2019 Conference of the County Investment Academy

”Housing Finance Reform: Changes and Consequences"

Chris Mier CFA, Managing Director

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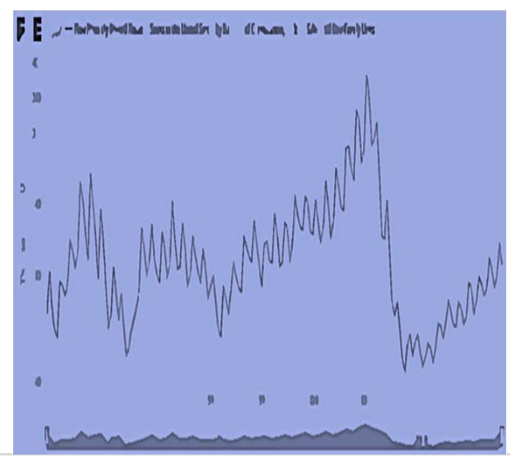
Government Sponsored Entities

- Federal Home Loan Bank System (FHL Banks) (1932)
- Federal National Mortgage Association (Fannie Mae) (1938)
- Federal Home Loan Mortgage Corporation (Freddie Mac) (1970)
- Financing Corporation (FICO) (1987)
- Federal Farm Credit Banks (FC Banks) (1916)
- Federal Agricultural Mortgage Corporation (Farmer Mac) (1987)

Mortgage Debt Outstanding ($Millions, end of period)								
SOURCE: Federal Feserve	2014	2015	2016	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Federal and related agencies	4,987,654	5,036,576	5,146,884	5,314,929	5,338,394	5,369,802	5,415,432	5,456,148
Government National Mortgage Association	5,372	4,655	4,655	3,166	3,066	2,962	2,876	2,793
Farmers Home Administration3	102,054	99,998	101,571	102,469	102,903	103,864	104,558	105,713
Feder Housing Admin. and Dept. of Veterans Affairs	9,073	11,654	13,357	14,069	14,157	14,300	14,451	14,624
Federal National Mortgage Association	3,019,300	3,010,753	3,063,646	3,155,703	3,176,703	3,186,600	3,209,155	3,223,783
Federal Land Banks	105,480	114,930	121,594	126,711	126,626	128,566	130,532	132,184
Federal Home Loan Mortgage Corporation	1,699,352	1,746,667	1,790,188	1,853,654	1,853,733	1,870,433	1,888,010	1,909,846
Federal Home Loan Banks	43,494	44,488	48,408	53,768	54,855	57,172	60,044	61,800

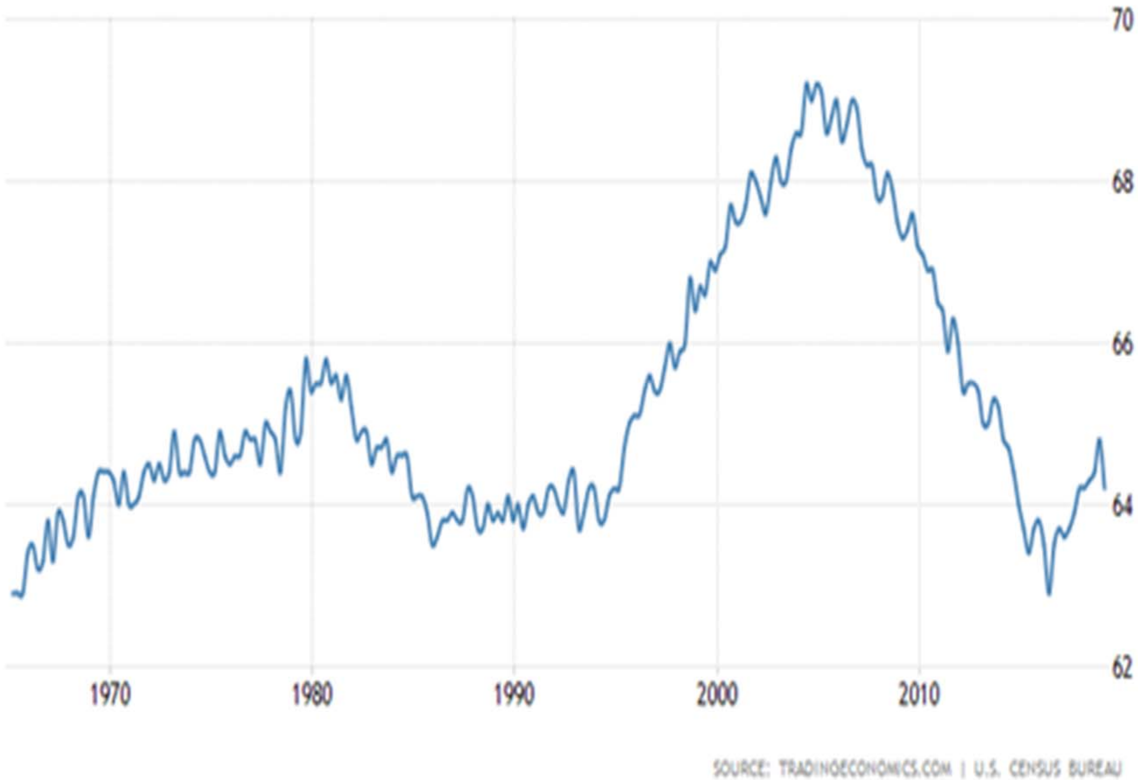
A Short History of Government Sponsored Enterprises

- FHLB System created in 1932.
- FNMA formed in 1938, publicly traded in 1968.
- FHLMC chartered in 1970 to expand the secondary market for mortgages in the US.
- GSEs successful in expanding housing over post war period from 42% to over 60%.
- HUD establishes new goals for FNMA and FHLMC that charges them with meeting an affirmative obligation to facilitate financing of affordable housing for low and moderate income families in 1995.
- The Clinton-Bush policy – pushing single-family home ownership toward 70%.
- FNMA and FHLMC begin buying Alt-A and subprime mortgages in the 2000s.
- Burst of housing bubble in 2006-07 led to risk of GSE insolvency.
- GSEs bailed out and placed under Conservatorship in 2008.
- Reform efforts starting around 2013 go nowhere, taxpayers remain exposed.
- New developemnts recently add hope to implementation of a reform proposal.



Single Family Ownership in the US —
Presidents Clinton and Bush Push Ownership Higher

United States Home Ownership Rate



The desire to push the home ownership rate higher, a goal shared by both Presidents Clinton and Bush, led to Administrative efforts to liberalize rules on mortgage qualifications, and a new array of mortgage options for lower qualified individuals seeking a home for the first time.

"At the outset, it is important to mention that the guidelines for selecting mortgages into subprime and Alt-A pools vary by arranger of the MBS. Typically, Alt-A mortgages are underwritten to borrowers of good credit quality—that is, those who would otherwise qualify for a prime loan in terms of their credit history. However, Alt-A borrowers do not satisfy the underwriting rules for prime loans because they are unwilling or unable to provide full documentation on their mortgage application."

The Alt-A percentage of securitized market share went from 2.7% in 1998 to 27.5% in 2005.

SOURCE: January/February 2010, Federal Reserve Bank Of St. Louis Review

Housing and Economic Recovery Act of 2008

- Fannie Mae and Freddie Mac owned or guaranteed a large share of all home loans in the US, and were especially hard hit by the housing slump.
- The legislation (enacted July 30, 2008) was designed to address the mortgage crisis and restore confidence in Fannie Mae and Freddie Mac by strengthening regulations and injecting capital into the agencies.
- Federal Housing Administration authorized to guarantee up to $300 billion in new 30-year fixed rate mortgages for subprime borrowers if lenders wrote down principal loan balances.
- The Act established the Federal Housing Finance Agency (FHFA).
- Fannie Mae and Freddie Mac were put under the conservatorship of the FHFA.
- Fannie Mae and Freddie Mac stocks were subsequently delisted from the NYSE and continued to trade OTC.
- The Agencies eventually paid the Treasury back for the support they received to the U.S. Treasury.
- The law specifies that the two companies must technically be liquidated if they are to exit government control.

In the Wake of the Flood — Post Crisis Changes

- ☐ 2008 rescue plan places GSEs in conservatorship under Treasury Department
- ☐ 2012 agreement amends the 2008 rescue plan, directing GSEs to sweep capital to Treasury Department.
- ☐ 2017 deal between Treasury and FHFA, reduces capital of Fannie and Freddie to just $3 billion each.

Sticking points:

- ☐ Fannie and Freddie need much more capital to be able to absorb potential losses during the next downturn
  - Combined assets of $5.4 trillion
  - Between 3% and 4% of equity needed
  - Estimated capital need is between $150 billion to $200 billion.
- ☐ Federal government still on the hook for guarantee.
  - If the possibility of loss of government guarantee is priced in, that should be reflected in mortgage rates.
- ☐ Taxpayers potentially exposed to future bailouts.
  - The lack of comprehensive housing finance reform since the financial crisis of 2008 has changed little
- ☐ The status of two agencies must be resolved, bringing them out of conservatorship
- ☐ The age of the business cyclical and lack of progress in reducing taxpayer exposure has reignited talk about reform measures.

The Politics of Housing Reform — the Ideological Divide

Complex Issues and the Uncertain Route to Effect Changes Complicate Solutions

There is a substantial political divide regarding reform measures

- Should GSE/housing market reform be a primarily public or a private sector solution?
- How important is the presence small, community institutions relative to large money center ones?
- Are reforms best made by Administrative policy actions or by legislation passed through Congress?
- How is appropriate attention sustained on serving the needs of underserved constituencies?
- What can be done to expand the important counter-cyclical role of GSEs?
- What is the right level of capitalization?
- Would new entrants with the ability to guaranty mortgages boost competition?
- How are GSEs transitioned so as to not to limit the disruption in the flow of housing credit?
- How are taxpayers best insulated from risk?

Framework of Existing Proposals

GSE reform proposals differ on key issues:

- Structure of securitization markets,
- Number of guarantors,
- Ownership structure, and
- Extent that private markets function on their own.

There is some conceptual agreement on:

- Need for TBAs to efficiently price interest rate risk to support the long-term fixed rate mortgage
- Use of credit risk sharing to reduce taxpayer exposure. Two proposals explicitly call for mandatory CRTs and others for their use to some degree.

There is also widespread agreement on the need for a government backstop to:

- Sustain orderly markets during times of catastrophic risk
- Position private capital in a first-loss position to absorb “ordinary” downturns to limit taxpayer losses,
- For a common securitization platform (CSP) to provide enhanced liquidity and transparency.

Source: A Vision for Enduring Housing Finance Reform, The National Association of REALTORS®, February 7, 2019

Outline of Four Housing Reform Models

Government Owned Entity (Promising Road Plan)

Combine Fannie Mae and Freddie Mac to create a single regulated government corporation (National Mortgage Reinsurance Corporation) which would be free from the profit-driven or market share-driven motives inherent in a stock corporation, but still capitalized through private investment (common and preferred equity of 3.5 percent each). NMRC performs the same core functions as the GSEs do today--buying and pooling loans, issuing MBS, and overseeing master servicing activities--but with government ownership.

Recap and Release

Leaves the existing two entities in current form, but privately recapitalized. Given the improvements in place, all that is necessary to complete reform is to recapitalize the GSEs. Sufficient private equity capital will serve as a cushion against future losses to taxpayers and will bring back market incentives to the guarantor function. Emphasizes recapitalization and compensation of shareholders with no prioritization and assurance of Congressional action to create an explicit backstop, a super-regulator, a mission, or duty to serve.

Multi-guarantors (Milken Institute, MBA)

- Ginnie Mae to provide a government wrap on securities issued through the Common Securitization Platform. Replicates current GNMA model with multiple issuers who would select credit enhancement for MBS from among multiple private guarantors. All guarantors use the CSP, under a government wrap. Focuses on the need for market competition, which is the basis for multiple issuers or issuer/guarantors. The need for competition on rates and credit standards is the major rationale.

Utility Model (National Association of Realtors)

- Housing market resembles utility market with substantial market failures. As with any public utility, the federal government's responsibility is to implement effective governance that ensures a focused mission and regulated returns in exchange for the valuable government franchise. Shareholder participation would put private equity ahead of taxpayers and incent private owners with operational control to conserve resources and maintain regulated returns on equity. Emphasizes standardization and transparency.

Administration's Housing Reform Position

☐ Fannie and Freddie have grown in size and reach, yet face no competition from the private sector.

☐ The Department of Housing and Urban Development programs are exposed to too much risk while relying on outdated processes.

☐ The Administration's objectives:

- Ending the conservatorships of the GSEs upon the completion of specified reforms:
- Facilitating competition in the housing finance market;
- Establishing regulation of the GSEs that safeguards their safety and soundness and minimizes the risks they pose to the financial stability of the United States; and
- Providing that the Federal Government is properly compensated for any explicit or implicit support it provides to the GSEs or the secondary housing finance market

Will Administration take GSEs out of Conservatorship in order to force Congress to compromise on needed changes?

Administration's GSE-related Objectives

- ☐ Mitigating the risks undertaken by the GSEs, including by altering, if necessary, their respective policies on loan limits, program and product offerings, credit underwriting parameters, and the use of private capital to transfer credit risk;
- ☐ Recommending appropriate size and risk profiles for the GSEs' retained mortgage and investment portfolios;
- ☐ Defining the role of the GSEs in multifamily mortgage finance;
- ☐ Defining the mission of the Federal Home Loan Bank system and its role in supporting Federal housing finance;
- ☐ Defining the GSEs' role in promoting affordable housing without duplicating support provided by the Federal Housing Administration (FHA) or other Federal programs; and
- ☐ Setting the conditions necessary for the termination of the conservatorships of the GSEs, which shall include the following conditions being satisfied:
- ☐ The Federal Government is fully compensated for the explicit and implicit guarantees provided by it to the GSEs or any successor entities in the form of an ongoing payment to the United States;
- ☐ The GSEs' activities are restricted to their core statutory mission and the size of investment and retained mortgage portfolios are appropriately limited; and
- ☐ The GSEs are subjected to heightened prudential requirements and safety and soundness standards, including increased capital requirements, designed to prevent a future taxpayer bailout and minimize risks to financial stability.

Most Likely Direction of Reform

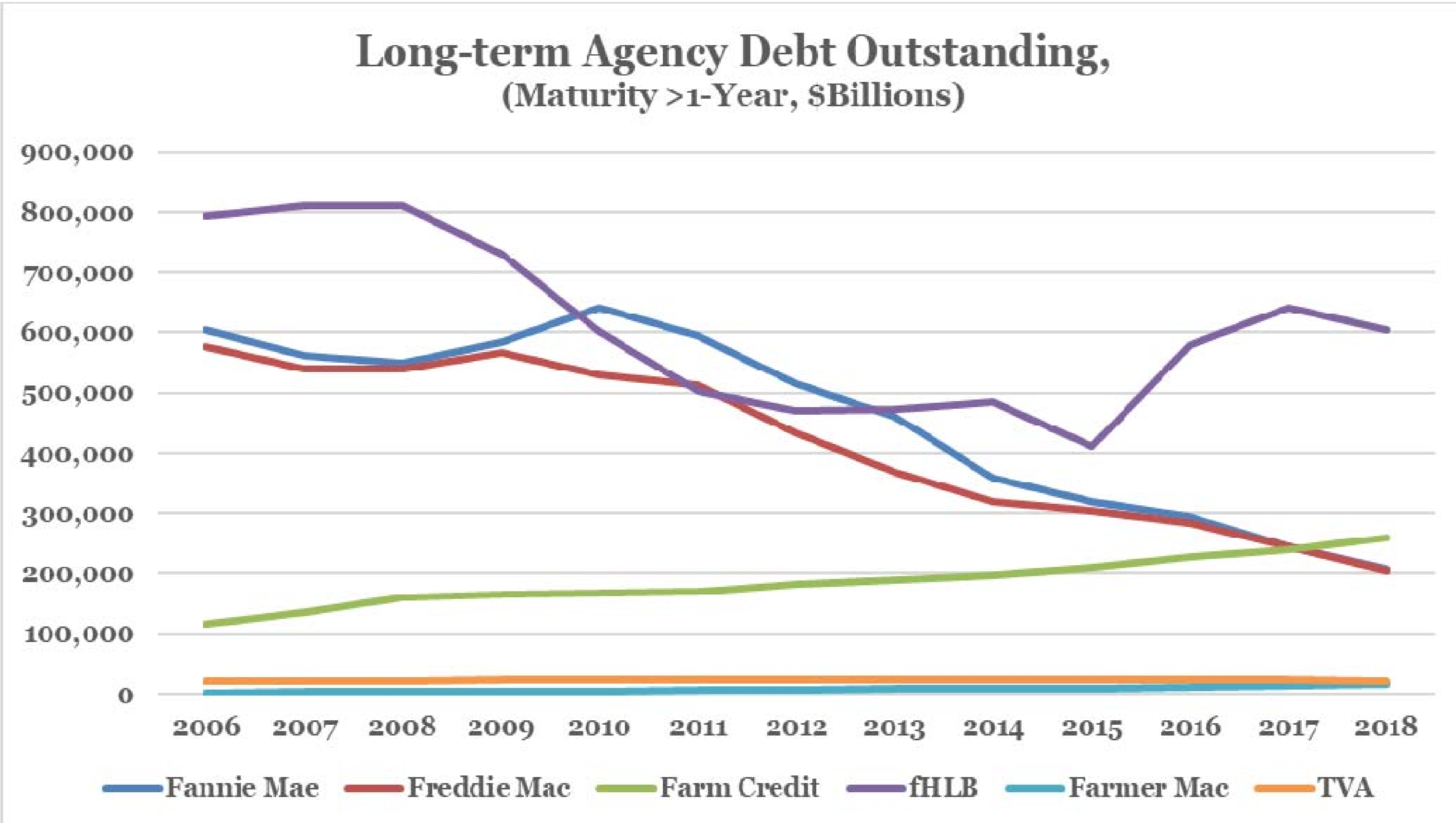
☐ Political expediency requires a substantial push to jumpstart Congress into a willingness to compromise

☐ Moves to bring GSEs out of conservatorship should succeed in pushing progress forward.

☐ It appears likely that:

- The GSEs will remain a major future in the housing market
- New competitors may be allowed to participate in the guarantee program to promote a stronger private sector presence and greater competition
- MBS federally guaranteed securities will meet uniform requirements, enhancing liquidity
- GSEs and new entrants will pay fees to the Treasury for guarantying MBS securities
- Multi-family lending will be supported

GSEs Facing Decline in Debt Outstanding with Less Collateral Available for Repurchase Agreements



Source: Sifma

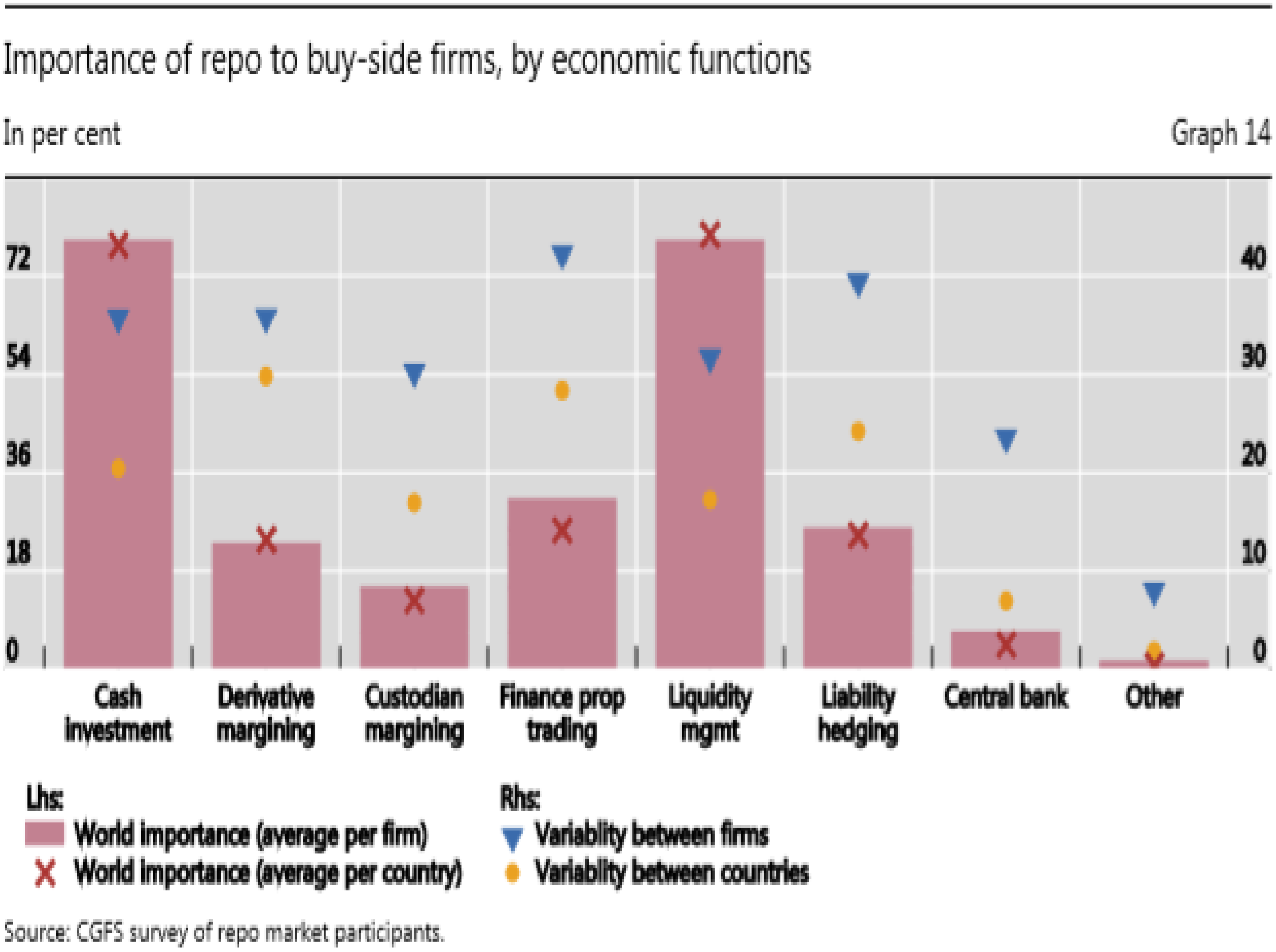
With less leverage permitted, and a declining share of GDP represented by the housing industry, issuance and the availability of GSE collateral for Repurchase Agreements will decrease.

What do Repo Markets Do?

- **Providing a low-risk option for cash investment.**
  - Reverse repos are used by money market funds, asset managers, and other investors to invest their cash.
  - Haircuts alleviate market risk, and the receipt of collateral reduces the credit risk borne by the cash lender.
- **Transformation of collateral**.
  - Repo transactions provide a means to obtain specific securities or cash to be used in other transactions.
  - Repos support smooth functioning of derivatives markets, contributing to the resilience of the financial system and the real economy.
- **Supporting cash market efficiency and liquidity.**
  - Market participants exploit pricing discrepancies and finance trading activity, supporting market liquidity.
  - Hedge funds use repos to fund trades designed to benefit from mispricing of risk, as well as other forms of speculation. This contributes to price efficiency, leading to more efficient allocation of capital in primary markets.
- **Facilitating hedging of risk.**
  - Repos can be used to hedge or modify the risk profile of portfolios. Underwriters can finance the hedging of underwriting risk on securities they bring to the primary market.
- **Enabling investors to monetize liquid assets.**
  - Banks use repos efficiently in liquidity management to cover temporary shortfalls in cash flows.
  - In periods of stress, a well functioning repo market can contribute to financial stability by offering a relatively resilient means of raising cash without forcing institutions to liquidate assets.

Source: BIS, 2017

GSE Reform Likely Reduces Availability of Repo Collateral

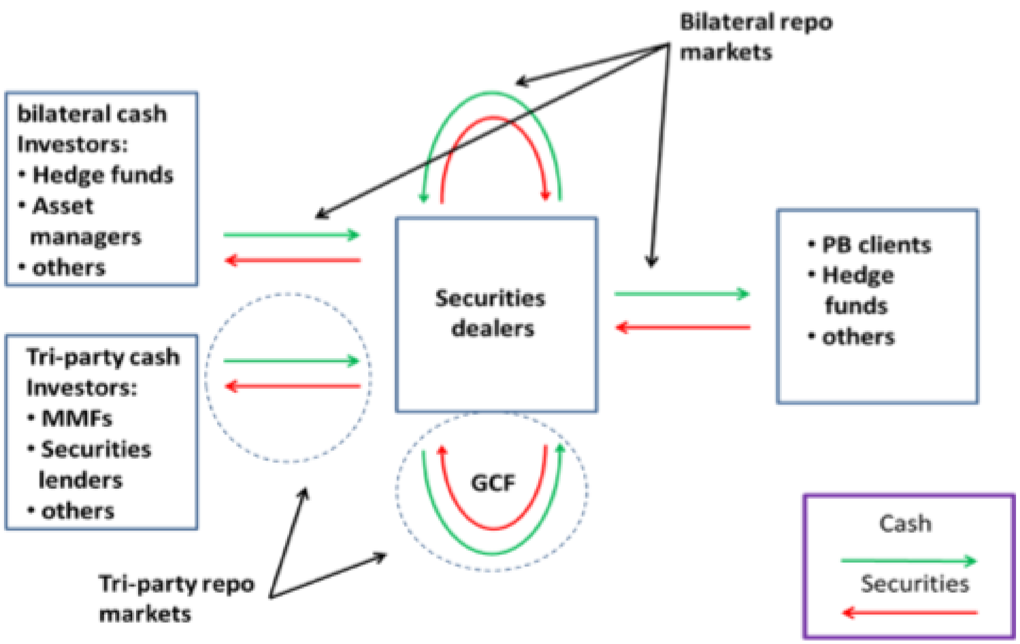


Repo is an important investment vehicle for money market funds, corporations, government investment pools, pensions, and other short-term investors with cash to invest.

Greater participation from private entities, reduced capital, a more competitive environment, and a smaller percentage of the economy devoted to housing all work towards reducing the availability of GSE collateral for repo.

R/P Increases Efficiency of Market, Benefits Real Economy

Figure 1: U.S. Repo Markets

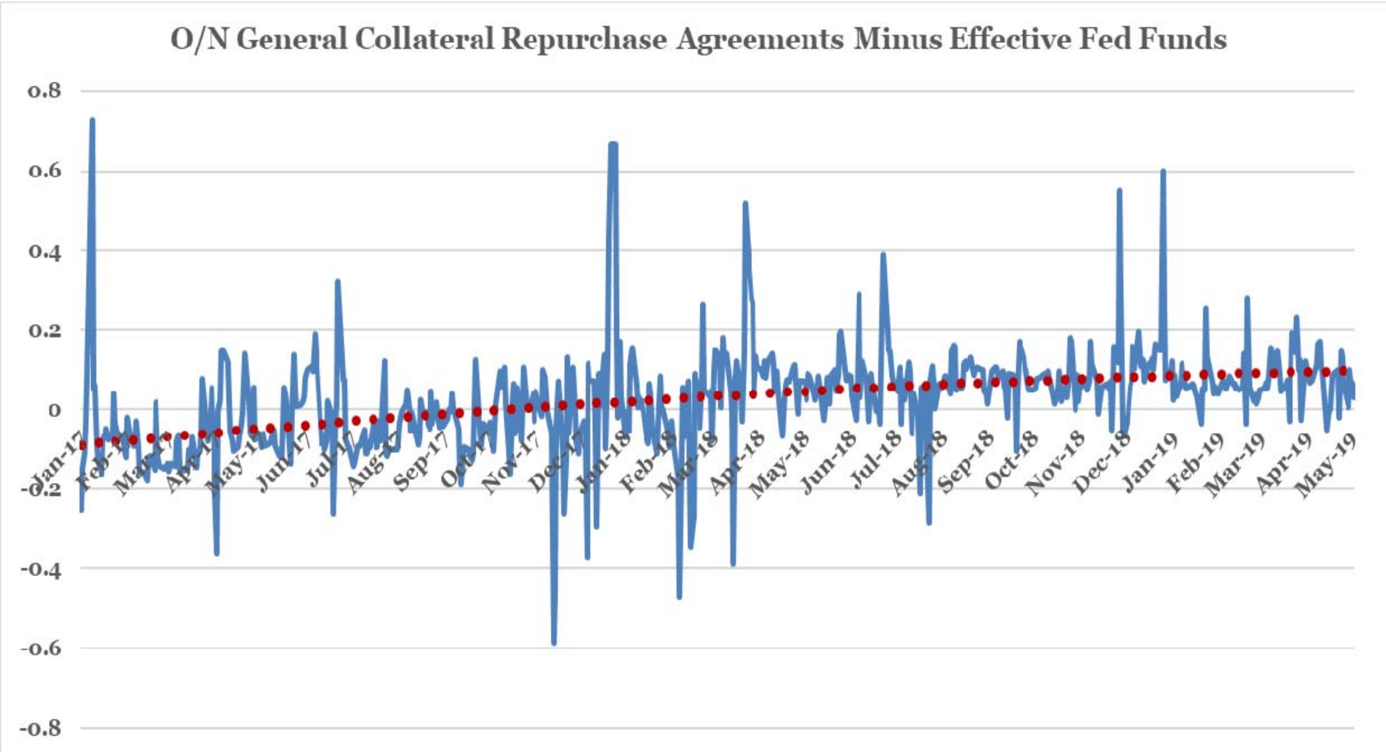


Source: Copeland, Duffie, Martin, and McLaughlin (forthcoming).
Note: MMFs are money market mutual funds and PB is prime brokerage. GCF is the General Collateral Financing repo market run by the Fixed Income Clearing Corporation; this repo market is discussed in detail in "The U.S. Repo Markets" section.

R/P has economic benefits to both the financial and the real economy but increasing liquidity, lowering borrowing costs, facilitating arbitrage and improving price discovery, and allowing dealers to finance inventory.

The cost is generally thought of in terms of increased leverage and risk potential.

GC R/P Spread over Fed Funds Has Steadily Widened



Source: Bloomberg

Improvement in credit conditions has reduced the premium paid for collateralization relative to general bank risk in the Fed Funds market.

A reduction in available collateral would have the effect of tightening the spread as GSE and MBS collateral become less available and proportionately more R/P is conducted with Treasury securities.

Realignment of the amount of collateral widely used in repurchase agreements will alter the spreads available, likely lowering yields for non-Treasury-backed repo and reducing spread for to Treasury repo for all other securities used.

Consequences of Reforms: Effect on Markets and Collateral

Repo markets are in a state of transition. Repo markets play a key role in:

- Facilitating the flow of cash and securities
- Supporting liquidity in other markets which contributes to the efficient allocation of capital in the real economy
- Support the financial system, in both normal and stressed conditions.
- Facilitating the build-up of leverage and encouraging reliance on short-term funding.

GSE reform is poised to further alter repo markets that have been already altered by exceptionally accommodative policies and unconventional monetary policy measures. The regulatory reform which has increased the capital requirements for repo market intermediation, must be carefully considered for the impact on financial markets and the real economy.

Source: CGFS Papers No 59, Repo market functioning, April 2017, BIS

In theory, there are potential benefits of a reduction in repo availability

- Repos can contribute to the fragility of the financial system because:

  (i) they are typically of short maturity and expose borrowers to liquidity risk;

  (ii) the value of collateral can be procyclical; and

  (iii) being a form of borrowing, they can fuel destabilizing leverage cycles. Some of these risks crystalized during the recent financial crisis. Prior to 2008, there was a sharp expansion in the availability of some types of repos (Adrian and Shin (2010)).

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