



Ferghana Partners Group

The Burgeoning Influence of India and Japan: Trans-Pacific Deal Trends

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India Market Overview



Why Is India So Important?

- Large and growing domestic market for medicine and healthcare
- Excellent English-speaking academic and medical infrastructure
- Well-educated, technically-trained workforce seeking attractive job opportunities amidst chronic underemployment
- Low cost and hard working labor force
- Local and national governments support of high-tech/biotech industries and economic modernization efforts
- Excellent regional export base for ethical drug [RX] sales
- Global epicenter for generic drug [GX] manufacturing

India Has Large Domestic Companies, With Increasing Global Revenues



Company	Revenues (\$MM)	% Foreign Sales		
		All foreign	North America	Europe
Ranbaxy	1,174	79%	36%	16%
Cipla	539	45%	15%	9%
Dr Reddy's Labs	422	65%	22%	15%
Aurobindo Pharma	307	11%	N/A	N/A
Nicholas Piramal	276	13%	N/A	N/A
Sun Pharma	270	13%	N/A	N/A
Wockhardt Limited	269	60%	50% combined	
Lupin	263	48%	N/A	N/A
Cadila Pharmaceuticals	231	25%	N/A	N/A



Indian Companies are Doing Deals with Western Companies

- **M&A**
 - Nicholas Piramal acquisition of Avecia Pharmaceuticals
- **Product Acquisition**
 - Sun Pharma acquires 3 US brands from Women's First Healthcare
- **Inward Corporate Partnering – Domestic Rights**
 - Biogen Idec assigns Avonex marketing rights to Nicholas Piramal for India and Nepal
- **Inward Corporate Partnering – Foreign Rights**
 - Rheoscience co-development and commercialization for Type 2 diabetes Rx with Dr. Reddy's for US and ROW markets
- **Outward Corporate Partnering**
 - Ranbaxy out-license of BPH Rx to Schwarz Pharma
- **Joint Venture**
 - Wockhardt Rhein Biopharm Ltd, Indian-EU JV to market Hep B vaccine
- **R&D Collaboration**
 - Ranbaxy partners with Novavax to evaluate micellar nanoparticle technology applications
- **Co-Promotion**
 - Allergan - Lupin collaboration to promote Zymar to pediatricians in the U.S



Japan Overview



Key Trends in Japanese Pharmaceutical Industry

- Foreign companies gain significant muscle in Japanese domestic market
- Consolidation (M&A) has come to Japan's largest pharma companies
- Globalization of Japanese Pharma
 - Direct sales into US and Europe by major Japan Pharma
 - More active out-licensing by medium-sized Japan Pharma



Foreign Companies Gain Significant Muscle in Japanese Domestic Market

1995 Top 10 Drug Companies (sales) in Japan	2004 Top 10 Drug Companies (sales) in Japan
Takeda	Takeda
Sankyo	Pfizer
Yamanouchi	Roche (Chugai)
Eisai	Otsuka
Daiichi	Sankyo
Taisho	Novartis
Shionogi	Eisai
Fujisawa	Daiichi
Otsuka	Yamanouchi
Chugai	Merck

Note: Yamanouchi and Fujisawa (ranked 15th in 2004) have since agreed to merge

Daiichi and Sankyo have agreed to merge

DaiNippon and Sumitomo (ranked 19th in 2004) agreed to merge

- Market share of top 10 foreign firms increased to 26% in 2002 from 19.5% in 2000. Market share of top 10 domestic firms fell slightly from 33% to 32% during the same time period



Globalization of Japanese Pharma Forced By

- Invasion of Japanese domestic market by non-Japanese companies
 - “Japan-only” business is not viable in research-driven drug industry

- Market Growth in Japan is relatively weak compared to other key markets
 - US market grew 12.2% annually from 1990 to 2000
 - Japanese market grew 1.3% annually from 1990 to 2000
 - Japanese drug prices decreased 4.6% annually

- Consolidation in ROW to gain operating efficiencies

<u>Overseas Subsidiaries of Japan Pharmaceutical Companies</u>	
1980	43
1990	91
2000	245
2002	288

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Key Results of Current Trends

- Japanese globalization means more Japanese companies to sell drugs directly in US and Europe
- Most Japanese companies (especially medium and small) will more actively out-license entire pipeline. Increase in Japan – US/Europe licensing deals
- More M&A, both domestic and cross-border
- Lack of NCE innovation will promote increased development of Japan-based biotech companies
- Japanese in-licensing activity to remain strong