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Mergers and Acquisitions in the Fine Chemicals Industry

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Introduction

Topics for Discussion

- What concerns do fine chemicals M&A transactions raise from a sourcing standpoint?
- What key trends and forces are driving M&A activity in the global pharmaceutical fine chemicals market?
- What level of M&A activity has occurred recently? Who are the buyers and who are the sellers?
- How does the recent credit squeeze in the U.S. affect fine chemicals M&A?

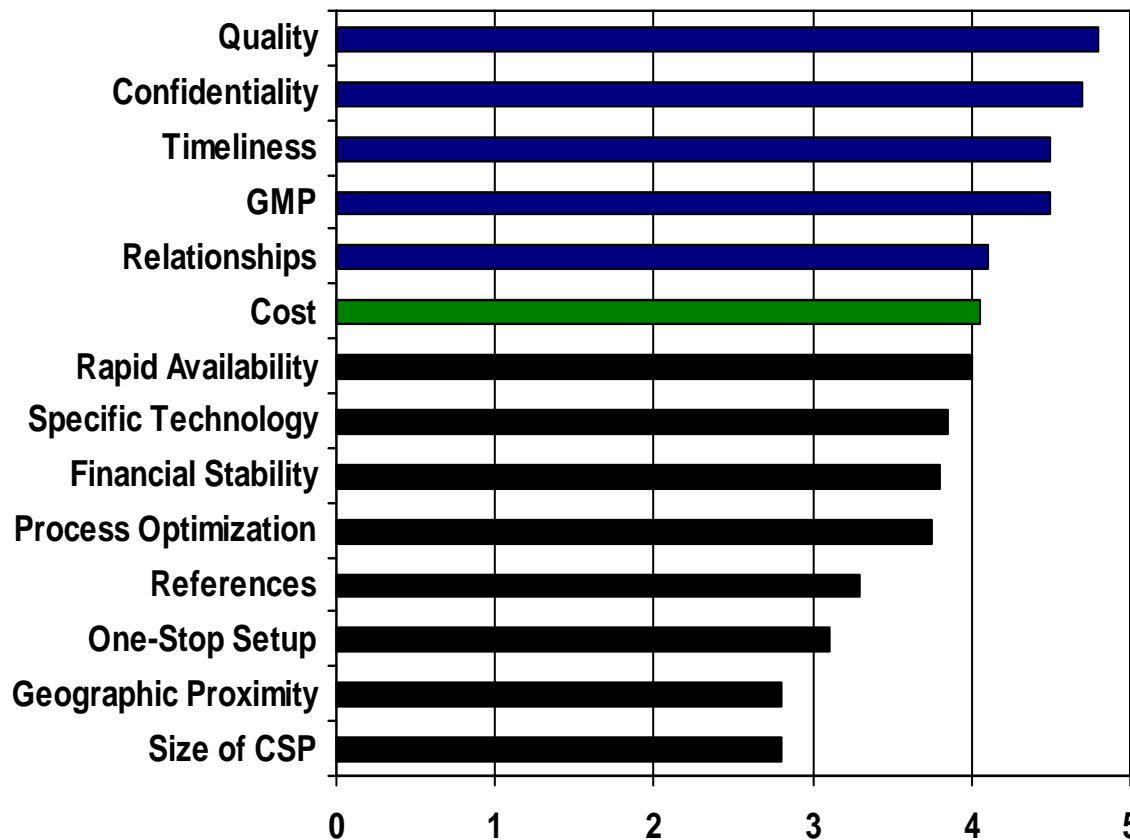


Section 1

Relevance of M&A to the Sourcing Function

Key Outsourcing Concerns

Importance of Key Factors to the Outsourcing Decision:
All Pharma and Emerging Biopharma Firms



- An M&A transaction can put into question all of the critical factors of concern to an outsource customer
- Stability and continuity of supply is of utmost concern to customers
- Communication with key customers prior to closing can be essential to a smooth transition

Source: *Contract Pharma* magazine's 2006 Annual Outsourcing Survey.

The High Cost of Switching Suppliers

- The change in control of a supplier is of concern to outsource customers because of the potential high cost of re-sourcing an intermediate or API

Costs and Risks of Switching Suppliers

- Process re-design
- Technology transfer
- Validation
- Regulatory / FDA approval
- Significant financial costs
- Significant time required to make a switch
- Potential disruption of supply during transition
- Potential difficulty finding alternative supply sources



Section 2

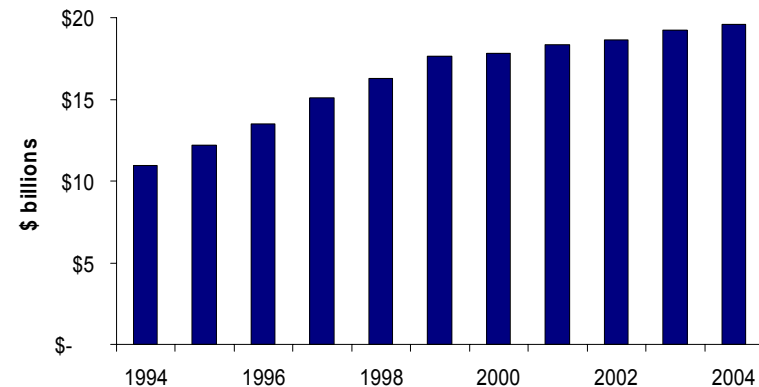
Fine Chemicals Market Review and Trends Driving M&A

Global Fine Chemicals Market

Worldwide Overview

- \$75 billion market in developed countries
- \$25 to \$30 billion is merchant and the remainder is captive
- \$50 billion of total market (\$20 billion merchant) is used in pharmaceuticals
- Long term growth prospects estimated at 1.0 – 2.0x GDP
- Certain sectors experiencing more robust growth than others

U.S. Fine Chemical Shipments



Source: American Chemistry Council

NOTE: Includes captive production by pharmaceutical companies.

Source: American Chemistry Council, Freedonia, P. Pollak, Lincoln International

Fragmented Industry Structure

- ~10 companies with sales over \$250 million
- ~50 companies with sales of \$100 million to \$250 million
- ~500 companies with sales under \$100 million
- Broad geographic dispersion (U.S., Europe, India, China, ROW)

The global fine chemicals market is fundamentally a fragmented, mid-market industry with some potential for consolidation.

Source: P. Pollak, Lincoln International

Recent Trends and Their Impact

Key Trends and Developments

- Slowdown in drug development pipeline
- Consolidation of customer base
- Increased outsourcing by innovative pharmaceutical companies
- Increasingly global approach to outsourcing
- Emergence of Asian pharmaceutical industry



Impact on Fine Chemicals

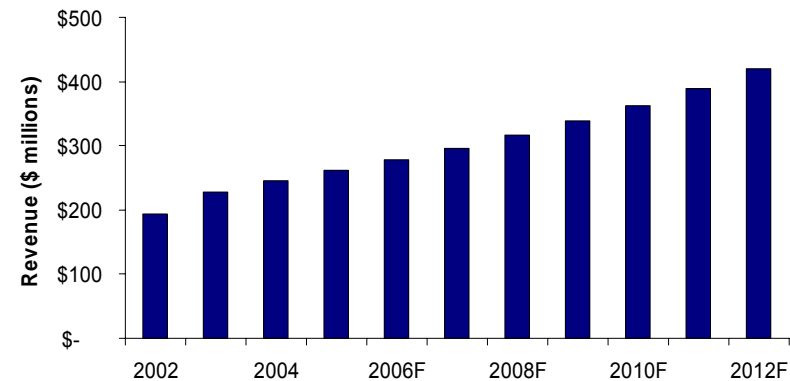
- Increased price pressure
- Opportunity for producers in low cost countries
- Shift in capacity base
 - Captive to outsource
 - Western World to Asia

Asian Fine Chemicals Market

Impact of Asia

- India is now one of the top five producers of APIs
 - Total non-captive intermediates production estimated at \$590 million in 2005 (50% export)
- China is also fast becoming a major supplier of fine chemicals and is moving up the value chain
- Key growth drivers:
 - Lower basic ingredient prices and production costs
 - Large talent pool (esp. in India)
 - Gradual improvements in quality, capabilities and general reputation

India Pharma Intermediates



Source: Frost & Sullivan

The emergence of Asian firms has dramatically altered the competitive landscape for fine chemicals.

Source: Frost & Sullivan, Lincoln International

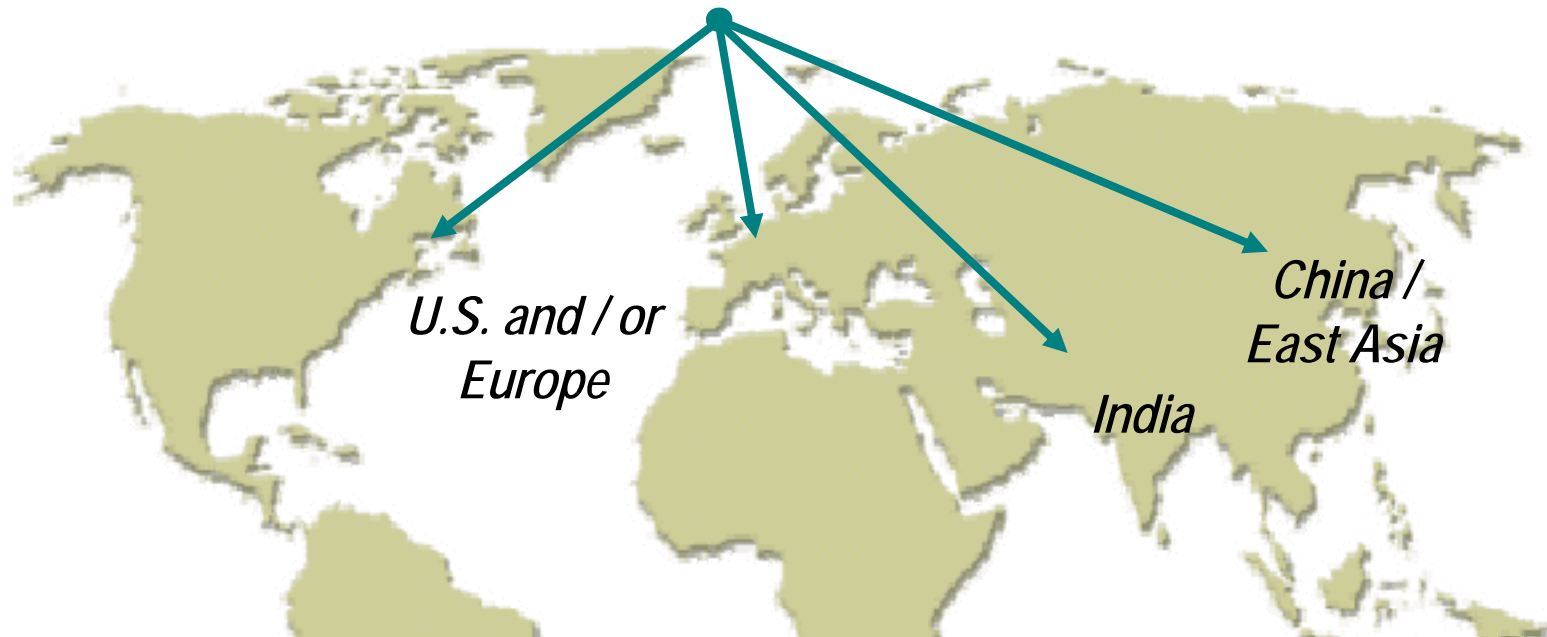
How Do Western Firms Compete Against Asia?

- Avoid head-on competition with low cost producers
- Become a “trusted development partner”
- Emphasize technical and analytical expertise and know-how
- Focus on sophisticated, difficult and / or unusual technologies
- Capitalize on proximity to customers (especially biotechnology)

Pressure on Western firms has been an important factor driving consolidation.

Evolution of the Global Outsourcing Model

The one-stop, global, integrated supplier?



This model requires further industry consolidation and will be driven by customer demand.

Section 3

Recent Fine Chemicals M&A Activity

Three Commonly Observed Buyer Categories

Western Strategic

- Traditional buyers of fine chemicals businesses
- More likely to be sellers than buyers in the current market
- Seeking niche or add-on acquisitions
- Focus on technologies or capacity expansions
- Also may seek regulatory advantages

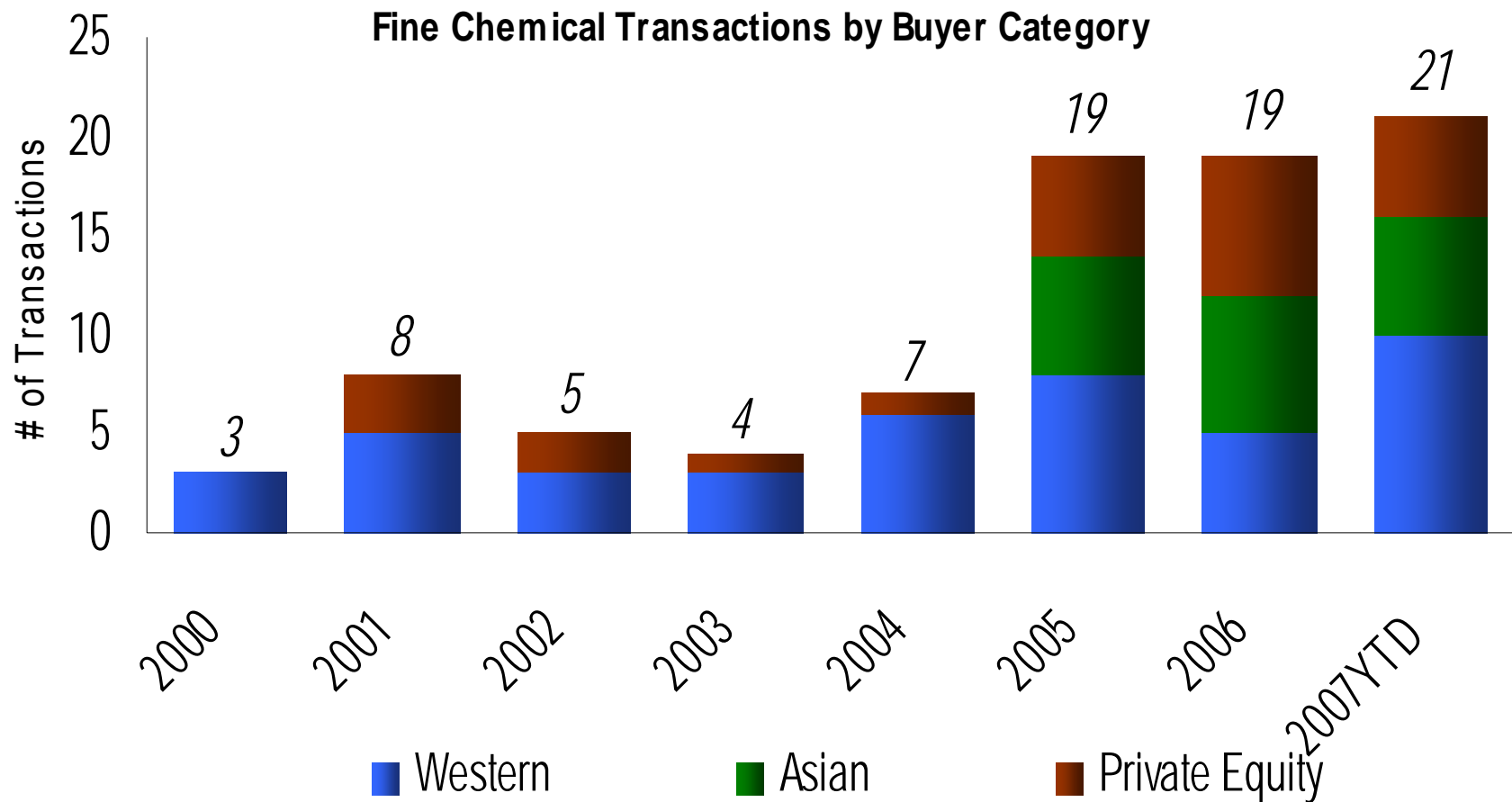
Asian Strategic

- Emerged as buyers in 2005
- Most often Indian buyers
- Fine chemicals firms usually seeking customer or technology acquisition
- Generic pharmaceutical firms seeking to in-source fine chemicals production

Private Equity

- Often independent; may work with an industry executive or expert
- Seek platforms for further acquisition
- Typically have a 3 – 6 year hold period, then seek to exit their investment
- Require significant acquisition financing

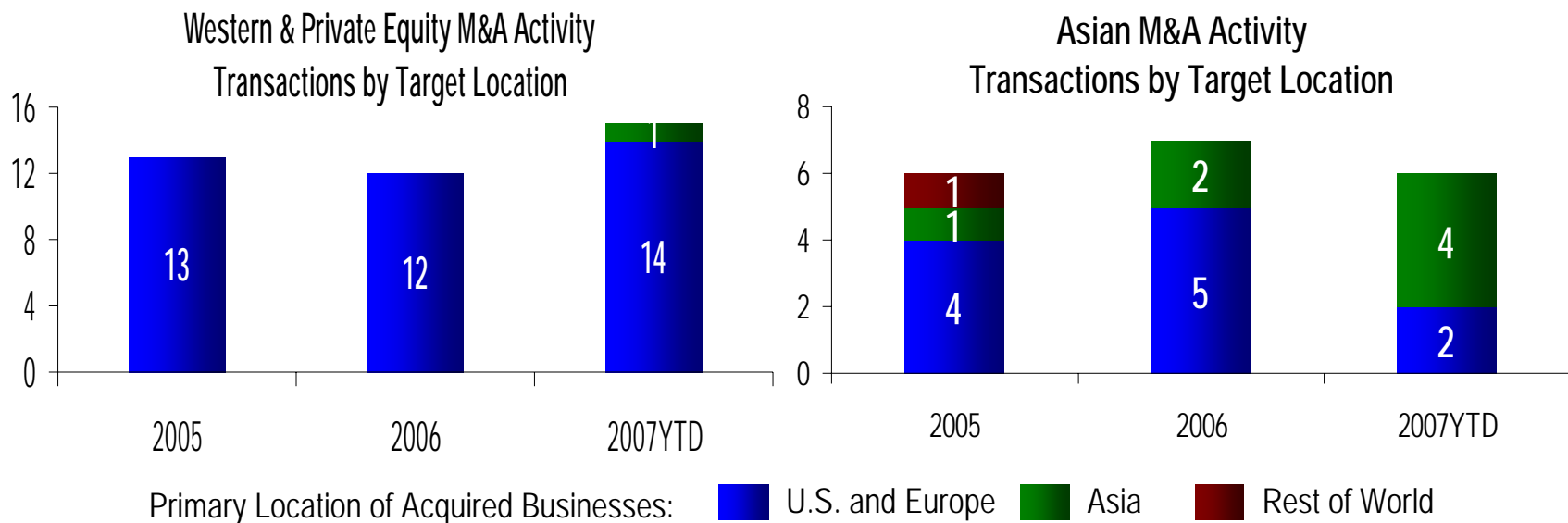
Transaction Volume Remains Strong



Source: Public Information, Lincoln International

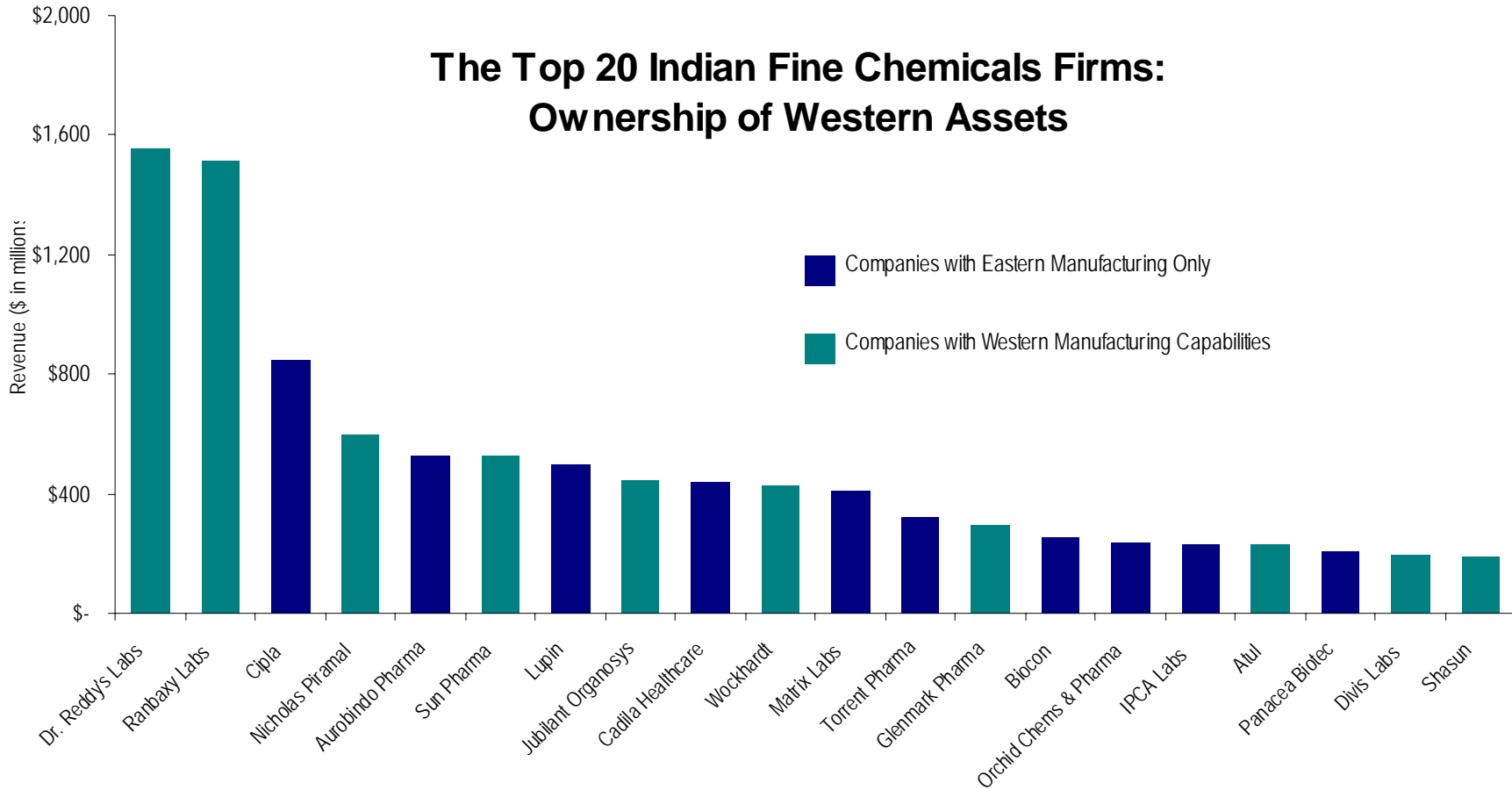
Asian Firms Are Buying Fewer Western Businesses

- Western firms and private equity groups continue to focus their acquisitions in the U.S. and Europe
- After acquiring several Western assets in 2005 and 2006, acquisition activity by Asian firms has been more locally focused in 2007



Source: Public information sources

Indian Firms Have Significant Western Presence



10 of the top 20 Indian fine chemicals firms currently have manufacturing assets in the Western world.

Source: Public information.

U.S. Credit Market Considerations

- Private equity acquisition activity has increased significantly since 2005 driven, in part, by favorable lending market conditions
- U.S. credit market conditions retracted in mid-2007, particularly for larger deals
- Conditions in the mid-market (most relevant to fine chemicals) and in Europe were also impacted, but less severely
- Mid-market transactions are moving forward, although financing terms and pricing is now more in line with historical norms

Credit market conditions have a big impact on private equity firms, but they also set the tone for all M&A activity.

The Leveraged Loan Market Is Correcting

Following a record setting first half, the leveraged loan market began a correction in July 2007

CLO Liquidity Dries Up

- Large losses / fund failures in sub-prime mortgage market created uncertainty and negative sentiment that spilled over into the CLO market
- Investors in junior levels of CLO structures retrenched; large investment banks pulled or froze warehouse lines

Record Level of New Issues in Market

- \$200 – 300 billion of loans supporting LBO's in pipeline
- Arrangers offering higher rates, OID to help deals “clear the market”
- Several large deals did not “clear the market”, forcing large investment banks to hold billions of leveraged loans on balance sheet

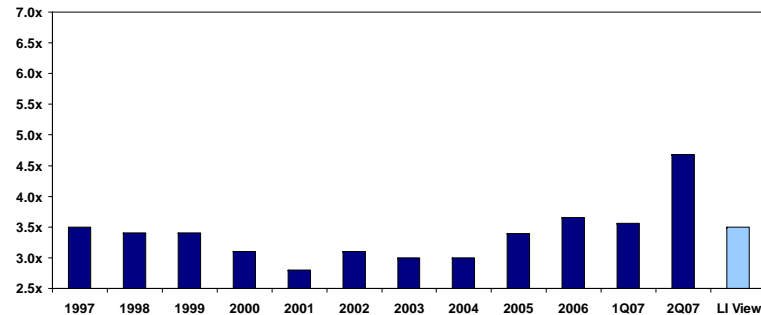
Imbalance Exists and Correction Begins

- Pricing and terms have changed substantially
- Lenders and loan participants now have market power
- Large deals are being delayed as financing terms are renegotiated
- Mid-market deals progressing, albeit at new market clearing terms and pricing

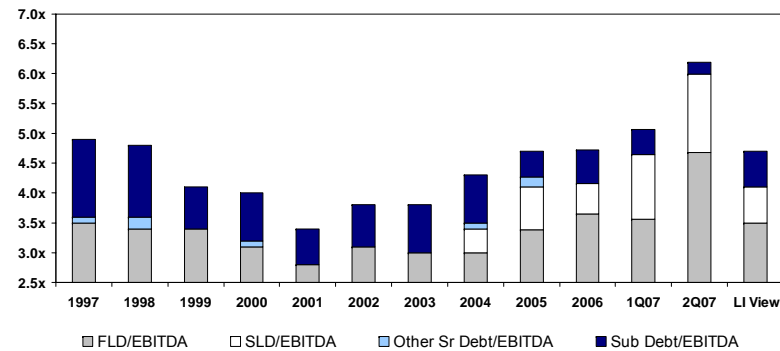
Mid Market Lending Returns to Normal

The impact on the mid-market has been less severe. Prevailing leverage remains favorable when compared to historic levels

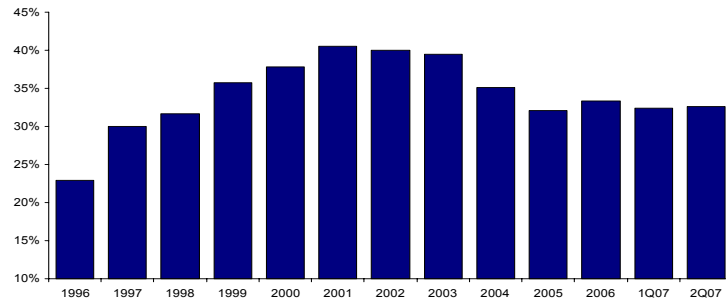
Senior Debt returns to '05/'06 levels



Total Debt returns to '05/'06 levels



Equity contributions remain at 30-35%



Pricing

- Senior debt pricing up 100-150 bps
- Second lien debt pricing up 100-150 bps
- Excess cash flow sweeps: 50-75%
- Increased upfront fees
- Mezzanine debt: consistent to increased pricing

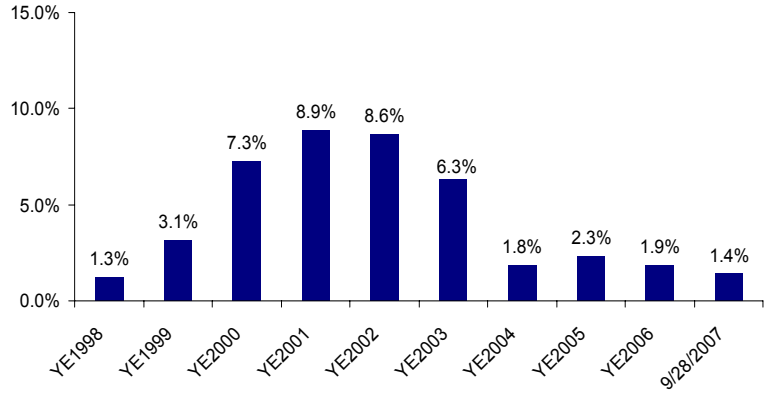
Source: S&P Leveraged Commentary Data, Lincoln International Estimates

• Mid-market sellers are moving forward with transactions

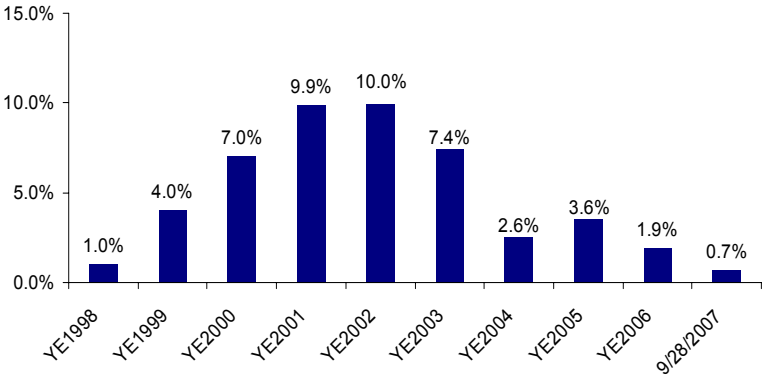
Default Rates Remain Low

If default rates remain low, debt market conditions should improve

Percentage of Issuers in Payment Default or Bankruptcy

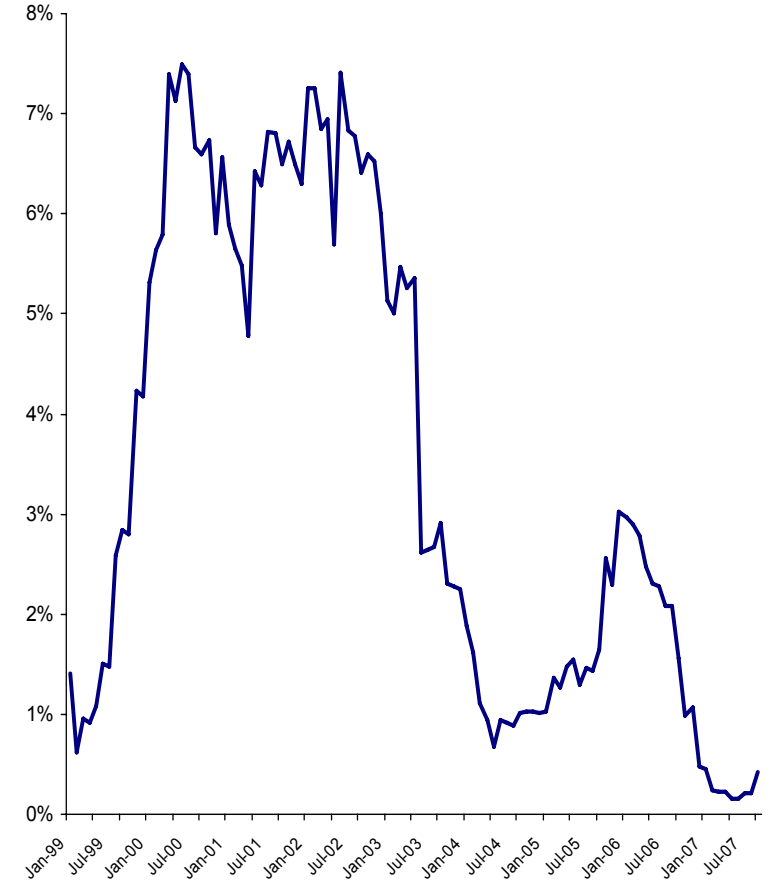


Percentage of Leveraged Loans in Payment Default or Bankruptcy



Includes all loans including those not included in the LSTA/LPC mark-to-mark service. Vast majority are institutional tranches

Lagging 12-month default rate by principal amount



Source: Standard & Poor's Leveraged Commentary and Data



Section 4

Conclusion

Conclusion

- The global fine chemicals market is large and highly fragmented
- M&A activity in recent years has increased, driven primarily by the emergence of Asia and evolving trends among the customer base
- U.S. loan market conditions have adjusted to historically normal levels but mid-market M&A continues to be active
- Long-term trends suggest continued consolidation driven, primarily, by:
 - Further rationalization among Western firms
 - Continued growth of Asian firms
 - Increased outsourcing trends among big pharma customers



Appendix

Selected Recent Transactions

Selected Recent Transactions

Selected Recent Acquisitions by Western Firms

Date	Target	Buyer	Target Description & Value
Sept 07	PPG Fine Chemicals (USA and France)	ZaCh System (Italy)	Pharmaceutical intermediates and API. Transaction value \$65 million.
Sept 07	Bioluz (France)	Technoflex SA (France)	Solutions for intravenous perfusions. Transaction value approx. €6 million.
July 07	Biocatalytics, Inc. (USA)	Codexis, Inc. (USA)	Enzymes for chemical synthesis. Transaction value not disclosed.
May 07	SAM Electron Technologies (Canada)	Lonza Group (Switzerland)	Vitamin K3 for the animal nutrition market. Transaction value not disclosed.
Apr 07	Undisclosed	Lannett Co. Inc. (USA)	Bulk API manufacturer. Transaction value not disclosed.
Feb 07	Cambrex Research Bioproducts etc.	Lonza Group (Switzerland)	Market research, therapeutic and analytical testing products. \$460 million

Source: Capital IQ, public information, Lincoln International

Selected Recent Transactions

Selected Recent Acquisitions by Asian Firms

Date	Target	Buyer	Target Description & Value
Sept 07	Siegfried Biologics (Germany)	Avesta Biotherapeutic & Research (India)	Biopharmaceutical API and drug modification systems. Transaction value not disclosed.
Aug 07	Mchem Pharma Group (China)	Matrix Laboratories (India)	Fine chemicals, API and formulations. Transaction value not disclosed.
Aug 07	Watsol Organics Ltd. (India)	Arch Pharmalabs Ltd. (India)	Pharmaceutical and agro-chemical intermediates. Transaction value Rs. 30 crore (\$7 million)
Aug 07	Sibra Pharmaceuticals (India)	Arch Pharmalabs Ltd. (India)	API production. Transaction value Rs. 30 crore (\$9 million)
Jul 07	Solvay Fine Chemicals Businesses (Netherlands)	Dishman Pharmaceuticals (India)	Fine chemicals, Vitamin-D and Vitamin-D analogues. Transaction value not disclosed.
Apr 07	Jupiter Bioscience (India)	Ranbaxy Laboratories (India)	14.9% equity stake. Transaction value not disclosed.

Source: Capital IQ, public information, Lincoln International

Selected Recent Transactions

Selected Recent Acquisitions by Private Equity Firms

Date	Target	Buyer	Target Description & Value
July 07	Orgapharm S.A.S. (France)	Argos Soditic (France)	Pharmaceutical intermediates and API. Transaction value not disclosed.
June 07	Isochem Plant (USA)	Buckingham Capital (USA)	Phosgene derivatives and fine chemicals for pharmaceuticals and agriculture. Transaction value not disclosed.
Apr 07	Nippon Fine Chemical Co. (Japan)	Dalton Investments (USA)	Fine chemicals products, cosmetic ingredients, and industrial chemical products. Transaction value approx. \$170 million.
Feb 07	Cambridge Major Laboratories (USA)	Arlington Capital Partners (USA)	API, formulations, and regulatory consulting services. Transaction value not disclosed.
Jan 07	Groupe Novasep (France)	Banexi Capital and Gilde Buyout Partners (France)	Pharmaceutical intermediates and API, as well as purification process technologies. Transaction value €425 million.

Source: Capital IQ, public information, Lincoln International