



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

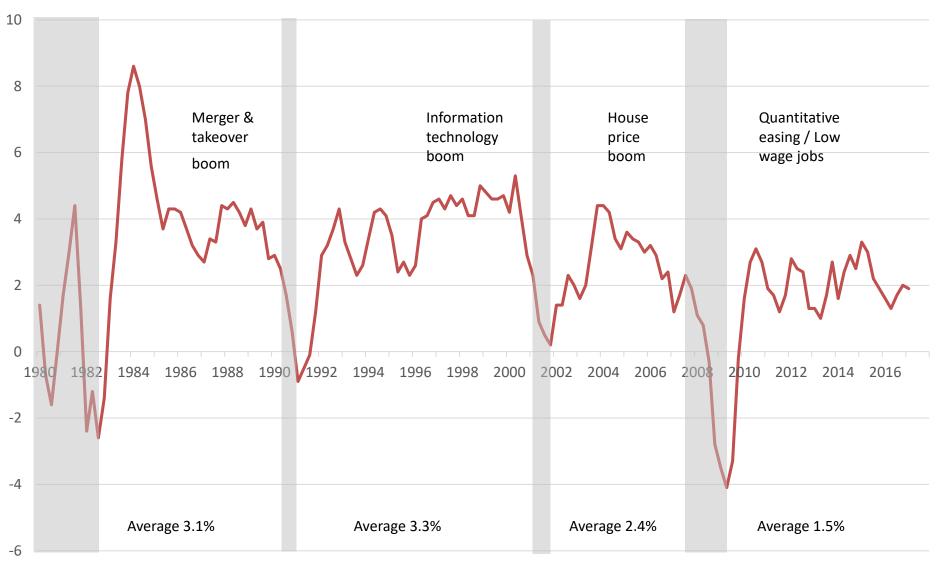
Trevor Evans

Financialization - New Trends and Directions of Development 9-10 June 2017, Rzeszow

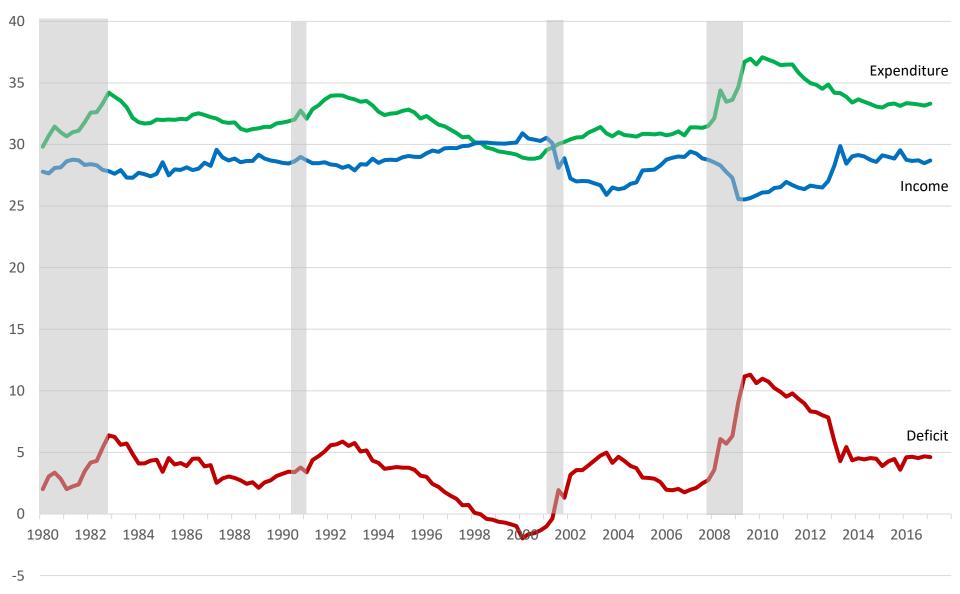
Weak recovery

US economic growth

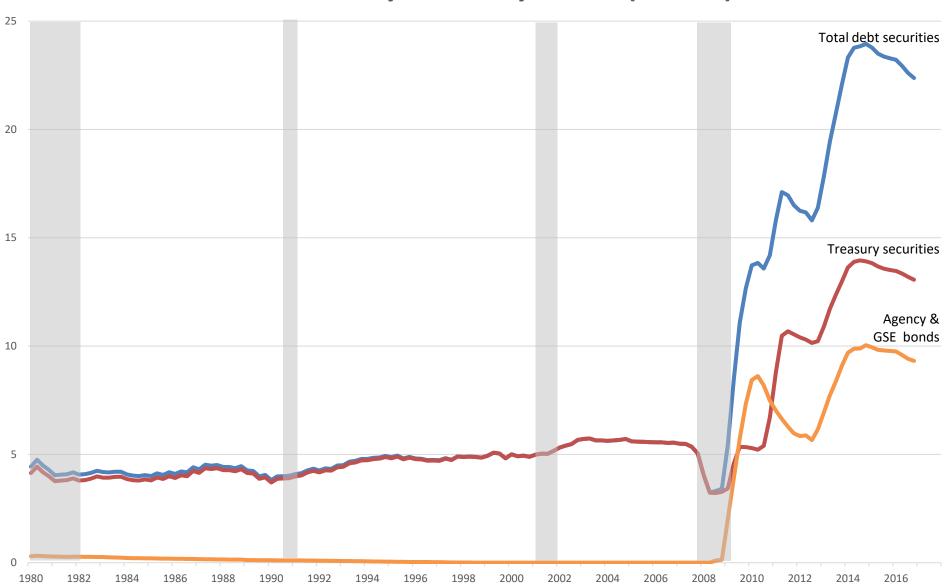
Change in real GDP over 4 quarters



US government current income and expenditure, % GDP



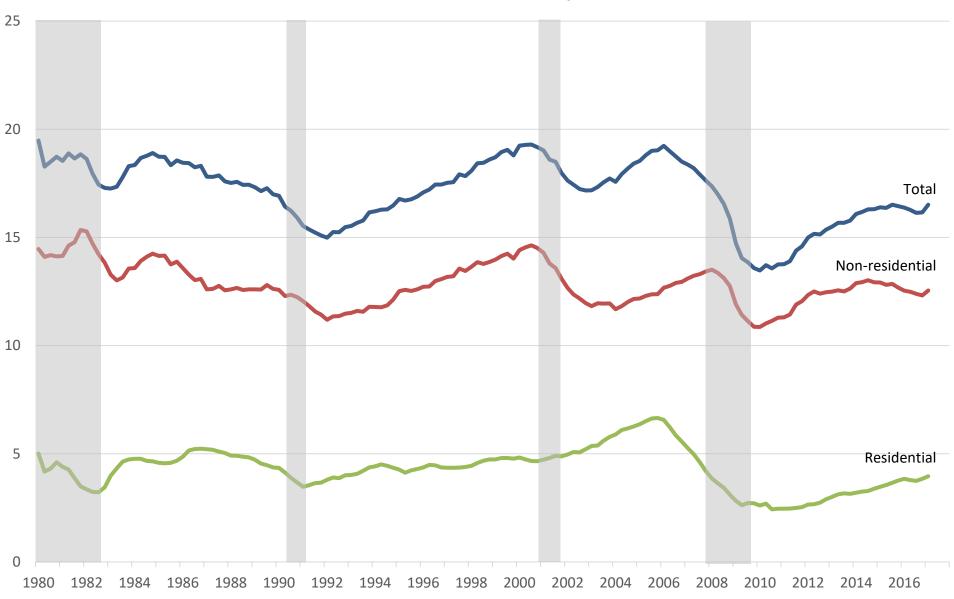
US monetary authority assets (% GDP)



Source: Federal Reserve, Financial Accounts, Table L 109. Shaded areas show NBER designated recessions.

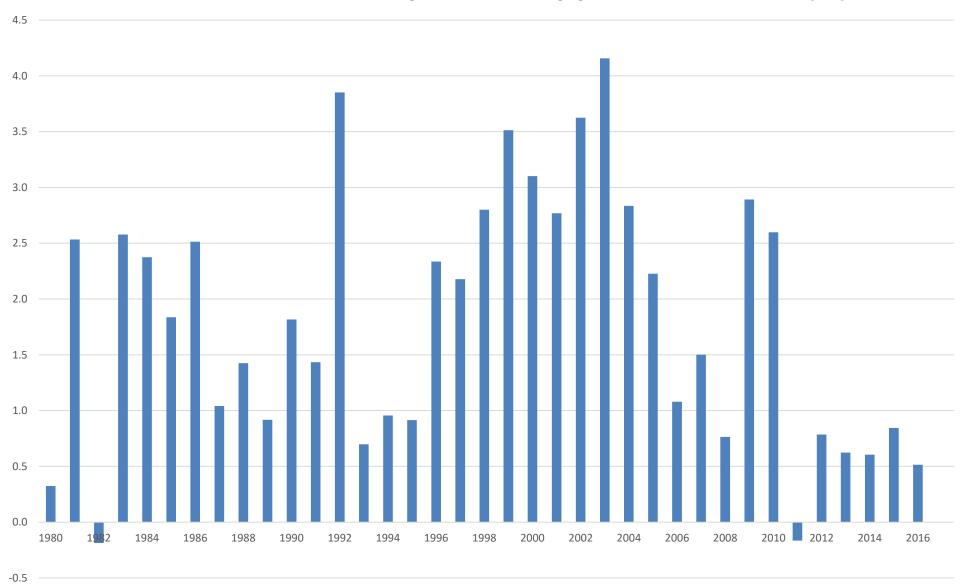
Nonfinancial business

US fixed investment, % GDP

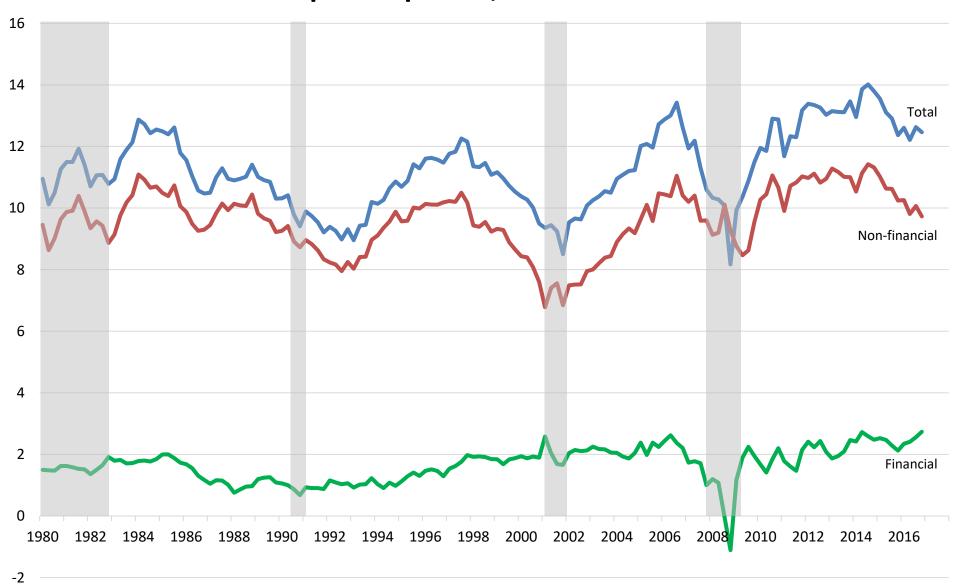


Source: BEA, National Income and Product Accounts, Table 1.1.5. Shaded areas show NBER designated recessions.

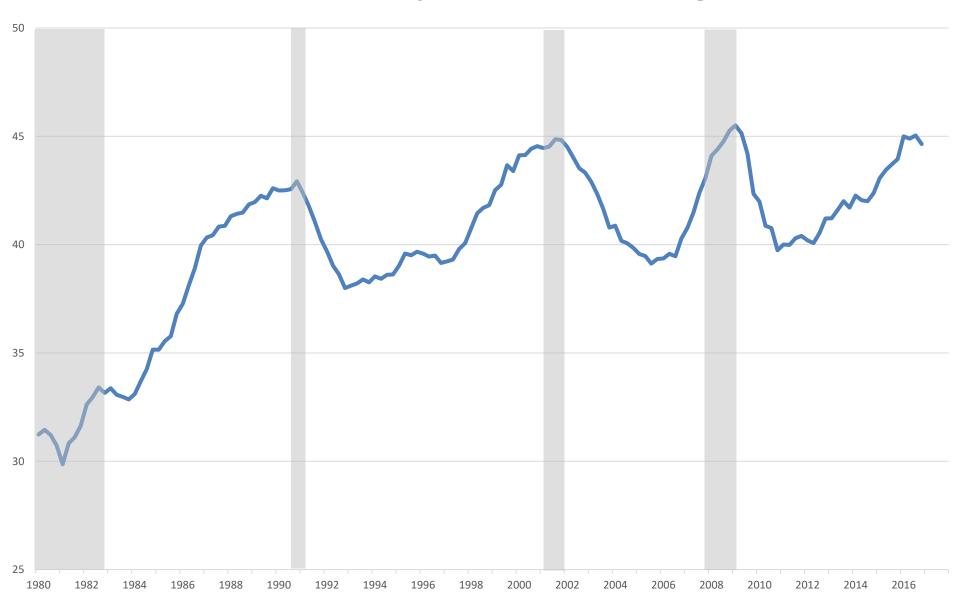
US: Growth of labour productivity per hour worked (%)



US corporate profits, % national income

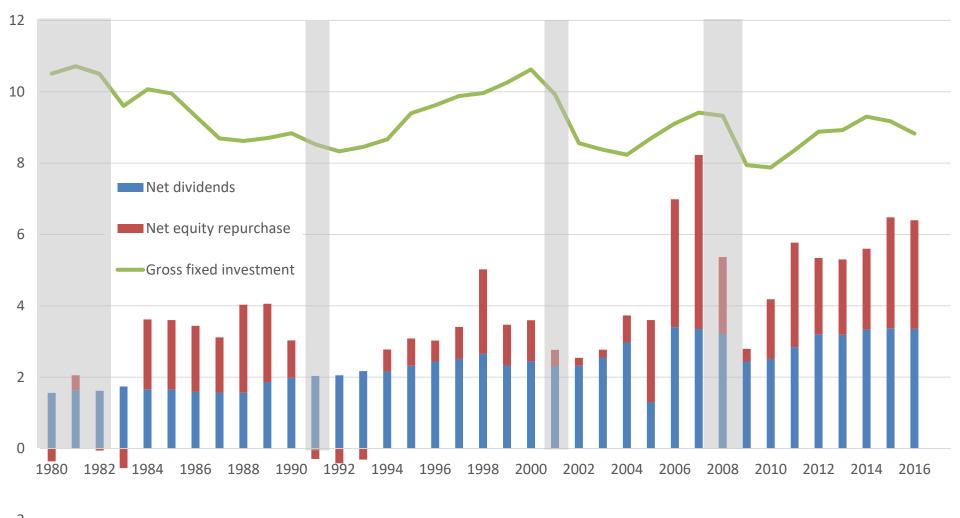


US nonfinancial corporations outstanding debt, % GDP



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)

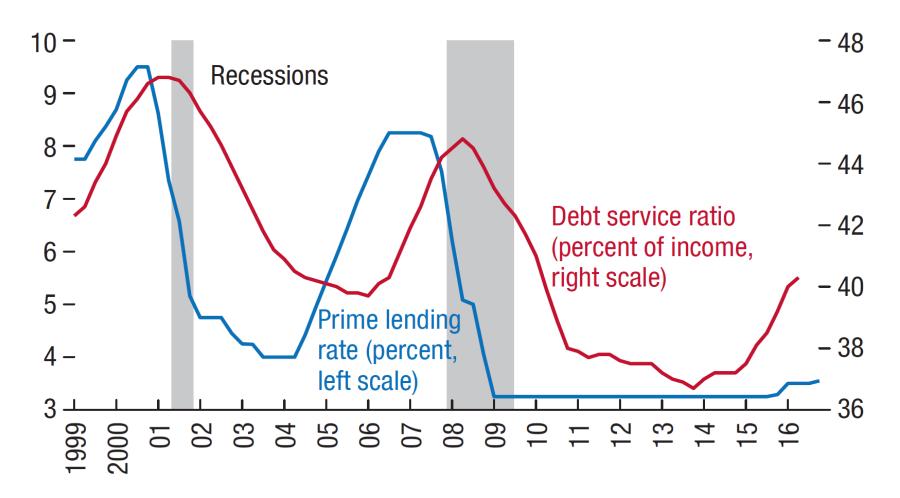


Shiller price-earnings ratio S&P 500

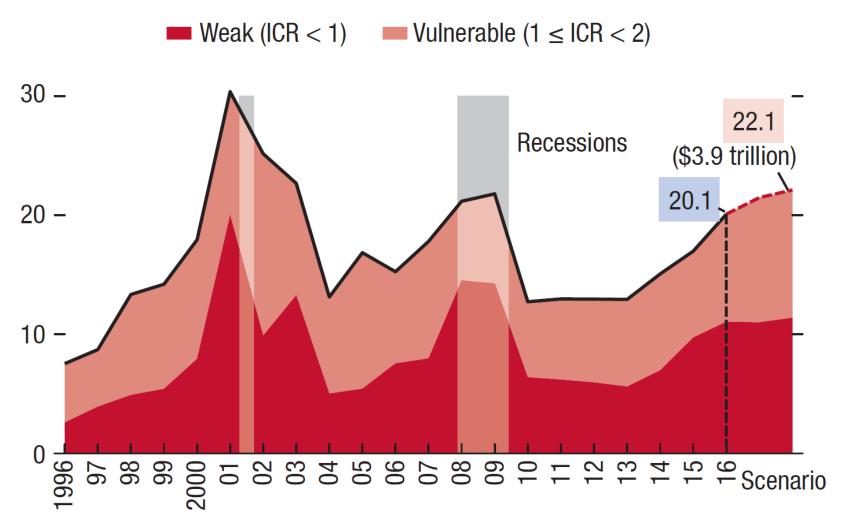


The debt service burden for the corporate sector as a whole has risen strikingly despite low rates.

1. Corporate Debt Service and Interest Rates



5. Percentage of "Challenged" Firms (Percent of total assets)

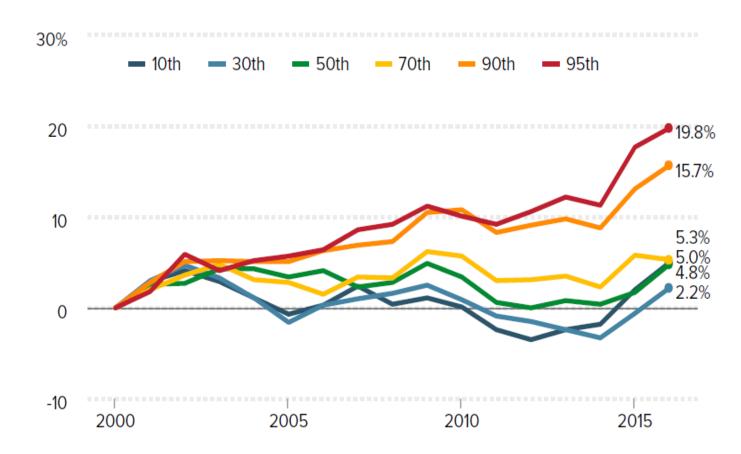


Source: IMF, Global Financial Stability Report, April 2017, p. 12

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

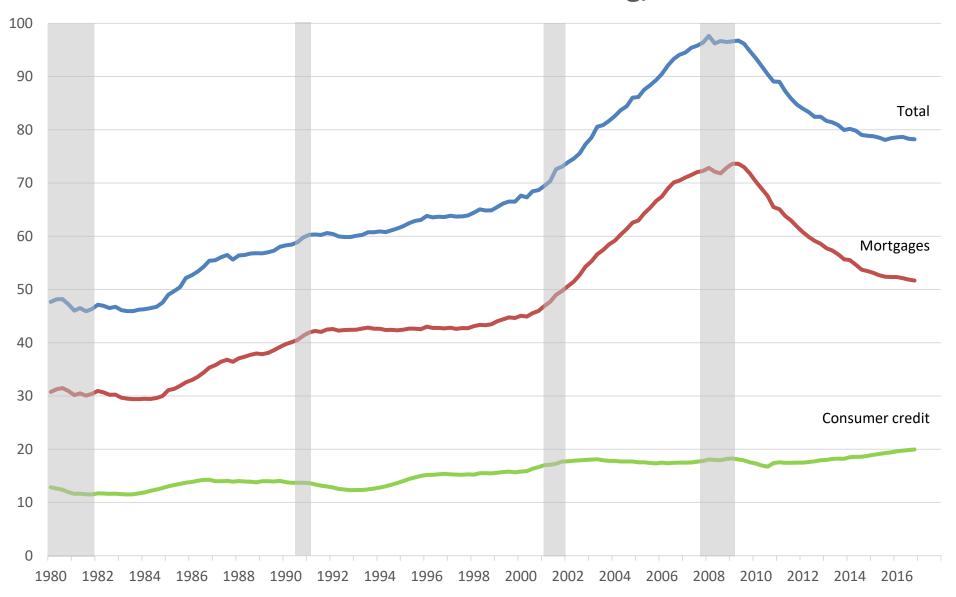


Note: Sample based on all workers age 18–64. The xth-percentile wage is the wage at which x% of wage earners earn less and (100 - x)% earn more.

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

Economic Policy Institute

US household debt outstanding, % GDP

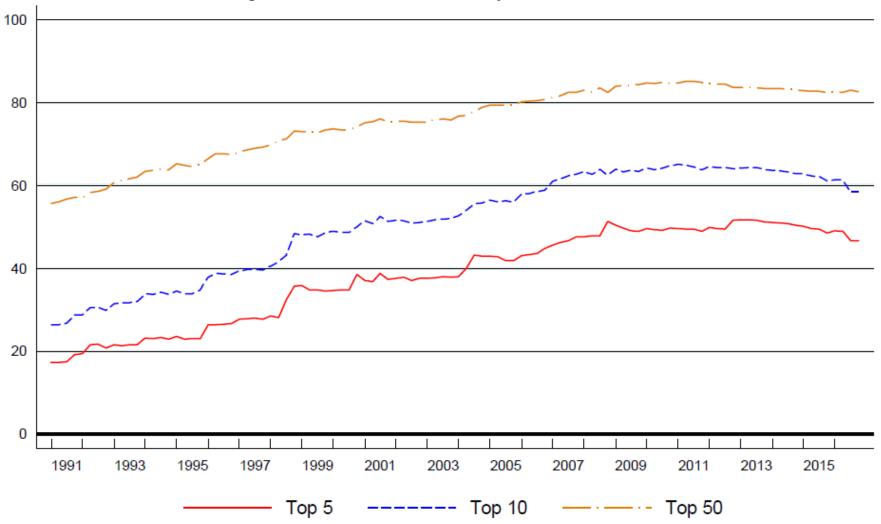


Source: Federal Reserve, Financial Accounts, Table L 101. Shaded areas show NBER designated recessions.

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

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

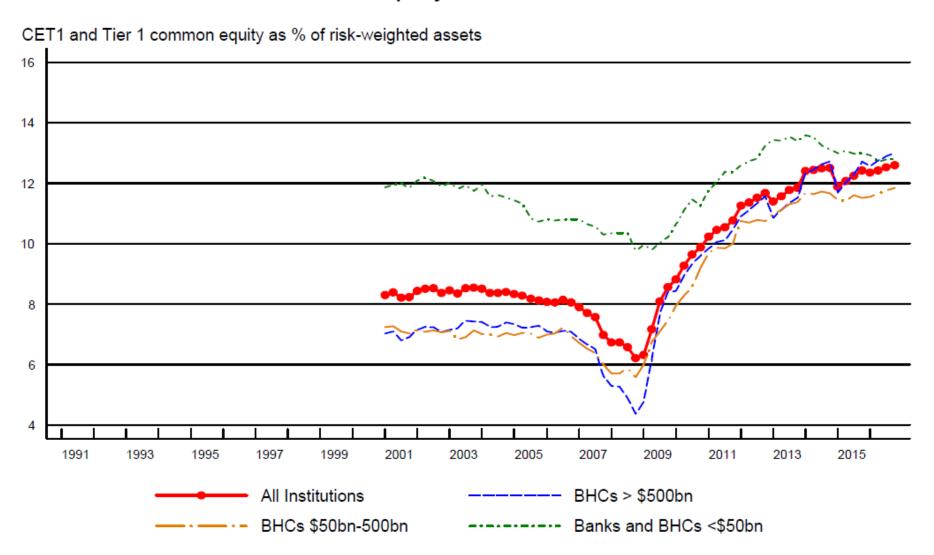
Source: Cetorelli et al, The Evolution of Bank Complexity, FRBNY Economic Policy Review, December 2014, pp. 103

Largest US bank holding companies, 2016

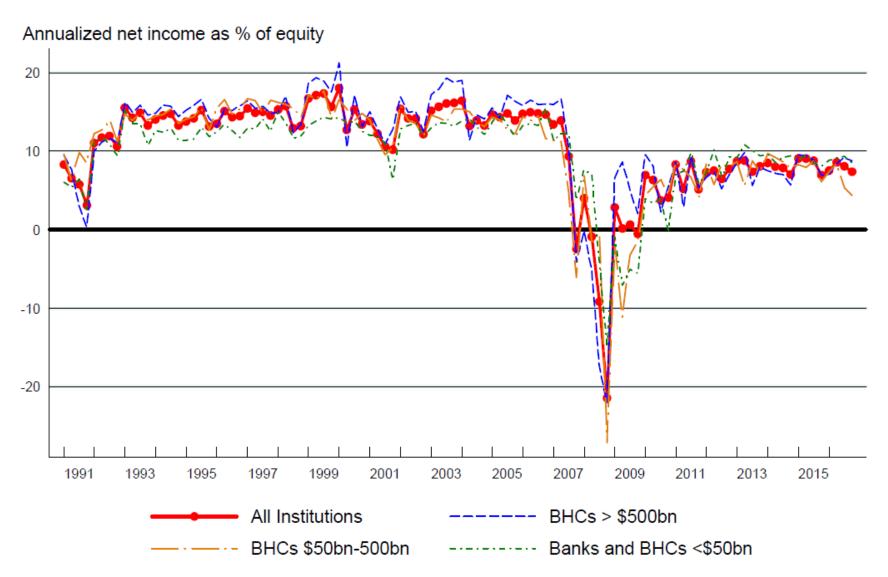
	Name of Institution		Quarterly	Profitability	
Rank		Total Assets	Net Income	Annualized	Annualized
		(Bil USD)	(Mil USD)	Return on	Return on
				Assets	Equity
1	JPMORGAN CHASE & CO	2,491.0	6,727.0	1.08	10.59
2	BANK OF AMER CORP	2,189.3	4,696.0	0.86	7.04
3	WELLS FARGO & CO	1,930.1	5,274.0	1.09	10.57
4	CITIGROUP	1,792.1	3,573.0	0.80	6.35
5	GOLDMAN SACHS GROUP THE	860.2	2,347.0	1.09	10.80
6	MORGAN STANLEY	814.9	1,666.0	0.82	8.76
7	USBC	446.0	1,478.0	1.33	12.50
8	PNC FNCL SVC GROUP	366.9	1,026.0	1.12	8.98
9	CAPITAL ONE FC	357.2	791.5	0.89	6.66
10	TD GRP US HOLDS LLC	343.9	414.8	0.48	4.23
TOTALS*	TOP 50	16,340.9	32,298.1	0.79	7.07
	ALL INSTITUTIONS (BHCS AND BANKS)	19,831.0	40,825.6	0.82	7.37

Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 36

CET1 and Tier 1 Common Equity Ratio

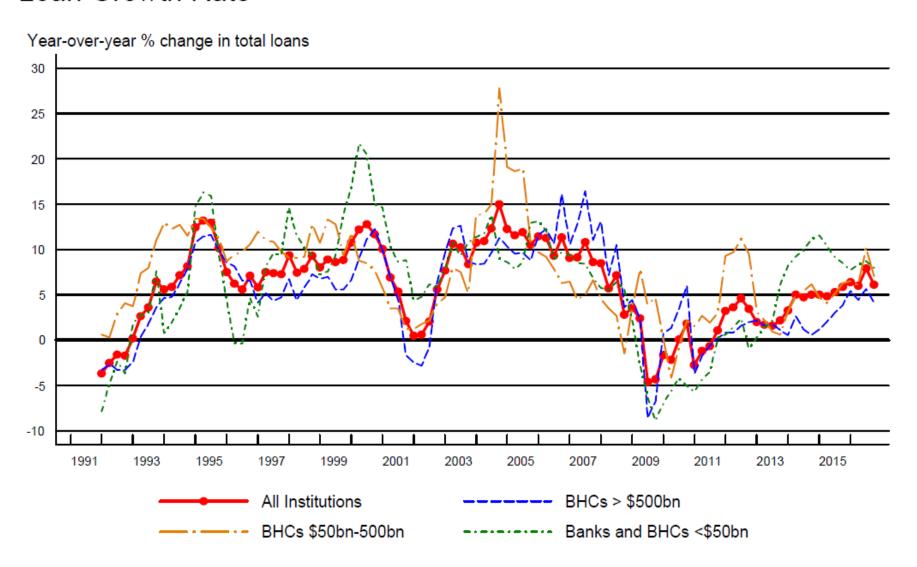


Return on Equity



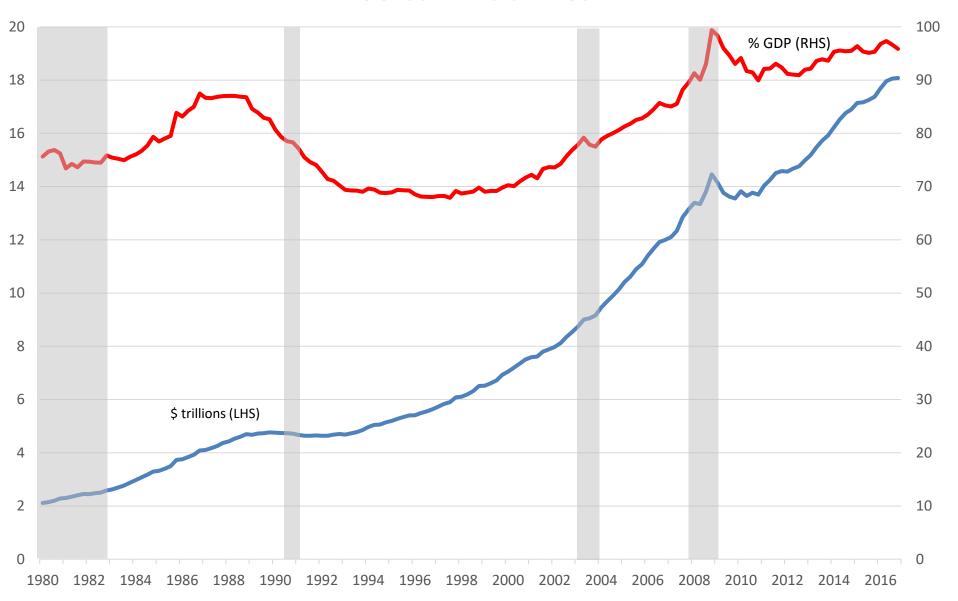
Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 12

Loan Growth Rate



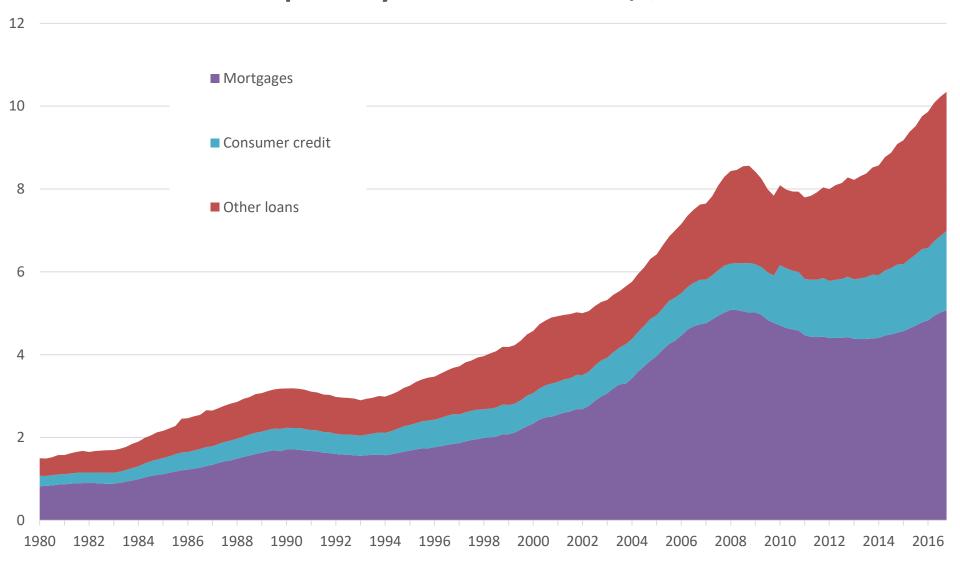
Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 33

US bank liabilities

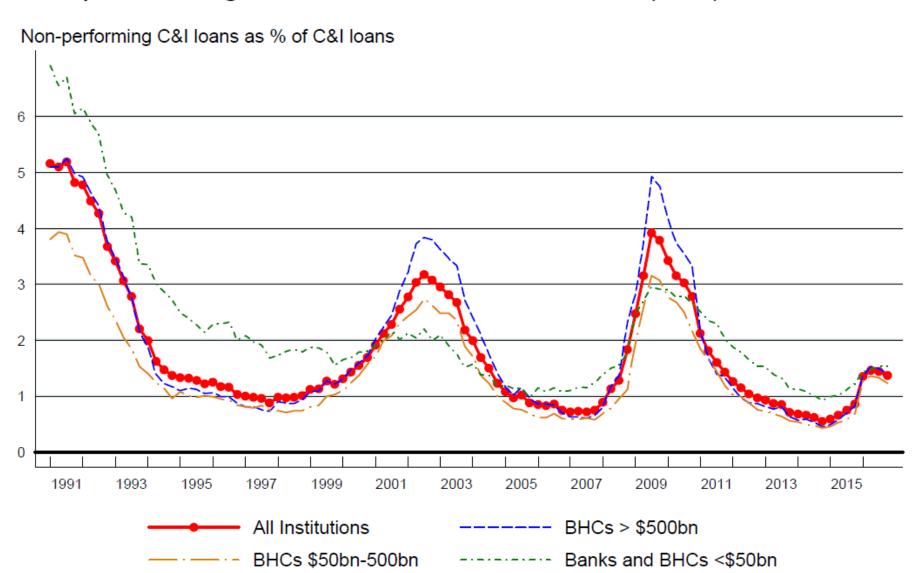


Source: Federal Reserve Board, Financial Accounts of the United States, Tables L110

US depository institutions loans, \$ trillions



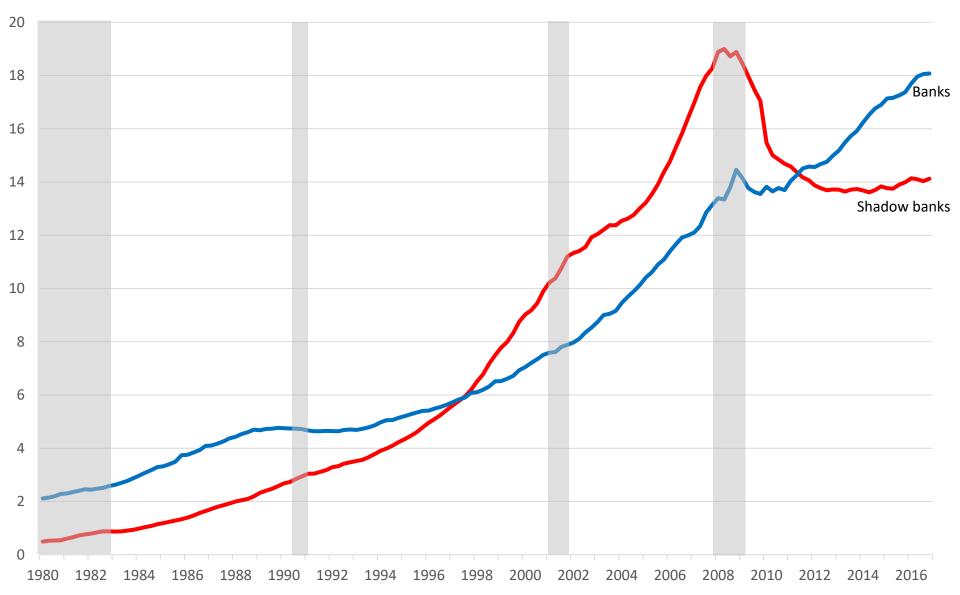
Non-performing Commercial and Industrial (C&I) Loans



Source: Federal Reserve Bank of New York, Quarterly Trends for Consolidated U.S. Banking Organizations, Q4 2016, p. 17

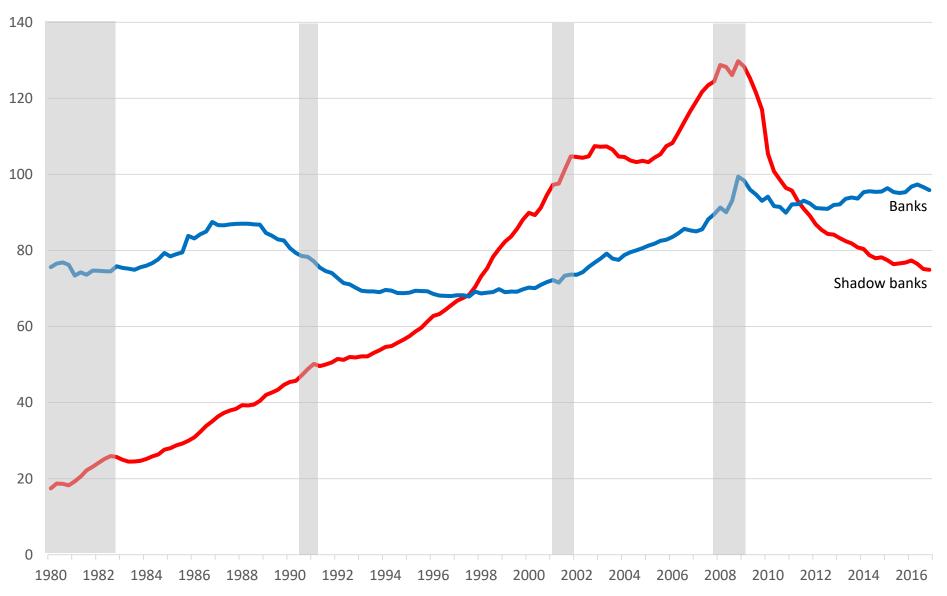
Shadow banks

US shadow bank liabilities, \$ trillion



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

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

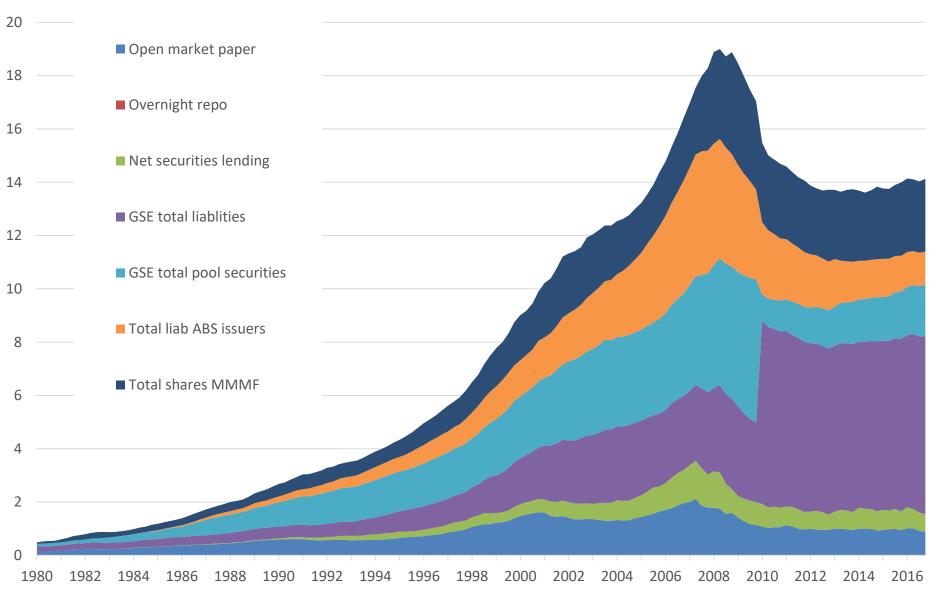
Shadow credit intermediation

	Function	Shadow Banks	Shadow Banks' Funding*
Step (1)	Loan Origination	Finanœ companies	CP, MTNs, bonds
Step (2)	Loan Warehousing	Single and multi-seller conduits	ABCP
Step (3)	ABS Issuanœ	SPVs, structured by broker-dealers	ABS
Step (4)	ABS Warehousing	Hybrid, TRS/repo conduits, broker-dealers' trading books	ABCP, repo
Step (5)	ABS CDO Issuanœ	SPVs, structured by broker-dealers	ABS CDOs, CDO-squareds
Step (6)	ABS Intermediation	LPFCs, SIVs, securities arbitrage conduits, credit hedge funds	ABCP, MTN, repo
Step (7)	Wholesale Funding	2(a)-7 MMMFs, enhanced cash funds, securities lenders, etc.	\$1 NAV shares (shadow bank "deposits")

^{*}Funding types highlighted in red denote searitized funding techniques. Searitized funding techniques are not synonymous with seared funding.

Source: Poszar et al, Shadow Banking, FRBNY Staff Report No. 458, February 2012, p.11

Shadow bank liabilities, \$ trillion



Source: Federal Reserve Board, Financial Accounts of the United States, Tables L121 - L130, 2016 Q4, following Poszar et al, 2012

Federal Reserve's Emergency Lending Facilities

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

Source: Poszar et al, Shadow Banking, FRBNY Staff Report No. 458, February 2012 & Federal Reserve Board, various, for dates

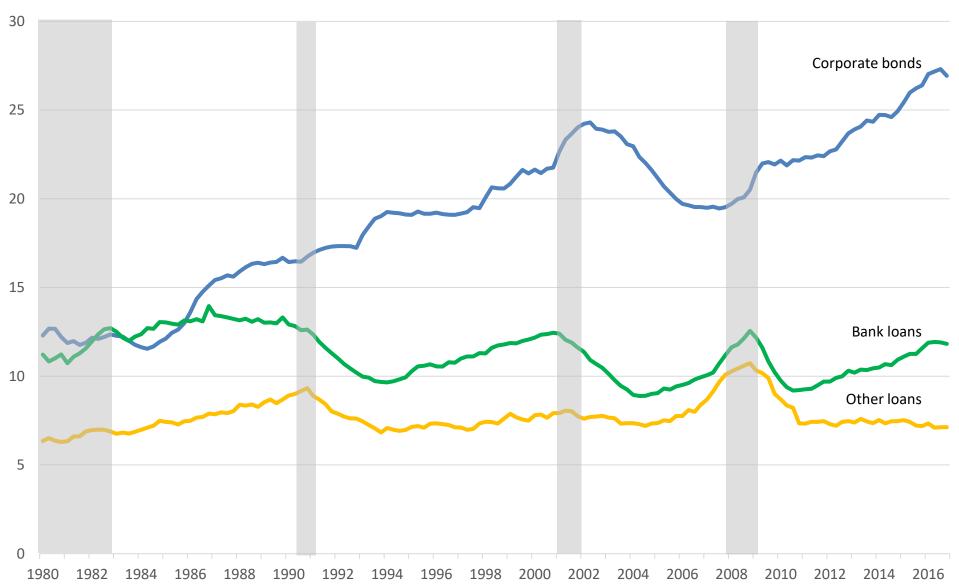
'Risks are elevated in the non-bank sector, where "run" and "redemption" risks are increasing as a result of leverage and maturity transformation and deeply interconnected wholesale funding chains ... the protracted low-interest rate environment is again driving the search for yield'

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

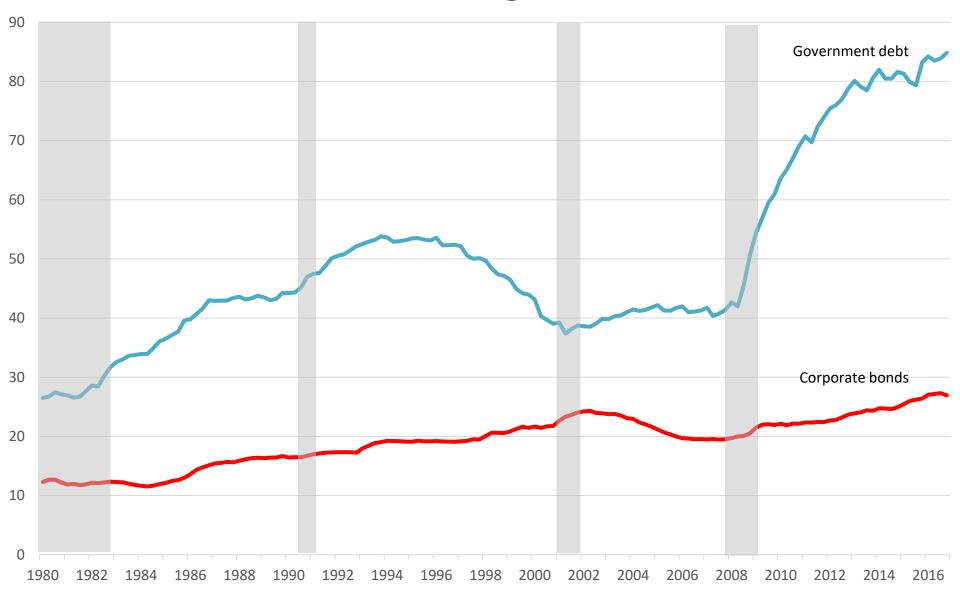
Financial markets

US nonfinancial business corporate borrowing, % GDP



Source: Federal Reserve Board, Financial Accounts of the United States, Tables L101, 2016 Q4

US nonfinancial business & government debt, % GDP



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