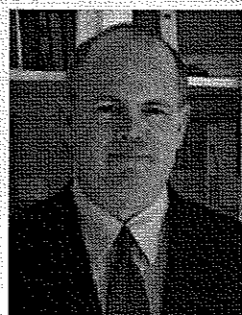




全球商品浆展望 Outlook for World Market Pulp

施科德
副总裁，纸浆部
博闻锐思商务咨询



Schaefer 领导博闻锐思商务咨询 (RISI) 浆和废纸行业分析团队，其本人更专注于纸浆领域。他每月都会发布一份《全球纸浆月度分析》，其内容主要为对全球浆市场进行评论和预测。他同时承担 RISI 纸浆市场的长期预测，关注的变量包括浆的消费量、产能、产量、生产成本和定价。2009 年，Schaefer 协助参与了 RISI 的《全球废纸市场展望》的多用户研究。2010 年，他带领 RISI 的分析团队从事中国纤维市场的多用户研究。在他加入 RISI 前，Schaefer 担任 Pulp & Paper Forecaster 理事。作为 Forecaster 公司唯一的一名经济师，Schaefer 主要负责预测北美市场纸和纸板各主要品种价格和市场动态。他针对新闻纸、涂布纸和箱板纸市场开发了一个以终端用户需求为导向的分析模型。他还领导了一系列的研究项目，例如全球新闻纸市场长期分析的大型项目。他于 1995 年获得了特许金融分析师资格认证，于 1996 年 1 月加入 RISI。

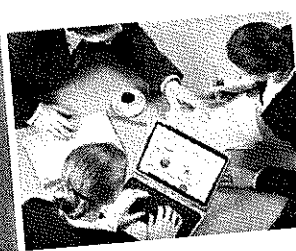
Kurt Schaefer
Vice President, Fiber
RISI

Kurt heads up RISI's analysis of the pulp and recovered paper segments of the industry. His primary responsibilities are focused on the area of papergrade pulp. He publishes a monthly commentary and forecast on the world pulp market, World Pulp Monthly. He also produces RISI's long-term pulp forecasts, focusing on variables such as pulp consumption, capacity, production, production costs, and pricing. In 2009, Kurt helped to develop RISI's Outlook for Global Recovered Paper Markets, a successful multi-client study. In 2010, he is leading a team of RISI analysts and economists doing a multi-client study of China's fiber markets. Just prior to joining RISI, Kurt was Director of Pulp & Paper Forecaster. As the sole economist working on Forecaster, he was responsible for forecasting prices and market conditions across all of the major grades of paper and paperboard in North America. His work on Forecaster included developing detailed end-user driven demand models for the key grades, including newsprint, coated papers, and containerboard. He also directed a number of projects, including a major long-term study of global newsprint markets. In 1995, he received the designation of Chartered Financial Analyst (CFA). He joined RISI in January, 1996.

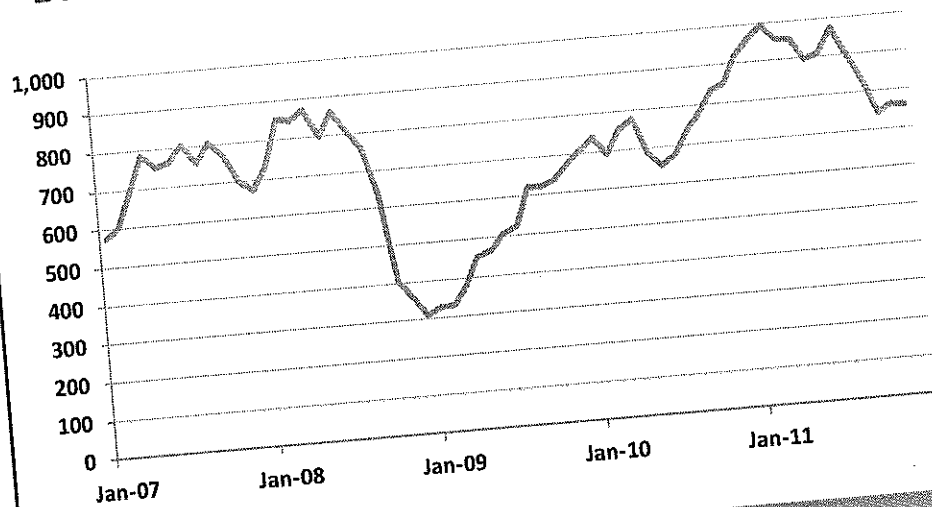
Outlook for World Market Pulp

Kurt Schaefer, Vice President Fiber

RISI



Chinese Demand Continues to Drive Prices at the Margin...



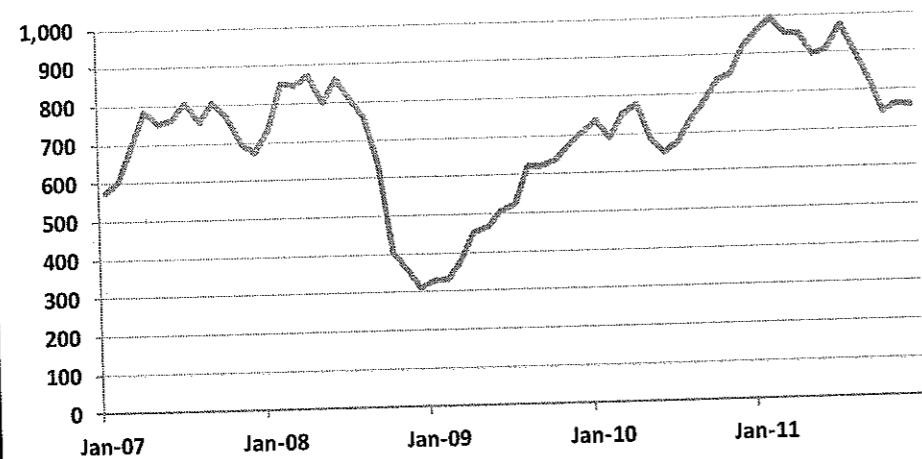
Outlook for World Market Pulp

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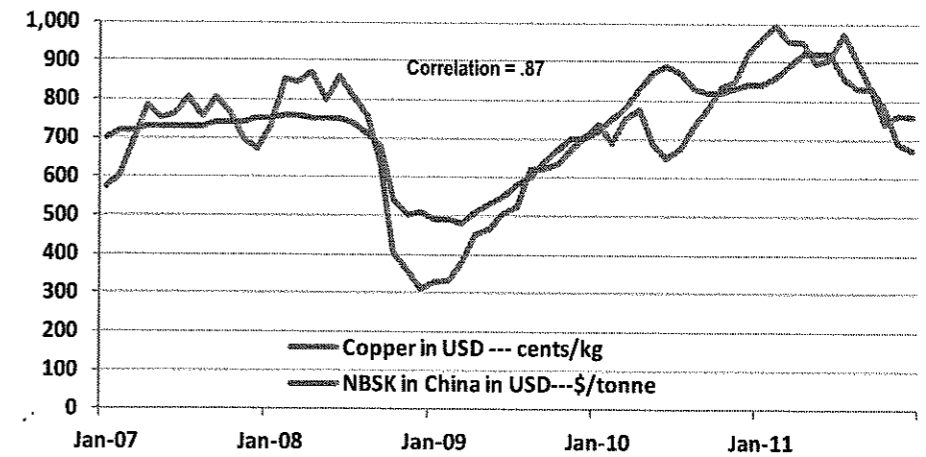


Chinese Demand Continues to Drive Prices at the Margin...



...In Both the Copper and Pulp Markets

Price of NBSK versus Copper

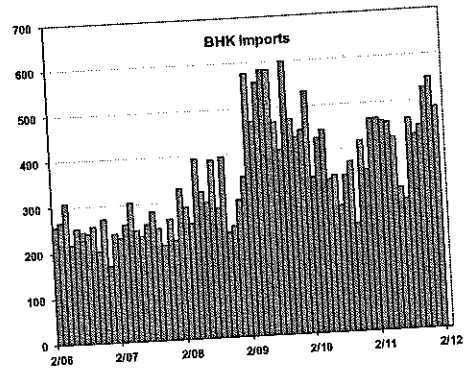
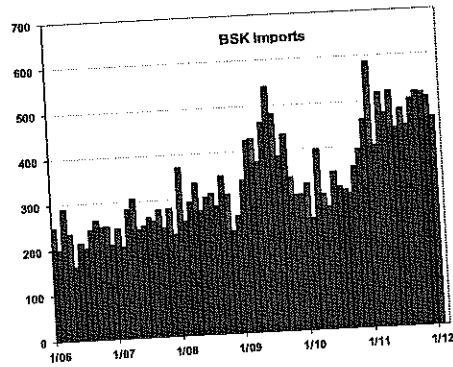


Credit Conditions in China Are Favoring Commodity Restocking

- Commodity Import Demand in China Softened in Second-Half 2011
 - Expectations of slower growth
 - Tighter credit including trade credit
- Starting in November, Monetary Policy is Easing
 - Trade credit has become easier to receive for trading houses and other importers
 - But not like 2009/10
- The Economy is Showing Mixed Signals with Respect to Growth
- Raising the Question for All Commodities: When Will the Restocking Process End?

Pulp Imports into China Have Been Surging

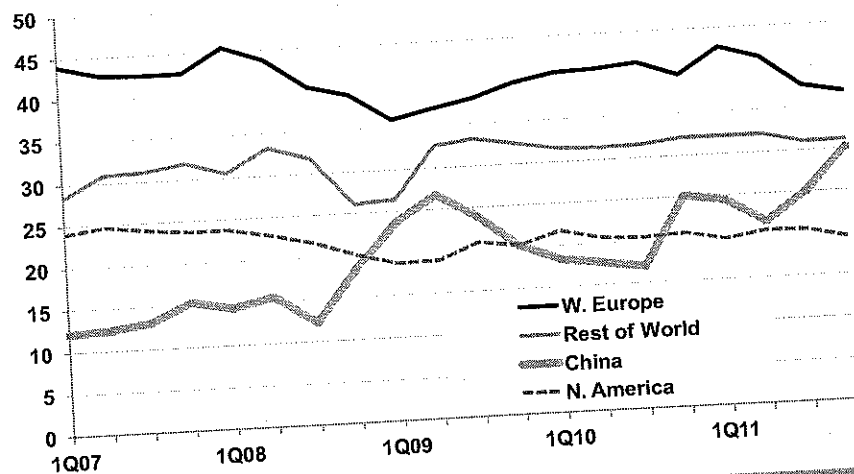
BSK and BHK Imports (000 tonnes/month)



IEISI

Rise in Chinese Demand Has More Than Offset Weaker Demand in Other Regions

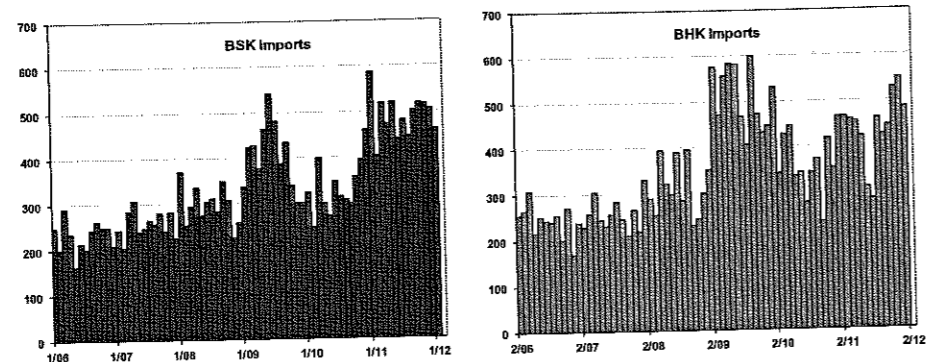
World-20 Daily Shipments to Regions (thousand tonnes per day)



IEISI

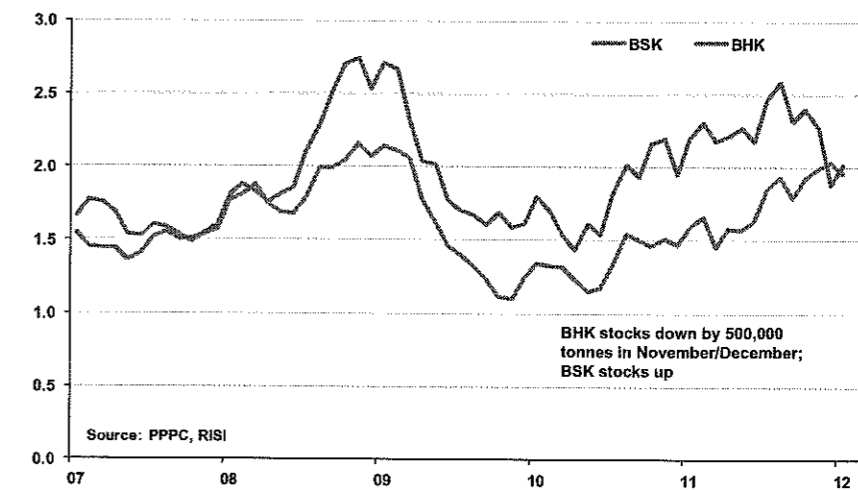
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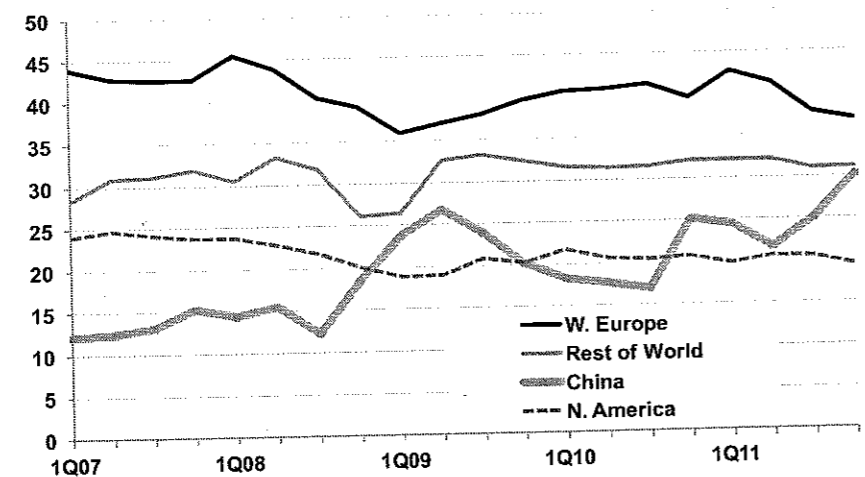
Hardwood and Softwood Pulp Inventories

Million Tonnes, Not Seasonally Adjusted, World 20 Countries



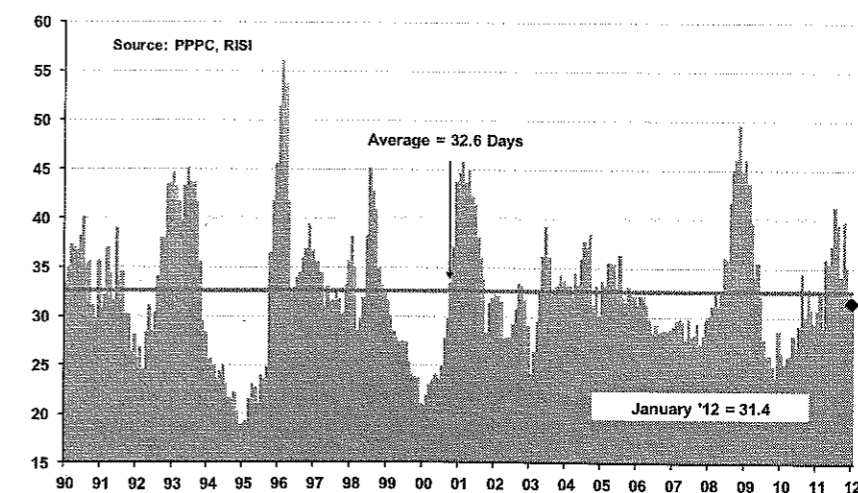
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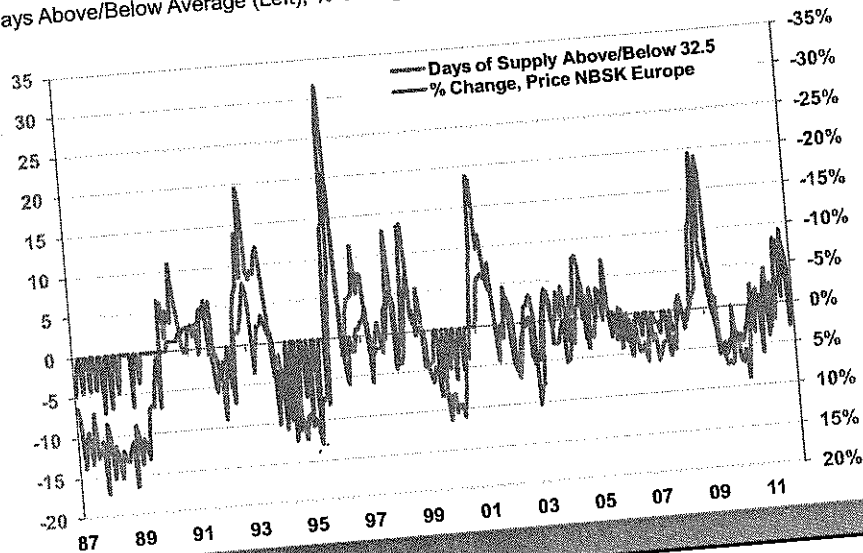
Overall, Producer Pulp Inventories Are Just Below Normal

Seasonally-Adjusted Days of Supply, World-20 (PPPC, RISI)



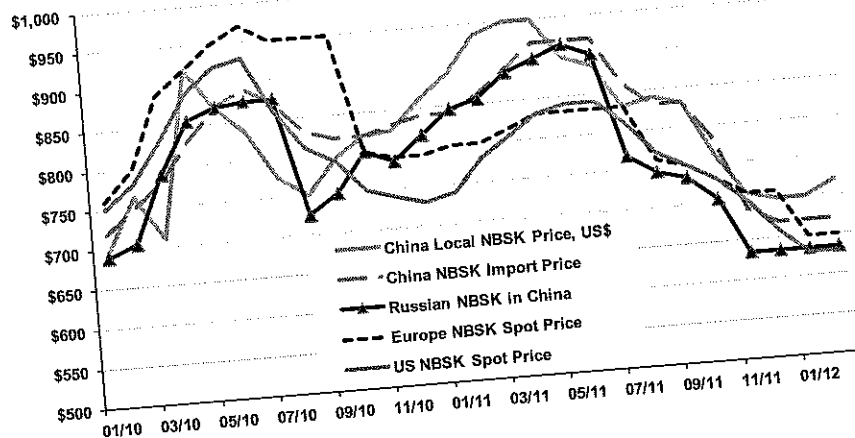
And the Relationship Between Pulp Prices and Producer Inventories Remains Strong

Days Above/Below Average (Left); % Change Price of NBSK (Right)



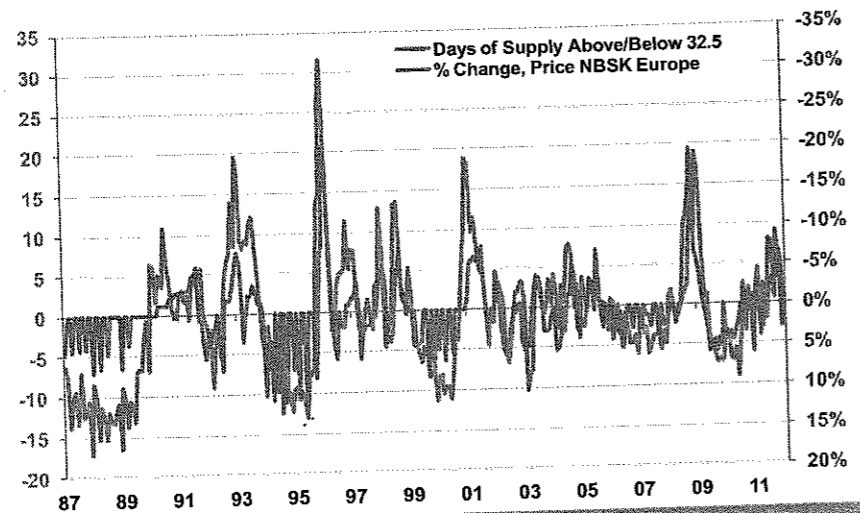
High Producer Stocks Have Kept BSK Prices Under Pressure

NBSK (US\$/ Tonne)



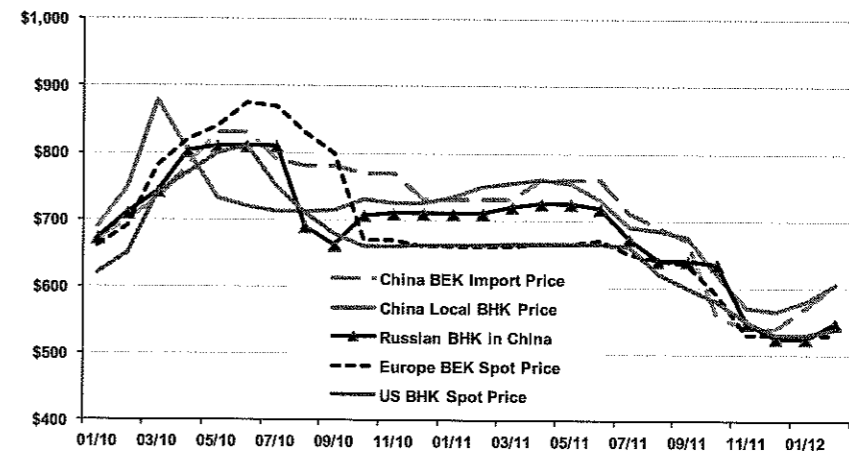
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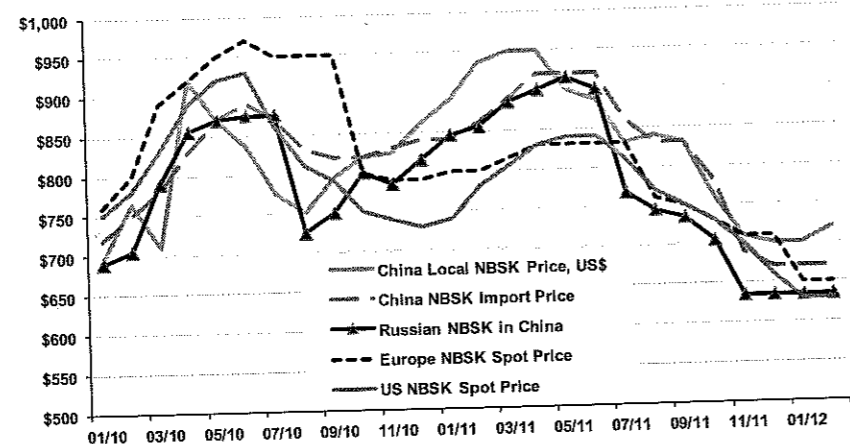
While Low Producer Stocks Have Given BHK Prices a Boost

BHK (US\$/ Tonne)



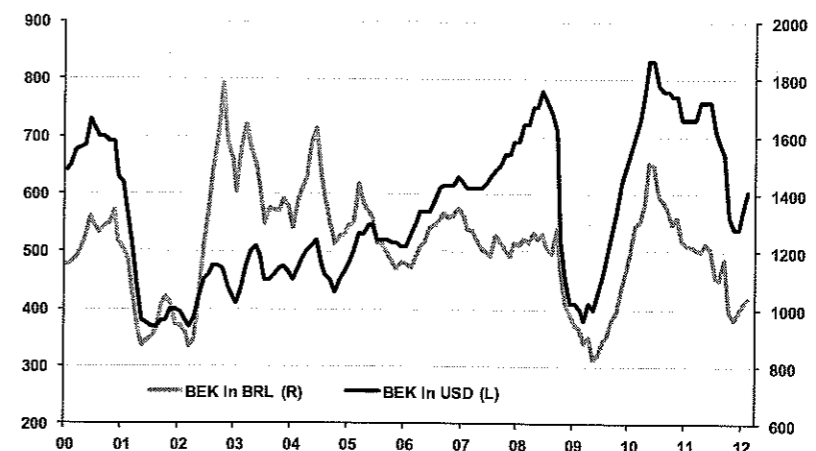
High Producer Stocks Have Kept BSK Prices Under Pressure

NBSK (US\$/ Tonne)



The R\$ Price of BEK in China At Lowest Level in Almost 10 Years (ex. Fin'l Crisis)

Currency Units per Tonne, Delivered China

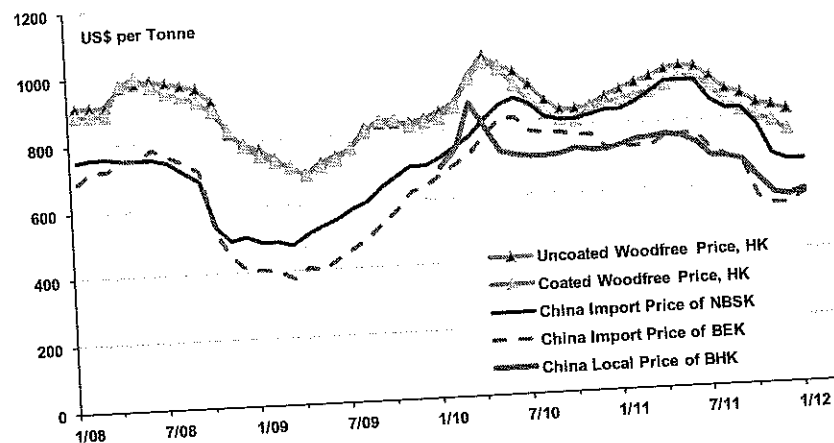


Consumer Inventories Have Been Generally Rising

- Europe (Utipulp): Flat
- China: Imports Now > Consumption
 - So stocks are rising
- Japan: Consumer Stocks Relatively High
- Korea: Consumer Stocks Relatively High
- But Overall, Consumers Are Not Greatly Overstocked at this Time

Near Term, Low Pulp Prices Should Stimulate Some Additional Paper Demand in China

US Dollars per Tonne



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- Korea: Consumer Stocks Relatively High
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IHS

Near-Term Crosscurrents in China

Strong

- Lower pulp prices brought down paper prices, raise potential for more paper demand
- Production of higher quality printing & writing and tissue papers is trending upward solidly
- Potential for mill closures, which could boost virgin pulp demand
- Trade credit (Letters of Credit) easier to obtain

Weak

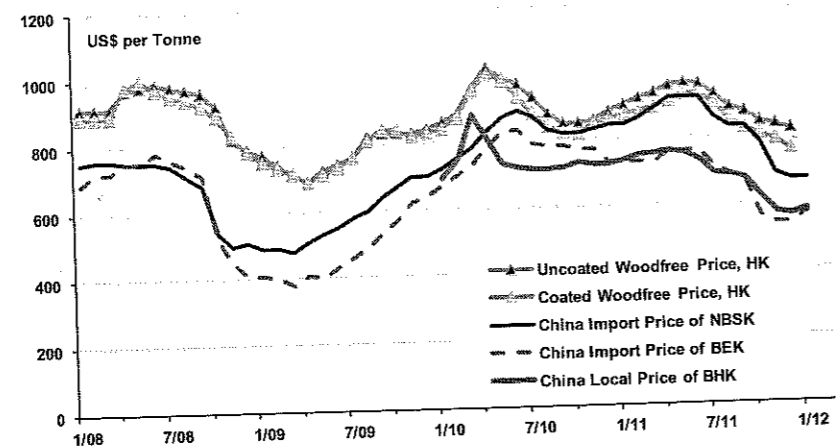
- Pulp prices once again higher than domestic production costs
- Trade actions hurting P&W paper exports
- New pulp capacity ramping up, some tied to new P&W machines
- Mixed signals from the economy

China's pulp imports should rise by over 1 million tonnes in 2012

IHS

Near Term, Low Pulp Prices Should Stimulate Some Additional Paper Demand in China

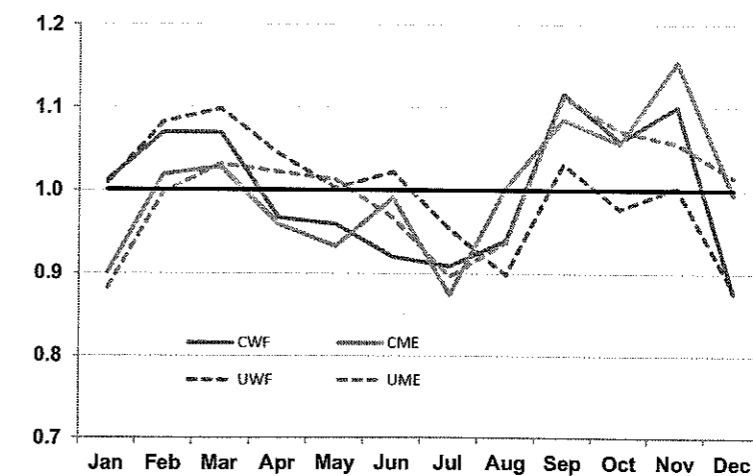
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IHS

Seasonal Pattern In P&W Production in Europe Affecting BHK vs. BSK Demand

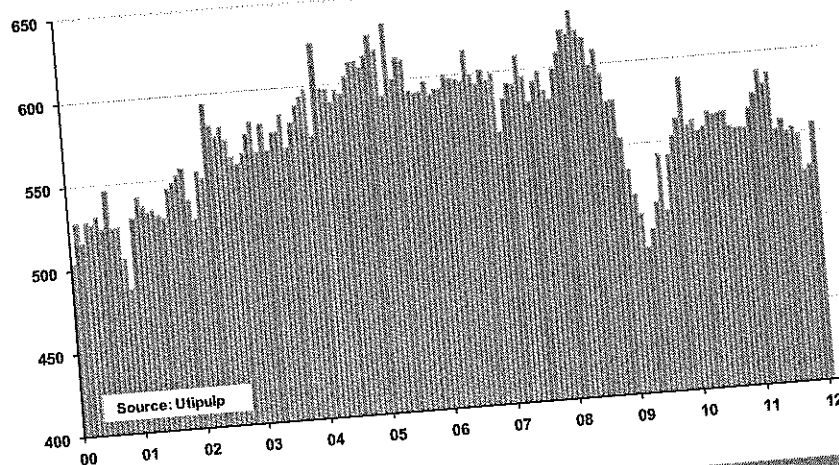
Strength of Shipments Relative to Average (Average = 1)



IHS

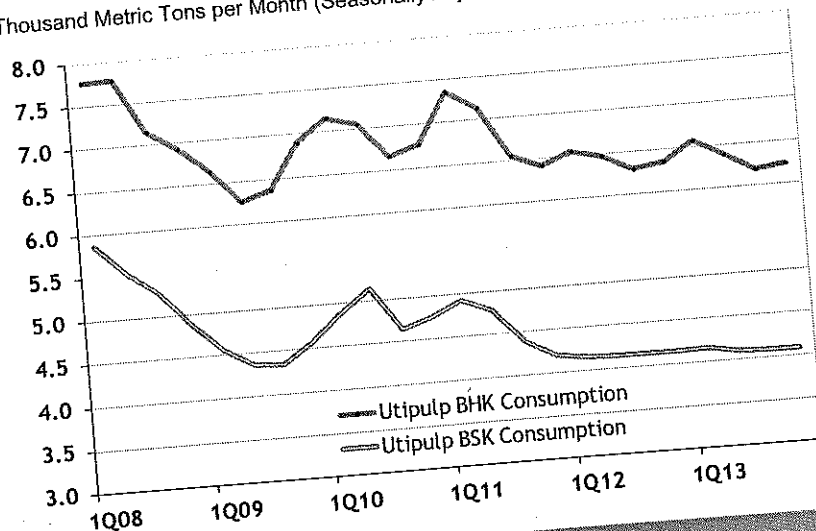
European BHK Market Pulp Consumption Is No Longer Trending Upward

Thousand Metric Tons per Month (Seasonally Adjusted)



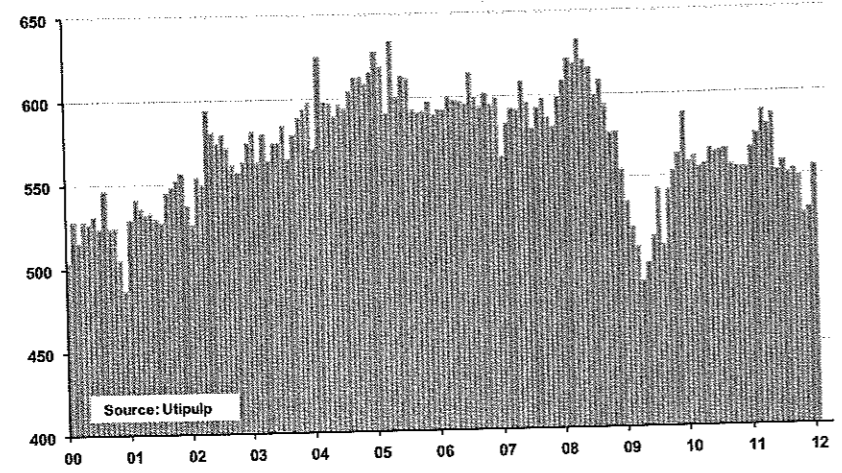
Outlook for European (Utipulp) Consumption of Bleached Kraft Pulp

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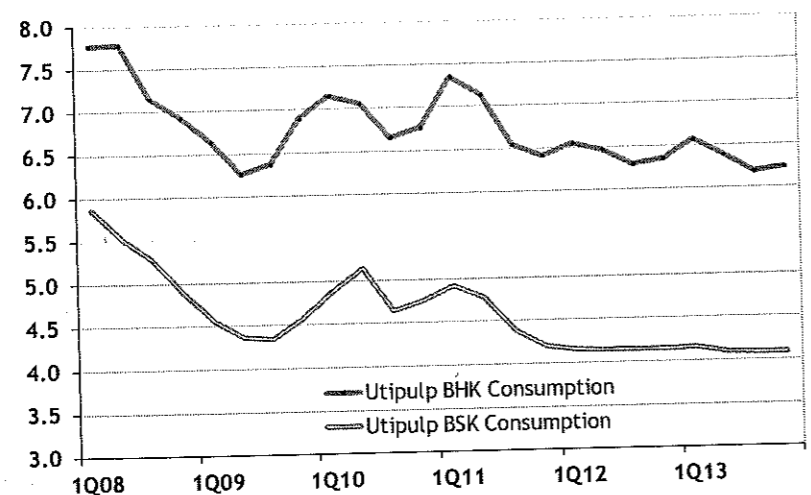
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Outlook for European (Utipulp) Consumption of Bleached Kraft Pulp

Thousand Metric Tons per Month (Seasonally Adjusted)



Near-term Crosscurrents in Europe

- | | |
|--|---|
| <p>Strong</p> <ul style="list-style-type: none"> • Consumer stocks at or below normal • Trade actions against Asian producers support domestic woodfree paper shipments | <p>Weak</p> <ul style="list-style-type: none"> • P&W demand will trend flat/down through 2012 and 13 • Financial/economic risk is still substantial • Pulp buyers do not have sufficient working capital to stock up on pulp at relatively low prices • Overcapacity in pulping • Media tablet risk |
|--|---|

European pulp demand trends flat to down; More European pulp mill closures are likely

On the Supply Side, a Surge in Pulp Capacity, Largely in Response to Higher Prices

- Catalyst (165k BSK) – May 2010
- April Rizhao (1.6 million BHK) – June 2010
- Fortress Thurso (260k BHK) – June 2010
- Mackenzie (230k BSK) – August 2010
- Terrace Bay (350k BSK) – September 2010
- APP Hainan Debottlenecking – (150k BHK)
- April Riaupulp/Kerinci (~ 1 million BHK)
 - Enough wood to run all lines became available
- ▶ Shifting of integrated pulp lines to market production in the US South
 - ▶ Domtar (Plymouth, 220k BSK/Fluff) – Late 2010
 - ▶ MeadWestvaco (Evadale, 180k BSK roll pulp) – 2011
 - ▶ Domtar (Ashdown, 100 BSK/BHK) – 2011
 - ▶ International Paper (Franklin, 270k BSK) – 2012

But Conversions to Dissolving Pulp Will Take Papergrade Capacity Out of the Market

Announced conversion, including swing (*)

Mill	Country	Papergrade Capacity Change	DP Capacity	Year
Cambara	Brazil	-35k (Fluff)	30k	2011
Lenzing*	Czech Rep.	-100 (SIT)	150k	2011
Vida	Sweden	-30k (SIT)	20k	2011
Tembec	France	-40k (Fluff)	25k	2011
Sun Paper*	China	-250k (BHK)	200k	2011
Fujian Qingshan*	China	-150k (BKP/UKP)	120k	2011
Fortress Specialty	Canada	-260k (BHK)	200k	2011
Hunan Juntai*	China	-350k (BSK/BHK)	300k	2011
Jilin Shixian Paper	China	-60k (SIT)	40k	2011
Jilin Chenming	China		40k	2011

Continued....

Announced conversion, including swing (*), previously idled (**)

Mill	Country	Papergrade Capacity Change	DP Capacity	Year
Lee & Man*	China	-165k (BHK/BSK)	140k	2012
Sodra	Sweden	-170k (BHK)	150k	2012
Paper Excellence**	Canada	-280k (BSK/BHK)	250k	2012
Schweighofer	Austria	-160 (SIT)	130k	2013
Rayonier	USA	-270k (Fluff)	190k	2013
Shandong Huatai*	China	-300 (BSK)	120k	2012
Sappi	S. Africa	-195 (BKP/UKP)	210k	2013
Sappi	USA	-250 (BHK)	330k	2013

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Large Projects on the Horizon

- The financial crisis of 2009 put all large pulp projects (outside of China) on hold
 - No large startups outside of China from the first half of 2009 through at mid 2012...the "echo effect" of the financial crisis
- Previously delayed projects are now moving forward, many will be coming on stream in 2012-2016
 - Likely to outpace demand growth by a considerable amount
- Major projects through 2013 include
 - Ilim Pulp (Russia, 500,000 BSK) – 2Q 2012
 - Eldorado (Brazil, 1.5 million BHK) – late 2012
 - Oji (China, 700,000 BHK) – early 2013
 - Montes del Plata (Uruguay, 1.3 million BHK) – early 2013
 - Suzano Maranhao (Brazil, 1.3 million BHK) – late 2013/2014?

Continued....

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Pulp Market Summary 2012

DEMAND

- First-half looks good for BHK demand
 - Chinese restocking
 - Seasonal pickup in woodfree P&W paper demand and production
- Typical summer slump in paper production will also affect pulp
- BSK demand will pick up in the second half, but overall demand in Western Europe and North America is likely to be flat
- Some papermakers are moving away from recovered paper in favor of virgin pulp, boosting overall pulp demand

SUPPLY

- Chenming's 700k tpy BHK pulp line in Guangdong Province ramping up
- Relatively little downtime has been taken by pulp producers
 - Downtime, closures seem especially likely for BSK in the first half

CONCLUSION

- First-half upward momentum will be challenged over the summer months, but upward trend probably remains through 2012

Pulp Market Summary: 2013

DEMAND

- Pulp demand again flat to down in Europe and North America, but strong growth in China and other developing countries, based on a strong GDP outlook

SUPPLY

- Startup of three BHK mills in South America in 2012/13 will depress BHK operating rates substantially
- Overcapacity in dissolving pulp will cause a swing of converted DP capacity back into papergrade pulp—but how much?

Pulp Market Summary: 2012-13

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- Flat to down in Europe and North America
- Strong growth in China, perhaps boosted by closures of older capacity

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16151

Thinking About Possible Effects of a Major Dislocation in Financial Markets

Pulp Demand

- An inventory correction across the entire P&P supply chain would send spot prices downward sharply
- Depending on how damaging the economic effects are, pulp demand could bounce back quickly, as in 2009

Pulp Supply

- Financing for major projects would much harder, leading to delays
- If the economic damage is not too bad, and projects are delayed because of tighter financial conditions, then the market could be more balanced in 2013 and 2014 than we have been expecting

16151

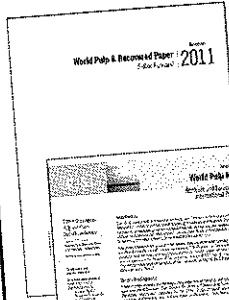
Thinking About Possible Effects a Persistent Oversupply in BHK

- High-cost BHK Producers Are Looking over the Horizon and Seeking Escape Plans
 - Same true, to a lesser extent, for BSK
 - Dissolving Pulp
 - Biorefineries
- Same Is True for BSK—Even Fluff Pulp—Potentially Leading to Closures or Asset Sales
- However, the Potential for Dissolving Pulp Demand to Surprise to the Upside is Significant, and Could Affect the Entire Market.

16151

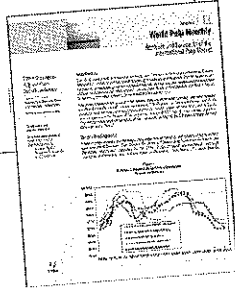
Thank-you for your attention!

For more information:



**World Pulp & Recovered Paper 5-year
Forecast**

World Pulp Monthly
www.risi.com/wpm



RISI