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PUBLIC FILE VERSION

23 March 2015

Ms Kerry Taylor
Director, Dumping Operations 4
Anti-Dumping Commission
1010 La Trobe Street
DOCKLANDS VICTORIA 3008

Email: Kerry.Taylor@adcommission.gov.au

Dear Ms Taylor,

Commercial-in-Confidence

Review of Anti-Dumping Measures on Certain Aluminium Road Wheels exported from P R China

Further to my letter to you dated 23 October 2014, I draw your attention to the loss-making position of the aluminium industry in PR China (China) over the past three years at least.

I have attached a series of articles observing that China's largest smelter, Aluminum Corp of China (Chalco), has lost billions of dollars in each year 2012, 2013 and 2014 in its aluminium smelting enterprise.

I have also attached an article showing that despite these losses China continues to export aluminium semis (semi-finished products such as sheet), including pure aluminium disguised as semis, for recipients to melt upon receipt. Exports of semis allow the smelters to avoid the higher taxes China places on exports of aluminium ingot.

Based on the available evidence China's exports of aluminium semis (and therefore we conclude any product produced from aluminium, including ARWs) are at a loss and Chalco's results clearly point to ongoing domestic sales of aluminium that are below cost and below fair market value – i.e. heavily subsidised.

We note also the following :

1. China's exports of aluminium have been at prices up to US$642 per ton below the rest of the world LME price ;
2. China's exports of ARWs to USA in January 2015 were up 20% year-on-year to 2.4 million pieces in that month ;

ARROWCREST GROUP PTY LTD A.C.N. 007 521 280
34 Burleigh Ave., Woodville North, South Australia 5012
PO Box 5, Regency Park, South Australia 5942
Tel: (08) 8468 4000 Fax: (08) 8468 4020

3. China continues to have the wherewithal to export significant volumes of ARWs to any market it targets despite the loss making position of their domestic aluminium industry ;
4. USA has commenced legal action at the WTO including in respect of aluminium products from China - whose "actions are damaging (our) international marketplace, undercutting American businesses and hurting workers in communities across our country" ;
5. Chalco and ten other aluminium smelters are manipulating the Chinese market for aluminium ;
6. Chalco is still very much an SOE ;
7. A market situation for aluminium in China prevails to this day ;
8. It is predicted that Chalco's losses will continue until at least 2016 ;
9. Another former Australian manufacturer of ARWs (Performance Industries) closed its doors in Adelaide in December 2014.

As far as subsidised aluminium in China is concerned nothing has changed and there is compelling evidence to support our conclusion that prices for ARWs from China continue to be at significantly subsidised prices.

As aluminium accounts for at least 60% of the cost content of ARWs from China, the existing measures on ARWs from China must remain in place at their current levels. I think it would be fair to say that the same applies to aluminium extrusions.

Yours sincerely,

Bill Davidson

Bill Davidson
Director

Chinese aluminium champion slumps on loss

http://www.ft.com/fastft/270902/state-aluminium-champion-latest-casualty-of-chinas-push-west

Shares in China's state-owned aluminium champion are heading for their lowest close in six weeks as the company warned of a loss at its listed unit, after narrowly averting an embarrassing delisting with an asset sale to its parent the previous year.

Aluminum Corp of China (Chalco) has suffered as new and more modern smelters built in Xinjiang have destroyed margins for its smelters while independent private firms have eroded its market share in alumina, the raw material for aluminium, reports **Lucy Hornby.**
Its listed unit, Chalco, avoided a mandatory delisting by transferring assets to its state-owned parent, Chinalco, allowing it to post a one-off profit for 2013.

But Chalco warned of an Rmb16.3bn loss for 2014 in a statement to the Shanghai stock exchange, at least double the loss expected by analysts. The shares slid as much as 5.6 per cent in Hong Kong, before paring the decline to 2.8 per cent - the seventh consecutive day of falls.

Ephrem Ravi, head of Asia metals and mining for Barclays, wrote:

The magnitude of the loss implies that apart from the one-time impairment, Chalco's operating loss also worsened in 4Q14 more than we expected.

Slowing Chinese growth has not helped, with the latest PMI survey this weekend showing a slowing in manufacturing growth for the first time since 2012.

But the larger issue is China's enormous overcapacity in the aluminium sector. Prices today are lower than they were in the late 1980s and mid 1990s, and apart from a brief rise about six years ago the lightweight metal has largely been absent from the commodities boom.

"The current price of aly in China means that about 70 pct of capacity is underwater. And all of their capacity would be in that 70 pct," said industrial consultant Michael Komesaroff, of Urandaline Investments.

China has prioritized the development of vast coal deposits in Xinjiang, an arid and ethnically divided region that borders Central Asia. Industries constrained by stricter environmental enforcement and rising power prices in the east have been encouraged to move to Xinjiang and other remote, coal-rich provinces.

Chalco held the state monopoly in alumina and moved downstream into aluminium smelters and fabricators as demand for construction materials boomed.

However, it is largely reliant on power from the national grid, while rival alumina producers in Shandong province developed their own power plants and Beijing's 'Develop the West' policy opened the door for new plants in Xinjiang.

An alumina plant Chalco commissioned in mid-2013 in the inland port city of Chongqing has been loss-making since its establishment, in part because of Indonesia's ban on exports of bauxite, the ore from which alumina is refined.

Mr Ravi of Barclays noted that Chalco "did not stock up on bauxite to the same extent as some of its privately owned peers before the ban came into force".

Chalco Posts $1.33 Billion Loss

http://www.wsj.com/articles/SB10001424127887324685104578386204185752968

By
CHUIN-WEI YAP
Updated March 27, 2013 1:44 p.m. ET

BEIJING—Aluminum Corp. of China Ltd., known as Chalco, reported a deeper-than-expected loss for 2012, but the company expects to return to profit this year in tandem with an accelerating world economic recovery.
China's biggest alumina and aluminum producer by output on Wednesday posted a net loss of 8.23 billion yuan ($1.33 billion), citing higher raw-material costs and lower aluminum prices. This compares with a net profit of 238 million yuan in 2011.

Weak global aluminum demand dragged prices down by 7% last year, while the cost of producing alumina, a key ingredient in the making of aluminum, rose 4%, Chalco has said.

The company issued a profit warning in January, but the loss was much deeper than the average 4.78 billion yuan forecast by 20 analysts in a Thomson Reuters poll.

"Supply and demand as well as the price of aluminum are closely tied to changes in the global and Chinese macroeconomies," Chalco Chairman Xiong Weiping said Wednesday. "In 2012, the world economic recovery lacked momentum, while Chinese economic growth slowed."
But operating conditions are improving thanks to a pump-priming effort by major economies, Chalco said.

"The relatively loose monetary policies in developed economies around the world and continuous favorable economic development in China and the U.S. will provide strong support to the consumption of aluminum," Mr. Xiong said.

Nevertheless, analysts warned that China's aluminum industry still faces serious overcapacity.

U.S.-based consultancy Bernstein Research said in a recent note that of 19 million metric tons of new global smelting capacity expected to come on line in the 2013-2017 period, 14 million tons will be in China.

In August, Chalco spent about two billion yuan to buy 35% of Ningxia Electric Power Group Co. in an effort to control raw-material costs by securing better access to its own electricity supply. Power accounts for about half of the alloying metal's production cost.

Analysts noted that Chalco's various overseas ventures have run into difficulties.

The company's proposed deal to acquire Mongolia-focused coal miner SouthGobi Resources Ltd. fell apart in September, further weakening its efforts to diversify its products. Chalco has also threatened to sue Erdenes-Tavan Tolgoi LLC over access to a portion of Mongolia's coal reserves, after the state-owned mining company scotched a $350 million coal-for-loans deal with Chalco over a pricing disagreement.

Chinese aluminum companies are facing challenges in securing bauxite, the principal raw material that is processed to make aluminum. Indonesia, China's top bauxite supplier, in mid-May introduced a 20% export tax on unrefined mineral types, including bauxite.

Chalco has signed a deal with an Indonesian miner to develop a bauxite refinery in the Southeast Asian nation as a way of guaranteeing its supply.

In August, Chalco Hong Kong Ltd., a wholly owned subsidiary, said it would develop a project to produce alumina—an intermediate between bauxite and aluminum—in Indonesia's East Kalimantan province, but it hasn't disclosed any further details on the project.

Chalco predicts 2012 loss, turns to coal

By Zhang Ye Source:Global Times Published: 2013-1-31 0:18:01

http://www.globaltimes.cn/content/759270.shtml

The Aluminum Corporation of China (Chalco) Wednesday predicted huge losses for 2012 due to the sluggish domestic aluminum market, but projected that its coal projects in China and abroad will bring profits in 2013.

In 2012, the price of aluminum dropped by some 7 percent year-on-year.

Chalco also reduced the year's production of alumina, a material used to make aluminum, to 1.7 million tons due to Indonesia's ban on bauxite product exporting, which caused alumina costs to increase by some 4 percent, Chalco said in a statement posted on the Shanghai Stock Exchange on Wednesday.

The company did not reveal the specific amount of its loss.

The gloomy aluminum market around the world likely caused Chalco to lose tens of millions of yuan per month in 2012, said Li Chaolin, a coal and energy expert with Anbound Consulting.

In 2013, the company said, it plans to respond to the losses by decreasing production costs in its aluminum operation and scaling up its investments in coal projects.

Chalco should shift its focus from aluminum to its coking coal operation, since coking coal is lucrative and rare in China at present, said Li.

Li said that coking coal in China, which mostly relies on imports, can be sold at a high 1,300 yuan ($209) per ton, compared to ordinary coal's price of 630 yuan per ton.

If the coking coal operation goes well in 2013, it should largely offset Chalco's current losses, but that hope is clouded by Chalco's dispute over its coal-for-loan deal with Mongolia's state-owned coal company Erdenes-Tavan Tolgoi (E-TT), he noted.

Under the deal, signed in July 2011, Chalco gave E-TT a loan of $250 million to develop its 7.5 billion ton Tavan Tolgoi coal project, with the loans to be paid back in coking coal worth the same amount.

Mongolia has suspended exporting coal to Chalco, claiming the agreed-on prices are lower than the cost of production, and threatened to seek other international buyers, Reuters reported Monday.

Chalco told the Global Times on Wednesday that if the Mongolian side breaches the contract maliciously, the company will pursue legal action.

E-TT refused to comment when contacted by the Global Times on Wednesday.

Chalco Falls in Shanghai, Hong Kong on Wider-Than-Expected Loss

byBloomberg News

2:51 PM ACDT
February 2, 2015

http://www.bloomberg.com/news/articles/2015-02-02/chalco-falls-in-shanghai-hong-kong-on-wider-than-expected-loss

(Bloomberg) -- Aluminum Corp. of China Ltd. tumbled as much as 9.6 percent in Shanghai trading after revealing a wider-than-expected loss amid asset writedowns and falling prices.

Aluminum Corp., also known as Chalco, probably had a net loss of 16.3 billion yuan ($2.6 billion) last year, the Beijing-based company said in a statement on Friday. That's wider than the 6.5 billion yuan mean estimate of 14 analysts compiled by Bloomberg. Chalco fell to 5 yuan in Shanghai before trading 6 percent lower at 5.20 yuan at the lunch break. Its Hong Kong shares dropped 3.1 percent to HK$3.45.

The swing back to a loss at China's largest aluminum producer for the second time in three years is due to impairment provisions at some halted production plants in Chongqing, Ningxia and Guizhou and one-off costs for workforce reduction, the company said. The scale of the full-year result implied that the fourth-quarter operating loss was also worse than expected, Barclays Plc Hong Kong-based analysts led by Ephrem Ravi said in a client note dated yesterday.

"The current share price seems unsustainable in the absence of significant external support," Ravi said in the note. Chalco rose about 60 percent in Shanghai and 24 percent in Hong Kong in the past year.

Chalco is expected to post losses until at least 2016, according to data compiled by Bloomberg. Aluminum Corp. of China, Chalco's parent, has been seeking to turn around its businesses by 2015 as the listed unit strives to recover from losses exacerbated by high electricity costs and overcapacity in the aluminum industry.

Aluminum Prices

"At current Shanghai aluminum prices, we estimate Chalco to remain at loss," Credit Suisse Group AG analysts Trina Chen and Owen Liang said today in a note.

Aluminum for April delivery in Shanghai gained 0.2 percent to 12,840 yuan a metric ton at 10:41 a.m. local time, trimming losses for the past year to 3.8 percent.

Ge Honglin, the former mayor of Chengdu, was named in October as the new chairman of Chalco's state-owned parent, replacing Xiong Weiping. Xiong's five-year tenure in the parent ended after General Manager Sun Zhaoxue, the company's No. 2 executive, was placed under a probe for graft.

To contact Bloomberg News staff for this story: Helen Yuan in Shanghai athyuan@bloomberg.net

China's aluminum semis competitive advantage over domestic production in ROW while still wide, at a multi-month low

March 19, 2015

HARBOR Aluminum Intelligence Unit LLC intelreports@harboraluminum.com via 1s6.memberemail.com

Since early 2014, HARBOR has been reporting on the wide price advantage Chinese aluminum semis producers enjoy over their ROW´s counterparts. While the Chinese price advantage is still notably wide, it has recently narrowed to multi-month lows. North American spreads are at their tightest since June 2014, Japan's since April 2014, and Europe's since February 2014.+

Since November 2014, the Chinese aluminum semis producers' price advantage (using common alloyed sheet as an example) has fallen from a peak of $642 per mton to $427 per mton today in North America, from $615 per mton to $389 per mton today in Japan, and from $595 per mton to $290 per mton today in Europe. In annual terms, spreads are now tighter in Europe (down 8.4% y/y) and Japan (down 0.9% y/y), but wider in North America (up 8.4% y/y). Please see the attached pdf file for all details.

Still, the Chinese price advantage is wide enough for primary aluminum demand in ROW and premiums to feel the impact of rising Chinese exports of semi aluminum products and ample scrap availability. The core drivers are: a) The advantageous all-in metal price spread that China enjoys, given elevated premiums in ROW, b) China's export VAT rebate system for aluminum semis (between 13 and 15%), and c) Booming exports of Chinese P1020 units disguised as extrusions and sheet/plate in order to capture VAT rebates.

US imports of aluminum wheels were up 12% y/y in January, amid higher Chinese-origin volume.

March 13, 2015

HARBOR Aluminum Intelligence Unit LLC intelreports@harboraluminum.com via 1s6.memberemail.com

HARBOR's market intel indicates US imports of aluminum wheels were **up 12% y/y in the first month of the year to 3.3 million units** mainly amid an increase of Chinese-origin wheels (up 20% y/y to 2.4 million units). This increase more than offset lower imported volumes from South Korea, Canada, Japan and Taiwan. Additional anecdotal market evidence suggests at least part of the increase in Chinese aluminum wheel imports into the US is due to a major Chinese wheel producer substantially increasing its exports to various automotive producers.

U.S. challenge to China subsidies stretches to aluminium products

Thu Feb 12, 2015 3:10am EST

http://www.reuters.com/article/2015/02/12/usa-trade-china-aluminium-idUSL5N0VM1H320150212

MELBOURNE Feb 12 (Reuters) - A legal challenge by the United States to Chinese export subsidies that takes aim at aluminium products is set to revive industry concerns that Chinacould cut a sales tax refund that has boosted exports and eased a supply shortfall in Asia.

The U.S. on Wednesday launched a legal challenge to Chinese subsidies supporting billions of dollars of exports across a wide swathe of industries from steel to shrimp, in the first step of a World Trade Organization dispute.

Chinese companies in designated export hubs benefited from free or subsidized services, cash grants and other incentives which gave their products an unfair advantage, the U.S. said. Industries covered include advanced materials and metals such as speciality steel, titanium and aluminium products.

"The Chinese primary metals industry is still alive today only thanks to forgiveness of debt, subsidies from governments on electricity bills, low interest loans and so on," Managing Director Paul Adkins of Beijing-based aluminium consultancy AZ China said.

The spotlight on aluminium product exports could raise pressure on Beijing policymakers to kill a value-added tax (VAT) refund on exports of semi-manufactured products, even though any action could take years to complete, Adkins said.

"It's not inconceivable for the government to make some changes to the VAT refund scheme... It's already on (policymakers') agenda, because they're looking at ways to support domestic industry," he said. Removal of the refund would drain metal from the region and support premiums, he added.

China is the world's top producer of aluminium and semi-manufactured products used in everything from window frames to beer cans. China adds a 15 percent tariff to exports of raw aluminium ingot on top of a 17 percent VAT effectively making the energy intensive metal uneconomic for export.

But exports of semi-manufactured shapes, known as semis, don't attract the tariff, and are eligible for a refund for most of the sales tax, making them cheaper for consumption in other markets.

China's exports of semi-finished products soared to 4.5 million tonnes last year. This tempered a record run for premiums - the cost consumers pay traders or producers to obtain metal - in Asia. Some in the industry expect regional premiums to fall if the trend accelerates further. (Reporting by Melanie Burton in MELBOURNE and Krista Hughes in WASHINGTON; Editing by Alex Richardson)

US launches legal action to Chinese export subsidy programme

The Office of the US Trade Representative has challenged China at the World Trade Organization (WTO) claiming that the Chinese government offers huge subsidies worth billion of dollars for the exports of seven economic sectors. Among these industries is the metals sector including specialty steel, titanium and aluminium products. "China's actions are damaging our international marketplace, undercutting American businesses and hurting workers in communities across our country," said Congressman Mike Thompson. "This case is about making sure the playing field is level and that China operates under the same fair and basic set of rules that American businesses and workers must abide by."

Consultations are the first step in a WTO dispute settlement process. If the United States and China do not reach a mutually agreed solution through consultations, the US may request the establishment of a WTO dispute settlement panel.

As regards the aluminium sector: China adds a 15% tariff to exports of raw aluminium ingot on top of a 17% VAT; this makes the energy-intensive metal uneconomic for export. In contrast, the export of semi-finished products does not attract the tariff, and is eligible for a refund for most of the sales tax, making them cheaper for consumption in other markets. China's exports of semi-finished products soared to 4.5m tonnes last year.

Chinese smelters plan to withhold aluminium stocks to boost prices

Chalco and ten other Chinese aluminium smelters planned to withhold a combined 1.2m tonnes of aluminium inventories in order to boost prices, *Shanghai Metals Market (SMM)* reported. However, SMM sees little chance that these smelters will retain such sizable inventories.

Tight liquidity at higher-cost smelters incurring losses makes it impossible for them to hold such huge volumes. Lower-cost smelters, though still profitable, are similarly ill-prepared to tie up such large volumes of cash in unsold inventories. Doing so now is even more ill-advised, given the potential slump in demand coming around the Chinese New Year, 19 February this year, SMM understands.

While these smelters's plan to withhold such sizable inventory may spur a quick surge in sentiment, this move will hurt the market in the long run by slowing the exit of less efficient capacity. Moreover, withheld material will eventually flow back into the market, prolonging the supply glut and distorting prices, said an aluminium analyst at SMM.

International Aluminium Journal - Volume 91, March 2015

Chalco suffered huge loss in 2014

China's state-owned aluminium producer, Aluminium Corp. of China (Chalco), has announced a loss of 16.4 billion yuan (USD 2.6bn) for 2014 due to low aluminium prices and impairment charges, including a 3.3 billion yuan impairment related to the 800,000-tpy Chongqing alumina project that has been suffering losses. As China's aluminium market faces the issue of overcapacity and increasing electricity costs, Chalco forecasts that losses will continue until at least 2016.

"The current price of aluminium in China means that about 70% of capacity is underwater. And all of their capacity would be in that 70%," an analyst of Urandaline Investments said.

Chalco is under pressure from domestic competitors as new and more modern smelters built in Xinjiang have squeezed margins for its smelters while independent private firms have eroded its market share in alumina, the raw material for aluminium. The aforementioned alumina plant which Chalco commissioned in mid-2013 in the inland port city of Chongqing has been loss-making since its establishment, because of low alumina prices and the Indonesian ban on exports of bauxite, the ore from which alumina is refined.

In 2013 Chalco earned net profits of 948m yuan (USD152m) as a result of cost cuts and the selling of assets. In 2012 the net loss was 8.2bn.

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> Why Western Aluminum Smelters Are Facing Weaker-than-Expected Demand

CHINA'S ALUMINUM INTELLIGENCE REPORT

March, 2015

KEY MESSAGES

1. **Demand for ROW's metal weakening.** ROW's primary aluminum producers find themselves up against an unexpected weakening trend in demand. In our conversations with major aluminum consumers and producers in the Western World, it is clear to HARBOR that demand for the metal that Western world smelters produce has resulted to be less than anticipated given booming Chinese aluminum semis exports and increasing scrap availability in the US because of less exports to China.

2. **Chinese exports of semis are intensifying and displacing primary aluminum demand in ROW.** Latest customs data shows that total Chinese aluminum semis exports in the last three months including February, if sustained, will push aluminum semis exports up by more than 2 million mton this year (from 3.6 million mton in 2014 to around 5.7 million mton in 2015). This increase is three times greater than China's previous annual semis export record increase (800k mton in 2011) and more than twice the 900 kmton we were expecting ROW's primary aluminum demand to grow this year. Given that imported Chinese aluminum semis displace demand for primary aluminum in ROW, today's booming exports of Chinese aluminum is negatively impacting demand for primary aluminum produced in the Western World.

3. **Scrap supply has increased and is also playing a role.** Customs data also shows that US exports of aluminum scrap to China were down to 60,000 mton in January, 30% less than January of last year and the lowest level since February 2009. The downward trend in monthly aluminum scrap exports (begun in the summer of 2011) has intensified lately and accumulated a decline of 56% since 2011. Most recent US scrap export figures thus imply that scrap availability in the US (which displaces demand for primary aluminum) will increase around 350,000 mton this year merely from the drop in exports to China. This amount is close to how much primary aluminum demand grew last year in the US, and greater than the growth we expected for 2015 (after melt loss considerations). This trend is amplified a bit further if we consider that the US is internally generating more scrap after 28 months of continuous manufacturing growth.

4. **Impact is greater in Asia, but also felt in US and Europe.** Chinese exports to Asia over the most recent 3 months (for which we have data) were up 88% y/y, growing by more than 1 million mton annualized. HARBOR estimates that more than 75% of this growth is really P1020–disguised as extrusions, plate and sheet. North America is the next-hardest-hit region, as exports to the US (in the same time frame) were up 90% y/y growing by around 280,000 mton annualized, with more than 75% of this growth coming from genuine alloyed aluminum sheet (up by 240,000 mton annualized). HARBOR's intelligence indicates the US is also importing P1020 units disguised as unalloyed aluminum plate and sheet, a trend not yet revealed by official trade data nor considered by us (exacerbates the impact). Exports to Europe were also significant as they were up by 60% y/y, growing by 200,000 mton annualized, with more than 60% of this growth coming from aluminum sheet and plate exports (some of it is really P1020 disguised as plate and sheet).

5. BOTTOM LINE> **Demand for primary aluminum produced in ROW, so far this year, has resulted to be much weaker than expected in the shadow of booming Chinese exports of aluminum semis, as well as increased scrap availability in the US.** The core drivers of these trends are: a) The advantageous all-in metal price spread that China enjoys, given high premiums in ROW, b) China's VAT export rebate system for aluminum semis (between 13 and 15%), and c) Booming Chinese exports of P1020 units, disguised as extrusions and sheet/plate in order to capture VAT rebates. These drivers will probably not go away soon.

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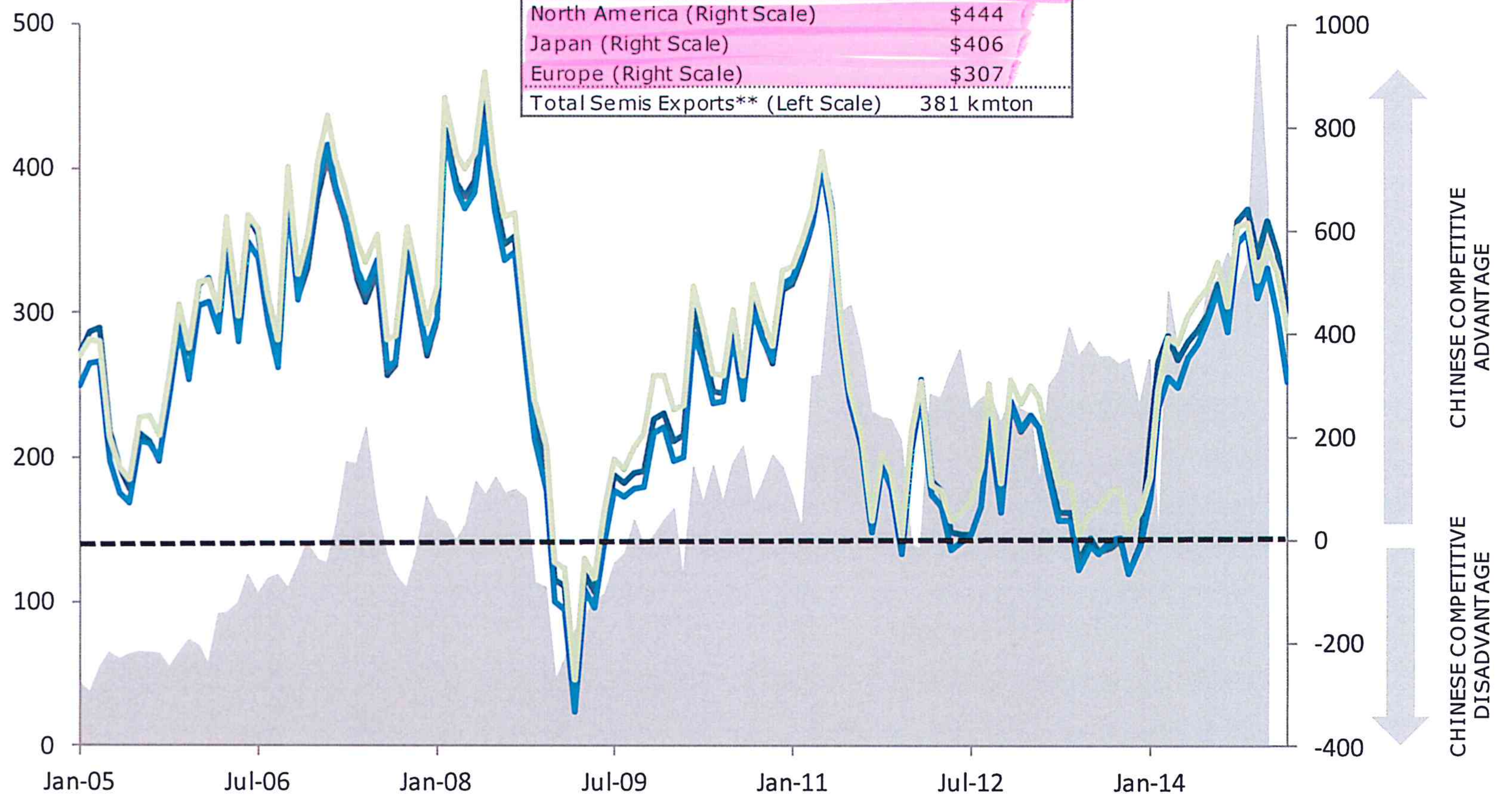
Chinese exports of aluminum semis are booming on favorable price spreads…

CHINA'S ALUMINUM SEMIS COST ADVANTAGE VS WESTERN WORLD*

($/mton, monthly data)

Region	Today´s Spread
North America (Right Scale)	$444
Japan (Right Scale)	$406
Europe (Right Scale)	$307
Total Semis Exports** (Left Scale)	381 kmton



*(LME primary aluminum + *HARBOR's* transactional regional premiums + conversion costs) – (SHFE primary aluminum price + domestic premiums/discounts + conversion costs +freight – 13% VAT rebate)
**Data for January 2015
Source: *HARBOR Aluminum with LME, SHFE and Customs General Administration PRC data*

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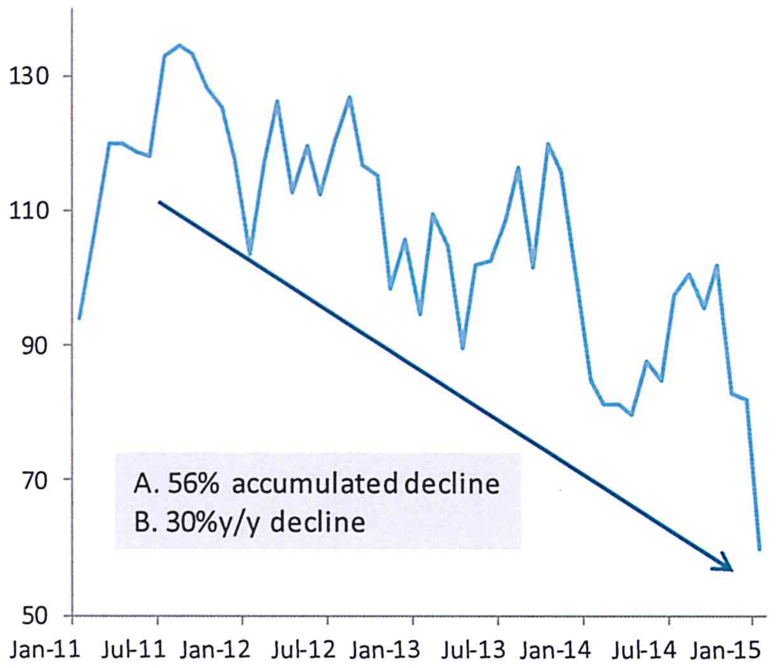
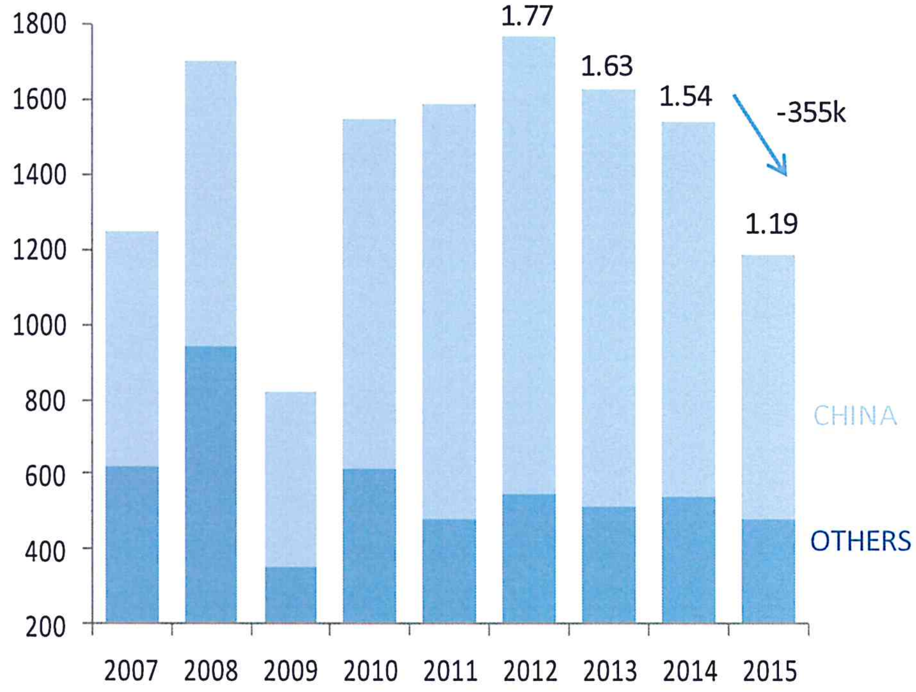
…at the same time that US aluminum scrap exports to China have fallen to a 5-year low

US ALUMINUM SCRAP EXPORTS TO CHINA
(monthly data, thousand mton)



Source: *HARBOR Aluminum and US Customs Data*

US TOTAL ALUMINUM SCRAP EXPORTS
(January data, annualized thousand mton)



Source: *HARBOR Aluminum and US Customs Data*

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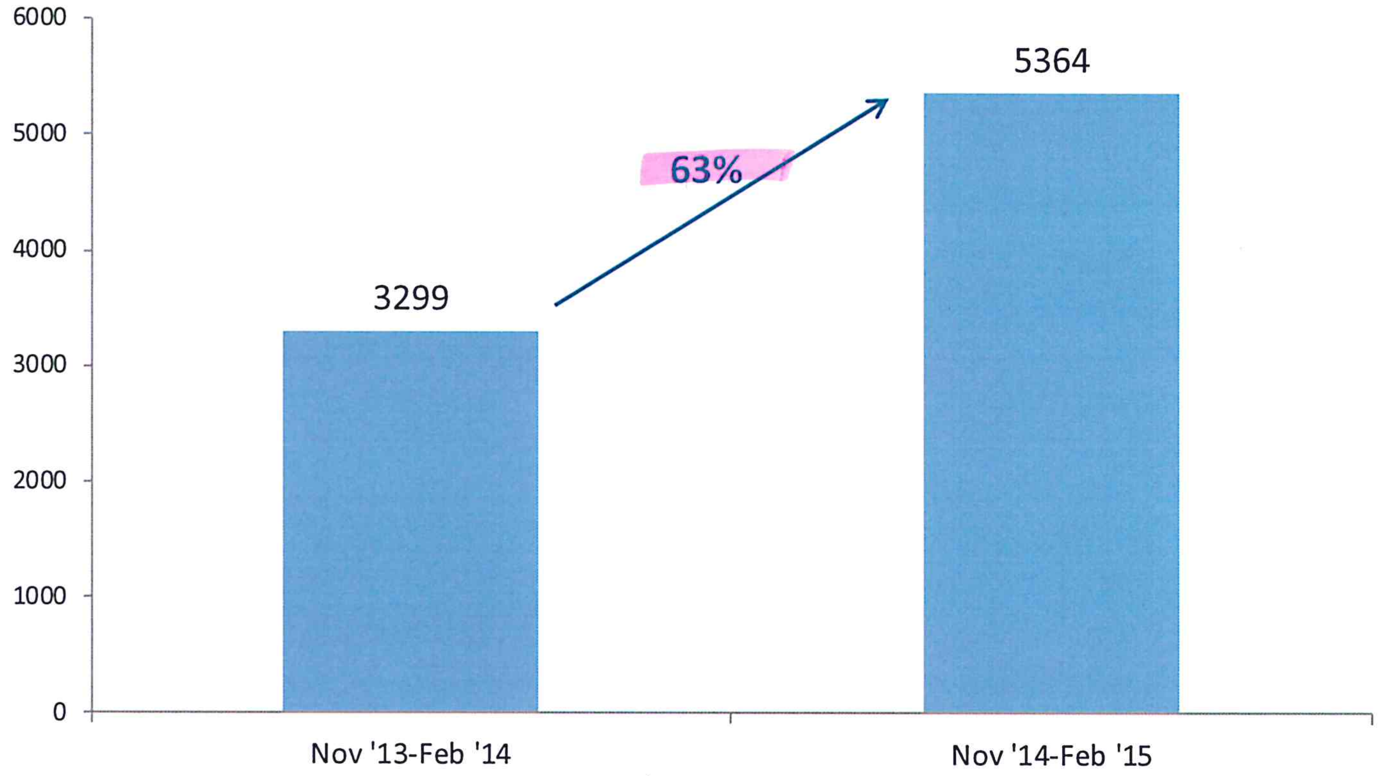
Chinese aluminum semis exports were up in last quarter by 2.1 million mton annualized

CHINA´S TOTAL ALUMINUM SEMIS AND P1020 EXPORTS
(annualized thousand mton)



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

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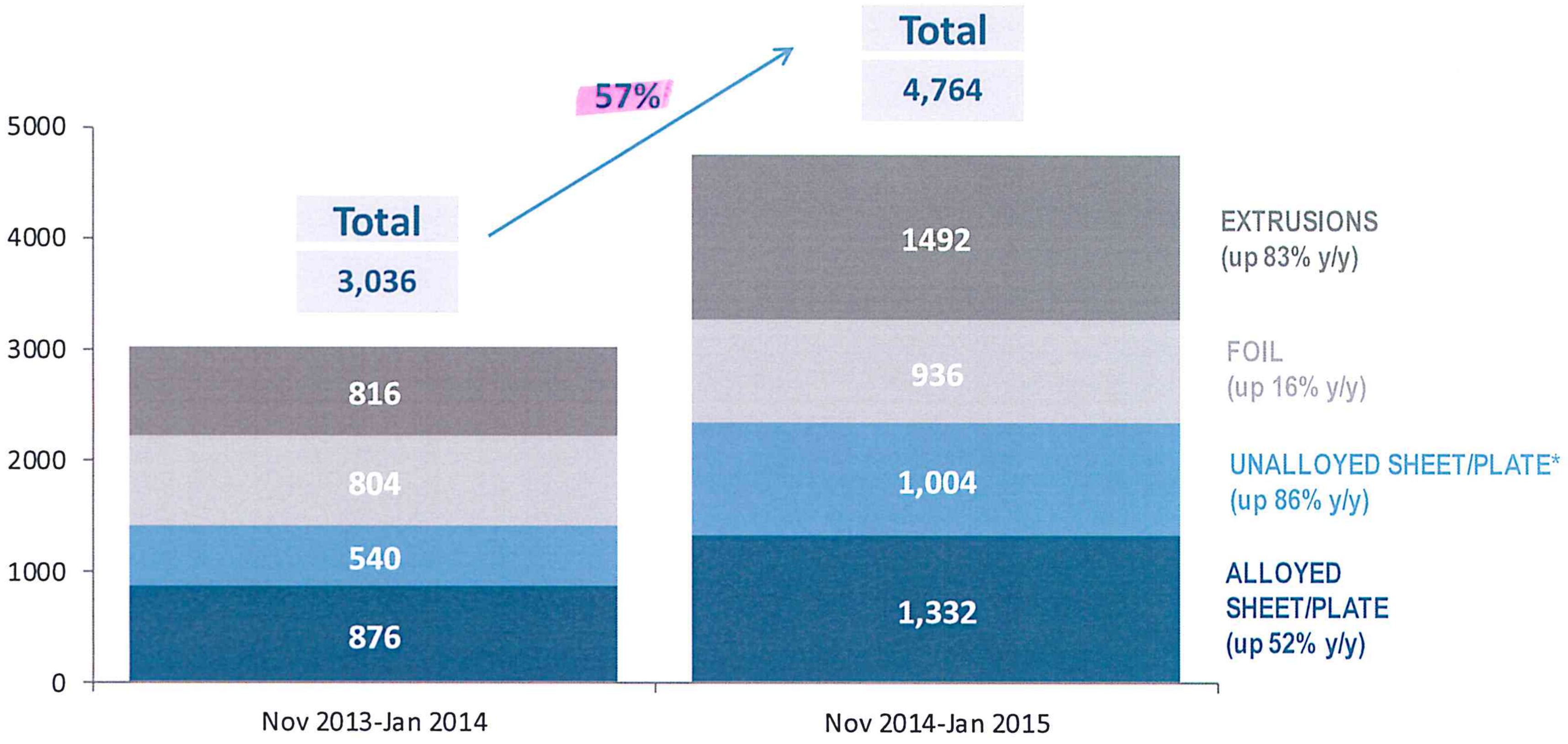
….with the strongest growth in aluminum sheet/plate and P1020 extrusions (for remelt)

CHINA TOTAL ALUMINUM SEMIS EXPORTS IN NOV-JAN TIME FRAME
(annualized thousand mton)



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

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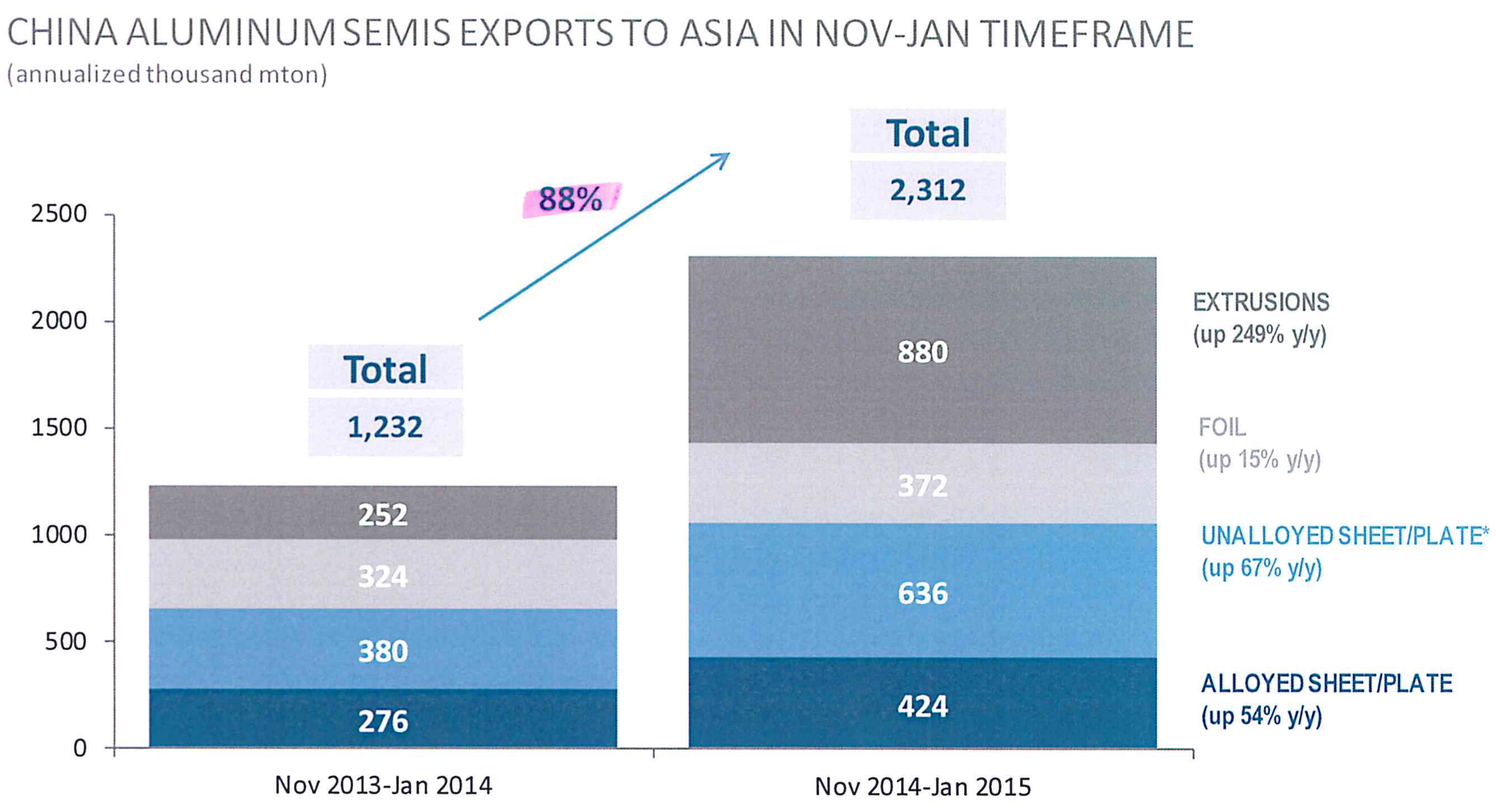
Chinese semis exports to Asia are up 88% y/y (over 1 million mton annualized)



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

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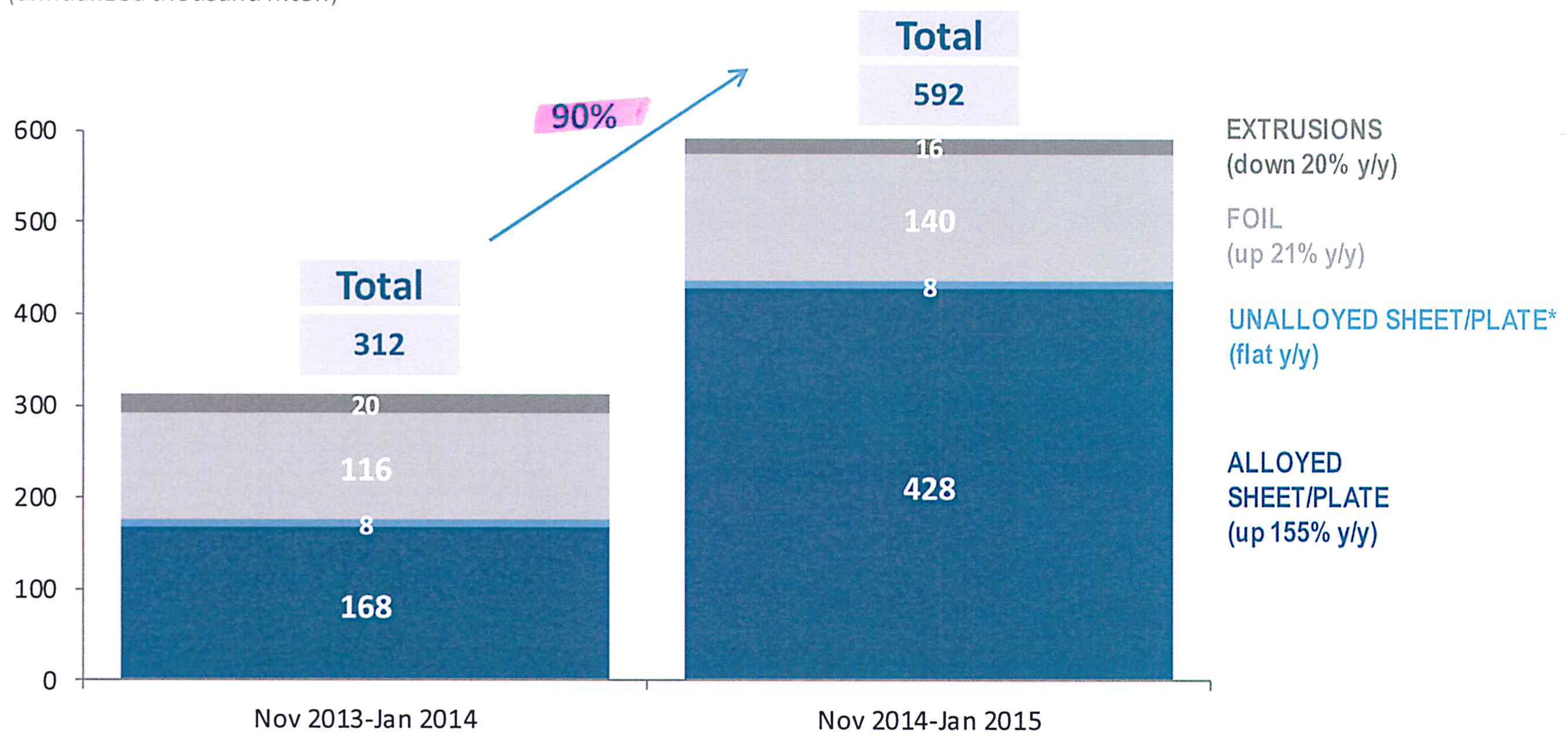
Chinese semis exports to US up 90% y/y due to much higher alloyed sheet/plate

CHINA ALUMINUM SEMIS EXPORTS TO US NOV-JAN TIMEFRAME
(annualized thousand mton)



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

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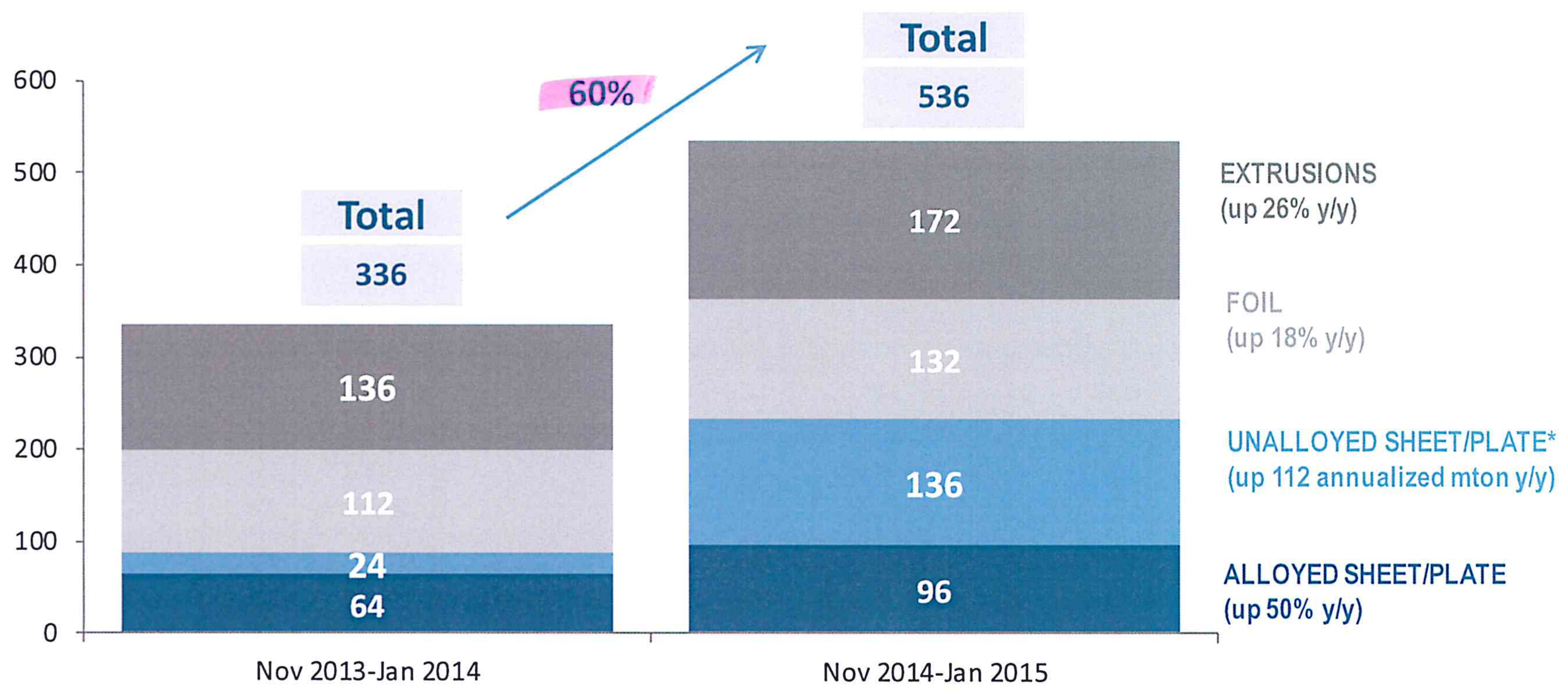
Chinese semis exports to Europe are up 60% y/y mainly on sheet/plate products

CHINA ALUMINUM SEMIS EXPORTS TO EUROPE IN NOV-JAN TIMEFRAME
(annualized thousand mton)



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

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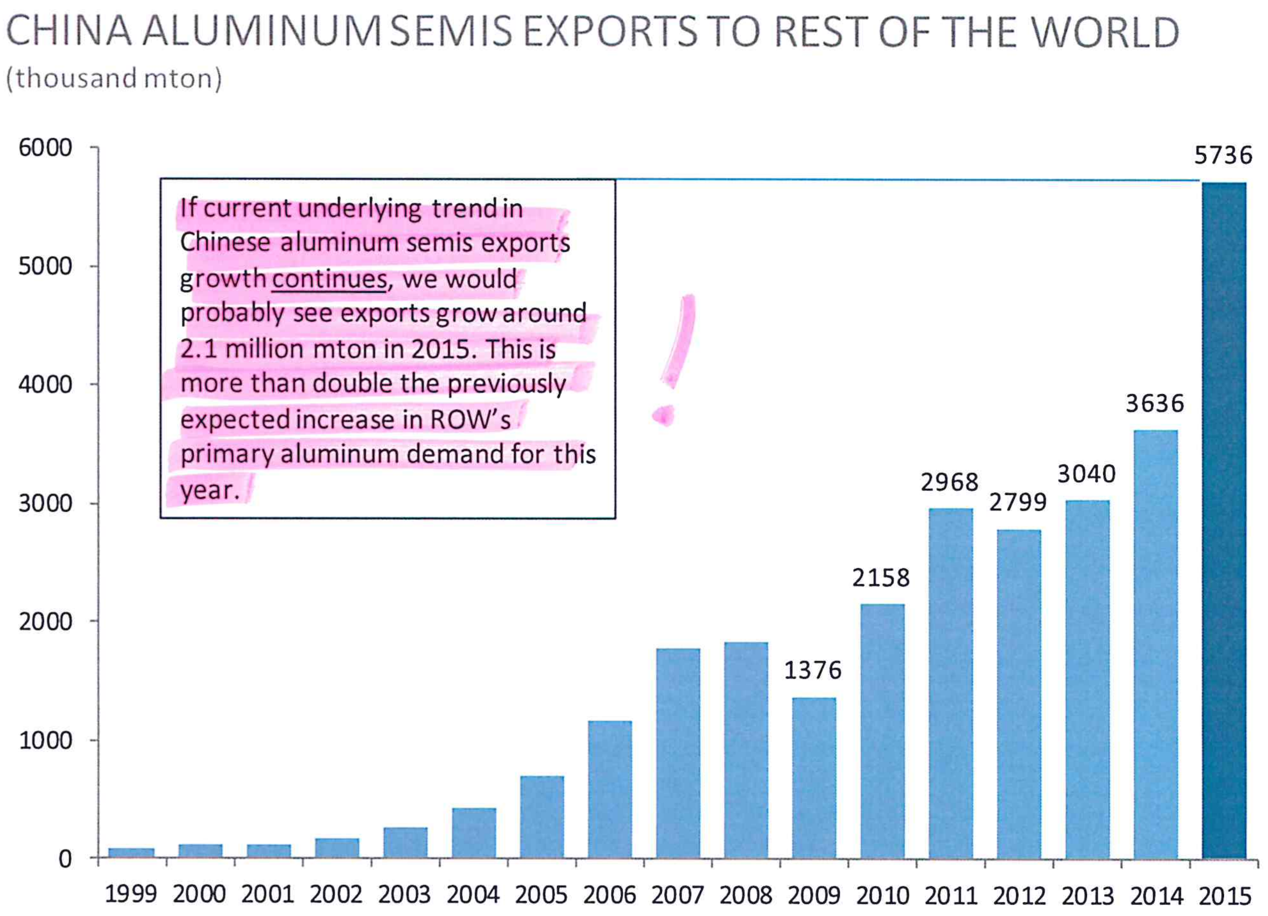
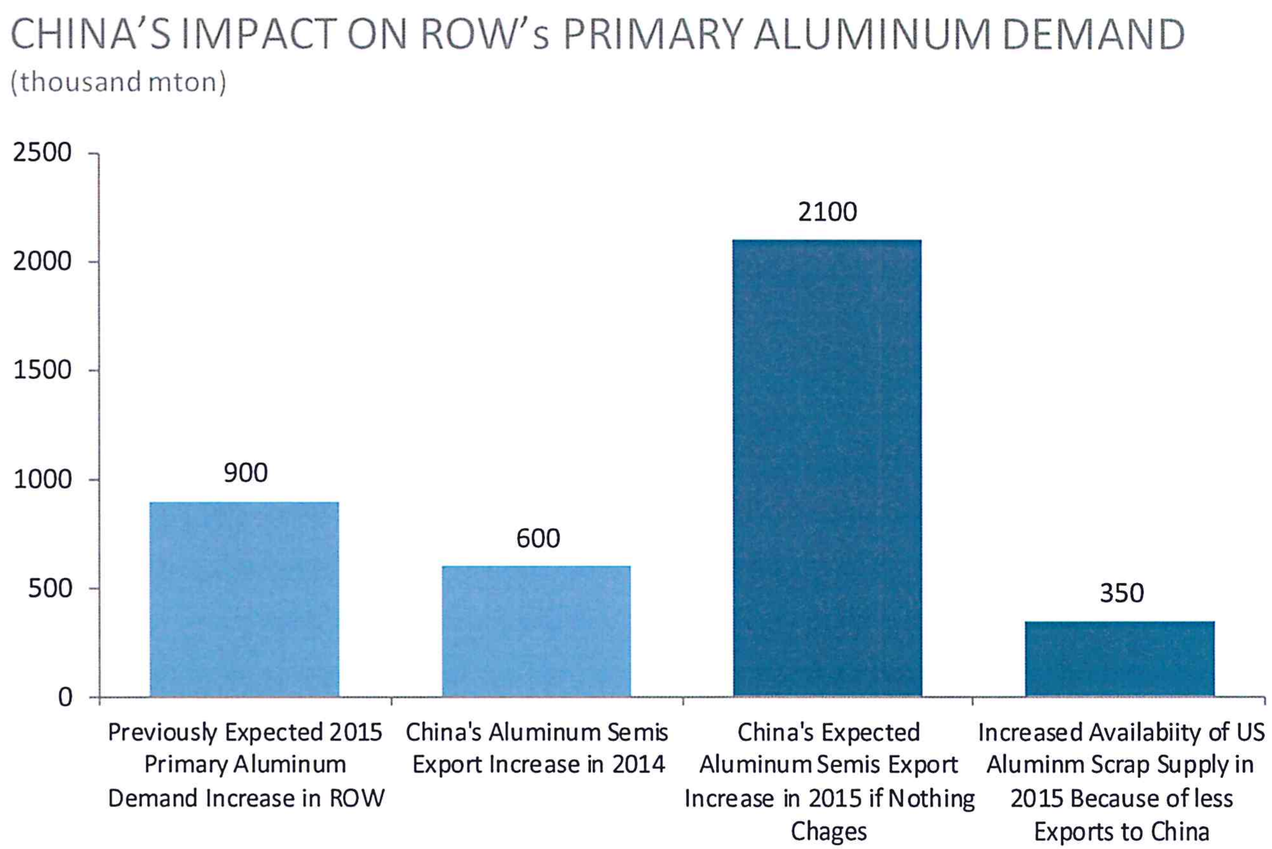
China's semis export growth, if sustained, could increase ROW's supply by 2 million mton



Source: *HARBOR Aluminum* and *Customs General Administration PRC data*

...and weaken materially demand for primary aluminum produced in ROW



Source: *HARBOR Aluminum data*