

Global Healthcare Outlook & Supply Chain Implications

Gene Huang, VP Chief Economist
MedSC 2013 Spring Meeting

May 15, 2013

Global Healthcare Outlook & Supply Chain Implications: Themes

Structural Growth Drivers

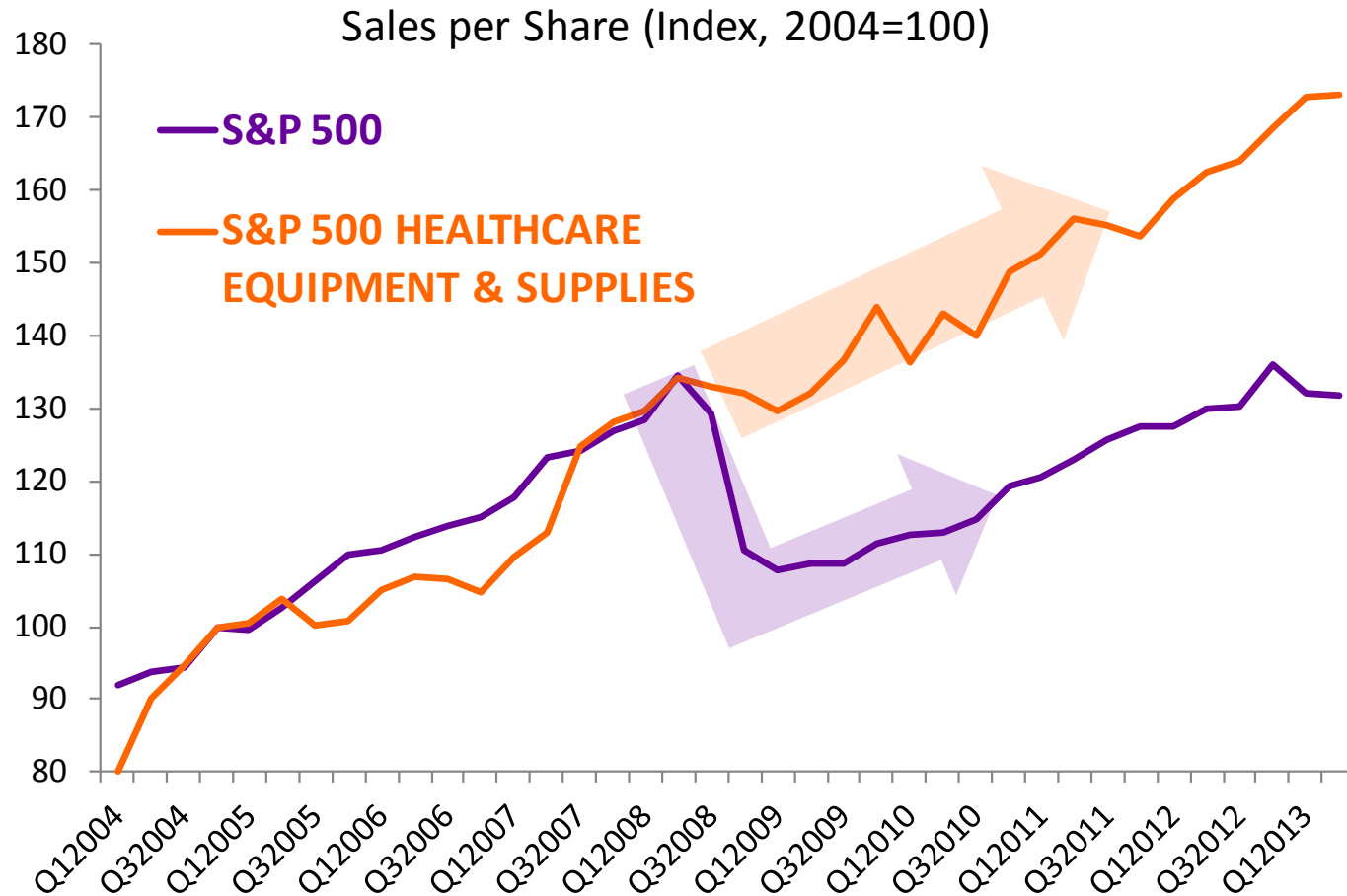
- Global demographic trends
- Income growth, development stage
- Innovation

Industry Outlook

Production & Trade Patterns

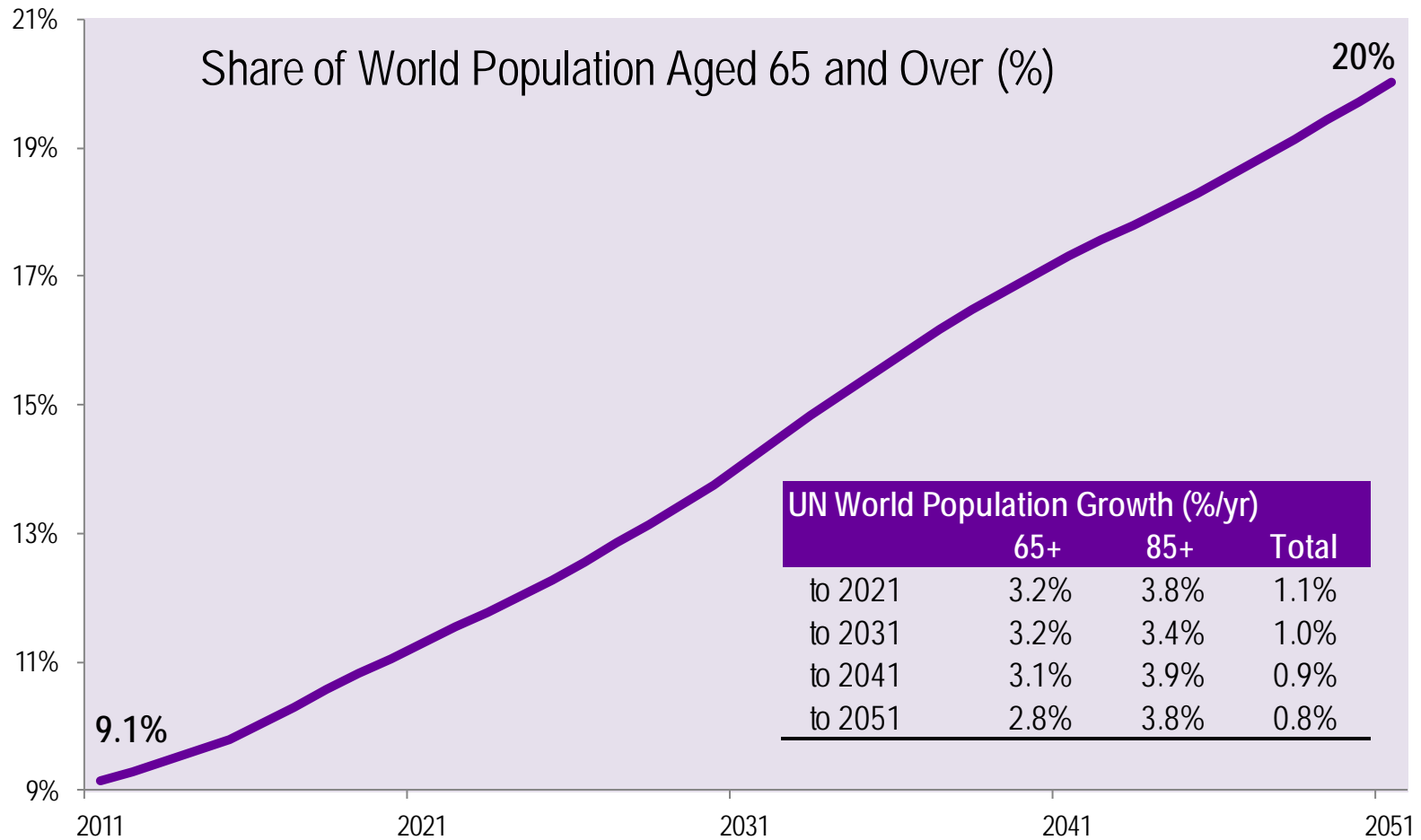
Supply Chain Implications

Healthcare Sector Performance Through the Great Recession



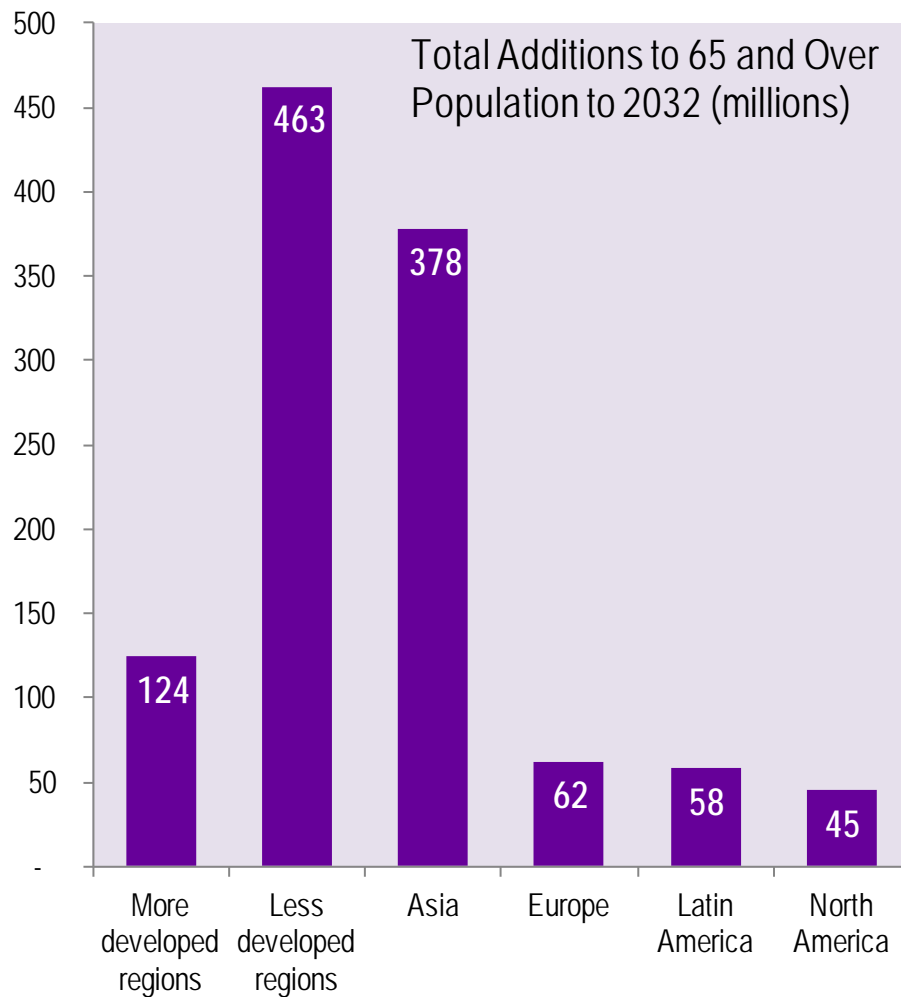
Source: Bloomberg

Aging Global Population – A Structural Tailwind for Healthcare



Source: United Nations

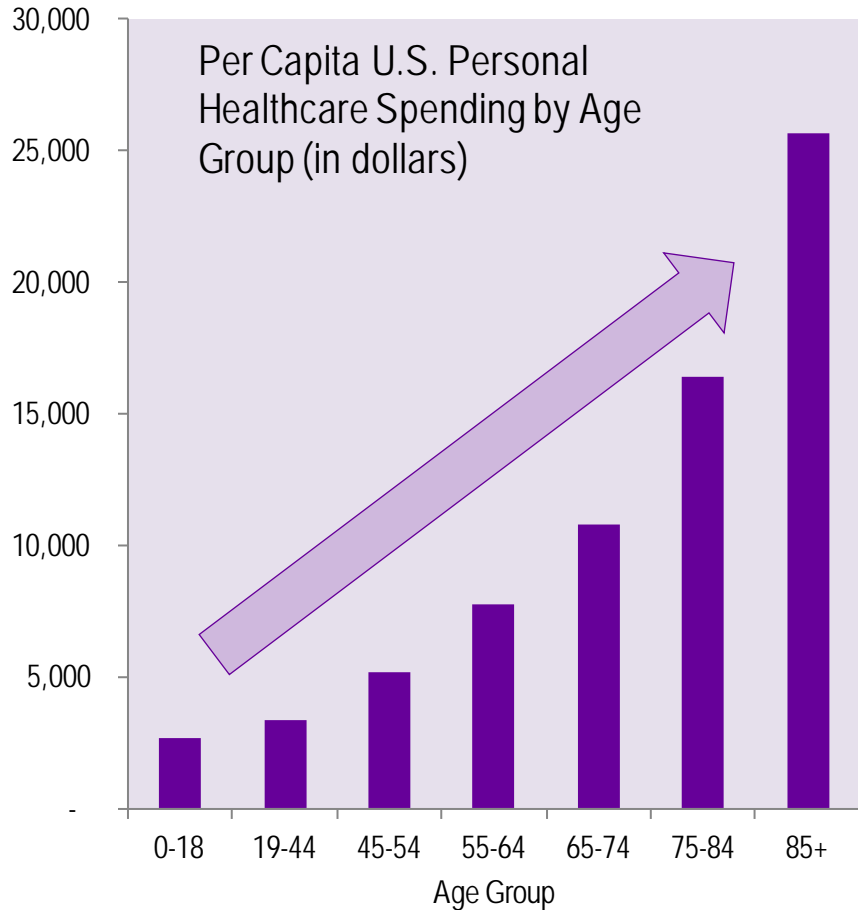
Demographic Shift is Global



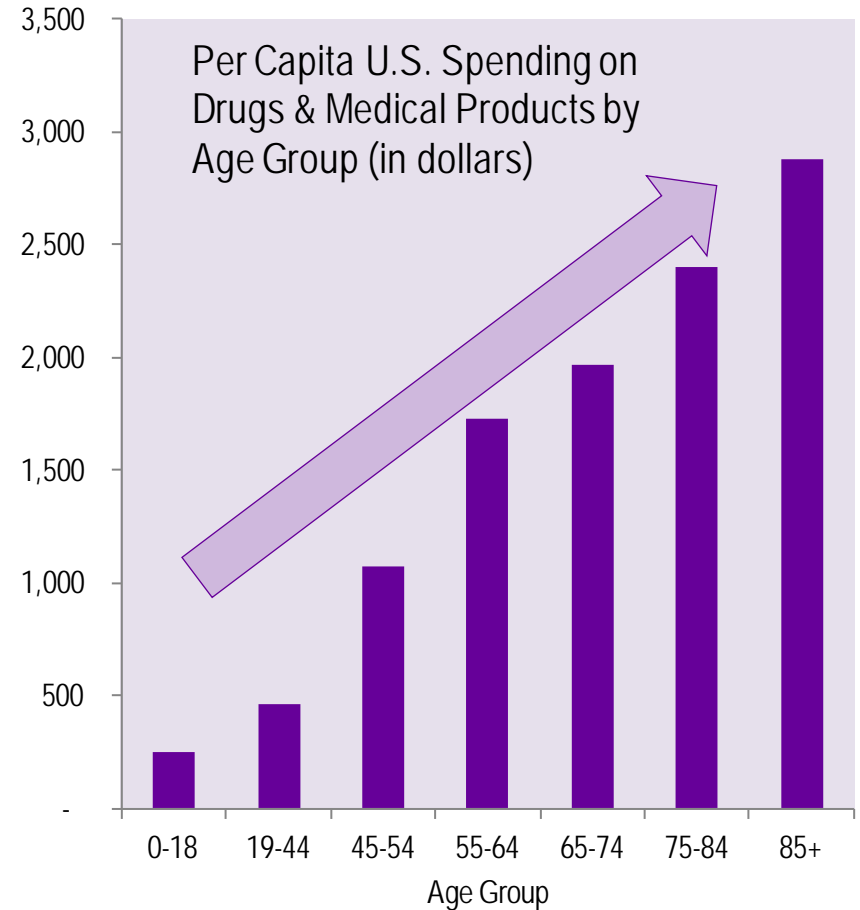
Source: United Nations

- Over the next 20 years, less developed regions expected to add >3.5x more to 65+ population than developed regions
- China will add more to 65+ population than entire developed world combined
- Asia to have 60% of world's population over 65 years of age by 2040

Health Expenditures Increase Significantly with Age

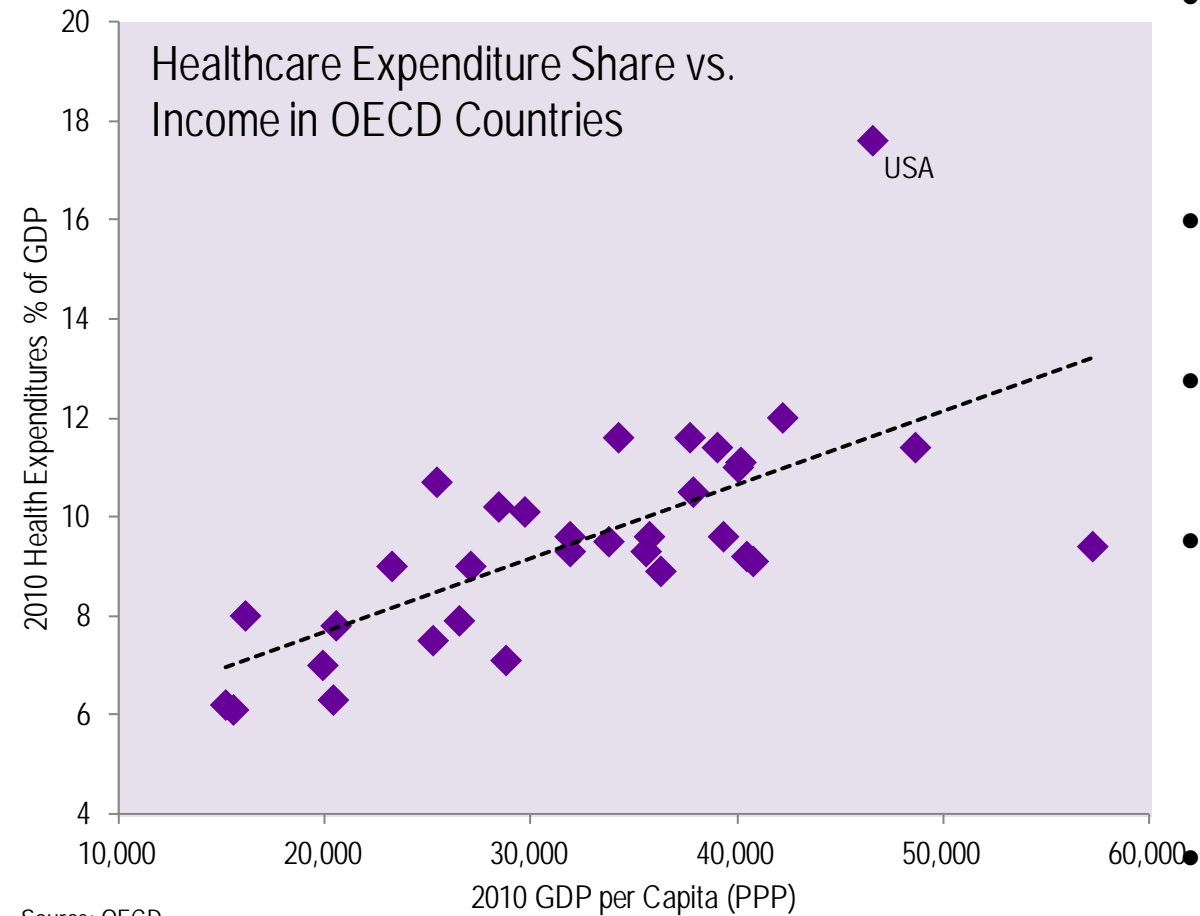


Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. 2004 data.



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. 2004 data.

Healthcare Spending a Greater Priority as Development Advances

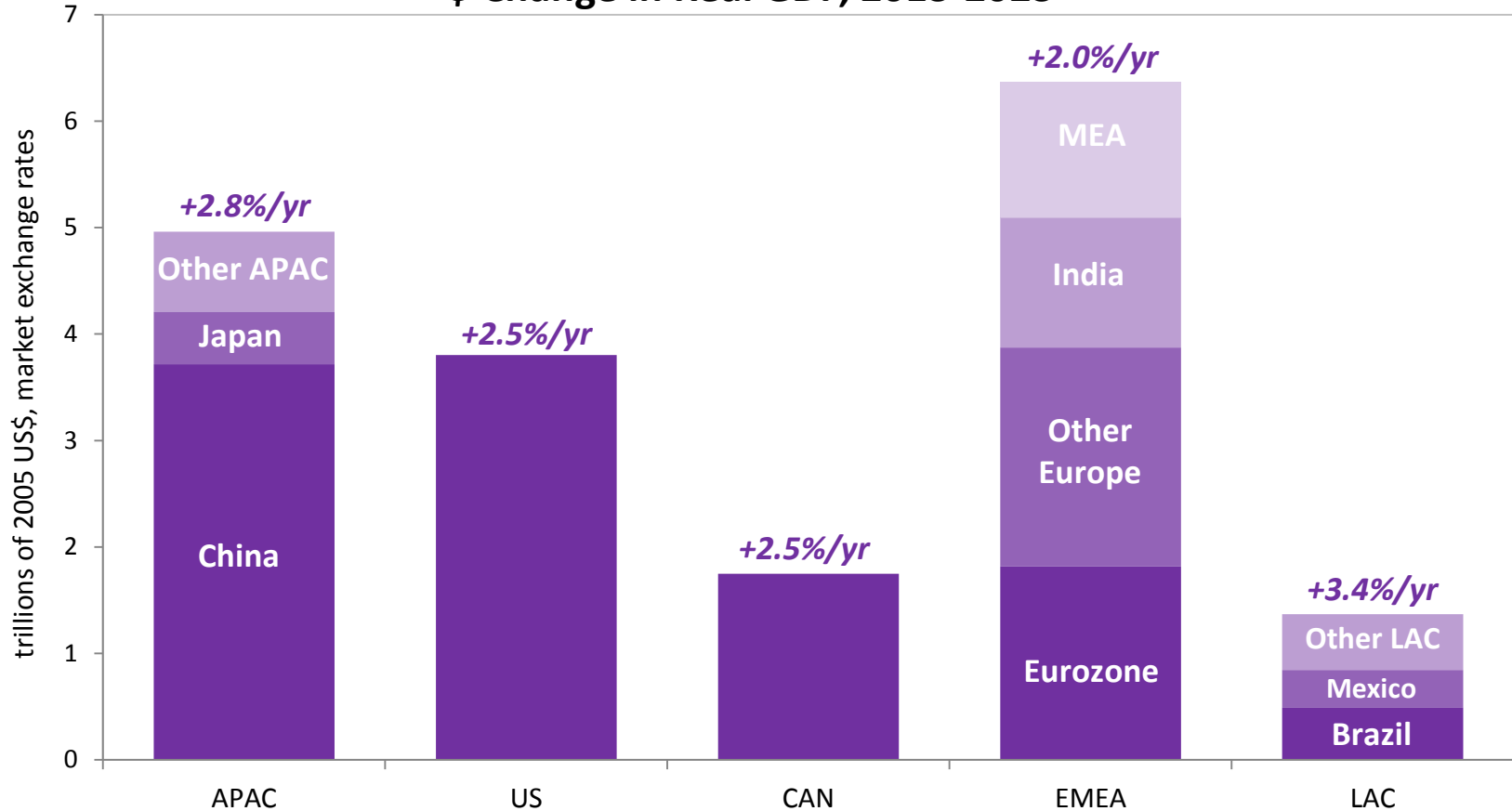


- Strong relationship between income and healthcare expenditures' share of GDP
- Spending priorities change with incomes
- Social safety nets become more prevalent with development
- Health spending % of GDP:
 - OECD Average 9.5%
 - China 5%
 - India 4%
- Suggests global opportunity as development stage advances

Source: OECD

Global Economic Outlook

\$ Change in Real GDP, 2013-2023

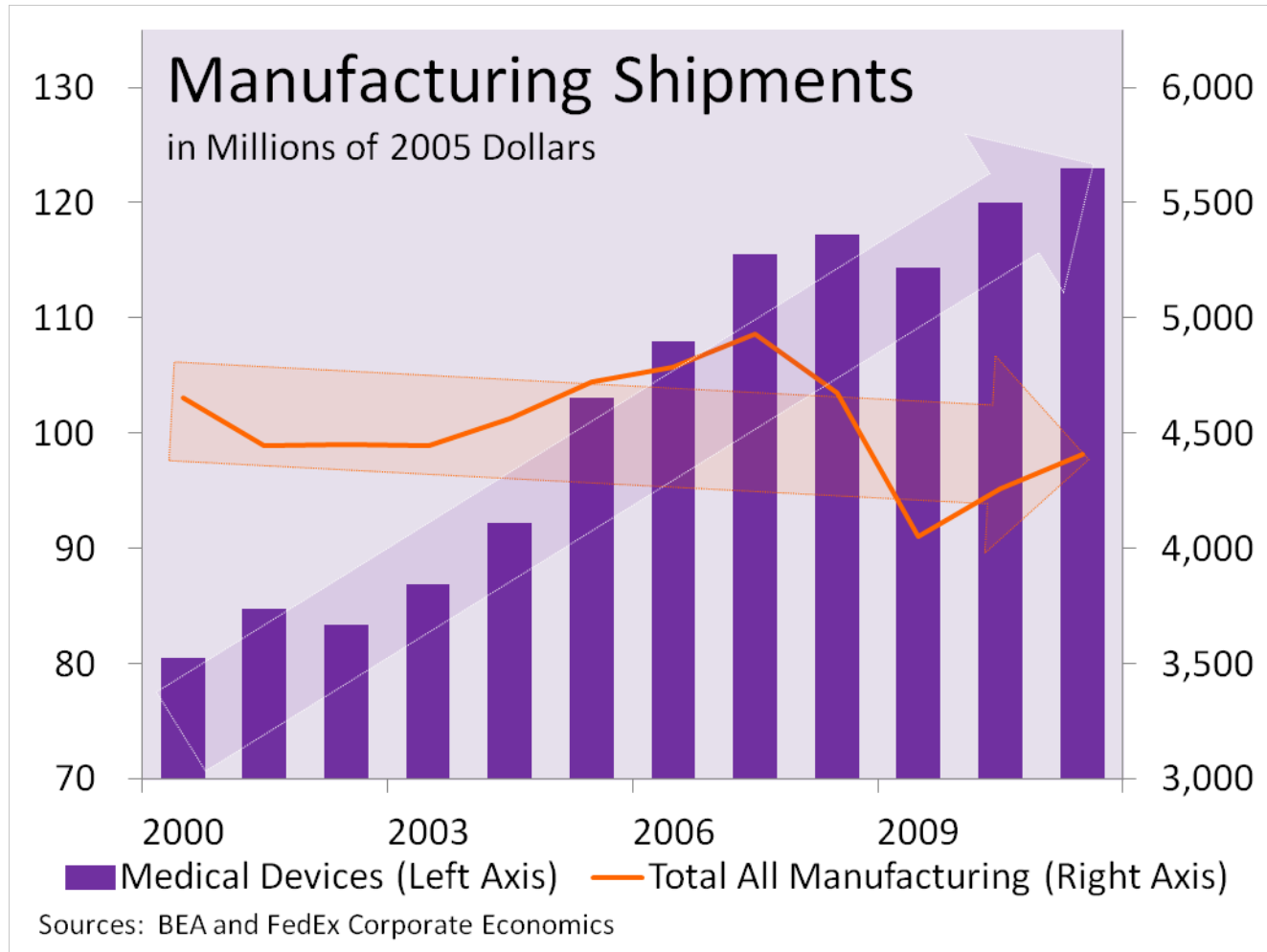


Source: Economist Intelligence Unit, Haver Analytics

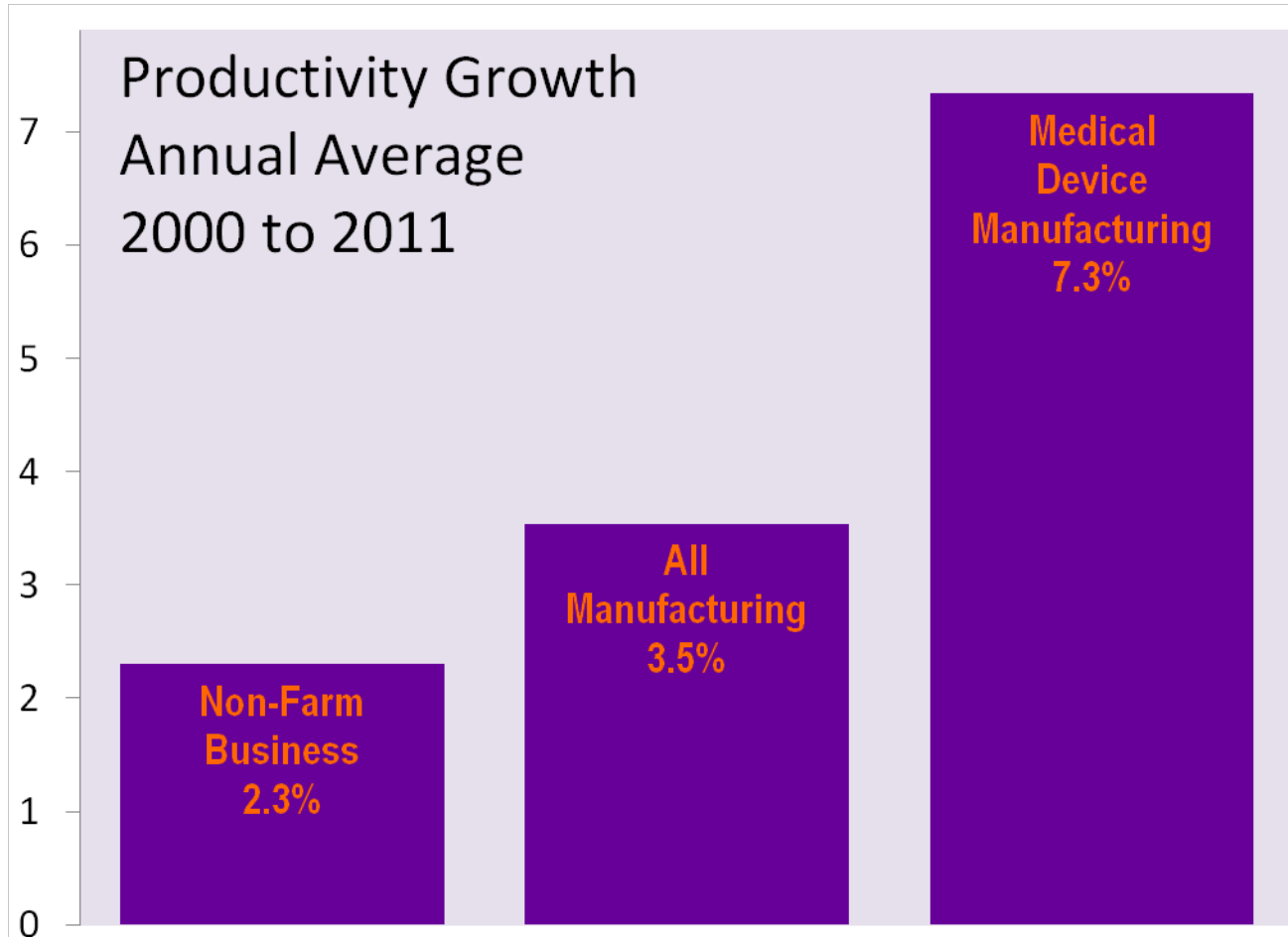
Innovations Promise Huge Growth Potential for the Industry

- Healthcare innovation: supply creates its own demand
- Customization in treatment: the economics of genomics
- The human condition: no matter how much progress we make, we will never lack for ailments to treat

Medical Device Manufacturing is Booming in the United States



Productivity Growth in the Medical Device Manufacturing Sector has Been Impressive



Sources: BEA, Census and FedEx Corporate Economics

Industry Overview & Outlook – Medical Devices & Supplies

| U.S. Medical Devices & Supplies | 2013 Sales (\$millions) | Annual Growth 2013-2018 |
|------------------------------------|----------------------------|-------------------------------|
| Medical Device Manufacturing | \$35,195 | 7.0% |
| Medical Instruments & Supplies Mfg | \$91,720 | 3.9% |
| Medical Supply/Device Wholesaling | \$157,436 | 4.8% |

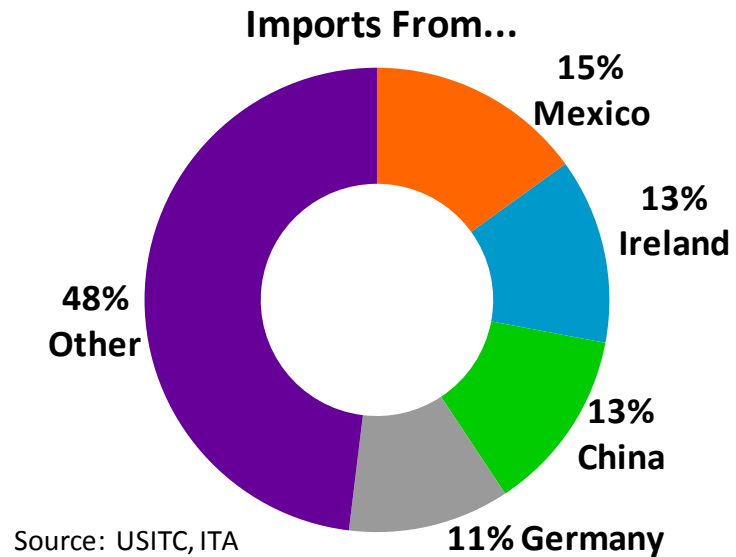
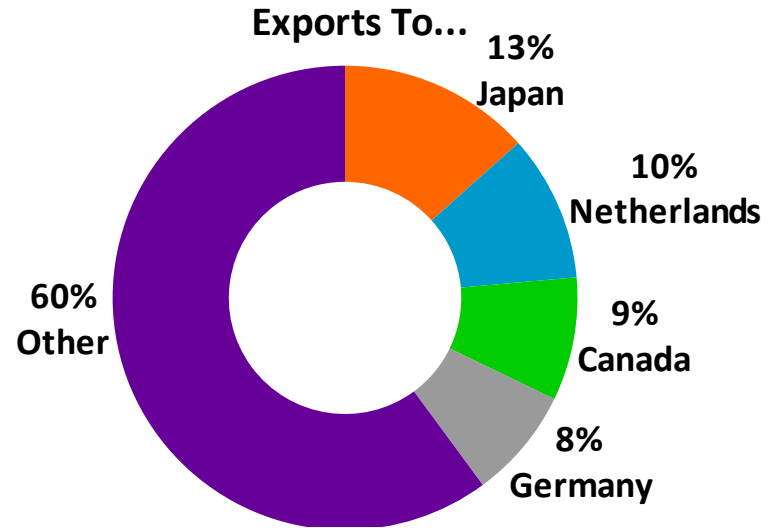
Source: IBISWorld 2013 estimates & forecasts

- Attractive growth rates expected for Medical Devices
- Aging populations, technological advances support growth
- Healthcare cost containment measures, customer consolidation challenging to industry pricing
- Emerging markets (esp. China and India) big opportunities

U.S. Trade in Medical Devices



Source: USITC, ITA



Source: USITC, ITA

Industry Overview & Outlook - Pharma

- Global pharmaceuticals and medicine manufacturing a ~\$1 trillion business
- Near term growth challenged by patent expirations
- Solid growth in biologics, generics
- Growth strongest outside developed world

| Global Pharmaceutical Market | | | | |
|------------------------------|----------------------------|-------------------------|----------|-----------|
| | 2011 Sales (\$billions) | Annualized Growth Rates | | |
| | | 2007-2011 | 2012 | 2012-2016 |
| North America | 347.1 | 3.5% | 1 - 2% | 1 - 4% |
| Europe | 265.4 | 4.9% | 0 - 1% | 0 - 3% |
| Asia / Africa / Australia | 165.2 | 15.5% | 10 - 11% | 10 - 13% |
| Japan | 111.2 | 3.9% | 0 - 1% | 1 - 4% |
| Latin America | 66.7 | 12.3% | 13 - 14% | 10 - 13% |
| Total World | 955.6 | 6.1% | 3 - 4% | 3 - 6% |

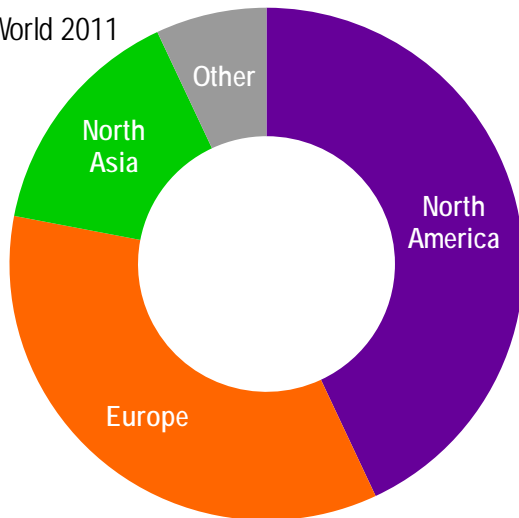
Source: IMS Health Market Prognosis, May 2012

Global Production & Trade - Pharma

Global Pharma

| Production by Region | Percentage |
|----------------------|------------|
| North America | 43.0 |
| Europe | 35.0 |
| North Asia | 15.0 |
| India & Central Asia | 3.0 |
| Oceania | 1.5 |
| South America | 1.5 |
| Africa & Middle East | 0.5 |
| South East Asia | 0.5 |

Source: IBISWorld 2011



Top 10 Exporters of Drugs & Medicines

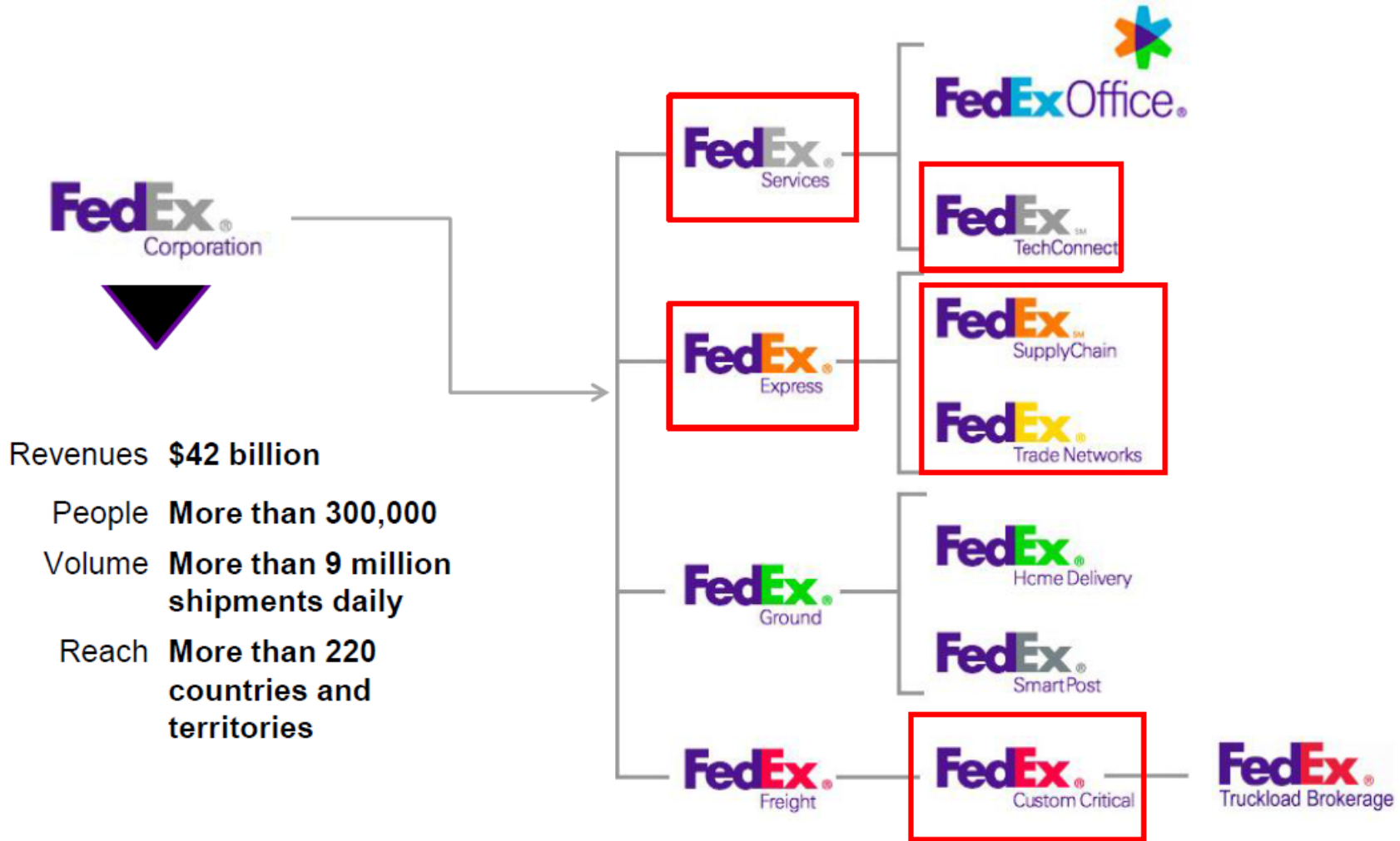
| 2012 Share | | 2030 Share | |
|----------------|-----|----------------|-----|
| Germany | 14% | Germany | 11% |
| Switzerland | 9% | United States | 9% |
| United States | 9% | India | 9% |
| Ireland | 8% | United Kingdom | 8% |
| United Kingdom | 7% | Belgium | 6% |
| France | 7% | France | 6% |
| Belgium | 6% | Ireland | 6% |
| Italy | 5% | Switzerland | 6% |
| Netherlands | 4% | China | 6% |
| Spain | 3% | Netherlands | 4% |

Source: Global Insight

Increasing Supply Chain Complexity

- Regulation increasing complexity
- Geographic activity centers moving from developed to emerging markets (China, India, Brazil)
- M&A driving consolidation, supply chain optimization
- Biologics growth = more cold chain shipping, storage

Several Opco's Support Healthcare Strategy at FedEx



FedEx Commitment to Healthcare

Market Presence

- 35 Year Experience
- 220 countries & territories
- More than 11,000 customers in all segments



FedEx cares:

Health and Human Services Contributions



**American
Red Cross**

