Trade Data

• not shown in class
  – growth as world trader
  – relative economic size
  – high domestic savings
    • low consumption
    • high investment
c. ... the world’s largest exporter ...
b. ...has made it the second-largest economy in the world...

Source: NBSC 2010; World Bank 2011b.
a. High savings will continue to be key to China’s rapid growth...
a. China is an outlier in consumption...

Not shown in class

– p 370- intl trade finance from China 2030
  • developing countries large share today, were not significant 20 years ago
  • China a large market for developed country industrial exports
  • large bilateral surpluses and (Korea) deficits
FIGURE 5.2  Growing share of developing countries in global growth (five-year moving average)

a. Low case

Contribution to global GDP growth as share of total (%)


China 2030
FIGURE 5.8  China’s share in industrial imports of the world’s 10 largest importers has increased
FIGURE 5.10b  China has a large trade surplus in industrial goods with major trading partners

China 2030
Macro Issues

• Source is 2013 IMF Article IV review of China
  – available annually for most countries
    • a good go-to for a quick overview of short-run issues
  – emphasis is short-run macro and intl finance
    • we thus need to keep in mind the long-term macro issues that we’ve emphasized this term, fertility and demographic dividends

• big downturn in 2009 with global crisis
  – but quick recovery: WHY?
China: Real GDP Growth
(In percent)

Staff estimates, q/q saar
Year-on-year
Official q/q saar

Sources: CEIC; and IMF staff estimates.
Links to rest of world

• Intl Capital controls and financial institutions are overwhelmingly domestic
  – so no financial spillover

• rather trade: exports collapsed
  – and not by a little: slowed growth by 5 percentage points, a huge hit [the US doesn’t grow 5%....!]

• but GDP growth back over 10% before start of CY2010
  – while EU, US were mired deep in recession
Growth in the first quarter was sluggish, with a strong contribution from consumption and weak capital formation...
Answer?

• We’d use monetary policy
  – but financial system still “shallow”
    • business investment uses direct finance
      – (borrowing from friends, retained earnings)
    • not financial intermediaries [= banks]
  – so monetary policy doesn’t reach
    • can’t make borrowing cheaper if businesses don’t borrow from banks!!
How about fiscal policy?

• But we’ve seen the short reach of Beijing on issue after issue

• Meanwhile
  – Local governments have no revenue sources
  – Fiscal transfers big but ... not used here

• So how work?
LGFVs

• Local government financial vehicles
  – investment funds tied to local government
  – in normal times land sales to finance concrete investments [pun intended]
• had access to financial institutions
  – so in 2008-9 could and did borrow
  – leading to the investment boom
  – and via the multiplier, overall macroeconomic growth: \( Y↑↑↑ \) [a lot]
• See data below
...while fixed asset investment (FAI), buoyed by infrastructure spending, has continued to grow at over 20 percent...

Real Fixed Asset Investment
(In percent, year-on-year)
China: Social Financing Stock
(In percent of GDP)\(^1\)

Nonfin. enterprise equity and other
- Entrusted loans, trust loans, bank acceptance, net corporate bond financing
- Bank loans
- Total

2003: 129
2008:Q4 129
2013:Q1 195
China’s stock of credit is among the highest in the world at its level of income...

**Net Domestic Credit and GDP per Capita**  
(Select economies, 2007-11 average)
..and is growing fast.

China: Social Financing Outstanding
(In percent of GDP)

1 In percent of 4Q rolling sum of quarterly GDP.
Nonbank intermediation has grown particularly rapidly, albeit from a small base...

Growth in Social Financing Flows
(In percent, yoy contribution)
...as alternative investment products offer more attractive yields, compared to traditional bank deposits.

**Interest Rates**
(In percent)

- 1-year benchmark deposit rate
- 3-month benchmark deposit rate
- Wealth management product interest rate: RMB fixed income
- Wealth management product interest rate: RMB floating income

Yearly data from 2006 to May 2013.
Lending to real estate is primarily for household mortgages and has slowed recently.

**Contribution to Real Estate Loan Growth**
(In percentage points, year-on-year)

1. Housing mortgage
2. Developer

---

1 In percent of 4Q rolling sum of quarterly GDP.
Other macro issues

• Inflation moderate, didn’t undermine
• but tendency to be higher than in US
  – agriculture
    • and food matters more in a poor country
  – service sector prices
    • productivity growth slow
      – but wages reflect overall economy
    • so when wages rise, so do service prices
      – : Balassa-Baumol effect

• issue common across developing economies
Inflation is moderate, while volatility has been driven primarily by agricultural supply shocks effecting food prices.
...and there has been only a modest increase in services share of GDP...

**China: GDP Shares by Sector**
(In percent of total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
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<tr>
<td>2011</td>
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<td>2000</td>
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</tr>
</tbody>
</table>

0% 20% 40% 60% 80% 100%

...although the tertiary share of employment has now inched up past the primary.

**China: Employment Shares by Sector**
(In percent of total employment)

- Primary
- Secondary
- Tertiary

short-run data

• trade surplus inching up
  – helped by piecemeal recovery in US
• so is the household savings rate
  – remember \( (S-I) + (T-G) = (X-M) \)
• house prices are rising steeply
  – end of finance boom hasn’t affected
  – a bubble?
The current account surplus edged-up last year and staff forecast a gradual rise over the medium term.
Exports had accelerated strongly, raising questions about whether this is capturing hidden capital inflows.
As non-FDI capital inflows have resumed recently, after registering net capital outflows last year...

**Trade, FDI, and Foreign Exchange Intervention**
(In USD billion)

- Non-FDI capital inflows (estimated using intervention proxy)
- Goods trade balance
- FDI utilized
- Intervention proxy (based on bank settlement data)
Household Saving Rate
(In percent)

- Household saving rate (flow of funds)
- Urban household saving rate
- Rural household saving rate

1 Rural household saving rate = (net income - living expenditure)/net income, percent; urban household saving rate = (disposable income - consumption)/disposable income, percent; household survey.
RMB appreciating lately

• .15/6.0 so about 2%
• in background are capital outflows under financial liberalization
Increase in Gross International Assets During Five Years Following Capital Account Liberalization\(^1\)
(In percent of GDP)

Sources: IMF IFS; and IMF staff calculations.
\(^1\) Data for the United Kingdom available only for year after capital account liberalization.
### Predicted Change in Portfolio Investment
(Percent of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Assets</th>
<th>Liabilities</th>
<th>Net Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohnsorge (2013)</td>
<td>15.4–24.9</td>
<td>1.7–9.9</td>
<td>10.7–18.1</td>
</tr>
<tr>
<td>He and others (2012)</td>
<td>21</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Sedik and Sun (2011)(^1)</td>
<td>3.25</td>
<td>2</td>
<td>1.25</td>
</tr>
</tbody>
</table>


\(^1\) Estimate applies to the aggregate of FDI, portfolio, and other investment flows.
LR issues

• As noted, China currently benefits from demographic dividends
  – but will then face a rapidly aging population
• fiscal system reforms needed
  – land sales large, unsustainable as remaining land less desirable with urban sprawl
  – but debt large and not transparent
• how clean up? reflects antirecession policies
  – inevitable Beijing must buy a lot of it
Demographic Pressures
(In millions)

- 25-39 years of age
- Less than 15 and greater than 64 years of age
Real GDP Growth and General Government Balance
(In percent)

China real GDP

World real GDP growth

China general government balance (% of GDP)

Sources: IMF, World Economic Outlook; and IMF staff estimates.
Financing Gap for Infrastructure Investment
(In percent of GDP)

Source: CEIC; and IMF staff estimates.
Augmented Net Borrowing and Fiscal Deficit
(In percent of GDP)

Sources: CEIC, Chinabond, EUROSTAT, China Citic Press, China Trustee Association, NAO, and the Ministry of Finance; and IMF staff estimates.
Land sales have been relatively more important for higher income provinces, which may have exacerbated regional inequality.

**Land Sales**
(Share of on-budget revenue; 2011)

Green: High Income Per Capita
Yellow: Middle Income Per Capita
Red: Low Income Per Capita

Sources: Soufun; CEIC; and IMF staff estimates.
...and land sales are an important source of revenue for servicing debt for many local governments.

Counties and Provinces Promising to Rapay Local Government Liability by Land Sales

(Share of cities)

Sources: NAO (2011); and IMF staff estimates.
Land values have risen considerably over time...

**Land Value**  
(In RMB million per hectare)

Sources: Liu, Shao and Zhou (2012); and IMF staff estimates.
Local Government Market Financing
(In percent of GDP)

Sources: CEIC, Chinabond, EUROSTAT, China Citic Press, China Trustee Association, NAO, and the Ministry of Finance; and IMF staff estimates.
Gross Issuance and Amortization of Corporate Bond by LGFVs\(^1\)

(In RMB bn)

\(^1\)LGFVs are urban construction investment companies, which were set up by local governments to finance their infrastructure and public entities projects. Source: Wind; and MF staff estimates.
Official and Staff Estimates of Land Sales Revenue
(In trillion)

Sources: CEIC; the Ministry of Finance; Soufun; and IMF staff estimates.
Decomposition of Gross Land Sales Proceeds: Costs and Uses
(In percent of GDP)

**Costs:**
- Compensation for farmers
- Cost of land development
- Compensation for land acquisition and residence relocation
- Other land sales administrative costs

**Uses:**
- Urban development
- Rural area infrastructure development
- Social housing
- Other Expenditures

Sources: Ministry of Finance; and IMF staff calculations.
So how measure fiscal position?

• Well, here are a few attempts
  – 30% level is hardly a burden in a rapidly growing economy
  – most LGFV debt not short-term
    • but only about 3 years’ breathing space

• meanwhile in LR need to
  – increase revenue to cover aging of Mao’s children
  – construct tax system to fund local government
  – deepen financial markets
Augmented Expenditure
(In percent of GDP)

- **WEO Budget Expenditure**
- **Adjustment for Spending Financed through GMFs**
- **Adjustment for Local Infrastructure Investment Financed through LGFVs**

Sources: CEIC; the Ministry of Finance; Soufun; and IMF staff estimates.
**Augmented Fiscal Deficit**

(In percent of GDP)

- **Augmented deficit: Financing approach**
- **Augmented deficit: Above-the-line approach**
- **General government deficit**

Sources: CEIC; Chinabond; EUROSTAT; China Citic Press; China Trustee Association; NAO; and the Ministry of Finance; and IMF staff estimates.
Augmented Public Debt Level
(In percent of GDP)

Sources: CEIC, Chinabond, EUROSTAT, China Citic Press, China Trustee Association, NAO, and the Ministry of Finance; and IMF staff estimates.
Maturity Structure of Corporate Bonds Issued to LGFVs

(In percent)

<table>
<thead>
<tr>
<th>Maturity Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>10</td>
</tr>
<tr>
<td>1-3 years</td>
<td>5</td>
</tr>
<tr>
<td>3-5 years</td>
<td>15</td>
</tr>
<tr>
<td>5-7 years</td>
<td>35</td>
</tr>
<tr>
<td>7-10 years</td>
<td>25</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: NAO (2011); and IMF staff estimates.
## Table 2. Profitability of LGVs by Levels of Government

<table>
<thead>
<tr>
<th>Level of government</th>
<th>Operating Profit/Total Profit (A)</th>
<th>Government Subsidy/total Profit (B)</th>
<th>Share of LGFVs with A&gt;B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Township</td>
<td>-2.57</td>
<td>100.17</td>
<td>21.15</td>
</tr>
<tr>
<td>City</td>
<td>-0.77</td>
<td>97.33</td>
<td>14.89</td>
</tr>
<tr>
<td>Capital city</td>
<td>3.76</td>
<td>84.9</td>
<td>30.56</td>
</tr>
<tr>
<td>Provinces</td>
<td>66.92</td>
<td>21.29</td>
<td>60</td>
</tr>
<tr>
<td>Municipalities</td>
<td>24.14</td>
<td>47.11</td>
<td>42.86</td>
</tr>
<tr>
<td>Total</td>
<td>4.12</td>
<td>89.19</td>
<td>22.31</td>
</tr>
</tbody>
</table>

Source: Ma (2012).
Table 3. Commercial Banks’ Holding of LGFV Loans

<table>
<thead>
<tr>
<th>Bank</th>
<th>LGFV Loans (CYN billion)</th>
<th>LGFV/Total Loans (In percent)</th>
<th>NPL (In percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Development Bank</td>
<td>5,500</td>
<td>66.7</td>
<td>0.25</td>
</tr>
<tr>
<td>Industrial Commercial Bank of China</td>
<td>931</td>
<td>8.7</td>
<td>1.09</td>
</tr>
<tr>
<td>Agriculture Bank of China</td>
<td>530.1</td>
<td>10.23</td>
<td>0.17</td>
</tr>
<tr>
<td>Bank of China</td>
<td>531.5</td>
<td>8.55</td>
<td>1.1</td>
</tr>
<tr>
<td>China Construction Bank</td>
<td>580</td>
<td>9.44</td>
<td>0.19</td>
</tr>
<tr>
<td>Bank of Communications</td>
<td>308.3</td>
<td>12.67</td>
<td>0</td>
</tr>
<tr>
<td>China Minsheng Banking Group</td>
<td>172.1</td>
<td>15.06</td>
<td></td>
</tr>
<tr>
<td>Shenzhen Development Bank</td>
<td>66</td>
<td>14.72</td>
<td>0.57</td>
</tr>
<tr>
<td>China Everbright Bank</td>
<td>94.9</td>
<td>11.5</td>
<td>0</td>
</tr>
<tr>
<td>Shanghai Pudong Development Bank</td>
<td>105</td>
<td>8.84</td>
<td></td>
</tr>
<tr>
<td>China Citic Bank</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Merchants Bank</td>
<td>124.6</td>
<td>8.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ma (2012).
Note: Amount by the second quarter of 2011.
Public Sector Balance Sheet
(In percent of GDP)

Assets
- External Assets
  - Natural resources
- For-profit non-financial corporations
- SOEs
  - Local government

Liabilities
- Social security liability
- AMCs and NPLs
- SOEs
- Policy bank debt
- External sector
- Local government
- Central government

Sources: Yang et al (2012); IMF staff estimates.
China: LGFV and Other Corporate Bond Issuance

1/ Includes bonds, medium-term notes, short-term commercial paper, and convertible bonds issued by enterprises and listed companies. Sources: Wind; and IMF staff calculations.