IPE Berlin
Institute for International
Political Economy Berlin

Hochschule für
Wirtschaft und Recht Berlin
Berlin School of Economics and Law

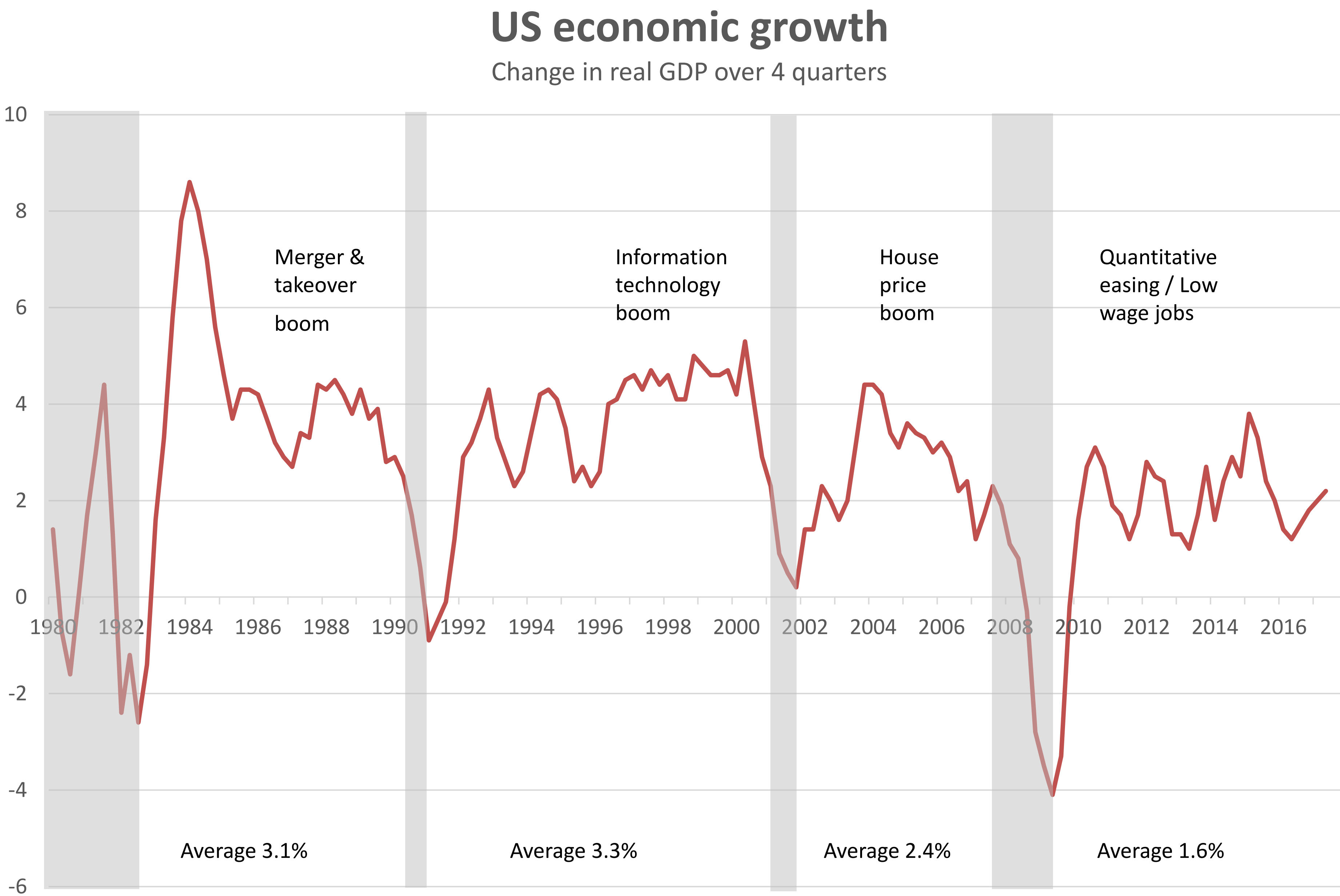
Economic and financial developments in the US since the 2007-2009 crisis

Trevor Evans

18th Monetary Policy Workshop at the Berlin School of Economics and Law

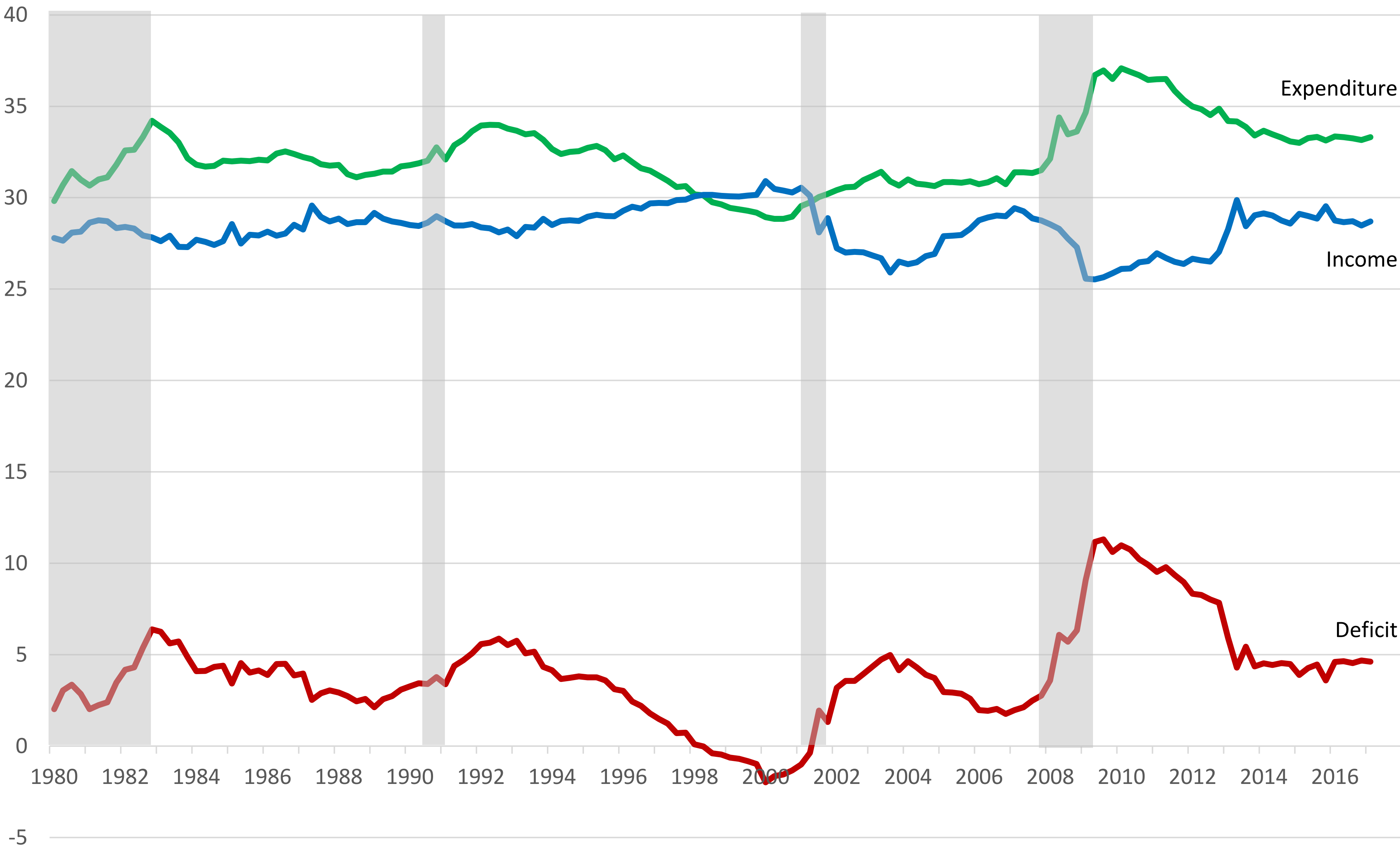
12 – 13 October 2017

Weak recovery



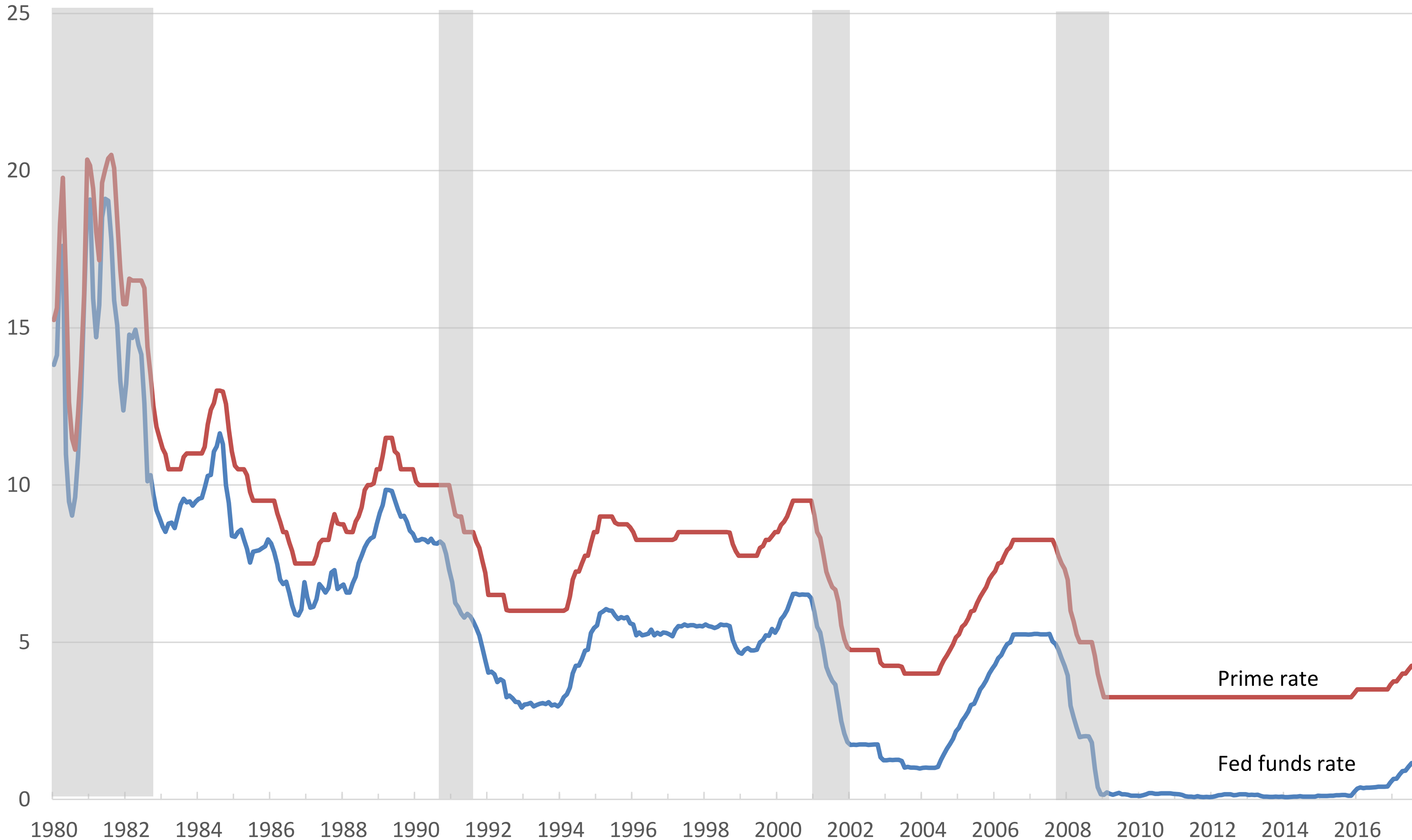
Source: BEA, *National Income and Product Accounts*, Table 1.1.11, Shaded areas show NBER designated recessions

US government current income and expenditure, % GDP



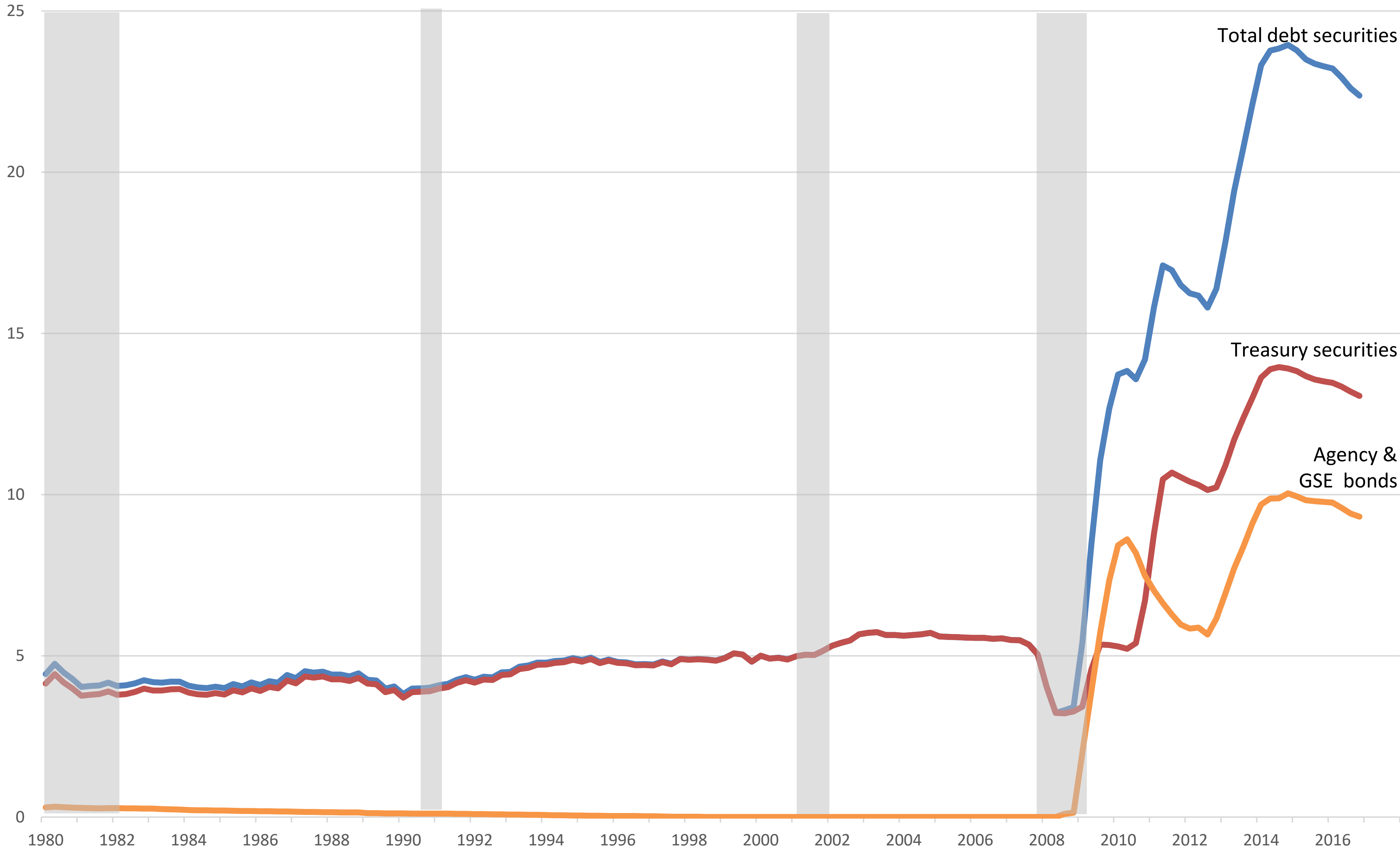
Source: BEA, *National Income and Product Accounts*, Table 3.1, Shaded areas show NBER designated recessions

US lead interest rates, %



Source: Federal Reserve. Shaded areas show NBER designated recessions.

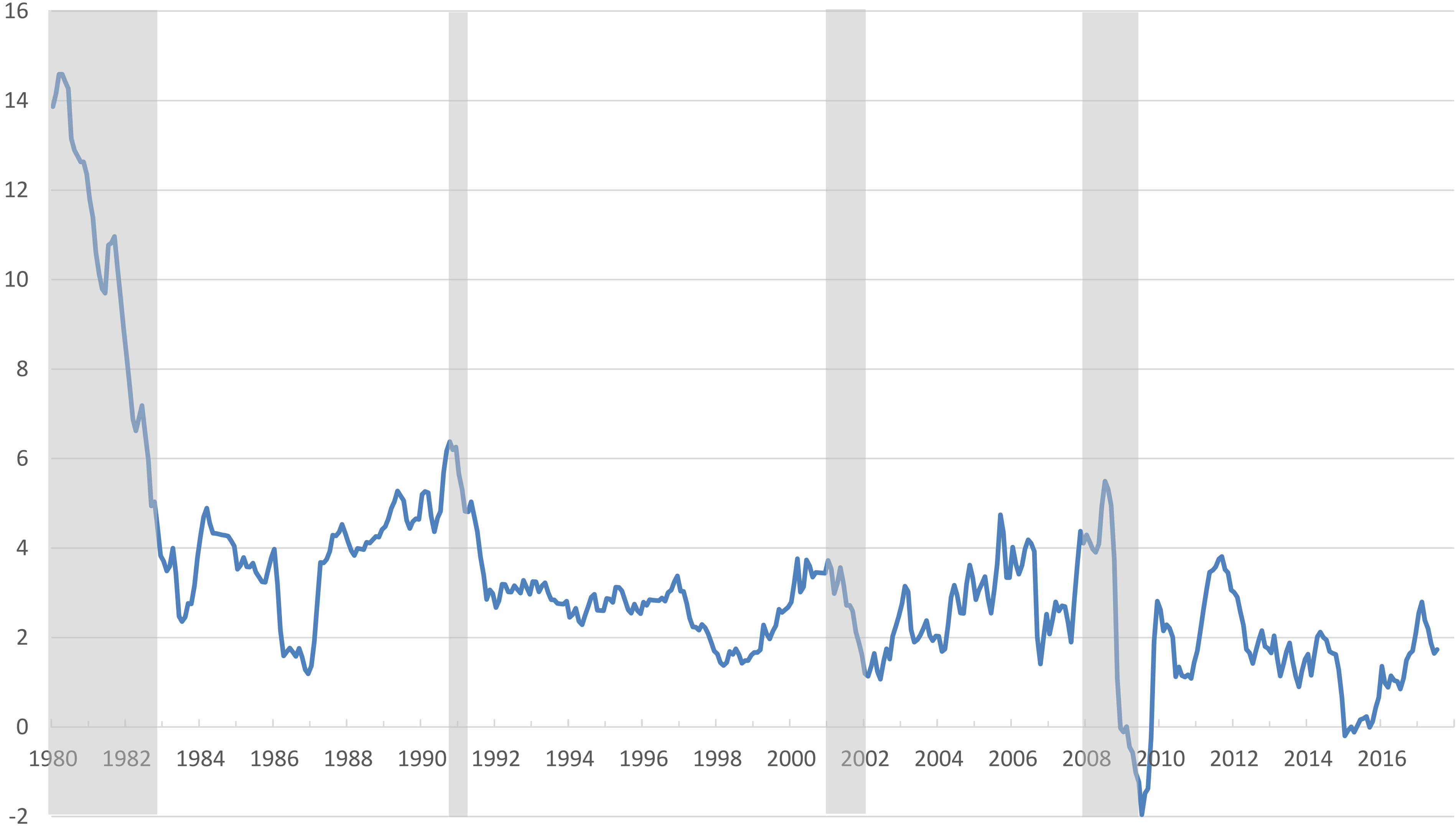
US monetary authority assets (% GDP)



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

US consumer price inflation

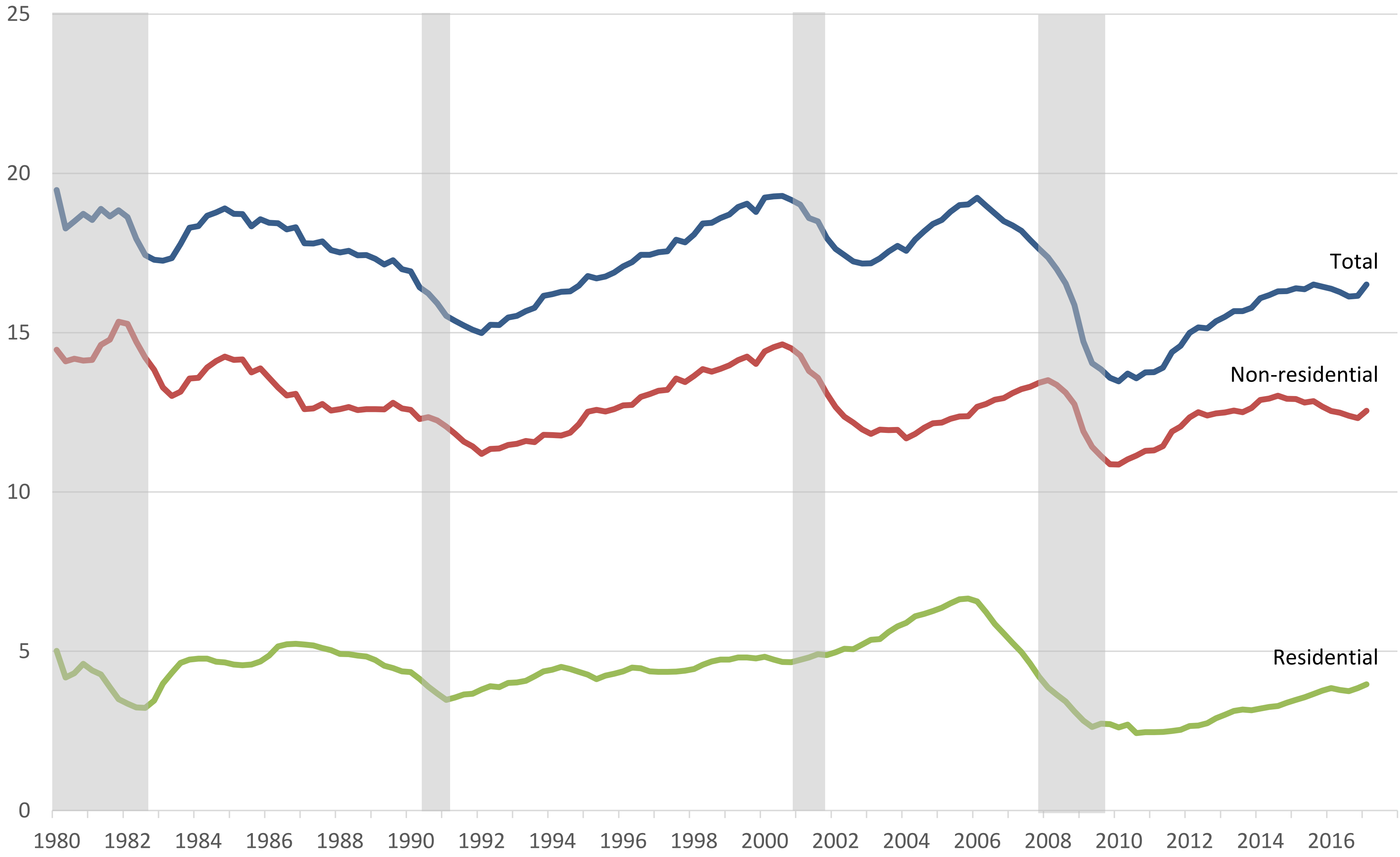
% change over 4 quarters



Source: BLS, US consumer price inflation. Shaded areas show NBER designated recessions.

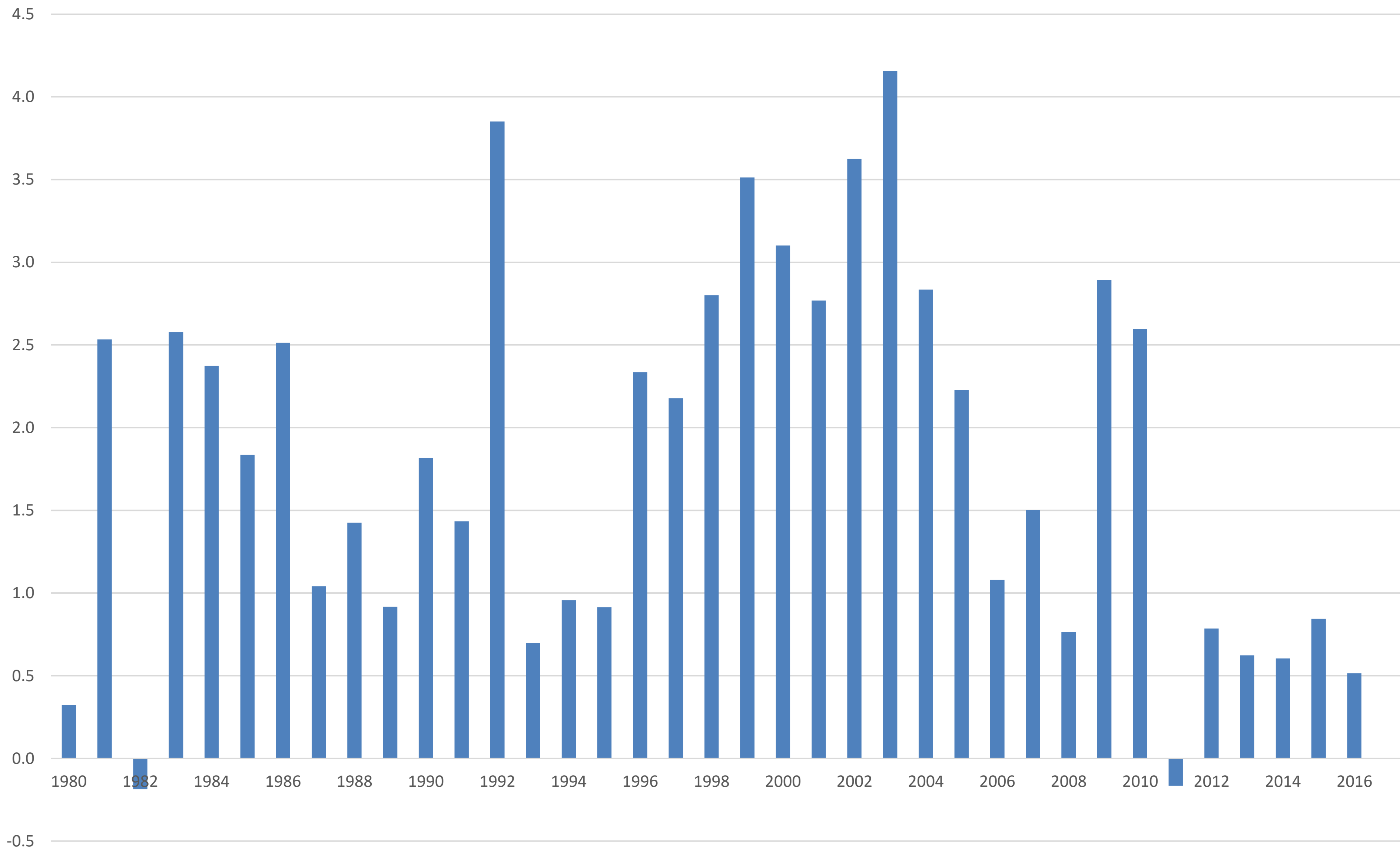
Nonfinancial business

US fixed investment, % GDP



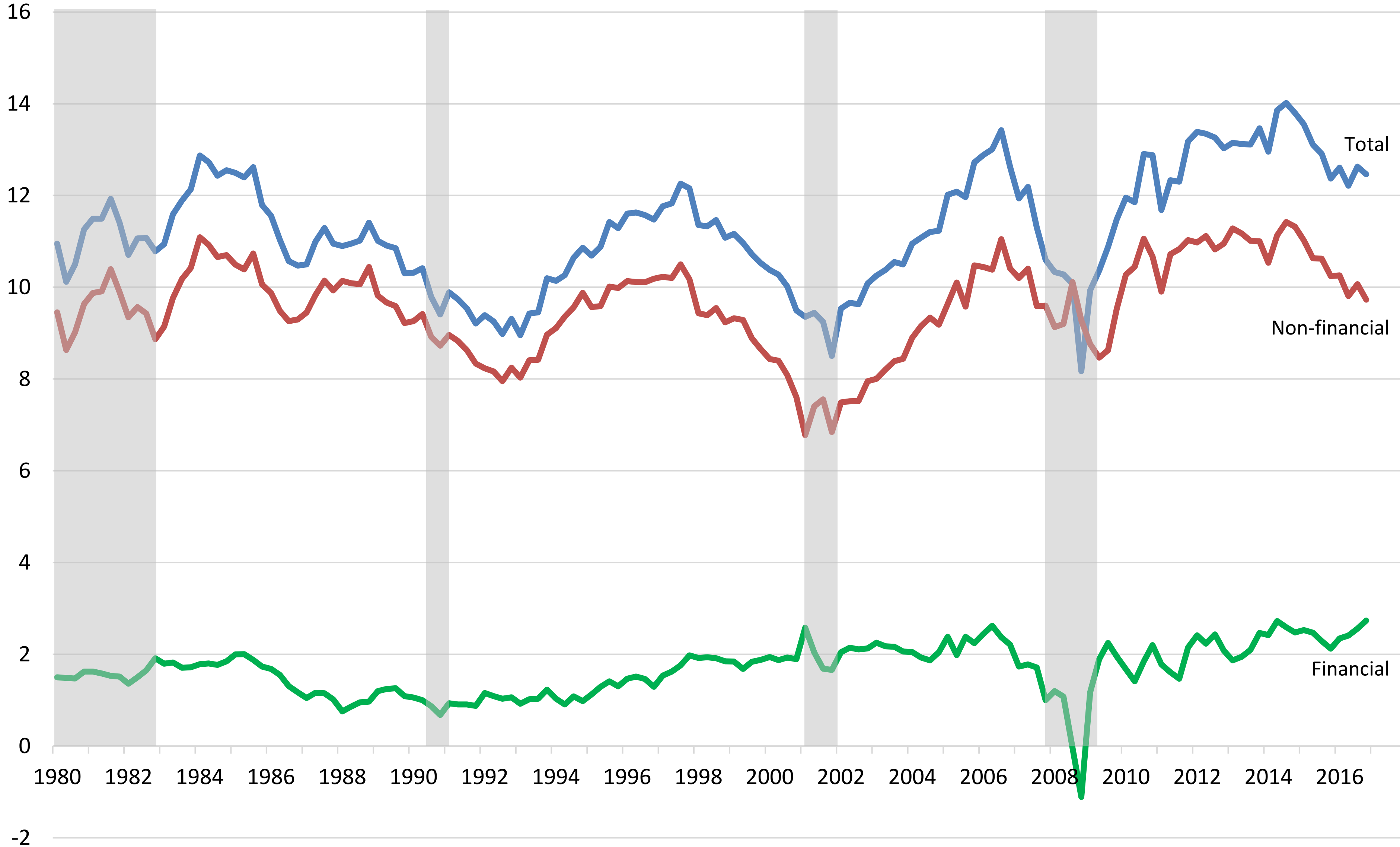
Source: BEA, National Income and Product Accounts, Table 1.1.5. Shaded areas show NBER designated recessions.

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



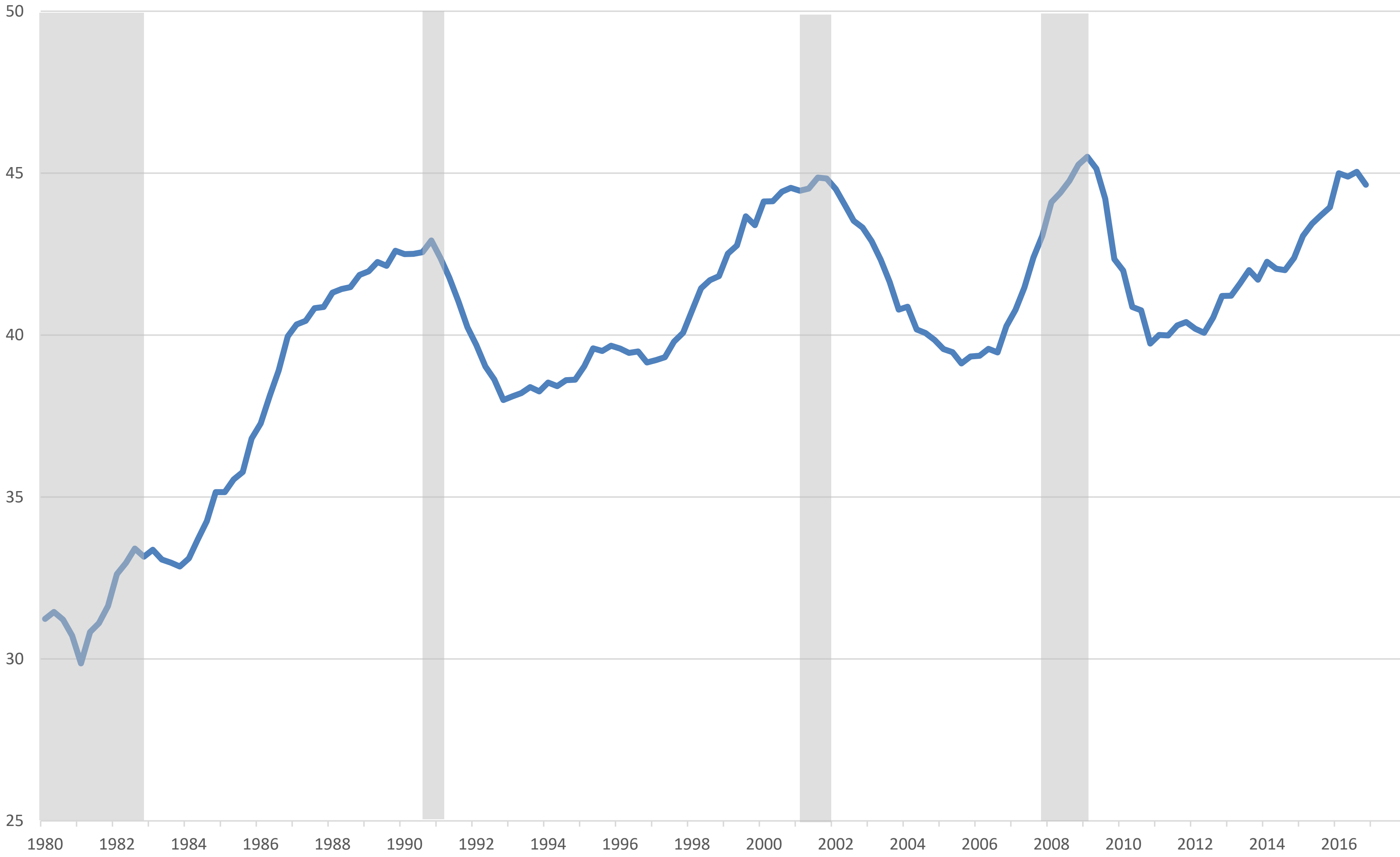
Source : The Conference Board, Total Economy Database, May 2017

US corporate profits, % national income

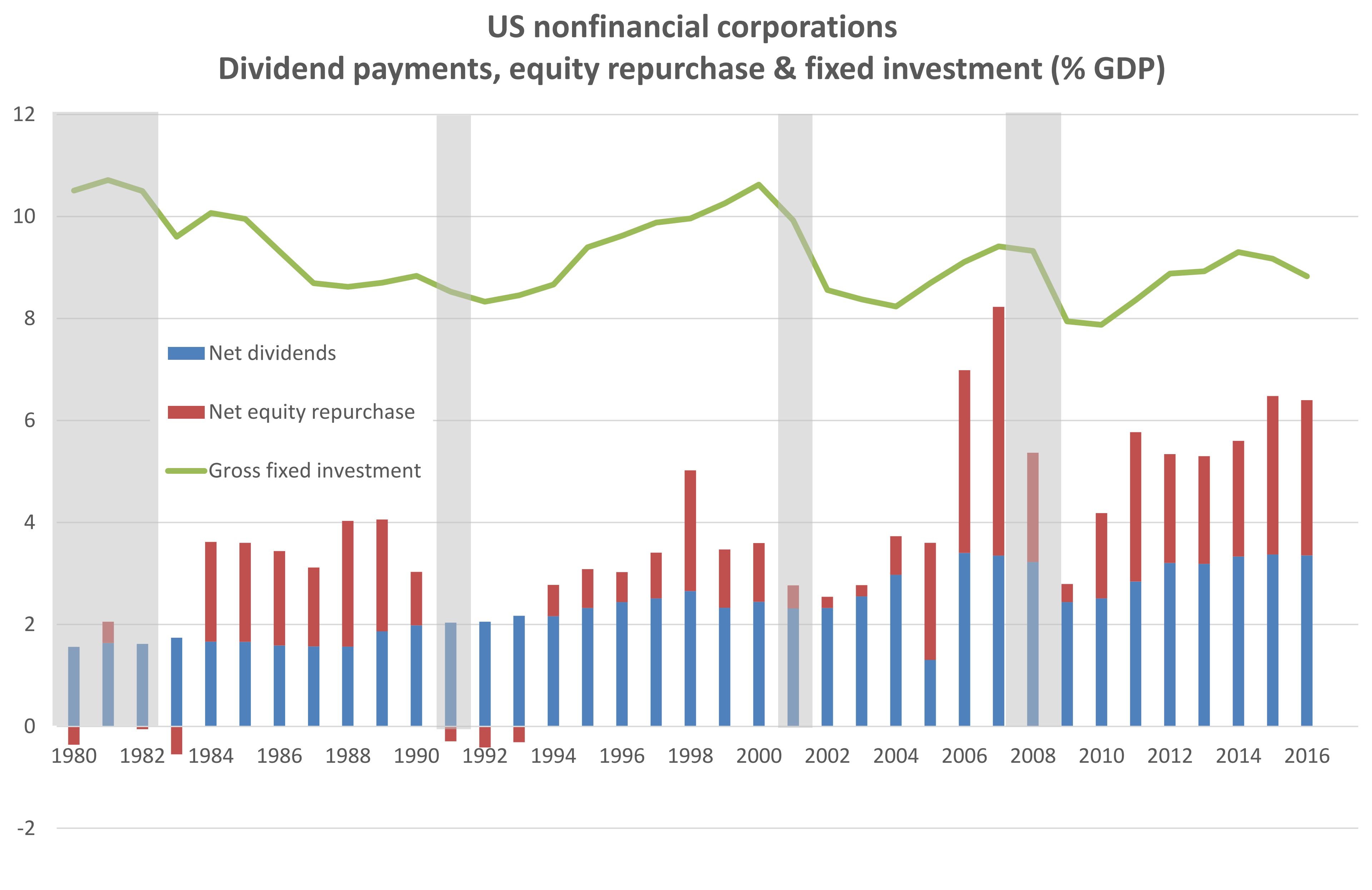


Source: BEA, *National Income and Product Accounts,* Table 1.14. Shaded areas show NBER designated recessions

US nonfinancial corporations outstanding debt, % GDP

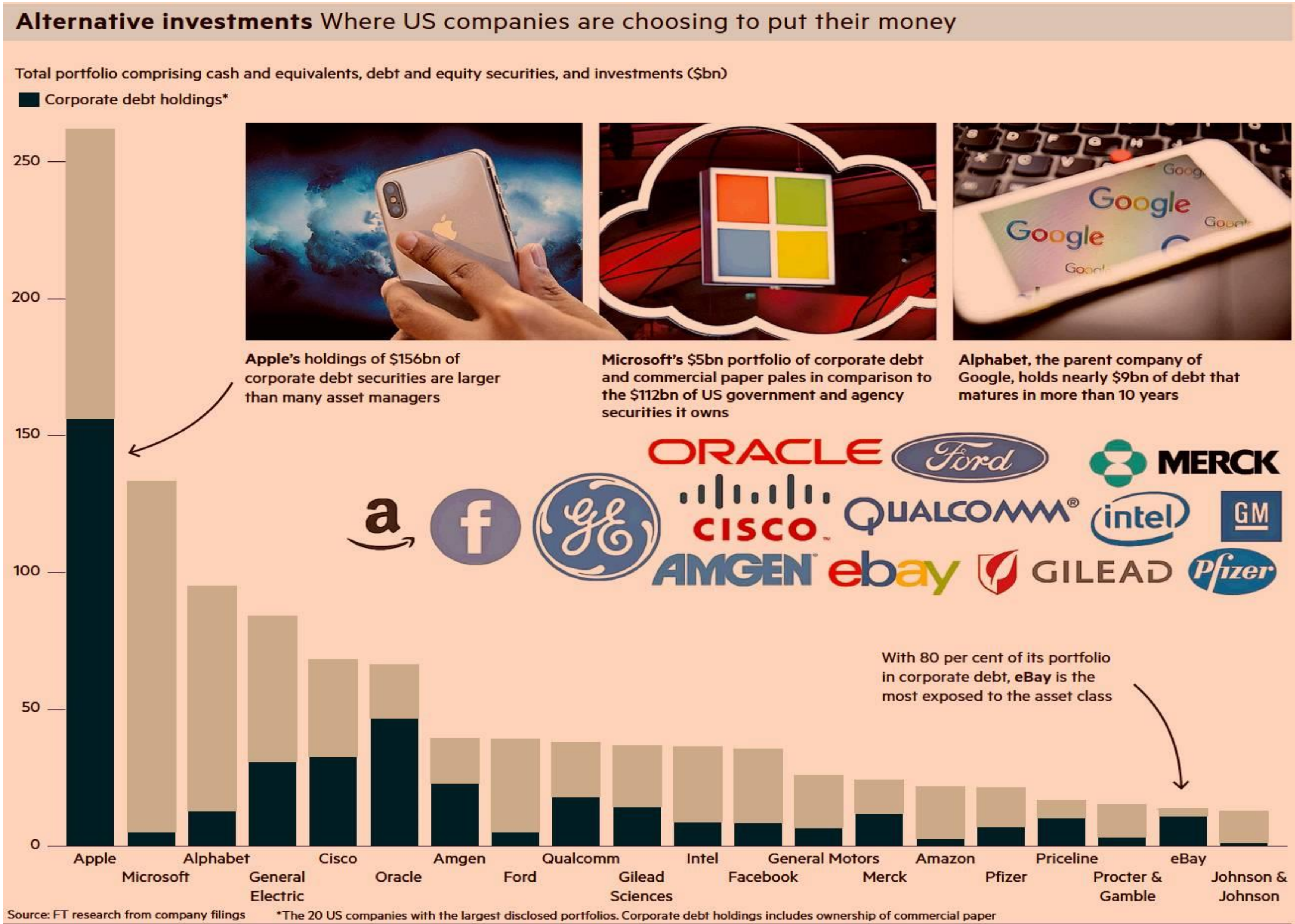


Source: Federal Reserve, Financial Accounts, Table D3, Series LA104104005.Q . Shaded areas show NBER designated recessions.



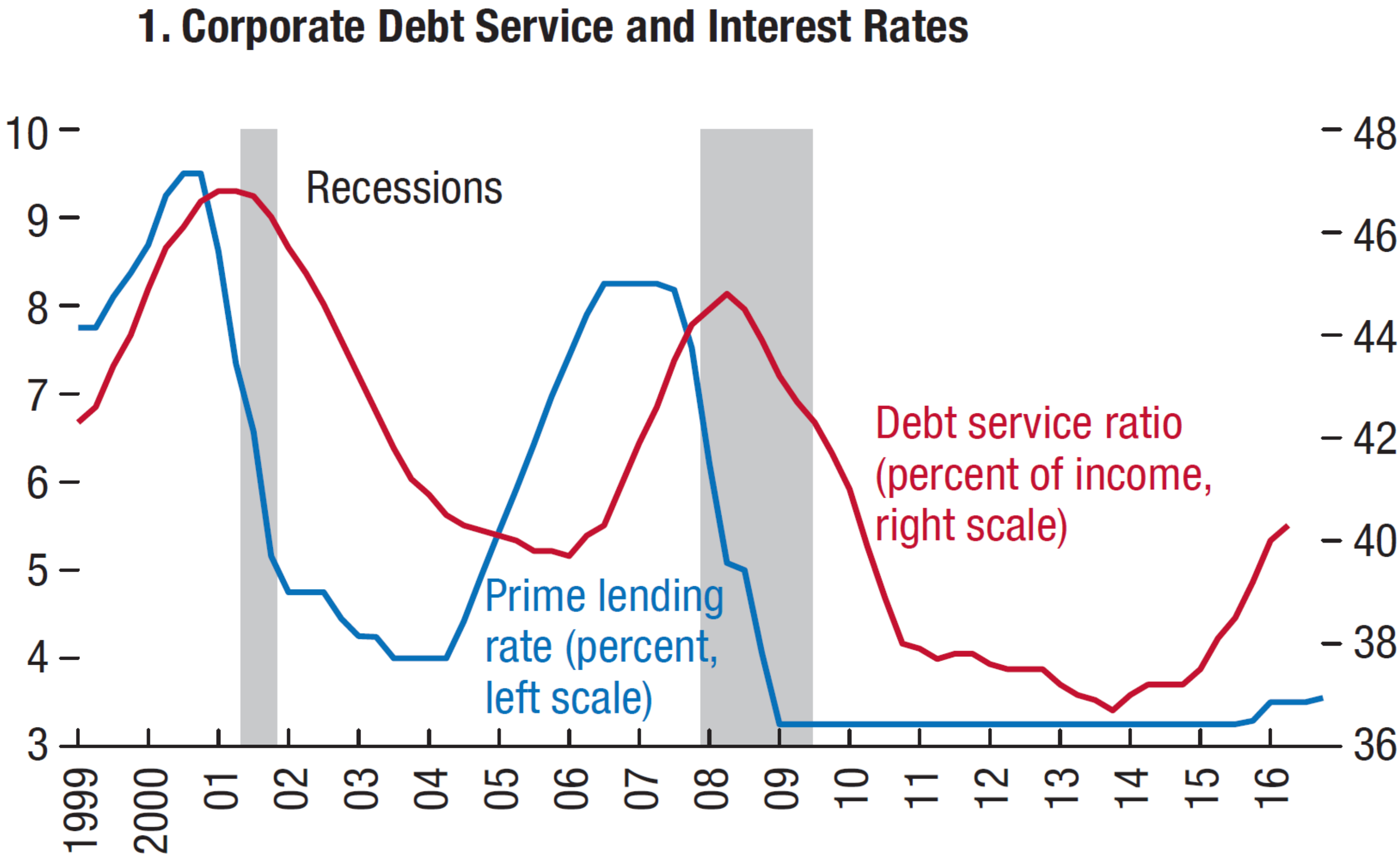
Source: Federal Reserve, *Financial Accounts,* Table F 103. Shaded areas show NBER designated recessions.


Shiller price-earnings ratio S&P 500
50
45
40
35
30
25
20
15
10
5
0
Long-term average
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016



Source: Financial Times, 16 September 2017

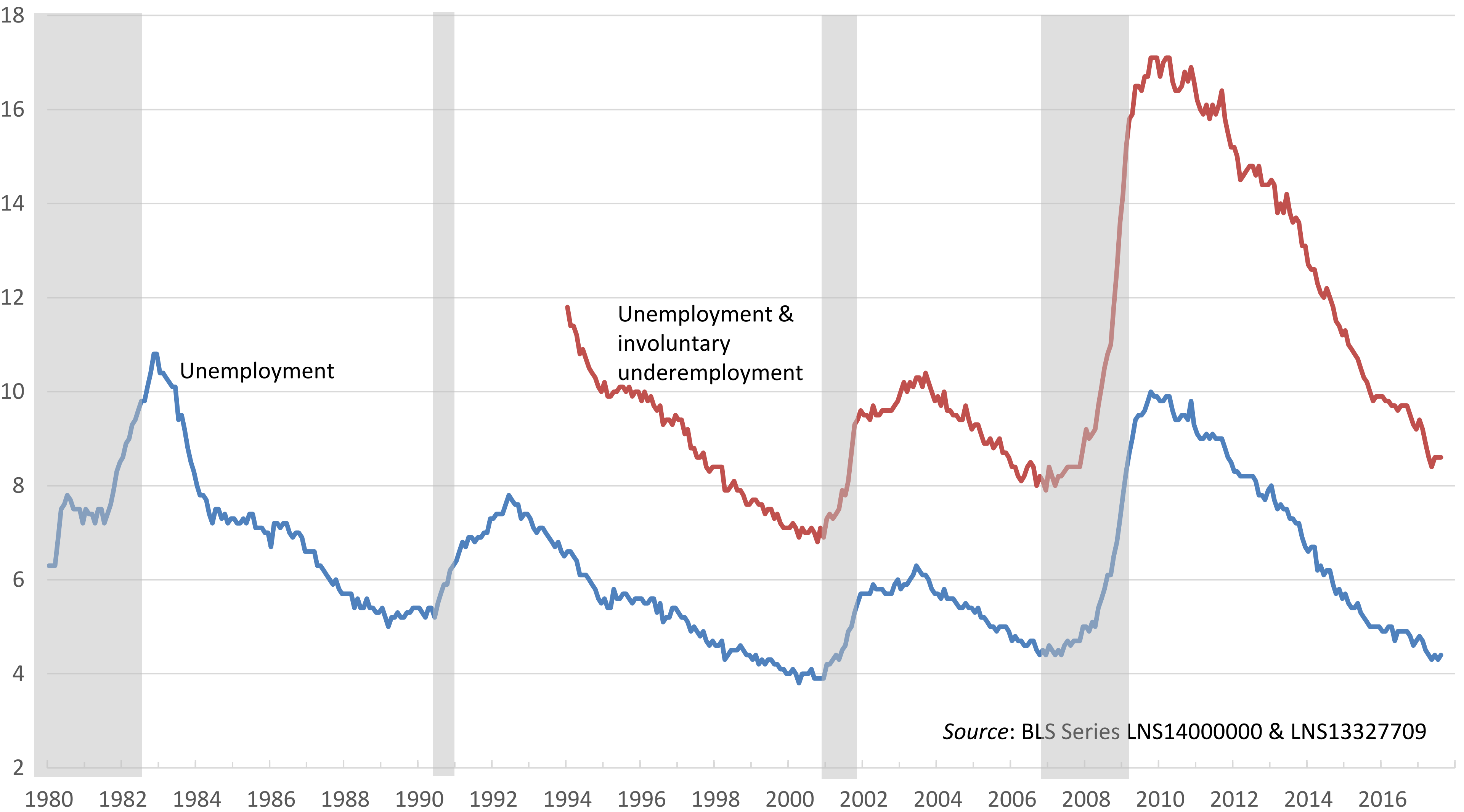
The debt service burden for the corporate sector as a whole has risen strikingly despite low rates.

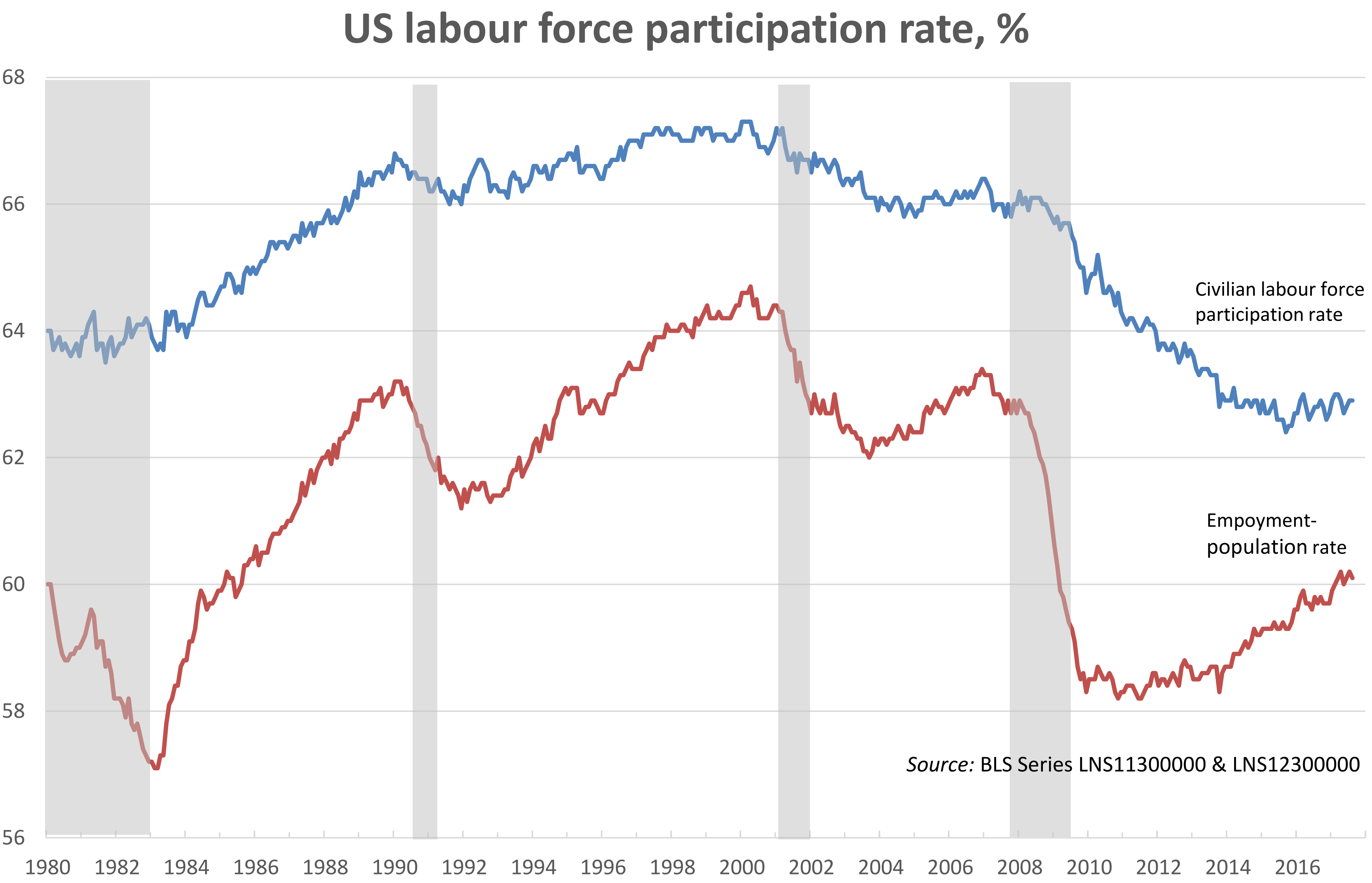


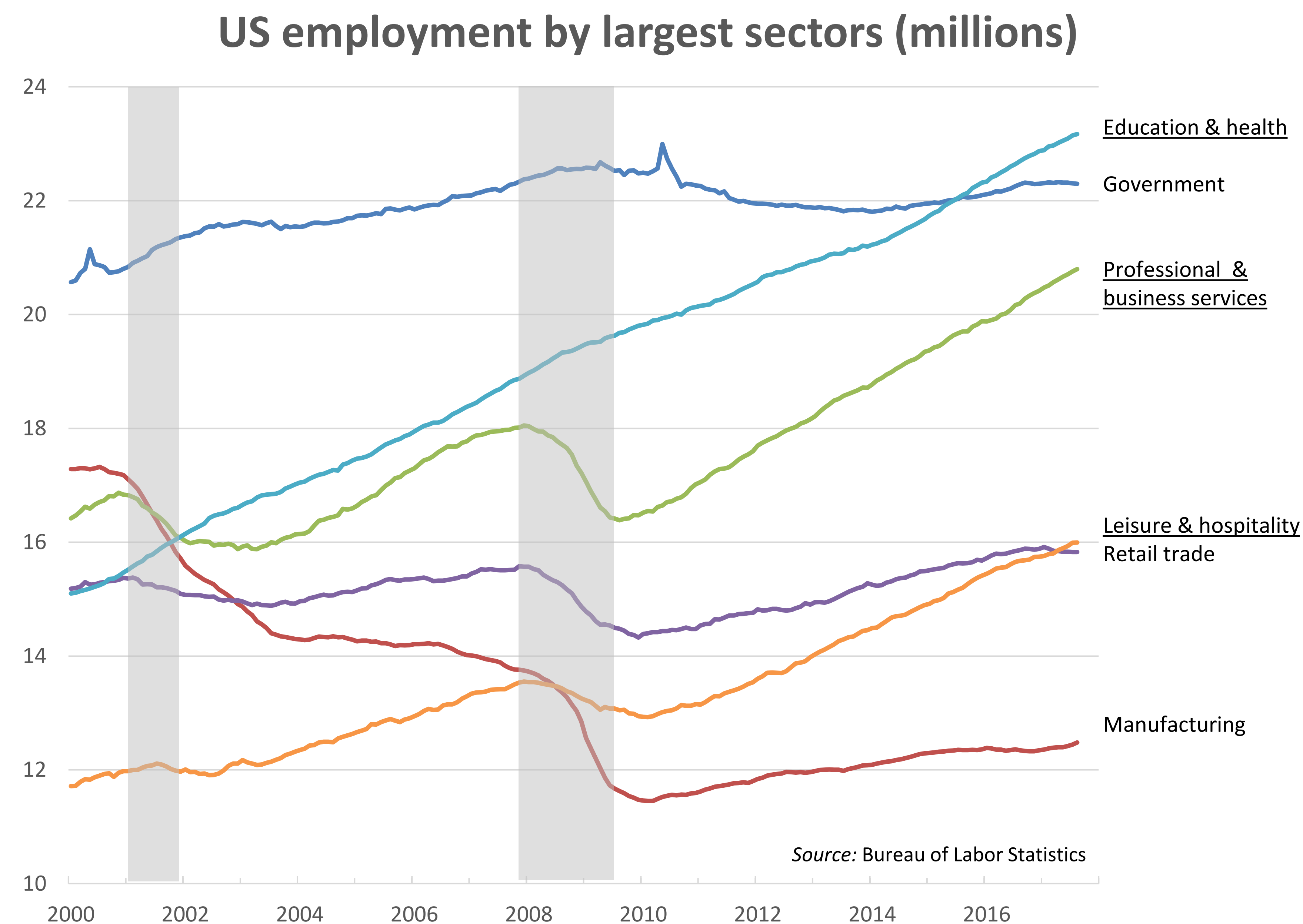
Source: IMF, Global Financial Stability Report, April 2017, p. 12

Employment & earnings

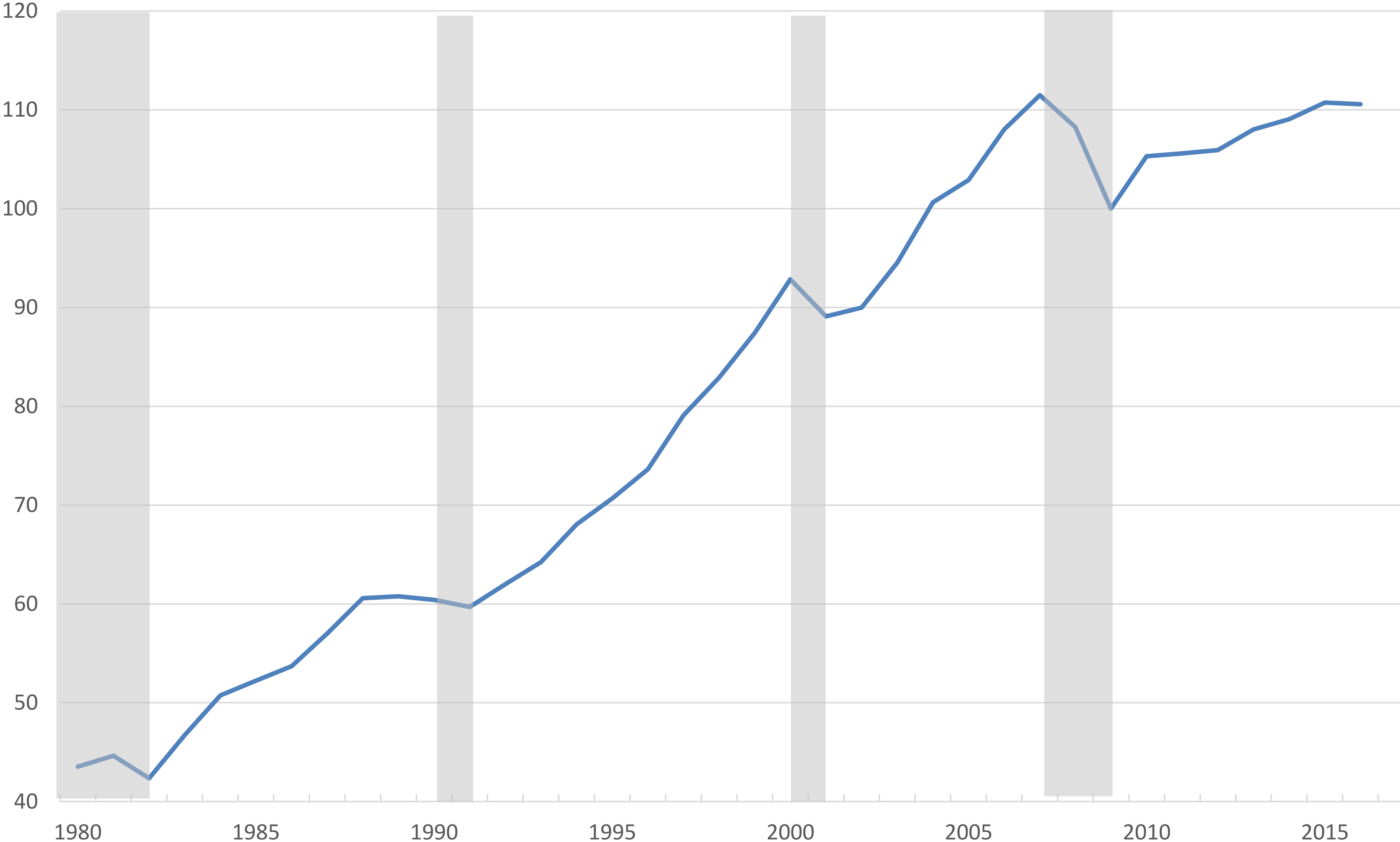
US unemployment & involuntary underemployment (% labour force)




US labour force participation rate, %
68
66
64
62
60
58
56
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
Civilian labour force participation rate
Empoyment-population rate
Source: BLS Series LNS11300000 & LNS12300000


US employment by largest sectors (millions)
24
22
20
18
16
14
12
10
2000
2002
2004
2006
2008
2010
2012
2014
2016
Education & health
Government
Professional & business services
Leisure & hospitality
Retail trade
Manufacturing
Source: Bureau of Labor Statistics

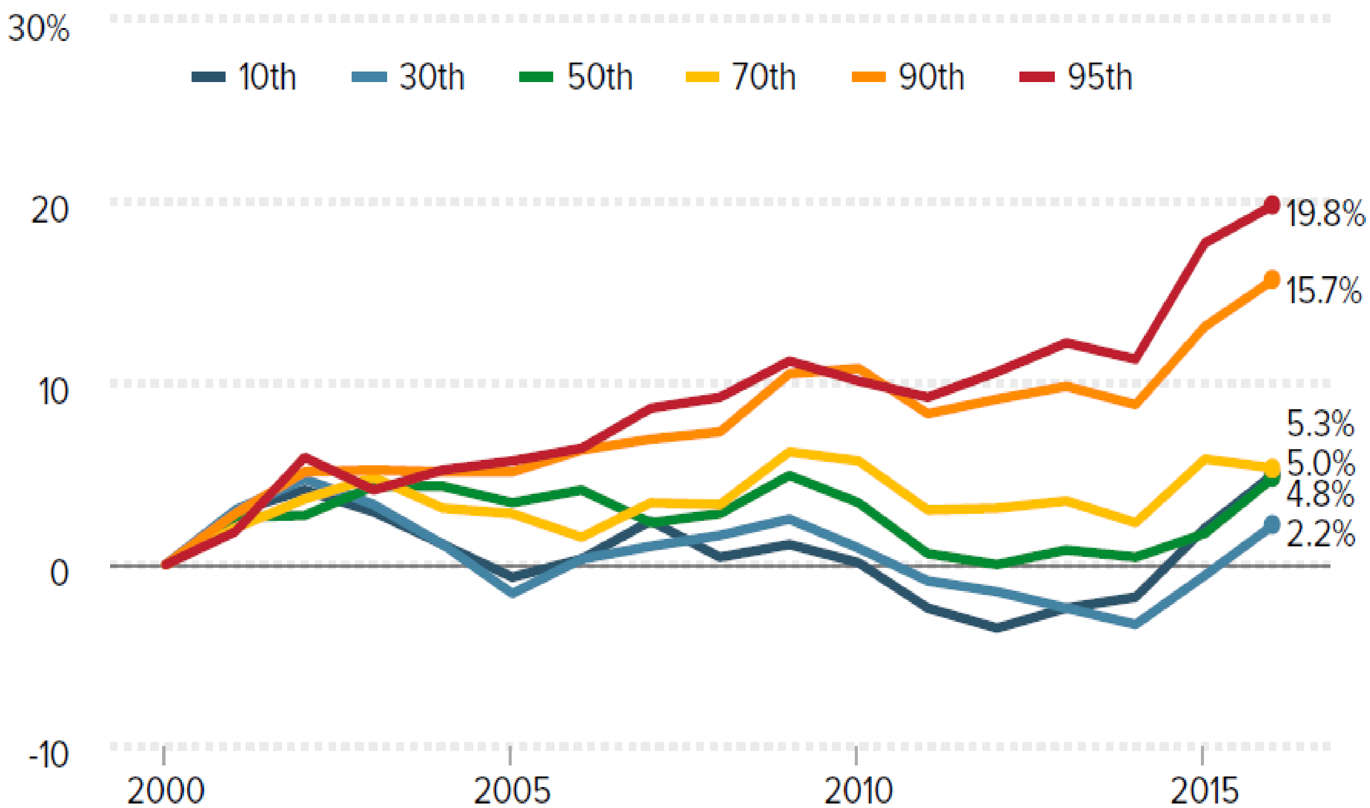
US manufacturing output, 2009 = 100



Source: Bureau of Economic Analysis, Chain-Type Quantity Indexes for Value Added by Industry.
Shaded areas show NBER designated recessions

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



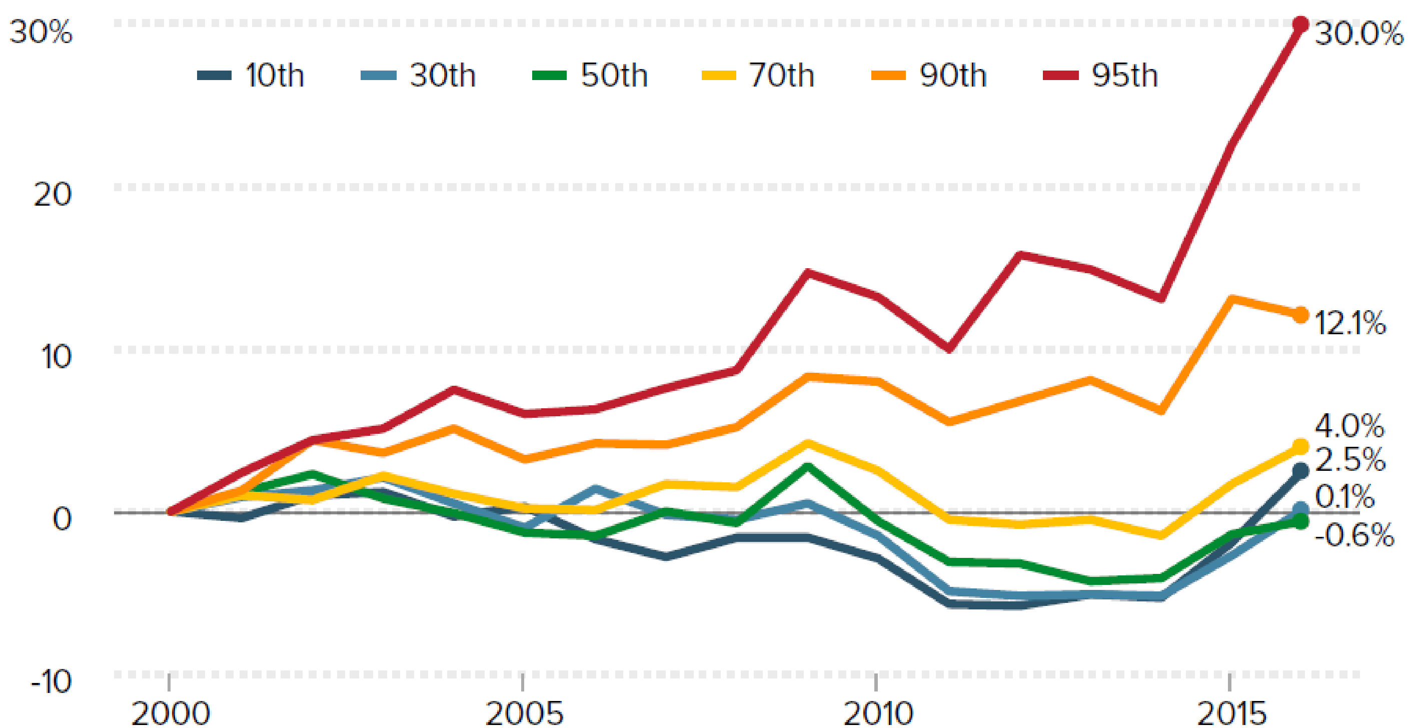
Note: Sample based on all workers age 18–64. The *x*th-percentile wage is the wage at which *x*% of wage earners earn less and (100 - *x*)% earn more.

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

Economic Policy Institute

The male wage at the top shot up in 2016 while wages at the middle and bottom remained near or below their 2000 level

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



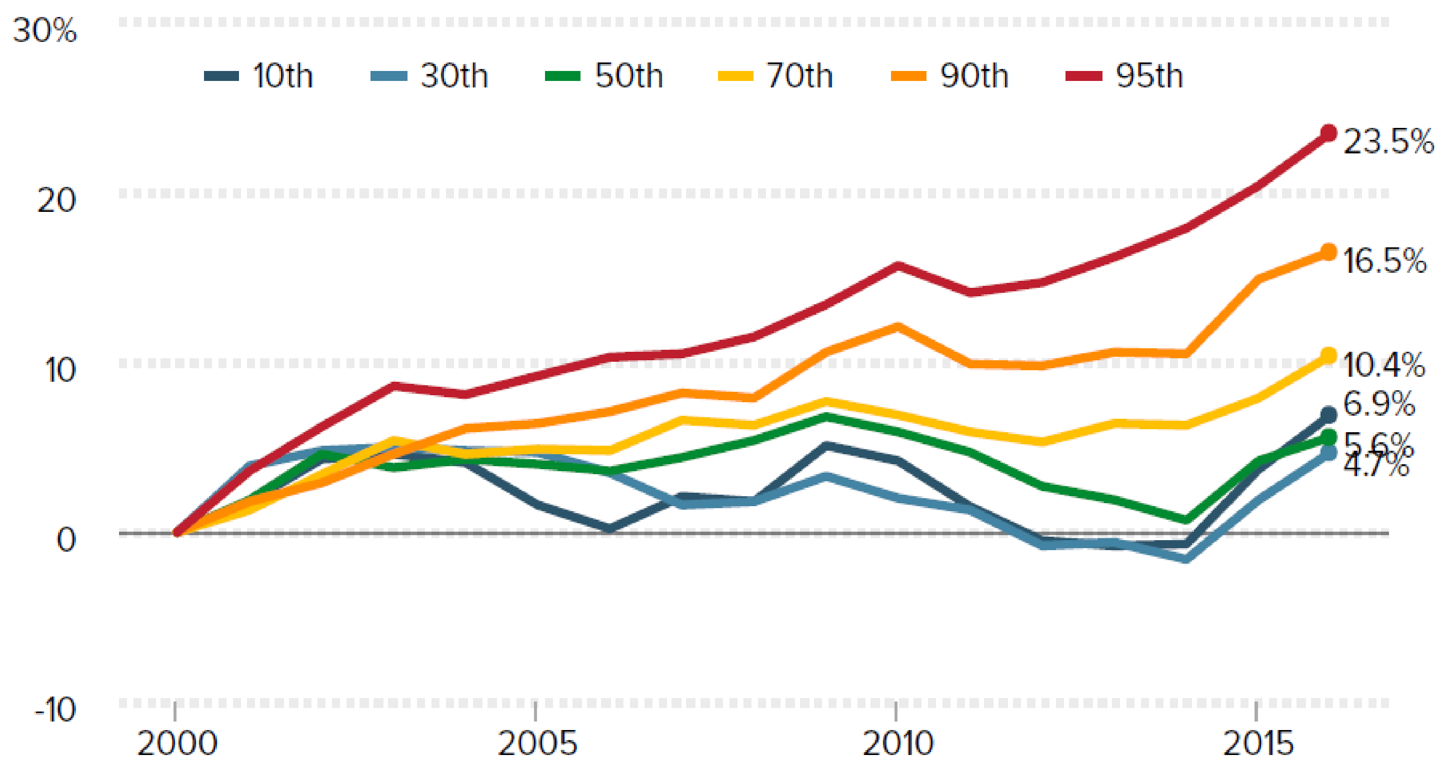
Note: Sample based on all workers age 18–64. The *x*th-percentile wage is the wage at which *x*% of wage earners earn less and (100 - *x*)% earn more.

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

Economic Policy Institute

Women's wages are more compressed than men's wages, but inequality among women has increased since 2000

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

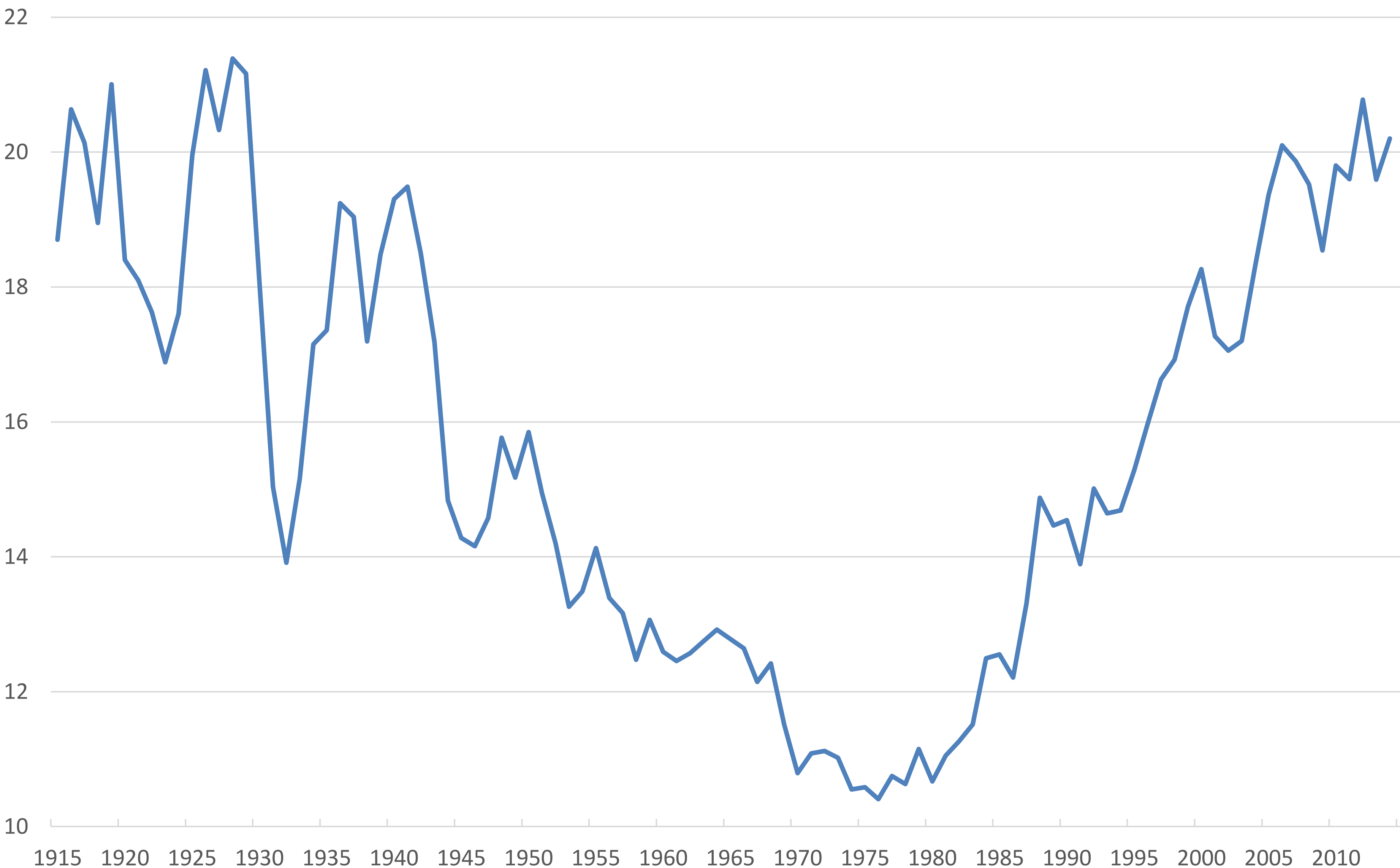


Note: Sample based on all workers age 18–64. The *x*th-percentile wage is the wage at which *x*% of wage earners earn less and (100 - *x*)% earn more.

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

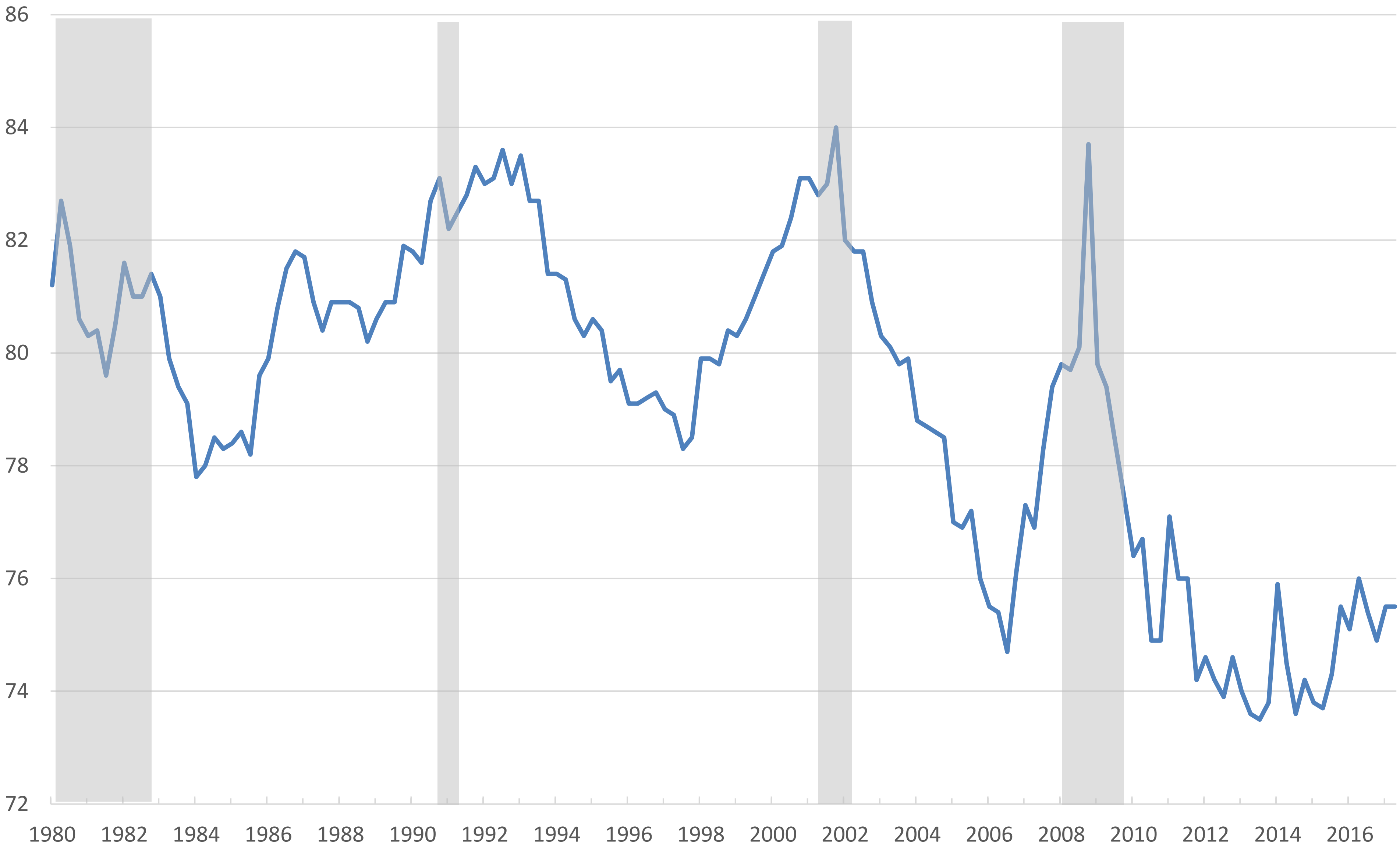
Economic Policy Institute

US pre-tax income share of top 1%, 1915-2014 (%)



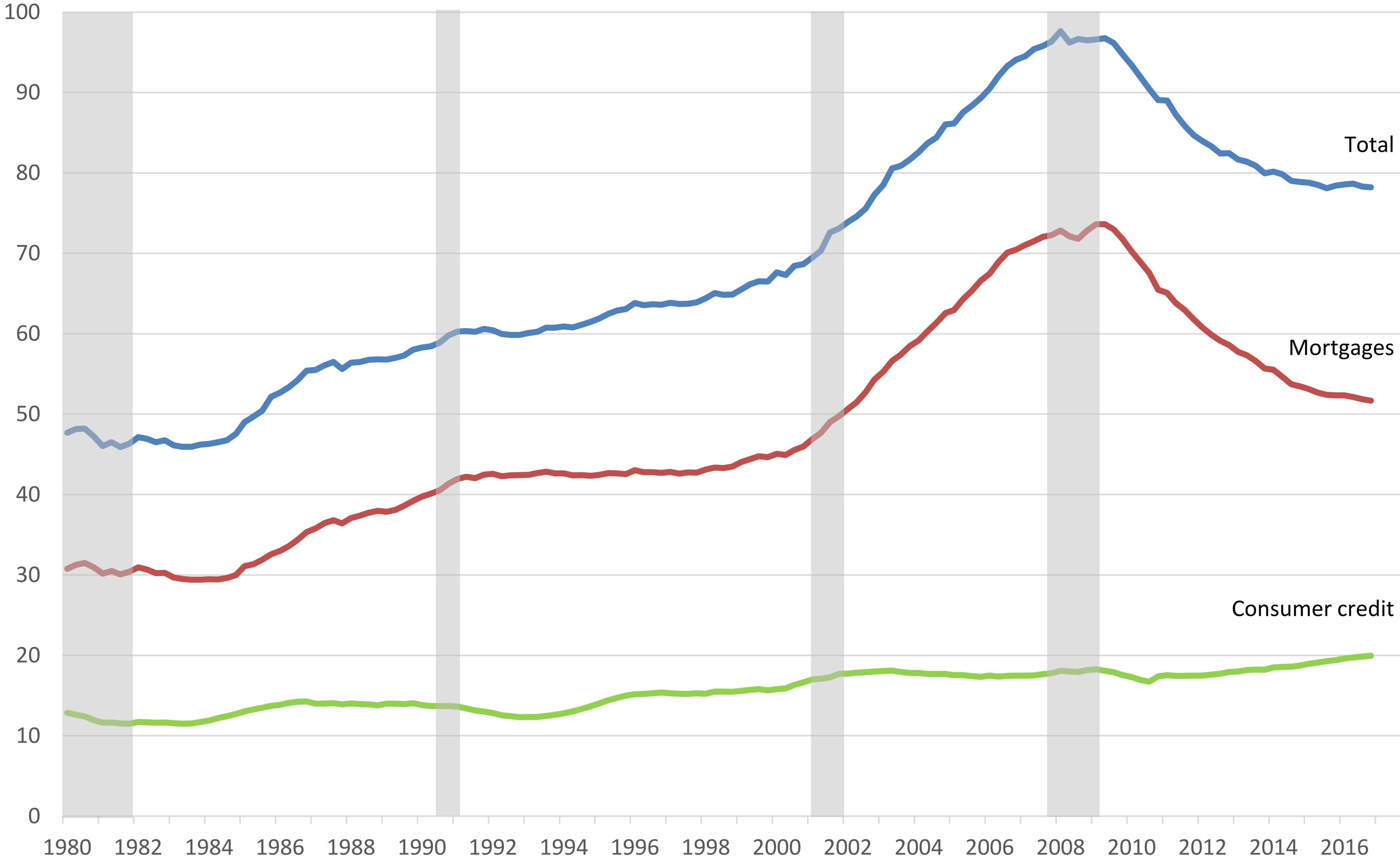
Source: World Wealth & Income Database (WID)

US share of corporate-sector income received by workers (%)



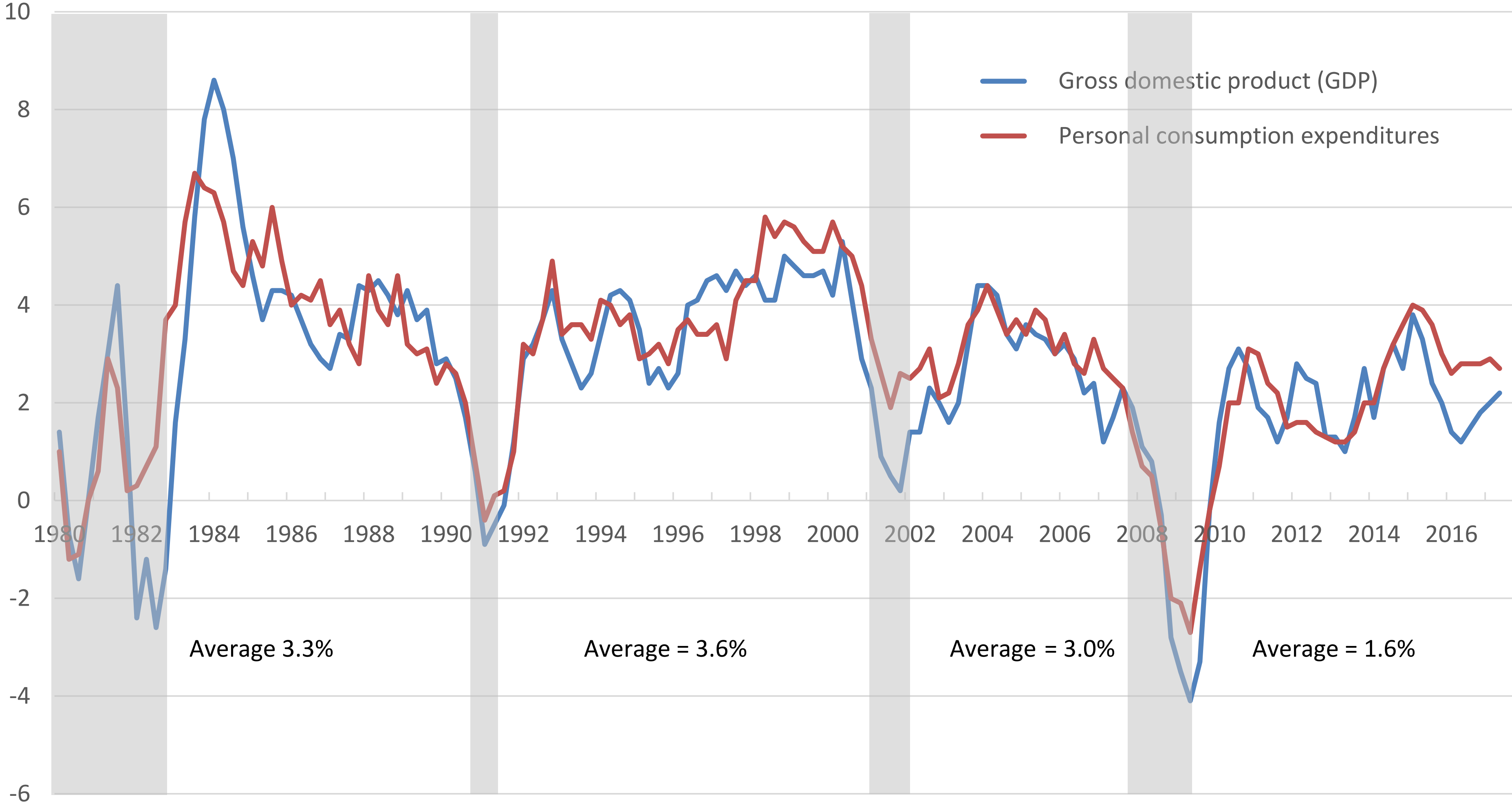
Source: EPI analysis of Bureau of Economic Analysis *National Income and Product Accounts* (Tables 1.14 and 6.16D)

US household debt outstanding, % GDP



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

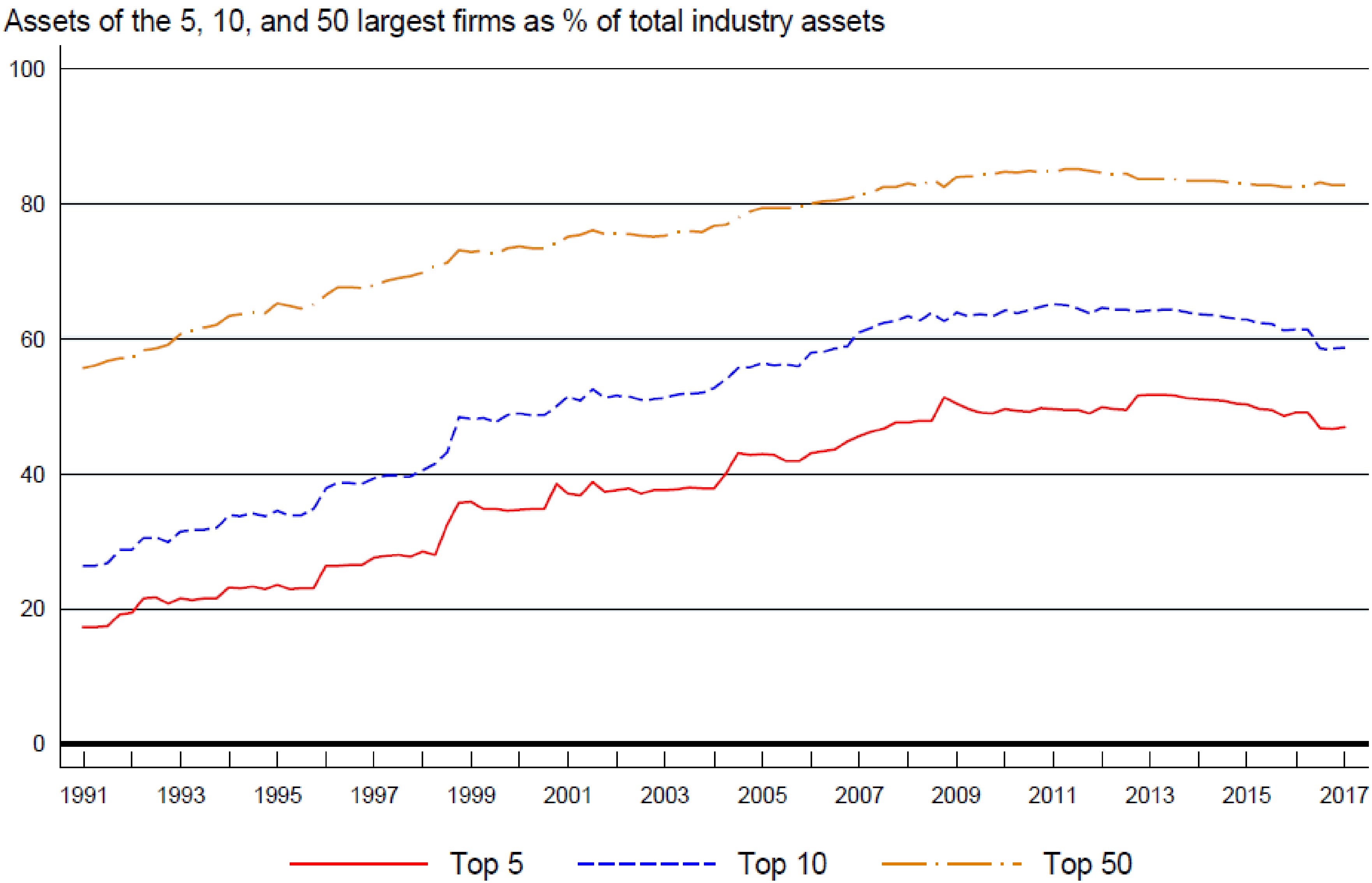
US growth of consumption expenditure (% change over 4 quarters)



Source: BEA, National Income & Product Accounts, Table 1.1.11. Shaded areas show NBER designated recessions.

Banks

Industry Concentration



Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q1 2017, 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

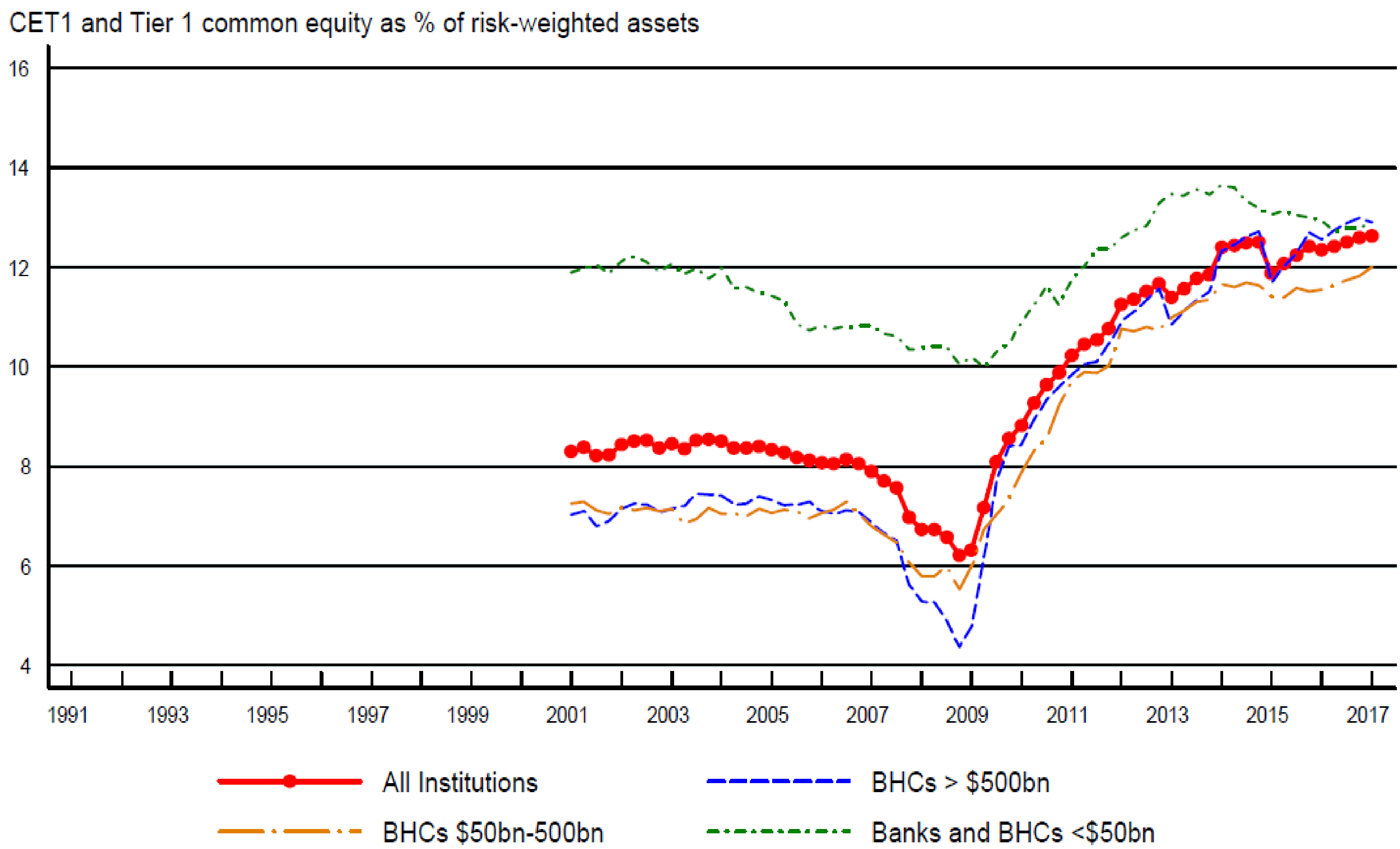
Source: Cetorelli et al, The Evolution of Bank Complexity, *FRBNY Economic Policy Review*, December 2014, pp. 103

Largest US bank holding companies, 2016

Rank	Name of Institution	Total Assets (Bil USD)	Quarterly Net Income (Mil USD)	Profitability: Annualized Return on Assets	Profitability: Annualized Return on 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	U S BC	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

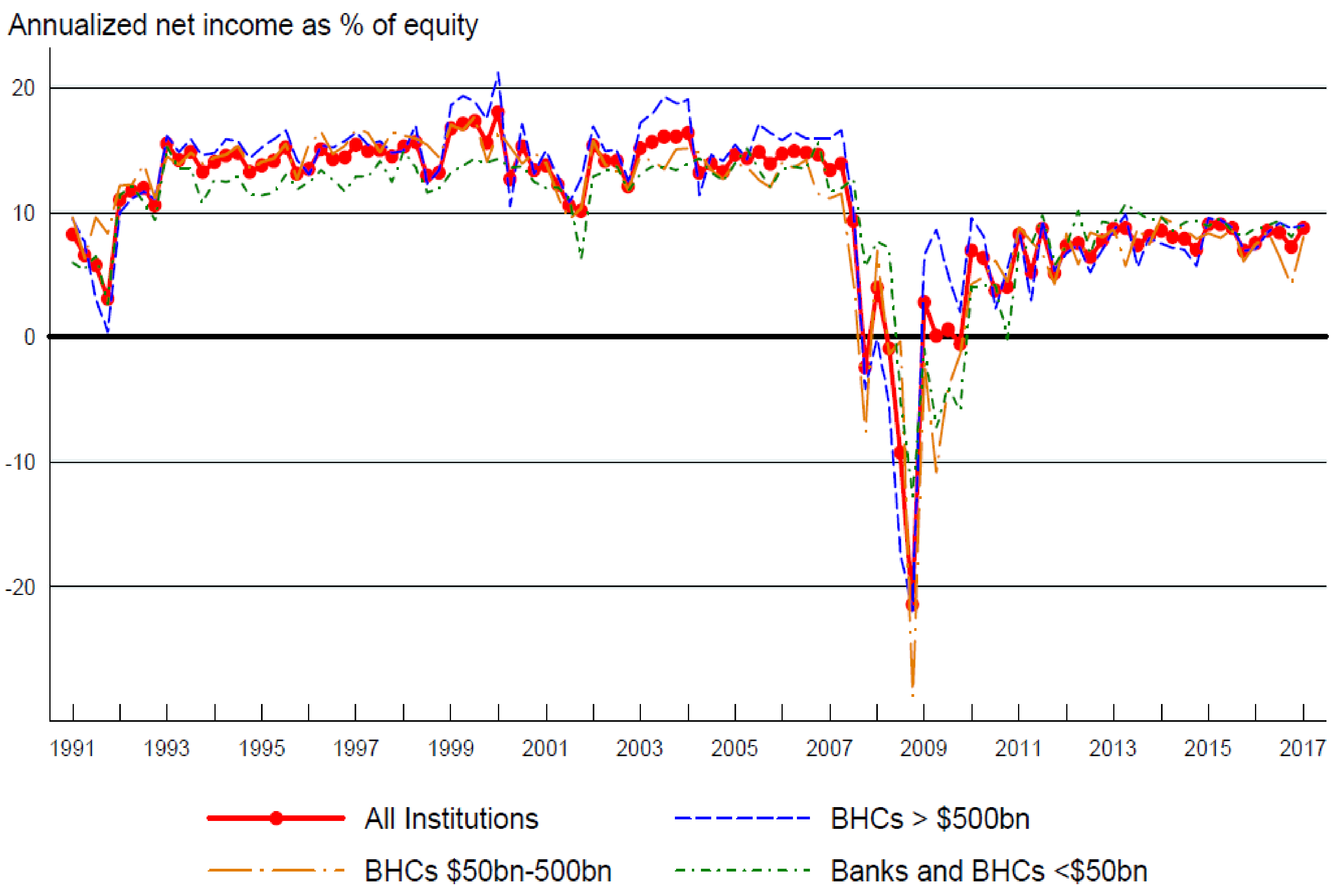
Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q4 2016, p. 36

CET1 and Tier 1 Common Equity Ratio



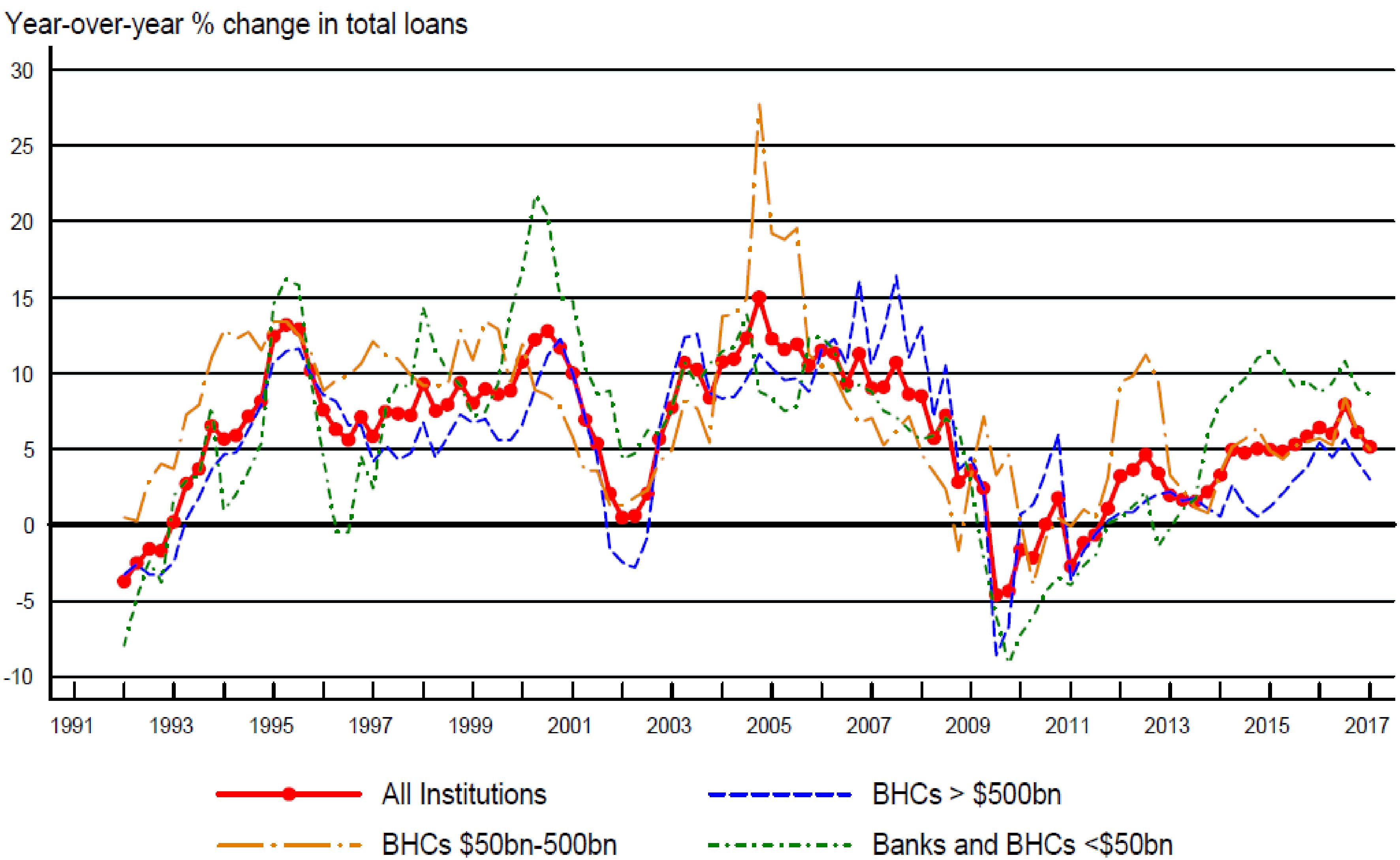
Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q1 2017, p. 31

Return on Equity



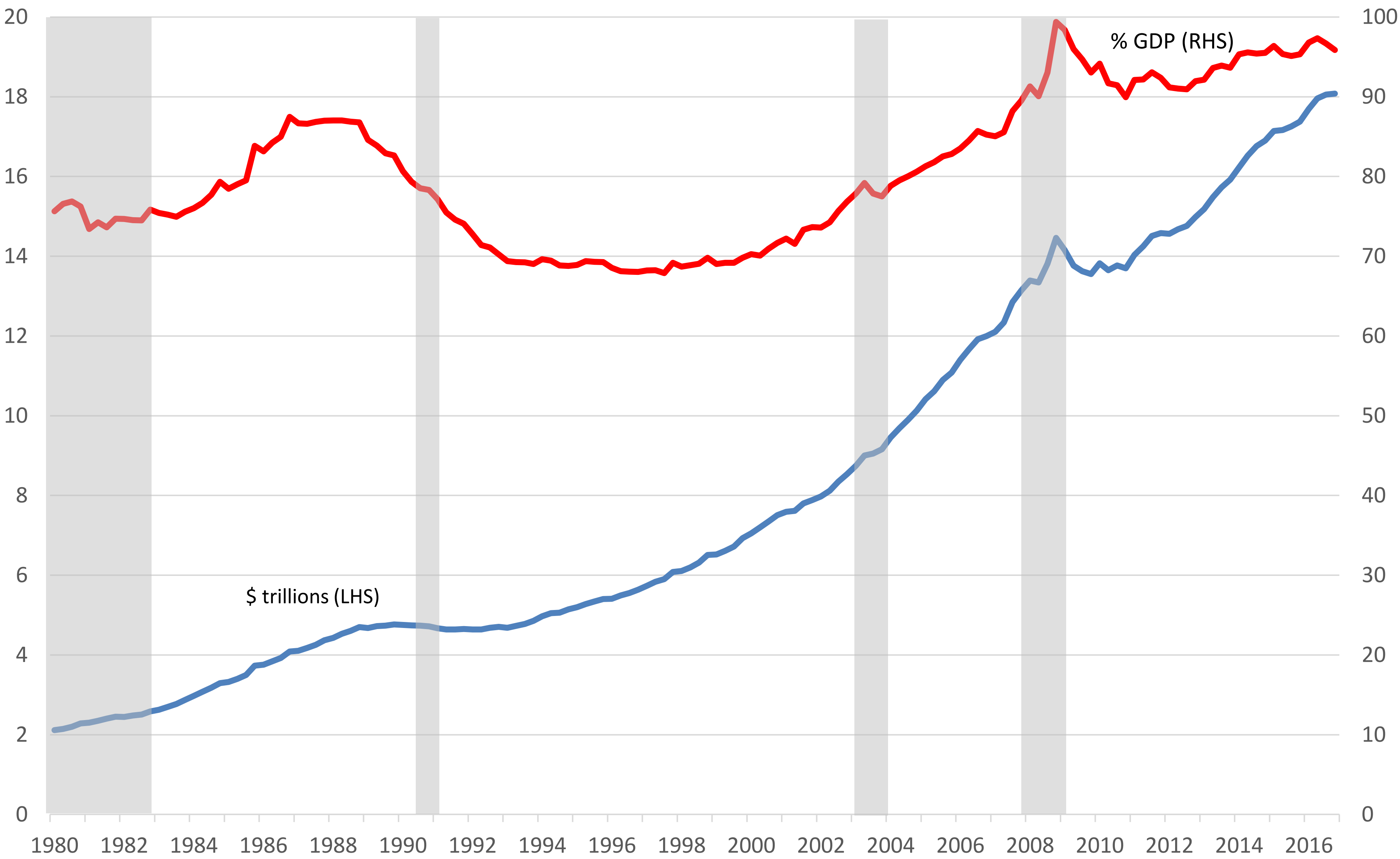
Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q1 2017, p. 12

Loan Growth Rate



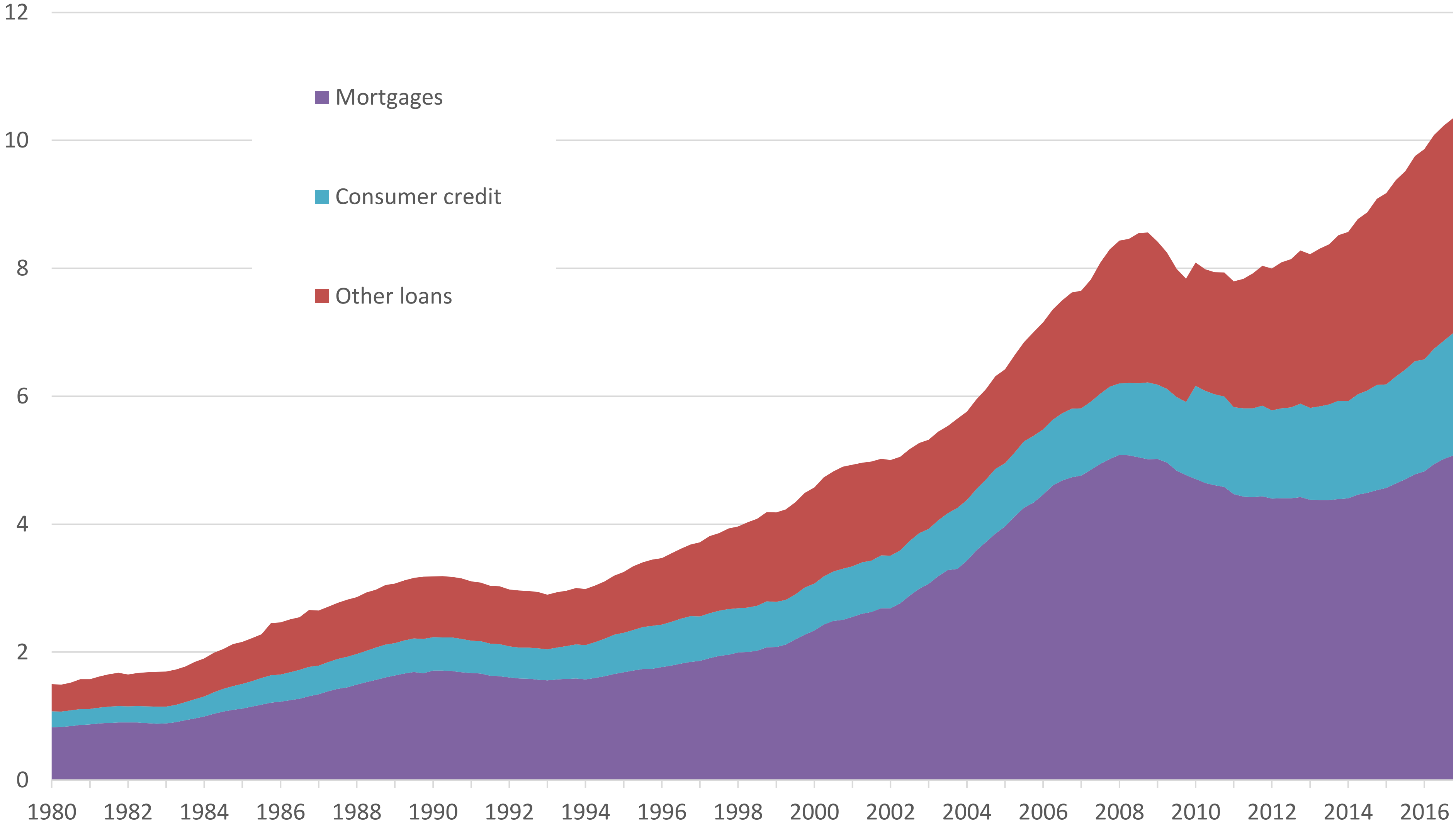
Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q1 2017, p. 33

US bank liabilities



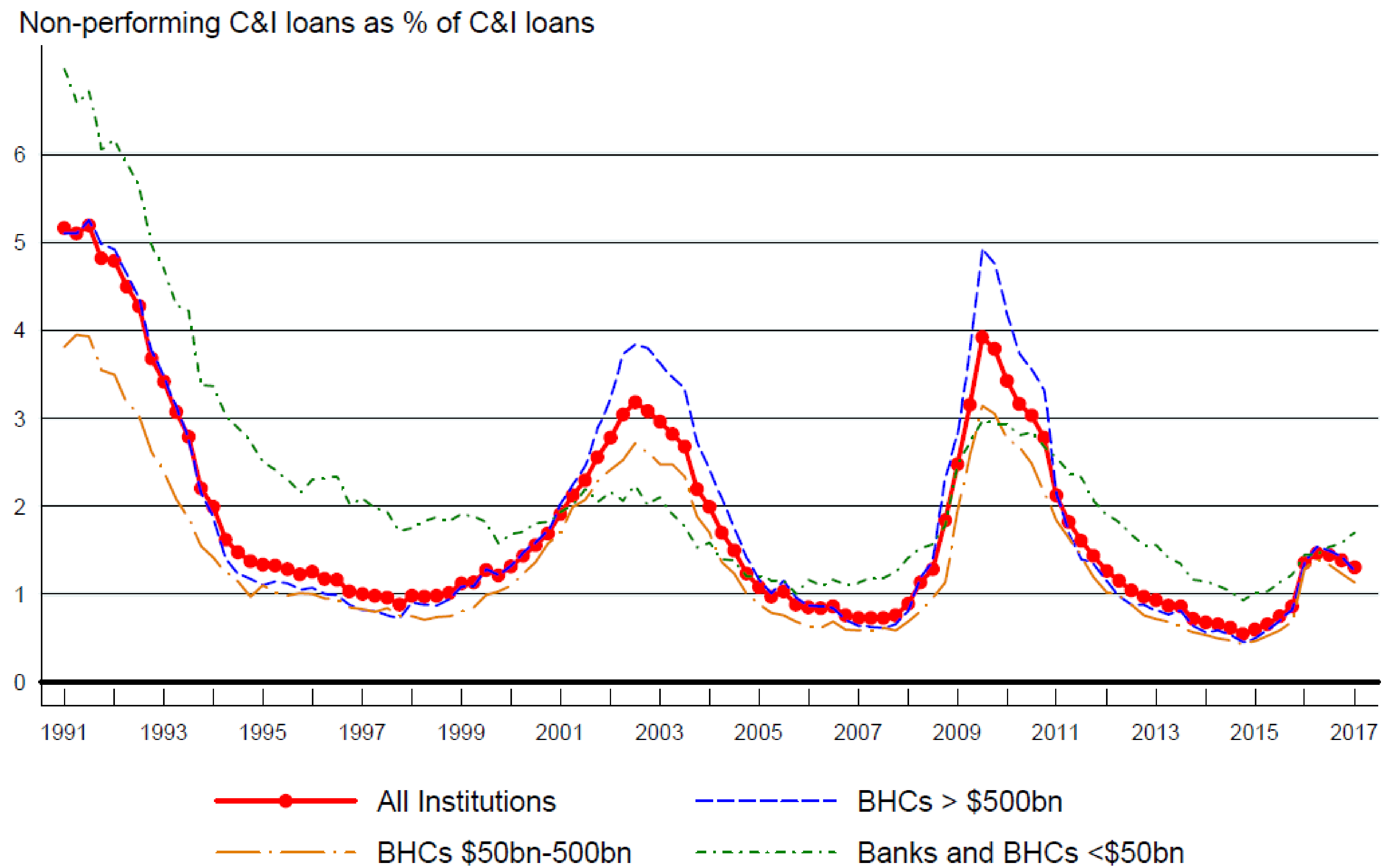
Source: Federal Reserve Board, *Financial Accounts of the United States*, Tables L110

US depository institutions loans, $ trillions



Source: Federal Reserve Board, *Financial Accounts of the United States,* Tables L110, 2016 Q4

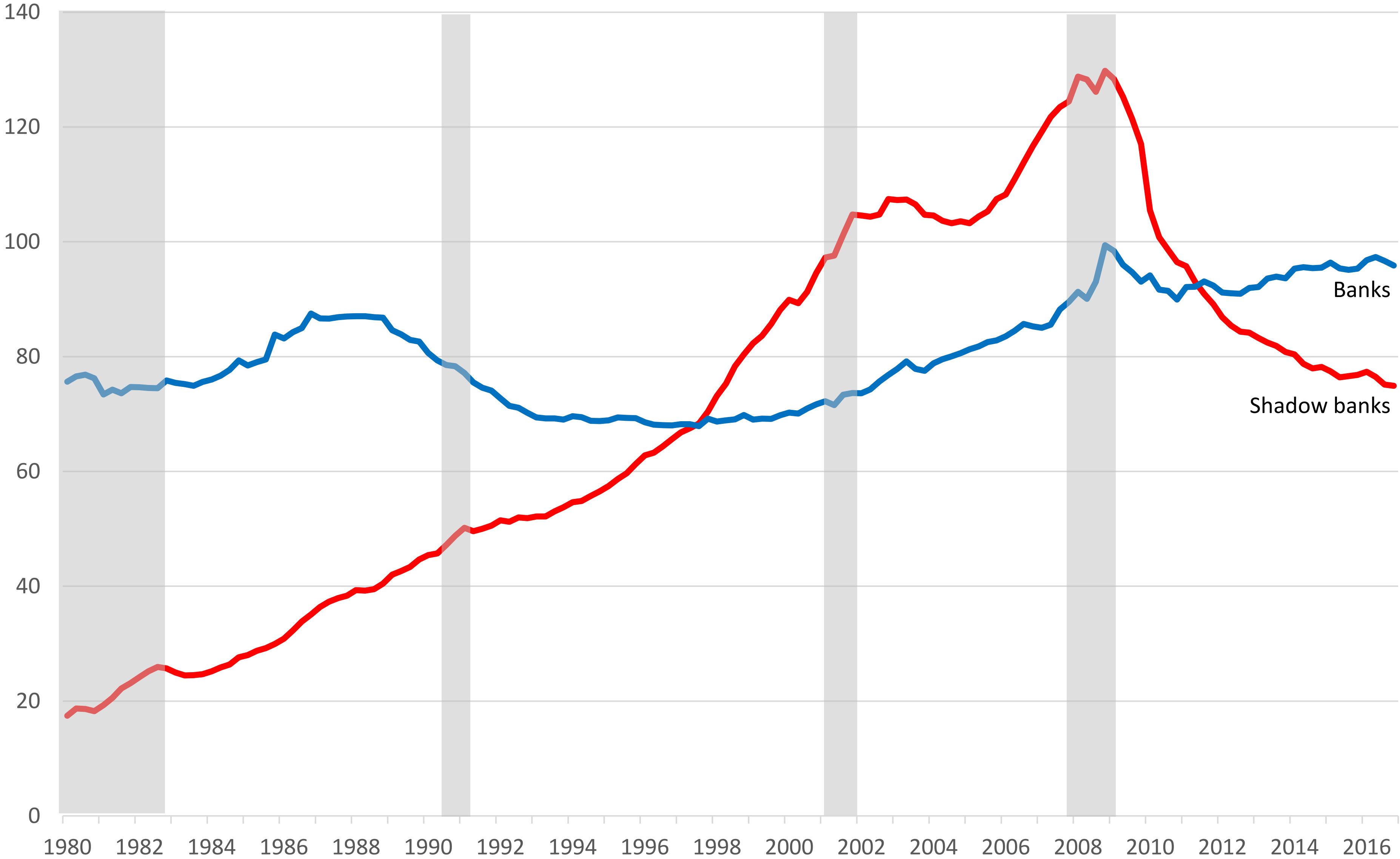
Non-performing Commercial and Industrial (C&I) Loans



Source: Federal Reserve Bank of New York, *Quarterly Trends for Consolidated U.S. Banking Organizations*, Q1 2017, 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

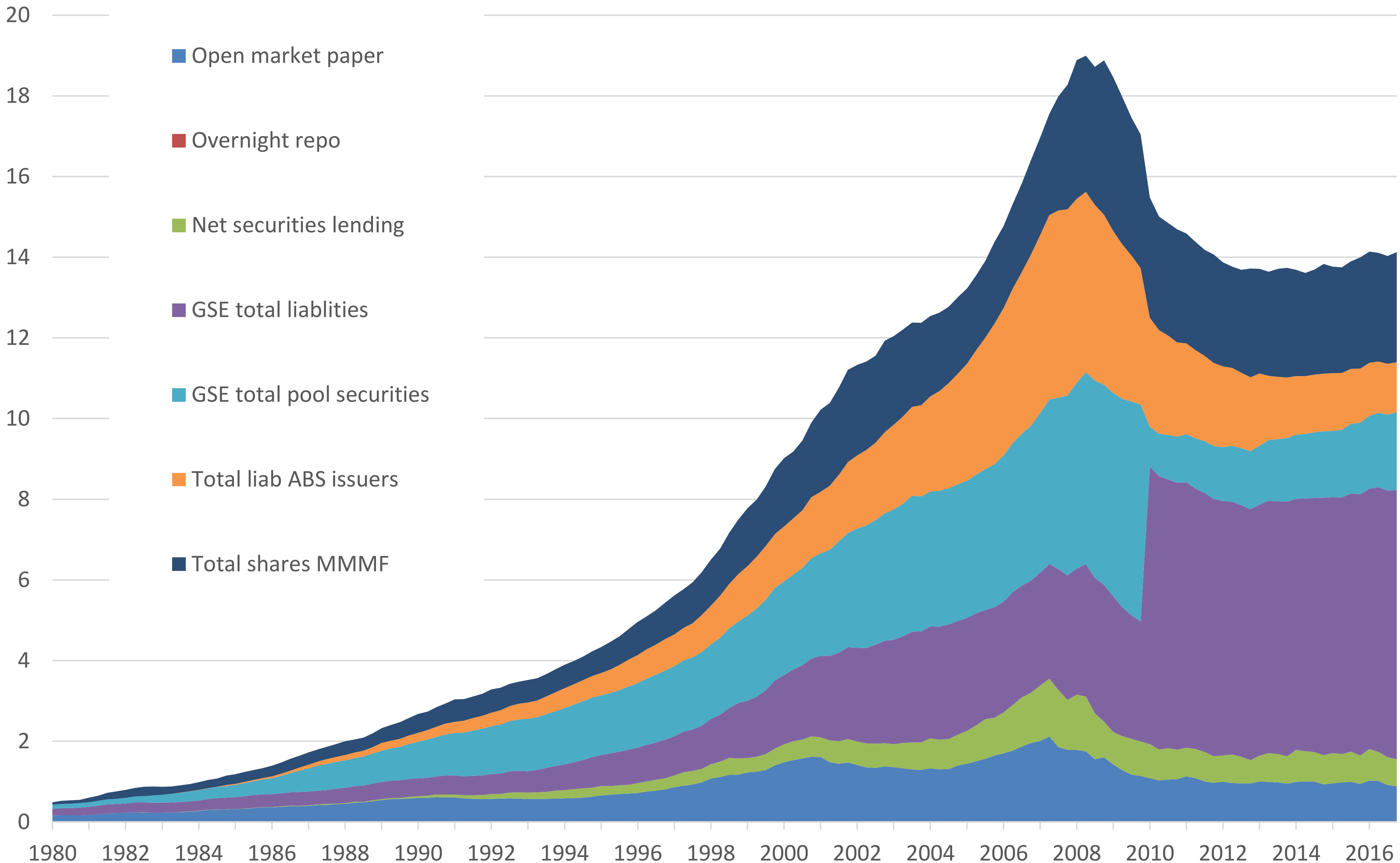
Shadow credit intermediation

	Function	Shadow Banks	Shadow Banks' Funding*
Step (1)	Loan Origination	Finance companies	CP, MTNs, bonds
Step (2)	Loan Warehousing	Single and multi-seller conduits	ABCP
Step (3)	ABS Issuance	SPVs, structured by broker-dealers	ABS
Step (4)	ABS Warehousing	Hybrid, TRS/repo conduits, broker-dealers' trading books	ABCP, repo
Step (5)	ABS CDO Issuance	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 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



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’

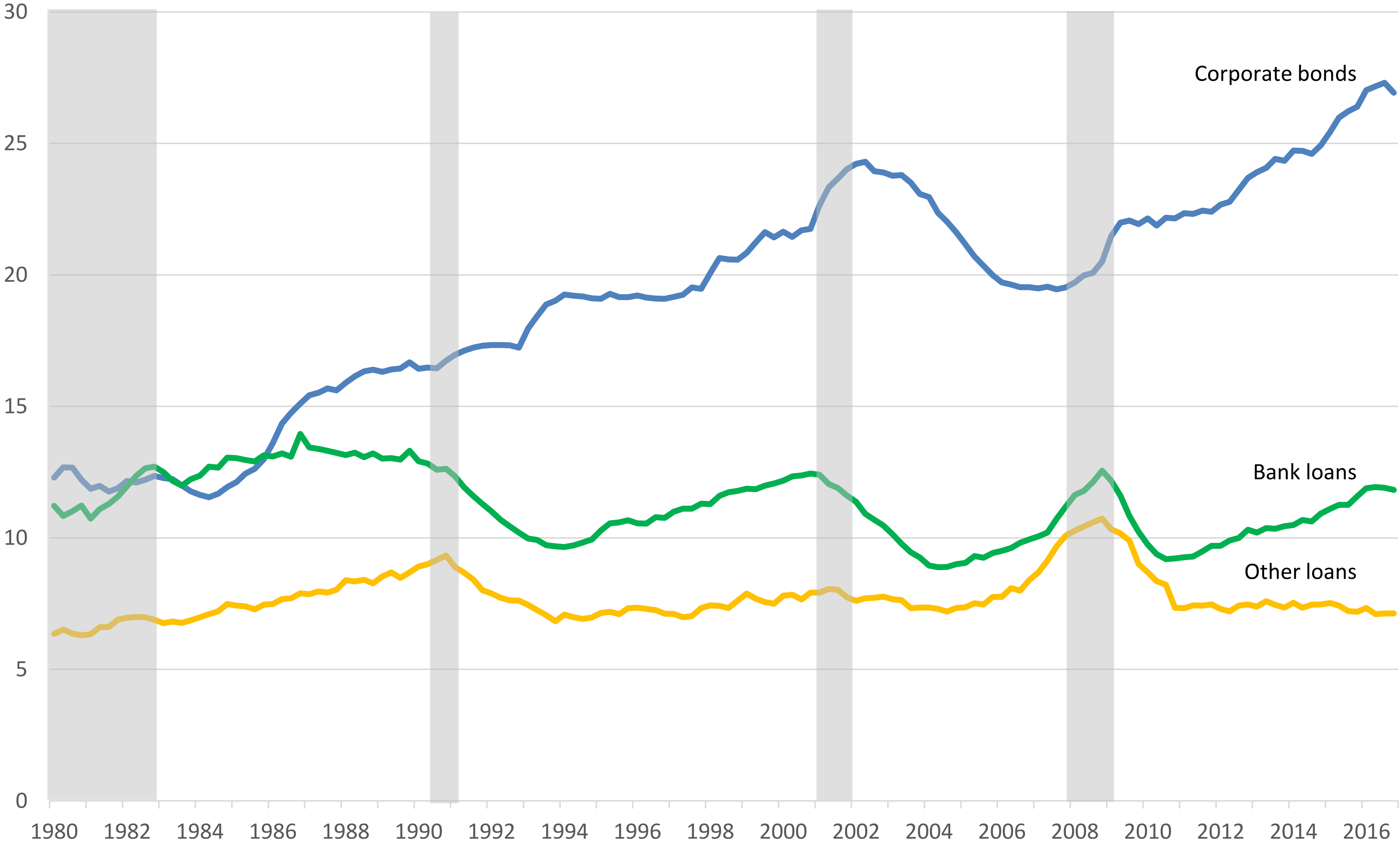
IMF, US financial system stability assessment, July 2015

“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

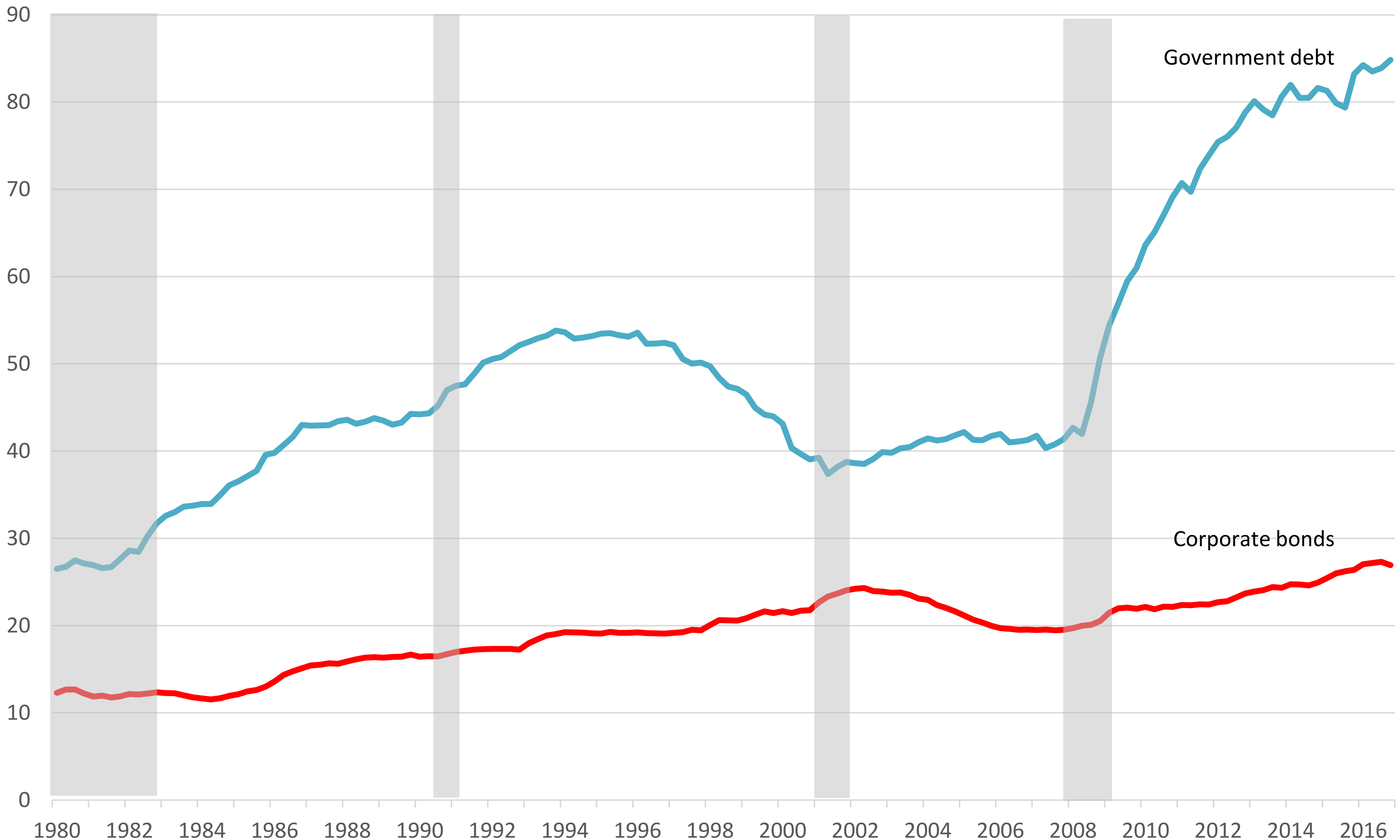
Financial markets

US nonfinancial business corporate borrowing, % GDP

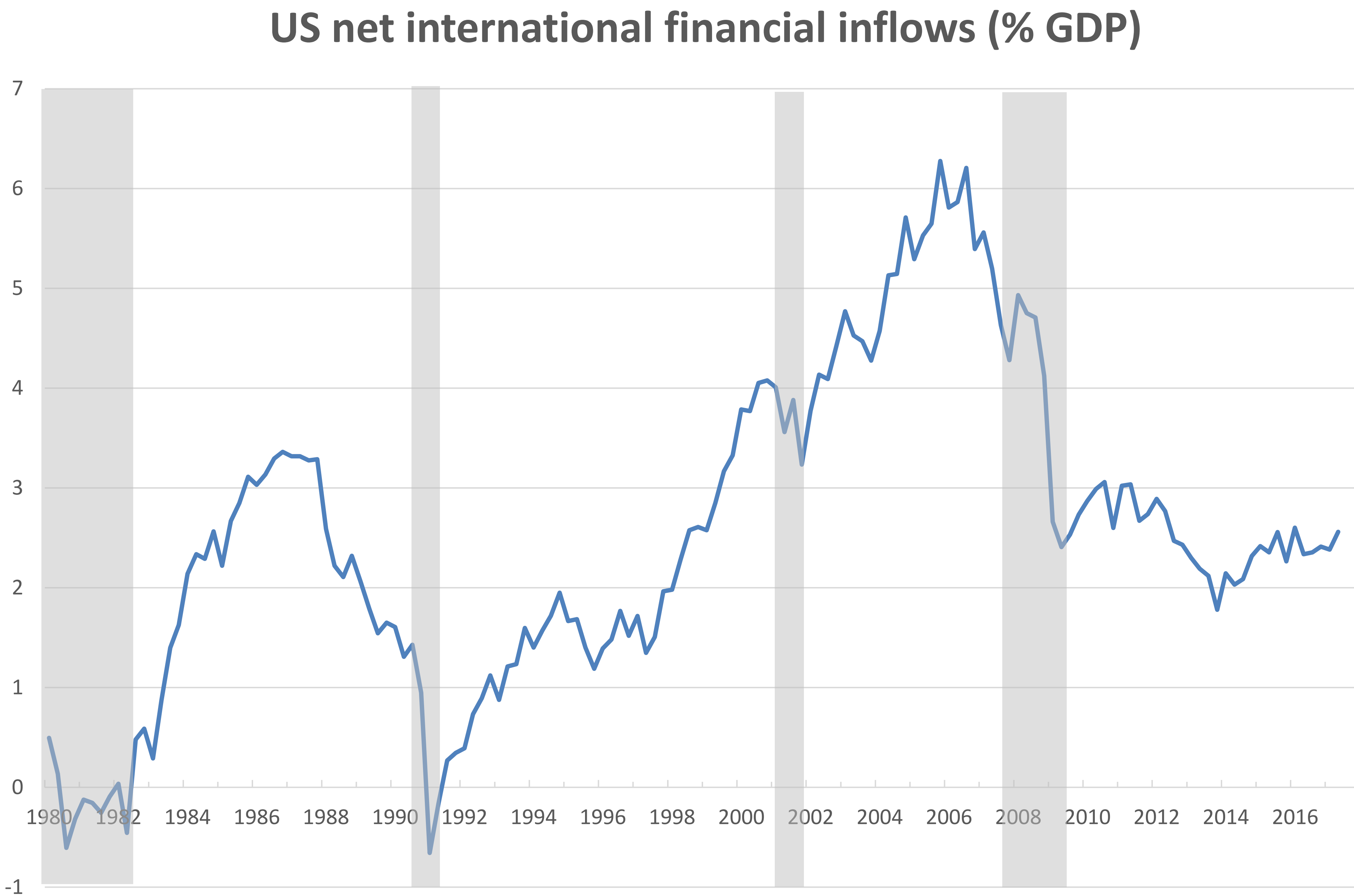


Source: Federal Reserve Board, *Financial Accounts of the United States*, Tables L101, 2016 Q4

US nonfinancial business & government debt, % GDP



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



Source: BEA, International Transactions, Table 1.1 (Current account balance)

‘Draining the swamp’

- Repeal ‘Obama care’
- Major infrastructure investment programme
- End ‘unfair’ trade relations (TPP, NAFTA?)
- Relaxation of financial sector regulation
- Tax ‘reform’

‘A Financial System that creates Economic Opportunities. Banks and Credit Unions’ (June 2017)

- ‘Dodd-Frank created a new set of obstacles to the recovery by imposing a series of costly regulatory requirements on banks and credit unions’
- Threshold for stress tests to be raised from $10bn to $50bn assets; flexibility to exempt those with more than $50bn
- Liquidity coverage ratio narrowed to include only internationally active banks
- Banks with $10bn or less assets exempt from Volcker rule; proprietary trading restrictions not to apply to banks with more than $10bn assets unless exceed threshold amount (!)
- Simplify definition of proprietary trading and allow banks to more easily hedge risks
- Change compliance program requirements to decrease regulatory burden

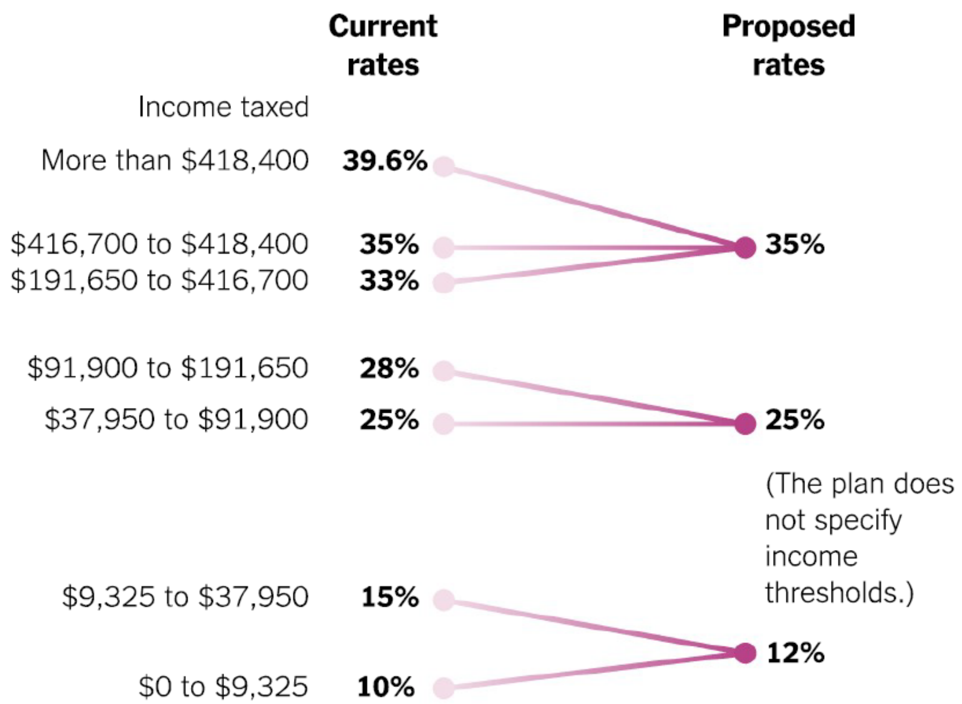
‘Unified Framework for Fixing Our Broken Tax Code’

(September 2017)

- Corporate taxation
  - Reduce rate from 35% to 20%
  - Investment in equipment to be fully expensed for at least 5 years
  - Adopt territorial system which exempts foreign earnings from US tax
  - TPC estimate: Reduce tax revenue by $2.6tn 2018-27

- Personal taxation
  - Simplify from 7 to 3 rates: 12%, 25% & 35% (currently 39.6%)
  - Increase standard deductions
  - Eliminate most other deductions (except mortgage interest)
  - TPC estimate: Increase tax revenue by $470bn 2018-27

Proposed income tax bands

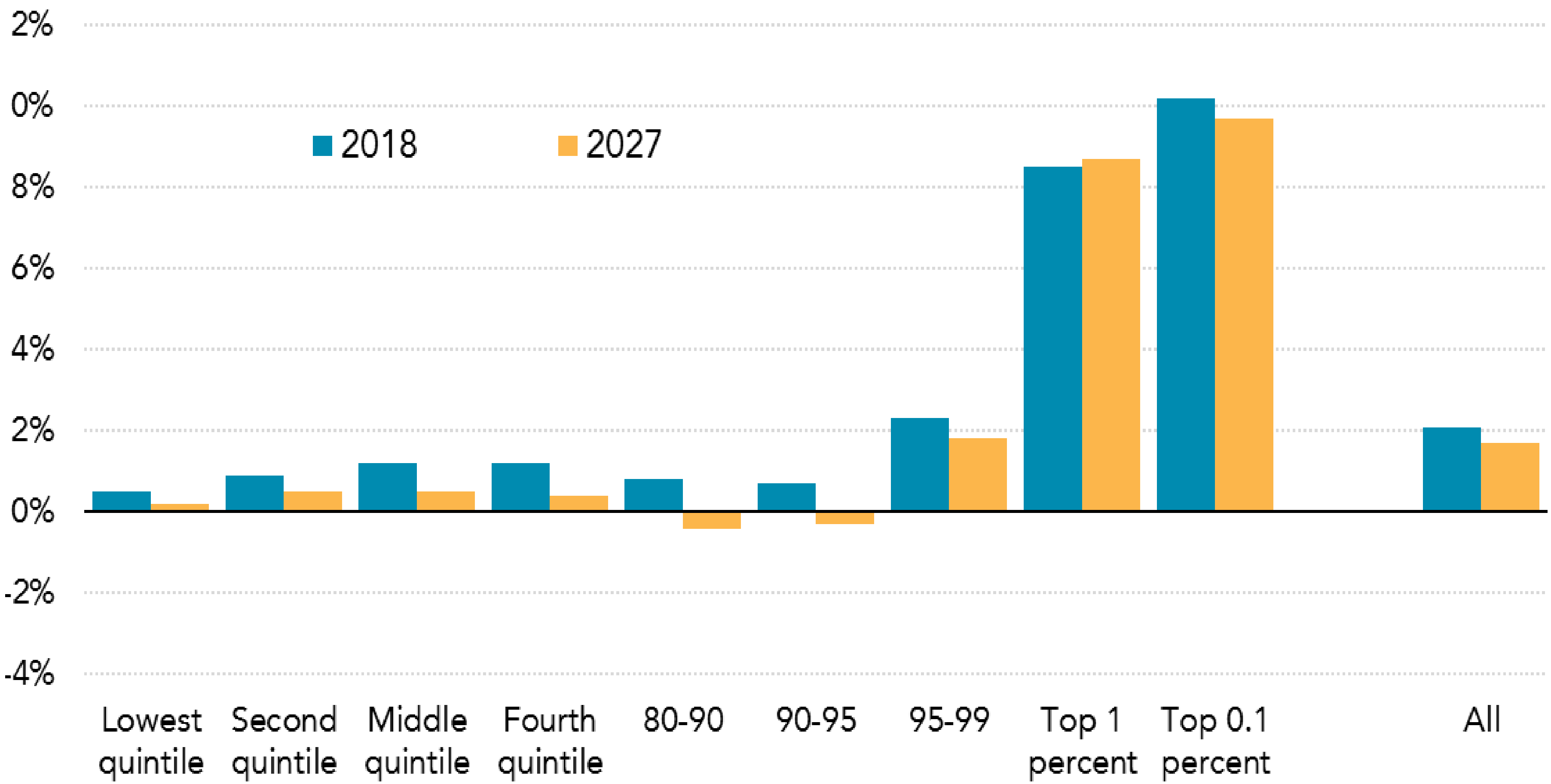


Income thresholds for current rates are for single filers. Because thresholds were not included in the president's plan, brackets are combined based on the House Republican plan released in 2016.

Source: 'Six Charts That Help Explain the Republican Tax Plan', New York Times, 27 September 2017

Percent Change in After-tax Income From Proposals in the Unified Framework

By expanded cash income percentile, 2018 and 2027



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1).

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; new proposals would relax requirements, especially for big banks
- Shadow banking taking increasing risks; beginning to expand again but vulnerable
- Tax proposals envisage major reductions for corporations and top incomes