Class 16: China’s Financial System 中国金融系统
Financial Markets, Spring 2020, SAIF

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Outline

- China’s financial system is dominated by giant banks:
  - Banks’ total assets-to-GDP: close to 300% in China and 80% in the US.
  - Top four Chinese banks: each with total assets over $3T; JPMorgan at $2.74T.

- The magnitude of bank loans dwarfs that of the credit market:
  - Total bank loans at 157T CNY, including 98T extended to non-financial firms.
  - By comparison, market-based credit extended to non-financial firms: 27T.
  - Shadow banking, an extension of the banks, is estimated at 59T.

- Banks capture most of the household savings and investments:
  - Around 200T bank deposits, with 85T from residents.
  - Wealth management product at 23T, managed by banks and their subsidiaries.
  - By comparison, mutual funds are at 13T, including 8T money market funds.

- Banks also have unparalleled presence in capital markets, holding 67% of the 64T interbank-traded bonds (China bond depository balance).
The Chinese Financial System 中国金融系统
Credit Extension in China

As of Feb. 2020:

- **Total Bank Loan** 总贷款存量: 156.65 万亿.
  - 居民贷款: 54.85T.
  - 非金融企业贷款: 97.73T.

- **Total Bond Market** 债市总存量: 100.40 万亿.
  - Policy Banks: 15.98T.
  - Central Government: 16.79T.
  - Local Government: 22.57T.
  - 信用债 Credit: 34.61T.
    - 金融债 Financial: 7.45T.
    - 城投债 Chengtou: 9.37T.
    - 非金融非城投企业: 17.84T.

- **Shadow Banking** 影子银行: 59 万亿 (estimated).
March 2020

- Total Increase: 5.15T. (previously estimated: 3.14T)
- New yuan loans: 2.85T.
- Corp bond issuance: 1T.
- Government bond: 636B.
Chinese Banks, Assets to GDP (%)
The Presence of Banks in the Chinese and US Economies

**Chinese Banks, Assets to GDP (%)**

- **Top 6 Commercial Banks**
- **Joint-Stock Commercial Banks**
- **City Commercial Banks**
- **Other Depository Institutions**

**US Banks, Assets to GDP (%)**

- **All US Commercial Banks**
- **Top 25 Commercial Banks**
The Presence of Capital Markets in the Chinese and US Economies

GDP in USD Trillion

Ratio of Stock to GDP (%)

Ratio of Bond to GDP (%)

Ratio of Mutual Fund to Stock + Bond (%)
## Assets of Top Commercial Banks in China

<table>
<thead>
<tr>
<th>Top US Banks in USD</th>
<th>Top Chinese Banks in CNY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 JPMorgan Chase</td>
<td>中国工商银行 27.70T</td>
</tr>
<tr>
<td>2 Bank of America</td>
<td>中国建设银行 23.22T</td>
</tr>
<tr>
<td>3 Citigroup</td>
<td>中国农业银行 22.61T</td>
</tr>
<tr>
<td>4 Wells Fargo</td>
<td>中国银行 21.27T</td>
</tr>
<tr>
<td>5 Goldman Sachs</td>
<td>交通银行 9.53T</td>
</tr>
<tr>
<td>6 Morgan Stanley</td>
<td>中国邮政储蓄银行 9.51T</td>
</tr>
</tbody>
</table>

Numbers are as of end 2018.
Liabilities of Banks in China

Chinese Banks, Liabilities to GDP (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Top 6 Commercial Banks</th>
<th>Joint-Stock Commercial Banks</th>
<th>City Commercial Banks</th>
<th>Other Depository Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
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<td>2004</td>
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<td>2006</td>
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<td>2008</td>
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<td>2010</td>
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<td>2012</td>
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<td>2014</td>
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<td>2016</td>
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<td>2018</td>
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<td>2020</td>
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</tbody>
</table>

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Capital Adequacy

Chinese Banks, Equity to Assets (%)
- Top 6 Commercial Banks
- Joint-Stock Commercial Banks
- City Commercial Banks

US Banks, Equity to Assets (%)
- US Commercial Banks
- Top 25 Commercial Banks
Core Drivers of Assets and Liabilities, JPM vs ICBC

<table>
<thead>
<tr>
<th></th>
<th>JPM (USD)</th>
<th>ICBC (USD)</th>
<th>ICBC (CNY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>2.69</td>
<td>4.32</td>
<td>30.1</td>
</tr>
<tr>
<td>Loans</td>
<td>0.95</td>
<td>2.34</td>
<td>16.3</td>
</tr>
<tr>
<td>Liabilities</td>
<td>2.42</td>
<td>3.94</td>
<td>27.4</td>
</tr>
<tr>
<td>Deposits</td>
<td>1.56</td>
<td>3.30</td>
<td>23.0</td>
</tr>
</tbody>
</table>

as of end 2019

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Core Drivers of Assets and Liabilities, US Banks

- **US Banks, Loan to Assets (%)**
- **US Banks, Securities to Assets (%)**
- **US Banks, Deposits to Liabilities (%)**
- **US Banks, Debt to Liabilities (%)**

### Key Statistics (as of 2020/2)

<table>
<thead>
<tr>
<th>Category</th>
<th>All</th>
<th>Top25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>15.73</td>
<td>10.33</td>
</tr>
<tr>
<td>Loans</td>
<td>9.32</td>
<td>5.58</td>
</tr>
<tr>
<td>Liabilities</td>
<td>13.72</td>
<td>8.99</td>
</tr>
<tr>
<td>Deposits</td>
<td>12.30</td>
<td>8.00</td>
</tr>
</tbody>
</table>

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Nonperforming Loans in China

- **China, Q4 2019 (latest):**
  - NPL: 2.41T CNY.
  - NPL ratio: 1.83%.

- **US NPL ratios:**
  - 0.86% Q3 2019 (latest).
  - 4.99% Q1 2010.

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As of Apr 2020:
- ICBC: 0.73.
- CCB: 0.68.
- BOC: 0.48.
- Citic: 0.39.
- Merchant: 1.40.
- Ping An: 0.91.
- JPM: 1.35.
- Goldman Sachs: 0.81.
- Morgan Stanely: 0.90.
Shadow Banking in China

- **Why?** State-owned banks facing increasing competitions:
  - Interest rate liberalization.
  - Private-owned banks.
- **How?** Regulatory arbitrage by moving capital off balance sheet to avoid:
  - Regulatory requirements.
  - Mechanisms includes 各类通道，委外管理人.
- **From where?** Funding sources:
  - Savings diverted from bank deposits to wealth management products.
- **To where?** Assets on:
  - Small-medium enterprises.
  - 受监管限制行业企业: 房地产，地方政府融资平台，两高一剩行业.
  - 权益、非标等资产.
# Estimates of Shadow Banking Size by Moody's

<table>
<thead>
<tr>
<th>Credit Intermediation Products</th>
<th>End-2019Q3 (RMB trillion)</th>
<th>As % of total banking assets (%)</th>
<th>End-2018 (RMB trillion)</th>
<th>As % of total banking assets (%)</th>
<th>End-2017 (RMB trillion)</th>
<th>As % of total banking assets (%)</th>
<th>End-2016 (RMB trillion)</th>
<th>As % of total banking assets (%)</th>
<th>End-2015 (RMB trillion)</th>
<th>As % of total banking assets (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrusted loans</td>
<td>11.7</td>
<td>4.2</td>
<td>12.4</td>
<td>4.7</td>
<td>14.0</td>
<td>5.7</td>
<td>13.2</td>
<td>5.8</td>
<td>10.9</td>
<td>5.6</td>
</tr>
<tr>
<td>Trust loans</td>
<td>7.7</td>
<td>2.8</td>
<td>7.9</td>
<td>3.0</td>
<td>8.5</td>
<td>3.5</td>
<td>6.3</td>
<td>2.8</td>
<td>5.4</td>
<td>2.8</td>
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<tr>
<td>Undiscounted bankers’ acceptances</td>
<td>3.3</td>
<td>1.2</td>
<td>3.8</td>
<td>1.5</td>
<td>4.4</td>
<td>1.8</td>
<td>3.9</td>
<td>1.7</td>
<td>5.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Assets funded by WMPs/AMPs</td>
<td>23.4</td>
<td>8.4</td>
<td>24.4</td>
<td>9.3</td>
<td>26.5</td>
<td>10.8</td>
<td>30.1</td>
<td>13.3</td>
<td>21.4</td>
<td>11.1</td>
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<tr>
<td>Banks’ off-balance sheet</td>
<td>16.1</td>
<td>5.8</td>
<td>15.8</td>
<td>6.1</td>
<td>15.2</td>
<td>6.2</td>
<td>17.1</td>
<td>7.5</td>
<td>12.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Securities firms and funds</td>
<td>7.3</td>
<td>2.6</td>
<td>8.6</td>
<td>3.3</td>
<td>11.3</td>
<td>4.6</td>
<td>13.0</td>
<td>5.8</td>
<td>9.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Loans by finance companies</td>
<td>3.3</td>
<td>1.2</td>
<td>3.2</td>
<td>1.2</td>
<td>3.1</td>
<td>1.3</td>
<td>3.0</td>
<td>1.3</td>
<td>2.6</td>
<td>1.3</td>
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<tr>
<td>Informal lending*</td>
<td>3.4</td>
<td>1.2</td>
<td>3.4</td>
<td>1.3</td>
<td>3.4</td>
<td>1.4</td>
<td>3.4</td>
<td>1.5</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Others†</td>
<td>6.5</td>
<td>2.3</td>
<td>6.3</td>
<td>2.4</td>
<td>5.8</td>
<td>2.3</td>
<td>4.6</td>
<td>2.0</td>
<td>3.8</td>
<td>2.0</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>59.2</strong></td>
<td><strong>21.4</strong></td>
<td><strong>61.3</strong></td>
<td><strong>23.5</strong></td>
<td><strong>65.6</strong></td>
<td><strong>26.7</strong></td>
<td><strong>64.5</strong></td>
<td><strong>28.5</strong></td>
<td><strong>53.3</strong></td>
<td><strong>27.5</strong></td>
</tr>
</tbody>
</table>
The Main Takeaways