



# **The impact of China on world demand and supply**

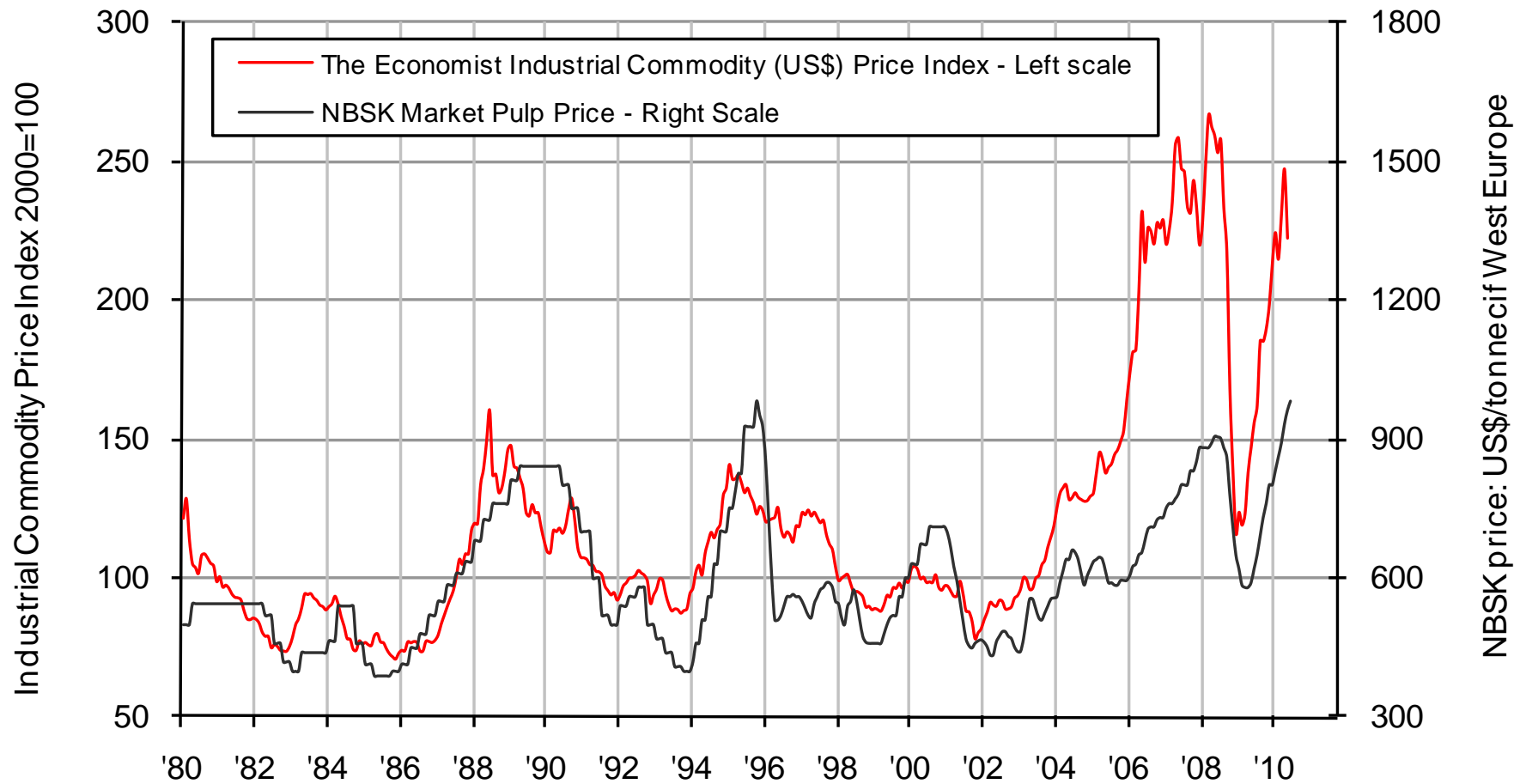
Utipulp meeting, Frankfurt  
June 2010

# Agenda

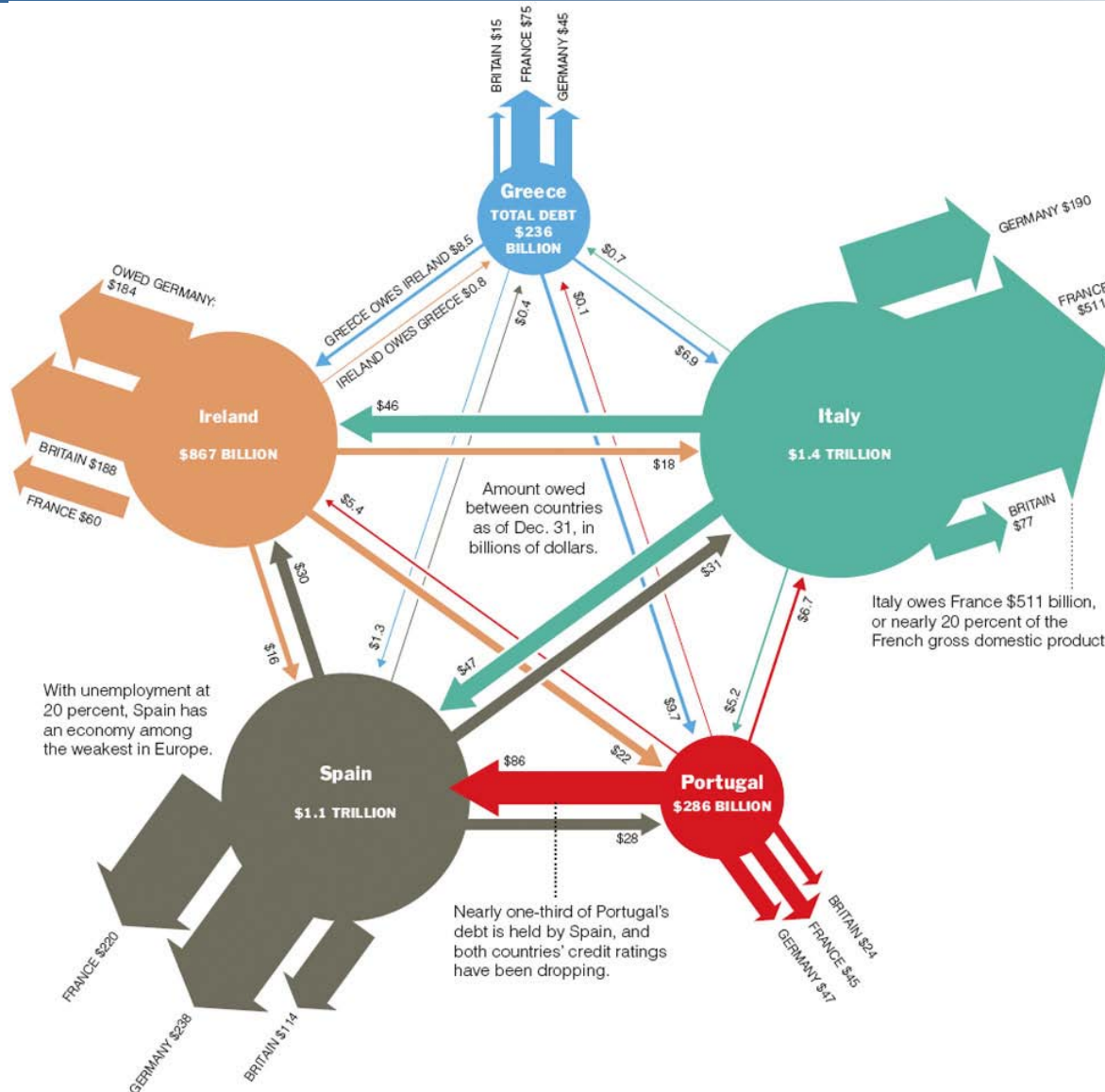


- Market overview
- China in depth

# Pulp prices versus other commodities



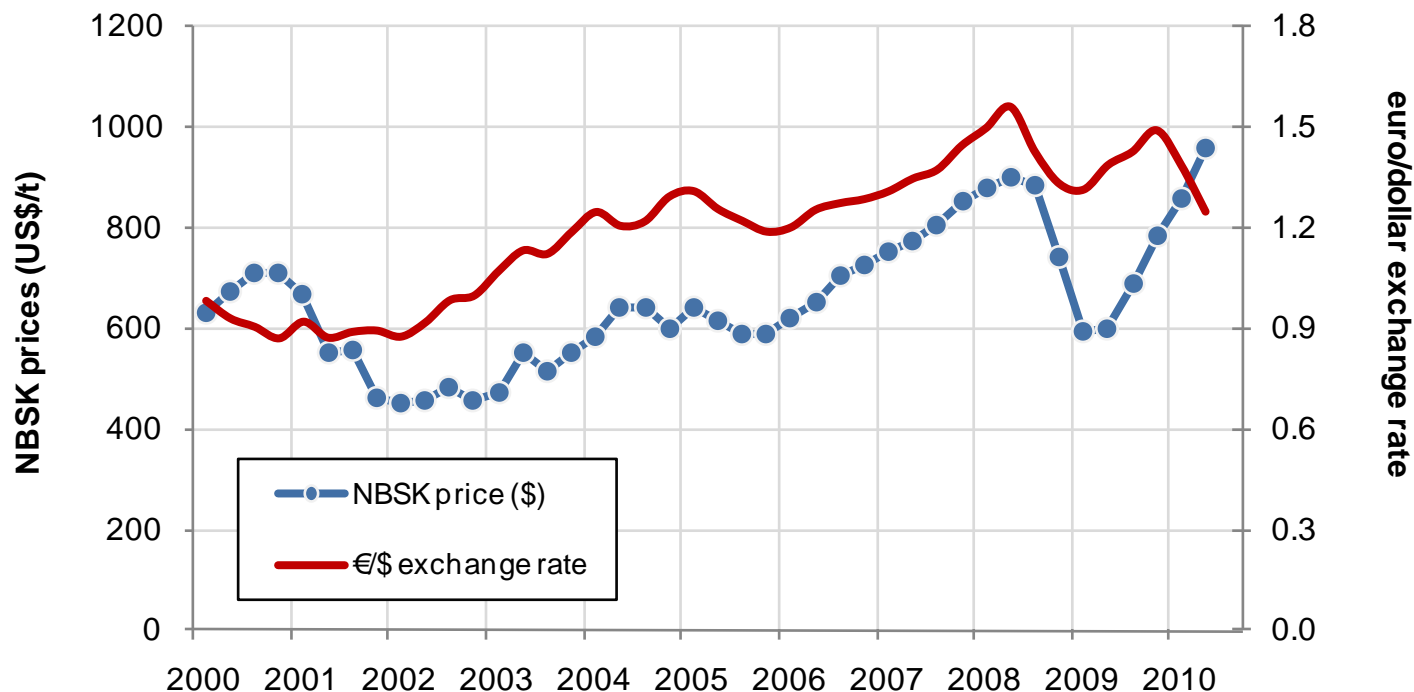
# Europe's Web of Debt



# NBSK v \$/Euro – Alarm Bells !!

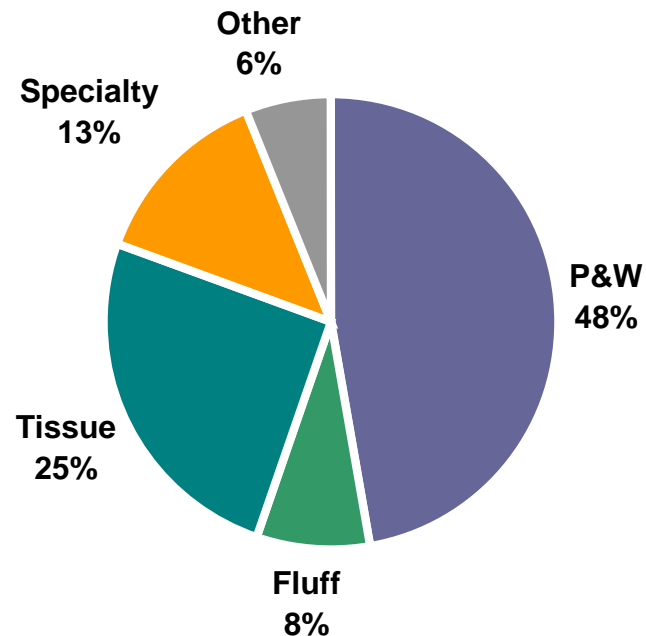


NBSK price (CIF Western Europe) Vs. €/£ exchange rate



Source: Hawkins Wright

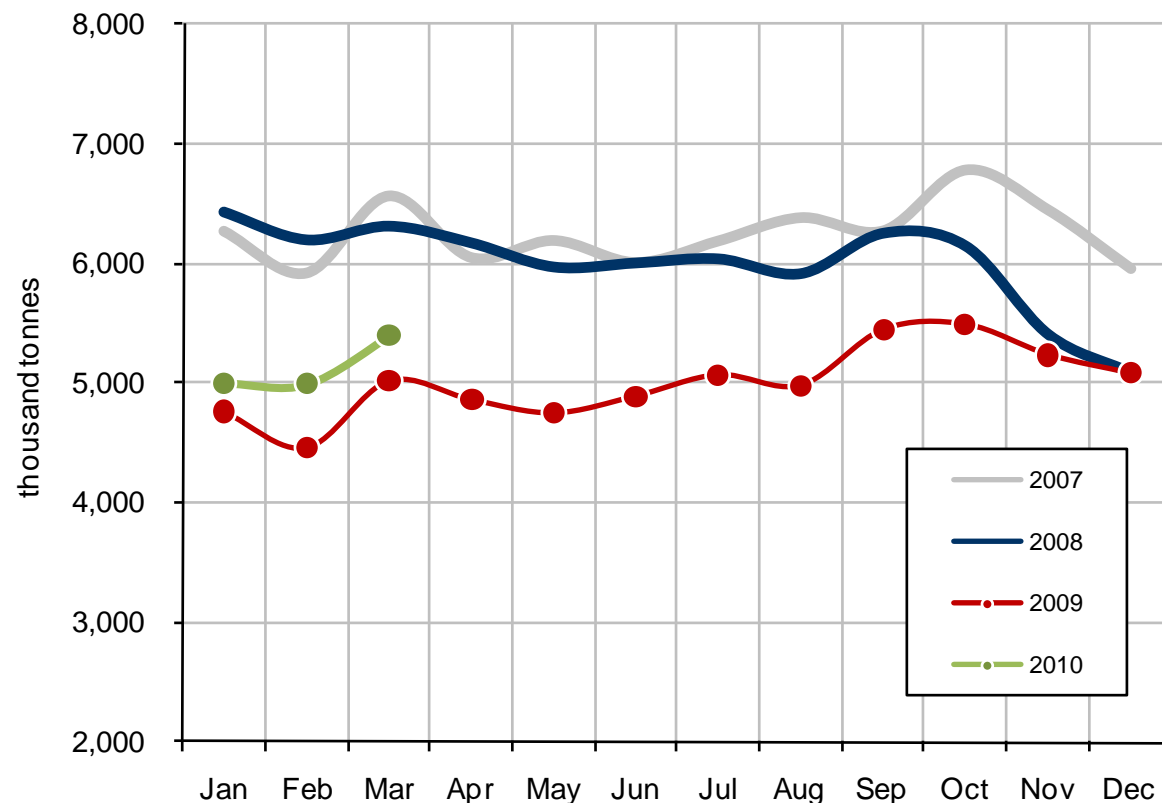
## BCP demand, by end use (2008)



**47% of the end-use markets are contracting in size; 53% of the end-uses markets are still growing.**

**In Europe and USA, 10 million tonnes of P&W capacity (excl newsprint) has closed since 2007!!**

# Monthly pattern of global\* P&W shipments

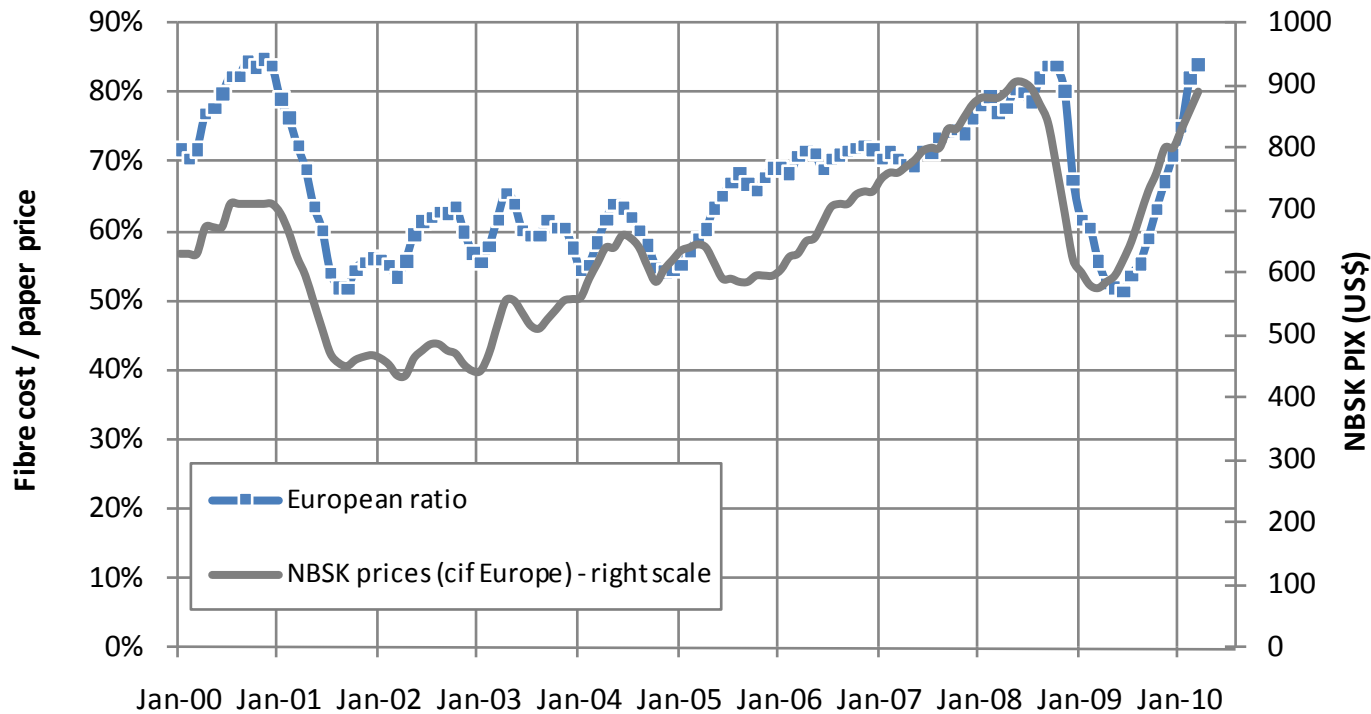


Although shipments have improved since last year, they remain well below prerecession levels;

Source: PPPC, CEPI, JPA, KPMA, excludes China and other Asia

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# Pulp v Paper prices, W Europe, 2000-2010

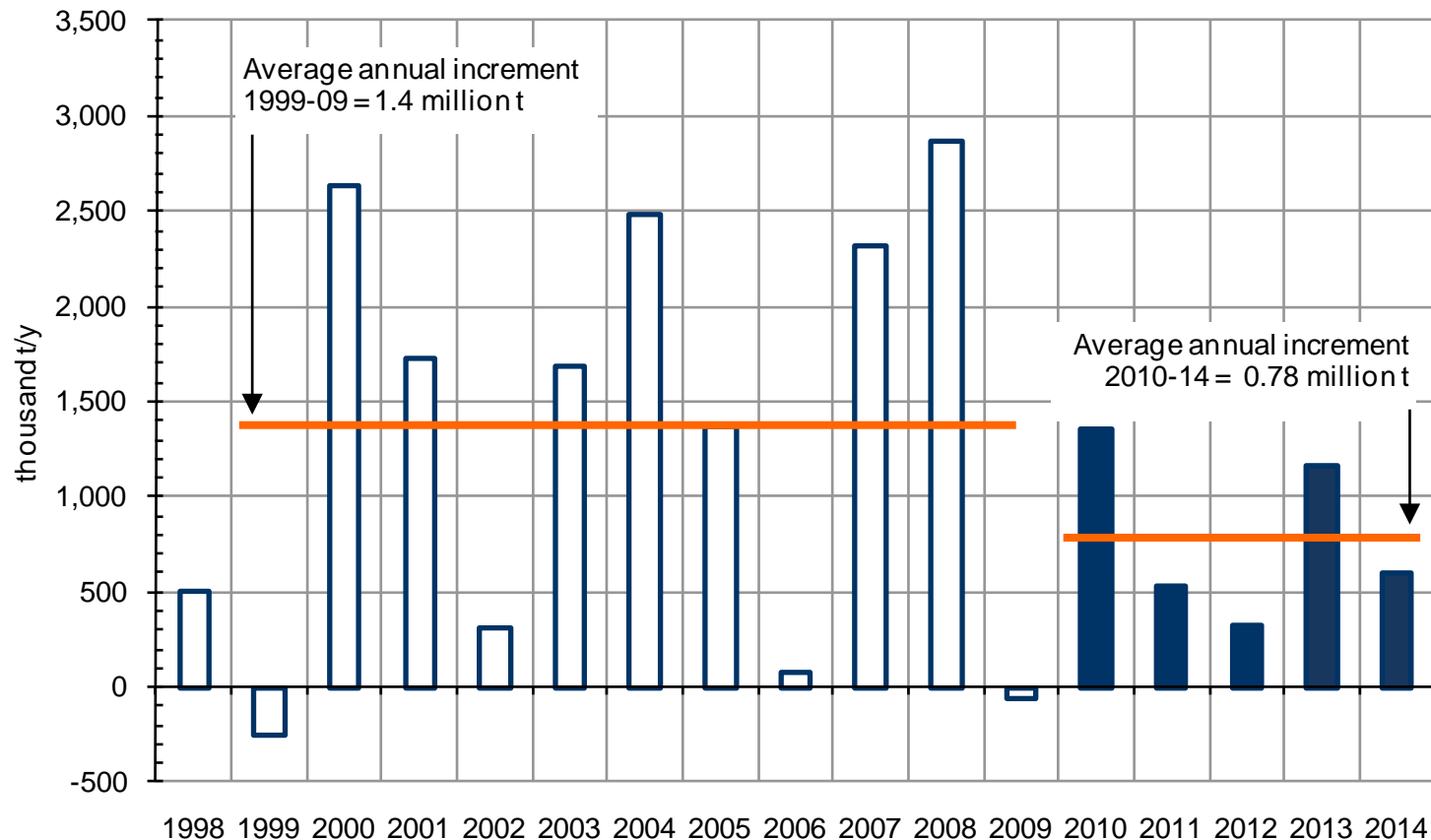


Source: Hawkins Wright

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# Annual BCP capacity change, 1998-2014(f)



**3 million tonnes of closures have been offset by new capacity**

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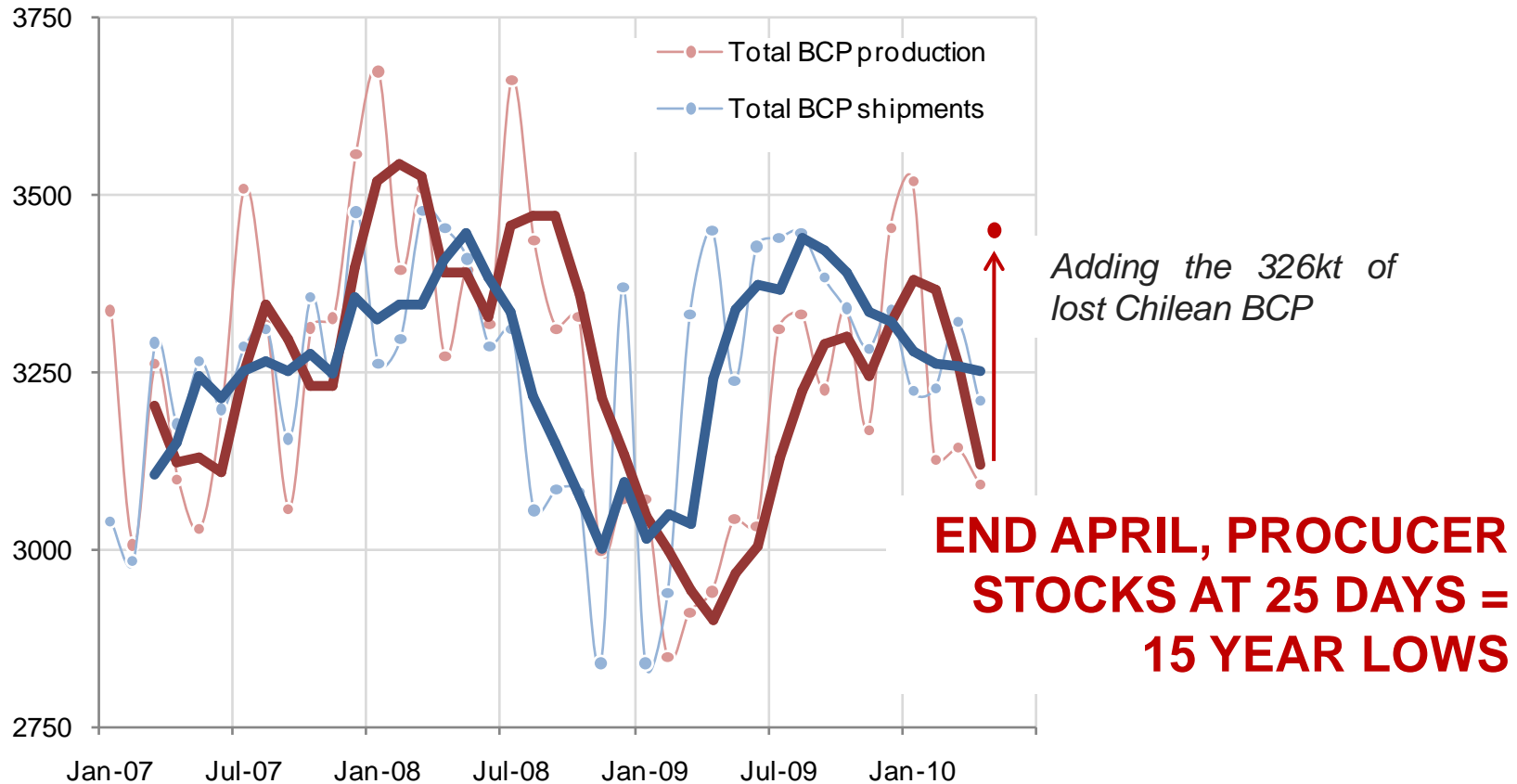


# Unforeseen disruptions to supply

- Severe winter in Europe
  - > Saw-mill production limited, logistics hindered by frozen lakes etc.
  - > Affected both Russia and Scandinavia
- Wet winter in US South
  - > and Brazil to a lesser extent
- Many other mechanical problems
- Consistently over-estimated Indonesian ramp-up, and ramp up of other mills
- Scandinavian industrial action - psychological
- Chile

**MOST OF THESE DISRUPTIONS ARE EASING THROUGH Q2**

# World-20 BCP monthly shipments and production



Source: PPPC, Hawkins Wright

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# Restarting capacity



Company	Mill	Country	Capacity	Grade	Date of restart
Paper Excellence (APP)	Mackenzie	Canada	+230	NBSK	Q3-2010
Fortress Papers	Thurso	Canada	+250	BHKP	Q2-2010
Catalyst	Crofton (II)	Canada	+90	BSKP	Q2-2010
Stora Enso	Sunila	Finland	+320	NBSK	Q1-2010
Tembec	Chetwynd	Canada	+220	BCTMP	Q1-2010
Svilocell	Svishtov	Bulgaria	+150	BHKP	Q4-2009
Stora Enso	Enocell	Finland	+650	BSKP/BHKP	Q4-2009
Catalyst Paper	Crofton (I)	Canada	+210	NBSK	Q4-2009
Nanaimo Forest Products	Harmac	Canada	+110	NBSK	Q3-2009
<b>Total</b>			<b>+2,230</b>		
<i>Of which</i>			<i>BHKP</i>	<i>+400</i>	
			<i>BSKP</i>	<i>+1,610</i>	
			<i>HYP</i>	<i>+220</i>	

Mackenzie had previously been removed from our capacity, others were classed as idle.  
 Buchanan is the only idled mill to remain in our capacity figures. Extended protection until 1<sup>st</sup> July.

**+ APRIL Rizhao, 1 million t/y of BHKP during Q3-2010**

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# Consumer stocks – ex China

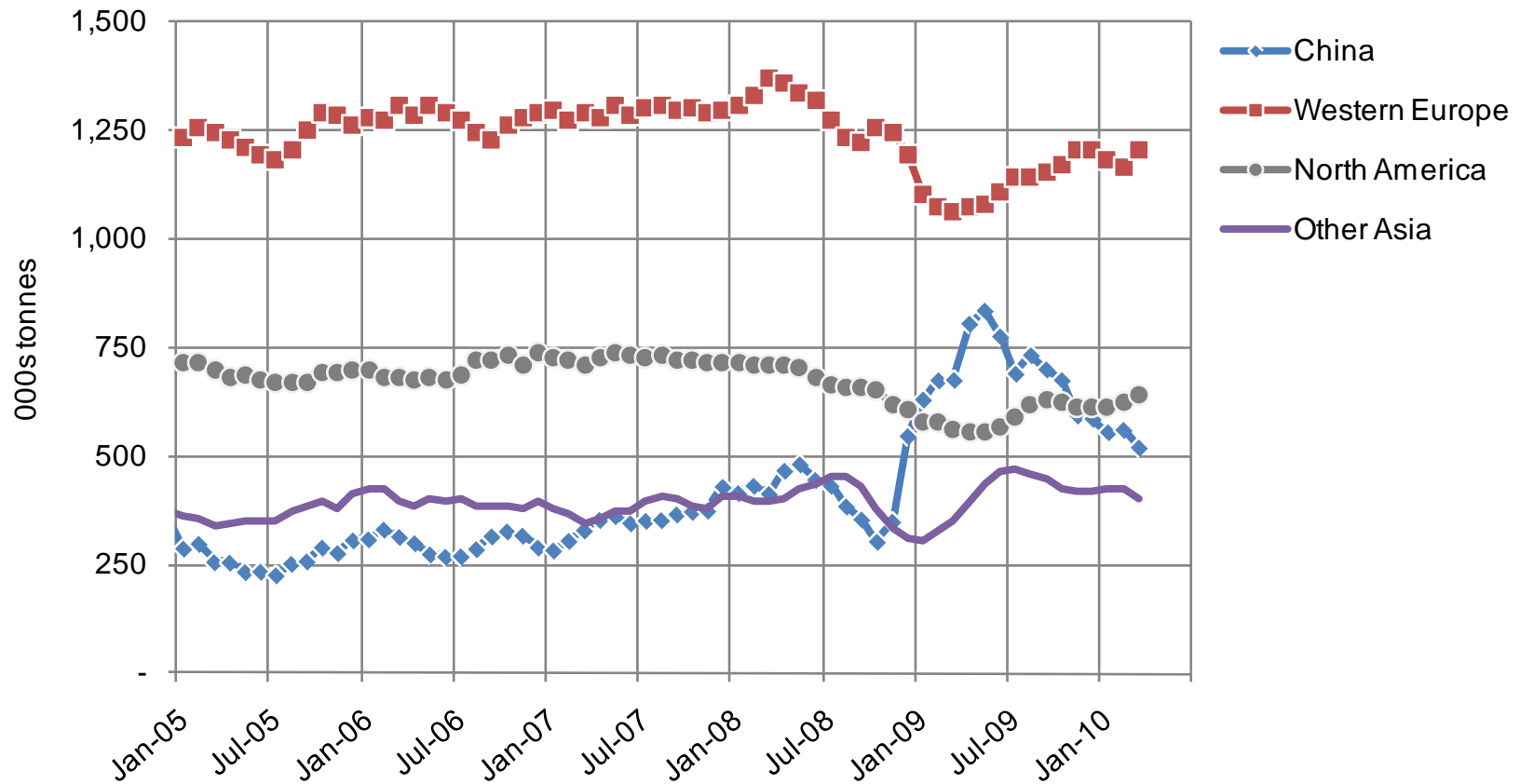


Source: Utipulp, PPPC, and other associations

# Recovery in NA and Europe offset by decline in China (back to trend)



## World-20 shipments of BCP



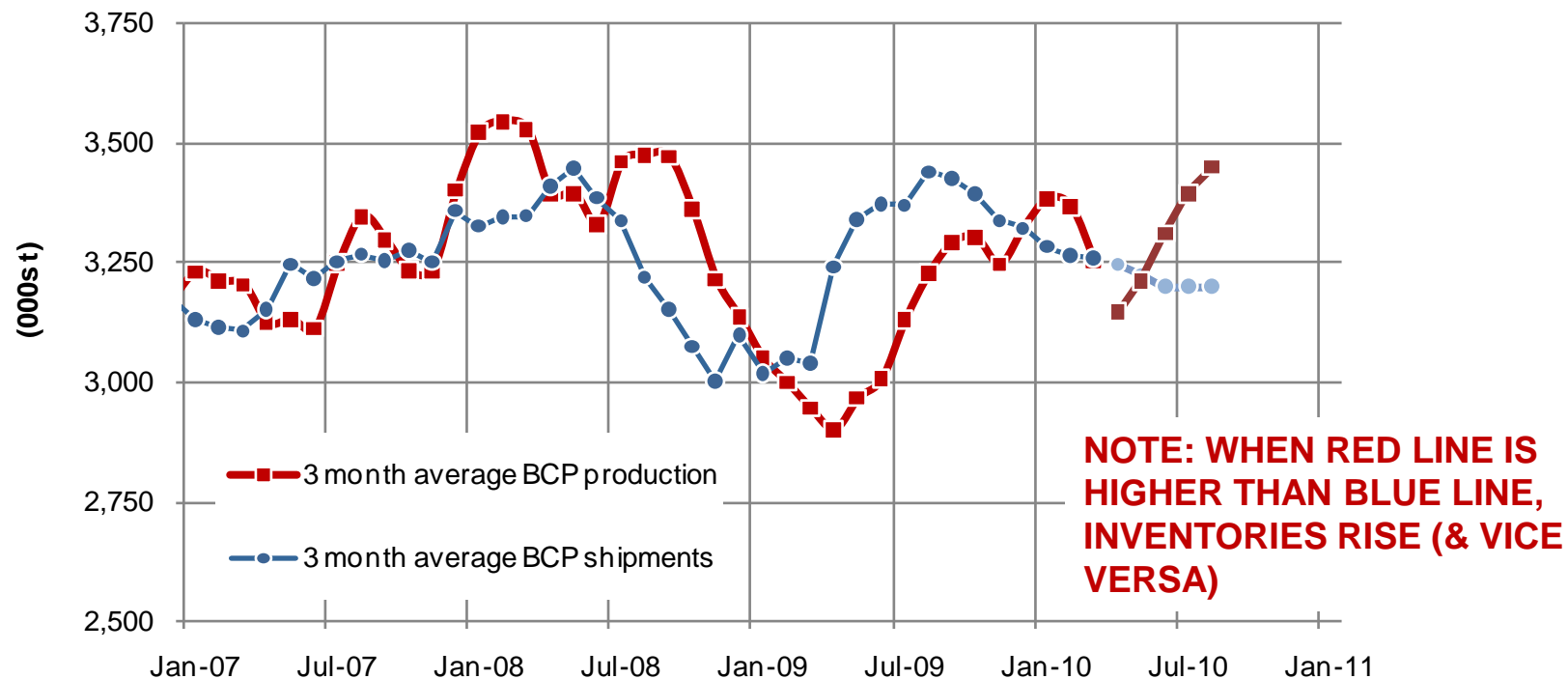
Source: Hawkins Wright, PPPC

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# Production and shipment, Q2 & Q3 2010 scenario



World-20 BCP production and shipments, 3 month moving average



Source: PPPC, HAWKINS WRIGHT RESEARCH

Source: Hawkins Wright, PPPC

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# Summary



- > Downside (for pulp prices)
  - Macro economic forces
  - Pulp production is rising in Chile, North America, and Asia
  - Chinese rmb prices are falling, traders have withdrawn. Asian paper prices falling
- > Upside
  - European demand is improved (seasonal?)
  - Low stocks throughout the pipeline (producer stocks are 25 days end April), = vulnerable to further supply disruptions
  - Continued paper capacity build in China
- > **The timing and extent to which prices fall will depend on the speed at which producers can realign supply with demand, and the strength of the US dollar**





# China – the country

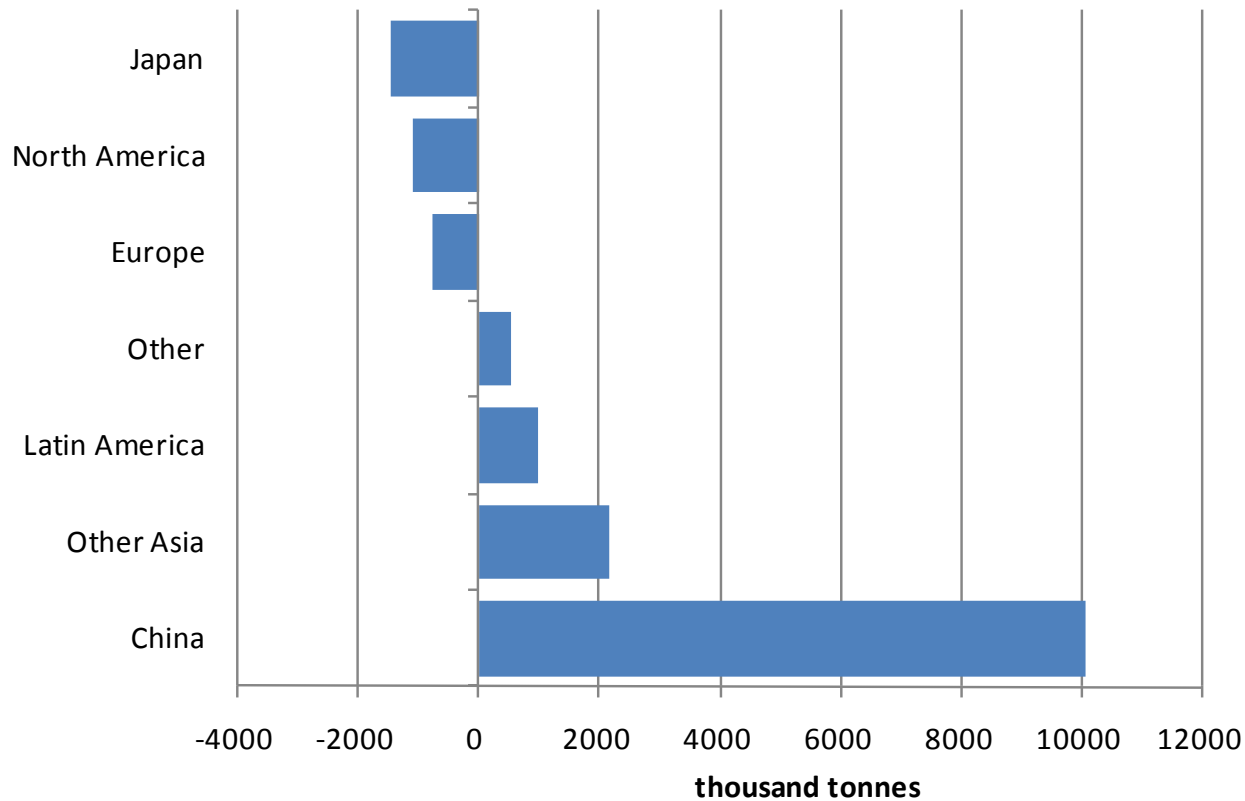
- Area 9.6 million sq k
  - (Russia 17.1, USA 9.2, Canada 9.9)
- 31 provinces
- 656 cities
- 48,000 districts
- 56 recognised ethnic groups
- 7-10 groups of languages/dialects – 80 spoken tongues
- No 'national' market – consumers too dispersed, too inaccessible, too different



the Sinitic Languages

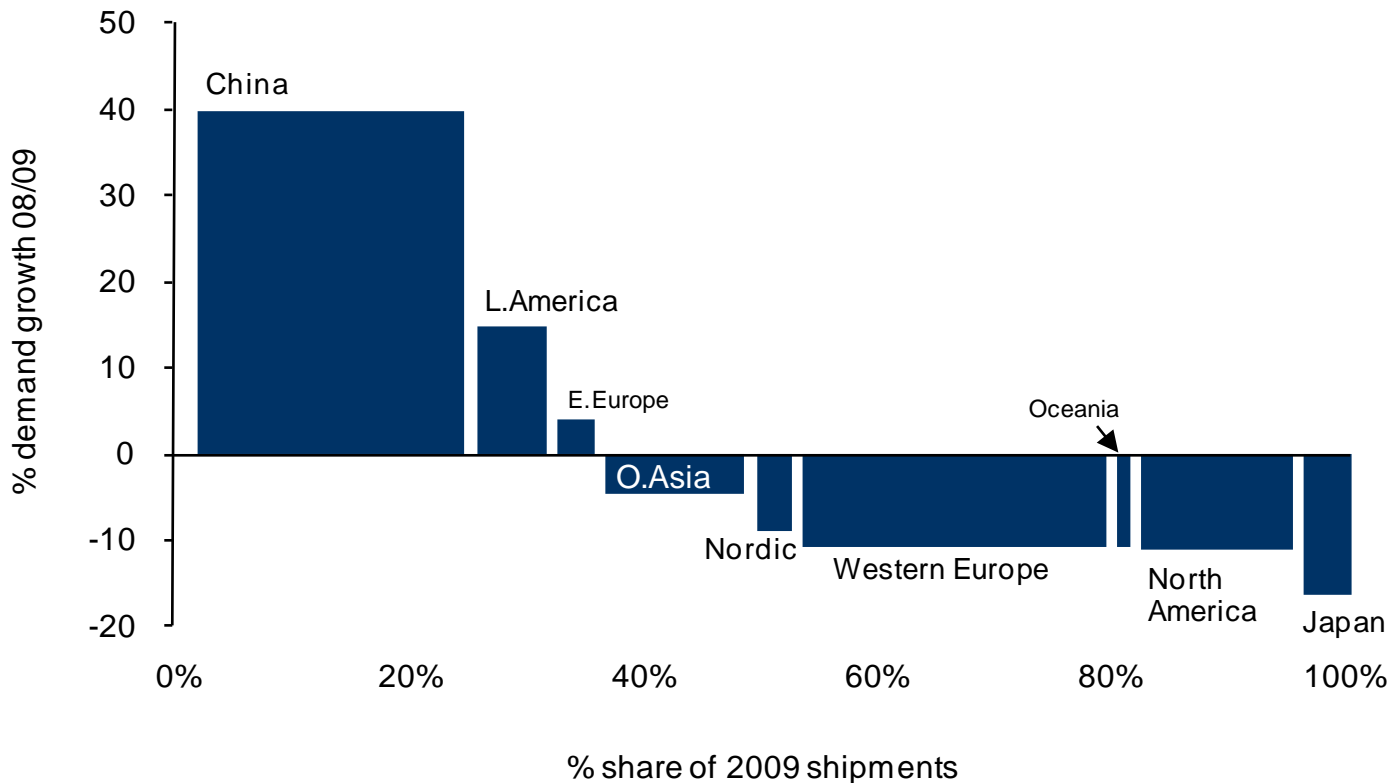
Wu	Cantonese (Yue)
Jianghuai	Ping & Xiangnan
Gan	Huguang (Xinan)
Xiang	Jin
Hokkien (Min)	East Mandarin
Hakka (Kejia)	West Mandarin

# World market pulp demand since 2000



**In 2007-2009 world demand increased only 0.6%**

# BCP demand growth (2008-09) and % share of world demand



Source: Hawkins Wright

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# **In 2009 imports of BCP +3.3 million t**

- **1.9 million t due to substitution of domestic wood and non-wood pulp**
- **0.7 million t inventory rebuild, and for new capacity**
- **0.7 million t increased paper/board production**
- **Much of the substitution is not reversible**
  - > **Environmental regulations more rigorously applied than before**
  - > **Low pulp prices in 2009 accelerated the modernisation of China's paper industry**
- **Market remains price sensitive, traders remain important**

# Pulp imports lower in 2010



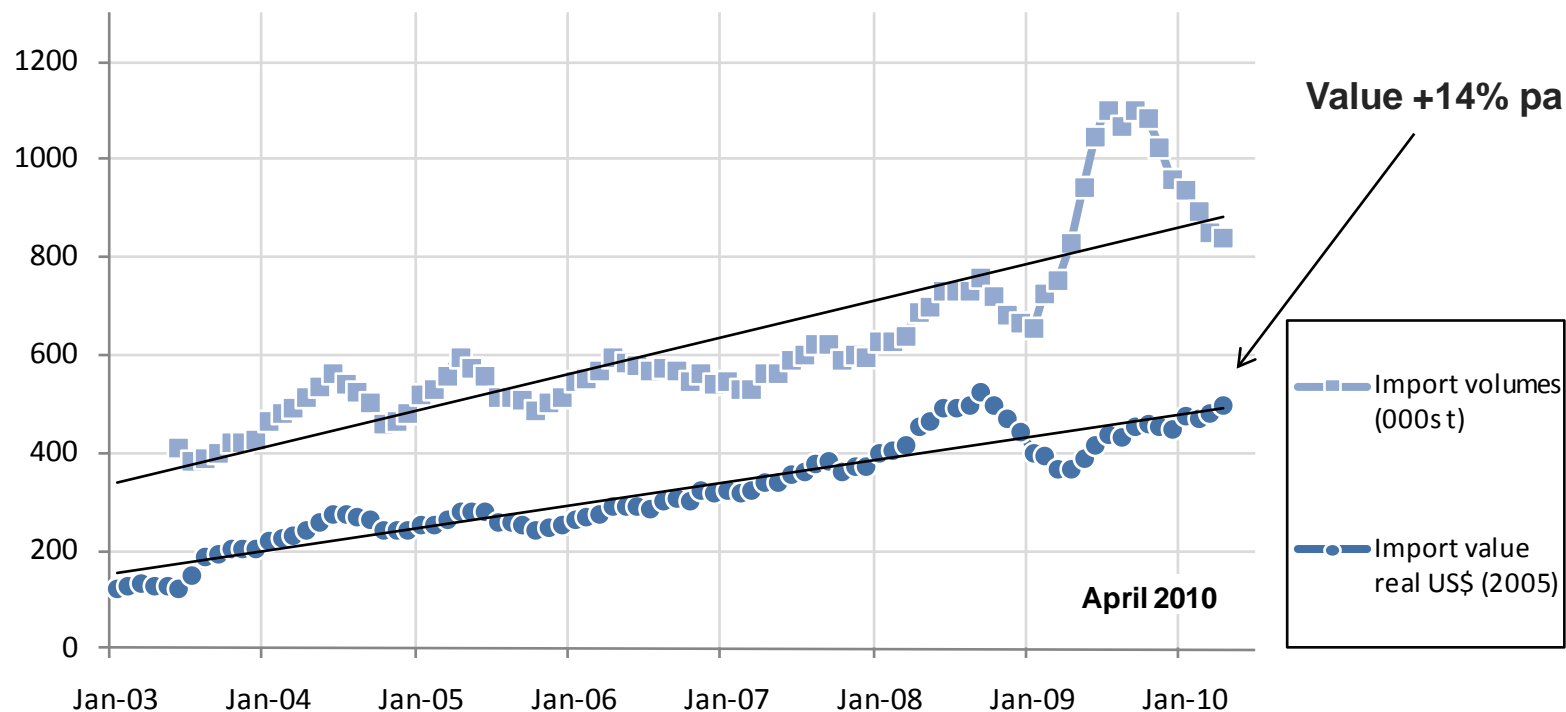
In Jan – April 2010, imports of BCP are down 14% yoy

- Domestic pulp production increases as mills now more competitive
- Trader and mill stocks bought at lower prices are sold back into the market
- Overcapacity in paper, particularly CWF, newsprint and tissue, limits paper price increases so margins for the weaker producers are squeezed

# Chinese imports - \$6 billion/y

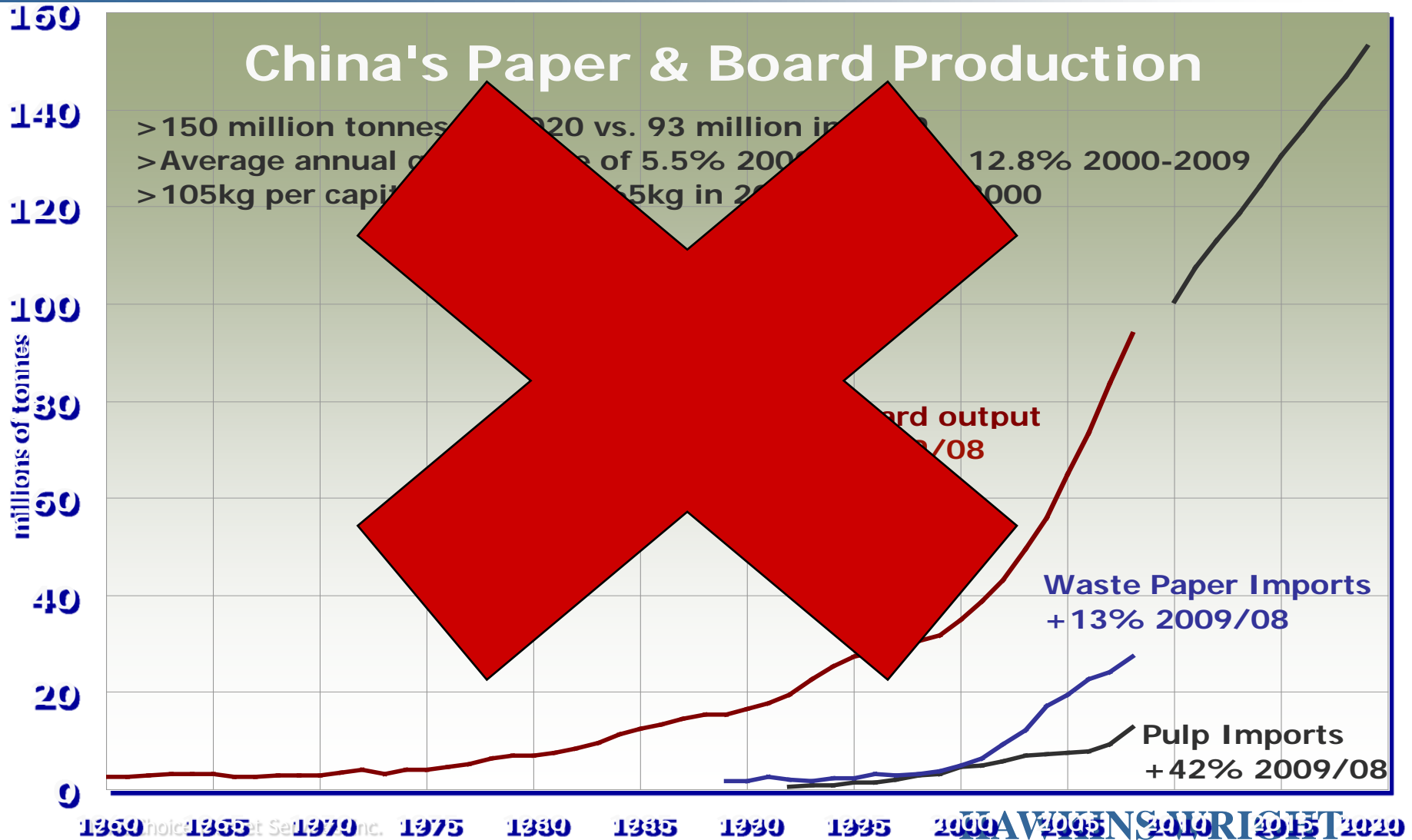


China BCP import volumes and market values (6 month moving average, real prices)



Source: HW estimates, China Customs Data

# China's continued ascendancy World's #1 P&B producer/consumer



# Investment decisions are being made on over-optimistic estimates of market size and growth



2009 production estimates have been revised down to 86 million t (by 8 million tonnes!), but they are still overstated.

The revision itself raises questions about the methodology of statistical collection. Other indicators include...

1. Paper and Board capacity
2. Fibre consumption
3. Components of GDP/Intensity of paper and board consumption
4. Per capita demand



# Paper Industry structure



- The **New China** industry
  - > Capacity >50,000 t/y using imported fibre (wood pulp & wastepaper)
  - > Some smaller mills producing woodfree papers
  - > Mills built since 1996 (APP, Chenming, Sun, Vinda, Hengan, 9 Drags, Lee & Man etc.)
- The **Old China** industry
  - > Mills using predominantly non-wood fibres and domestic wastepaper
  - > Mills built before 1996
  - > We cannot define 'Old China' accurately, but market is overstated by official statistics

# 1. Paper and board capacity



- We take CPA statistics from 2001 as base year
  - > Total production of 28.4 million t, of which 10.7 million was New China (APP, UPM, Stora, Nine Dragons, Lee & Man etc) , 17.7 old China
- CPA estimates production was 86.4 million tonnes in 2009, (growth of 58 million tonnes )
  - > We can show that New China has grown by 25 million tonnes, implying that Old China has grown by 33 million tonnes !!
  - > In the same period the CPA estimates over 6 million t/y of small, non-wood based paper capacity closed down

## 2. Fibre Consumption

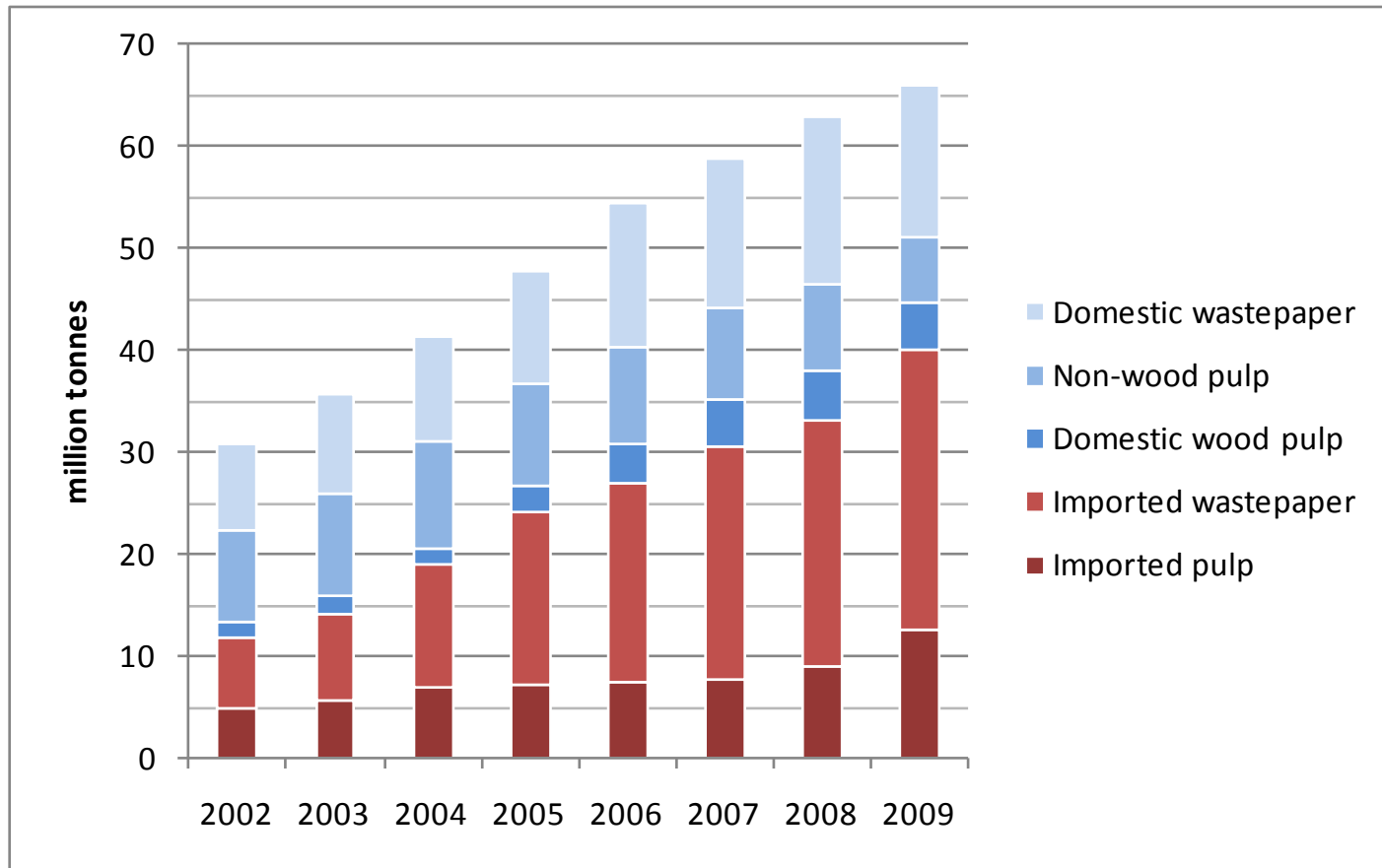


Paper & board production						
	"New" China	"Old" China	Total defined	Recycled fibre	Wood pulp	Total
2001	10,700	17,700	28,400	6,418	4,739	11,157
2002	11,250	19,000	30,250	6,873	5,021	11,894
2003	13,750	21,500	35,250	9,162	5,720	14,882
2004	16,000	22,000	38,000	12,300	6,860	19,160
2005	19,500	24,000	43,500	17,040	7,180	24,220
2006	24,000	26,000	50,000	19,500	7,440	26,940
2007	29,500	27,000	56,500	22,800	7,850	30,650
2008	33,830	26,170	60,000	24,000	8,700	32,700
2009	35,730	24,270	60,000	28,200	12,200	40,400
<b>2001-2009</b>	<b>25,030</b>	<b>6,570</b>	<b>31,600</b>	<b>21,782</b>	<b>7,461</b>	<b>29,243</b>
CAGR %	16.3%	4.0%	9.8%	20.3%	12.5%	17.5%

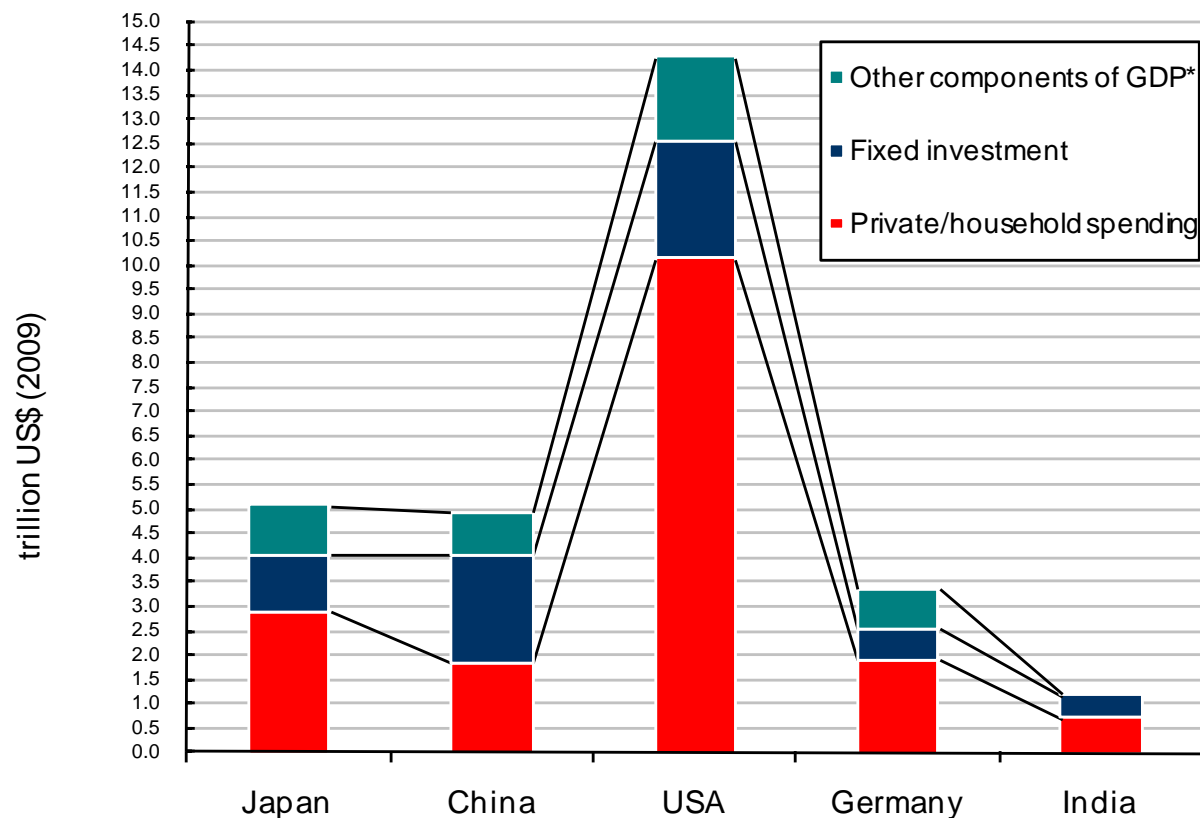
**Note: Official stats say total production is 86 million tonnes, but our research suggests at least 25 million tonnes does not exist, or is of such low quality as to be irrelevant**



## 2. Fibre Consumption



### 3. GDP compared, 2009



#### Paper and board consumption

- USA 80 MT
- Japan 30
- Germany 20
- India 10
- China 20 ??

\*being government spending + net trade + change in inventories

Note: absolute GDP estimates are for 2009 (IMF), however the breakdown by component of GDP are UNSD estimates for 2008 (latest available)

## 4. Intensity of Demand v GDP



If China's demand was 86 million t...

- This would imply that 1 kilo of paper demand was consumed for each \$57 of GDP compared to \$183 in USA and \$188 in Japan
- Hawkins Wright estimates total P&B demand at 60 million t of which 35 million t is good quality. This still implies 1kg for each \$140 GDP so China still more intensive user than USA or Japan
- This is due to huge exports of packaged goods \$1.2 trillion  
Packaging is 60% of China P&B v 50% in US & 40% Japan



## 4. Per capita comparisons

- Superficially, China's per capita consumption of paper and board is about 65 kg v 256kg in USA. Many people infer that this indicates great potential for future growth
- Per capita comparisons are misleading as 1 billion Chinese have low or non-existent disposable income
- If China's 155 million 'middle class' consumes 5 million t of high quality P&W, p.cap is 29 kg compared to 41 kg in Taiwan, 36kg in S. Korea

# Implications



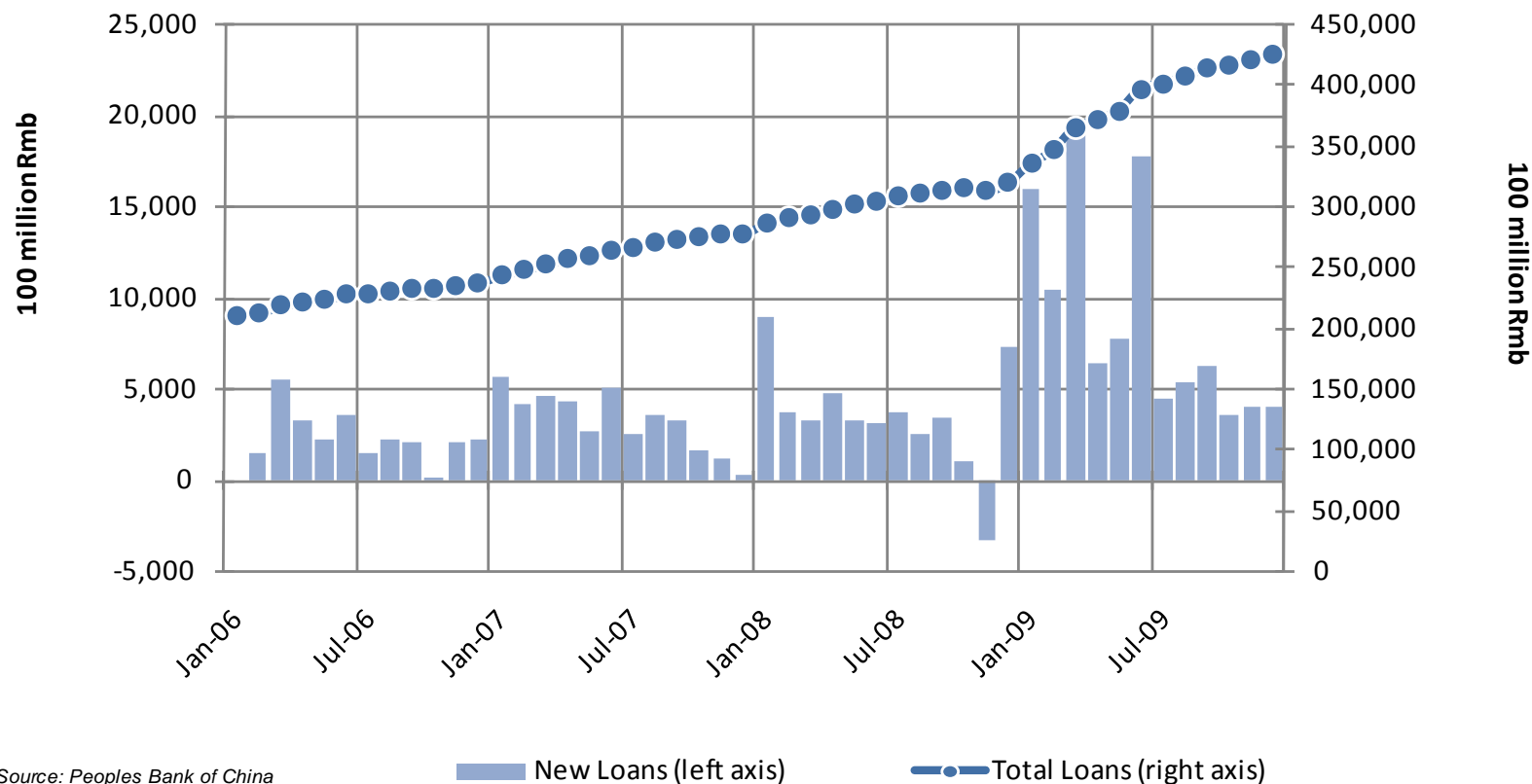
- Chinese demand is growing at 10% pa for certain grades, but from a much smaller base than popularly believed. i.e. in absolute terms demand grows at 3-4 million tpa, not 9 million
- Growth is driven by:
  - > Export sector and related business (+20% pa until last year)
  - > Domestic consumption (10% pa but from a low base)
  - > Displacement of old China industry. This was very noticeable driver through 2008-2009
- These drivers will continue but
  - > Export will grow more slowly in future
  - > Urban middle class in China have similar consumption patterns to other developed countries....They are similarly exposed to new digital technologies
  - > Further displacement of Old China will take place, especially in cultural papers, but this is price sensitive



# Key drivers of the recovery



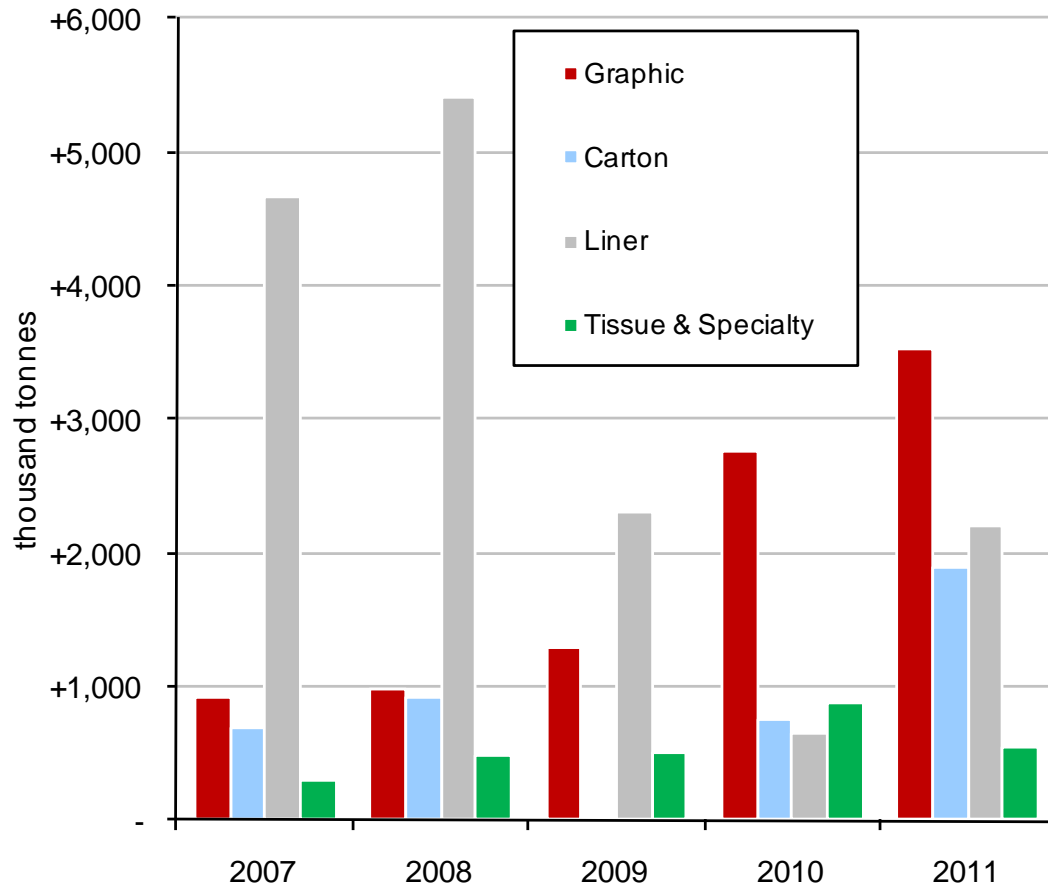
## Chinese bank loans



**Loans doubled to Rmb9.6 trillion in 2009 (\$1.4 tr) – more than double 2008 and 29% of GDP**

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# Confirmed P&B expansions at mid-2010



Many projects were delayed, postponed or cancelled in the second half of 2008, particularly in linerboard

Nevertheless, a further 17 million tonnes of capacity is likely to start 2009-2011

Of this, >7 million tonnes is woodfree or tissue

Over 3 million t/y of pulp capacity is also planned



## New China P&W capacity

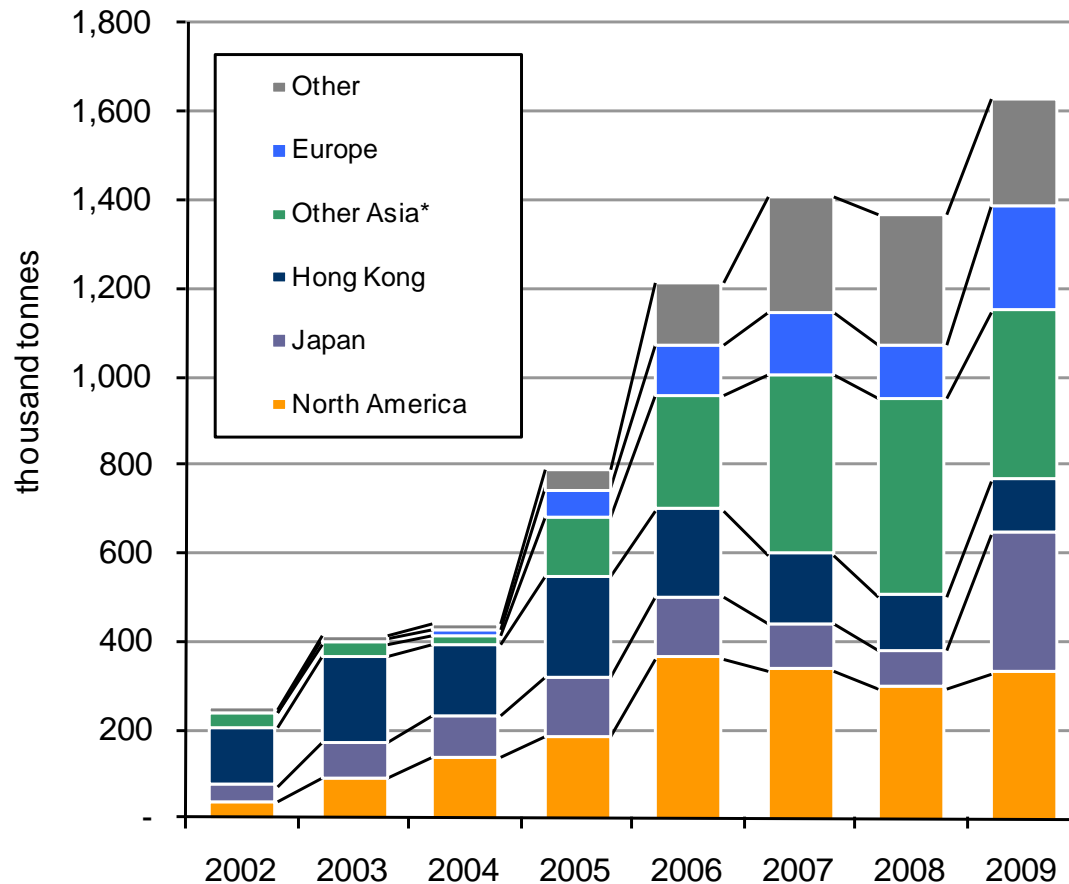
Company	Location	Capacity	Start	Grade
Puyang Longfeng	Henan	300	Jan-09	Swing
Nanping	Fujian	280	Jan-09	Uncoated
Yueyang	Hunan	200	Aug-09	Swing
MCC Yinhe	Shandong	200	Sep-09	Uncoated
Yueyang	Hunan	200	Nov-09	Swing
<b>Total 2009</b>		<b>1180</b>		
Sun Paper	Shandong	350	Apr-10	UWF
APP Hainan	Hainan	1200	Jun-10	CWF
Oji Paper	Jiangsu	400	Jun-10	CWF
Huatai	Shandong	500	Dec-10	CWF
<b>Total 2010</b>		<b>2450</b>		
Chenming	Shandong	800	Mar-11	CWF
MCC Meili	Ningxia	300	Mar-11	LWC
Yongkai Sugar	Guangxi	300	Sep-11	Uncoated
Jindaxing	Guangxi	200	Jan-11	Uncoated
Zhumadianshi Baiyun	Henan	200	Apr-11	Uncoated
Chenming	Zhanjiang	500	Jun-11	UWF
Others	n/a	400	n/a	Uncoated
<b>Total 2011</b>		<b>2700</b>		
<b>Total</b>		<b>6330</b>		



# New Capacity

- The new capacity starting up and planned will have a major impact on Asian producers and also in the rest of the world
- Production of P&W in 2009 about 8.1 million t; exports unconverted and converted 3.6 Mt = domestic consumption 4.5 Mt
- New Capacity 5.4 Mt !
- Further displacement of Old China mills will take place, but this is price sensitive (and overstated)
- The Chinese invest based on desire to maximise market share rather than profitability....Unsustainable

# Coated paper exports



\* Includes India and Middle East

- Anti-dumping/ countervailing in USA...and Europe?
- Reorganisation of trade flow is likely – Koreans eyeing US
- APP targets western markets long term
- Aside from scale, competitive advantage is unclear, hence the interest in overseas pulp assets...wisdom of buying old mills in Canada and France?

# Challenges for Europe...(& Asia & China)



- Chinese competitiveness is largely dependent on government policies concerning ...
  - > Exchange rate, VAT/export processing, labour laws, energy subsidies, plantation development
  - > In general, government wants to reduce trade surplus, lower investment, reduce pressure on environment and scarce natural resources...very low “value added” in exporting rolls and sheets of paper
- As production is rationalised in Europe and America, cost base is falling
- Other barriers for Chinese exporters include sustainability, service, and the fact that many overseas markets are shrinking
- Nevertheless, certain Chinese companies are favoured, and the industry remains an important employer