Weichai Power Co., Ltd. which is based in Xi'an City of Shaanxi Province reported export related subsidy income of 40,731,829 RMB. The company has been praised by the economic and technology development zone as an advanced exporting enterprise, it has received award funds for steadily expanding exports and obtained grants for compensating transportation charges of export goods inside China (Weichai Power 2013 AR at 189). The following tables 75 and 76 illustrate these subsidisation practices:

Table 75: Total Disbursements of Subsidies for Export Expansion

2010	2011	2012	2013	2014	Total
11,754,012	33,420,079	57,067,732	141,934,782	118,163,099	362,339,704

Source: Wind Data

In 2014, at least 42 enterprises have rewards from the government for expanding their export business. The ten largest recipients are listed in the following table 76.

Table 76: Top 10 Recipients of Subsidies for Export Expansion in 2014

Rank	Enterprise	Amount
1	China Railway Group Limited	100,300,000
2	Jiangsu Hengli Highpressure Oil Cylinder Co., Ltd	10,221,867
3	Fangda Carbon New Material Co.,Ltd	2,000,000
4	Gifore Agricultural Machinery Chain Co.,Ltd.	675,700
5	Irigo Display Devices Co.,Ltd	434,400
6	Jiangsu Akcome Science & Technology Co.,Ltd.	324,000
7	Ingenious Ene-Carbon New Materials Co.,Ltd.	311,218
8	Yuan Longping High-Tech Agriculture Co.,Ltd.	293,300
9	Qinchuan Machine Tool & Tool Group Share Co., Ltd	250,000
10	China Meheco Co.,Ltd.	249,800
Total		115,060,285

Source: Wind Data

4.3.2.6 Famous Export Brand Programme

In 2005, eight central ministries and administrations have jointly launched a program to build up and promote famous export brands. This decision was inspired by the strong promotion effect developed country brands have on the success of their international sales, not least in China, and based on the experience of Chinese exporting companies. While Chinese brand-ed products had become successful in the domestic market, almost none were known outside China when the program was drafted in 2004. Furthermore, relatively low quality levels, weak innovative capacity and the absence of established brands had been found to impede export performance. Consequently, establishing the 'Key Export Brands to be Cultivated and Developed by the Ministry of Commerce' (in the following referred to as export brands for convenience) set out to support Chinese companies in exploring international markets and expanding exports through building up famous exports brands (MOFCOM et al. 2005). In order to achieve this aim, the initiating document introduces a very comprehensive set of preferential policy measures, several of which shall be mentioned briefly.

Exporters participating in the pilot program were encouraged and supported

- (1) to upgrade their technologies and innovative capacities,

- (2) to improve their international marketing abilities and
- (3) to expand exports of products with own export brands.

It was envisioned that over the five years until 2010, the share of exporting companies with proprietary brands and the proportion of exports with proprietary brands should both double from their 2005 levels to reach 40 percent and 20 percent respectively (MOFCOM et al. 2005). While all exporting companies were encouraged to meet the basic preconditions for managing proprietary brands by, for example, registering trademarks overseas, undergoing quality and environmental certification or setting up international sales networks and after sales services, a small number of major companies were chosen for the formation of successful export brands in a lighthouse project. The 'Export Brand Development Fund' was set up specifically to support enterprises in the formation of proprietary brands and the development of famous export brands (MOFCOM et al. 2005).

Companies selected for participation could benefit from numerous advantages: they were

- (1) granted preferential allocation of import and export quotas,
- (2) preferred in government procurement activities in all areas and at all levels of public administration,
- (3) supported in enhancing R&D activities and improving innovative capabilities,
- (4) assisted in the procurement of advanced technology and key equipment,
- (5) helped to continuously increase technology content and value added of famous export brand products,
- (6) granted preferential access to subsidised loans from both the Technology Renovation Project and the Research and Development Fund for Export Products,
- (7) supported in the establishment of state-level technology centres,
- (8) given access to the Foreign Trade Development Fund,
- (9) encouraged to present themselves at domestic and international trade fairs, conduct advertising in overseas target markets, establish overseas operations for marketing and after sales services (MOFCOM et al. 2005).

Furthermore, the Administration of Quality Supervision, Inspection and Quarantine gives priority to the exemption of famous export brands from inspection if companies can meet certain conditions. The General Administration of Customs provides a channel to ease and speed up customs procedures. Banks and insurance companies are encouraged by the government to ease access to financing and insurance services. The China Export Credit Insurance Company is encouraged to treat famous export brand companies as 'key clients', develop customised service offerings to cater to their individual needs, grant discounts on relevant fees and give priority to providing value-added services. Chinese embassies and consulates overseas should provide further support by conducting research on industries and markets and communicating relevant information to famous export brand companies. If one of these firms plans to launch sales in a particular foreign market, local embassies and consulates should offer guidance and help. They should also seize every opportunity to promote the famous export brand.

Considering the comprehensive nature of this programme, we can expect that participating companies may benefit substantially. Like all the EP measures presented here, the 'famous export brand' policy has a strong bias towards technology-intensive products and could thus serve to advance upgrading in the steel industry in accordance with general industrial policy. Research has revealed that at least one steel mill, Tianjin Steel Pipe Company, has been accepted into the national programme (MOFCOM 2005a). At this stage it is not possible to determine how successful attempts at establishing famous export brands have been.

The initiating document of the Famous Export Brand programme specifically called for lower level governments to implement similar programmes and launch their own famous export brands. The city of Ma'anshan, located in Anhui Province and home to Ma'anshan Iron and Steel Group, one of China's largest steelmakers, is such a case. As late as July 2008, the municipal government released the initiating document for the local version of the famous export brand programme. While the document largely echoes the original text drafted at the central government level, citing the same motivations and expressing the same expectations, the scope of support measures announced is smaller. The assistance measures to be mobilised by local authorities, however, include a one-time cash reward and fiscal support channelled through a special fund to create famous export brands.

Authorities have pledged assistance to companies pursuing activities such as applying for international certifications, trademark registrations, marketing campaigns or participation in Chinese and overseas trade fairs. Since technological upgrading plays a major role in the programme's concept, with regard to the procurement of advanced technologies and equipment, the government of Ma'anshan promises to endorse applications of local projects to support funds administered at the provincial or national level. In the same vein, companies admitted into the local programme will be recommended for acceptance into the provincial and national programmes.

After details of the program became known internationally, it was subject to strong criticism. In December 2008, the U.S. registered a dispute at the WTO to go against the program which it considered to be in violation of Article 3 of the Agreement on Subsidies and Countervailing Measures by promising export subsidies to a selected group of companies. In December 2009, China eventually agreed to discontinue the program (Global Subsidies Initiative 2010).

Magang Group, a large SOE from Anhui Province, was among the first six companies accepted into the programme in the first selection round (Ma'anshan City 2008). After the regular two-year participation period had expired at the end of 2010, the company was re-admitted for another two years. In this way, Ma'anshan Iron and Steel Group was eligible for the support measures until the end of 2012 (Ma'anshan City 2011). However, table 77 shows declining payouts under this scheme:

Table 77: Total Disbursements of Export Brand Subsidies

2010	2011	2012	2013	2014	Total
1,992,500	700,000	1,415,000	65,100,585	100,000	69,308,085

Source: Wind Data

4.3.2.7 Provision of Export Insurance by the State-owned China Export & Credit Insurance Corporation

Furthermore, the provision of export insurance by the state-owned China Export & Credit Insurance Corporation (Sinasure) may be regarded as an additional mechanism creating export incentives by lowering the risks associated with international sales. Sinasure, established in late 2001, is the official export and credit insurance company in China and has a service network covering the whole country. In 2008, the last year for which data is available, the sum insured totalled USD 62.8 billion and covered 3.4 per cent of Chinese exports. According to its official website:

“Sinasure is mandated, in accordance with the Chinese government's diplomatic, international trade, industrial, fiscal and financial policies, to promote Chinese exports and investments, especially exports of high-tech or high value-added capital goods, by means of offering export credit insurance against non-payment risks, and providing services in financing, information and receivables management” (Sinasure 2011).

As stated in its company profile, Sinasure's mission is to promote the export of Chinese goods, first and foremost in the high-value-added and high-tech segment, in accordance with government policies including industrial policy. In its 2008 annual report, Sinasure claims to support the development of key industries, contribute to the upgrade of trade and focus on promoting exports of high- and new-tech products as defined by the Chinese in the Catalogue of Chinese High-tech Export Products (Sinasure 2009). With regard to the steel industry, Sinasure has confirmed that black metal smelting and rolling processing are among a set of twenty industries serviced. In a nutshell, there is little doubt that Sinasure serves to support the implementation of industrial policy objectives specifically by assuming commercial export credit risks and thus facilitating high-tech exports (WTO 2008).

4.3.2.8 Export Credit Insurance Assistance and Development Fund

The MOFCOM and the MOF have established the *Fund* to improve access to and reduce the costs of insurance services (MOFCOM 2005b). In 2006, both ministries called (1) to further

enhance the effectiveness of the programme, (2) to widely distribute information concerning its benefits, (3) to motivate more enterprises to take advantage of preferential terms and (4) to find and solve problems in its implementation (MOFCOM and MOF 2006). Provincial authorities have also made use of the programme to stimulate local export activities. In Jiangsu Province, the scheme is jointly operated by the department of finance, the economic and trade department and the Jiangsu branch of Sinosure acting as a co-organizer. According to an official statement, the Nanjing branch of Sinosure reports accepted projects to the provincial government twice a year. This should serve as an indication of the close relationship between public administration and Sinosure's local business units (Jiangsu Province 2003). As a result, export credit insurance fees are heavily subsidised: enterprises associated with the provincial government are even entitled to a 50 per cent discount and provincial authorities have urged lower administrative levels to take corresponding measures in their jurisdictions (Jiangsu Province 2003). In 2006, the discount on insurance fees for exporting firms associated with the provincial government of Jiangsu was reduced to 30 per cent. However, this discount could be increased by an additional 10 per cent if exports were destined for emerging markets.

As pointed out earlier, Sinosure's services are also an important component of the comprehensive support package for companies taking part in the Famous Export Brands programme. In order to best integrate Sinosure into government dealings with supported companies, effective coordination mechanisms have been established on all administrative levels. These mechanisms then allow Sinosure to facilitate contact with target companies in the programme, collect information on their individual needs and explore how export credit insurance could contribute to their development. In Jiangsu Province, the departments of finance and foreign trade and economic cooperation jointly work out specific policy measures to best apply export credit insurance support to individual companies. This implies that Sinosure's insurance fees are subsidised by local authorities. Companies in the brand programme receive special attention and are regarded as 'key clients' by Sinosure. As such, the latter works out customised service offerings and treats the needs of brand companies with great care and on an individual basis.

Furthermore, the insurer assists companies in establishing risk management systems and provides them with risk analyses on overseas target markets. As far as fees are concerned, Sinosure offers a special discount of 10 per cent on its regular fees for client companies assigned to it by central and provincial governments. Due to space restraints, it is not possible to elaborate further on the close relationship between Sinosure, the authorities and target companies. However, from this brief outline it is clear that Sinosure is tightly involved or even co-opted in a system aimed at supporting the firms selected for the Famous Brand Programme (MOFCOM and Sinosure 2005; MOFCOM and Jiangsu Province 2006).

On top of providing price discounts for insurance services, various government organisations have also handed out grants to help keep companies' costs low. Table 78 provides some more details.

Table 78: Total Disbursements of Subsidies for Export Insurance

2010	2011	2012	2013	2014	Total
63,843,174	108,310,417	123,724,796	155,057,768	122,852,627	573,788,782

Source: Wind Data

In 2014, at least 186 enterprises have obtained grants supporting export insurance. The ten largest recipients are listed in the following table 79.

Table 79: Top 10 Recipients of Subsidies for Export Insurance in 2014

Rank	Enterprise	Amount
1	Xiamen King Long Motor Group Co.,Ltd.	7,113,032
2	Xiamen XGMA Machinery Company Limited.	6,444,915
3	Jiangsu Etern Co.,Ltd	5,000,000
4	Ningxia Orient Tantalum Industry Co.,Ltd.	4,773,643
5	Shanxi Taigang Stainless Steel Co.,Ltd	4,270,300
6	Hareon Solar Technology Co.,Ltd.	4,102,200
7	Lifan Industry (Group) Co.,Ltd	3,830,000
8	Jiangsu Highhope Corporation	3,203,234
9	Jiangsu Holly Corporation	3,004,400
10	Shantui Construction Machinery Co.,Ltd.	2,590,000
Total		44,331,724

Source: Wind Data

4.3.2.9 Provincial Export Support Funds

Several Chinese provinces operate special export support funds allocated in the provincial budget. All schemes identified in the course of the research for this paper are limited to companies registered inside the respective provinces, engage in the production of either high value added products and technology intensive products.

Liaoning Province (2001) has launched an *Export Development Support Fund* in August 2001. The fund is supposed to help reach strategic export targets specified in the *10th Five Year Plan of Liaoning Province* and encourage local enterprises to further expand their export activities. All projects eligible for funding must stimulate export growth as well as strengthen and consolidate the position of Liaoning companies in international markets. Par-

ticular targets include key products, key enterprises and goods from key regions. More precisely, funding projects should serve (1) to encourage the exportation of major 'backbone' products with a large impact on economic development, (2) to consolidate existing international market shares, (3) to defend and develop exports to important customers, (4) to encourage the formation of scale advantages in exports and (5) to encourage the export of famous, high quality and branded products. If all the conditions can be met, the participating company can receive a six-month – 12 month under certain conditions – loan at privileged conditions handed out through financial institutions under commission from the government.

Export support funds hand out subsidies to designated enterprises or support the exportation of special export products. The following table 80 offers an account of the financial dimension of this practise.

Table 80: Total Disbursements of Subsidies for Export Enterprises

2010	2011	2012	2013	2014	Total
40,092,699	22,281,478	30,450,465	19,637,244	9,647,545	122,109,431

Source: Wind Data

In 2014, at least 29 enterprises have benefitted from government subsidies under this programme. The ten largest recipients are listed in the following table 81.

Table 81: Top 10 Recipients of Subsidies for Export Enterprises in 2014

Rank	Enterprise	Amount
1	Beijing Xinwei Telecom Technology Group Co., Ltd	1,530,000
2	Xiamen King Long Motor Group Co.,Ltd.	1,400,000
3	Holitech Technology Co., Ltd.	1,039,800
4	Loncin Motor Co., Ltd.	770,000
5	Zhejiang Hailide New Material Co.,Ltd.	700,000
6	Anhui Xinhua Media Co., Ltd	596,100
7	Porton Fine Chemicals Ltd.	550,000
8	Zhejiang Shengyang Science and Technology Co., Ltd.	400,000
9	Guangbo Group Stock Co.,Ltd.	321,050
10	Jiangsu Lugang Science & Technology Co.,Ltd	300,000
Total		7,606,950

Source: Wind Data

Table 82: Total Disbursements of Export Products Subsidies

2010	2011	2012	2013	2014	Total
10,336,551	10,517,058	6,312,543	2,842,770	4,179,094	34,188,016

Source: Wind Data

In 2014, at least 9 enterprises have benefitted from government subsidies under this programme. The ten largest recipients are listed in the following table 83.

Table 83: Top 10 Recipients of Export Products Subsidies in 2014

Rank	Enterprise	Amount
1	Tianjin FAW Xiali Automobile Co.,Ltd.	2.015.000
2	Xiamen Kehua Hengsheng Co.,Ltd.	600.000
3	Jiangsu Hongda New Material Co.,Ltd.	480.000
4	Fujian Longxi Bearing (Group) Co., Ltd.	426.189
5	South Huiton Co.,Ltd.	360.000
6	Double Coin Holdings Ltd.	177.300
7	Yantai Shuangta Food Co., Ltd	60.000
8	Sichuan Nitrocell Corporation	21.305
Total		4.139.794

Source: Wind Data

4.3.2.10 Foreign Trade Transformation and Upgrading Demonstration Bases

In 2010, the MOF and MOFCOM jointly launched a new initiative to promote exports across a wide range of industries. Centred on so called “Foreign Trade Transformation and Upgrading Demonstration Bases” (in the following: FTTUDB or Demonstration Bases), this new approach is intended to boost export competitiveness in spite of rising production costs, weak demand and a steady appreciation of the RMB.

The launch of this programme coincides with the introduction of promotion policies for SEI. The latter cover seven high tech industries that China hopes to cultivate as nuclei of future economic growth.²¹ SEI promotion may well be regarded as the most concrete manifestation of high political ambitions to groom a select group of innovative companies from sunrise industries into “national champions”. This approach is characterised by a narrow focus on cutting edge products and technologies that were cherry-picked from the very top-end of various manufacturing industries. Related to policies and measures aim to establish China as the locus for ground-breaking innovation that comes from pioneering R&D and translates into products that revolutionise key aspects of economic activity. For the time being, foreign trade is regarded as an important source of knowledge and resources but not as an end in itself. Once the desired technology breakthroughs and related commercialisation have materialised, the country’s exporters are to establish a strong world market presence.

²¹ These include: energy efficient and environmental technologies, next generation information technology, biotechnology, advanced equipment manufacture, new energy, new materials and new-energy vehicles

The Demonstration Bases approach complements the SEI policy in that it covers a much wider product range. While the orientation is geared towards upgrading production technologies, improving product quality and optimizing industrial operation across a variety of parameters, it targets “traditional industries” that may even strike as mundane when compared to the seven SEIs. The products and technologies covered in this scheme are selected from the following industries

- (1) agriculture²²,
- (2) light industry²³,
- (3) clothing²⁴,
- (4) medicine²⁵,
- (5) new type materials²⁶,
- (6) specialty chemicals²⁷ as well as
- (7) hardware and construction materials²⁸.

Unlike in the SEI policy, the Demonstration Bases approach does not draw a clear line around the supported goods. It is a measure to stimulate export competitiveness in the near term and lacks the lofty ambitions that characterise SEI promotion. Unfortunately, regulation on the FTTUDB programme is rather vague and does not offer much clear cut information on support measures.

The initiation document of the programme (MOFCOM 2011a) only provides for a general overview of the goals. In line with general industrial policy, it explains that the approach serves to accelerate the transformative development in the field of foreign trade and consolidate China’s position as a major trading country. In order to boost export competitiveness of Chinese manufactures, industrial clusters are to be formed and cultivated. These FTTUDB are to attract and concentrate relevant companies and resources from certain industries (and regions) in order to generate agglomeration economies. Under government guidance, these Demonstration Bases are to become “lighthouses” for successful development of export business in their respective industries across China. According to the Ministry’s outline doc-

²² Garlic, apple juice, tea, flowers, poultry meat, live pig and pork, bee products and cashmere

²³ Furniture, wood products, bags, toys, sports apparel, eye glasses, rattan and bamboo products, outdoor leisure products, shoes, stationary, musical instruments, clocks, plastic products, glass products, ceramics products (except building and sanitary ceramics), kitchen products, jewelry, care products and products from light industry applying special techniques.

²⁴ Clothing for men, women and children, leisure clothing, jeans products, silk products, underwear, neckties, sweaters, trousers, cashmere products, bed clothers, towels, curtains, industrial textiles, fabric from synthetic fibre and cotton and special textiles

²⁵ Traditional Chinese medicine, western medicine, medical instruments, healthcare and rehabilitation equipment

²⁶ Ferrous and non-ferrous metal products, non-metallic products, products from composite materials and cermics.

²⁷ Dispersed and reactive dyes, fertilizer, electronic chemicals, water treatment agents, flame retardants, surfactants, chemicals for paper production, additives for food and feed, organic fluorine materials, silicon fluoride, special rubbers and thermoplastic elastomers, polyurethane, functional polymer materials, carbon fibre materials and adhesives.

²⁸ Hardware, wall windows, bathroom plumbing, metal structures, flooring (except stone), building and sanitary ceramics as well as stone.

ument, after five to ten years of (government) nurturing, the bases should have evolved into major drivers of China's export business. By that time, the group of Demonstration Bases should have developed distinct competitive advantages, fine-tuned their specialisation, optimised Common Service Platforms and cultivated the outstanding role of leading enterprises (MOFCOM 2011a at 1).

The programme is managed by a small leadership group that takes charge of unified planning, guidance, direction, coordination and management. The "unified" nature of state support may be illustrated using the case of the Sichuan Province Panzhihua City Vanadium and Titanium Industries Base. The Panzhihua municipal government and party commission dispatch staff to take leading positions. Because the Base's management is an arm of the local government, services for companies can be offered in a very comprehensive way. This arm's length interaction between investors and authorities allows for greater convenience, less red tape, improved public service and other means of support.

As the principal central government body tasked with making foreign trade related industrial policy, MOFCOM has taken the lead and pledged to bring to bear its unique role in the field of export promotion (MOFCOM 2012b at preamble). Support measures are targeting ten areas: staff training, market information, qualification requirements, product innovation, quality improvements, brand development, market exploration, public relations, emergency response and trade facilitation.

Lower level governments are instructed to support MOFCOM's promotion policies and complement them with own measures. Furthermore, the foreign trade and economic cooperation departments on sub-national levels are tasked to replicate the Ministry's approach and establish their own schemes.

Until March 2015, the MOFCOM has recognised 179 individual Demonstration Bases. Their names, locations and industry affiliations have been released in batches. The third and most recent batch was published in December 2013. While most Demonstration Bases are concentrated in the economically advanced coastal regions, MOFCOM has approved at least one FTTUDB in each provincial level jurisdiction on the mainland.

The initiation document of the FTTUDB programme points out that Demonstration Bases should focus on signature products of their host communities. Consequently, the programme does not intend the establishment of new industry agglomerations. Rather, it recognises existing export oriented industry clusters to promote technology upgrading and boost their international competitiveness. Thus, FTTUDB are based on economic and technology development zones, high and new technology development zones, areas under special customs supervisions and leading industrial enterprises with a strong sectoral specialisation. Through strengthening capabilities related to marketing, branding, quality, technology standards and services, authorities expect to render Demonstration Bases into pillars for sustained export growth (MOFCOM 2011a at 1).

In order to be recognised, clusters must generate a certain volume of exports, possess strong export potential and high technology levels. The Demonstration Bases have to conform to industrial policy which implies that technologies and products are covered in the encouraged or permitted categories of the *Catalogue for the Guidance of Structural Adjustment of Industries*. Furthermore, operations of FTTUDB must create high added value in the sense that all resident enterprises taken together can cover a large part of the value chain. The Demonstration Bases must be able to generate significant agglomeration advantages while maintaining a clear-cut focus on certain product (MOFCOM 2012b at 4.1; MOFCOM 2013b at 4.1 and Shandong Province 2011a at 3.1).

Importantly, governments in the hosting locations must set up departments dedicated to FTTUDB administration. Furthermore, they have to issue special cluster cultivation plans and draft related supporting policies. In order for a Demonstration Base to be approved by MOFCOM, local support policies must be translated into concrete promotion measures (MOFCOM 2012b at 4.2; MOFCOM 2013b at 4.2 and Shandong Province 2011a at 3.2).

Firstly, the promotion of cluster formation aspires to raise efficiency and lower costs due to the close proximity and arms-length interaction of operations from all parts of the value chain as well as related and supporting sectors. Because of the high profile nature of the national Demonstration Bases, local government agencies can be expected to lend their full support to these undertakings. This likely involves the provision of investment incentives, such as the allocation of land and resources at below market rates. It would be only consistent with past practice that companies obtain investment subsidies or subsidised loans.

Secondly, the enhancement of existing clusters as Demonstration Bases implies that significant financial resources are made available for upgrading supporting infrastructures. This is by no means limited to the building of new roads or railway lines. In case of the Panzhuhua base, several new power plants were constructed, a number of national level laboratories were established and measures were taken to attract highly skilled talent (MOFCOM n.d.). Finally, the Chinese government has introduced so called “Foreign Trade Common Service Platforms” (in the following: FTCSP or Platforms) to support enterprises located inside Demonstration Bases. The next section will provide a detailed account of these vehicles.

The *12th Five-Year Programme for the Development of Foreign Trade* expressly urges the construction of FTTUDB on the basis of existing development zones or industry clusters. The authors pledge to support FTTUDB to establish common service platforms for R&D, product design, experimenting and test as well as international marketing among other areas. The innovative capacity of Base enterprises is to be improved along with their capabilities in market exploration and quality management. Overall, their competitiveness and influence in the international marketplace is to be strengthened (MOFCOM 2012b at 4.5).²⁹ Other 12th Five-Year Programmes also discuss the FTTUBs approach in various contexts.

²⁹ Additionally, the 12th Five-Year Programme for the Development of Foreign Trade states that fiscal policies should support trade promotion mechanisms. Special support should be provided

- The *12th Five-Year Programme for National-Level Economic and Technology Development Zones and Border Economic Cooperation Zones* calls for improving the competitiveness in foreign trade and actively promoting the establishment of FTTUDB (MOFCOM 2012b at 4.8).
- The *12th Five-Year Programme for the Development of Central and Western Regions* urges the establishment of FTTUBs in the context of developing and opening border regions in China's western provinces. It calls for relevant policies and measures to be drafted to promote cross border economic cooperation zones in order to accelerate development (NDRC 2012 at 54).
- The general 12th Five-Year Programmes of various provinces, such as Hebei, contain calls for setting up, strengthening or making full use of FTTUDB.

While the documents released by the MOFCOM contain relatively little concrete information, provincial documents provide for some useful insights. Across China, government authorities of provinces, cities and even districts have displayed a high degree of activity. Several provincial-level jurisdictions have been found to administer their own Demonstration Base programs. These include Anhui Province, Guangdong Province, Guangxi Zhuang Autonomous Region, Shandong Province and Shanxi Province.

Based on government documents from various provinces that were obtained by THINK!DESK since the beginning of the year, it is clear that FTTUDB are regarded as special zones for export promotion by sub-national authorities. For convenience reasons regulation in several instances simply refers to "export bases". Examples include Tianjin City, Jiangsu Province and Hunan Province (Tianjin City 2011, Jiangsu Province 2012a, Hunan Province 2013a, Ningbo City 2011).

Shandong Province is one of several sub-national jurisdictions that operate their own Demonstration Base programmes. The 2011 *Opinions concerning Accelerating and Promoting the Establishment of Foreign Trade Transformation and Upgrading Demonstration Bases*, jointly released by the provincial departments of finance and foreign trade, provides some limited insights. It specifies that funds, technologies, talent and other resources available in the province should be concentrated in the Demonstration Bases. Ample use should be made of the Special Fund for Establishing Demonstration Bases managed by the central government and efforts for claiming more such funds should be redoubled (Shandong Province 2011b at 4).

From the above it is clear that the establishment of FTTUDB and Common Service Platforms are closely intertwined. In a simple analogy, the cluster-based export promotion system may

for common services that upgrade the structure of exports. Similarly, support is to be offered for international market exploration, brand development, overseas product certification, quality management systems, drafting of industry standards and other measures (MOFCOM 2012d at 5.2).

be likened to a computer system. While the Demonstration Bases constitute the hardware, the Common Service Platforms represent the software required to make the system operational.

Great importance is assigned to setting up Common Service Platforms. All locations with favourable conditions are to receive support in establishing such platforms. This should also become a spending focus for the Special Fund for Encouraging Foreign Trade and Economic Cooperation, managed by the provincial Finance department (Shandong Province, 2011b at 4.1). Support should be made available to help Base enterprises take part in trade promotion activities, such as trade fairs, inside and outside China (Shandong Province, 2011b at 4.2). From an institutional perspective, the collaboration between the department of Foreign Trade and those in charge of VAT refunds, quality inspection, customs, taxation and banking are to be strengthened so that base enterprises may take advantage of simplified procedures when dealing with various authorities (Shandong Province 2011b at 4).

4.3.2.11 Foreign Trade Common Service Platforms

In 2010, the MOFCOM introduced *Foreign Trade Common Service Platforms* (in the following: FTCSP or Platforms) with funds from the central government's budget. The special funds are used to subsidise the provision of services to companies located in FTTUDB. Like Demonstration Bases, Platforms have to conform to sectoral industrial policy and support the optimisation of the foreign trade structure, the upgrading of industrial sectors and the cultivation of brands. Their main objective, however, is to promote the international development of traditional industries, high and new technology industries as well as strategic emerging industries with competitive advantages (MOF and MOFCOM 2011 at 1.2). The administration of FTCSP is in the hands of MOF and MOFCOM. The two ministries jointly draft plans and the regulatory framework that covers, among other things, the accreditation of platforms, their supervision and control (MOF and MOFCOM 2011 at 7).

In addition to the central government, provincial-level governments have created special funds for the promotion of FTCSP. Service providers that want to operate in FTTUDB under the FTCSP framework, thus have to – among other things – file an application with the provincial Finance Department for accessing those special funds. A document from Zhejiang Province (2011) stipulates that

“the main purpose of the special fund is to support enterprise engaged in foreign trade through the provision of Foreign Trade Common Service Platforms based on local or provincial levels. ... Such platforms are to offer foreign trade enterprises services through institutions related to technology innovation, quality testing, management consulting, market exploration, information research, staff training, shared use of equipment, storage and transportation as well as other areas” (Zhejiang Province 2011 at 3).

According to the MOFCOM (2011a), FTCSP offer a variety of services:

- (1) Common testing and detection platforms. Specialised centres for material analysis offer reliable testing and detection services, provide official certificates and relevant consulting services to resident base enterprises.
- (2) Common technology and R&D platforms. Provide prospective and basic R&D on key common-use technologies, experiment coordination and other services. Strengthen companies' ability to independently develop new products, new technologies and new techniques. Promote technology renovation and upgrading. Raise the technology content and added value of products.
- (3) Common certification and registration service platforms. Offer certification services relating to domestic and overseas quality management systems, product performance and environmental protection. Conduct trademark registrations and technology related consulting services.
- (4) International marketing services platform. Provide services in the following areas: world market related trademark policies, popularisation, public relations, enterprise exchanges, after sales and others.
- (5) Common trading platform. Provide trading places related to foreign trade development (including specialised marketplaces, domestic and overseas trade fairs etc.). Offer stable, reliable and convenient internet platforms for negotiating and trading as well as other business services.
- (6) Common product presentation platform. Provide services for showcasing products by way of demonstration, presentation and advertising.
- (7) Common information platform. Set up repositories for materials related to science and technology, patents, technology standards and others. Provide data analysis, business consulting, market information, early warnings on trade conflicts, laws and regulations, industry and trade policy, output-sales ratios and other business services.
- (8) Common training platform. Offer training courses for professionals on promoting and accelerating the transformation of the foreign trade development mode. Provide training on international trade and confronting trade conflicts for the staff of resident enterprises as well as of the department of foreign trade and finance (Jiangsu Province 2012a).
- (9) Common logistics platform. Provide transportation, storage and other logistics services depending on the demand characteristics of the Bases' signature industry.

The service providers must possess the necessary financial resources, location, facilities, equipment and staff to serve a significant proportion of the enterprises inside a Demonstration Base. Provinces and cities also demand that service providers must have a local presence through a registered enterprise. Furthermore, such units have to sign an agreement with relevant government authorities, thereby committing themselves to offering preferential services to Demonstration Base enterprises. Expenses related to normal business operation of service providers can be reclaimed from supervising authorities at a rate of 70 percent (for units located in old industrial bases or central and western regions, like Chongqing, Hunan or

Jilin) or 50 percent for all other locations. However, compensation is limited to the following expenditure items:

- Purchases of equipment and technology
- Development of systems and technologies
- Purchases of technology materials, information materials and statistical materials
- Renting or leasing premises used for staff training or trade fairs
- Costs for operation, maintenance and advertising (Jiangsu Province 2012a)

The MOFCOM transfers support funds to provincial-level authorities and tasks them with their distribution across FTCSP/FTTUDB. The number of national-level Demonstration Bases has a direct impact on the share of funds that can be disbursed to provincial-level Demonstration Bases, as displayed in the following table 84:

Table 84: Distribution of Funds Between Central and Provincial level FTCSP

No. of national-level FTTUDB located inside the province	Share of MOFCOM special funds assigned to ...	
	national-level FTTUDB	provincial-level FTTUDB
≥ 5	50 %	50 %
3 – 4	70 %	30 %
1 – 2	90 %	10 %

Source: Wind Data

The amounts allocated to individual FTCSP differ across regions. In 2013, Hunan Province capped the subsidy for each FTCSP, e.g. international marketing, in national-level Demonstration Bases at 2 million RMB per year. For provincial-level FTTUDB, the annual maximum subsidy was fixed at 1.5 million RMB. The province also limited total annual allocations per FTTUDB to 5 million RMB at national and 3 million RMB at provincial level (Hunan Province, 2013a at3.5).

Hunan Province also offers a good glimpse on the amount of subsidies related to FTCSP. The province is host to 77 FTCSP serving enterprises located in both national and provincial level FTTUDB. 16 of the Platforms are recognised at the national-level while another 56 are operating under the province's own FTCSP programme. In late 2013, only 27 Platforms had been complete while the remaining 50 were on different stages of construction. In fact, it appears that across China, sub-national governments have taken the initiative to expand both number and operations of FTCSP in recent years. The following table 85 provides some key information on FTCSP in Hunan Province:

Table 85: FTCSP in Hunan Province in 2013

	FTCSP complete	FTCSP under construction	Total Investment (mln RMB)	Service providers	Revenues (mln RMB)	Degree of subsidisation (percent)
Inspection & detection		3	77.1	9	2.34	15
Technology & R&D	12	19	1,349.9	388	332.8	24
Experimenting & detection	4	7	177.1	364	15.8	24
Common-use technology & R&D		3	177.1	3	0.6	
Product presentation		1	12.0	8	0.7	60
Others	10	18	654.9	1,082	81.5	32
Total	26	51	2,448.1	1,854	433.8	31.0

Source: Hunan Province 2013b.

Since launching the FTCSP programme in 2010, MOF and MOFCOM publish annual guideline documents to highlight priorities and clarify operational details. Subsequently, the foreign trade departments of provincial and municipal governments draft their own guidelines which typically closely match the central government model. Local FTCSP regulation references – in most cases even mirrors – the central blueprints until 2013. Since then, differences have started to emerge.

In 2013, MOF and MOFCOM have repealed a good part of the regulation on the FTCSP programme, including the annual outlines for 2011 and 2012 (MOF and MOFCOM 2013b). This does not imply the programme's termination but signifies a shift towards a seemingly more balanced approach for export and import promotion. The 2013 guidelines removed much of the detail provided in previous versions on FTCSP funding and operation. While FTTUDB are still mentioned explicitly, the import component of trade promotion is mentioned alongside traditional export supporting measures (MOF and MOFCOM 2013a). In April 2014, the MOF and MOFCOM (2014) jointly released the *Circular concerning the Reporting Work for the Special Fund for Foreign Trade Development*. The document does not include the traditional

promotion of export-oriented manufacturing. Instead, it emphasises overseas investment projects of Chinese companies, service exports through outsourcing and offshoring as well as the export of Chinese technology through sales, licensing, joint-venture companies and other arrangements. The most recent edition also puts a focus on the importation of products with high technology content and the potential to improve the living standard of the general population. Neither FTTUDB nor FTCSP are mentioned explicitly as it appears that all potentially objectionable content – in the context of the WTO Agreement on Subsidies and Countervailing Measures – has been purged (MOF and MOFCOM 2014). Common Services Platform related policies has not stopped since then, but the documents released by the MOF and MOFCOM since spring 2014 discuss the concept in the context of SME promotion and other, more market oriented policies.

Judging from the documents issued by provincial-level authorities that were available in February 2015, sub-national authorities have been slow to make this transition. Annual guidelines for 2013 have been generally shorter and less detailed compared to previous ones but key information on the nature of FTCSP and the cost components for which service providers may see compensation remain largely unchanged. Jiangsu Province may serve as a case in point. In 2013, Jiangsu Province, for example started to support FTCSP in “National-level Integrated Product Marketplaces for Domestic and Foreign Trade” and “National Import Trade Promotion Innovation Demonstration Bases” (Jiangsu Province 2013a). In Hunan Province, however, regulation for the same year has largely remained unchanged – maintaining the previous elements of export promotion policy. Support targets named include various types of national-level bases and “Export Bases recognised by the Government of Hunan Province” (Hunan Province 2013a).

The Demonstration Bases create agglomeration advantages through improved communication, learning, trade and other exchanges among resident enterprises. Porter (1990) has analyzed in detail how the formation of industry clusters can translate into competitive advantages. Logistics costs are reduced. The sharing of common resources and infrastructures allows cost benefits for individual enterprises. Frequent interaction with suppliers and consumers at arm’s length helps spur product innovation, makes product development more efficient and shortens the “time to market”. Increased competition drives improvements in products and services while, at the same putting pressure on prices. This list is not meant to be exhaustive, as plenty of other agglomeration advantages maybe conceived of depending on the actual situation.

However conducive clusters may be for competitiveness, it is the FTCSP that serve to amplify agglomeration advantages and make them available easier and cheaper. The Platforms offer an effective leverage point for promotion measures and imply that government support generates the maximum effect.

By way of the FTTUDB approach, Chinese government authorities effectively designate certain enterprises as key exporters. They then aid these companies by means of providing services for free or at discounted prices. As the approval of FTTUDB depends on their export

performance – both in terms of past track record and future potential – the operation of CSPs should be viewed as provision of export contingent subsidies. These artificially boost the competitiveness of base enterprises and constitute a violation of China's WTO Agreement on Subsidies and Countervailing Measures.

It is important to note, that the FTTUDB programme is but one of several similar schemes. However, it is the single most important in the field of export promotion. In addition to the variety of schemes imposed for different purposes, there is also a significant overlap between them. Since its launch in 2009, over 300 individual NTIIDB have been recognised across the China. Except for Bases covered by both programmes, operation and supervision of FTTUDB and NTIIDB has remained largely unconnected.

As the support mechanisms in operation behind these programmes are typically not fully disclosed, promotion measures are difficult to identify and quantify. Likely, government assistance is less institutionalised and occurs more on an ad-hoc basis than in a steady flow of benefits. However, the great interest of regional governments, companies and industry associations to get included under such programmes suggests net benefits.

Arguably due to the growing number of trade defence case brought against Chinese exports in recent years, government authorities have softened the language used in regulatory documents. Fewer concrete solid leads are hidden inside longer manuscripts. Vague and assertions of technology upgrading, market opening and the balancing of social, ecological and economic needs cloud the view on the persistence of traditional subsidisation practices. The degree of difficulty in tracking down incriminating content has thus increased substantially.

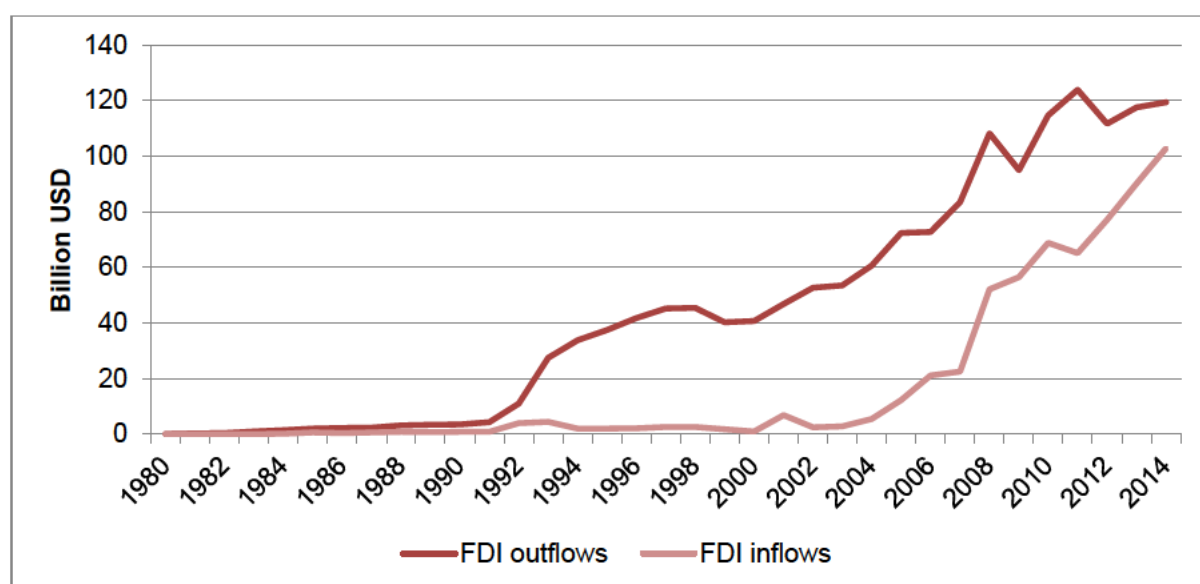
At the time of writing, in March 2015, it is still unclear what parts of the FTTUDB and FTCSP programmes are still in operation. Seeking to improve its understanding of FTTUDB and FTCSP, the U.S. has requested consultations with China at the WTO on February 11th 2015. Several other countries, including the European Union, Japan and Brazil, have joined the initiative since then (WTO 2015).

Companies located in FTTUDBs have been selected to benefit from special support policies for export oriented industry clusters. Since the recognition of Demonstration Bases by both central and local governments is tied to export performance, it is safe to say that promotion measures provided for and limited to companies in such Demonstration Bases constitute export contingent subsidies. Upon its WTO accession, China has signed the Agreement on Subsidies and Countervailing Measures pledging to forgo export subsidisation. The combination of policies described here indicates a violation of this protocol.

5. INSTITUTIONAL SET-UP AND POLICY GUIDANCE OF CROSS-BORDER CAPITAL FLOWS

The Chinese government's approach to foreign direct investment has been one of "two speeds" where inward FDI have been (cautiously) promoted early on, while outward direct investment activities remained greatly restricted for more than a quarter century after the begin of the reform era. Unlike Japan or South Korea, which have experienced decades of strong growth during the second half of the 20th century but largely discouraged inward foreign direct investment (FDI), China has – from the onset of economic reforms – sought to attract foreign companies to settle in China and serve as source of technological expertise and management skill. While China only so slowly eased restrictions on the operation of foreign invested enterprises (FIE), it did pursue a much more open approach compared to other high performing East Asian economies, like Taiwan, South Korea, and Japan. A surge in outward investment occurred only with a lag of about 15 years relative to FDI inflows (see figure 11).

Figure 11: Development of Chinese FDI Inflows and Outflows, 1980-2014



Source: Bloomberg data

5.1 Inward Foreign Direct Investment

Throughout the 2000s, China has been the largest recipient of FDI among all emerging markets and developing countries. Inflows surged after China had joined the WTO in 2001 and growth rates remained high until the world financial crisis. In 2008, the value of FDI actually utilised had reached 95.3 billion USD. After a slight dip in 2009, growth resumed, albeit at a slower pace. Since 2011, inflows have stagnated at about 119 billion USD. Under the im-

pression of economic cooling in China and still weak fundamentals across much of Europe, the growth rate has approached zero – a sharp contrast to the double digits of previous years. It should be noted that the official statistics do not contain FDI in financial services. Adding the investments of bank, securities firms and insurance companies, would substantially increase the headline numbers (NBS 2015).

With 55 percent of FDI (66.2 billion USD), the service sector has been the most important target of overseas investments. At 7.8 percent, year on year growth has also been the most dynamic. Distribution and transport services have featured prominently with a combined inflow of 12.2 billion USD. The Agricultural sector attracted a mere 1.5 billion RMB which accounted for only 1.3 percent of the total and also marked a steep decrease of 15.4 percent against the previous year. Manufacturing related FDI also marked a significant decline: -12.3 percent. However, Chinese factories still received 39.9 billion USD in new FDI – 33.4 percent of the total. Communications equipment, computer and other electronic equipment and transportation equipment have been the sub-sector attracting the most investment (CASS 2015).

The sources of China's FDI inflows are highly concentrated. A total of 112.6 billion USD originated in one of ten countries – this represents a share of 94.2 percent. These were: Hong Kong, Singapore, Taiwan, Japan, South Korea, the U.S., Germany, the U.K., France and the Netherlands. Importantly, FDI inflows from major sources have displayed significant declines. Investments from Japan, the U.S. and the E.U. dropped by 38.8 percent, 20.6 percent and 5.3 percent respectively (ibid).

The bulk of FDI inflows (82 percent) went to the highly developed coastal provinces in East China. The poorer Central and Western Regions accounted for the remaining 18 percent. While the growth rate of FDI inflows in both East and West China stood below the national average of 1.7 percent, provinces in central China enjoyed an increase of 7.5 percent (ibid).

5.1.1 Governmental Steering of FDI Inflows

The Chinese government continues to regulate and restrict foreign direct investment in spite of a stream of previous reforms and liberalisation announcements, e.g. following the third plenum of the 18th CPC Central Committee in November 2013. After China joined the WTO in 2001, a large number of sectors were opened to overseas investors and China has acted largely in line with its liberalisation commitments from the accession protocol. However, by the time of writing in early 2015, a significant number of business areas still remained closed off for foreign direct investment (FDI) as the Chinese government sought to protect the market position of domestic companies in general and SOEs in particular.

While openly protectionist regulation has gradually been abolished, the present legal and administrative environment is geared to first and foremost strengthen the international com-

petitiveness of domestic companies. This is done through a combination of encouraging import substitution and export promotion. Either way, support for technology upgrading and the build-up of innovative capacities are omnipresent. This policy orientation does not seem aimed at establishing China as a regional component of an international free market economy and a reliable constituent of the global value chain. Rather, the government is cultivating a new generation of national champions which it envisions to become future market leaders in the world market. Foreign investment is invited to play a facilitating role – mainly through contributing vital knowhow related to technology development and management practices. The Chinese government imposes limitations on FDI inflows and directs investments to selected industrial sectors and geographic regions where foreign investors can help improve the capabilities of home-grown companies.

The *Catalogue for Guiding Foreign Investment Industries* (outlined in section 2.1 of this study) represents the very foundation of FDI related regulation. Since 1995, the Catalogue serves as the principal instrument for Chinese government to influence the volume and composition of incoming FDI. Drafted by the Ministry of Commerce and signed off by the State Council, the Catalogue has no equivalent on sub-national levels of the administration.

A special *Catalogue for Guiding Foreign Investment in Central and Western Regions* is managed on the central government level. The designation is misleading in that the document covers 22 of 33 provincial level jurisdictions including some located in the Eastern part of the country, like Anhui Province. The regional scope reflects the national strategy to promote the economy in less developed areas. These are covered in three major regional development schemes: the *Great Western Development*, the *Rise of Central China* and the *Revitalisation of Traditional Industrial Areas and the North East*. Each of these provide for special investment incentives, like tax breaks or loan interest subsidies, for both Chinese and foreign enterprises that engage in businesses contained in the Catalogue. The latter specifies 15 to 30 encouraged industries individually for each of the 22 regions.

The policies and administrative measures issued on all levels of government reference the catalogues to ensure FDI accumulates in designated sectors and regions. Since its first release, the catalogue has reduced the number of products and technologies that are off limits for foreign invested enterprises (items listed in the restricted and prohibited categories). In partial compliance with its WTO commitments, China has opened a growing number of industrial sectors to foreign capital. Nevertheless, Chinese authorities insist that FDI needs to be guided in support of national industrial policies. This implies that even the most recent revision of the *Catalogue* – issued in March 2015 – forces foreign companies into joint ventures with domestic counterparts. Regulations like these are intended to create opportunities for technology spillovers and accelerated development of home-grown players. Furthermore, they allow domestic companies to share the profits overseas investors reap from their sales in the country.

Beyond the implementation of *Catalogues*, Chinese authorities resort to discretionary measures in order to demand technology transfer. Investment approval may hinge on establishing of research facilities in China and/or conducting R&D in certain fields.

The automobile sector is a case in point. The manufacturing of complete vehicles and components has been listed in the encouraged category of the Catalogue for many years. The provisions demanded that foreign carmakers enter joint ventures with domestic peers in order to set up operations inside the country. As local counterparts lacked experience and expertise in vehicle design, manufacturing and sales, overseas firms had to contribute much of their own technologies and knowhow in order to ensure smooth operations. From the perspective of the multinational company, this arrangement, which can also be found in other industries, may well be described as trading key technologies for market access.

Following a 2011 revision of the catalogue, all but the most advanced technologies were removed from the encouraged category. In fact, the manufacturing of complete vehicles, special purpose automobiles and motorcycles was shifted to the permitted category in 2011 and moved to the restricted category in 2015.

Most of the remaining automobile items in the encouraged category are related to electric drive technologies and related infrastructure. Such products and technologies belong to the New-energy Vehicle field which is prominently supported as a strategic emerging industry since 2010. While foreign investors are invited to participate in the development of this special sector, the *Catalogue* stipulates that such projects have to be realised together with local partners. The foreign company may not hold majority ownership in the resulting joint venture. This arrangement exposes foreign companies to the risk of IP loss with potentially disastrous consequences for their global operations.

In spite of these practices, the competitiveness and market shares of Chinese vehicles continued to lag behind foreign brands. Consequently, the government issued a directive, urging joint ventures to establish new domestic brands instead of boosting foreign ones. International heavy weights like GM and Volkswagen, which had invested heavily in the formation of brand equity, were then forced to cooperate with their respective partners in China for launching new brands from scratch. This approach was highly counterproductive for foreign companies as sales and profits of international brands were registering consistent growth. The shift in industrial policy thus has to be seen as a means to boost the competitive strength of domestic players. Confronted with the need to turn their new Chinese brands into commercial successes quickly, foreign OEMs brought to bear their full expertise in marketing and brand development. The necessary transfer of advanced branding capabilities to China-based subsidiary of major OEMs created significant learning opportunities for local players. Through this move, Chinese authorities forced the trade of marketing and branding capabilities for continued market access.

The most recent revision of the *Catalogue for Guiding Foreign Investment Industries* was released by the NDRC and the MOFCOM on March 10th 2015 and entered into force one

month later. It contains a total of 349 individual technologies and, like previous documents, divided them into three categories: encouraged, restricted and prohibited. Overall, the *Catalogue* opens more sectors of the Chinese economy to foreign competition and removes ownership restrictions in some areas. The number of restricted and prohibited items was cut while that of encouraged items increased. Starting from April 10th 2015, foreign invested enterprises (FIE) are explicitly encouraged to build and operate urban subways, light rail as well as other means of rail bound passenger transportation systems. The need for a domestic joint venture partner was eliminated. Wholly foreign owned accounting and auditing companies are encouraged as well, as long as the leading partner is a Chinese national. Similarly, FIE are welcome to construct and operate grids together with a domestic counterpart as the major shareholder.

The restricted category was streamlined compared to the 2011 document as the number of items dropped from 79 to 38. Restrictions were lifted on the production of drugs, chemicals and general apparatuses as well as several other manufacturing industries. In the service sector, FIEs are now allowed to build and operate high grade hotels, office buildings and exhibition centres. The development of land, investment in second hand real estate and operation of real estate brokerage agencies was upgraded to the permitted category. Importantly, FIEs are free to set up non-bank financial institutions and operate e-commerce platforms independent from a local partner. In basic and value-added telecommunications services, FIEs may seek ownership shares of 50 percent and 49 percent respectively.

In the prohibited category only minor changes occurred. The sectors newly opened to FIEs are rather insignificant. Following April 10th, 2015, FIEs are free to invest in the

- processing of green tea and special tea with China's traditional crafts (famous tea, dark tea, etc.)
- manufacture of open-lead-acid cells, mercury button type silver oxide cells, paste di-oxide-zinc battery and nickel cadmium cells
- manufacture enamel products
- manufacture Xuan-paper (rice paper) and ingot-shaped tablets of Chinese ink
- operate golf courses and villas

On the downside, and potentially much more important, FIEs are barred from offering legal affairs consulting, the only exception being the provision of information about environmental impact of Chinese law. Furthermore, the wholesale and retail of tobacco leaf, cigarette and re-dried leaf tobacco as well as other tobacco products is prohibited.

This illustrates the need for a careful review of how individual sectors and technologies relevant to a majority of foreign investors are treated in the *Catalogue* revisions. Putting emphasis on a reduction in the number of restricted and prohibited items, as done by Chinese state media, may overstate the effective market entry liberalisation for FIEs.

Industry leaders have highly criticised the Catalogue because of its continued discrimination against foreign companies. An FIE planning to invest in the Chinese market and register an

entity must firstly meet the various requirements pertaining to the category in which it fits. In a second step, its application is subjected to lengthy review procedures handled by various government supervisory bodies. Ensuring compliance consumes valuable time and funds.

Even though the new version of the *Catalogue* is a marked improvement on past versions, its arrival has not been met with great excitement. Although welcoming the new revisions, the European Chamber of Commerce still criticised the *Catalogue* calling it

“only a small step for the Chinese Government’s own stated ambitions of giving full play to the market” (EUCCC 2014).

The American Chamber of Commerce likewise welcomed the changes but immediately called for even bigger steps to be taken in order to promote freer trade (AmCham China 2015):

“While being a promising first step in the direction of a freer market in China, the Catalogue still discriminates against foreign businesses, thus making the Chinese economy a planned economy, not one based on a free priced system. Restricting which industries foreign companies may enter and subjecting them to different rules than domestic companies is blatantly protectionist and does not qualify the country as a market economy.”

Future improvements may be possible through the *Foreign Investment Law* which may be approved by the National People's Congress at its next annual session in spring 2016. A draft version has been published on the website of the MOFCOM for public deliberation and solicitation of comments (MOFCOM 19.01.2015). If enacted, the current draft version would introduce some promising measures, such as a negative list which defines products and technologies that are off limits for international investors – similar to the negative list which exists for FIE in the China (Shanghai) Pilot Free Trade Zone.

5.1.2 Foreign Investor's Perception of Chinese FDI Regulation

In its 2014 member survey, the European Union Chamber of Commerce in China found that doing business in China had become more challenging. Overall, 51 percent of companies perceived their China business had gotten more difficult within the last few years³⁰. Frustration was particularly strong at large companies (over 1,000 employees) and China veterans (operating in China for over ten years) with 68 percent and 62 percent respectively.

The survey also concludes that

“European companies still perceive themselves to be discriminated against in the Chinese marketplace. It is estimated that European companies that are members of the European Chamber missed out on EUR 21.3 billion in revenues in FY 2013 due to market access and regulatory barriers” (EUCCC 2014 at 7).

55 percent of respondents stated that foreign-invested enterprises received less favourable treatment than their domestic competitors. Perceived discrimination against foreign business was particularly pronounced in the fields of legal and financial services reflected by 90 percent and 68 percent of sector companies respectively. Market access barriers were seen hindering future business activities by 55 percent (EUCCC 2014 at 15).

“Were the authorities to ‘practice what they preach’ and implement meaningful reforms, especially administrative and market-access related ones, European companies are prepared to re-intensify their investment. ... More than half (55 percent) of European companies would be more likely to increase investment if greater market access were afforded to foreign companies” (EUCCC 2014 at 7).

The survey found that the perceived degree of discrimination against foreign business was higher in industries in which SOEs are major competitors. Examples include financial services, transport and logistics as well as utilities. The correlation between both factors may not be incidental but speaks for a continued preferential treatment of state firms (EUCCC 2014 at 37).

In line with surveys from previous years, almost half of the companies claimed to have lost out on business opportunities due to either market access or regulatory constraints. 37 percent of companies reported to have missed out on 10-25 percent of their annual revenues this way.

With regards to IPR, the proportion of companies satisfied with relevant laws and regulations has declined compared to previous surveys. Whereas the legal framework design is in the hands of the central government, local authorities are in charge rule enforcement. Member perceptions on the latter improved as the share of companies rating government perfor-

³⁰ Nine percent believed it had become easier.

mance as (very) inadequate dropped from 69 percent in 2011 to 63 percent (EUCCC 2014 at 38).

A survey of the American Chamber of Commerce in China revealed that 60 percent of its members felt less welcome in China in 2014 compared to the previous year. The 2013, only 41 percent of member companies made that statement. With regards to the application of Chinas *Anti-Monopoly Law*, 49 percent of companies felt subject to above-average levels of scrutiny by enforcing authorities. (WSJ 02.09.2014).

Similarly, the proportion of enterprises finding a preference for local competitors in regulatory treatment has increased 2014 to 54 percent from 46 percent in 2011. At the same time, the number of companies rating the regulatory environment of their industry as transparent has dropped from 21 percent to 14 percent. Lack of clarity ranked at the top of the regulatory challenges for companies in 2014: 78 percent of enterprises found this to hinder their operations in China (AmCham Shanghai 2015).

A different – non-survey based – approach to measure the investment climate for foreign investors in China has been undertaken by the OECD. The OECD's FDI Regulatory Restrictiveness Index provides a benchmarking system to gauge the difficulty that foreign investors face in different industries. The Index combines all discriminatory measures affecting foreign investors, including market access restrictions and departures from national treatment. It integrates four separate indicators: (1) sectoral equity limits; (2) screening procedures; (3) personnel related restrictions; and (4) other restrictions, e.g. land administration and capital repatriation (Thomsen n.d.). The OECD calculates the Index for 58 countries, including all OECD and G20 countries, and covers 22 sectors. The Index is scaled from 0 to 1, where 0 indicates that there are no regulatory impediments to FDI in a specific sector respectively in the weighted average over all sectors. A score of 1 implies that foreign investment is fully restricted in a sector respectively the economy as a whole. I.e. the lower the score, the less restricted the investment regime is for foreign investors.

Overall, China scored 0.42 which is significantly higher than the OECD average of 0.07. The regulatory burden is also the highest among BRIC countries where Brazil, India and Russia, which scored 0.10, 0.26 and 0.18 respectively. While the headline score already indicates significant regulatory restrictions on the free operation of foreign invested enterprises, the values for several individual industries can be even higher. Administrative barriers are particularly high in media, radio, television, telecommunication, utilities as well as legal and insurance services. Along with fisheries and maritime business, these sectors also represent the areas where China shows the most pronounced deviation from the OECD average. On the positive side of the spectrum are businesses in engineering, architecture, hotels, chemicals and forestry which face the least restrictive regulatory environment.

5.2 Outward Foreign Direct Investment

Since the beginning of the 11th FYP, Chinese companies have become increasingly active investing abroad. This follows on the heels of substantial foreign investment inflows to China since the early 1980s. Unlike Japan or South Korea, which have experienced decades of strong growth during the second half of the 20th century but largely discouraged inward foreign direct investment (FDI), China has – from the onset of economic reforms – sought to attract foreign companies to settle in China and serve as source of technological expertise and management skill. While China only so slowly eased restrictions on the operation of foreign invested enterprises (FIE), it did pursue a much more open approach compared to other high performing East Asian economies, like Taiwan, South Korea, and Japan. A surge in outward investment occurred with a lag of about 20 years relative to FDI inflows.

Motives have in the early years been dominated by the need to secure access to overseas raw materials as rapid development had created supply bottlenecks inside the country. Typical examples include the exploitation of foreign oil, gas, iron ore and other resources. Furthermore, Chinese companies have sought to accelerate the pace of technology development and product improvement by snapping up advanced companies and adding their expertise. Increased competition in the domestic market and beginning saturation in some segments have driven the need for increasing competitiveness quickly. The purchase of Putzmeister, a leader in the field of concrete pumps may serve as an example. Thirdly, the need to build up or enhance the brand image has led companies like Galanz, Lenovo, Pearl River Piano, etc. to take over business units or whole companies from Western companies. Former president Jiang Zemin has addressed this point in his report to the 16th National Congress of the CPC in November 2002:

„Implementation of the strategy of "going out" is an important measure taken in the new stage of opening up. We should encourage and help relatively competitive enterprises with various forms of ownership to invest abroad in order to increase export of goods and labor services and bring about a number of strong multinational enterprises and brand names. We should take an active part in regional economic exchanges and cooperation. In opening wider to the outside world, we must pay great attention to safeguarding our national economic security” (Xinhua 18.11.2002).

In recent years, however, the pursuit of market access has gained prominence. As important export markets have erected trade defences against dumping and subsidization practices in China, the establishment of local production provides a channel to tap foreign markets. Tianjin Pipe Co., Ltd., e.g., has set up a production plant in Texas in order to gain access American customers in the petroleum industries for its tubes and pipe products.

While the acceleration of outward foreign direct investment activities is of course to be expected from an emerging market with high growth rates and an increasingly outward oriented economic model, the government has proactively promoted this process. As early as 1999,

the Chinese government introduced the “Going out” strategy to complement the earlier “Leading in” approach to investment inflows. While the strategy has in part been inspired by national prestige, concrete economic needs played a central role. Initially, the approach was aimed at SOE. The 15th National Congress of the CPC urged state-owned firms to become more ambitious in their quest for foreign assets. De jure, private companies could pursue M&A outside China’s borders. At the time, however, most private players lacked the financial means and management expertise to mount takeover bids and successfully complete transactions. As private companies had not been included in the system of supporting policies, their prospects remained dim. It took several years for the regulatory framework to put state and non-state enterprises on equal footing. The *Several Opinions on Encouraging, Supporting and Guiding Non-public Enterprises to Invest Overseas*, issued in 2007, represent a milestone as it introduced a wide array of support measures to companies of various ownership types.

De jure, the current regulatory framework promotes overseas FDI irrespective of classification. *De facto*, strategic policy considerations with regards to supply safety in energy and other resources continue to prioritise SOEs. The imbalance is compounded by existing distortions in the financial markets. Access to bank credit and state funds is often impaired as private companies lack the low-risk profile naturally enjoyed by SOEs. While the number of non-state enterprises venturing abroad has increased, these are mostly large and successful players in the domestic market, like Haier. Financially distressed SOEs in industries like steel, aluminium and mining do not face constraints as private companies. The Aluminium Corporation of China and Minmetals are good examples. The country’s leading aluminium smelter and its largest diversified mining company have reported losses for consecutive years. Thanks to comprehensive government backing, financial performance does not endanger financing for overseas acquisitions and operations.

Launched in the aftermath of the Asian Crisis, the strategy did not have much traction at first. At the time, Chinese investments involved relatively few transactions per year that were carried out by large SOEs. One example was the acquisition of the El Hierro Iron Ore Mine in Peru by Chinese Shougang in 1992. The deal was put on track through intergovernmental negotiations and lacked some of the commercial character found in OECD countries. As growth recovered in the early 2000s the government’s push for outward investment became more effective. By then, the Going Out strategy had been fleshed out by guidelines and administrative measures. The evolution of a regulatory framework combined with the strategy’s introduction in numerous government plans and programmes. A review of the FYP of provinces, autonomous regions and municipalities under the direct administration of the central government showed that all regions, with very few exceptions, promoted the Going Out strategy since the 11th planning period. The initiative had been positioned as integral part of the Chinese economic development model and was frequently referenced in industrial policy guidelines.

The Going Out strategy has profoundly changed the situation for Chinese companies intending to invest abroad. Firstly, it has led to the removal of bureaucratic procedures which had

previously obstructed such transactions. Complicated review and approval requirements were scrapped and enterprises received the go-ahead for proposed deals with less effort and in shorter time. Secondly, it has reduced the financial risks involved in such transactions. As the Going Out strategy penetrated into every aspect of industrial policy guidance, support measures were drawn up on all government levels. An important facilitating role was assigned to the China Development Bank and the China EXIM Bank. The two policy banks were tasked to help with innovative financing solutions and support companies' overseas ventures. Finally, the state-owned China Export Credit Insurance Corporation (Sinosure) entered into a cooperation with policy banks in order to complement the spectrum of specialized financial services offered (China Africa News 2010). Finally, the amount and quality of information on entering foreign markets was substantially improved. The MOFCOM and Chinese diplomatic missions abroad collaborated to compile and publish country and industry specific guidelines. Investors were provided access to inform of risks and opportunities.

The regional distribution of Chinese outward FDI around the world reflects the strong role of SOEs. Most assets acquired by Chinese companies are concentrated in Latin America and Africa. Home to large deposits of coal, copper, iron ore as well as oil and gas, investment volumes in these regions have been exceptionally large. Investments in OECD countries have shown a remarkable increase in recent years but still compare poorly to the business and resource interests Chinese companies have accumulated in developing countries (Economist 31.01.2015; Economist 17.01.2015). The dominating role of SOEs in mining and heavy industries has led the way for Chinese overseas investments. Construction companies, manufacturers of telecommunication equipment, railways and cars have followed suit without ever reaching the investment volumes demonstrated by state-owned resource giants (New African 2015). Since the beginning of the Going Out strategy, China has made use of general foreign policy to help its companies enter overseas markets or tap into raw material deposits (Kind & Wood Mallesons 2011). The Chinese government makes full use of its official development aid programmes to help individual companies secure mining concessions. In order to give weight for domestic companies' resource bids, the MOFCOM works closely with the Ministry of Foreign Affairs (MOFA) and policy banks to negotiate aid deals that may involve the provision of cheap loans, or the construction of telecommunication and transport infrastructure in the partner country.

Since about 2010, several new motives for overseas investments have emerged. Firstly, rising wages and increasing shortages in the supply of low-skilled labour have hurt the competitiveness of manufacturers textiles, apparel and other basic labour intensive goods. The situation is even more challenging for enterprises engaging in pollution or energy intensive industries. Tightening environmental standards, combined with more frequent inspections and larger penalties, have made it difficult for polluting industries to operate in China. Stricter rules prescribe the installation of environmental protection equipment which creates substantial investment costs. Many of these, like steelmakers, aluminium smelters and miners, are operating in sectors plagued by significant overcapacities. Low profit margins have hurt company profits and complicated investments in innovation for the future. The steel industry is a case in point.

In November 2014, Hebei Iron and Steel Group, China's largest steelmaker by output, has announced ambitious investment plans. The company which is owned by the government of Hebei Province and has a stock market listed subsidiary, will establish a large integrated steel plant in South Africa. The new production base is designed for a maximum output of five million tons of crude steel and steel products – about 11 percent of the current capacity under steam in Hebei Province.

The move was inspired by industrial policies which emphasize the elimination of obsolete capacities and streamlining fragmented industries. Among the regions with the most intense pollution levels, Hebei's industry has been blamed for much of the heavy smog that has plagued Beijing for years. The province is also the heartland of the Chinese steel industry, accounting for 20-25 percent of national output – an amount larger than that of any country in the world except China itself. In order to restructure the ailing steel industry and improve its environmental performance, Beijing ordered the provincial government to close down a significant share of its steelmaking plants. By 2017, the province plans to eliminate output potential on the order of 60 million tons for steel, 60 million tons for cement and 30 million weight boxes for glass (China National Radio Online 26.09.2014).

An action plan that was devised by local authorities to organize the removal of industrial assets recommends the physical transfer of plant equipment to new production bases to be established in other countries. The Province supports these measures with special funds as it seeks to limit the damage that central clean-up policies have inflicted on important pillars of the local economy. Until 2023, a total of 20 million tons worth of steel capacity is to be moved to overseas – the rough equivalent of half the annual output of Germany (People Daily 24.11.2014).

However, steel is not the only industry affected by this move: cement, plate glass and several other sectors are to be shrunk by administrative fiat. According to Chinese news reports, exports of industrial capacities are to include 30 million tons of cement and 10 million weight boxes of glass production until 2023 (Hebei News 15.11.2014). The provincial plan, which promises financial assistance to participating companies does not answer the question, where these plants should go and how they would be operate profitably in the future.

6. LINKING-UP WITH THE GLOBAL CURRENCY SYSTEM

In the domestic sphere, the relative exchange value (i.e. the prices) of all goods and factors are set individually. For each individual commercial good, service or factor of production, prices are determined directly and specify the specific demand and supply, i.e. the relative scarcity, of these in a given economic community. Whenever commercial goods, services or factors of production are exchanged across borders, between economic communities which are upholding their own specific currencies and monetary systems, this is no longer possible. In this enlarged economic community spanning two currency systems, a direct, one-by-one determination of scarcity for each individual good, service or factor is not feasible as a common (monetary) denominator is lacking. As such a new common basis for the exchange has to be established by determining the relative international value and scarcity of national currencies, i.e. the international demand for economic goods and resources of a specific economic community, as a whole. This is done with the exchange rate between national currencies.

Internationally traded goods, services and factors are accordingly not priced by directly integrating two specific goods markets located in two economic communities in a joint market, but rather through a filter, the exchange rate, that indicates the relative (international) scarcity of all goods, services and factors of a given economic community.

Given this constellation it is obvious that the correct determination of exchange rates is crucial for the facilitation of a pattern of international exchange and labour division that promotes welfare and dynamic economic development amongst all participating economic actors. “Wrong” exchange rates distort all price relations between interacting economic communities by sending out incorrect signals to the participating actors and bringing about patterns of labour division about that are not in line with the actually existing

- resource endowments
- degrees of competitiveness
- absolute and relative productivity levels.

The whole idea of a transnational welfare community linked through a fabric of interwoven value chains breaks apart and loses its capability to combine the best economic actors world-wide, if the exchange rates underlying the determination of suitable value chain participants are wrong.

The question, in how far the Chinese currency Renminbi is linked up with the global currency system in a way that allows for a correct determination of relative scarcities and a sound international structuring of economic processes of labour division is a matter of heated debates between Chinese government officials and foreign parties. While Chinese government is taking the position that the country’s exchange rate regime is adequate and reflects the ne-

cessities of a developing economy transiting from a planned to a market economy;³¹ foreign observers are highly critical of the way the Chinese exchange rate is being determined and the (wrong) signals it sends out to economic actors in China and the rest of the world. Aizenman (2015), for example, speaks of China's buoyant 2000s, brought about by "a modern version of mercantilism" (at pp. 2-3) and an artificial undervaluation of the Renminbi vis-à-vis other currencies. In his analysis

"[t]he rapid growth and the growing trade and current account surpluses as a fraction of the GDP has occurred in tandem with massive hoarding of international reserves combined with massive sterilization of expanding trade surpluses and financial inflows. These policies aimed at delaying and slowing the real appreciation associated with successful rapid growth. While the resultant growth has been spectacular, it comes with hidden, but growing costs and distortions." (Aizenman 2015, p. 3)

This evaluation is shared by the majority of Western economists. The U.S. Department of the Treasury - Office of International Affairs accordingly sees "a RMB exchange rate that remains significantly undervalued" (2014 at p. 16)

Following this line of reasoning, the Chinese government is intervening massively in the national money and foreign exchange markets in order to keep the Renminbi at an undervalued level that provides Chinese exporters with an unwarranted price advantage vis-à-vis their foreign competitors. In consequence Chinese exporters can expand their export volumes and presence on the global markets beyond their true competitive strength and thereby crowd out other, actually higher performing, foreign firms.

At the core of these distorted international price signals lies the specific institutional set up of the Chinese exchange rate regime. The latter is usually characterised as one of "managed floating" in a framework of horizontal bands.³² According to this arrangement the price of the Renminbi against foreign currencies is determined by means of a state directed mechanism in which market forces play a limited, tightly controlled secondary function. The general principles run as follows:

- Before the start of every trading day the PBoC discretionarily declares a "reference rate" against the US\$.
- This "reference rate" defines the centre of a trading band in which all RMB/US\$ transactions must be settled on this day. Inside this trading band the forces of de-

³¹ See for example the comment of the Chinese authorities on the IMF's Chapter IV evaluation of the country's exchange rate system as well as the international valuation of the RMB in IMF (2014 at 34).

³² The present arrangement is in place since July 2010, but follows closely the lines of the exchange rate regime installed between July 2005 and June 2008. Between June 2008 and July 2010 China reverted to a quasi peg to the US\$ in order to stabilize the currency in the context of the subprime/Lehman crisis.

mand and supply are allowed to determine currency prices. Market forces that would result in prices outside the trading band are repressed.

- The trading band enveloping the central reference rate has been widened several times since the re-installation of this institutional arrangement in 21 July 2010. In its latest modification on 17 March 2014 the trading band has been widened from +/- 1 percent to +/- 2 percent. As such the space in which market forces are allowed to work has been enlarged.

In this institutional framework the PBoC – itself a non-independent organisation under the State Council – has a broad spectrum of instruments available to steer the external value of the Renminbi:

- The determination of daily the “reference rates” – and thereby indirectly also the upper and lower limits of the Renminbi’s valuation vis-à-vis other currencies – is in principle independent from the market outcome of the preceding day and can be set by the PBoC at its full discretion.³³
- The PBoC cannot only disallow any transactions beyond the trading band; it can also directly intervene in the market process by buying or selling currency in the market and contracting with any business actors.
- As there exists no full currency convertibility for the Renminbi on the capital account and a substantial volume of transactions can be enacted only after permission by the State Administration of Foreign Exchange (SAFE), the volume of currency supplied and demanded by economic actors can be directly monitored and steered.
- Sterilization activities required to neutralize any domestic monetary supply shocks resulting from PBoC currency transactions on the RMB:US\$ market, can be enacted at will by the PBoC. Thanks to the system of financial repression reining the national financial system and the government’s enforcing power vis-à-vis the national banking sector, which is still primarily state-owned, banks can be forced to engage in any transactions with the PBoC which the latter deems to be in the best interest of the national economy.

Given this institutional set up the PBoC is in a position to manipulate the exchange rate of the Renminbi at its discretion and uphold distorted price levels for a considerable period of time. These activities are shrouded in a veil of in-transparency as China is not providing any information about its activities in the currency markets. Foreign exchange market interventions are not disclosed and thereby hide the true extent of governmental interventions in the exchange market and the setting of the exchange rate. The degree of secrecy is further enhanced as China also does not report the level of its foreign exchange and gold reserves under the IMF’s Special Data Dissemination Standard (SDDS).

³³ Officially the determination of the reference rate is based on an undisclosed basket of currencies and shall reflect market developments and financial and economic conditions.

In its 2014 Chapter IV assessment the IMF accordingly sees substantial deficits and asks for “[a] flexible, market-determined exchange rate [as] an important part of the reform agenda.” Referring to the price determination mechanisms documented above the IMF highlights that

„the goal should be to allow greater flexibility and reduce intervention, which could be achieved by further widening the band and ensuring the central parity better reflects market conditions.“ (IMF 2014, at 32)

In sum it must be concluded that in its present state the Chinese exchange rate system is neither designed nor able to transmit correct signals about respective competitive strengths between China and the global market place. As these signals are distorted the welfare creating function of a global division of labour and highly diversified international value chains is seriously inhibited.

Part III

The Chinese Economy's Impact on the Global Economic

7. DOES CHINA MEET THE MES-CRITERIA CRITERIA SET OUT BY THE EU AND AUTHORISED BY THE WTO?

In compliment to the analysis in this Report of the various macro- and micro-economic structures present in the Chinese economy, the Report will now address the EU's specific "market economy status" (MES) criteria in order to determine if China meets those criteria. The authors note that Article 15(d) of the Protocol of Accession of China to the WTO provides that to be considered a market economy China must demonstrate that it complies with the criteria of the importing WTO Member, namely the EU.

The EU MES criteria have been adopted in order to facilitate a meaningful resolution of trade defence measures (and in particular to address the problem of dumping), wherever exporting country does not feature market-oriented price structures capable of allocating actual scarcities and costs of domestic production. If prices are not set by the market, the competent authorities of the importing country are permitted to employ "surrogate" or "analogue" country prices (i.e. the prices found in comparable market economies are used) in order to determine the "normal" production costs.

When China joined the WTO in December 2001, it agreed that other countries could continue to treat it as a non-market economy for the purposes of trade defence measures. Since then the EU has several times examined the validity of this classification and has each time come to the conclusion, that China did not meet the five MES criteria. As a result, China continues to be treated as not meeting the MES standards in all trade defence investigations opened by the EU. The question addressed in this Chapter of this Study is whether there have been any substantial developments recently, which would warrant a change of this categorisation.

In order to attain "market economy status" and become eligible for treatment as a market economy in trade defence investigations, economies must concurrently fulfil all of the following five criteria (EC 2012):

1. Low degree of government influence over the allocation of resources and decisions of enterprises, whether directly or indirectly (e.g. public bodies), for example through the use of state-fixed prices, or discrimination in the tax, trade or currency regimes.
2. Absence of state-induced distortions in the operation of enterprises linked to privatisation (i.e. "carry over" from the old system). Absence of use of non-market trading or compensation systems (such as barter trade).
3. Existence and implementation of a transparent and non-discriminatory company law which ensures adequate corporate governance (application of international accounting standards, protection of shareholders, public availability of accurate company information).
4. Existence and implementation of a coherent, effective and transparent set of laws which ensure the respect of property rights and the operation of a functioning bankruptcy regime.

5. Existence of a genuine financial sector which operates independently from the State and which, in law and practice, is subject to sufficient guarantee provisions and adequate supervision.

In order to attain MES status in 2016 or at any time in the future, China must therefore satisfy all the above criteria cumulatively. According to the latest EU examination of China's fulfilment or non-fulfilment of these MES criteria in 2011, only the second criterion was found to have been met as the "absence of barter trade and absence of state-induced distortions in the operations of enterprises linked to privatisation"³⁴ was postulated. This statement reconfirmed a finding already made in 2004. But the 2011 Commission Report did not find any progress towards MES with regard to the other four criteria by the Chinese side during the intermittent seven years. The following discussion will highlight some of the major parameters underlying China's failure to become accredited as a "market economy" by the EU.

7.1 MES-Criterion 1

MES-Criterion 1 requires a:

low degree of government influence over the allocation of resources and decisions of enterprises, whether directly or indirectly (e.g. public bodies), for example through the use of state-fixed prices, or discrimination in the tax, trade or currency regimes.

Compliance with this criterion implies that governments do not "exercise undue influence over the allocation of economic resources in the economy or decisions of companies" – for example by means of price fixing, obligations to produce for export, restrictions imposed on exports of raw materials or subsidies for industrial inputs.

Comparing these requirements with the documentation provided in Parts I and II of this Study, it must be concluded that China does not meet the provisions of the first MES criterion. The data collected in the preceding chapters has clearly shown that Chinese government bodies at all levels are exerting substantial direct and indirect influence on the resource allocation in the Chinese economy as well as concrete decision making processes in Chinese enterprises. Such influence is exerted by means of (i) an extensive set of planning documents, (ii) a broad array of policy programmes to promote or protect specific firms and sectors, (iii) interventions in the price building mechanisms of markets for specific goods and services, raw materials, production factors as well as the external value of the Chinese currency Renminbi. Furthermore, (iv) China features a state capitalist system that facilitates a high degree of collusion (and even identity) between elites in the spheres of the Communist Party, government and the corporate sector.

³⁴ Cf.: European Parliament 2014 and EC 2012.

7.2 MES-Criterion 2

MES-Criterion 2, defined as the

absence of state-induced distortions in the operation of enterprises linked to privatisation (i.e. “carry over” from the old system) and the absence of use of non-market trading or compensation systems (such as barter trade)

has been assessed by the EC as having been met. In an appraisal conducted in 2004 EC staff concluded that state induced distortions in the area of privatisation had been removed, as had the practice of barter trade (SEC 2008) 2503, p.6.). Up to the present day this remains the only criterion the EC assesses as having been fulfilled by China.³⁵

7.3 MES-Criterion 3

MES-Criterion 3 focusses on the

existence and implementation of a transparent and non-discriminatory company law which ensures adequate corporate governance (i.e. the application of international accounting standards, protection of shareholders, public availability of accurate company information).

In previous MES assessments, the EU applies this criterion in such a way that a state must demonstrate that companies doing business in said economy are required to operate in compliance with transparent and rigorous corporate governance legislation, i.e. are subjected to international accounting standards and international standards for shareholder protection and transparency.

China does possess quite comprehensive sets of laws and guidelines compelling firms to uphold market oriented standards with regard to their corporate governance, accounting practices as well as auditing requirements. These regulations are not one-to-one copies of OECD regimes, but in general follow the ideas of “Western” market regulation. While the formal set-up can therefore be understood to be broadly in line with the MES requirements, their implementation in the day to day activities of commercial enterprises is not. As shown extensively in chapters 2 and 3 of this study, Chinese firms are subjected to massive intervention by government representatives as well as CPC cadres in their operations. This state-business nexus undermines the willingness of these enterprises to comply with formal re-

³⁵ European Parliament 2014 and De Gucht 2013.

quirements for corporate governance, accounting, shareholder protection as well as transparency. They neither perceive these regulations as compulsory for themselves nor do they see a necessity to, or benefit from, doing so. A broad body of practice-oriented as well as academic literature documents the strong institutional incentives for, as well as substantial empirical proof of, “managed” accounting information, inconsequential auditing exercises, discrimination of minority shareholders, sub-standard transparency practices all caused by the enterprise’s strong political connections.³⁶ Given this stark contrast between formal regulation and operational practice the authors of this study see MES criterion 3 as not being fulfilled.

7.4 MES-Criterion 4

MES-Criterion 4 requires

the existence and implementation of a coherent, effective and transparent set of laws which ensure the respect of property rights and the operation of a functioning bankruptcy regime.

In order to meet this criterion the EU expects (prospective) market economy countries to feature an effective legal infrastructure that in theory and practice ensures the protection of individual property rights, in general, and intellectual property in particular, and furthermore facilitates orderly bankruptcy filings.

With the latest revision of the Chinese constitution in 2004, private property (of productive assets, i.e. commercial enterprises) has – at least on paper – regained the same right of protection by the state as any other type of ownership. While this new norm is still in the process of becoming fully implemented and respected by all parties concerned, other manifestations of property still remaining mired in old regimes that discriminate against certain subjects. The enforcement of intellectual property rights continues to be a field of consistent non-compliance (WTO 2014). Even graver problems of un-transparency and discrimination in the fact of the law are being reported by foreign invested enterprises in various fields of (local) industrial policy programmes. The foreign invested enterprises complain about laws and implementation guidelines not being published at all or being put into effect retroactively.

A similar constellation exists with regard to the issue of corporate bankruptcies. While a bankruptcy law is in existence since 1986 (substantially revised in 2007; see chapter 2.4.3.2 for details), its implementation is not yet fully realised. This reality has prompted the IMF in its 2014 Chapter IV Consultation Staff Report to the Chinese government to declare:

³⁶ See for example: Fan, Joseph P.H., Feng Guan and Zhengquan Li, Yong George Yang 2012; Firth, M., O. M. Rui, W. Wu 2011; Gul, K., J. Kim and A. Qiu 2010; Piotroski, J., T. J. Wong 2013; Walter, Carl E. and Fraser Howie 2012.

Removing implicit guarantees also requires greater tolerance of corporate defaults and bankruptcies, including of SOEs. [...] Needed reforms include opening up to full and fair competition activities currently reserved to SOEs, properly pricing finance and other factor inputs, requiring adequate dividend payments to the budget, and imposing hard budget constraints. The latter means that those SOEs that cannot compete successfully on a level playing field should exit. (IMF 2014, p. 12)

Obviously the Chinese bankruptcy regime is not yet fully functional – not the least, because the Chinese state-owned enterprise sector continues to exist in a government protected niche, and is not exposed to the full competitive forces of the market.

On the basis of the information compiled in this study, the authors see China as not fulfilling the requirements of the fourth MES criterion.

7.5 MES-Criterion 5

MES-Criterion 5 asks for

the existence of a genuine financial sector which operates independently from the State and which, in law and practice, is subject to sufficient guarantee provisions and adequate supervision.

In determining compliance with this MES-criterion, the EU expects governments to be able to demonstrate that the national financial sector operates free from (discretionary) governmental interference and the cost of capital (i.e. first of all: interest rates) are determined by market principles. Furthermore the market conformity of the exchange rate system is scrutinised.

The Chinese financial sector is – on paper – operating according to capitalist principles of profit orientation and risk containment. By law Chinese bank managers have become individually liable for the extension of loans to (state-owned) enterprises which do not fulfil certain minimum criteria of credit worthiness. At the same time, however, the state is intervening directly in the credit allocation and forces banks to provide loans to enterprises hand-picked by the government. The intensity of China's governmental guidance of the financial sector and its loan decisions usually becomes most apparent in times of crisis. In the height of the Subprime/Lehman crisis, for example, Chinese government not only issued a set of *Adjustment and Revitalisation Plans* in order to provide support to key strategic industries. At the same time the People's Bank of China and the China Banking Regulatory Commission jointly promulgated a complementary *Guiding Opinion concerning the further strengthening of credit structure adjustment to promote a stable development of the national economy*. In article 1 the Guiding Opinion decrees that:

Financial institutions must, according to the requirements of the respective industrial policy guidelines and according to the particular needs of the special projects, actively come up with new financial products and service arrangements. Financial institutions are to increase the necessary financial support and implement all relevant financial support and services tasks (PBOC & CBRC 2009).

The Chinese financial sector is not operating independently from the Chinese state, but is subjected to far reaching governmental intervention in its operations. The documentation in Parts I and II of this study has provided a multitude of proof and examples of the heavy handed intervention of Chinese state agencies in the allocation and pricing of loans and capital in general in the Chinese financial system. As such the Chinese financial system does not base its business decisions on standard market principles of profit orientation and risk management, but relies on the steering, and simultaneously protecting, power of Chinese government. One major underlying reason for this reality clearly lies in the still incomplete marketisation of China's state-owned enterprise sector. For as long as these SOEs enjoy a privileged, shielded existence, the financial sector cannot mature into a normal market economy financial sector. This is one of the reasons the IMF recommends China to push state-owned enterprise reforms forward, take further steps in establishing a more commercially oriented financial system and establish an underlying market-based monetary policy framework (IMF 2014, WTO 2014).

7.6 MES – Summary assessment

Summarizing China's compliance, or non-compliance, with the EU's five MES-criteria, it becomes obvious that today's Chinese economic system is still far from fulfilling four of the five criteria:

- Chinese government continues to wield substantial influence over the allocation of resources and the behaviour of individual economic entities thereby relegating markets into a secondary role (criterion 1).
- Chinese companies are embedded in close-meshed networks with representatives of Chinese government as well as the CCP. These connections prevail over and distort the existing OECD-style legal framework and result in non-market conforming corporate governance, accounting and transparency practices (criterion 3).
- The Chinese laws for the protection of (intellectual) property rights as well as its bankruptcy regime are not yet fully functional. As such "market" outcomes remain distorted and discriminate against economic subjects relying on the principles of fair competition (criterion 4).

- The Chinese financial sector does not operate independently from government, but must comply with government directives for capital allocation. The price of capital neither reflects its true scarcity nor the varying degrees of risk involved in different transactions (criterion 5).

The present Chinese economic system might be highly capital intensive in character, but its institutional set-up and ordering mechanisms do not comply with the principles present in competition based markets.

Furthermore, it also has be highlighted that a refusal by the EU to grant MES-status to China based on China's non-fulfilment of the criteria outlined above, must not be misinterpreted as a protectionist measure on behalf of the EU. On the contrary, the welfare creating effects of a highly fragmented global value chain – in which China should, and can, play an important role – can only come into existence if the best entrepreneurial ideas and most competitive enterprises are selected through the functioning of fair competition. Underperforming enterprises that are allowed to remain players in the global value chain due to political protection and irregular cost structures harm global welfare and retard economic development and progress in all participating societies in all parts of the global economy.

The use of true market determined prices for determining whether there is dumping from non market economies is the only way to calculate the true measure of dumping and to prevent the distortions in the Chinese system from contaminating market based price setting in market economies. Any other approach will harm EU industries and discriminate against enterprises and economies complying with the principles of fair competition-based market processes worldwide.

8. IMPACT OF THE CHINESE ECONOMIC SYSTEM ON THE VIABILITY AND EFFECTIVENESS OF THE GLOBAL MARKET ORDER

This study has amply documented the institutional set-up and working principles of the Chinese politico-economic system. As illustrated with an example in Box 12, Chinese firms are subjected to and benefit from a broad array of governmental programmes and instruments that detach these firms from the real market contexts and competitive pressures. The evidence shows that the Chinese economy does not have the minimum requirements necessary for a competition-based market economy as understood in OECD terms. Nor does China meet the EU's hands-on MES criteria as allowed by the WTO.

While China is free to choose the form of an economy that best suits its domestic situation, problems arise when it engages in international economic exchanges involving economic actors operating in different market contexts. Normal economic ordering regimes are always based on a set of signals and incentives that, in equilibrium, are designed to coordinate the interaction of the most number of factors. If one economy does not comply with the normal signals and incentives distortions appear in every economy touched by it. The functionality of national economic systems is impaired and contemporary welfare as well as dynamic development impulses are lost.

In order to allow incompatible individual markets to continue to function in their own spheres, institutional air-locks or buffers must be established that neutralise or contain the alien economic signals and keep normal signalling intact.

China has been committed to the erection of such institutional air-locks between its domestic economy and the global market place since it started to re-engage into the global division of labour in the late 1970s. Specialized trading companies with monopolistic powers, import and export cartels, trade quota systems, bonded export and foreign investment zones, foreign investment catalogues, licensing systems for inward and outward bound investment activities, strict foreign exchange administration, current and capital account currency convertibility restrictions, a managed (multiple) exchange rate system etc. all constitute such air-locks with which the Chinese government has been trying to shield the domestic economy from unwanted external impulses.

On the other side, the community of competition-based market economies – including the EU – has been trying to protect the integrity of their economic regime(s) from distorting influences emanating from the Chinese non-market system first of all by means of trade related instruments like anti-dumping and countervailing duty measures. At the same time these countries have been trying to uphold the basic principles of free movements of goods and factors of production underlying their liberal market orders as far as possible. The will to uphold the principle of free market-based competition, while keeping restrictive institutional air-locks to a minimum is in line with the general academic as well as philosophical concepts

underlying the concept of market-based competition. However, there exists the danger that too few and ineffective air-locks put-up against alien economic regimes will undermine the very functionality of these economies.

This chapter therefore takes a closer look at the potential disruptions an un-intermediated exposure to the Chinese economic regime might have on the functionality of the European competition-base market system, its capacity to create welfare and dynamically develop into the future. The discussion starts with a view on the intensity with which the implementation of trade related protective measures has been regarded as necessary in order to keep the European market system in recent years (chapter 8.1). It continues with an analysis of economic transmission mechanisms by which non-market features in the Chinese economic regime might interfere with the European market order (chapter 8.2).

8.1 Trade Defence Investigations Against China

According to WTO statistics, shipments originating from China have triggered the largest number of trade defence investigations of all countries in recent years. Especially since 2005, the number of anti-dumping and anti-subsidy cases has dramatically increased. This holds true for both launched investigations as well as imposed measures. The rise in case numbers is driven by proceedings aiming at Chinese exports. This phenomenon has coincided with a strong export growth performance by companies based in China. Threatened by import competition perceived to be unfairly priced due to dumping or subsidization practices, industry associations worldwide have sought protective tariffs.

In the following, WTO statistics will be employed to analyse the development of trade defence action against Chinese imports. Unless noted otherwise, the reference period spans 19 years and six months: from January 1st, 1995 – the day the WTO protocol entered into force – until the end of June 2014.

Box 12: Combination of Dedicated Programmes in the Governmental Promotion and Steering of Specific Industries: The Case of Aluminium Extrusions

Dedicated government programmers for industry guidance are usually coming in bundles of numerous specific measures designed to direct industries and particular sectors towards specific goals. The various programmes constituting such programme-packages are set up, administered and implemented by government organisations at various levels of hierarchy and may therefore feature some inconsistencies and contradictions. But as governments at lower levels of hierarchy must design their local programmes in line with the (general) ideas outlined by national policies, contradictory signals to the corporate sector remain limited.

This box exemplifies this phenomenon by documenting dedicated programmes employed by Chinese government organisations in order to provide guidance to the aluminium extrusion sector. The account follows the facts established by the US Department of Commerce in its “Countervailing Duty Investigation of Aluminium Extrusions from the People’s Republic of China (PRC)” (2010, period of investigation 01.01.2009-31.12.2009). This investigation focusses on firms located in Guangdong province, thereby restricting the coverage of relevant programmes to such implemented on the national as well as Cantonese level. Programmes that might be set-up and implemented in other Chinese provinces and localities are not covered.

The following exemptions from normal tax payments based on specific features of the benefiting firms or their business models are to be understood as general financial contributions in the form of revenue forgone by the government which provide benefits to the recipient corresponding to the respective savings.

1. Exemption from City Construction Tax and Education Tax for FIEs

The *Circular Concerning Temporary Exemption from Urban Maintenance and Construction Tax and Additional Education Fees for Foreign-Funded and Foreign Enterprises* provides local tax authorities with the capacity to exempt FIEs from the city maintenance and construction tax (normal rate in urban areas: 7 percent on the amount of product tax, VAT, and/or business tax actually paid by the taxpayer) as well as education fee surcharge (normal rate in urban areas: 4 percent on the amount of product tax, VAT, and/or business tax actually paid by the taxpayer).

2. “Two Free, Three Half”-Income Tax Exemptions for FIEs

Pursuant to the *Foreign Invested Enterprise and Foreign Enterprise Income Tax Law* (1991) FIE classified as “productive” and scheduled to operate for at least 10 years can be exempted from income tax in their first two profitable years and pay half of their applicable tax rate for the following three years.

3. Preferential Tax Rates for FIE classified as High and New Technology Enterprises

As outlined in *Circular of the State Council Concerning the Approval of the National Development Zones for New and High Technology Industries and the Relevant Policies and Provisions* FIEs recognised as “High and New Technology Enterprises” (HNTE) and being located in high and new technology parks can benefit from a reduced income tax rate of 15 percent.

The following programmes are designed in order to facility access to loans from the state-owned banking sector at preferential terms and therefore function in the same way as “soft-budget constraints” in centrally planned economies.

4. Policy Loans at Non-Market Conditions

It is established that loans received by the aluminium extrusion industry from the state-owned commercial banking sector as well as from policy banks were made pursuant to government directives formulated in various planning documents (FYP, industry plans, guidance catalogues, etc.; see chapter 2.1 of this report).

5. SME Interest Subsidy Grants for SME

Targeting the dynamic development of SME in the province of Guangdong in general, interest subsidy grants are provided in order to promote and support SMEs. The SME Loan Interest Assistance Special Fund is administered by the Provincial Department of Finance and the Guangdong Provincial SME Bureau.

6. SME-Bank Cooperation Project Interest Subsidies

SME eligible for programme participation and accepted by financial institutions as borrowers are being provided with interest assistance by local government organisations, i.e. the provincial and city level Departments of Finance and the Bureaus of SMEs. Eligible SME must possess “great potential” and manufacture key equipment, or pursue creative technologies, or engage in advanced manufacturing activities backed by both the provincial and the corresponding city government.

The following programmes provide beneficiaries with access to factors of production (excluding capital) and raw materials at preferential prices, thereby decreasing their general cost of operations.

7. Tax-Refund of Land-Use Tax in a Specific Industry Zone

Firms locating in the Zhaoqing New and High-Tech Industrial Development Zone have been subsidised by a one-time land-use tax refund resulting in a reduction of land-use tax actually

paid from five RMB per square meter to two RMB per square meter.

8. Provision of Land-Use Rights for Less Than Adequate Remuneration and Land-Use-related Fee Exemptions in a Specific Industry Zone

Firms locating in the Zhaoqing New and High-Tech Industrial Development Zone and meeting specific criteria with regard to size, technological status and export orientation receive support by the Zone's government. Supportive measures include the provision of land-use rights at negotiated less than adequate remuneration, reduced payments to local residents/business displaced, discounts on construction application fees, exemptions from administrative fees, and reductions in operational charges.

9. Provision of Land-Use Rights for Less Than Adequate Remuneration in a Specific Industry Zone

Firms locating in South Sanshui Science and Technology Industrial Park (Foshan Municipality) are subsidised by the Zone's government in form of access to land-use rights at negotiated, less than adequate remuneration.

10. Provision of Primary Aluminium for Less Than Adequate Remuneration

Firms operating in the aluminium extrusion sector are able to source primary aluminium from the domestic market at less than adequate remuneration. As documented above in box 13 "Transmission of Government-induced Price Distortions Between Sectors: The Case of the Aluminium and Bicycle Industries" the domestic aluminium market is distorted by government interventions and features an artificially low price level.

The following programmes are designed to promote industrial upgrading and technological advances in manufacturing. Financial support by government organisations allows benefitting firms to side-step financing and liquidity constraints faced by contenders operating in true market environments.

11. Import Tariff and VAT Exemptions for Enterprises Using Imported Equipment in Encouraged Industries

In order to guide industry development in a specific direction and promote technological upgrading, FIEs and certain domestic enterprises are exempted from VAT and tariffs on imported equipment used in their production so long as the equipment does not fall into prescribed lists of non-eligible (low tech, environmentally hazardous, etc.) items. The programme is administered on the national level by the National Development and Reform Commission (NDRC) and the General Administration of Customs.

12. Grants from the Special Fund for Important Science and Technology Projects

Administered by the Guangdong Science and Technology Department grants handed out in this programme are supposed to support major, generic, and key technology R&D in Guangdong province and promote technology achievements and the diffusion of technological knowledge in the local economy.

13. Grants from a Local Fund for Science and Technology Development

The Science and Technology Bureau of Foshan Municipality and the Finance Bureau of Foshan Municipality provide grants to firms in order to foster local technological and economic development.

14. Grants from a Provincial Fund for Fiscal and Technological Innovation

This programme is administered by the Provincial Department of Finance and Economic and Trade Commission of Guangdong Province. It provides grants to firms for the purpose of promoting technological and fiscal innovation.

15. Grants from a Provincial Science and Technology Bureau Project Fund

Universities and firms can receive grants from this fund, if they are seen as worthy of support for their contributions to industrial development and innovation in Guangdong province.

16. Grants from a Provincial Fund for Energy Saving Technology

Grants amounting to 200 RMB for every one metric ton (MT) of standard coal saved through increased energy efficiency during a given year are handed out by Department of Finance and the Economic Trade Commission of Guangdong Province. In order to be eligible for inclusion in this programme firms must demonstrate annual energy savings equivalent to 2,000 MT of standard coal.

17 Provincial level tax offsets for R&D activities

Firms featuring R&D expenses incurred for developing new products and technologies that cannot be treated as intangible assets can benefit from a 50 percent deduction of their R&D expenses as a tax offset. For R&D expenses considered intangible assets, the tax offset can be amortised based on 150 percent of the R&D expenses.

The following programmes function in such a way as to explicitly promote export activities and global market penetration by benefiting firms.

18. Grants, Loans, and Other Incentives for Development of Famous Brands and China

World Top Brands

The provision of support for the establishment of “brand names” on the international markets is administered discretionarily by local governments, which can employ grants, preferential loans, or other measures in order to achieve their goals. The policy is coordinated on a national level by the central government’s Measures for the Administration of Chinese Top-Brand Products, which inter alia require applying firms to provide information concerning their export ratio as well as the extent to which their product quality meets international standards.

19. International Market Exploration Fund for Small and Medium Sized Enterprises

This programme targets SMEs that are active in foreign trade and supports their future export activities. The costs and risks of operating in the international markets are reduced by means of grants provided to firms documenting an already existing minimum proficiency in export sales.

20. Export Rebate for Mechanic, Electronic, and High-Tech Products

Exports of mechanic, electronic, and high-tech products are eligible for specific government grants.

21. Development Assistance in a Specific Industry Zone

Export-oriented firms locating in the Zhaoqing New and High-Tech Industrial Development Zone have been eligible for a one-time development assistance grant from the Zone’s local authority.

All programmes documented in this box artificially enhance the competitive standing of benefiting firms vis-à-vis their international contenders. As such they obscure real competitive strengths by global market contenders, distort market signals and twist the path of labour division in the global value chain.

8.1.1 Anti-dumping Proceedings

In the reference period altogether 1,022 anti-dumping investigations have been initiated against Chinese exports by WTO member countries – an average 52.4 new investigations per year. This represents 22% of all anti-dumping cases handled worldwide.

The gap separating China from the second and third most frequent country targets is considerable. The Republic of Korea and Chinese Taipei were subject of 341 and 258 cases respectively.

The European Union has introduced 115 cases against imports from China but only ranks third in the anti-dumping statistics – behind India (165 cases) and the United States (121 cases).

Worldwide, 33 new anti-dumping cases were opened against Chinese exports during the first half of 2014. During 2013, the last year for which complete data is available, the number stood at 75. This marked a slight decrease from the WTO's all-time record of 78 cases commenced in a single year against a single country set by China in 2009 and 2010 respectively. Except for China, the largest number of initiations against a single country in WTO history was only 35. In 1999, exports originating in the Republic of Korea sparked 35 new cases.

31% of all anti-dumping investigations commenced worldwide during the first six months of 2014 targeted Chinese exports. This number marks a drop from 37% recorded in 2007. Apart from China, the highest concentration of anti-dumping investigations ever, 11%, was reached by the Republic of Korea in 2004 and 2012 as well as the U.S. in 2010.

One quarter of the 740 anti-dumping measures put into force worldwide since the start of the WTO aim to protect national industries from dumped imports originating in China.

72% of investigations against Chinese exporters ended in affirmative dumping determinations and resulted in the imposition of protective border measures. This rate is higher than the WTO average of 64 percent. Affirmative determinations were made in 74 percent of cases investigated by the European Union and 80 percent of cases investigated by both the United States and India.

These three countries also account for 42 percent of anti-dumping measures imposed against Chinese exports: India (132), the United States (97) and the European Union (85). When excluding China from the picture, the largest number of cumulative measures that any WTO member country has implemented to shield itself against dumped imports from any other is 41. This is the number of all measures India has imposed against EU imports since the beginning of the WTO.

32 percent of all new anti-dumping measures implemented worldwide in the first half of 2014 served to protect against alleged dumping by Chinese companies. This already represents a

reduction: In 2010, the share of new measures brought on against China was 10 percentage points higher. Besides China, the United States (H1 2014: 11 percent) and the Republic of Korea (2013: 11 percent) were confronted with the largest number of anti-dumping measures across all year-country combinations.

47 percent of anti-dumping investigations and final measures imposed against Chinese exports have targeted just two sectoral areas: products of the chemical or allied Industries as well as base metals and articles thereof. This is in line with the general pattern of all such proceedings worldwide where the combined share of these sectors accounts for about 50 percent of investigations and measures respectively.

8.1.2 *Anti-subsidy Proceedings*

During the reference period 84 anti-subsidy investigations were initiated against Chinese exporters of which 53 were concluded with an affirmative determination and resulted in the imposition of protection measures. China was the target of about one quarter of all investigations and measures worldwide respectively.

However, this number greatly understates the role of China as suspected origin of subsidized exports. Legal battles concerning the admissibility of concurrent anti-dumping and anti-subsidy measures for the same product delayed the first anti-subsidy cases against China until 2004. In April of that year, the Canada Border Services Administration (CBSA) initiated the first China-oriented countervailing duty investigation (carbon steel screws). The proceeding concluded just before the end of 2014 with a positive ruling. Protective tariffs were introduced in the following year. The United States conducted their first countervailing duty investigation in 2006 – targeting coated-free sheet paper. The first anti-subsidy investigation of the European Union got underway in 2010, also focussing on Chinese exporters of various types of fine paper.

With no anti-subsidy investigations and measures against Chinese exporters introduced before 2004, the time frame for the comparative review has to be adjusted accordingly. As such, during the nine years and six months between January 2004 and June 2014, China accounted for 45 percent of investigations launched and 58 percent of border measures implemented worldwide.

Over this period, seven countries have successively initiated a total 84 investigations against Chinese exports. The EU handled only a small fraction of these cases (8), while the United States (43), Canada (19) and Australia (10) together undertook 85 percent of investigations.

In each of the years 2007, 2008 and 2010, about 70 percent of anti-subsidy investigations carried out worldwide were targeting Chinese exports. From 2011 onward, this share has mitigated – averaging about 40 percent of the world total.

China clearly dominates the list of countries targeted as origins of subsidized exports. In 2012 and 2013, the share of measures directed at Chinese exports reached 80 percent and 77 percent respectively. However, the year 2008 witnessed a WTO record, as 91 percent of all new protective tariffs introduced around the world served to compensate for government subsidization in China.

WTO data indicates that since 1995 a total of 35 exporting countries and territories have been targeted by countervailing duties in 193 instances. However, a pronounced concentration exists as only three out of the 35 were affected in more than ten cases. These are China (53), India (34) and the EU (12).

Half of the 53 anti-subsidy measures ever introduced against China were implemented by the United States. Canada, Australia and the EU account for the remaining instances. The three economies took action in 15, 6 and 4 cases respectively.

Only 10 percent of EU countervailing duties maintained at the end of June 2014 were directed at Chinese exporters. At 34 percent, this ratio is substantially higher for the United States. However, the Canada Border Services Agency and the Australian Anti-Dumping Commission confront China with 63 percent and 67 percent of anti-subsidy protection measures in place.

63 percent of the investigations launched against Chinese exporters have resulted in protective border measures. This is well above the WTO average of 54 percent.

The sectoral distribution of both anti-subsidy investigations and measures show a striking sectoral concentration of base metals and products thereof. On a global scale, 40 percent of investigations and 47 percent of implemented border measures target this product category. Cases which took aim at goods originating from China show a broadly similar picture. 51 percent of investigations as well as 57 percent of measures target base metals and articles made from them.

China alone is subject to one third of all border measures instituted in this sector. The 30 cases make up 15.5 percent of all anti-subsidy measures imposed across time, countries and sectors. As stated earlier, all countervailing duties against imports from China have been imposed after 2005. By relating the 30 measures affecting base metal products of Chinese origin, to the total of 83 measures implemented against all countries since 2005, we find a proportion of 36 percent. Well over one third of all countervailing duty measures introduced across the world since 2005 seek to protect against subsidized base metal products from China.

8.2 Transmission Channels to and Impact of Chinese Non-Market Features on Competition-Based Market Systems

As documented in Chapter 8.1, EU policy makers have in recent years seen substantial need to take recourse to counter measures in order to shield the European market system from alien, market-distorting impulses emanating from the Chinese economic system.

Such impulses are being created in the context of a considerable number of particular institutional traits characterizing the Chinese politico-economic system. A non-exhaustive account would have to list the following important features and transmission channels that endanger the functionality of the European market system:

8.2.1 Price Distortions Emanating from the Chinese Economy

As documented in the preceding chapters, the division of labour and all business interaction in the Chinese economic system are not based on completion-based scarcity prices. Government agencies are intervening in various different ways either (i) directly in the allocation of resources and distribution of products, or (ii) indirectly in the determination of the prices and conditions at which resources and goods are being exchanged. These interventions are in many cases not happening in a non-discriminatory fashion, but rather target selected firms or groups of firms operating in specific industries, featuring specific business models and/or technological expertise, belonging to specific types of ownership, etc.

These interventions result in distortions of markets that do not remain contained within the specific sector or market segment in which they have been instigated. Instead they permeate through the economic system – along the value chain as well as across sectors. The result is a set of “wrong” prices and signals about the existing scarcities and demand structures that induce investment and consumption decisions by economic actors that are “wrong” and create unsustainable economic structures which in the longer run must be corrected in order to prevent a comprehensive break down of the economy. Such *ex post* corrections, however, are extremely costly in terms of financial resources, corporate wealth, employment, and social welfare.

The negative effects of such distorted price signals are not contained within the Chinese economy, but are being “exported” to the global market price, whenever such prices are allowed to become the basis for business decisions on cross-border transactions. If this happens, the “wrong” prices emanating from the Chinese economic system will lead to a general misdirection of resources, including

- an over- or under-consumption of production inputs and goods,
- investment decisions that are not in line with the true macro-economic requirements as well as long-term sustainable economic growth and development.

At the same time the distorted “wrong” price signals lead

- initially to a situation where not the most productive and cost-efficient firms are participating in the respective value chains,
- and eventually, to an inadequate selection of firms that are allowed to stay in the market place or are rather forced to exit.

Box 13 highlights an example, how government induced price distortions in the Chinese aluminium sector travel along the value chain towards the bicycle industry and eventually hit the European economy.

**Box 13: Transmission of Government-induced Price Distortions Between Sectors:
The Case of the Aluminium and Bicycle Industries**

The pattern by which government-induced price distortions are being transmitted throughout the economy can be exemplified by the case of the Chinese bicycle industry.

The Chinese bicycle industry is under the scrutiny of European trade authorities since the early 1990s. In 1993 a definitive anti-dumping duty of 30.6% was imposed on bicycles originating the PR China (Regulation (EEC) No. 2474/93), which was later extended to cover certain bicycle parts as well. In 2005 the anti-dumping duty in force was increased to 48.5% based on an interim review (Regulation (EC) No. 1095/2005). In 2013 this rate was reconfirmed and extended to cover imports of bicycles and parts consigned from Indonesia, Malaysia, Sri Lanka and Tunisia. The latter countries were found to be utilized by Chinese firms as transshipment ports hiding the true (Chinese) origin of the bicycles shipped. The measures are in force until 2018, when they will be reviewed (Regulation (EU) No. 502/2013).

This assessment of an unfair market constellation, which is providing the Chinese bicycle industry with unwarranted cost advantages vis-à-vis their international competitors is – inter alia – based on the observation that important markets for inputs to the production of bicycles are subjected to Chinese government interference and do not reflect the true market structures of supply and demand. As aluminium and steel hold a share of about 20-25% of the total cost arising in the production of a bicycle, distortions in these raw material markets do have a significant impact on the overall cost structure of this sector.

Taking the aluminium market as an example, distortions are arising from the fact that:

The metal is traded exclusively on the Shanghai Futures Exchange (SHFE), to which access is restricted to Chinese-registered companies and Chinese citizens only and which is controlled by the China Securities Regulatory Commission (CSCR). The price setting mecha-

nism fails to mirror true scarcities as:

- daily price fluctuations are limited to 4 % above or below the settlement price of the previous trading day,
- trading is conducted only until the 15th day of each month, i.e. conducted at low frequencies,
- futures contracts are limited to a duration of no more than 12 months,
- Chinese State entities like the State Reserve Bureau participate in the market both as selling and purchasing parties.

Adding to this set-up the fact, that physical deliveries are only allowed to be enacted in an approved warehouse within China, it becomes clear that the SHFE is completely insulated from the global market place. Price arbitrage between the global market places (especially the worldwide benchmark, London Metals Exchange (LME)), is not permitted. As such aluminium prices in China are existing in a secluded universe, where government interventions can lead prices to any level deemed appropriate by government.

The price of aluminium ingots is furthermore subjected to governmental steering due to the fact that embedded aluminium (e.g. aluminium being processed and becoming a constituent of a bicycle) is being granted partial VAT refunds in case of export (at the time being the refund rate for bicycles is 15%), while primary aluminium exports are eligible for no VAT refunds at all. On the contrary, aluminium exports are subjected to a 17% export tax, providing further incentives to domestic aluminium producers not to export, but rather sell their aluminium ingots on the domestic market. Given the high “fines” of exporting, even a depressed price level on the domestic market (in comparison to the global market prices) constitutes the best sales outlet in reach for the domestic producers. As a result, the supply of comparatively cheap aluminium ingots in the domestic economy is artificially increased and processing industries, like the bicycle sector, are put in an advantaged position.

8.2.2 Economies of Scale and Scope Created by Non-market Forces in the Domestic Chinese Economy

The discussion in the preceding chapters has shown that interventions by Chinese government in the business process as well as misdirected regulatory (in)activity have led to the accumulation of production capacities in a considerable number of sectors. The production capacities created have reached dimensions that are (way) beyond the needs of China's domestic as well as the global markets. Table documents the domestic production capacities of Chinese firms in selected sectors as a multiple of domestic market demand as well as in its relation to total EU market demand.

In functioning market economies the creation of overcapacities of such a magnitude would automatically start a process of market consolidation in the run of which some firms would leave the market and the least productive facilities would be eliminated. Due to the specific constellation of the Chinese politico-economic regime, however, where firms receive protection by local and central governments, the existing bankruptcy law is neither comprehensively specified nor fully enforced and profitability considerations do not constitute the primary goal of many (state-owned) business leaders, this does not happen in the Chinese economy. Instead firms and their production capacities continue to stay in the market.

In functioning market systems the emergence of overcapacities might trigger a period of intense competition between firms, where products are not sold at full costs, but rather at prices that cover the variable costs of production plus a fraction of the – sunk – fixed costs. As with such a competitive strategy companies incur a continuous stream of losses, such episodes are short and lead quickly to a consolidation of markets and a return to full cost price quotations. In the Chinese environment, however, such irregular pricing phenomena are not short-term occurrences, but rather persist for prolonged periods of time, as companies are permitted to remain in the market despite of extended periods of negative business results. Be it by means of subsidization, government directed business, preferential access to capital and raw materials, energy, etc., governmental waiver of dividend payments, or other mechanisms, these companies are in a position to sell their products for protracted periods of time at prices that do not correspond to the costs accrued in their production.

Distorted supply-and-demand structures like this impact the welfare creating capacity of economic regimes in various ways:

- capital and resources are bound in unproductive usages and are not available for other deployments,
- depending on actual financing structures non-performing loans and bad assets are accumulated in the financial sector or in public household budgets,
- products for which overcapacities exist are sold at too low prices, resulting in over-consumption and wrong investment decisions,
- downstream products, which employ under-priced overcapacity-products in their production, are sold at too low prices, resulting in over-consumption and wrong investment decisions,
- foreign firms operating in the market featuring overcapacities that are subjected to regular market discipline are driven out of the market, irrespective of their factual competitive strength,
- foreign firms operating in downstream sectors, but having no access to under-priced overcapacity products, are driven out of the market, irrespective of their factual competitive strength.

Global and European markets and business entities are negatively affected by distortions in the Chinese economy resulting from persistent overcapacities whenever:

- products for which overcapacities exist in China are sold at prices, that are disconnected from their actual (full) production costs, on the international markets,
- downstream products, which employ Chinese under-priced overcapacity-products in their production, are sold at artificially low prices on the international markets.

The effects of such behaviour on the global and European markets manifold. They include:

- an unsustainable over-consumption of said products,
- a distortion of the relative scarcities (respectively the signalling of the latter) in the market fabric resulting in a misallocation of respective resources and misleading investment activities,
- a loss of profitability and eventually the demise of domestic companies operating according to market discipline in the respective goods markets,
- a loss of employment in all sectors affected by distorted prices, caused by Chinese overcapacities,
- a mid- to long-term loss of welfare in the economy and society.

Box 14 presents a case study of how massive overcapacities persisting in the Chinese economy impact on the European economy.

8.2.3 Government Induced Outward Reach of Domestic Enterprises

Against the backdrop of China's rapid economic development in the last three decades and an increasing maturity of Chinese enterprisers, Chinese government agencies as well as corporate leaders have started to strategize about stepping out of the domestic market. Consequentially, in recent years they have put the pro-active exploration of global markets high up on their agenda for corporate development. The idea is to project Chinese business models on a global scale, control access to global product and supply markets and improve the competitive positioning of Chinese companies vis-à-vis their international contenders.

The concept of internationalization of corporate business models and a pro-active integration of business activities in a web of international assets constitutes a logical step of successful corporate development and is fully in line with market based management studies and the welfare economics of the international division of labour. However, this internationalization must be based on internal resources and management skills – external resources must be accessible on the basis of market principles only. In the context of the Chinese politico-economic system, this pre-condition is not satisfied.

Chinese government is providing discretionary promotion for selected Chinese enterprises in order to facilitate and promote their “going-out” strategies. These promotional programmes range from the “standard” instruments of various subsidy disbursements via support for the

establishment of international marketing and brands via the provision of access to under-priced capital and other inputs to the enrichment of foreign direct investment projects with complementary Official Development Aid (ODA) disbursements in the target economies.

The government-induced enhancement of corporate capabilities for the internationalisation of their business scope is directly and primarily impacting upon the global market place and leads only to secondary distortions on the Chinese domestic market. Effects on the international markets include the following:

- access to and control of resources (natural resources, factors of production, etc.) by firms that are not the most competitive and displacement of more productive players,
- market penetration and value chain participation by firms that would not prevail in fair competitive processes,
- change of ownership titles of resourceful non-Chinese firms in the context of M&A transactions by Chinese companies that without government support would not be in a position to acquire the target firms.

Taken together these effects are not only having a negative effect on contemporary welfare creation in the global market environment. They can also set up path-dependencies that lead to long-term reductions in the productivity and welfare generation of the global division of labour.

Box 15 documents an example of how interventionary activities by Chinese government designed to facilitate and promote international operations of Chinese enterprises impact on the European economy.

8.2.4 Distorted Comparative Advantages in China

Discretionary interventions of Chinese government in the economic process are in their effects not restricted to individual sectors and value chains, but also create significant macro-economic repercussions. Especially distortions that are brought about at the level of the exchange rate, the factors of production as well as basic raw materials and energy resources have the capacity to substantially change the revealed comparative advantages of the Chinese economy vis-à-vis the rest of the world.

Governmental distortions at this scale massively impact on the logic of economic interaction in the domestic economy and in consequence alter the positioning and role of the domestic economy in the global division of labour. The impact of such a constellation on the global economic system, its capability to coordinate economic interaction and create welfare as well as its capability to distribute this welfare in a performance-based as well as equitable manner, is profound. In comparison to a non-distorted situation this leads to:

- an unsustainable allocation of resources and selection of investment project that do not reflect the best possible usage based on real scarcities,
- a redirection of global investment flows based on “wrong” signals of national resource endowments and competitive strengths,
- a redirection of global goods flows and regional distribution of value chains reflecting “wrong” scarcities and corporate strengths,
- a restructuring of national current account balances.

These effects depress total economic productivity and eventually lead to

- a global reduction of welfare created,
- a reduction of global development dynamics,
- altered regional participation in global value chains as well as economic development dynamics,
- a redistribution of global wealth and social welfare.

As can be deduced from the above, the impact of such a government induced distortion of national comparative advantages on the remainder of the global economic community and Europe in particular. What is at stake, is the economic viability of whole industrial sectors as well as the livelihood of whole segments of the population featuring specific skill patterns and labour market characteristics. Firms and labour that according to real market structures are highly competitive and productive, face the danger of being displaced by economic subjects artificially propped up by their government.

9. CONCLUDING ANALYSIS: A STATE CONTROLLED MARKET SYSTEM DISTORTING THE GLOBAL MARKETS

This study has been prepared in order to take a closer look at the specific business environment in which Chinese firms are operating and to investigate the inter-relationship between the Chinese economic system and the global market system. By analysing a very substantial number of primary Chinese documents as well as secondary sources and academic studies the report has been able to gain insights into the major principles guiding the operations of Chinese firms as well as their inter-relationship with the Chinese Government and the Chinese Communist Party. The roles of government and markets has been evaluated, indicating only a secondary role for markets. Economic interaction and the allocation of goods and resources in the Chinese economy continue to be predominantly determined by a broad array of governmental programmes, subsidy schemes and arrangements to punish or promote specific behaviour. As a result, nearly fifteen years after accession to WTO the patterns of economic interaction in the Chinese economy remain highly distorted and reflect neither the true scarcities of resources nor the competitive strengths of commercial enterprises.

One important observation this study has been able to make relates to the very close interrelationship between top managers of, for example the steel tubes and pipe industry and the Chinese Communist Party as well as Chinese government agencies. It has been possible to document that the borderlines between corporate management and state government as well as Party leadership are blurred to such an extent that any truly independent and purely market directed corporate behaviour is not possible. The fundamental characteristic of the Chinese economic system should be understood to be a specific “Crony Capitalism with Chinese Characteristics [where] the only way for entrepreneurs to succeed is to form special relationships with political leaders, which allows them to either break the formal rules or to obtain exclusive access to resources” (Bai/Hsieh/Song 2014, pg. 2)

The study has identified a large number of government policy programmes intended to promote (normatively determined) development of the Chinese industry and direct the economy, as a whole as well as for specific industries, towards specific goals. These governmental “industry design” activities have been shown to be based on a large array of subsidies and preferential tax arrangements, which are handed out to firms complying with the wishes and objectives of national and local governments. As these benefits are only available to domestic enterprises and are awarded on a non-transparent, highly discretionary basis, this report can confirm the state of affairs described in earlier studies dealing with the Chinese state-business nexus: Chinese firms do not operate in true market environment. The field is not level. And even against the background of recent reform announcements by the Xi/Li government, there seems to be no indication that this constellation might change in the near future.

As observed by McNally:

“China is [...] pursuing a policy package of refurbishing state capitalism. While a degree of liberalization is likely to be undertaken, the major thrust is one of re-vamping, restructuring and, ultimately, strengthening state control and guidance over the political economy.” (McNally 2013, p. 45)

Taking this analysis one step further the study has looked at the interface between Chinese and global markets. The study has been able to identify a substantial number of mechanisms by which Chinese government interferes in the transmission of signals on economic strengths and competitiveness and also intervenes directly in the composition and intensity of cross border activities. Ranging from distortions of the exchange rate to explicit subsidies to preferential tax arrangements these governmental interventions distort the sectoral pattern and product specific structure as well as absolute intensity of China's integration in the global division of labour. As a consequence, the role Chinese firms play in product specific global value chains are not compatible with any comparative advantages in China or and the individual firms' true competitive strengths. While this allows Chinese firms to gain unsustainably large market shares and corresponding revenue income, other, actually more competitive firms are being crowded out and must leave the market. In global perspective this results in

- a reduction of global welfare in the present,
- reduced dynamics for global economic development and growth and consequentially reduced levels of global welfare in future periods,
- a global redistribution of business activity and employment as well as tax-income based state capacity.

In general Chinese government, firms and Chinese society as a whole are profiting from this artificial redistribution of economic activity, while the rest of the world loses more than China wins.

Against the results of this comprehensive analysis of the working mechanisms of the Chinese polit-economic system, this study has also undertaken an assessment of the institutional set up as well as state - business interaction in the Chinese economic system against the benchmark of the MES criteria as set out by the EU and authorized by the WTO. The result of this assessment shows that China does not meet the requirements that would warrant awarding China the status of a “market economy”. In all four criteria, which are at stake, the situation in China is still far away from the minimum standards of a competition-based market system free of any discretionary governmental interferences. The authors of this report see no substantial reason that could justify awarding China the MES-Status. The institutional set-up as well as the pervasive nexus of the contemporary Chinese economic system with Chinese government and the Chinese Communist Party prove its non-compliance with the working principles of a competition based market economy. This institutional discrepancy makes

the Chinese economic system incompatible with the established global market system. Any un-mediated and un-controlled integration of the Chinese economic system into the global division of labour constitutes a threat to the sustained functionality of the latter. As a consequence this report comes to the conclusion that

the classification of China as a non-market economy constitutes a necessary “air-lock” mechanism shielding the European market system from alien, distorting influences. Only by withholding MES privileges and upholding the third-country-comparison methodology facilitated by treating China as a non-market economy can the real scope of price distortions in China’s factor of production and goods markets be revealed and true level of dumping be calculated. Any other approach will harm EU industries and discriminate against firms and economies upholding the principles of fair competition-based market processes worldwide.

Only by guaranteeing a fair competitive process that selects the best players for participation in the global value chain and weeds out those which are profiting from irregular practices, can welfare be created on an equitable and sustainable basis – for all societies participating – and dynamic economic development on a global scale be promoted.

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