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PARTNERS

Life Sciences / Pharma Industry Outlook

2012 Texas Life Science Venture Forum

March 8, 2012

New York London

Agenda for Today's Talk

- Outlook for global pharma / healthcare industry
- Outlook for financing / M&A market



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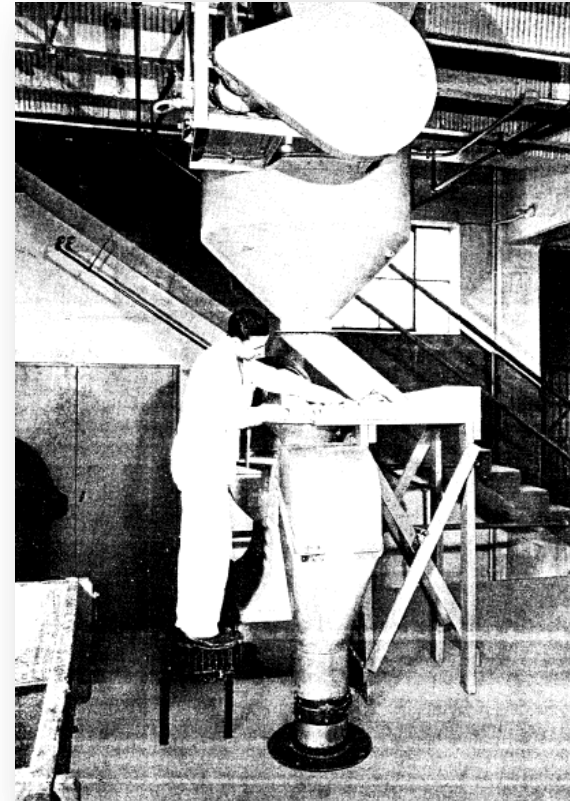
- Boutique investment bank with a focus on the **life sciences sector**.
- **25 person team**, including 14 at the Principal level.
- **Global footprint** with key offices in London, New York and Tokyo.
- A commitment to **good advice**, discretion, objectivity and quality work.
- **60+ successful** advisory roles since 2007.
- Over \$1bn in **deal volume** in 2011 across 18 transactions.
- **Very active player** by M&A / licensing deals completed in transactions under \$500mm in size.
- Advised on eight **royalty** sale or acquisition deals in last 12 months.
- Active in **Texas**. Advised on four transactions in recent years. Active on a number of current assignments.

PHARMA / HEALTHCARE INDUSTRY OUTLOOK

A Little History

In the 1920s...

- The combined market cap of the pharma sector was less than a half billion dollars.
- Penicillin had not been invented...
- Insulin was extracted from pig bladders.
- The leading treatment for CNS was lobotomy.
- Leeches were still widely used in medical practice.
- U.S. consumers spent less than 5% of their income on healthcare and less than 1% of their income on pharmaceuticals.
- Merck and Wyeth were small chemical companies in New Jersey. Eli Lilly laboratories generally closed for the winter.

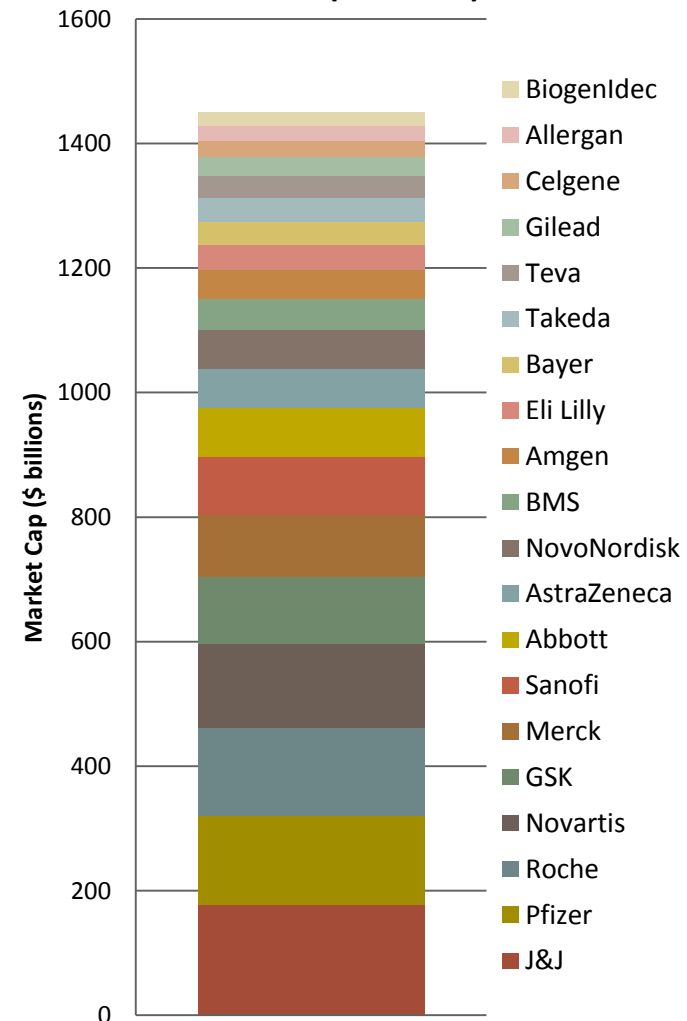


Eli Lilly worker operating machine for producing insulin by grinding pig pancreases.

Today

- The market cap of global pharmaceutical companies is over \$1.4 trillion
- Mortality and morbidity rates from major diseases including heart disease, cancer and stroke are down dramatically.
- Devastating mental illnesses are more easily controlled.
- Most drugs on the market have proven efficacy / safety
- Widespread reliance on evidence in medicine
- U.S. consumers spent nearly a fifth of their income on healthcare and more than 3% of their income on pharmaceutical products.
- The pharma business has globalized

Market Cap of 20 Largest Publicly Traded Global Pharma Companies, 2012 (\$billions)



Current Concerns About the Pharmaceutical Industry

There is increasing price pressure on commoditized drugs in the Western World and greater incursion of generics. Broad concern about industry decline.

There is a widespread view that the pharmaceutical industry faces a difficult future outlook...

"...the pharmaceutical industry, which has been responsible for bringing such drugs to the market, is passing through its own crisis. Research and development (R&D) is spluttering, earnings have weakened, its public image is tarnished."

The pharmaceutical industry's outlook is negative because of low growth, and because of "significant patent expirations in the years 2010 through 2013, a tougher regulatory climate resulting in a slower rate of new product approvals, as well as global cost-containment efforts that may target pharmaceutical pricing or access."

The
Economist

MOODY'S
INVESTORS SERVICE

Torrey Partners Outlook for the Industry Future

Torrey Partners takes an optimistic view of the future of the pharma sector due to two long-term trends:



The result of improving wealth and survival rates is likely to be disproportionate growth in spending on pharmaceuticals.

Other positive secular trends include an increasingly efficient system for the delivery of medicine (busy hospitals and doctors) and tremendous innovation (e.g., new treatments for melanoma).

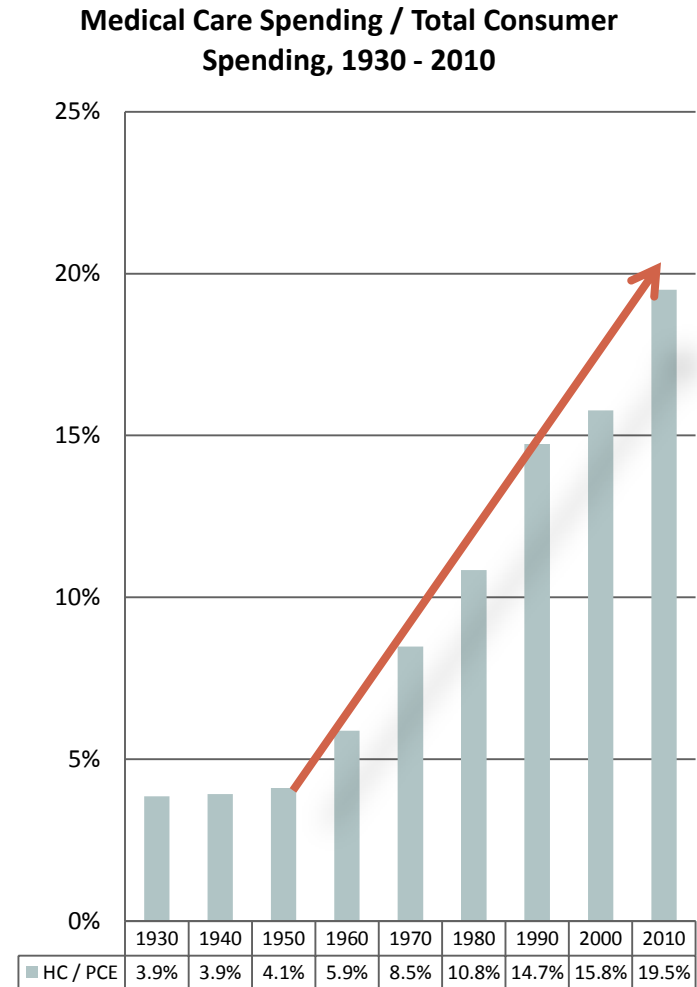
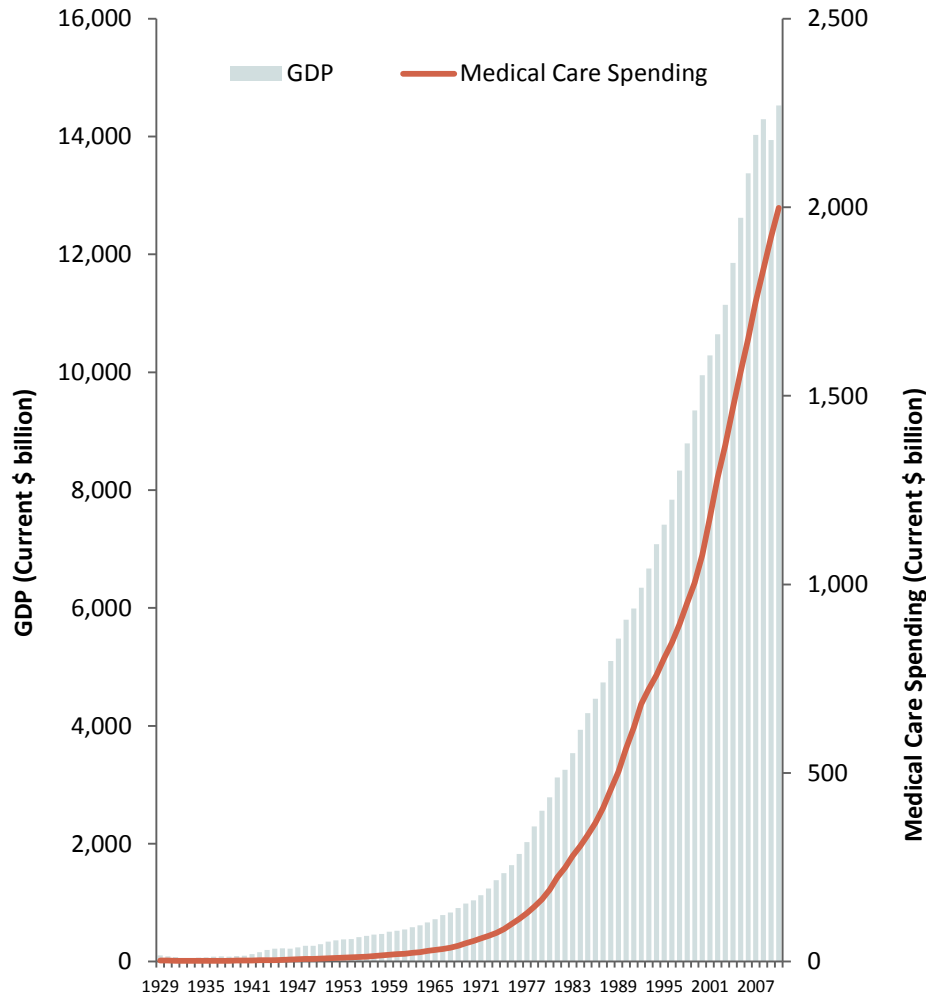
Growing Wealth

- Society's budget for pharmaceutical products is **determined primarily by wealth**.
- Pharmaceutical demand has historically risen **disproportionately** with income.
- This is because life saving treatments are in **greater demand** once basic needs such as food and shelter are paid for.
- The world will become **wealthier** over time due to technological progress and improving productivity. This trend has now lasted for more than 200 years.

Longer Lifespans

- Life expectancies have **lengthened dramatically** over the last 50 years as the result of improving public health, vaccinations, diagnostics and medical interventions.
- This is particularly true in areas like infectious disease and cardiovascular disease.
- The trend towards longer life spans **will not change** in the future, particularly in light of continued innovation in interventions to treat cancer, heart attacks and stroke.
- As persons live longer their demand for pharmaceutical **interventions will only increase.**
- Initially, persons will survive disease states that were previously fatal such as cardiovascular disease. **Demands for chronic disease therapies will likely increase** substantially over time.

U.S. Medical Care Spending Has Increased Disproportionately With Income...



The U.S. Consumer Has Spent an Increasing Fraction of Wallet on Medical Care. Healthcare has an income elasticity of demand above one. Or put another way, once the consumer has covered the basics of food, shelter and transportation he directs the marginal consumption dollar to superior goods such as investment in life extension (medical care).

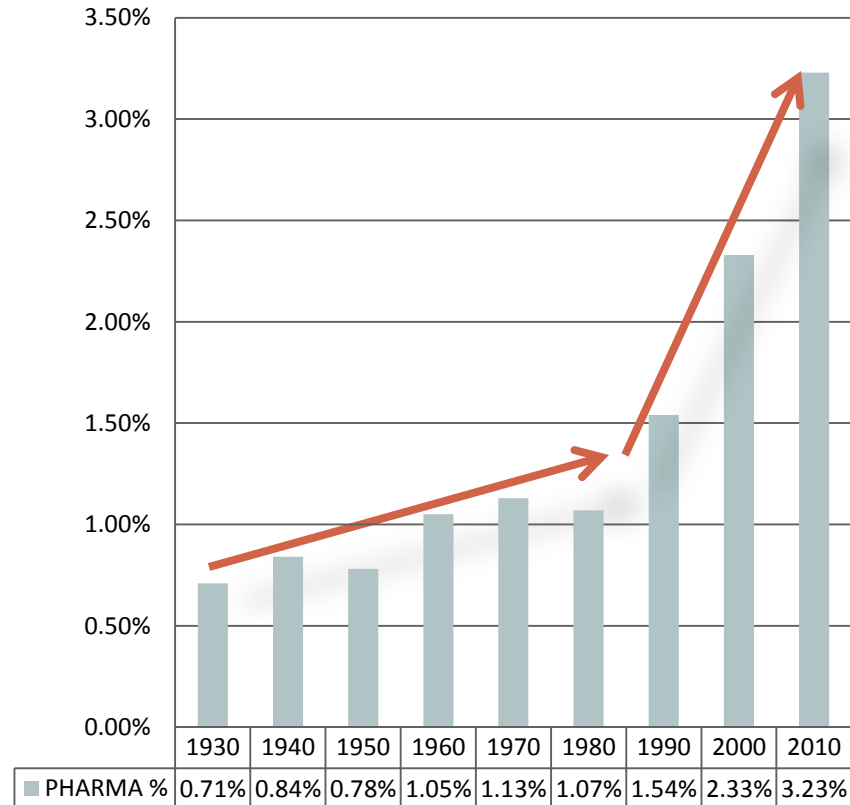
...as Has Spending on Drugs

The fraction of the consumer's wallet that is spent on pharmaceutical products has gone up by more than 400% since 1930.

The proportion of total spending that goes to pharmaceutical products has accelerated since 1990.

This likely reflects the advent of breakthroughs for diseases like cancer, particularly biologics and the greater available of employer and government reimbursement for pharmaceutical product expenditures.

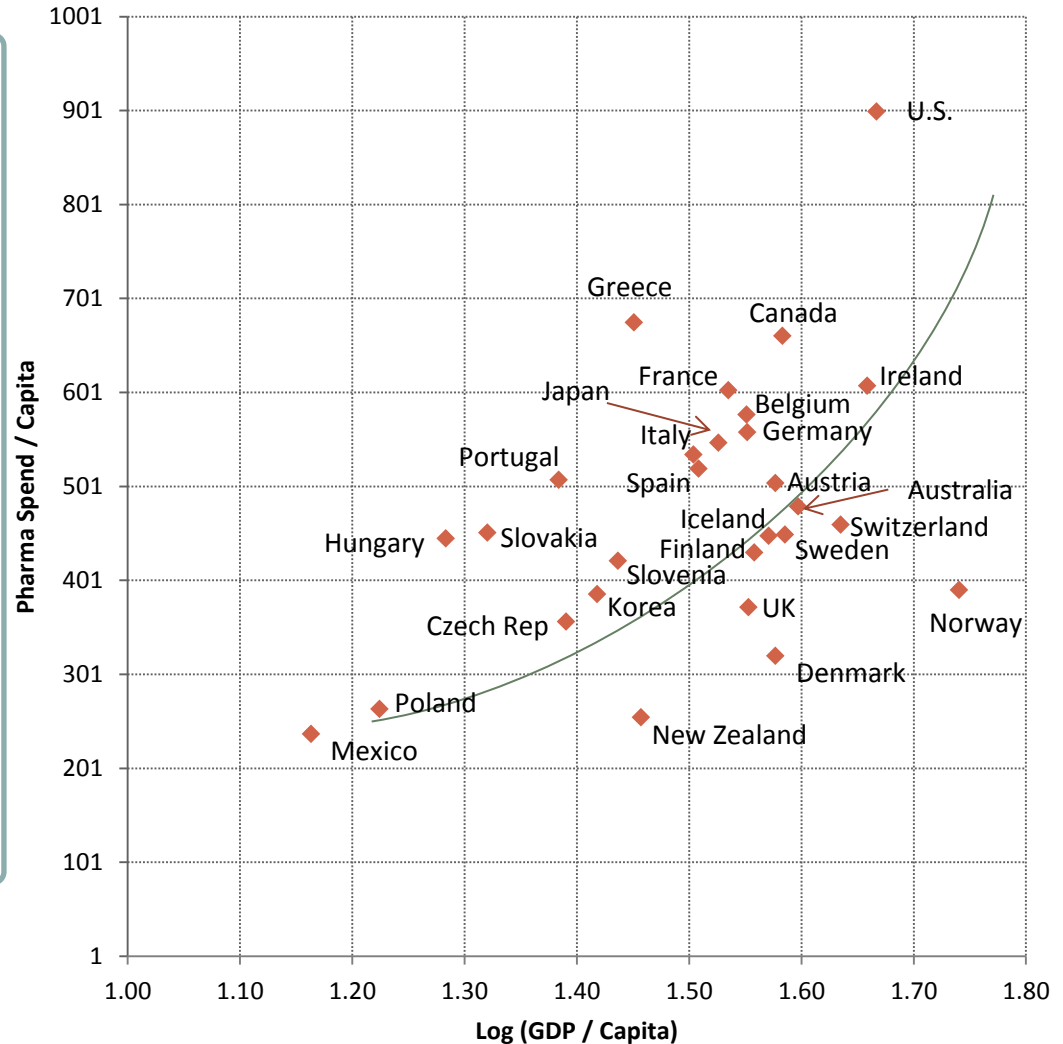
Pharma Spending / Total Consumer Spending, 1930 - 2010



Pharma Spending Is Higher in Higher Income Countries

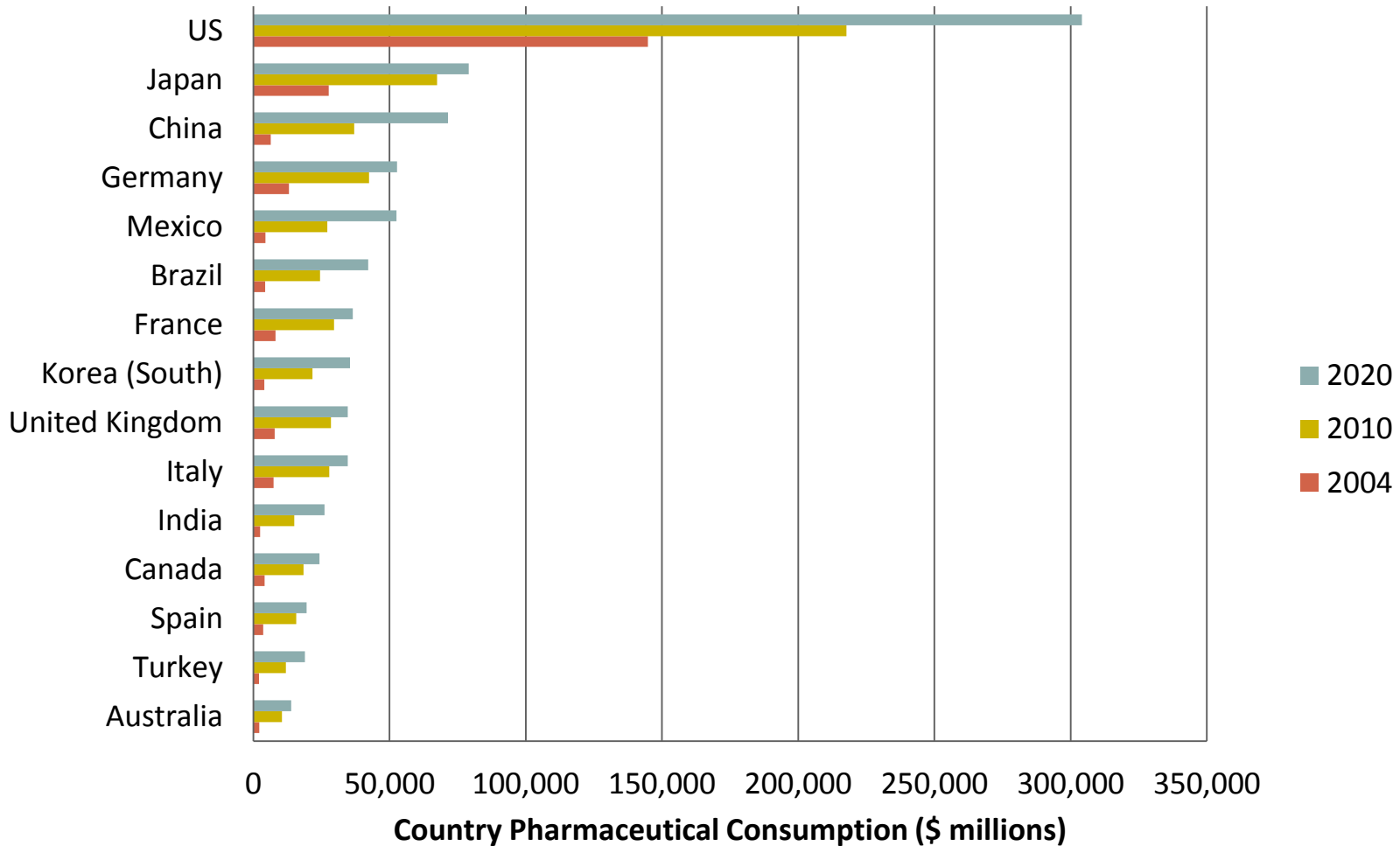
There is a strong positive nonlinear relationship between Pharma expenditures / Capita in 2007 and Log GDP / Capita in the same year.

This cross-sectional pattern is consistent with the longitudinal data from the United States which show income elasticity of demand for pharmaceutical products over one.



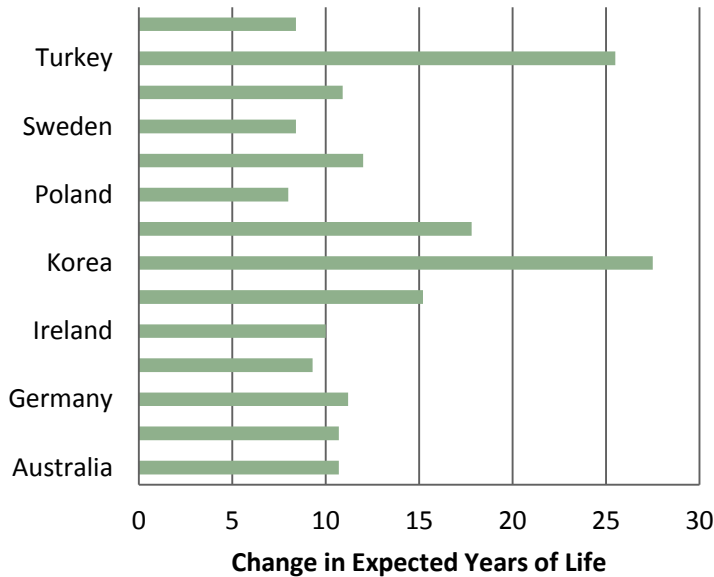
Forecast Growth in Pharmaceutical Consumption

Total Pharmaceutical Revenue by Country, 2004 - 2020



Longer Life Expectancies and the Survival Trend

Change in Life Expectancy at Birth, 1960 - 2009



Life expectancy at Birth in Ten Selected Countries in 2009 and 2039 (projected)

Country	2009	2039
Australia	81.6	87.2
France	81.0	88.4
Germany	80.3	88.6
Ireland	80.0	88.5
Japan	83.0	90.4
Poland	75.8	81.2
Spain	81.8	89.2
Sweden	81.4	87.6
Switzerland	82.3	89.5
United States	78.2	82.8
Average	80.5	87.3

Note: The projected life expectancy for 2039 was made by assuming the percentage change in average life expectancy in the 30 years prior to 2009 would continue in the 30 years after 2009. When considering whether this assumption is reasonable it is important to note that improvements in life expectancy have been *accelerating* over the last 50 years.

As persons live longer in industrialized countries their lifetime demand for pharmaceutical products will likely rise rapidly. In decades past a person may not have survived their first chronic disease whether it be cardiovascular disease or HIV. As therapies continue to come online to treat these disease states, persons are increasingly likely to face second, third and fourth line chronic disease states – particularly diseases of the aged such as Alzheimer’s disease, Parkinson’s disease, cancer and chronic wounds.

Summary

- The global pharmaceutical industry will face continued revenue growth at a rate that is likely **higher than the average** future overall growth rate of the economy.
- This does not mean that many companies will face declines in value due to failure to innovate, competitive entry or patent expirations.
- While the social budget for pharmaceutical products will grow dramatically over time ...
- ... the rapid pace of innovation will mean that there may be more treatments arriving in the future than society can afford.
- As a result, the pressures being felt today to control pharmaceutical prices and ration access to life-saving therapeutics may become more intense.

Strong Future for Biopharma Industry

- We believe that there will be a number of different types of winners from the long-term boom in the life sciences. Many innovators will be richly rewarded.
- We are particularly bullish about the future of
 - Diagnostics companies
 - Nutritionals companies
 - Generic drug companies
 - Pharma companies focused on the aged
 - Companies in emerging markets.
- Companies that introduce products that meaningfully benefit consumers whether through price, improved access to medicine or better patient outcomes are likely to earn substantial profits and generate outsized investor returns.

We are highly bullish on the long-term prospects for the biopharma industry

PHARMA M&A AND FINANCING MARKET OUTLOOK

Biotechnology Indices: Strong Gains in the Last 3 Months

Major Biotech and Small-Cap Indices: LTM



3 Month Performance

	Nasdaq	Russell	AMEX
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3 Month	28.1%	24.2%	31.0%
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- After a steep drop off in mid-year of 2011, the market took three months to stabilize
- The past three months have shown strong gains in three major indices showing an accumulation of Biotech and Small-Cap stocks
- This upward momentum has been driven by 1) a general perception of an improved global economy; 2) robust Biotech M&A at lofty valuations; 3) a renewed appetite for high risk / higher return prospecting amidst dismal yields from more conservative asset classes

Healthcare IPOs: Follow on Performance LTM

Pricing Date	Issuer	Sector	Proceeds (\$M)	Pre-Money Value (\$M)	% Change Price File/ Offer	A/B/W Range	% Secondary	% Change Offer to Current
2/8/2012	ChemoCentryx Inc	Life Sciences	\$ 45.0	\$ 330.3	-33.3%	B	0.0%	7.6%
2/3/2012	Cempra Inc	Life Sciences	50.4	71.1	-50.0%	B	0.0%	6.5%
2/1/2012	Greenway Medical Tech	Services	66.7	219.8	-16.7%	B	19.8%	50.5%
1/26/2012	Verastem Inc	Life Sciences	55.0	151.0	0.0%	W	0.0%	15.8%
11/15/2011	Clovis Oncology	Life Sciences	130.0	159.3	-7.1%	W	0.0%	80.0%
11/10/2011	NewLink Genetics Corp	Life Sciences	43.4	113.3	-36.4%	B	0.0%	8.9%
10/18/2011	ZELTIQ Aesthetics	Med Tech	91.0	334.9	-13.3%	B	4.4%	-14.0%
7/28/2011	Horizon Pharma Inc	Life Sciences	49.5	126.6	-18.2%	B	0.0%	-58.7%
6/21/2011	Vanguard Health Systems	Services	450.0	932.2	-18.2%	B	0.0%	-42.5%
4/19/2011	Sagent Pharmaceuticals	Life Sciences	92.0	354.7	6.7%	W	0.0%	37.4%
4/1/2011	Tranzyme	Life Sciences	54.0	41.1	-66.7%	B	0.0%	17.3%
3/9/2011	HCA Holdings	Services	3,786.0	13,906.8	5.3%	W	30.5%	-13.5%
2/10/2011	AcelRx Pharmaceuticals	Life Sciences	40.0	63.0	-61.5%	B	0.0%	-40.0%
2/10/2011	Kips Bay Medical	Med Tech	16.5	111.8	-11.1%	W	0.0%	-82.3%
2/9/2011	Fluidigm Corp	Diagnostics	75.0	200.3	-6.9%	W	0.0%	17.0%
2/4/2011	Endocyte Inc	Life Sciences	75.0	97.9	-57.1%	B	0.0%	-37.7%
2/4/2011	MedQuist Holdings Inc	Services	36.0	389.0	-27.3%	B	33.3%	34.4%
2/3/2011	BG Medicine	Diagnostics	35.0	109.0	-50.0%	B	0.0%	14.3%
2/2/2011	Pacira Pharmaceuticals	Life Sciences	42.0	87.6	-53.3%	B	0.0%	45.9%
2/2/2011	Tornier NV	Med Tech	166.3	570.3	-5.0%	W	0.0%	13.0%

- The last three months have seen a significantly improved investor reaction to newly public healthcare entities

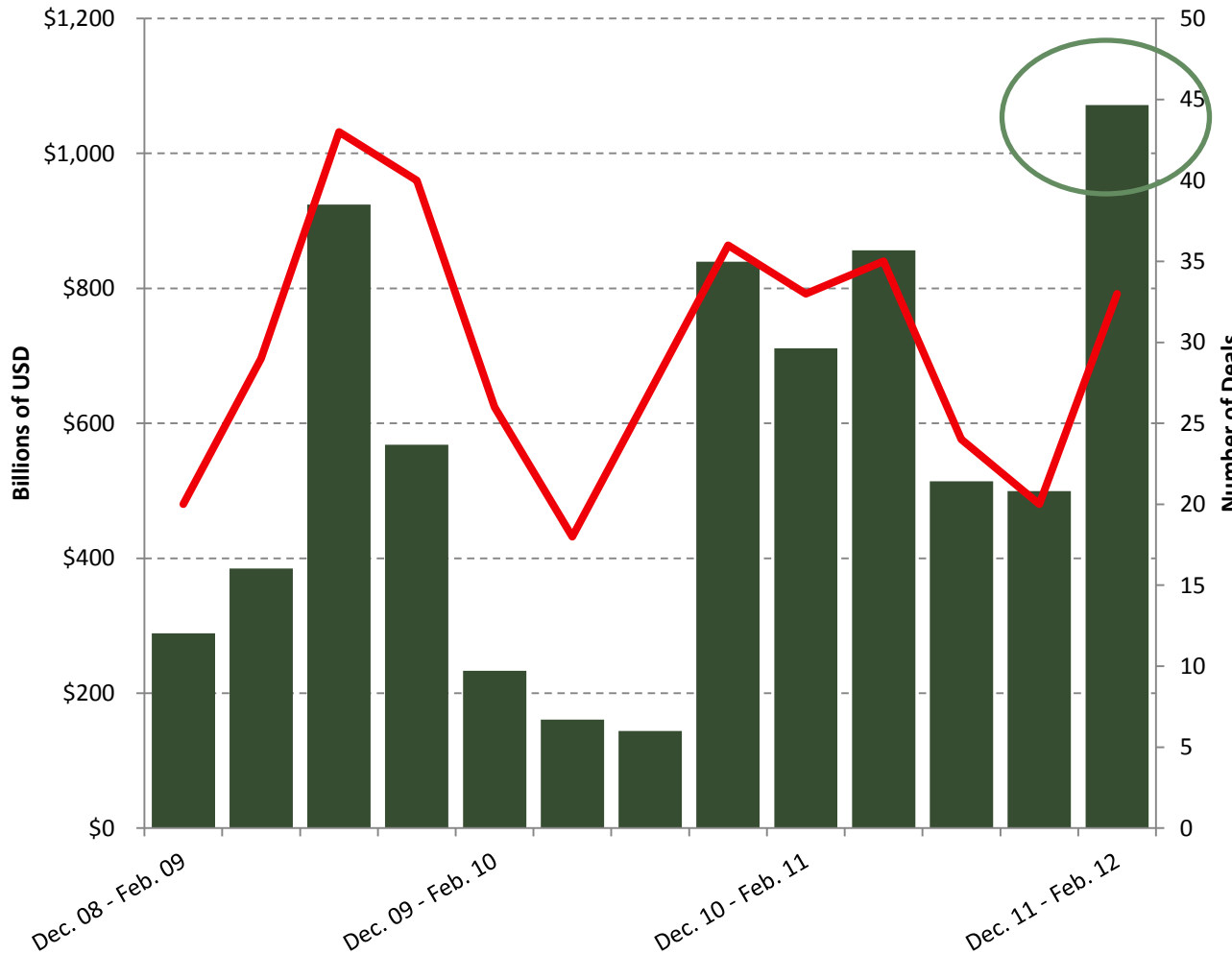
	Post Offer Performance	
	Last 3-Months	9-Months Prior
1st Quartile	7.9%	-39.4%
Median	12.4%	-0.3%
Mean	28.2%	-7.8%
3rd Quartile	41.8%	17.2%

IPO Market Outlook

- Historically the IPO market picks up after heavy follow on activity.
- Positive post offering performance is an important bellwether of the market
- The public markets are hungry for deals but are looking for later stage assets and want bargains.
- We expect to see a strong pickup in activity this year that will likely be sustained for the next 24 months.

Follow on Equity Offerings are Up Dramatically this Quarter

CMPOs and Registered Stock Offerings:
Cumulative 3-Month Totals

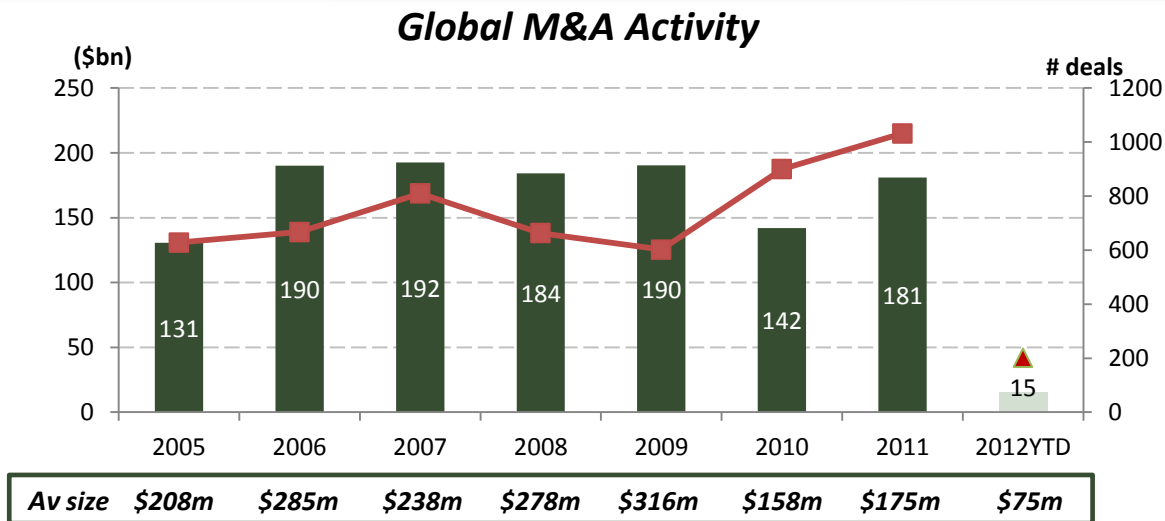


\$1.07 billion in follow-ons from December 1 through Feb 21

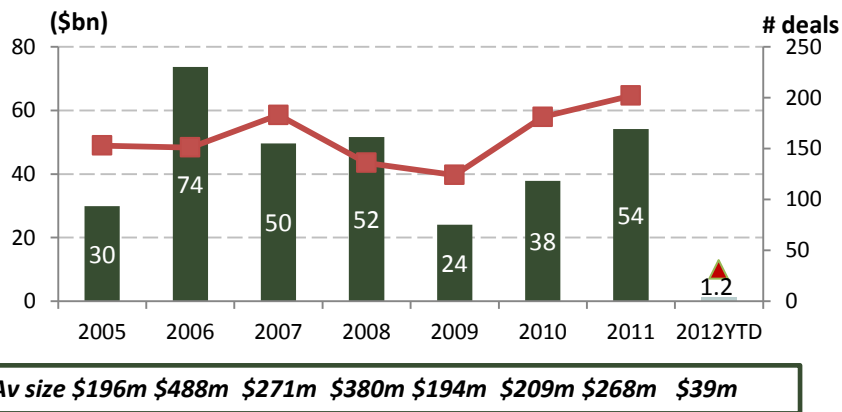
Investors have put nearly **\$1.1 billion** of capital into registered deals over the past 3 months.

The demand public healthcare investing is the strongest it has been since the market collapse in 2008.

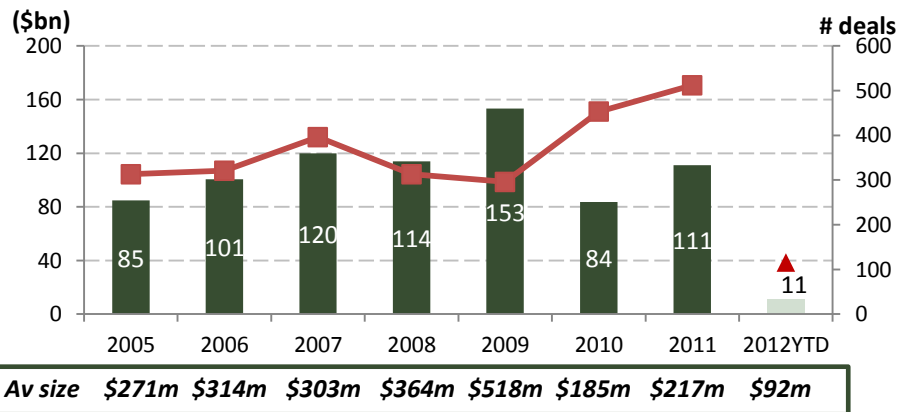
Life Sciences M&A Activity: 2011 Ended Strongly Globally



M&A Activity in Europe



M&A Activity in North America



Total Deal Value (LHS)
 Deal Volume (RHS)
 Deal Volume YTD (RHS)

Life Sciences M&A Activity – Concentration and Sector Trends

2010			
Acquiror Target	Value (\$m)	Target Geography	Target Sector
Novartis Alcon	25,851	USA	Specialty Pharma
Sanofi Genzyme	19,641	USA	Specialty Pharma
Merck KGaA Millipore	6,806	USA	Med Tech
Teva Ratiopharm	4,942	Germany	Generics
Pfizer King Pharmaceuticals	3,312	USA	Biotechnology
Astellas OSI Pharmaceuticals	3,259	USA	Biotechnology
Grifols Talecris	2,954	USA	Biotechnology
Celgene Abraxis	2,733	USA	Biotechnology
Covidien Ev3	2,490	USA	Med Tech
Johnson & Johnson Crucell	1,737	Netherlands	Biotechnology

2011			
Acquiror Target	Value (\$m)	Target Geography	Target Sector
Johnson & Johnson Synthes	19,358	Switzerland	Med Tech
Takeda Pharmaceutical Nycomed	13,733	Switzerland	Specialty Pharma
Gilead Pharmasset	11,012	USA	Specialty Pharma
Teva Cephalon	6,155	USA	Specialty Pharma
Thermo Fisher Scientific Phadia	3,533	Sweden	Med Tech
Endo Pharmaceuticals American Medical Systems	2,667	USA	Med Tech
Terumo Caridian BCT	2,625	USA	Med Tech
TPG Capsugel	2,375	USA	Specialty Pharma
Fresenius Medical Care Liberty Dialysis	1,700	USA	Med Tech
TPG Capital Immucor	1,646	USA	Med Tech

2012 YTD			
Acquiror Target	Value (\$m)	Target Geography	Target Sector
Roche Illumina	5,700	USA	Med Tech
BMS Inhibitex	2,579	USA	Biotechnology
Amgen Micormet	1,200	Germany	Biotechnology
Watson Ascent Pharmahealth (Strides)	392	Asiapac	Specialty Pharma
Celgene Avila	350	USA	Biotechnology

Total Value of Top Deals	\$74bn
% Total Value	52%

Total Value of Top Deals	\$65bn
% Total Value	36%

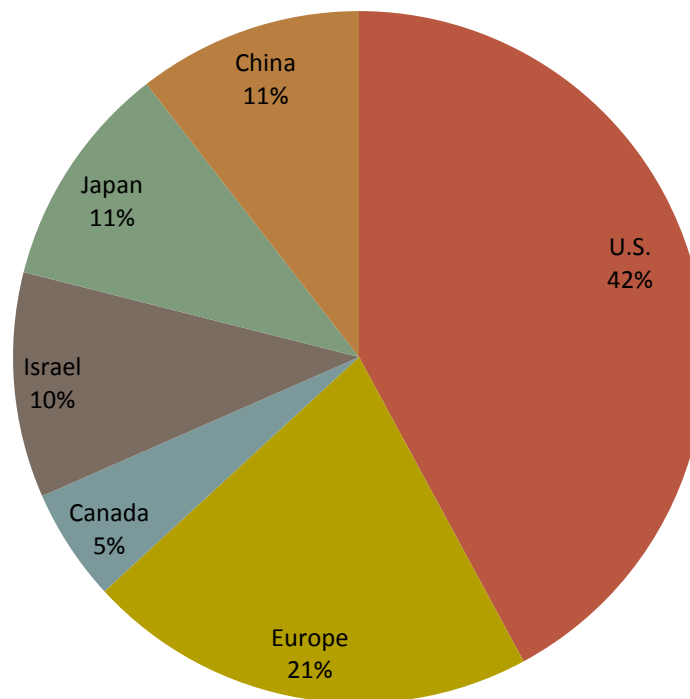
Total Value of Top Deals	\$10.2bn
% Total Value	68%

We are seeing more larger biotech deals this year versus med tech in 2011.

Globalization of Deal Activity










- Eight years ago, U.S. buyers handled more than 65% of deal activity.
- In 2010 approximately 50% of deals over \$50 million involved a non-U.S. buyer.
- In 2011 58% of deals involved a non-U.S. buyer.
- Characteristics of
 - More activity from consolidators such as Teva, Shire and Valeant
 - Some activity from royalty players, particularly Royalty Pharma

Distribution of Buyer Countries, 2011
Transactions over \$50 million in Size



Source: CapitalIQ and Torreya Partners Analysis

Overview of Recent M&A Activity by Largest Consolidators

Company	Key Acquisitions	Transaction Date	Therapeutic area	Value (\$m)
	Excaliard	12/2011	Dermatology	316
	Capsugel	04/2011	Pharmaceutical and dietary supplements manufacturing	2,375
	King Pharmaceuticals	10/2010	CNS, infectious diseases, animal health and allergy	3,313
	Wyeth	10/2009	Inflammation, vaccines, neurology and women's health	64,234
	Encysive Pharmaceuticals	06/2008	Inflammation and vascular diseases	324
	Genzyme	08/2011	Genetic disorders, oncology and metabolic disorders	19,641
	TargeGen	07/2010	Inflammation and vascular diseases	560
	Chattem	02/2010	OTC healthcare products	2,121
	illumina	02/2012	Medical diagnostics in genetic analysis research	5,700
	Anadys	10/2011	Hepatitis C	250
	PVT Labs System	03/2011	Clinical laboratory automation systems	119
	Marcadia	02/2011	Diabetes and cardiovascular	537
	Alcon	04/2011	Ophthalmology and medical devices	25,851
	Zhejiang Tianyuan Bio-Pharma	03/2011	Vaccines	125
	Oriel Therapeutics	04/2010	Respiratory disease	330
	Taiyo	07/2011	Pharmaceutical products manufacturing	934
	Cephalon	05/2011	CNS, oncology, inflammation and regenerative medicine	6,155
	Theramex	01/2011	Women's health	369
	Ratiopharm	08/2010	Generics	4,942
	Barr Pharmaceuticals	12/2008	Generics	8,833
	Inspire Pharmaceuticals	05/2011	Ophthalmology	329
	SmartCells	12/2010	Diabetes (with a focus on insulins)	138
	Schering-Plough	03/2009	CNS, cardiovascular, women's health, animal health and OTC	47,147
	Avid Radiopharmaceuticals	12/2010	Radiopharmaceutical products	836
	Alnara Pharmaceuticals	07/2010	Metabolic diseases	380
	ImClone	10/2008	Oncology	5,985
	Synthes	04/2011	Human and animal skeleton and soft tissue regeneration	19,358
	Crucell	02/2011	Vaccines	1,737
	Cougar	07/2009	Oncology	990
	iNova Pharmaceuticals	11/2011	OTC and prescription drugs	703
	Afexa Life Sciences	08/2011	Immunology	78
	Sanitas	08/2011	Generics	457
	Ortho Dermatologics	07/2011	Dermatology	345

Sources: MedTrack, Bloomberg and Capital IQ.

Note: Companies profiled are for example only with a limited number of their most recent M&A deals highlighted

Key Trends Going Forward

- Big Pharma will remain active
- Big Pharma using option programs much more (lower upfronts)
- China and Japan will be more active
- Emerging Consolidators will become more important. These are:
 - Jazz Pharma
 - Meda
 - Shire
 - Teva
 - Valeant
- Emerging Consolidator characteristics
 - Focus on total cost control
 - Focus on buying cash flow
 - Focus on using low tax jurisdictions