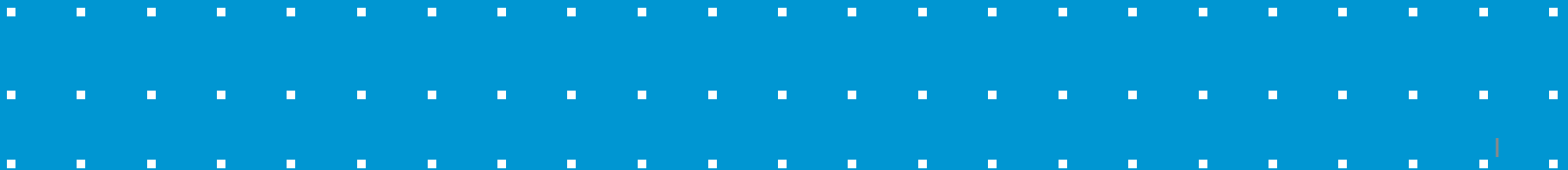




Panel 4: Mortgage Markets

Laurie Goodman
Co-Director, Housing Finance Policy Center
Urban Institute

9th Annual FDIC Consumer Research Symposium
Arlington, VA



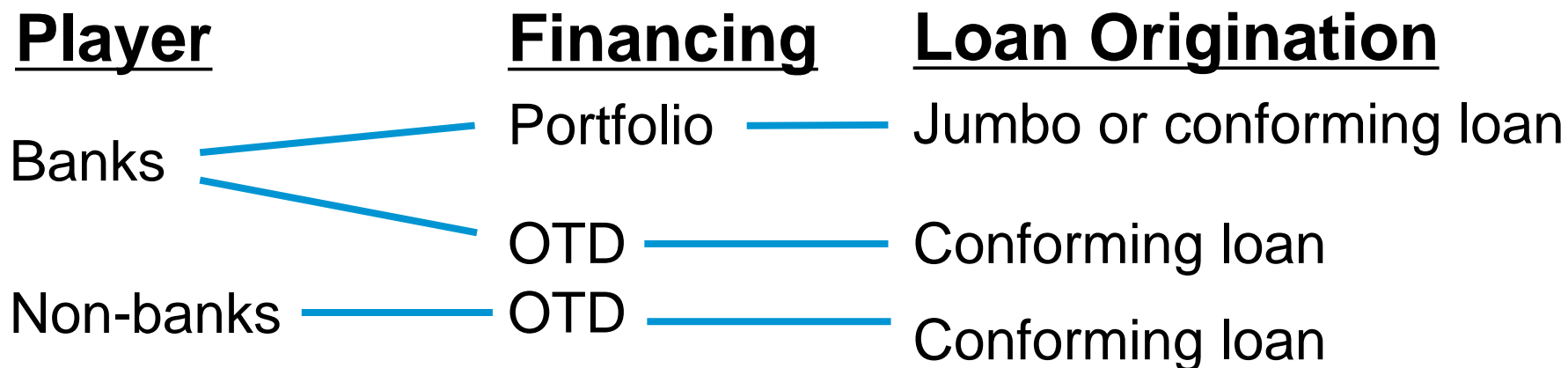
Paper #1: Bank Balance Sheet Capacity and the Limits of Shadow Banks

- This paper consists of a set of stylized facts, a model and policy implications from the model
- Aggregate stylized facts:
 - Jumbo market share increases are accompanied by a decrease in the spread between jumbos and conventional mortgages
 - Tightening of regulatory constraints was associated with increases in the shadow bank share
 - Shadow banks have a small slice of the jumbo market; they mainly originate to distribute (OTD)
- Micro evidence
 - Loans immediately above the loans limit are way to likely to be originated by a bank than a non-bank, and more like to be held on balance sheet.
 - Better capitalized banks have more balance sheet capacity.

Summary

- Banks have an advantage in originating mortgages on balance sheet; this is limited by their capitalization
- This advantage means that banks focus more on the jumbo market, where it is harder to securitize
- Non-banks have a lower regulatory burden and focus on the OTD model

Model



Consumer utility model

- Whether or not to get a mortgage
- Loan size

Model endogenously determines:

- Interest rates (jumbo & conforming)
- Mortgage volumes (jumbo & conforming)
- Conforming split between banks and non-banks

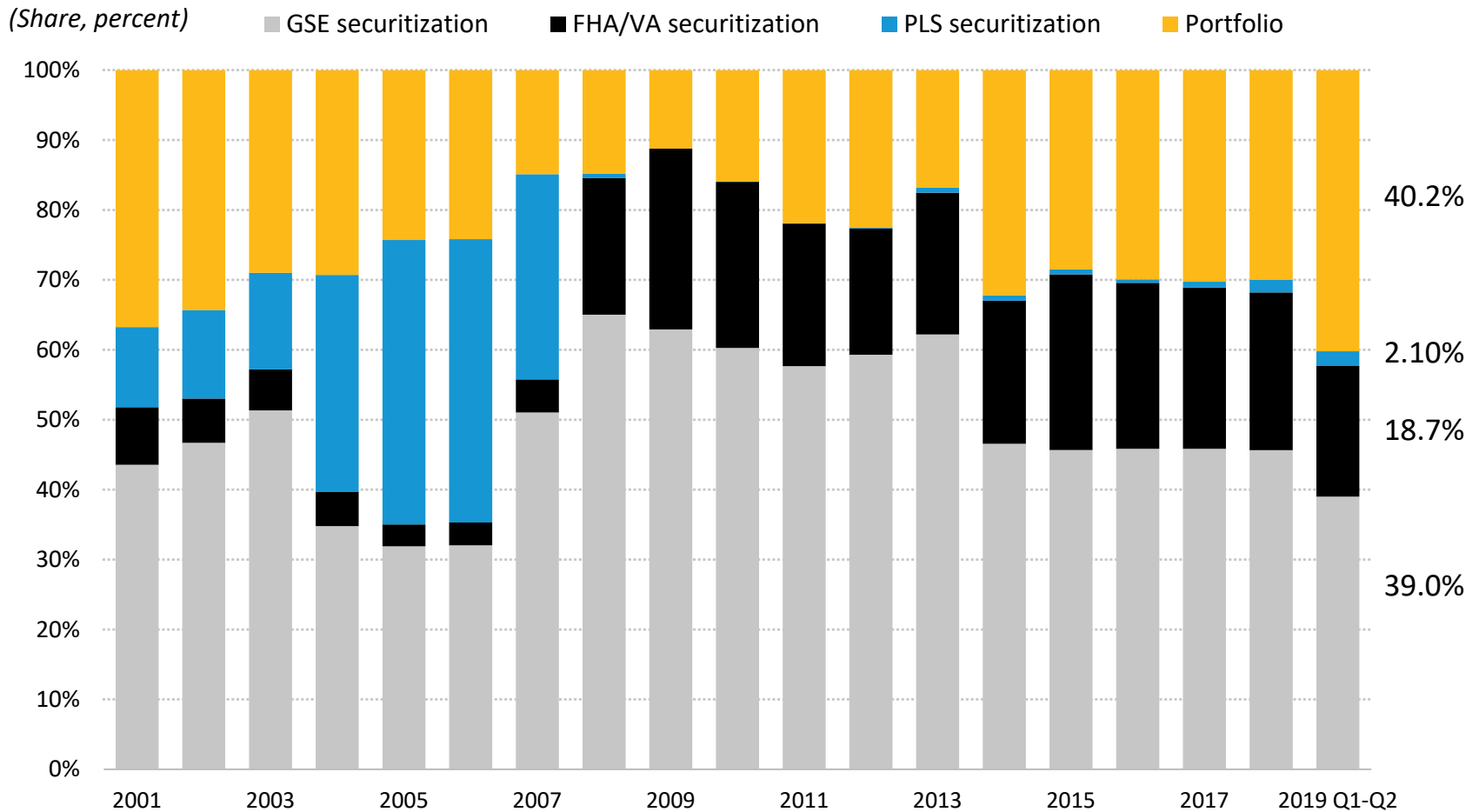
Impact of Policy Actions

	Increasing Capital Requirements from 6 to 9%	QE-decreasing GSE funding costs (-25 bps)	Eliminating conforming loan limits
Jumbo volume	-\$150b (-40%)	-\$6b	-\$53b
Jumbo rates	+89 bs	unch	-57 bps
Conforming volume	+\$120b (split 50/50 bank/ non-bank)	+\$165 b	+\$365b
Conforming rate	Unch	-25 bps	-11 bps
Total lending volume	-31b	+\$159b	+\$312b
Profitability	-\$28b bank/0 non-bank	+\$3 b bank	-\$18b bank/+\$17 non-bank
Consumer surplus	-\$8b, higher income benefits more	+\$43 b, lower income benefits more	+\$305b, higher income benefits more

Policy actions asymmetric

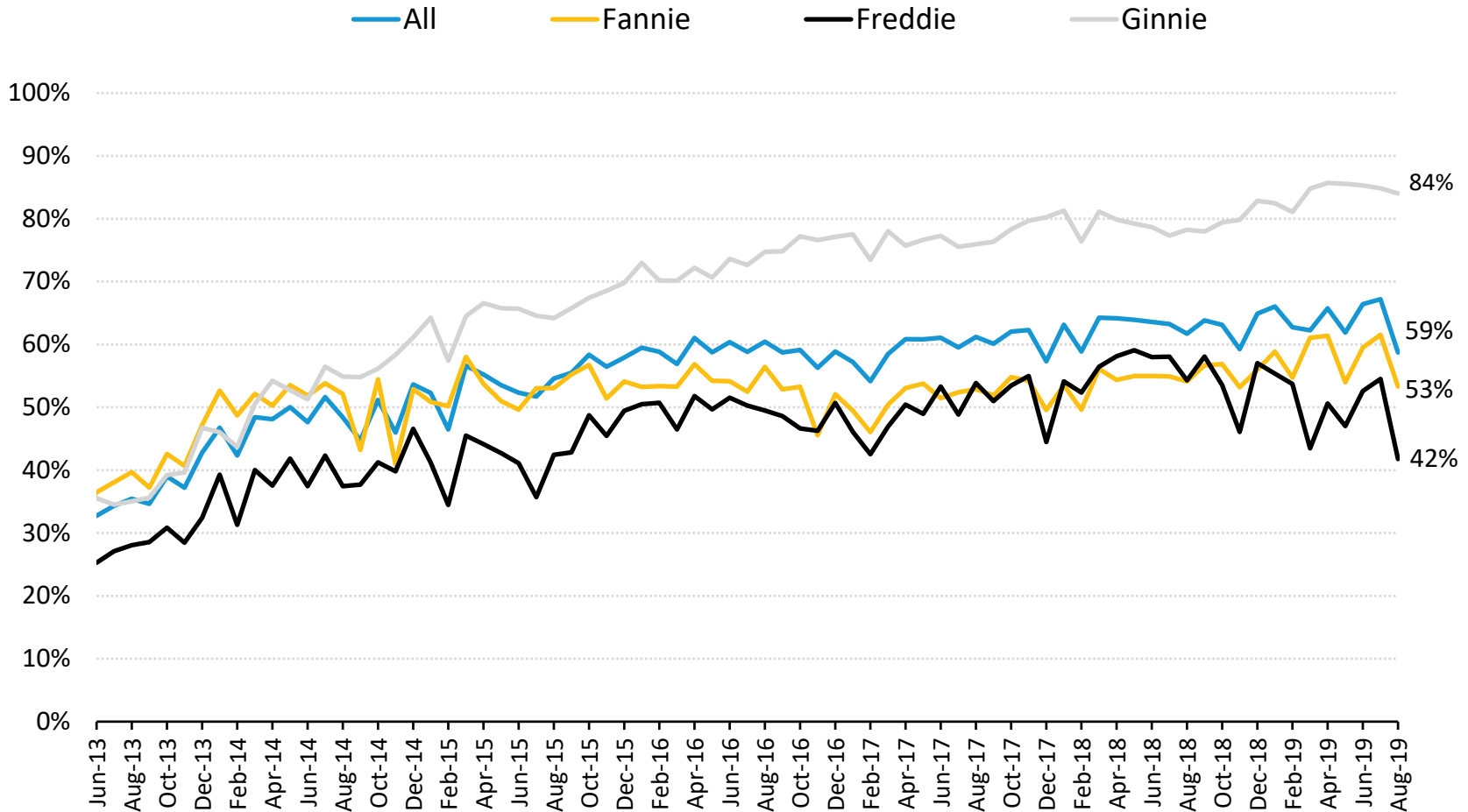
- Decreasing capital requirements from 6% to 4.5% expands balance sheet holdings by banks by 48%, little difference in volumes
- Increasing GSE funding costs by 25 bps leads to a 14 bps increase in mortgage rates, mortgage origination declines by \$70 b, jumbo origination unaffected, consumer surplus -\$20b. Balance sheet financing share increase considerably from 42 to 74%, which mutes the effect.
- 25% decrease in loan limits: jumbo production up by \$125 b, conforming volume down by \$400 b, total volume down by \$275b

Origination Share



Sources: Inside Mortgage Finance and Urban Institute. Last updated August 2019.

Non-bank Origination Share



Sources: eMBS and Urban Institute.

False Claims Act Settlements and Litigation

Firm	Settlement Date	Amount
Citi	Feb-12	\$158.3 million
Flagstar Bank	Feb-12	\$132.8 million
Bank of America	February 2012 (NMS), August 2014 (broader settlement)	\$1 bil (NMS), \$1.85 bil (broader settlement)
DB/Mortgage IT	May-12	\$202.3 million
Chase	Feb-14	\$614 million
US Bank	Jun-14	\$200 million
SunTrust	Sep-14	\$418 million
MetLife	Feb-15	\$123.5 million
First Horizon/First Tennessee	Jun-15	\$212.5 million
Walter Investment Management Corp	Sep-15	\$29.6 million
Franklin American	Dec- 15	\$70 million
Wells Fargo	Apr-16	\$1.2 billion
Freedom Mortgage	Apr-16	\$113 million
M&T Bank	May-16	\$64 million
Regions Bank,	Oct-16	\$52.4 million
Branch Banking and Trust (BB&T)	Oct-16	\$83 million
Primary Residential Mortgage	Oct-16	\$5.0 million
Security National Mortgage Co.	Oct-16	\$4.25 million
United Shore Financial Services	Dec-16	\$48 million
PHH Mortgage	Aug-17	\$75 million
Allied Home Mortgage Capital/Allied Home Mortgage Corporation	Sep-17	\$296 million
IberiaBank (LA)	Dec-17	\$11.7 million
Universal American Mortgage Co.	Oct-18	\$13.2 million
Finance of America Mortgage/Gateway Funding Diversified Mortgage Services	Dec-18	\$14.5 million
Quicken Loans	Jun-19	\$32.5 million
Litigation in Process		
Guild Mortgage	--	--

Source: Urban Institute, various press releases from the U.S. Department of Justice Office of Public Affairs, and other press reports.

Paper #2: Mortgage Leverage and House Prices

- Paper quantifies the effect of mortgage debt-to-income (DTI) restrictions on home prices using a change in the eligibility requirements imposed by the GSEs.
- In 1999 Fannie Mae and Freddie Mac's DTI restrictions diverged, Freddie scaled back dramatically their willingness to accept DTIs greater than 50; this affects about 5% of the Freddie borrowers.
- The paper shows that locations with tighter DTI requirements experience an immediate relative reduction in home prices, on the order of 2%.
- This effect builds over time and leads to a smaller house price boom and bust in these locations during the 2000s.

The impact just seems intuitively too large

- There were other factors, interest rates were rising rapidly over that period, increasing DTIs.
- All activity was not occurring in the GSE market.
 - GSEs were less than half the total market. The FHA and private label markets were significant.
 - These channels had wider lending standard than either of the GSEs.
 - All large lenders were excluded from this analysis, so it looks at the county share (Freddie/Freddie+Fannie) for lenders originating less than 20,000 purchase loans.
 - Even if these lenders had only one system and could only sell into one lender, brokers could sell into either set of lenders.
- The way the analysis is done, the Freddie share becomes the proxy for many different factors, and hence overestimates the effect.

PMMS Rates: Monthly time series

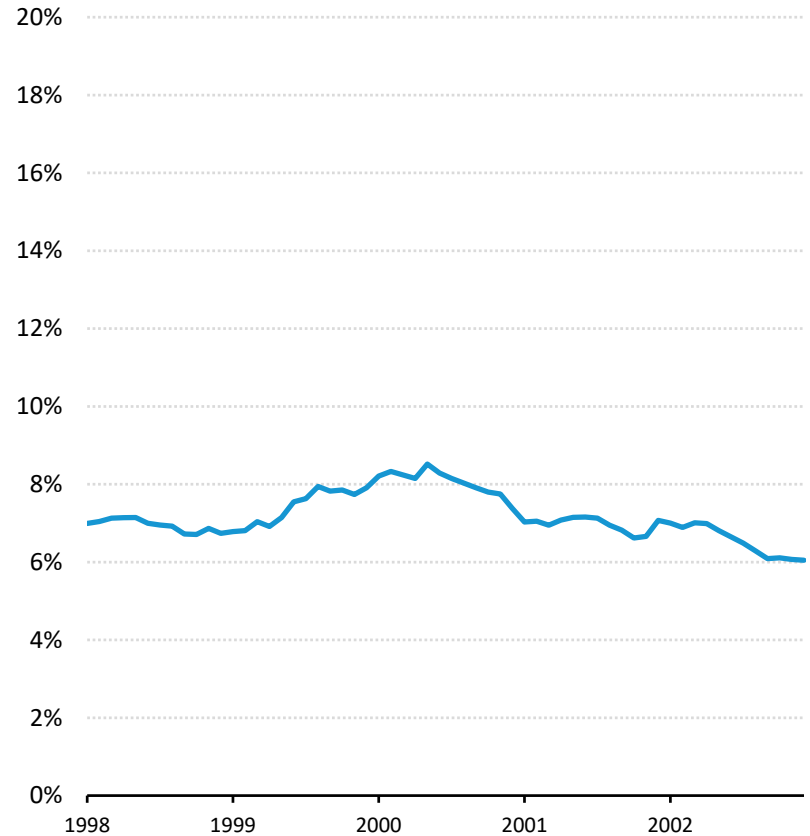
April 1971 – September 2019

30-Year Fixed-Rate



1998 – 2002

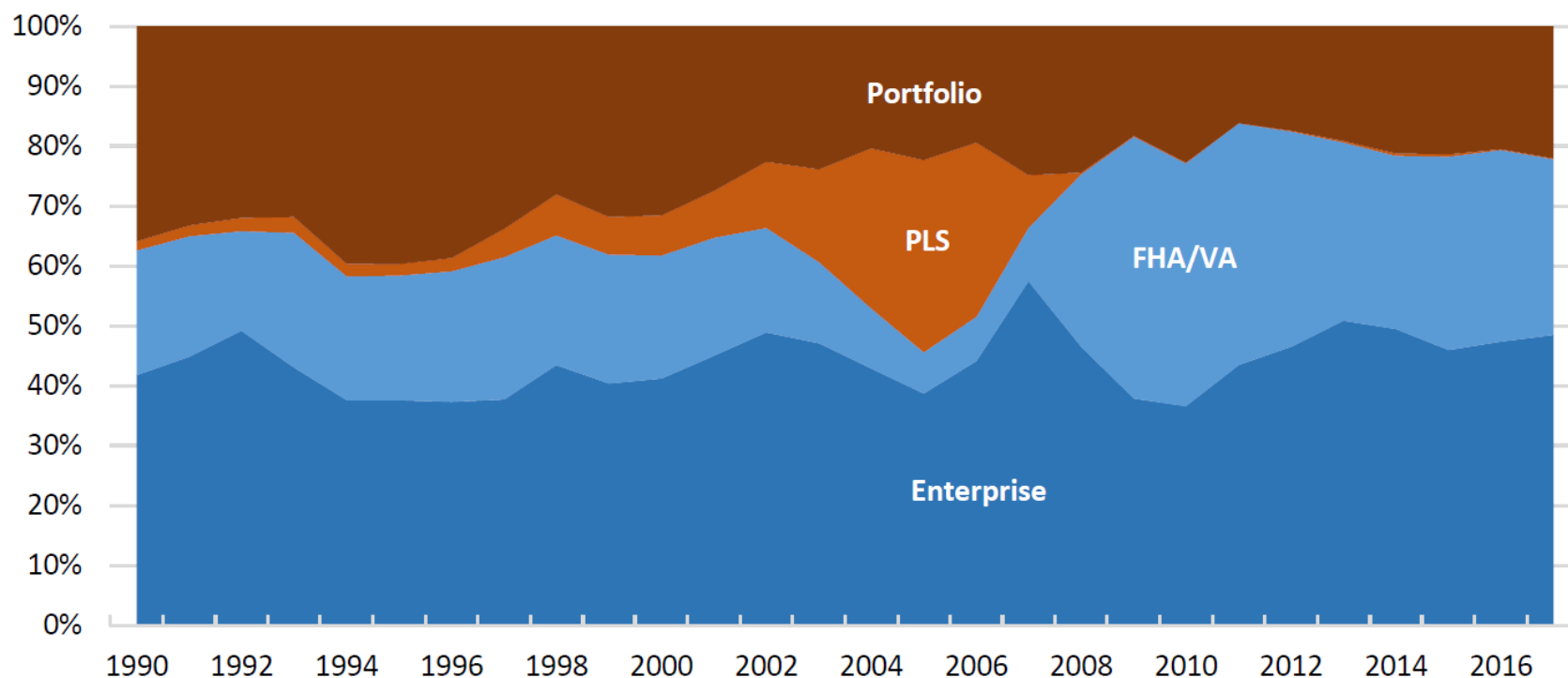
30-Year Fixed-Rate



Source: Freddie Mac.

The GSEs were less than 50% of the market

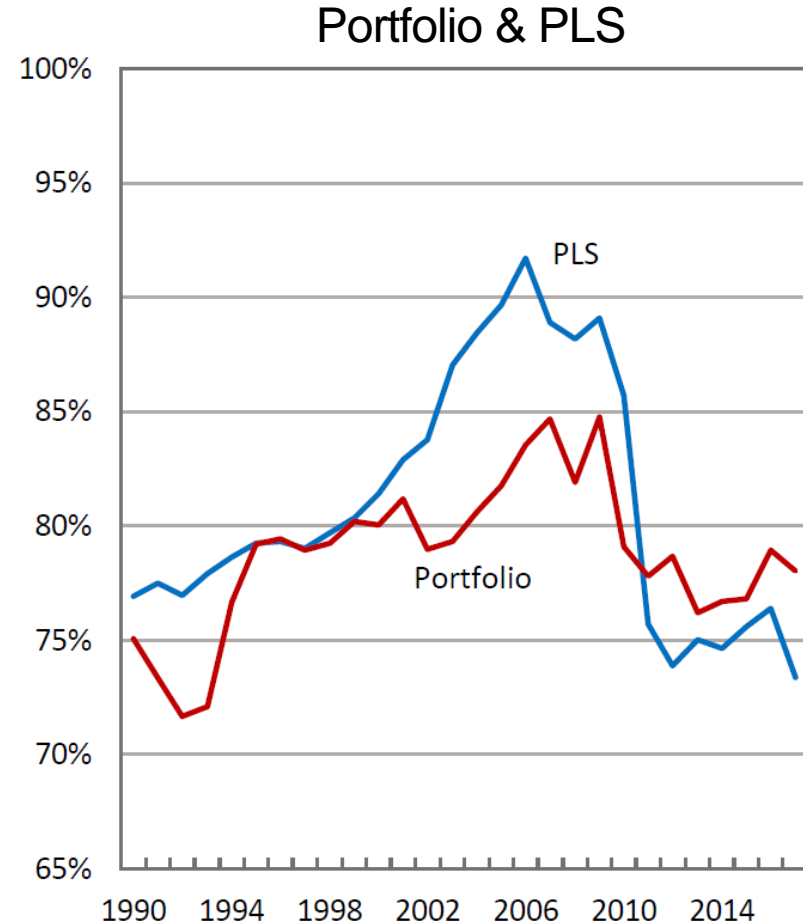
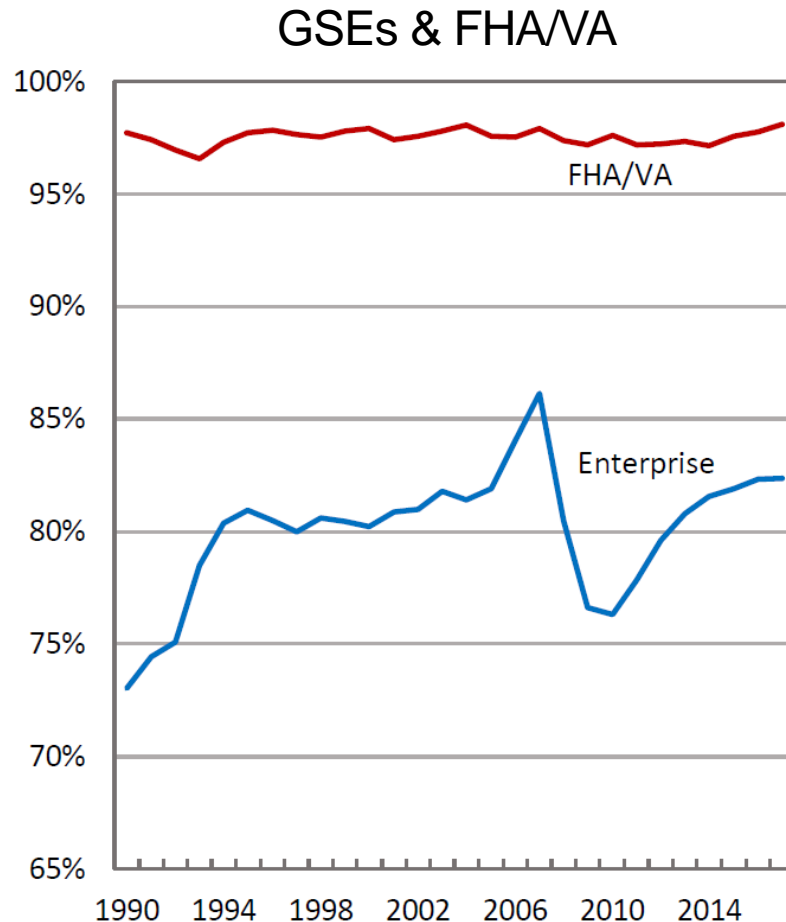
Market Shares of Home Purchase Loans



Source: Dorris et al., FHFA Staff Working Paper, revised Oct. 2019.

Both Government loans and PLS loans have higher CLTVs than GSE loans

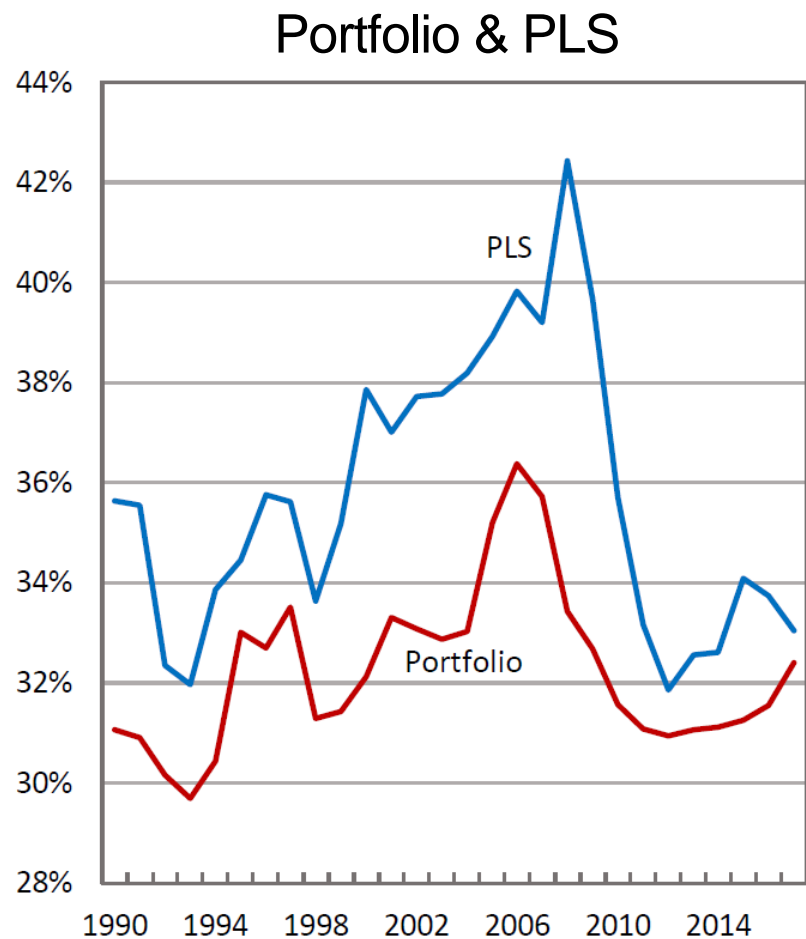
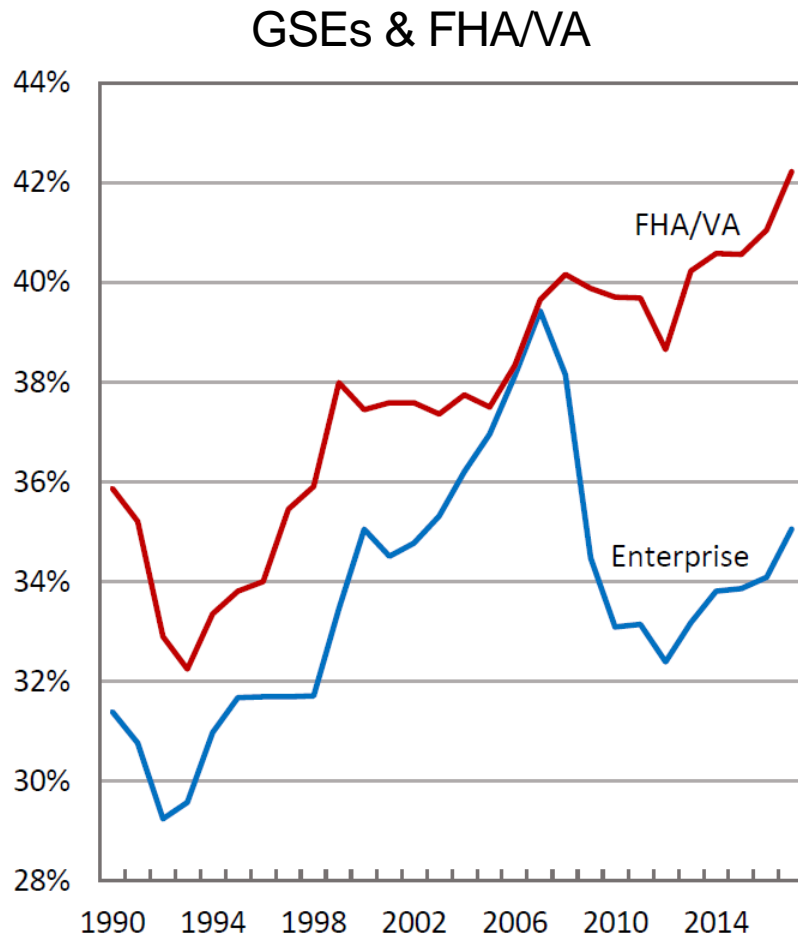
Average CLTV for Home Purchase Loans, 1990-2017



Source: Dorris et al., FHFA Staff Working Paper, revised Oct. 2019.

Both Government loans and PLS loans have higher DTIs than GSE loans

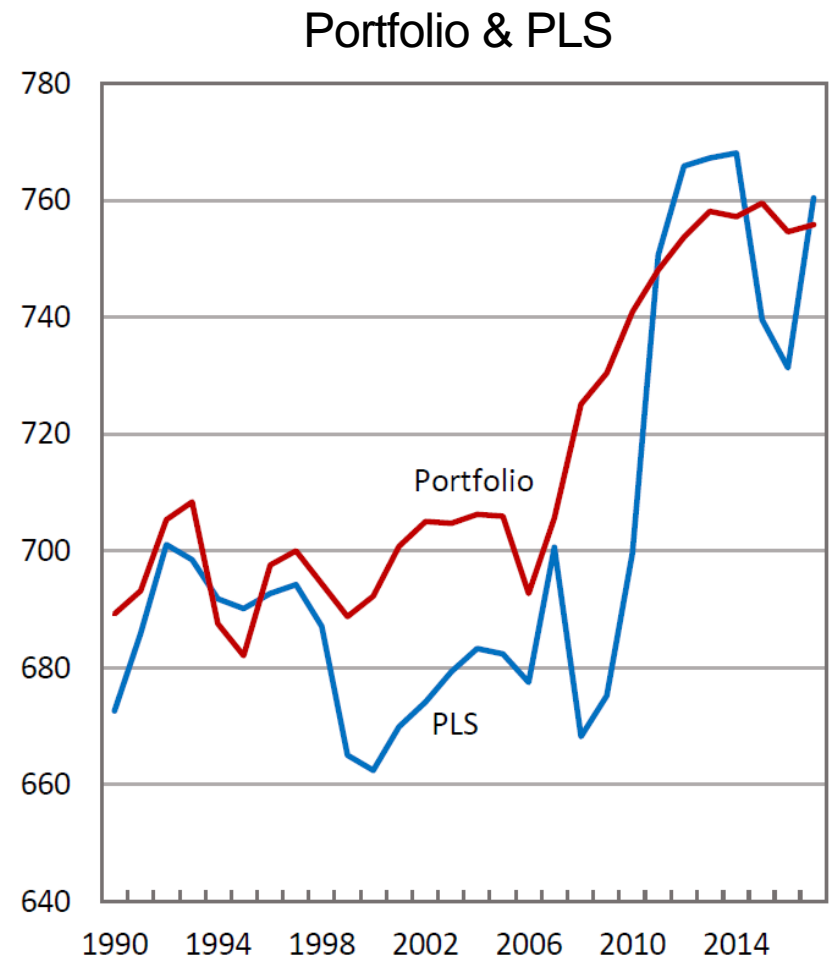
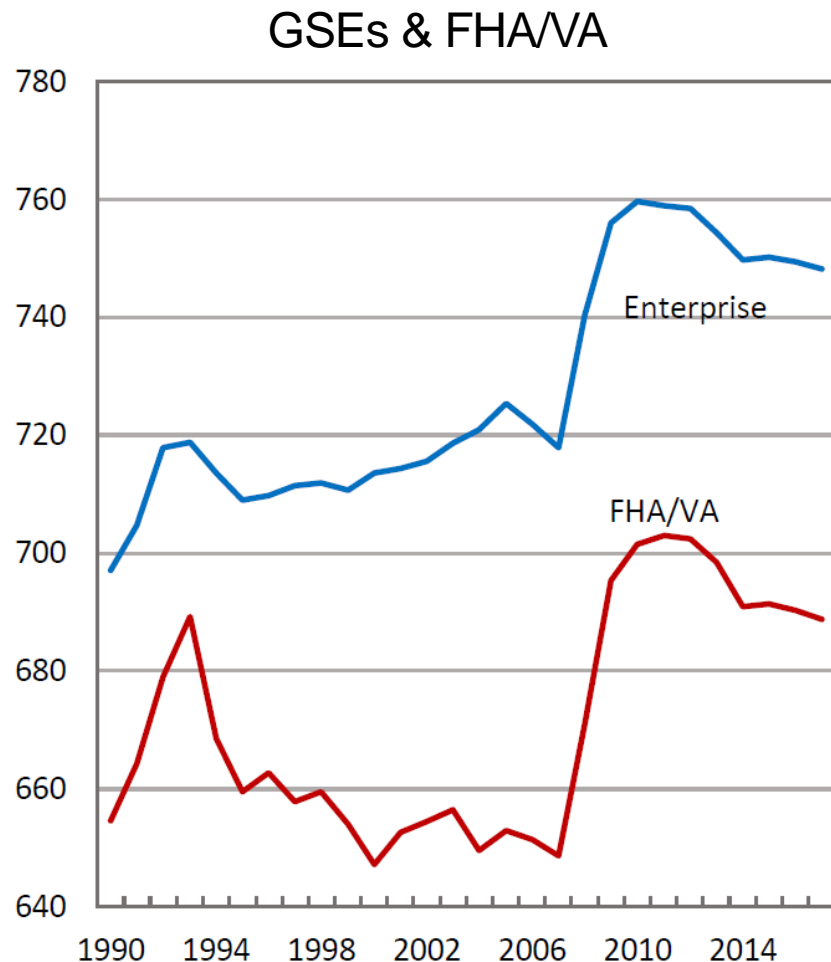
Average DTI for Home Purchase Loans, 1990-2017



Source: Dorris et al., FHFA Staff Working Paper, revised Oct. 2019.

Both Government loans and PLS loans have lower FICO scores than GSE loans

Average Credit Score for Home Purchase Loans, 1990-2017



Source: Dorris et al., FHFA Staff Working Paper, revised Oct. 2019.

% HOUSE PRICE RESPONSE: JUN 1999 – DEC 1999; CORELOGIC					
	(1)	(2)	(3)	(4)	(5)
Freddie Share	−2.48***	−1.94**			
	(0.78)	(0.80)			
Freddie Share (All Loans)			−2.89**		
			(1.21)		
Freddie × Low Leverage				−1.12	
				(1.37)	
Freddie × Mid Leverage				−1.78	
				(1.72)	
Freddie × High Leverage				−2.66	
				(2.35)	
Freddie × Low Supply Elasticity					−5.00***
					(1.72)
Freddie × Mid Supply Elasticity					−0.66
					(1.30)
Freddie × High Supply Elasticity					−2.05
					(1.52)
Freddie × Missing Supply Elasticity					−1.67
					(1.10)
State FE	X	X	X	X	X
Controls		X		X	X
Number of Counties	996	996	996	754	996
Number of States	49	49	49	48	49
Number of Observations	996	996	996	754	996

Source: Johnson, 2019.

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