Economic and financial developments in the US since the 2007-2008 crisis

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Financialization - New Trends and Directions of Development

9-10 June 2017, Rzeszow
Weak recovery
US economic growth
Change in real GDP over 4 quarters

Average 3.1%
Merger & takeover boom

Average 3.3%
Information technology boom

Average 2.4%
House price boom

Average 1.5%
Quantitative easing / Low wage jobs

Source: BEA, National Income and Product Accounts, Table 1.1.11, Shaded areas show NBER designated recessions
US government current income and expenditure, % GDP

Source: BEA, National Income and Product Accounts, Table 3.1, Shaded areas show NBER designated recessions
US monetary authority assets (% GDP)

Nonfinancial business
US fixed investment, % GDP

**Source:** BEA, National Income and Product Accounts, Table 1.1.5. Shaded areas show NBER designated recessions.
US: Growth of labour productivity per hour worked (%)

Source: The Conference Board, Total Economy Database, May 2017
US corporate profits, % national income

Source: BEA, National Income and Product Accounts, Table 1.14. Shaded areas show NBER designated recessions.
US nonfinancial corporations outstanding debt, % GDP

Source: Federal Reserve, Financial Accounts, Table D3, Series LA104104005.Q. Shaded areas show NBER designated recessions.
US nonfinancial corporations
Dividend payments, equity repurchase & fixed investment (% GDP)

Source: Federal Reserve, Financial Accounts, Table F 103. Shaded areas show NBER designated recessions.
The debt service burden for the corporate sector as a whole has risen strikingly despite low rates.

1. Corporate Debt Service and Interest Rates

Households
High-wage earners have continued to pull away from everyone else in the 2000s

Cumulative percent change in real hourly wages, by wage percentile, 2000–2016

Note: Sample based on all workers age 18–64. The xth-percentile wage is the wage at which x% of wage earners earn less and (100 - x)% earn more.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

Economic Policy Institute
Banks
Industry Concentration

Assets of the 5, 10, and 50 largest firms as % of total industry assets

Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 35
### Top 10 bank holding companies, 2010

<table>
<thead>
<tr>
<th>Name</th>
<th>Banks</th>
<th>Nonbanks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of America</td>
<td>117</td>
<td>166</td>
</tr>
<tr>
<td>JPMorgan Chase</td>
<td>81</td>
<td>97</td>
</tr>
<tr>
<td>Citigroup</td>
<td>5</td>
<td>108</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>305</td>
<td>244</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>0</td>
<td>89</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>MetLife</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>U. S. Bancorp</td>
<td>126</td>
<td>96</td>
</tr>
<tr>
<td>PNC Financial Services Group</td>
<td>69</td>
<td>117</td>
</tr>
<tr>
<td>Bank of New York Mellon</td>
<td>6</td>
<td>98</td>
</tr>
</tbody>
</table>

## Largest US bank holding companies, 2016

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name of Institution</th>
<th>Total Assets (Bil USD)</th>
<th>Quarterly Net Income (Mil USD)</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JPMORGAN CHASE &amp; CO</td>
<td>2,491.0</td>
<td>6,727.0</td>
<td>1.08</td>
</tr>
<tr>
<td>2</td>
<td>BANK OF AMER CORP</td>
<td>2,189.3</td>
<td>4,696.0</td>
<td>0.86</td>
</tr>
<tr>
<td>3</td>
<td>WELLS FARGO &amp; CO</td>
<td>1,930.1</td>
<td>5,274.0</td>
<td>1.09</td>
</tr>
<tr>
<td>4</td>
<td>CITIGROUP</td>
<td>1,792.1</td>
<td>3,573.0</td>
<td>0.80</td>
</tr>
<tr>
<td>5</td>
<td>GOLDMAN SACHS GROUP THE</td>
<td>860.2</td>
<td>2,347.0</td>
<td>1.09</td>
</tr>
<tr>
<td>6</td>
<td>MORGAN STANLEY</td>
<td>814.9</td>
<td>1,666.0</td>
<td>0.82</td>
</tr>
<tr>
<td>7</td>
<td>US BC</td>
<td>446.0</td>
<td>1,478.0</td>
<td>1.33</td>
</tr>
<tr>
<td>8</td>
<td>PNC FNCL SVC GROUP</td>
<td>366.9</td>
<td>1,026.0</td>
<td>1.12</td>
</tr>
<tr>
<td>9</td>
<td>CAPITAL ONE FC</td>
<td>357.2</td>
<td>791.5</td>
<td>0.89</td>
</tr>
<tr>
<td>10</td>
<td>TD GRP US HOLDS LLC</td>
<td>343.9</td>
<td>414.8</td>
<td>0.48</td>
</tr>
<tr>
<td></td>
<td><strong>TOTALS</strong></td>
<td><strong>16,340.9</strong></td>
<td><strong>32,298.1</strong></td>
<td><strong>0.79</strong></td>
</tr>
<tr>
<td></td>
<td><strong>ALL INSTITUTIONS (BHCS AND BANKS)</strong></td>
<td><strong>19,831.0</strong></td>
<td><strong>40,825.6</strong></td>
<td><strong>0.82</strong></td>
</tr>
</tbody>
</table>

Return on Equity

Annualized net income as % of equity

Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 12
Loan Growth Rate

Year-over-year % change in total loans

Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 33
US bank liabilities

Source: Federal Reserve Board, Financial Accounts of the United States, Tables L110
US depository institutions loans, $ trillions

Source: Federal Reserve Board, *Financial Accounts of the United States*, Tables L110, 2016 Q4
Non-performing Commercial and Industrial (C&I) Loans

Non-performing C&I loans as % of C&I loans

Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 17
Shadow banks
US shadow bank liabilities, % GDP

Source: Federal Reserve Board, Financial Accounts of the United States, Tables L110 & L121 – L130, 2016 Q4, following Poszar et al, 2010
## Shadow credit intermediation

<table>
<thead>
<tr>
<th>Step</th>
<th>Function</th>
<th>Shadow Banks</th>
<th>Shadow Banks' Funding*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Loan Origination</td>
<td>Finance companies</td>
<td>CP, MTNs, bonds</td>
</tr>
<tr>
<td>2</td>
<td>Loan Warehousing</td>
<td>Single and multi-seller conduits</td>
<td>ABCP</td>
</tr>
<tr>
<td>3</td>
<td>ABS Issuance</td>
<td>SPVs, structured by broker-dealers</td>
<td>ABS</td>
</tr>
<tr>
<td>4</td>
<td>ABS Warehousing</td>
<td>Hybrid, TRS/repo conduits, broker-dealers' trading books</td>
<td>ABCP, repo</td>
</tr>
<tr>
<td>5</td>
<td>ABS CDO Issuance</td>
<td>SPVs, structured by broker-dealers</td>
<td>ABS CDOs, CDO-squareds</td>
</tr>
<tr>
<td>6</td>
<td>ABS Intermediation</td>
<td>LPFCs, SIVs, securities arbitrage conduits, credit hedge funds</td>
<td>ABCP, MTN, repo</td>
</tr>
<tr>
<td>7</td>
<td>Wholesale Funding</td>
<td>2(a)-7 MMMFs, enhanced cash funds, securities lenders, etc</td>
<td>$1 NAV shares (shadow bank &quot;deposits&quot;)</td>
</tr>
</tbody>
</table>

*Funding types highlighted in red denote securitized funding techniques. Securitized funding techniques are not synonymous with secured funding.*

*Source: Poszar et al, Shadow Banking, FRBNY Staff Report No. 458, February 2012, p.11*
Shadow bank liabilities, $ trillion

# Federal Reserve’s Emergency Lending Facilities

<table>
<thead>
<tr>
<th>Facility</th>
<th>Aim</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Paper Funding Facility</td>
<td>Backstop of CP and ABCP issuance (steps 1 &amp; 2 of shadow credit process)</td>
<td>Oct 07 – Aug 10</td>
</tr>
<tr>
<td>Term Asset Backed Loan Facility</td>
<td>Backstop of ABS issuance (step 3)</td>
<td>Mar 09 – Jun 10</td>
</tr>
<tr>
<td>Maiden Lane LLC</td>
<td>Backstop Bear Sterns’ ABS</td>
<td>Apr 08 – Jun 10</td>
</tr>
<tr>
<td>Term Securities Lending Facility</td>
<td>Improve quality of broker-dealers securities warehouses (step 4)</td>
<td>Mar 08 – Feb 10</td>
</tr>
<tr>
<td>Maiden Lane III LCC</td>
<td>Backstop AIG financial products (step 5)</td>
<td>Oct 10 – Aug 12</td>
</tr>
<tr>
<td>Term Auction Facility</td>
<td>‘Onboarding’ of off-balance ABS with SIVs &amp; conduits (step 6)</td>
<td>Jul 08 – Mar 10</td>
</tr>
<tr>
<td>Primary Dealer Credit Facility</td>
<td>Backstop tri-party repo system involving MMMF (step 7)</td>
<td>Mar 08 – Feb 10</td>
</tr>
</tbody>
</table>

*Source: Poszar et al, Shadow Banking, FRBNY Staff Report No. 458, February 2012 & Federal Reserve Board, various, for dates*
‘Risks are elevated in the non-bank sector, where “run” and “redemption” risks are increasing as a result of leverage and maturity transformation and deeply interconnected wholesale funding chains ... the protracted low-interest rate environment is again driving the search for yield’

*IMF, US financial system stability assessment, July 2015*

“I worry a little bit about the fact that we in the United States do not have very good mechanisms for dealing with the nonbank sector, the shadow banking system,”

*Stanley Fisher, Federal Reserve Vice Chair, IFF Oct 2016*
Financial markets
US nonfinancial business corporate borrowing, % GDP

Source: Federal Reserve Board, *Financial Accounts of the United States*, Tables L101, 2016 Q4
Source: Federal Reserve Board, Financial Accounts of the United States, Tables L.101 & L.106, 2016 Q4
Summary

• Leading indicators (profit share, investment) suggest expansion could be coming to end

• Corporate sector highly indebted due to large pay-outs to shareholders

• Household indebtedness declined, but exposure to consumer credit rising

• Banking sector has raised capital reserves, but still low and rules very complex

• Shadow banking taking increasing risks; beginning to expand again but vulnerable