China’s Footprints on the Global Economy

Shaghil Ahmed*
Federal Reserve Board

Second IMF and Federal Reserve Bank of Atlanta Research Workshop on China’s Economy
FRB Atlanta, Atlanta, Ga: May 19, 2017

* The views expressed in this presentation are my own and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or any other person associated with the Federal Reserve System.
CHINA’S RISE
Double-digit growth for several decades

Real GDP Growth

Source: Haver Analytics.
CHINA’S RISE
Increased economic welfare

Growth of Real Per Capita Consumption*

<table>
<thead>
<tr>
<th>Period</th>
<th>Percent, annual rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-1994</td>
<td></td>
</tr>
<tr>
<td>1995-2001</td>
<td></td>
</tr>
<tr>
<td>2002-2008</td>
<td></td>
</tr>
<tr>
<td>2009-2015</td>
<td></td>
</tr>
</tbody>
</table>

* Private consumption only.
Source: Haver Analytics.
CHINA’S RISE

Strong export growth supported by export-led investment
CHINA’S RISE

Exports outpaced imports; buildup of large current account surplus
CHINA’S RISE

Lower consumption share of GDP than other EMEs

* Includes government consumption.
Source: Haver Analytics.
China: Endpoint of a giant Asian supply chain

CHINA’S RISE: SPILLOVERS

China*: Imports of Parts and Components
Percent of total manufactured imports

- Imports from the world
- Imports from Asia ex. China/Hong Kong
- Imports from the rest of the world

China*: Exports of Parts and Components
Percent of total manufactured exports

- Exports to the world
- Exports to Asia ex. China/Hong Kong
- Exports to the rest of the world

* Includes Hong Kong.
Source: FRB staff estimates based on United Nations Comtrade data.
China includes following selection in Comtrade: India, Indonesia,
Japan, Malaysia, Philippines, Singapore, South Korea, Thailand,
Vietnam, and Other Asia.
CHINA’S RISE: SPILLOVERS

China’s voracious appetite for commodities

China’s Share of Global Commodity Consumption

CHINA’S RISE: SPILLOVERS
Double-digit share of world trade now

China’s Share of World Trade

Source: IMF.
CHINA’S RISE: SPILLOVERS

China + other EMEs now account for more than ½ of world GDP
CHINA’S RISE: SPILLOVERS

Declining import content in Chinese exports...
CHINA’S RISE: SPILLOVERS

...Is reflected also in the changing nature of Chinese imports
CHINA’S RISE: SPILLOVERS

Rising share of consumption goods in imports but from low base

---

**China Imports from World**

- **Consumption goods**
- **Capital goods**
- **Intermediate goods**
- **Residual**

2005: 
- Consumption goods: 400
- Capital goods: 200
- Intermediate goods: 100
- Residual: 50

2006: 
- Consumption goods: 500
- Capital goods: 250
- Intermediate goods: 150
- Residual: 75

2007: 
- Consumption goods: 600
- Capital goods: 300
- Intermediate goods: 200
- Residual: 100

2008: 
- Consumption goods: 700
- Capital goods: 350
- Intermediate goods: 250
- Residual: 125

2009: 
- Consumption goods: 800
- Capital goods: 400
- Intermediate goods: 300
- Residual: 150

2010: 
- Consumption goods: 900
- Capital goods: 450
- Intermediate goods: 350
- Residual: 175

2011: 
- Consumption goods: 1000
- Capital goods: 500
- Intermediate goods: 400
- Residual: 200

2012: 
- Consumption goods: 1100
- Capital goods: 550
- Intermediate goods: 450
- Residual: 225

2013: 
- Consumption goods: 1200
- Capital goods: 600
- Intermediate goods: 500
- Residual: 250

2014: 
- Consumption goods: 1300
- Capital goods: 650
- Intermediate goods: 550
- Residual: 275

2015: 
- Consumption goods: 1400
- Capital goods: 700
- Intermediate goods: 600
- Residual: 300

*Imports are classified into consumption, capital, and intermediate goods according to the UN Broad Economic Categories classification system (Rev. 4). Consumption goods include the following: primary and processed food and beverages for household consumption, non-industrial transport equipment and parts and accessories, and durable and semi- and non-durable consumer goods not elsewhere specified. Source: United Nations Comtrade.*

---

**China’s Consumption Imports**

2005: 1.0%
2006: 1.5%
2007: 2.0%
2008: 2.5%
2009: 3.0%
2010: 3.5%
2011: 4.0%
2012: 4.5%
2013: 5.0%
2014: 5.5%
2015: 6.0%

*Source: United Nations Comtrade and Haver Analytics.*
CHINA’S RISE: SPILLOVERS

Services Imports: Strong Rise in Tourism

![Graph showing travel imports for different countries in 2015.](image)

![Graph showing percent of global tourism spending from 1996 to 2015.](image)

* Adjusted for disguised capital outflows (Wong, 2017).
Source: UN World Tourism Organization; FRB Staff Estimate.
CHINA’S RISE: SPILLOVERS

Effect of 3 percent China real GDP shock: Full sample

**GVAR**

Effect of China Shock* on China Growth
Deviation from baseline (percent)

1979:Q4 - 2011:Q2

* 3 percent shock.
Source: FRB staff estimates.

**Simple VAR**

Effect of China Shock* on China Growth
Deviation from baseline (percent)

1980:Q1 - 2016:Q4

* 3 percent shock.
Source: FRB staff estimates.
CHINA’S RISE: SPILLOVERS

Effect of 3 percent China real GDP shock: Simple VAR
Overinvestment and excess capacity

Contributions to Investment Growth

Source: Haver Analytics, China National Bureau of Statistics, and FRB staff estimates.
Massive credit boom, fueled increasingly by nontraditional credit.

*Total credit includes off-balance-sheet financing, trust loans, and net corporate debt/equity issuance. Source: Haver Analytics; FRB staff estimates.
CHINA AT A CROSSROADS: CHALLENGES

Slowing potential growth, but partly a result of catching up

* Curve fitted using annual data for the three countries.
* Source: Haver Analytics, Penn World Tables, and FRB staff estimates.
CHINA AT A CROSSROADS: CHALLENGES

Slowing potential: Headwinds from demographic changes

Demographic Trends

- 15-64 year olds
- 65+ year olds

 Dependencies ratio

*65+ as share of adult population.
Source: UN World Population Prospects.
CHINA SLOWDOWN: GLOBAL EFFECTS
FRB SIGMA Model + VAR results to quantify effects of China shock

- Some key features of SIGMA:
  - Open economy, GE model
  - Monetary policy follows Taylor rule (but with ZLB constraint)

- SIGMA consists of three blocks, calibrated to the U.S. economy, advanced foreign economies (AFEs), and EMEs

- To quantify China slowdown effects, need impact on other EMEs
  - Use VAR results to characterize spillovers through “standard” (mainly trade) channels = ½ the China response
CHINA SLOWDOWN: GLOBAL EFFECTS

Three scenarios examined

- Scenarios generated in SIGMA through shocks to exchange risk premium, confidence, corporate spreads, and interest rates
- Scenario 1: Moderate China slowdown with “standard trade” spillovers
- Scenario 2: China crisis also with “standard trade” spillovers:
- Scenario 3: China crisis with “extra financial” spillovers
  - EME response 1-to-1, rather than ½
CHINA SLOWDOWN: GLOBAL EFFECTS

China crisis would hit EMEs and AFEs hard; significant U.S. effect too
CHINA SLOWDOWN: GLOBAL EFFECTS

Inflation also falls; one key channel of transmission is the dollar.
CHINA SLOWDOWN: GLOBAL EFFECTS
AFE effects bigger now—more limited scope for monetary policy
CHINA: REDUCING VULNERABILITIES

- **Policies to reduce economy’s saving rate**
  - Increased social sector spending to reduce household precautionary savings
  - More dividend payouts by SOEs to reduce business savings

- **Less orientation of fiscal policies toward investment**

- **Reinvigorate the private sector as an engine of growth**
  - Reforms of SOEs are crucial

- **Continue progress toward exchange rate flexibility**