# Copy Paper from UPM-Kymmene Changshu – Briefing Note

The following briefing note has been provided at the request of the Commission and has, in general, been assembled from publicly available information. It draws heavily on previous submissions.

## 1. General:

UPM-Kymmene Changshu is believed to be responsible for more than 75% of Chinese-manufactured copy paper exported to Australia.

From the Changshu Economic & Technological Development Zone website <a href="www.cedz.org">www.cedz.org</a>, UPM-Kymmene (Changshu) Paper Industry Co., Ltd is a wholly owned subsidiary of UPM Group, one of the largest Finnish companies. The company in China was established in 2003, covering an area of 1,840,920 square metres, with the total investment of US\$ 1.1 billion.

At this plant, high-quality coated and uncoated woodfree writing and printing paper with an annual output of 800,000 tons is produced on two paper machines. There is no pulp production on site.

The plant is located in the Changshu Economic and Technological Development Zone beside the Yangtze River adjacent to the first bridge, between Shanghai and Nanjing.



The second paper machine on site, (referred to as PM1), installed in 2005, manufactures the goods.

UPM-Kymmene Changshu PM1 has a capacity of 450,000 tonnes/year and the project, which also included the necessary services infrastructure and cut-size sheeting equipment cost USD 470 million in 2005.

A third paper machine, very similar to PM1 but of higher speed, is planned or under construction on the site. This will more than double its copy paper capacity.

Google Maps aerial photos of the Changshu Economic and Technological Development Zone and of the UPM-Kymmene mill follow.

The mill has direct access to major freeways and has its own port for Yangtze River ships, which include both container and coal freight. A railway to Shanghai is said to be under construction.

# Changshu Industrial Park



UPM-Kymmene Changshu



## PM1 at UPM-Kymmene Changshu

The following information, which describes the scope of the project to install PM1 in 2005, was included in the original application as *Application Attachment B-4.18*.



#### Investment cost:

USD 470 million

## **Production Capacity:**

• 450 000 t/yr uncoated woodfree, copy & offset papers

## **Project Schedule**

- Started up May 24, 2005
- Project implementation time 21 months

#### **TECHNICAL DATA**

#### **Product**

- uncoated woodfree, copy and offset papers
- grammage range 60-120 g/m<sup>2</sup>

## Raw material

• hardwood, softwood, filler

#### Pulp storages, existing

• new pulper lines for short and long fibers

## Paper machine

- supplier: Metso
- production capacity 450 000 t/a
- speed 1 800 m/min
- wire width 10 400 mm
- trim width after winder 9 650 mm
- OptiSizer
- 2 WinDrum L winders

## Intermediate storage

• 2 automatic KCI Konecranes

## Sheeting plant and product storage

- supplier: E.C.H. Will
- new 15-pocket cut size and odd size sheeters
- · new folio sheeter
- relocation of existing cut size sheeters
- relocation and modernization of one folio sheeter

## Rebuild of power plant to supply PM1

- rebuild of coal boilers
- 4 package boilers 56 t/h steam
- · rebuild of coal handling

## Fresh water treatment plant extension

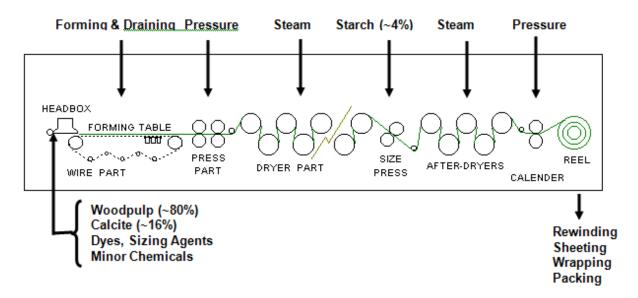
- new raw water lagoon 100 000 m3
- new softeners:

#### Effluent treatment extension

- new spill basin
- upgrading of the biological treatment
- second sludge dewatering line

## 2. The Copy Paper Manufacturing Process

The production process for cut sheet copy paper is as set out by the diagram below.



The major raw material used in papermaking is wood pulp, supplemented by Calcite 'filler' and starch.

At the UPM-Kymmene Changshu mill, all or most of the wood pulp is manufactured elsewhere and may be purchased on the international market or from related companies, most probably UPM-Kymmene Uruguay for hardwood pulp and North American sources for long fibre softwood pulp.

The other two key materials used are Calcite, mined and processed in China and Starch, which we believe is sourced from Thailand.

The papermaking process in all printing & writing paper mills starts by preparing and blending pulps, filler, starch, sizing agents, dyes and minor chemicals which are then, in very dilute form (often less than 0.5% solids) pumped to a 'headbox' or horizontal nozzle which forms the paper sheet on a horizontal rapidly moving mesh belt or 'wire' from which some of the water is drained by gravity and by suction.

At the end of the wire, the paper sheet is still only around 20% solids (80% water). The sheet then passes through a series of press rolls and more water is removed by pressure, leaving the sheet about 40% solids (60% water).

The remainder of the water is then removed by evaporation as the sheet passes around a series of steam heated drying cylinders.

The sheet then has a layer of starch applied to each surface at the 'size press' and is again dried using steam heated cylinders and calendared between smooth rolls at high pressures to give a smooth surface. The sheet is then rolled into parent rolls or 'Jumbos' several metres long (9.65m for UPM-Kymmene Changshu PM1) and over 2 meters in diameter, weighing several tonnes.

The Jumbos are then rewound on the 'machine winder' into smaller reels, generally 1.5 metres in diameter and around 2.5 metres long for use in the sheeting process.

For use as copy paper (cut sheet paper) these smaller reels are cut directly into A4, A3 or other cut sheet sizes, usually but not always wrapped as reams (generally, but not exclusively of 500 sheets), packed into boxes and the boxes palletised on highly automated 'finishing' lines (the 'Cut Size Lines').

At this point the copy paper is ready for loading into containers or onto trucks for shipment or for storage awaiting delivery.

Note that other uncoated woodfree paper (not cut sheet or copy paper and therefore not like goods) to be sold in rolls or large 'folio' sheets undergoes the same process on the same equipment to the point of rewinding the jumbo reels, but is then 'finished' differently, through different finishing equipment as rolls or sheets for use in the customers' manufacturing processes such as printing or paper stationery manufacture.

The PaperHelp Encyclopaedia, available on line at:

http://www.risiinfo.com/toolcontent?toolkit=paperhelp

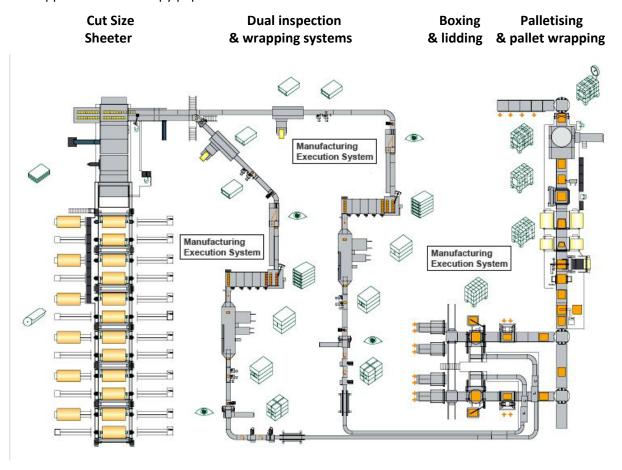
provides further information on the pulp and paper making process.

A photo of UPM-Kymmene Changshu PM1 is provided in s.1 above.

The following video from SAPPI gives a good overview of the papermaking process, including pulp manufacture (which does not apply to UPM-Kymmene Changshu) and finishing as sheets and reels (rather than cut sheet copy paper)

http://www.youtube.com/watch?v=E4C3X26dxbM

A typical high production cut size sheeting line for converting uncoated woodfree paper in reels to pallets of wrapped and boxed copy paper reams would be similar to that shown below



A cut size sheeter similar to those at UPM-Kymmene is pictured below.



In addition, the full cut size line has at least two wrapping machines, cartonisers and palletisers, as well as defect inspection and rejection equipment as shown in the layout diagram above.

## 3. Process Flow and Major Inputs:

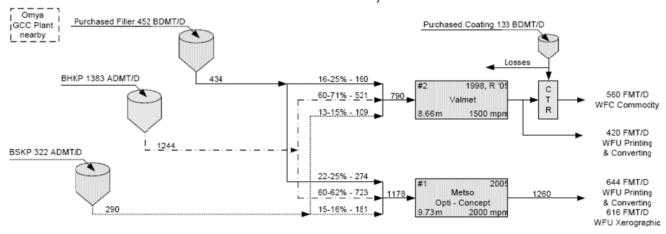
The following is reproduced from section B-4 of the application, with comments in BLUE added.

## 3.1 General

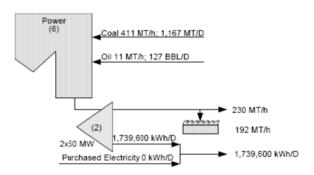
RISI, the largest global forest products industry intelligence supplier publishes information about the major paper suppliers, including process flow diagrams and inputs to production up to the point of producing paper reels on the paper machine (without finishing). For UPM-Kymmene Changshu, this information is as follows (*Application Attachment B-4.2*).

On this diagram, the goods are described as WFU Xerographic, i.e. woodfree copy paper.

# UPM - CHANGSHU, CHINA



SUMMARY				
		WFU Xerographic	WFU Printing & Converting	WFC Commodity
BHKP	ADMT/FMT	0.654	0.622	0.567
BSKP	ADMT/FMT	0.163	0.156	0.100
Filler	BDMT/FMT	0.219	0.240	0.109
Coating	BDMT/FMT			0.237
Coal	MT/FMT	0.510	0.510	0.553
Oil	BBL/FMT	0.057	0.058	0.054
MANNING:	TOTAL:			
Operators	350	85	154	111
Maintenance	150	37	66	47
Sub-Total	500	122	220	158
Exempt	115	28	51	36
Non-Exempt	50	12	22	16
Total	665	162	292	210
MH/FMT		1.66	1.73	2.36
165 people excluded for converting and other operations				





The diagram and its table reveal:

- RISI list WFU Xerographic production as 616 FMT/D (finished metric tonnes/day) compared
  with a site production of 2,240 FMT/D, or 27.5% of site production. On the basis of a site
  capacity of 800,000 t/yr, this is 220,000 tonnes/yr. UPM-Kymmene is understood to have
  recently purchased an additional cut size sheeting line which could almost double their
  capability to produce cut sheet (rather than other types of uncoated paper sold as reels or
  folio sheets.
- The RISI profile reveals that the mill uses purchased paper pulp to manufacture the goods. Each tonne of the goods requires:
  - o 0.654 AD tonnes Bleached Hardwood Kraft
  - o 0.163 AD tonnes Bleached Softwood Kraft Pulp
- In addition, each tonne of the goods requires:
  - o 0.219 tonnes Omya GCC filler
  - o 0.510 tonnes coal (boiler fuel)
  - o 0.057 barrels fuel oil (boiler fuel)
- The labour required for each tonne of the goods is 1.66 man-hrs/tonne up to the point that jumbo reels are produced from the paper machine winder (refer Application section A-3.6)
- RISI comments that its numbers do not include '165 workers excluded for converting and other operations'. Making the simplistic assumption that these could be allocated to all products in proportion to tonnes, the 'converting and other operations' workers for cut sheets would be 45 workers for 220,000 tonnes or 0.38 man-hrs/tonne.
  - This calculation is likely to underestimate the labour for cut sheets, since cut size sheeting, wrapping, packaging and palletising is much more complex than wrapping customer reels or pallets of folio sheets and would involve more labour.
  - This brings the total labour to 2.04 man-hrs/tonne.
- In addition to the inputs revealed by the diagram published by RISI, there are starch, sizing
  and retention chemicals, dyes, wrapping and packaging materials, water and effluent
  treatment costs and the cost of processing the jumbo reels into cut sheets, wrapping,
  packaging and palletising.

## 3.2 Mill Gate Cash Costs:

## 3.2.1 Major Inputs identified on the RISI Flow Diagram

## Wood Pulp:

RISI (a US-based pulp & paper industry information service) publishes monthly CIF prices of various types of wood pulp on a CIF China basis in their publication 'RISI Asia Pulp and Paper Monitor'. The June 2013 edition reveals June quarter 2013 prices CIF China as follows:

- o Bleached Hardwood Kraft USD 625/tonne
- o Bleached Softwood Kraft USD 682/tonne

This is representative of the price paid CIF by UPM-Kymmene and would need Chinese port fees and freight from port to be added for a delivered mill price.

We have established from suppliers (Application Confidential Attachment B-4.7) that port fees of RMB900 per container or USD 7 per tonne would apply and that freight from Waigaoqiao, Shanghai port to the mill would be USD255/40' container or USD 11 per tonne (Application Confidential Attachment B-4.11).

The delivered cost of pulp in the June quarter 2013 is therefore:

- Bleached Hardwood Kraft USD 643/tonne
- o Bleached Softwood Kraft USD 700/tonne

Application Attachment B-4.3 contains extracts from RISI Asia Pulp and Paper Monitor providing quarterly bleached hardwood and pulp prices from Sep-09 to Jun-13.

Note that we believe UPM-Kymmene Changshu is obtaining all or almost all of its Bleached Hardwood Kraft pulp (Bleached Eucalypt Pulp) from a related UPM-Kymmene pulp mill in Uruguay. Bleached Hardwood Kraft pulp generally makes up 90 – 95% of pulp used in making uncoated woodfree papers including copy paper.

Chinese import statistics (supplied to the Commission on 25 October) reveal that this pulp is being declared at Nanjing under the code:

47032900 Semi-bleached or bleached non-coniferous chemical wood pulp, soda or sulphate, nes



[Detailed data]

The 5 – 10% long fibre softwood pulp required would be sourced from North America.

Any pulp costs provided should be reconciled against the import statistics.

Duty (if any), freight from import port to mill, storage and handling must be added to the CIF price to get a mill price.

#### Omya GCC filler

UPM-Kymmene Changshu uses ground calcium carbonate (GCC) filler believed to be made from marble feedstock by Omya in China. We are advised that the ex-works pricing of GCC in China is (May 2013) USD80 – 100/tonne (Application Confidential Attachment B-4.4).

Using USD90/tonne ex works and an estimated USD20/tonne road/rail freight to mill, the 2013Q4 price would be USD110/tonne delivered. We have used the Chinese *Raw Chemical Materials Index (Application Attachment B-4.6)* to derive a time series for constructed normal value purposes.

Our advice is that land freight costs in China are similar to those in Australia, so distance from the marble quarry and from the processing plant is an issue to be considered.

#### Thermal Coal

Newcastle export thermal coal is representative of low ash, low sulphur thermal coal exported by Australia and others to China. Shanxi coal may be suitable, but its delivered costs are likely to be similar to Newcastle coal.

Chinese thermal coal mined along the Yangtze river upstream from Changshu is high ash, usually high sulphur and is relatively low calorific value, and so is unlikely to be used at Changshu, close to Shanghai, for environmental and solid waste disposal reasons.

Our constructed normal value calculations are based on 6,700 kcal/kg coal FOB Newcastle + USD11/t ocean freight + USD5/t local delivery (river ship).

ANZ Commodity Daily (previously ANZ Commodity Weekly) (Attachment B-4.4) publish regular FOB prices for Newcastle export coal. The quarter ending June 2013 price FOB Newcastle is USD 86.30/t.

The source and price of coal should be verified, together with freight to mill.

#### Fuel Oil

Our constructed normal value calculations are based on Singapore prices for Fuel Oil 180cst, as reported by ANZ Commodity Daily (previously ANZ Commodity Weekly) (Application Attachment B-4.4). The June Quarter 2013 price reported is USD603.0/bbl.

#### Electricity

Electricity for UPM-Kymmene Changshu is produced on-site and its variable costs are implicitly included in the coal and oil cost.

Is there some purchased electricity used? If so at what price?

#### Labour:

The Changshu Economic & Technological Development Zone website <a href="www.cedz.org">www.cedz.org</a> (Attachment B-4.1) publishes indicative staff costs (2012) for the industrial park in which the mill is located.

Paper mill production workers and maintenance workers would be equivalent to a 'Technical Worker' (RMB 1,800-2,400/month), with 10% at 'Engineer' level (RMB 3,500-4,000/month) and 10% at 'manager' level (RMB 5,000-8,000/month). The skill levels required by the sophisticated and complex manufacturing process would suggest that wages would be at the high end of these ranges.

In addition, as revealed on the website, there are employer costs of 20% for Pension fund, 2% for unemployment fund, 8.5% for healthcare, 1-3% for accident insurance, 1% for maternity cover and 8 - 12% for housing fund. These total a 43.5% on-cost over the basic wage or salary.

These have been adjusted in line with published time series of wages in manufacturing (Attachment B-4.7)

UPM-Kymmene Changshu provides a superior standard of accommodation and sporting and other facilities for its employees and the cost of this would be at least equal to the 'optional' housing fund contributions noted on the CEDZ website.

The company, in both 2012 and 2013 was certified by the CRF Institute as one of China's top employers, so both wages and benefits could be expected to be well above the average for such factories.

The level of wages and the quantum of the large on-costs including employee accommodation and facilities needs to be verified, both with UPM and with the industrial park management.

## 3.2.2 Other Production Inputs Required:

#### Starch

Starch is used both as an additive in the sheet (added to the pulp at the 'wet end') and as a surface treatment at the size press (see section A-3.6). These two starches have different properties and prices.

Usage rates of wet-end and size press starch have been based on those for similar products at AP Maryvale mill. (Application Confidential Attachment B-4-15).

Prices for both wet-end and size press starch have been provided by a supplier selling in the Shanghai area (Application Confidential Attachment B-4.8).

Note that a lower level of starch use would imply higher pulp use

## Other Paper Machine Chemicals

Paper machines use small quantities of other chemicals such as wet end and size press sizing agents, retention aids and pH adjustment.

Both usage rates and costs for these minor chemicals have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment B-4-15) but discounted by 10% to allow for location and larger quantities used.

### Dyes and Optical Brightening Agents:

Uncoated white paper uses small quantities of a number of dyes to adjust and regulate its shade and also has optical brightening agents (OBAs) which enhance the perceived brightness of the sheet.

Both usage rates and costs for these small quantities of dyes and OBAs have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment *B-4-15*) but discounted by 10% to allow for location and larger quantities used.

If UPM produce more than one brightness of copy paper, the only significant change should be in dyes and optical brightening agents. All other components of cost remain the same.

## Water & effluent:

We have made an assumption that UPM-Kymmene Changshu PM1 is 'best practice' in terms of its water and effluent volumes.

The European Commission IPPC Reference Document on Best Available Techniques in the Pulp and Paper Industry (Application Attachment B-4.17) nominates 6 m³/t of water used and 5.1m³/t of liquid effluent to be treated (1 cubic metre (m³)  $\sim$  1 tonne) as representing best practice.

The CEDZ website reveals a water cost of RMB 3.1/cubic metre (tonne) and an effluent treatment cost of RMB 0.62/tonne (2012). (Application Attachment B-4.1)

While UPM-Kymmene Changshu undertakes its own extensive biological effluent treatment, its costs (chemicals, energy, labour, maintenance and solid waste disposal) would be similar to those of the CEDZ.

#### • Packing Materials:

Production of cut sheets requires provision of printed and laminated ream wrappers, printed cartons (generally holding 5 reams for sale in the Australian market), wooden pallets (generally holding around 0.6 tonnes) and general supplies including hot-melt glue, strapping and shrink wrapping.

Costs for these packing materials have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment B-4-15) but discounted by 40% to allow for lower printing and conversion costs in China.

## Miscellaneous Operating Materials:

In addition to the pulp, chemicals and energy which go to make up the product, the paper machine operations require other 'consumables' which include, as examples, 'machine clothing' (fabrics, felts etc. which carry the sheet through the machine), roll covers (the machine uses a large number of rolls which have covers needing periodic regrinding and replacement) and refiner plates (used in treating the pulp and which wear, requiring regular replacement).

Costs for these miscellaneous operating materials have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment B-4-15) but discounted by 10% to allow for location.

These may not appear in direct product costs, but they are real, are related to production levels and need to be brought to account

#### Maintenance:

Maintenance costs have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment B-4-15) but discounted by 40% to allow for location cost structures.

#### Production Indirect Costs

Production indirect costs (site costs, senior management, technical services etc.) have been based on those for similar products at AP Maryvale mill in 2013. (Application Confidential Attachment B-4-15) but discounted by 40% to allow for location cost structures.

UPM Changshu is FSC and PEFC certified. Obtaining and maintaining this certification has an ongoing cost.

Some of the paper exported to Australia is sold as 'Carbon Neutral', which requires that all carbon emissions from harvesting of the trees in the forest to pulp and paper production, freight, the final delivery to customers and disposal of the product after it has been used ('Cradle to Grave') are offset by purchase of carbon credits and that this is audited and certified. The cost can be significant.

We note from the Exporter Questionnaire Response A-3.6 that Management fees appear to be charged to the company by its parent.

For each of these 'other production inputs required', the Chinese *Raw Chemical Materials Index* (Application Attachment B-4.6) was used to derive a time series for constructed normal value purposes.

## 3.3 Financial costs and profit:

## 3.3.1 Plant Fixed Assets:

The project cost for Changshu PM1 was USD475m for 400,000 t/yr (Application Attachment B-4.18), or USD 1,188 per annual tonne of production capacity. This is an underestimate for cut sheet product since it does not allow for the allocation of the cut size lines solely to the cut size product. This will cause depreciation and finance costs for cut sheet product to be under-estimated.

## 3.3.2 Depreciation:

Depreciation for machinery in China is 10 years straight line. (Application Attachment B-4.11)

## 3.3.3 Finance costs for fixed assets:

Referring to the UPM-Kymmene interim report for Q1 2013 (Application Attachment B-4.9), liabilities/assets was 49.2% and the effective interest rate was 1.99% for the international parent company. These have been used to calculate finance costs for UPM-Kymmene Changshu, although the interest rates in China are around 3 times this rate and are generally much higher than in Europe. The liabilities/assets ratio for the company as a whole has also been assumed to apply to UPM-Kymmene Changshu. These assumptions may lead to an under estimate of the finance cost by 3-6 times.

There are questions relating to financing of the plant which we have been unable to answer from publicly available information.

Use of any Government financing, reduction of capital requirement through grants or provision of land and facilities at less than market value may suggest that we should expand our application to cover subsidies.

## 3.3.4 Working Capital Finance Costs:

## • Raw Materials and Work in Progress:

Raw materials stocks are assumed to be 45 days, with a working capital interest rate assumed to be equal to the PBoC interbank lending rate (Application Attachment B-4.5).

#### Finished Goods and sales finance:

Export paper would most probably be loaded on the overseas container ship within 10 days of production. Sales for export are, from marketplace conversations, net 90 days from bill of lading.

The PBoC interbank lending rate (Application Attachment B-4.5) has been used for working capital.

This working capital is a short-term borrowing, generally at a relatively high rate when compared with financing of the plant itself.

#### **3.3.5** Profit:

A UPM-Kymmene press release on 6 August 2013 (Application Attachment B-4.12) quotes an operating profit for the paper division (internationally) excluding special items (which are related to European mill rationalisation).

This almost certainly underestimates the operating profit for domestic sales by UPM-Kymmene Changshu, which operates in a low input cost location and in a domestic market which, unlike Europe and USA (where UPM-Kymmene have their other mills) has a growing domestic market with comparatively high prices.

It is, however, the best publicly available.

## 3.4 Costs between mill gate and point of export:

## 3.4.1 Selling Costs:

#### Agency Costs

UPM-Kymmene operate their own office in Australia which, to the best of our knowledge, acts as an agent for imports, not taking legal possession of the paper.

Its costs need to be covered, either by UPM-Kymmene Changshu, or via UPM-Kymmene head office.

Australian Paper has a similar arrangement for its export sales which are handled by its PPM subsidiary. The PPM commission (% of sales) on indent deliveries has been used in constructing the normal value. 6% of the selling price is a common allowance for indent sales to be delivered directly to the customer

The full costs of operating the Australian office of UPM-Kymmene need to be covered, not just incremental or transaction costs. Since the office also handles UPM products from Europe, the total costs of the Australian office would need to be apportioned on the basis of sales value.

#### • Provision for bad and doubtful debts

A provision for bad & doubtful debts must be made. In the Australian context, AP has made a provision of % of sales. This would also be appropriate for UPM-Kymmene Changshu sales to Australia on 90 day terms.

This should be looked at on the basis of sales over an extended period, as customer business failures are not regular occurrences. There may also be a cost of credit insurance associated with this.

## Stock holding in Australia

The Commission should enquire whether UPM-Kymmene holds any stock in Australia or, alternatively, funds stock holding by others, such as by its Australian customers or places goods on consignment to its Australian customers to be paid for only when sold.

 Funding of Advertising and promotion in Australia
 The Commission should enquire whether UPM-Kymmene directly or indirectly funds any advertising or promotion in Australia by its Australian customers

## 3.4.2 Freight to Shanghai Port and Shanghai Port Costs:

Finished goods are freighted to Shanghai by road or river ship to be consolidated with other containerised cargos for export, most probably through Waigaoqiau port. There are also port costs which need to be included in the FOB cost.

Finished goods are freighted to Shanghai by road, rail or river ship to be consolidated with other containerised cargos for export, most probably through Waigaoqiau port. This freight (2013) is USD11/tonne.

There is also a booking fee of USD 3/tonne and loading fee at the port of USD 8/tonne. Application *Confidential Attachment B-4.10* details these costs.

International container ships DO NOT dock at the mill port or any other pier at Changshu. The goods must be transported to an export container port. The exporter questionnaire B-2(a) confirms that river barge transport is used from mill to export port.

## 3.5 Other issues in constructing the Normal Value:

## 3.5.1 Capacity Utilisation

The UPM-Kymmene Annual Report for 2012 (Application Attachment B-4.13) reveals annual capacity and production, allowing capacity utilisation to be calculated. This figure, for 'Fine and Specialty Papers', is relatively high by international standards.

While this is not specific to UPM-Kymmene Changshu, it is the best publicly available and has been used in the constructed normal value.

Capacity utilisation on PM1 and on the cut size sheeting and packing lines needs to be verified as fixed costs including, but not limited to manning, maintenance, finance costs and overheads can only be covered by actual production and sales.

## 3.5.2 Additional Costs

The exporter questionnaire B-5 makes reference to "Additional columns have been added to account for [additional costs]" in respect of exports. These additional costs have not been included in the estimates made in our application.

# 4. Matters relating to domestic selling price and to domestic price based normal value

## 4.1 Trading Terms

- We are advised that trading terms in China are cash on collection, i.e. there are no trading terms to be financed or bad and doubtful debt provisions to be made.
- We have no information on companies involved in copy paper distribution in China or whether UPM-Kymmene has its own related distributor.
- If it is necessary to examine costs of copy paper distribution in China, then Shanghai and/or Nanjing should be used as the basis rather than more distant centres.
- Given the large size of Eastern Chinese cities in which the vast majority of high grade copy paper consumption would take place sales and shipment volumes may be considerably larger than for export shipments to Australia. This may require an adjustment for level of trade.

#### 4.2 VAT

There is VAT 17% on domestic sales (we have been told this VAT should be paid on exports as well as domestic sales, but we have informally established that VAT is not being paid on exports, at least by major producers). This must be 'backed out' by dividing the domestic price by 117%.

It would be worth enquiring into the legal basis for VAT not being charged on export sales, since our advice is that it should apply.

## 4.3 Other adjustment issues for conversion of selling price to normal value

- Delivery to Port in China and Chinese port charges need to be added.
  - Finished goods are freighted to Shanghai by road, rail or river ship to be consolidated with other containerised cargos for export, most probably through Waigaoqiau port. This freight (2013) is USD11/tonne.
  - There is also a booking fee of USD 3/tonne and loading fee at the port of USD 8/tonne. *Application Confidential Attachment B-4.10* details these costs.
- We have assumed that UPM-Kymmene Changshu does not use an export agent, but undertakes its own paperwork and arrangements in-house. No adjustment for the cost of an export agent has been made. If an agent is used, their cost must be allowed for.
- UPM-Kymmene operate their own office in Australia which, to the best of our knowledge, acts as an agent for imports, not taking legal possession of the paper. Its costs need to be covered, either by UPM-Kymmene Changshu, or via UPM-Kymmene head office.
   % of the selling price is a common allowance for indent sales to be delivered directly to the customer.

## See s.3.4.1 above

• Terms of Trade for export are 90 days from bill of lading, while domestic sales are understood to be cash before delivery. Finance costs for these sales terms need to be added. The PBoC interbank lending rate (Application Attachment B-4.5) is appropriate for working capital (trade finance).

The PBoC interbank lending rate in the June quarter of 2013 is 6% pa, which would give rise to a trade finance cost of  $6\% \times 90/365 = 1.48\%$  of the selling price.

This working capital is a short-term borrowing, generally at a relatively high rate when compared with financing of the plant itself.

 A provision for bad & doubtful debts must be made. In the Australian context, AP has made a provision of % of sales. This would also be appropriate for UPM-Kymmene Changshu sales to Australia on 90 day terms

This provision should be looked at on the basis of sales over an extended period, as customer business failures are not regular occurrences. There may also be a cost of credit insurance associated with this.

## 5. Other Issues

## 5.1 What is the true export price from China?

## 5.5.1 Gap between Chinese and Australian Official FOB Prices

Australian Paper monitors both the Australian ABS import statistics and the official Chinese export statistics and we had recently seen a gap opening up between the two reported FOB prices.



[Data analysis & commentary]

The accuracy of export and import declarations and the existence and size of rebates are an issue of major importance requiring investigation in respect of Chinese copy paper imports.

## 5.1.2 Very Low Prices at Retail for Chinese Copy Paper in Australia

In the Australian marketplace, we have seen Fuji Xerox branded, China manufactured 80gsm A4 copy paper (UPM-Kymmene) being offered retail at A\$2.50/ream or A\$ 1,000/tonne retail including GST.

This is A\$ 909/tonne ex GST, well below the ABS reported FOB price and much further below the landed price which includes ocean freight of A\$ 90/tonne (CIF less FOB) and 5% (\$51/tonne) duty.

If we back ocean freight and duty out, the implied FOB (without allowing any local distribution costs or retail margin) is A\$ 768/tonne, 25% below the ABS reported FOB and 17% below the Chinese Government reported FOB.

Allowing a minimal A\$ 50/t from port to retail store, and no importer or retail margin, the implied FOB falls further to A\$ 718/t.

The accuracy of export and import declarations and the existence and size of rebates are, as noted above, an issue of major importance.

Well beyond the issue of a discrepancy between Australian and Chinese reported FOBs, an implied FOB of A\$718/t, which is well below both the Chinese and the Australian official reported FOB strongly suggests that major rebates are in place.

The exporter questionnaire B-6 seems to confirm that rebates of some kind are indeed paid, so declared FOB prices are not a true representation of the export price.

## 5.2 Paper Quality for Domestic and Export Sale

Australia is a premium quality market for copy paper and UPM-Kymmene Changshu is a premium quality producer. UPM-Kymmene Changshu does not, to our knowledge, make a lower grade copy paper. It does, however, make several differentiated copy papers by varying the brightness and whiteness the surface smoothness, with little if any changes to the manufacturing parameters other than dyes and optical brightening agents and machine calendar settings. Essentially, all of the copy papers produced are the same paper.

The UPM-Kymmene Changshu copy paper which we purchased in China and tested had the following key parameters:

## **UPM Premium Jet Set:**



## Xerox Xcite (Xerox Red):



The UPM-Kymmene Changshu copy paper in the Australian market and tested had the following key parameters:

## Fuji Xerox Performer (UPM-Kymmene Changshu)



Fuji Xerox Business (UPM-Kymmene Changshu)



Fuji Xerox Professional (UPM-Kymmene Changshu)



[detailed paper testing results]

#### **Conclusions:**

- a) Of the UPM-Changshu manufactured copy paper purchased in Australia,
  - The two 80g Fuji Xerox products are very similar other than whiteness and fluorescence.
     Grammage and some other characteristics such as curl also vary, but the indications are that these are basically identical products other than the quantity of tinting dye and OBA being used;
  - The 85g (actually more like 90g) Fuji Xerox product is lower ash and smoother. Otherwise it is very similar to the 80gsm Fuji Xerox products;
  - The Chinese copy paper sold in Australia also are very similar except for brightness, suggesting that they are also manufactured by UPM-Kymmene Changshu;
  - All are very similar in all respects other than whiteness and fluorescence, which indicates different levels of tinting dye and OBA
- b) Of the products purchased in China:
  - The Xerox and UPM products purchased in China are quite similar other than whiteness and fluorescence and shade, which indicates different quantities of tinting dye and Optical Brightening Agent (OBA) being used;

The Chinese manufactured copy paper samples Australian Paper has purchased locally in Australia are very similar to the UPM product purchased in China.

Both the Chinese manufactured copy paper purchased in Australia and that manufactured in China were very similar high grade white copy papers. Subjectively they varied only in shade, whiteness and fluorescence, properties which are determined by the quantity of tinting dye and Optical Brightening Agent (OBA) being used.

The products sold by UPM-Kymmene Changshu on the Domestic Chinese market and those exported to Australia are alike in all important aspects, so any suggestion that the products are quite different and not comparable should not arise.

The exporter questionnaire E-2.1 confirms that "there are no physical differences between products supplied to domestic and export markets" and that "UPM supplies standard global products".