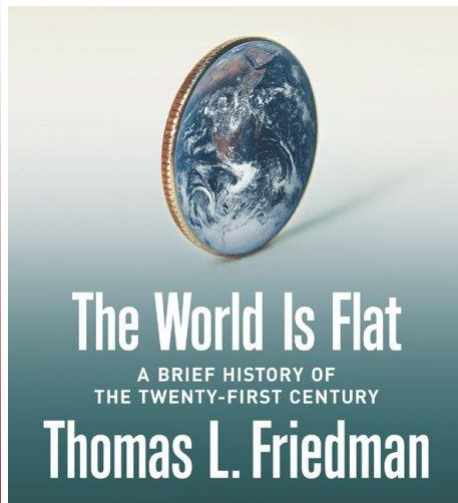


Development Policy

Lecture 7

The Global Business Revolution



**Development
Myth:
The World is
Flat?**

World's 50 largest companies 2011



Source: <http://money.cnn.com/magazines/fortune/global500/2011/maps/top50.html>

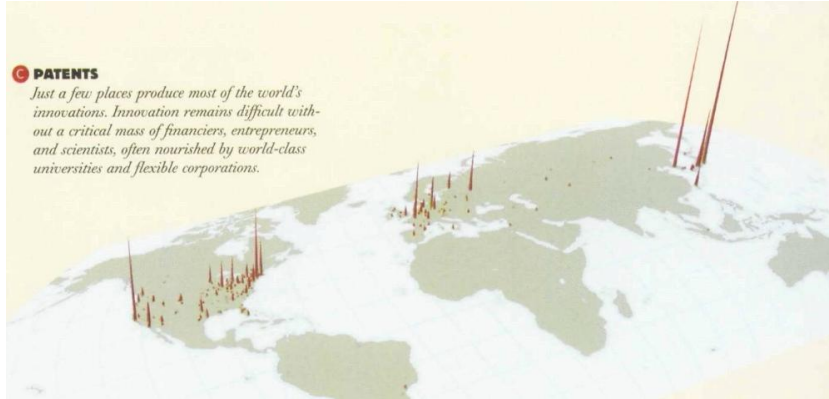
Major M&A in pharmaceuticals

Year	Acquirer	Target	Value
1996	Ciba-Geigy	Sandoz	\$36 billion
1997	Roche	Boehringer Mannheim	\$11 billion
1999	Astra	Zeneca	\$37 billion
2000	Pfizer	Warner-Lambert	\$90 billion
2000	Glaxo-Wellcome	SmithKline-Beecham	\$85 billion
2001	Johnson and Johnson	Alza	\$12 billion
2003	Pfizer	Pharmacia	\$60 billion
2004	Sanofi	Aventis	\$82 billion
2006	Bayer	Schering	\$25 billion
2007	Astra-Zeneca	Medlumme	\$16 billion
2007	Schering-Plough	Organon	\$14 billion
2009	Roche	Genentech	\$47 billion
2009	Pfizer	Wyeth	\$68 billion
2009	Merck	Schering-Plough	\$41 billion

Patents: The world is not flat

PATENTS

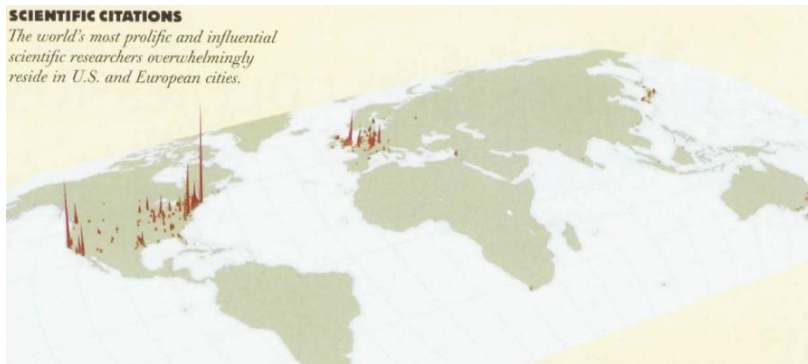
Just a few places produce most of the world's innovations. Innovation remains difficult without a critical mass of financiers, entrepreneurs, and scientists, often nourished by world-class universities and flexible corporations.



Scientific research: The world is not flat

SCIENTIFIC CITATIONS

The world's most prolific and influential scientific researchers overwhelmingly reside in U.S. and European cities.



Top 10 companies by R&D, 2009

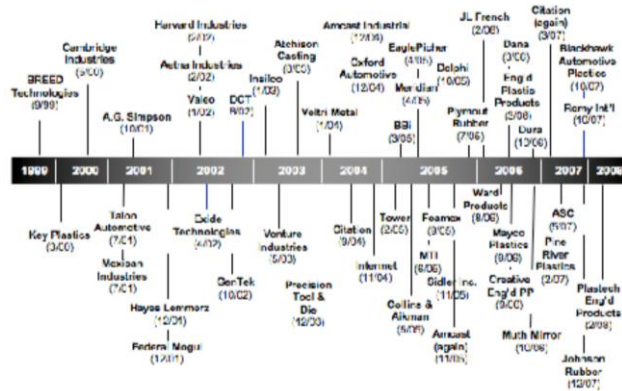
	R&D (USD billions) (A)	Revenues (USD billions) (B)	A/B
1. Roche (Switzerland)	9.2	44.3	21%
2. Microsoft (U.S.)	9.0	60.4	15%
3. Nokia (Finland)	8.2	57.0	14%
4. Toyota (Japan)	7.8	204.4	4%
5. Pfizer (U.S.)	7.7	48.3	16%
6. Novartis (Switzerland)	7.5	41.5	18%
7. Johnson and Johnson (U.S.)	7.0	63.7	11%
8. Sanofi-Aventis (France)	6.3	42.2	15%
9. GlaxoSmithKline (UK)	6.2	44.7	14%
10. Samsung (Korea)	6.0	110.4	5%

Top ten global auto assemblers

Company	TOTAL	CARS	LCV	HCV	BUS	Share
VOLKSWAGEN-SUZUKI	10,329,539	9,719,497	610,042			14%
TOYOTA	8,557,351	7,267,535	1,080,357	204,282	5,177	12%
G.M.	8,476,192	6,266,959	2,197,629	1,175	10,429	11%
NISSAN-RENAULT	6,698,448	5,538,002	1,089,243	71,203		9%
HYUNDAI	5,764,918	5,247,339	393,701	123,878		8%
FORD	4,988,031	2,958,507	1,962,734	66,790		7%
FIAT-CHRYSLER	3,988,509	2,121,590	1,730,741	97,937	38,241	5%
HONDA	3,643,057	3,592,113	50,944			5%
PSA	3,605,524	3,214,810	390,714			5%
DAIMLER	1,940,465	1,351,372	221,239	306,903	60,951	3%

Source: International Organization of Motor Vehicle Manufacturers, www.ioca.net

Auto parts company bankruptcies, 1999-2008



Source: Sturgeon et al (2009) "Globalization of the automotive industry," *International Journal of Technological Learning and Development*, 2:1, 7-24.

Chinese firm buys IBM PC business

BBC News Wednesday, 8 December, 2004, 16:35 GMT

IBM, a pioneer of the personal computer business, is selling its PC hardware division to China's number one computer maker Lenovo. After days of rumours, the announcement heralds a \$1.75bn (£900m) deal which will make the combined operation the third biggest PC vendor in the world. Lenovo, formerly known as Legend, has been pushing hard to spread its brand on the international stage. IBM, meanwhile, will be free to focus on its other more lucrative businesses.



BBC News 4 March 2011 Last updated at 00:04 GMT

Volvo looks to redefined luxury and Scandinavian design



Free from any interference from former parent company Ford and backed by a multi-billion dollar investment programme, Volvo Car Corporation's chief executive Stefan Jacoby is ready to re-invent the Swedish brand.

Massive investment

Such talk might have come across as vague, except Mr Jacoby's plan is backed by a whopping \$11bn investment programme over the next five years.

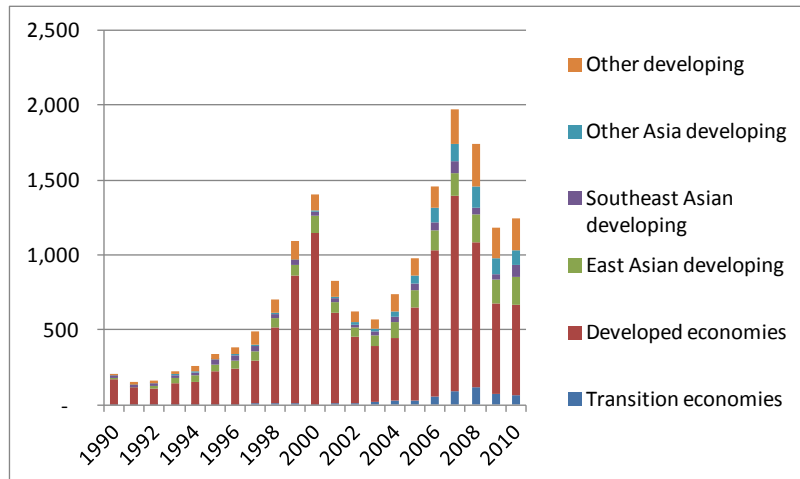
The investment far exceeds the \$1.8bn price the Chinese carmaker Geely paid for Volvo when Ford sold the marque last spring.

Growth in China

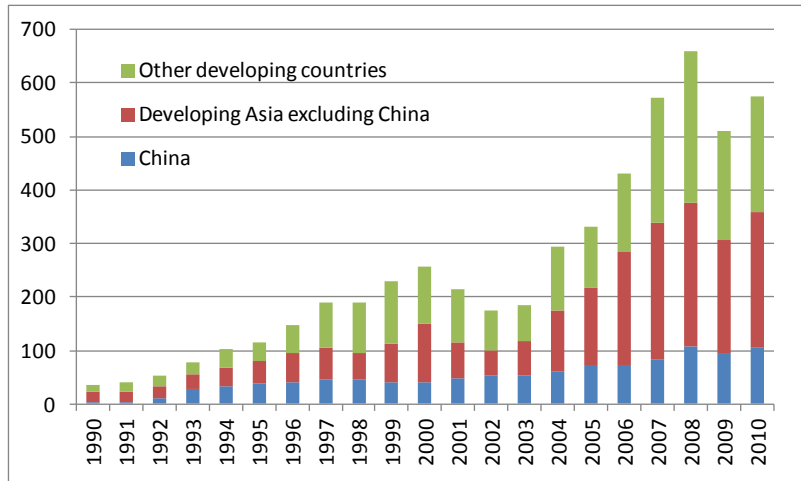
Volvo is aiming for sales of 800,000 a year worldwide by 2020. Much of the work will be done in China, where Volvo is developing both research and development capabilities as well as a manufacturing plant in Shanghai that should be up and running in a year or two.

"We are focusing on our industrial footprint in China," Mr Jacoby, though he hastens to add that "this is add-on capacity due to the demand we have in China", rather than a shift away from Europe where it is expanding as well.

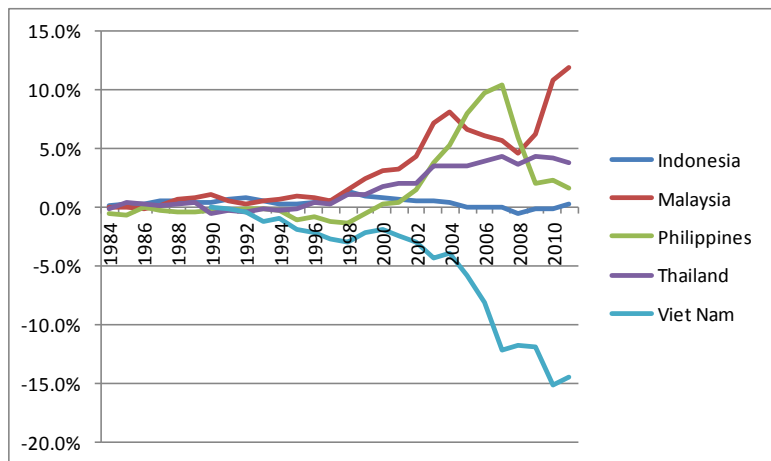
Global FDI, USD billions



FDI to the developing world, USD billions

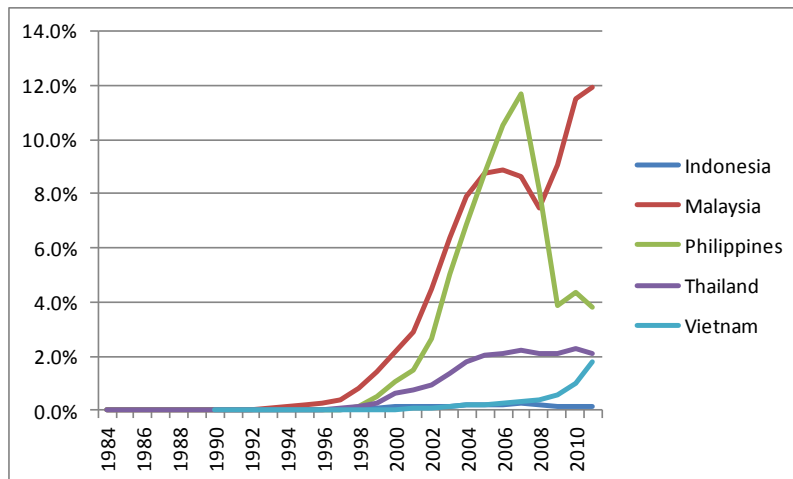


Trade balance with China (% GDP)



Source: UN Comtrade

Exports of electrical machinery and equipment to China (% GDP)



Source: UN Comtrade

University Science and Technology first degrees (2006)

	S&T as share of total	Engineering as share of S&T
China	52.8%	63.1%
India (1990)	23.5%	16.5%
Japan	62.7%	27.6%
Philippines (2004)	24.7%	52.2%
Singapore (2007)	50.9%	76.7%
South Korea	43.0%	59.0%
Taiwan	40.8%	53.6%
European Union	34.4%	36.6%
North/Central America	30.9%	20.8%
Canada	33.3%	21.0%
Costa Rica	27.3%	33.0%
United States	31.9%	14.2%
South America	20.2%	40.5%
Australia	29.0%	24.8%

World share of scientific publications

Area/Country	2001	2006
Asia (excluding Japan)	9.4	14.8
China	3.6	7.0
ASEAN	0.7	1.0
Latin America	2.6	3.2
Africa	1.2	1.2
Near and Middle East	0.5	0.8
Developing countries	13.7	20.0

Source: Jacques Gaillard (2010) "Measuring Research and Development in Developing Countries," *Science, Technology and Society*, 15:1, 77-111.