Growth Prospects and Challenges in the Global Economy: Building Blocks Of Sustainable Economic Growth Strategies

ISEO
June 16, 2014
Michael Spence
Bad Ideas
Defective or Unsustainable Growth Models with Built In Decelerators

• Import substitution
• Excess economic diversification
• Natural resources and the Dutch Disease
• Excess consumption (private of gov’t or both)
  – Deficient investment
  – Usually excess debt
  – Excess reliance on domestic demand for growth and employment
  – USA, UK, Ireland, Italy, Spain, Greece, Portugal
• Excess investment
  – Low return trap
  – China
• Resource and environmental constraints on the size of the global economy
  – These issues are global and longer term
Why Do The Structural Elements of Growth Dynamics Matter?

• The straight answer is that it virtually impossible to understand the growth dynamics in advanced and developing countries and the potential for defective growth patterns and recovery mechanisms without paying attention to differences between the tradable and non-tradable sectors in the factors that stimulate and constrain growth.
Brief Snapshot

• The US is growing at 1.5 -2.0% real – it is a partial recovery lead by the private sector and structural shifts
• Europe is in for an extended period of low growth (and negative in the south) because the growth engines are blocked
• China will transition to a new growth pattern and sustain 7% plus growth
• The major emerging economies having hit by slow AC growth and unconventional monetary policy externalities, will go back to sustained high growth patterns
DEVELOPING COUNTRY SHARE OF GLOBAL OUTPUT

- OECD
Chinese Economy is Half the Size of the USA or EU
It is also Almost as Big as the Other BRICS Plus Mexico and Indonesia Combined
The Share of the Tradable Part of the Global Economy is Growing

Figure 1. World Exports Relative to Production (Percent of GDP)

Source: DOTS, WEO and UN Comtrade. The ratio for 1949-61 is calculated based on 15 major exporters.

Changing Patterns of Global Trade
Strategy, Policy and Review Department, IMF, June 2011
Multi-polar Network Structure
Rapidly Evolving
Atomization of Global Supply Chains

Figure 9. Foreign Contents in Gross Exports

Percentages indicate the share of foreign value added in gross exports.

Source: Fund staff estimates using OECD Input-Output Tables, UN Comtrade and OECD STAN data.
GROWTH MODELS AND DYNAMICS

- Long run determinants of growth - TFP
- Demand is largely missing
  - Except for the investment (=savings) element of the composition of aggregate demand matters
- But key elements of growth and structural dynamics have to do with demand
  - China middle income transition
  - US negative domestic aggregate demand shock
  - Southern Europe
  - At the global level: the degree of coordination in unwinding global imbalances and the question of an aggregate demand shortfall
The Argument

• In open economies, the level and composition of demand
  – Drive the supply side evolution of the economy
  – Are important in understanding defective growth patterns and the recoveries from them
  – Provide insights into the employment challenges of advanced economies
• The level can exceed or fall short of output
• The composition
  – Tradable and non-tradable
  – Government, consumption, private investment, public investment
• In many economies these get out of balance – giving rise to defective growth models
• Recovering involves more than restoring the level – it involves changing the composition
• This is much more complex than in a closed economy which is the implicit background of much growth theory
What is Stable and Where do the Structural Shifts Occur?

• Demand in composition is relatively stable across time and countries at a given income level
• Non-tradable supply is therefore also stable
• But the tradable supply side is highly variable across countries
  – Compare Sweden, Germany and the USA

• In the face of negative demand shocks and recoveries from them, the ability to expand the scope of the tradable sector and access external demand is crucial

• For developing economies, this will be “old hat” – huge external demand is a primary driver of growth in early stages because it relaxes the severe domestic demand constraint
Demand Constraints in and Open Economy
Why is the Tradable/Non-tradable distinction Important

• Tradable versus non-tradable sectors – what are they?
• Roughly 2/3 of advanced economy is non-tradable
  – On the demand side – but therefore on the supply side as well unless current account surplus or deficit is large
• Non-tradable sector is driven in level and composition by domestic aggregate demand
• Tradable sector is quite different
  – The supply side has access to domestic and external demand
    • Productivity constrained rather than demand constrained
  – The demand side has access to domestic and external supply
    • Domestic aggregate demand can exceed GDP without inflation
    • i.e. you can run a persistent current account deficit provided external conditions facilitate it
• There are more potential defective growth patterns in open economies
  – And they can persist for some time before they break down
Excess Domestic Demand and a Demand Shock

• What happens?
• Prior to the shock the non-tradable sector becomes too big and reduces the scope and at the margin the competitiveness of the tradable sector
• After the shock growth slows or is negative
• And the economy is structurally out of balance:
  – To recover you may need some restoration of domestic demand (say via deleveraging and balance sheet repair)
  – But you also need a shift toward the tradable sector on the supply side, that is toward external demand
  – In a relative flexible dynamic economy, that is what happens
    • Nominal wages and incomes stop growing and real wages decline with the rate of inflation
    • Labor and capital flow toward the tradable side which expands in share, scope and growth
  – Having your own exchange rate helps
You Can See Some These Patterns Clearly in the US Case
Real Imports of Goods & Services
Percentage change from previous peak, Seasonally Adjusted

Quarters from previous peak
US Growth

Change in Real Value Added (in billions of 2005 USD)

- Tradable
- Nontradable
US Employment

Change in Employment (in 1000s)

- Tradable
- Nontradable

1990 to mid-2013
1990 to 2000
2001-2007
2009 to mid-2013
## Growth and Employment in the US

<table>
<thead>
<tr>
<th>VALUE ADDED</th>
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</thead>
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<td>% of Gain</td>
<td>% of Gain</td>
<td>% of Gain</td>
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<tr>
<td>Nontradable</td>
<td>0.66</td>
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<td>Tradable</td>
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<th>EMPLOYMENT</th>
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<td>% of Gain</td>
<td>% of Gain</td>
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<td>Tradable</td>
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Total Employment - Establishment Survey
Percentage change from previous peak, Seasonally Adjusted, Nonfarm Business

- 1973 cycle
- 1981 cycle
- 1990 cycle
- 2001 cycle
- Current cycle

Source: U.S. Bureau of Labor Statistics

Cooley-Pedersen Economic Snapshot: www.econingshot.com

Months from previous peak
Real Government Expenditures & Investment as a % of GDP
Percentage change from previous peak, Seasonally Adjusted

Quarters from previous peak
The Assisted Growth Model
Federal Reserve Balance Sheet

Source: IMF, Fiscal Monitor, May 2010
EXHIBIT 1 | Net Expected Tax Revenues Are Not Adequate to Continue Funding Current Social Policies

Unfunded liabilities and official government debt

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<thead>
<tr>
<th>Country</th>
<th>Unfunded liabilities</th>
<th>Official government debt</th>
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<td>U.S.</td>
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<td>Germany</td>
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<td>France</td>
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<td>U.K.</td>
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<td>Ireland</td>
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<td>Spain</td>
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Sources: Jagadeesh Gokhal, "Measuring the Unfunded Obligations of European Countries," 2009; OECD.
Note: Unfunded liabilities are the difference between the projected cost of continuing current government programs and net expected tax revenues. Government debt based on 2011 forecasts from the OECD.
What About Southern Europe?

• There are two problems
  – Very large divergences in nominal unit labor costs relative to German
  – Impediments to structural shifts toward the tradable sector and external demand – in labor markets (also capital markets and product markets)
  – These are the impediments Germany had and removed in the reforms of 2003-2006
• Inflation and the common currency
• Nevertheless convergence in productivity and growth in the tradable sector is starting to happen
• The speed is determined mainly by structural flexibility in labor, capital and product markets
• Most countries have not yet had labor market reforms as large as those that occurred in Germany in 2003-2006
Italy: Productivity and Wage Growth

Productivity and wage growth; Absolute and relative to the euro area

Blanchard April 2006
Italian Investment Rate

- Graph showing the Italian Investment Rate from 1980 to 2016.
- The rate started at around 28 in 1980, decreased sharply to about 6 in 1982, and then fluctuated around the 6-8 range until 2016.
Figure 11 Growth in real wages and labour productivity in developed economies, 1999–2007 and 2008–11 (%)
Employment and Distribution
Additional Headwinds Beyond the Growth Challenges

• Employment has been adversely affected by the negative growth shocks
• But that compounded a longer term adverse trend in employment across the tradable and non-tradable sectors
  – Which I will show you in a minute
• These longer term trends are the combined result of powerful technological and global market forces
• The latter includes
  – The increasingly efficient atomization of global supply chains
  – The rise in size of the emerging economies (now over 50% of global GDP) – especially China
US Tradable/Nontradable Value Added, 1990-2011

Billions of Chained 2005 Dollars


Value Added

U.S. Value Added Split (%)

Total Change in Value Added, 1992-2010

Change in Value, in Billions

1992 2010

Total

Tradable

Nontradable

2,575 1,665 4,240
Value Added per Worker

US Weighted Value Added per Job, 1990-2010

Real 2005 USD

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<th>Year</th>
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<td>2010</td>
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<td>142,534.70</td>
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Data points:
- Nontradable: 82,259.36
- Tradable: 142,534.70
Value added per worker and the global economy
This is often mistaken for a “normal” productivity increase

Before

USA

VA per worker = 20

After

USA

VA per worker = 10

Mexico
All Industries Change in Jobs, 1990-2008

Change in Jobs, In Thousands

Tradable
Non Tradable
Figure 3: Percent Change in Employment Shares by Occupation Group
Figure 4: Employment in Occupational Groups: 1967 – 2011

Non-Routine Cognitive

Non-Routine Manual

Routine – Manual and Cognitive

THE TREND IS THE CYCLE: JOB POLARIZATION AND JOBLESS RECOVERIES

Nir Jaimovich
Henry E. Siu
USA Income Distribution Trends

Income Inequality and Political Polarization
1947 - 2009

$r = 0.93$

Gini Index

House Polarization

Polarization Index

Figure 1. Cross-Country Average Labor’s Share in National Income
(Ratio of labor income to national income)

Source: OECD, Structural Analysis Database.
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INCOME OF THE RICHEST 10% OVER THE POOREST 10%</th>
<th>INCOME OF THE RICHEST 20% OVER THE POOREST 20%</th>
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<td>Greece</td>
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<td>India</td>
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<td>United States</td>
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Key Ingredients in the Changing Growth Patterns

Michael Spence
Nanjing
June 2014
China and the Middle Income Transition

• Third largest economy if Europe is counted as a unit
• About half the size of US or Europe
  – Will be same size in 10-15 years
  – When it grows at 8% real - that is the equivalent of 4% growth in Europe or North America
• Leading export market for India, Brazil, Japan, Korea, Australia, most of east Asia, in the near future, Africa
• Huge amount at stake
• The growth model for first 30 years yielded impressive results, but has reached the end of its useful life
• The most common developing country mistake is to find a successful strategy for growth and do it too long
• Despite the high growth, there is widespread consensus (internally and externally) that reform momentum declined seriously in the past decade – and that a reversal of that trend is critical to alter and then sustain the growth pattern at this level of income
Five High Speed Transitions

- Japan
- Korea
- Taiwan/China
- Hong Kong/China
- Singapore

- None at China’s scale
- None with strong global economic headwinds
- No predecessor was systemically important

- Most importantly – China’s growth depends on no slippage in generating domestic aggregate demand
  - Unlike earlier cases (Korea, Taiwan, China, Japan)
  - One way to do that is high and rising investment levels – but that will drive investment returns (private and social) down and is not a sustainable growth pattern
  - This is all well understood in China – so the challenge is to shift the mix to consumption and high return investment – and that takes major system reforms
World Bank database
China: Disposable Income Declining Percentage of National Income
Combined with Household Savings at 30%
Consumption is below 40% of GDP

Household Disposable Income and Components
(in percent of GNP)

Explaining China’s Low Consumption:
The Neglected Role of Household Income

Johns, A. and Li, C. IM  WORKING PAPER 2007
Components of Savings: The Increase is in the Corporate Sector
Built in bias in the system to investment without adequate risk adjusted return filters
Investment-Led Growth is Showing Signs of Reaching Its Limits...

Demand Contributions to GDP Growth

Incremental Capital / Output Ratio

SOURCE: CEIC, PBOC, PIMCO
...Which is Also Evident in Credit Channel Losing Traction on Growth

New Credit/GDP vs. GDP Growth

Marginal Return of New Credit

SOURCE: CEIC, PBOC, PIMCO
By International Comparisons China’s Debt Level is Not Flashing Red; Trajectory, Channels, and Rate of Growth is Source of Risk

Total Debt/GDP Ratios By Country (2012)

Composition of China’s Total Debt to GDP

SOURCE: CEIC, PBOC, Fitch Rating, PIMCO
NPL Trends Linked to Nominal GDP Growth

Nominal GDP Growth & Proxy NPL Ratio

SOURCE: CEIC, PBOC, PIMCO, CS
Potential for Households is Significant When Viewed through Both National Income & Balance Sheet Perspectives

Consumption vs. Capital Formation as % of GDP

Household Balance Sheets

SOURCE: CEIC, PBOC
Old Growth Patterns

- Growth in the past driven by
  - Deployment of underutilized human capital
  - Productivity growth
  - Very high levels of investment
  - Exports and the tradable sector
  - Financial policies that repressed savers and lowered cost of capital
  - Leverage in the post crisis period
These Growth Patterns Have Reached the End of Their Useful Life

• Higher Public Investment
  – Generates aggregate demand
  – But pushed into low social return territory at the margin
    • Social return can be thought of as the present value of future increments to GDP, divided by the cost of the investment
  – That makes it a defective growth model
• Export sector is contributing little to growth
  – Still important
  – Advanced countries growing very slowly
  – Other developing countries dependent on China
  – China has a huge market share globally in tradable sectors
• Household income < 60% of GDP and savings 30%
  – Puts consumption at less than 40%
• But that is where the aggregate demand needs to come from
  – And if it doesn’t then the evolution of the supply side will be distorted and eventually unsustainable as a growth pattern
Historical Note

• Five economies went through the middle income transition at high speed (Japan, Korea, Taiwan, Hong Kong, Singapore)
• All are smaller and did it when the advanced countries were 65% or more of the global economy and growing
• China is doing it at much larger scale with very little help from the export sector.
• So the handoff to domestic consumption is more important
• Since it is impossible to synchronize this precisely, and the government should be unwilling to fill in the gap with investment, there may be a transitional growth slow down in China
• The government does have valuable services to deliver and that can legitimately be used to ease the transition (education, health, social security)
Growth

- In the long run, it is driven by productivity growth
- In the short and medium run, growth can be constrained by demand
- It is not just the level of aggregate demand that matters
- The composition matters too
  - Household Consumption
  - Private Investment
  - Public expenditures
  - Public investment
  - External demand in the tradable sector
- The evolution of the supply follows demand in a flexible economy like that of China or the USA
- So the composition of demand guides the supply side evolution
- If one is out of balance the other will be also
Chinese Growth

• Has slowed in part because it is demand constrained
  • That is OK and is part of the structural transformation of the economy

• Export sector is shifting up in terms of value added
  — External demand growth is weak

• Policy makers are reigning in low return investment

• Rapid growth of credit and leverage is being cut back

• Both of these would be the wrong way to relax the demand constraint

• These levers (credit and public sector investment) were used as a crisis response
  — That’s OK if not persistent
  — Investment was pushed into low return territory at the margin
  — Credit created asset bubbles and non performing loans
Elements of Structural Change as the Growth Model Shifts

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>China: Projected growth pattern assuming steady reforms and no major shock</th>
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<tbody>
<tr>
<td>GDP growth (percent per year)</td>
<td>9.9</td>
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<tr>
<td>Labor growth</td>
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<td>Labor productivity growth</td>
<td>8.9</td>
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<td>Structure of economy (end of period, %)</td>
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<tr>
<td>Investment/GDP ratio</td>
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<td>Consumption/GDP ratio</td>
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<td>Industry/GDP ratio</td>
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<td>Services/GDP ratio</td>
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<td>Share of employment in agriculture</td>
<td>38.1</td>
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<tr>
<td>Share of employment in services</td>
<td>34.1</td>
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</table>

Source: DRC.
Where is the 7% Growth Coming From?

• The short answer is that household incomes are rising now, reversing the past long term trend
• And the domestic service business sector in the non-tradable part of the economy is showing signs of growing quite rapidly.
• Retail is growing and online retail is exploding
  – China's online shopping market registered stunning growth last year. According to iResearch, China's online market in 2013 hit gross merchandise volume (GMV) of 1,841.0 billion yuan, up by 39.4% yoy. In particular, GMV for the B2C segment soared by 65.2% yoy.
• These are important elements in the structural changes and shift the economy to a new and different kind of sustainable growth pattern
Recent Growth by Category

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<td>10.1</td>
<td>11.9</td>
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<td>Clothing, shoes, hats and textiles</td>
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<td>Cosmetics</td>
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</tr>
<tr>
<td>Gold, silver and jewellery</td>
<td>25.8</td>
<td>4.7</td>
<td>-30.0</td>
</tr>
<tr>
<td>Products for daily use</td>
<td>14.1</td>
<td>8.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Sports and entertainment products</td>
<td>7.2</td>
<td>1.3</td>
<td>-1.1</td>
</tr>
<tr>
<td>Home appliances and video equipment</td>
<td>14.5</td>
<td>9.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Chinese and Western medicines</td>
<td>17.7</td>
<td>16.8</td>
<td>14.2</td>
</tr>
<tr>
<td>Stationery and office accessories</td>
<td>11.8</td>
<td>9.5</td>
<td>18.0</td>
</tr>
<tr>
<td>Furniture</td>
<td>21.0</td>
<td>14.2</td>
<td>15.5</td>
</tr>
<tr>
<td>Telecommunications equipment</td>
<td>20.4</td>
<td>14.7</td>
<td>28.8</td>
</tr>
<tr>
<td>Petroleum and related products</td>
<td>9.9</td>
<td>6.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Automobiles</td>
<td>10.4</td>
<td>12.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Building and decoration materials</td>
<td>22.1</td>
<td>12.2</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Source: National Bureau of Statistics, PRC
Exhibit 16: Gross merchandise volume of China’s online shopping market, 2010 to 2013

Source: iResearch
The top seven provinces and municipalities in terms of foreign trade value

<table>
<thead>
<tr>
<th>Provinces/ Municipalities</th>
<th>Foreign trade value (billion yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guangdong</td>
<td>1,360</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>777.0</td>
</tr>
<tr>
<td>Shanghai</td>
<td>669.3</td>
</tr>
<tr>
<td>Beijing</td>
<td>666.4</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>464.1</td>
</tr>
<tr>
<td>Shandong</td>
<td>402.9</td>
</tr>
<tr>
<td>Fujian</td>
<td>237.3</td>
</tr>
</tbody>
</table>

Source: China Customs
Exhibit 34: Foreign exchange reserves by quarter, 2Q13 to 1Q14

<table>
<thead>
<tr>
<th></th>
<th>Accumulation</th>
<th>End of the quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>509.7</td>
<td>3,821.3</td>
</tr>
<tr>
<td>2Q13</td>
<td>54.1</td>
<td>3,496.7</td>
</tr>
<tr>
<td>3Q13</td>
<td>166.0</td>
<td>3,662.7</td>
</tr>
<tr>
<td>4Q13</td>
<td>158.7</td>
<td>3,821.3</td>
</tr>
<tr>
<td>1Q14</td>
<td>126.8</td>
<td>3,948.1</td>
</tr>
</tbody>
</table>

Source: State Administration of Foreign Exchange, PRC
Exhibit 35: USD-CNY and EUR-CNY daily fixing rates, May 2013 to May 2014

Source: State Administration of Foreign Exchange
### Exhibit 47: GDP growth forecasts by the International Monetary Fund

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014 (Forecasts)</th>
<th>2015 (Forecasts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World economy</td>
<td>3.0</td>
<td>3.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Advanced economies</td>
<td>1.3</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>- US</td>
<td>1.9</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>- Eurozone(^{25})</td>
<td>-0.5</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>- Japan</td>
<td>1.5</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Emerging markets and developing economies</td>
<td>4.7</td>
<td>4.9</td>
<td>5.3</td>
</tr>
<tr>
<td>- China</td>
<td>7.7</td>
<td>7.5</td>
<td>7.3</td>
</tr>
<tr>
<td>- India</td>
<td>4.4</td>
<td>5.4</td>
<td>6.4</td>
</tr>
<tr>
<td>- ASEAN-5(^{28})</td>
<td>5.2</td>
<td>4.9</td>
<td>5.4</td>
</tr>
<tr>
<td>- Brazil</td>
<td>2.3</td>
<td>1.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Russia</td>
<td>1.3</td>
<td>1.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund, World Economic Outlook, April 2014
The Financial Sector

- In the past, the financial sector was dominated by state owned entities, primarily banks.
- Returns to savers were controlled or repressed to lower the cost of capital for the investment lead growth model.
- Access to credit was not a level playing field with SOE’s and governments in the front of the queue.
- This is now counterproductive.
Shadow Banking

- The shadow banking system with higher returns (and a richer menu) for savers and alternative sources of credit to SME’s is part of financial sector development
- And it is important
- That is why the policy approach is not to suppress it but rather to regulate it properly to prevent naïve and excessive risk taking
- State owned banks are important intermediaries (and somewhat shadow banking suppressed)
- But with with SOB’s as intermediaries there is an implicit government guarantee and that can and probably does lead to excessive risk taking
Wealth Management Products

Outstanding WMPs have more than doubled since Q4 2011

Data from BofA/Merrill Lynch

Quartz | qz.com

Data: BofA/Merrill Lynch
Game Changing Technologies

- Shale Gas
- Mobile Phones
- 3D Printing
- “Smart” Robotics with Sensors
  - Manufacturing
  - Logistics
- Digital Capital
  - Displacement of Labor
Mobile Phone Growth: Elimination of the Digital Divide

Ubiquitous by any name
Telephones, bn

Source: International Telecommunication Union
*Estimate
3D Printing
Electronics Assembly
Global Flows

- Goods
- Services
- Capital/Finance
- People
- Data, Information, Knowledge
We examine flows of goods, services, finance, and people, and data and communication that underlie them all.

Value and growth of cross-border flows:

- **Goods**: $17.5 trillion, 11%
- **Services**: $4.4 trillion, 10%
- **Financial**: $4.0 trillion, 6%
- **People**: 194 million people, 2%

2012 value
Compound annual growth rate, 2002–12

21.2 million megabits per second, 52%
Goods

% of global GDP

1980
100% – $1.8 trillion

2011
100% – $17.2 trillion

10x
Services flows

2001
100% = $1.5 trillion\(^1\)

2011
100% = $4.1 trillion\(^2\)

\(^1\)\(^2\)
Financial flows

2002
100% = $3.4 trillion

2012
100% = $4.9 trillion

1.6x

1. 2001 services flows are estimated based on 55 percent coverage with a bilateral data set.
2. 2011 services flows are estimated based on 61 percent coverage with a bilateral data set.

SOURCE: Comtrade; IMF Balance of Payments; World Development Indicators, World Bank; McKinsey Global Institute
Number of foreign travelers
Mllion

2002
100% = 833 million

2010
100% = 1.1 billion

SOURCE: Telegography; World Trade Organization; McKinsey Global Institute analysis