



# Pulp Mill Finance

an appraisal of  
risk management & safeguard procedures  
and implications for China's industry transformation

Prepared for:

Investment and Finance in China's Forest Sector

Beijing - September 22-23, 2004

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# Pulp Mill Financing

1. US\$83.7bn raised between 1990 and May-03.
2. Most expansion took place in developing countries with output geared to export markets.
3. Credit assessment process didn't prevent financing of mills with structural problems.
4. Risk assessment focus on product supply and demand, and assumed competitiveness.
5. Insufficient recognition and understanding of the forestry aspects of pulp production.



## Pulp Producers Raised US\$83.7bn of Debt & Equity Between 1990 – 2003 (May)

[USD m]	Loans	Bonds	Equity	Proj. fin.
North America	34,883.9	1,070.0	1,186.2	
Japan	69.0	1,067.1	145.4	
W-Europe	7,450.5	2,592.0	1,415.6	312.3
E-Europe	-	11.6	-	
Latin America	4,093.9	3,790.0	366.5	
Asia	6,096.6	5,402.3	5,271.9	873.6
Australasia	3,380.5	-	-	
Africa	2,126.8	1,220.5	617.9	
Other	146.7	-	189.1	
Grand total	58,247.8	15,153.5	9,192.5	1,185.9
Share of total	69.5%	18.1%	11.0%	1.4%

Source: Dealogic; data exclude domestic offerings, bilateral loans (trade & working) & multilateral funding.

2009/5/19

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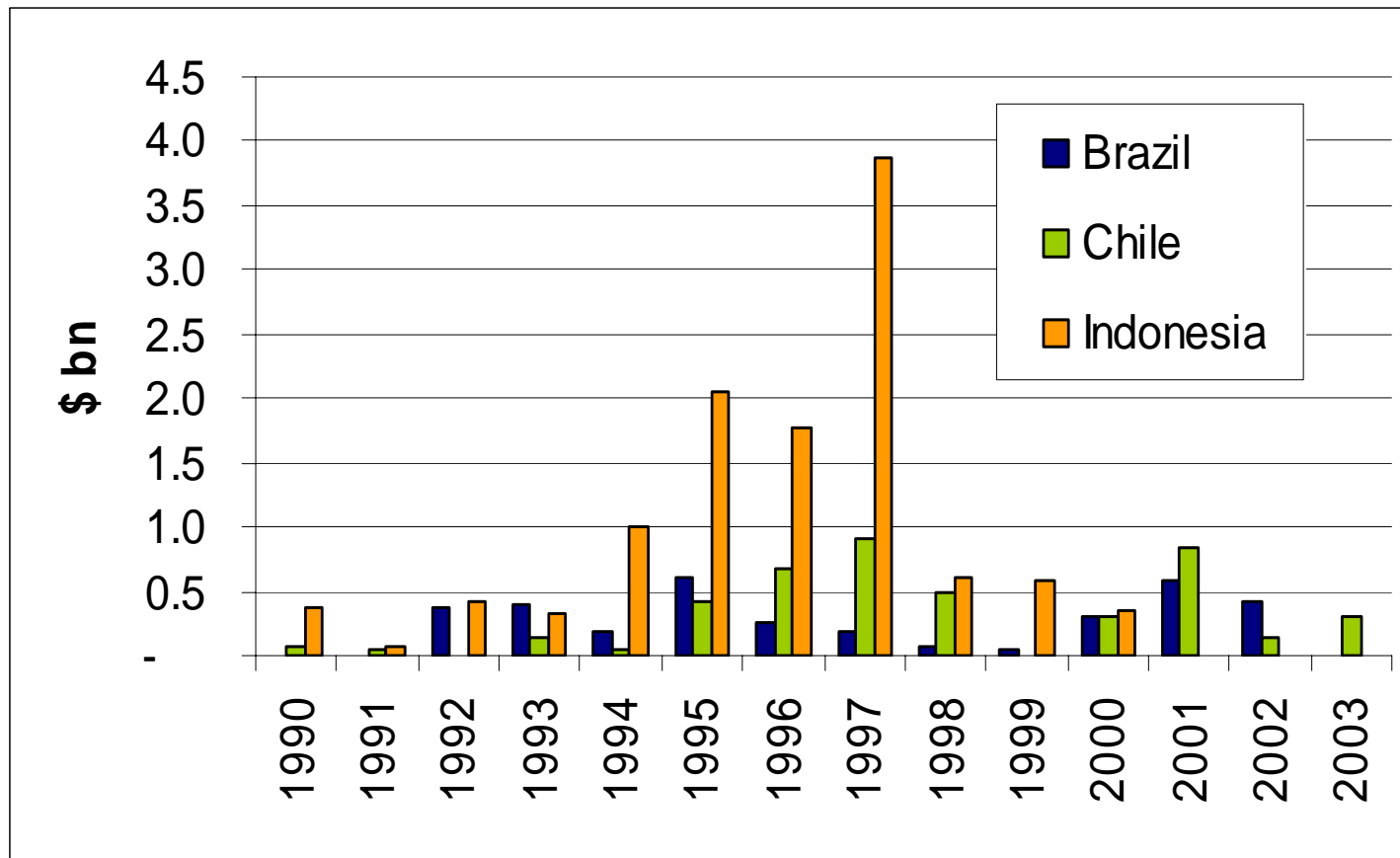


# Fund Raising by Pulp Companies from Southern Producing Countries

[US\$ m]	Loans	Bonds	Equity	Proj. fin	Total	
Brazil	1,755.8	1,290.0	366.5		3,412.3	13.5%
Chile	2,306.0	2,100.0	-		4,406.0	17.4%
South Africa	2,088.8	1,220.5	617.9		3,927.2	15.6%
China	339.2		49.5		388.7	1.5%
India	78.0	28.6			106.6	0.4%
Indonesia	2,932.6	3,481.7	5,020.5	1,060.0	12,494.8	49.5%
Thailand	235.3	111.4	169.9		516.5	2.0%
<b>Total</b>	<b>9,735.7</b>	<b>8,232.2</b>	<b>6,224.3</b>	<b>1,060.0</b>	<b>25,252</b>	
	38.6%	32.6%	24.6%	4.2%		

Source: Dealogic; data exclude domestic offerings, bilateral loans (trade & working) & multilateral funding.

# Fund Raising by Pulp Companies from Indonesia, Chile & Brazil



Source: Dealogic; data exclude domestic offerings & bilateral loans (trade & working capital funding).

2009/5/19

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# Pulp Mills (1)

- Often treated as manufacturing investments, but different in a number of material ways:
  - Use large amounts of (public) resources: land, water & fiber. Need national consensus on rights of use.
  - Proper mill planning starts with developing a fiber source well in advance: significant cash flow impact.
- Pricing of common resources/ availability of incentives critical to mill economics.
  - Improper pricing can promote short-term profitability but be damaging in the long-term as investment flows get misdirected.



# Pulp Mills (2)

- Large & capital intensive.
  - High cost of failure: costs often too high to be politically acceptable, with due implications.
- Employ many but not labour intensive.
- Pollution a diminishing issue:
  - Evolution of more environmentally friendly production processes (Totally Chlorine Free).
  - Reduced water consumption for new mills.
  - Challenge lies in upgrading existing production capacity to current standards.



# Limits of Free Markets

- Important to consider limits of free markets where their actions shape an industry that heavily draws on public resources.
- Unregulated free markets don't:
  - Factor in costs and risks to third parties.
  - Consider longer term impacts of financing decisions on a country or its industries.
  - Achieve a fair distribution of income and wealth.
  - Differentiate between desirable development patterns for different localities.





# Offshore Financing

- Credit markets are extremely competitive with supply of funds exceeding demand.
  - Greater focus on loan quantity than quality.
- Offshore markets have no safeguards to prevent the financing of unsustainable mills.
  - Assumption that companies are well regulated in their home market is not always valid for pulp mills.
  - In practice, little analysis is done into the lasting competitiveness of companies and conditions under which this might change.
- Easy access to capital by pulp mills can have high social/environmental costs to the host country.
  - Appropriate safeguards should be implemented.



# Credit Risk Assessment

- For lenders credit risk is loan repayment risk.
  - Managed at the loan and portfolio level to maximise return while keeping risk within acceptable parameters.
- Country and sector considerations dominate the credit process and loan pricing.
  - Borrowers differentiated using credit ratings.
  - Disintermediation has led to declining direct contact between lenders and borrowers.
- Little focus on borrower quality/company level risk analysis, although this is key factor in loan/investment performance.



# Industry Competitiveness

- Competitiveness is at the heart of long-term industry survival, and healthy loan performance.
- Gains in pulp production efficiency get passed to the customer as a result of relentless competition: corporate margins have not effectively expanded.
- Larger mills **AND** competitive fiber at the root of ability for exporters to compete.
  - Large mills alone don't ensure low cost production in the absence of a competitive fiber base.
  - Calculations assume full utilisation. Often mills take downtime as a result of overly aggressive expansion.

# Industry Profitability: Return On Capital Employed

- Despite mill efficiencies returns on capital remain low as ample capacity keeps product prices low and competition high. Top 100 listed producers.

	1996	1997	1998	1999	2000	2001	2002
Canada	4.2%	2.1%	3.3%	5.9%	7.8%	3.1%	3.6%
Japan	2.1%	1.9%	0.4%	0.5%	1.4%	3.2%	1.8%
USA	5.7%	3.9%	4.3%	7.4%	7.3%	4.2%	4.5%
Europe	6.1%	6.5%	6.4%	6.7%	9.1%	6.7%	5.4%
Other	4.6%	3.8%	3.7%	4.5%	4.6%	3.7%	3.7%
Grand total	4.8%	4.1%	4.1%	5.7%	6.5%	4.6%	4.3%
Note: constituents differ from year to year							
Pulp prices (US\$/t)							
NBHK	497	518	488	505	660	495	453
BEK	538	541	515	522	665	527	484

Source: PWC Global Forest & Paper Industry Survey, 1998 - 2003



# China Pulp Industry

- Meets domestic demand.
- Dominated by smaller producers.
- 85% non-wood based.
- Water-intensive and pollutive production.
- Varying levels of operational/ financial viability.
- Low level of private ownership.
- Large expansions driven by the private sector.
- Currently transforming: this transformation needs to be planned actively to achieve the best long-range outcome for China.



# Industry Planning (1)

- Have a broad based national debate on the optimal size and structure of the domestic pulp industry.
  - Competitiveness of domestic production vs imports for key areas. Assume no tariffs.
  - Scarcity of arable land and water.
    - How should use be spread between competing interests?
    - How to balance most efficient use with needs?
    - Who decides, and is this a national debate
  - Societal costs, how computed & compensated.
- Current industry output doesn't meet total domestic demand: pulp & paper is 3<sup>rd</sup> largest import.
  - No need for import substitution, much paper is re-exported (paper for printing, and packaging for export industry), and China has a merchandise trade surplus.



# Industry Planning (2)

- Does the current interplay of regulation, private sector investment and financing availability stimulate a healthy pulp industry.
  - Industry changing from government directed to private sector driven.
  - Bank lending increasingly driven by pure commercial considerations: impact on inefficient mills.
  - Fiber supply planning: is the regulatory/financial dynamic appropriate to develop as much plantations as are needed to support projected capacity?
- Plan resource use ahead of capacity expansions.
- Discuss, plan and implement safeguards prior to expansions.



# Mill Size(s)

- Decide on the optimal mill size(s) for China.
  - Study optimal mill sizes considering in transport logistics, raw material availability and market dispersion.
  - Minimum mill size that allows for acceptable environmental standards: think 80/20, and realise that road-trucking also causes pollution.
- Tune mill size and location to demand for product, supply of raw materials and incorporate transport logistics into feasibility.
  - If mills use imported fiber: consider long-run availability, and alternative supply.





# Industry Restructuring

- How to restructure existing capacity?
  - How much should there be, how much is there, and how do we make the adjustment?
- Study and rank existing mills:
  - Source of demand for product & (anticipated) competition.
  - Competitive advantages: proximity to markets & raw materials, others?
  - Operational & financial viability.
  - Long-run sustainability.
- Plan restructuring, and how to handle mill closures.
  - Anticipates increasing commercialisation of banking system.



# Ensuring Quality

- Industry quality at macro level decided by structure.
  - What is most suited for China, and how to bring this about. What is offered for sale may not be the product best suited to China. Be pro-active.
- Sponsor quality the principal deciding factor in investment success.
  - Decide on and implement a screening system to get the investors China wants.
  - The best investors are not necessarily the ones that first came calling.
- Safeguards and commitments.
  - Post investment, how to monitor and achieve compliance post mill commissioning.