It’s Time to Get Off Our Fannie

Ira Sohn Conference
May 5, 2014

Pershing Square Capital Management, L.P.
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Fannie Mae & Freddie Mac (GSEs)

- Provide a guarantee on the credit risk of ~$5 trillion of U.S. mortgages
  - ~50% share of outstanding mortgages
  - ~60% share of annual originations

- Combined equity market cap of ~$36bn including Treasury warrants

- Combined 2013 pre-tax earnings of ~$39bn
  - ~$72bn of deferred tax assets

- Operating in conservatorship since September 2008

- Currently required to pay 100% of earnings to U.S. Treasury

- U.S. Treasury owns warrants on 79.9% of the common stock

Ticker:
“FNMA” & “FMCC”

Recent stock price:
FNMA: $3.98
FMCC: $3.98

Note: Recent stock prices as of May 2, 2014.
History of the GSEs
Prior to the Great Depression

Mortgage availability was limited, with 5-to-10 year terms, floating interest rates, and ~50% loan-to-value ratios

- Mortgages were primarily originated and retained by local thrifts, commercial banks, and insurance companies
- Banks would lend at floating interest rates for a short term to match the structure of their deposit funding sources
- Supply of mortgage credit was limited and required large initial down payments
- Availability and pricing of mortgage credit varied widely across the U.S. due to localized funding
- Homeownership rate was ~45%
The Great Depression

During the Great Depression, the U.S. mortgage market was paralyzed and required significant government involvement to eventually recover

- Unemployment rate was nearly 25%
- Housing prices declined as much as 50%
- ~25% of mortgages were in default and ~10% of homes were in foreclosure
- Homeowners were unable to satisfy their principal payments and were unable to refinance their short-term mortgages
- The banking system was near collapse and was unable and unwilling to provide a meaningful amount of mortgage credit
During the Great Depression, the government undertook a series of mortgage-related initiatives that culminated with the creation of Fannie Mae

- **1933: Created Home Owners’ Loan Corp**
  - Issued government-backed bonds to fund the purchase of defaulted mortgages from financial institutions
  - Converted short-term, variable rate mortgages into long-term, fixed-rate mortgages

- **1934: Enacted National Housing Act, which established the Federal Housing Administration**
  - Provided credit insurance on long-term, fixed rate mortgages made by approved lenders

- **1938: Created Fannie Mae as a government agency**
  - Purchased FHA-insured loans to provide liquidity for mortgage lenders

**Fannie Mae was chartered to support liquidity, stability, and affordability in the secondary mortgage market**
The GSEs have evolved significantly since the creation of Fannie Mae in 1938

- 1948: Fannie allowed to purchase loans insured by the Veterans Administration
  - Provided liquidity to long-term, low-down-payment mortgages issued to veterans returning from WWII

- 1954: Fannie converted into a “public-private, mixed-ownership” company

- 1968: Fannie converted into a for-profit, shareholder-owned enterprise
  - Fannie allowed to buy non-government backed mortgages

- 1970: Freddie Mac created to securitize mortgages issued by the savings and loans institutions

- 1971: Freddie issued the first conventional loan MBS

- 1989: Freddie converted into a for-profit, shareholder-owned enterprise
The Rise of the GSEs

Over the last 30 years, Fannie and Freddie have played an increasingly vital role in providing borrowers with access to an ample supply of credit.

Source: Federal Reserve
Note: GSEs includes Ginnie Mae
Over the last 30 years, Fannie and Freddie have had a growing presence in the mortgage market

Share of Outstanding Residential Mortgages Held or Guaranteed Since 1980

Source: Federal Reserve
Note: GSEs includes Ginnie Mae
The GSEs’ Presence is Vital Today

Fannie and Freddie’s role has increased significantly since the financial crisis

Share of Residential Mortgage Originations Held or Guaranteed Since 2000

Source: Inside Mortgage Finance
The GSEs’ Critical Role in the Mortgage Market
The average household’s net worth consists primarily of home equity. Home equity, as a proportion of household net worth, increases as household income decreases.

**Median Housing Wealth as a % of Household Net Worth By Income Quartile**

Source: “State of the Nation’s Housing 2013”, Joint Center for Housing Studies of Harvard University
U.S. Mortgages are Predominantly 30-year, Fixed-rate

The widespread use of the 30-year fixed-rate mortgage differentiates the U.S. from other large mortgage markets

Term Length and Interest Rate Type as % of Outstanding Mortgages

Source: Dr. Michael Lea, “Alternative Forms of Mortgage Finance: What Can We Learn From Other Countries?”, Aug. 2010
Note: While the majority of mortgages in France are long-term fixed-interest rate, pre-payment penalties are high and the typical long-term mortgage is close to 20 years.
The 30-year, prepayable, fixed-rate mortgage has a variety of attributes that make it an affordable and borrower-friendly financing option for the average American.

### 30-year amortization term
- Long-term nature allows for smaller monthly mortgage payments
- Removes the refinancing risk inherent in balloon payment loans

### Fixed interest rate
- Provides certainty of recurring monthly mortgage payments
- Protects against rising interest rates

### Prepayment option without penalty
- When interest rates decline, borrowers have ability to refinance at a more attractive rate
The large degree of MBS funding differentiates the U.S. from other large mortgage markets.

**Mortgage Funding as % of Outstanding Mortgages**

- **Deposits**
- **Institutional Investors**
- **MBS**
- **Mortgage Bonds**
- **Other**

Source: Dr. Michael Lea, "Alternative Forms of Mortgage Finance: What Can We Learn From Other Countries?", Aug. 2010
The GSEs were chartered by Congress to support liquidity, stability, and affordability in the secondary mortgage market.

Fannie and Freddie’s role in the mortgage market

- Convert long-term, illiquid mortgages into highly-liquid mortgage backed securities (MBS)
- Provide insurance on the credit risk on the underlying mortgages of the MBS
- Facilitate the sale of MBS to the global capital markets

By creating a highly liquid investment security that is insured against credit risk, the GSEs allow borrowers to access the global capital markets.
Fannie and Freddie facilitate widespread access to the 30-year, prepayable, fixed-rate mortgage at a low cost

**Widespread access to credit**
- The global capital markets provide a much larger and more consistent amount of credit than local lending institutions

**Long-term, fixed-rate financing**
- Lenders are willing to originate a high proportion of long-term, fixed-rate mortgages because they can be converted into liquid investment securities that can be retained or sold

**Low-cost financing**
- When interest rates decline, borrowers can refinance, lowering their monthly payments
- The high level of liquidity for GSE MBS lowers mortgage interest rates
The GSEs Have Two Distinct Lines of Business

Fannie and Freddie

Guarantees (Ongoing: ~$5 trillion guarantees)
- High-quality, low-risk
- Does not require an implicit government guarantee
- Serves a vital purpose for the mortgage market

Fixed-Income Arbitrage (FIA) (Run-off: ~$1 trillion assets)
- Low-quality, high-risk
- Requires an implicit government guarantee
- Does not serve a credible purpose for the mortgage market
Guarantee Business
Guarantee Business Model: High Quality

The GSEs guarantee the timely payment of interest and principal on a ~$5 trillion portfolio of mortgage-backed securities

- Inherently simple business model
- Cash and insurance-float-generative business model where payment is received up front in exchange for the promise to pay potential losses incurred in the future
- Leveraged to positive long-term trends in the housing markets
- Enormous scale allows the GSEs to be the low-cost provider
- Asset-light, high-return-on-equity business model
- Does not rely on funding from the capital markets
- Does not require the use of derivatives
The guarantee business model is most effective with large, well-established market participants.

The benefits of Fannie and Freddie:

- Significant presence and brand value facilitates broad-based acceptance among key market participants.
- Large MBS issuances are highly liquid, which reduces mortgage costs.
- Portfolios are geographically diverse, which reduces risk.
- Enormous economies of scale, which lower operating costs to allow for lower mortgage rates.
- Have the resources required to build and maintain a highly complex and technical infrastructure.
- Flight-to-quality dynamic reduces cyclicality.
Guarantee Business Model: Low Risk

Guaranteeing the monthly payment of interest and principal on a 30-year, fixed-rate, prepayable mortgage is a low-risk business

- Low liquidity risk because defaults do not immediately accelerate payments to MBS holders – the GSEs can pay interest and principal when due for up to two years before repurchasing delinquent loans
- Large number of loans in portfolio limits concentration risk
- Geographically diverse portfolio mitigates the impact of regional economic fluctuations
- A nationwide housing downturn is rare
- Borrower’s home equity mitigates loss severity by serving as first-loss protection for credit guarantee
- Borrower’s home equity decreases the likelihood of a default
Guarantee Business Model: Low Risk (Cont.)

The GSEs’ credit guarantee is structurally senior to the borrower’s home equity.

Illustrative Example of GSE Guarantee on 75% LTV Mortgage

- Home Value: $100
  - Home Equity: $25
  - Mortgage: $75

If the mortgage defaults, home prices would need to decline by more than 25% for the mortgage guarantor to suffer a loss.

As home values increase over time and mortgages amortize, the borrower’s equity increases and the GSEs’ credit guarantee become even lower risk.
As dominant participants in the market, the GSEs have historically retained access to capital as other participants have been forced to exit. This has allowed them to expand their market share in economic downturns, when mortgage underwriting conditions are most favorable.

- Economic downturns usually result in a decline in housing prices and a decrease in interest rates.
- Lower housing prices result in reduced loan-to-replacement cost ratios.
- Lower interest rates result in a lower mortgage payment burden.
- Lower initial interest rates decrease the probability of future prepayments.

Guarantees issued during an economic downturn have a lower probability of default, a longer time period to default, lower severity upon default, and greater persistency, which increases the overall quality of the guarantee portfolio and de-risks the business model.
Low Guarantee Fees Prior to the Financial Crisis

Fannie and Freddie’s g-fees have averaged slightly more than 20bps for more than the last two decades

Average G-fee on Guarantee Portfolio from 1990 to 2013 (bps)

Source: Company filings and Pershing Square estimates
Note: Based on single-family guarantees for Fannie Mae and Freddie Mac.
Limited Credit Losses Prior to the Financial Crisis

The GSEs generated consistent profits and high ROEs at historical g-fee levels because of limited credit losses and limited capital.

Credit Losses for Single-Family Guarantees from 1990 to 2013 (bps)

Source: Company filings and Pershing Square estimates
However, the GSEs’ guarantee business experienced extraordinary losses during the financial crisis.

Pre-Tax Income for Single-Family Guarantee Segment ($ in Billions)

Source: Company filings and Pershing Square estimates
Note: Freddie Mac did not disclose a separate guarantee segment prior to 2005.
Losses in Excess of Minimum Capital Levels

The losses in the GSEs’ guarantee business during the financial crisis significantly exceeded their minimum capital requirements.

Fully-Taxed Net Income and Minimum Capital for Single-Family Guarantee Segment ($ in Billions)

Source: Company filings and Pershing Square estimates
Note: Fully-taxed net income based on a 35% tax rate to remove the initial negative impact of the DTA valuation allowance and the subsequent positive impact of its reversal. Minimum capital requirement based on 45bps of average single-family guarantee portfolio during the period 2007 to 2011.
Losses Exacerbated by Accounting Charges

However, much of the GSEs’ losses were due to credit provisions, an accounting charge that represents an estimate of future credit losses. Actual credit losses were ~$140bn less than provisions from 2007 to 2011.

Fannie and Freddie Single-Family Provisions and Credit Losses ($ in Billions)

Source: Company filings
Note: Combined Fannie and Freddie. Provisions and credit losses include foreclosed property expense.
Losses Were Lower Excluding Accounting Charges

The GSEs’ losses during the financial crisis were much lower when calculated based on their actual credit losses, rather than provisions.

Fully-Taxed Net Income for Single-Family Guarantee Segment ($ in Billions)

Cumulative Losses (Including Credit Losses) 2007-2011

- $0
- $(25)
- $(50)

Minimum Capital Requirement (45bps)

- $25
- $20 bn

Source: Company filings and Pershing Square estimates
Note: Fully-taxed net income based on actual credit losses rather than provision expenses. Fully-taxed net income based on a 35% tax rate to remove the initial negative impact of the DTA valuation allowance and the subsequent positive impact of its reversal. Minimum capital requirement based on 45bps of average single-family guarantee portfolio from 2007 to 2011.
Significant Losses from Subprime and Alt-A Loans

A large portion of the credit losses in the GSEs’ guarantee business during the financial crisis resulted from the small portion of subprime and Alt-A loans in their portfolios.

Fannie Mae Subprime & Alt-A Loans as % of Single-Family Guarantees and Credit Losses

The GSEs should never have guaranteed subprime and Alt-A loans, which are much riskier than conventional 30-year, fixed-rate, prepayable mortgages.

Source: Company filings
Note: Fannie Mae used as an illustration, but Freddie Mac followed a similar trend.
Minimum Capital Nearly Enough for Core Portfolio Losses

We estimate that the GSEs’ minimum capital levels were nearly sufficient to withstand their losses during the financial crisis, excluding the large credit losses from subprime and Alt-A loans.

Fully-Taxed Net Income for Single-Family Guarantee Segment ($ in Billions)

Source: Company filings and Pershing Square estimates
Note: Fully-taxed net income based on credit losses, excluding the elevated credit losses in the subprime and Alt-A loans and assumes credit losses for subprime and Alt-A loans occurred at a similar rate as non-subprime and Alt-A loans. Assumes similar levels of subprime and Alt-A loans for Freddie Mac as for Fannie Mae. Fully-taxed net income based on a 35% tax rate to remove the initial negative impact of the DTA valuation allowance and the subsequent positive impact of its reversal. Minimum capital requirement based on 45bps of average single-family guarantee portfolio from 2007 to 2011.
Fannie and Freddie are Profitable Again

The GSEs’ guarantee business has recently returned to a high level of profitability

Quarterly Pre-Tax Income for Single-Family Guarantee Segment ($ in Billions)

Source: Company filings
The Recent Increases in G-fees Have Boosted Profits

FHFA has mandated that Fannie and Freddie increase their g-fees to enable the private sector to compete

**Fannie Mae Single-Family G-fees for New MBS and Portfolio Average G-fees (bps)**

<table>
<thead>
<tr>
<th>Year</th>
<th>G-fee on New MBS</th>
<th>Portfolio Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>2009</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>2010</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>2011</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>2012</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td>2013</td>
<td>57</td>
<td>37</td>
</tr>
<tr>
<td>Q4 '13</td>
<td>60</td>
<td>39</td>
</tr>
</tbody>
</table>

The GSEs' earnings will grow significantly when MBS issued at higher g-fees levels comprises a larger proportion of the portfolio

Source: Company filings
Note: Bps relative to guarantee portfolio. Fannie Mae used as an illustration, but Freddie Mac follows a similar trend.
Credit Losses Have Declined Significantly

The credit losses in the GSEs’ guarantee business have declined significantly since the financial crisis, and are approaching historical levels.

Credit Losses for Single-Family Guarantees (bps)

Source: Company filings and Pershing Square estimates
Reversals of Accounting Charges Have Increased Profits

The GSEs have reduced the loss reserves they built during the credit crisis because the credit losses they predicted did not materialize

Reserve Releases for Single-Family Guarantee Segment ($ in Billions)

We expect Fannie and Freddie to continue to reduce loss reserves in the future

Source: Company filings
Fixed-Income Arbitrage Business (FIA) – The GSEs’ Investment Portfolio
Fixed-Income Arbitrage Business Model

The GSEs issue government-subsidized debt to finance the purchase of mortgage assets and earn a profit from the small spread between the yield on their long-term assets and shorter-term debt. FIA can generate a high ROE due to significant leverage.

Illustrative Fixed-Income Arbitrage Business ($ in Billions)

<table>
<thead>
<tr>
<th></th>
<th>$100</th>
<th>$97.5</th>
<th>$2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pre-Tax Return

<table>
<thead>
<tr>
<th></th>
<th>4.5%</th>
<th>(3.5)%</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net investment spread</td>
<td>1.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Illustrative 2.5% equity based on minimum capital requirements for Fannie and Freddie’s on-balance sheet assets

FIA requires continuous access to the capital markets for financing and its profitability dramatically fluctuates with small changes in interest rates and credit risk.
“The Federal Reserve Board has been unable to find any credible purpose for the huge balance sheets built by Fannie and Freddie other than the creation of profit through the exploitation of the market-granted subsidy. Fannie's and Freddie's purchases of their own or each other's mortgage-backed securities with their market-subsidized debt do not contribute usefully to mortgage market liquidity, to the enhancement of capital markets in the United States, or to the lowering of mortgage rates for homeowners.”

- Alan Greenspan, 5/19/2005
The GSEs increased the assets in their FIA business by more than 10 times in the nearly two decades prior to the financial crisis.

Source: Company filings
FIA Risks Compounded by Purchasing Low-Quality Assets

The GSEs’ FIA business invested in subprime and Alt-A mortgage assets to generate a higher investment spread

Subprime and Alt-A Assets in the Fixed-Income Arbitrage Business ($ in Billions)

The GSEs’ subprime and Alt-A investments amounted to ~6 times the minimum capital requirements of the FIA business at the onset of the financial crisis

Source: Company filings and Pershing Square estimates
Note: Subprime and Alt-A MBS amounts based on unpaid principal balance. Minimum capital requirements based on 2.5% of the average of Fannie and Freddie’s mortgage-related assets from 2006 to 2008.
The GSEs’ FIA business generated profits prior to the financial crisis

FIA Was Profitable Before the Financial Crisis

Pre-Tax Income for Fixed-Income Arbitrage Business ($ in Billions)

Source: Company filings and Pershing Square estimates
Note: Based on Capital Markets segment for Fannie Mae and Investments segment for Freddie Mac. Freddie Mac did not report separate segments prior to 2005.
FIA Is Inherently Risky and Fragile

FIA is an inherently risky and fragile business

- Inherently complex business model
- Asset-intensive, low-return business
- High leverage needed to achieve a high ROE
- Requires continuous access to capital
- Substantial interest rate and prepayment risk
- High liquidity risk
- Scale does not provide an inherent competitive advantage
- Extensive reliance on derivatives
- Requires a government guarantee
The GSEs’ FIA business was demonstrated to be risky prior to the financial crisis

- **Early 1980s**: Fannie Mae nearly collapsed from interest-rate risk
  - As market interest rates soared, borrowing costs rose above asset yields
  - Market value of assets was less than liabilities, resulting in a negative equity value based on fair value measurement
  - Required substantial government assistance

- **Early 2000s**: The GSEs suffered accounting scandals primarily related to interest rate derivatives in FIA
  - Inappropriate accounting treatment for derivatives used to achieve compensation goals
FIA suffered large losses during the financial crisis. The GSEs’ FIA business produced significant losses during the financial crisis despite heavy use of government-subsidized debt. Pre-Tax Income for Fixed-Income Arbitrage Business from 2007 to 2011 ($ in Billions)

FIA’s significant losses and highly-risky mortgage assets threatened the GSEs’ continued access the capital markets for financing.

Source: Company filings and Pershing Square estimates
Note: Based on Capital Markets segment for Fannie Mae and Investments segment for Freddie Mac.
The FIA business required constant access to the capital markets, which was put at risk during the financial crisis.

As part of the government rescue, Treasury required the GSEs to reduce their mortgage-related assets to a maximum of $500bn by 2018.

Source: Company filings
Conservatorship and the Net Worth Sweep
Conservatorship

On Sept. 6, 2008, the government placed the GSEs into conservatorship with the objective of returning them to normal operations when their businesses stabilized.

“Therefore, in order to restore the balance between safety and soundness and mission, FHFA has placed Fannie Mae and Freddie Mac into conservatorship. That is a statutory process designed to stabilize a troubled institution with the objective of returning the entities to normal business operations. FHFA will act as the conservator to operate the Enterprises until they are stabilized.”

- James Lockhart, FHFA Director, 9/7/2008
On Sept. 7, 2008, Treasury committed to invest up to $100bn of senior preferred stock in each of the GSEs. In 2009, Treasury raised its commitment to $200bn each.

**Terms of Senior Preferred Stock**

- $1bn initial liquidation preference
- Warrants for 79.9% of common stock
- Cumulative dividends at 10% cash rate or 12% paid-in-kind (PIK) rate

**History Prior to the Net Worth Sweep**

- The GSEs were unable to pay 10% cash dividends from 2008 to 2011 and used proceeds from additional Treasury preferred stock investments to pay dividends
- It is unclear why Treasury did not allow the preferred stock to pay 12% PIK dividends when the GSEs were unable to pay cash dividends
- In 2012, Fannie and Freddie became profitable enough to pay the 10% cash dividend on Treasury’s preferred stock
On Aug. 17, 2012, FHFA and Treasury amended the terms of the senior preferred stock to require the GSEs to pay dividends equal to 100% of their earnings.

The government announced the net worth sweep just after the GSEs returned to profitability and were able to pay the cash dividends under the original agreement.

Source: Company filings and reports. Net Income includes the reversal of the DTA valuation allowance for Fannie Mae in Q1 ’13 and for Freddie Mac in Q3 ’13.
Net Worth Sweep Was Unlawful

The net worth sweep was an illegal action that we believe will ultimately be reversed by the courts.

The Net Worth Sweep:

- **Amounts to an unconstitutional taking without just compensation**
  - Violates the 5th amendment

- **Exceeded the scope of FHFA’s authority as conservator**
  - Effects a wind-down, which is inconsistent with the responsibility to preserve and conserve Fannie and Freddie’s assets

- **Exceeded Treasury’s investment authorization**
  - Substantively amounts to a purchase of a new security
  - Treasury’s authorization to purchase new securities ended on Dec. 31, 2009

Several of the GSEs’ shareholders have sued Treasury and FHFA, and their lawsuits have experienced favorable developments.
Dividends Paid to Treasury Exceed Disbursements

The GSEs have paid dividends to Treasury totaling $203bn, which is more than the $187bn of cash they received from Treasury.

Disbursements Received and Dividends Paid ($ in Billions)

Source: Company filings
Note: Q1 ’14 includes dividends paid to Treasury in March 2014
The Impact of the Net Worth Sweep

Since the net worth sweep took effect, the GSEs have paid $148bn of dividends to Treasury, which is $124bn more than they were required to pay under the original agreement.

The GSEs’ Cumulative Dividends to Treasury Since Q1 2013 ($ in Billions)

Source: Company filings, Pershing Square estimates
Note: Includes dividends paid to Treasury in March 2014 of $18bn
If the original dividend terms were not amended and the 10% dividend were paid currently, the outstanding balance of Treasury’s senior preferred stock would be $65bn

Source: Company filings, Pershing Square estimates
Note: Includes dividends paid to Treasury in March 2014 of $18bn
Recent Proposals for Housing Finance Reform
Recent Proposals for Housing Finance Reform

There have been multiple proposals for housing finance reform recently, based on similar principles and goals

Basic principles of recent proposals:

- Capital from the private sector serves as 10% first-loss credit protection for eligible MBS

- U.S. government provides an explicit credit guarantee for eligible MBS that is only utilized after first-loss private capital has been exhausted

- Fannie and Freddie are wound down and their role in the marketplace eliminated

The primary goals of the recent proposals are to maintain the availability and affordability of the 30-year, fixed-rate, prepayable mortgage while protecting taxpayers from bearing the cost of a housing downturn
We agree with the goals of the recent proposals for housing finance reform, but believe the proposals are impractical and will work against the goals they seek to achieve.

Recent proposals for housing finance reform:

- Will fail to obtain the enormous amount of required first-loss capital from the private sector
- Will create a new, untested mortgage finance system that will have large unintended consequences
- Will result in a mortgage finance system where credit is less affordable and less available than under the current system
- Will increase risk to taxpayers

Prominent market participants, including Fannie and Freddie, have released detailed concerns with recent housing finance proposals.
Recent proposals necessitate that the private sector provide as much as $500bn of first-loss capital to achieve the potential capital requirements for the existing ~$5 trillion GSE MBS portfolio.

Proposals will not attract the requisite amount of private capital:

- Private sector capital for new startups is unlikely and will be insufficient
- Returns are uneconomic for new participants at current g-fee levels
- Precedent set by the net worth sweep will discourage private capital
- Existing private mortgage insurers (PMI) will not provide significant capital
- Private-label securitization (PLS) will not be a meaningful source of capital
- Banks will not significantly increase the amount of long-term, fixed-rate mortgages they retain on their balance sheets

By winding down Fannie and Freddie, the recent proposals eliminate the only sufficient source of private capital – the retention of the GSEs’ significant earnings power.
The total proceeds in ~1,500 IPOs in the U.S. over the last decade was $386bn, which is less than potential capital requirements for recent proposals.

2013 U.S. IPO proceeds, which were the largest in the last decade, amounted to only $58bn

Source: Thomson-Reuters
The total amount of money raised from the 10 largest IPOs of all time is $97bn, which amounts to only one-fifth of the potential capital requirements for recent proposals.

<table>
<thead>
<tr>
<th>Company</th>
<th>Proceeds</th>
<th>Year of IPO</th>
<th>Year Founded</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISA</td>
<td>$20bn</td>
<td>2008</td>
<td>1958</td>
</tr>
<tr>
<td>General Motors</td>
<td>$18bn</td>
<td>2010</td>
<td>1908</td>
</tr>
<tr>
<td>facebook</td>
<td>$16bn</td>
<td>2012</td>
<td>2004</td>
</tr>
<tr>
<td>at&amp;t</td>
<td>$11bn</td>
<td>2000</td>
<td>1876</td>
</tr>
<tr>
<td>Kraft</td>
<td>$9bn</td>
<td>2001</td>
<td>1903</td>
</tr>
<tr>
<td>UPS</td>
<td>$5bn</td>
<td>1999</td>
<td>1907</td>
</tr>
<tr>
<td>CIT</td>
<td>$5bn</td>
<td>2002</td>
<td>1908</td>
</tr>
<tr>
<td>Blackstone</td>
<td>$5bn</td>
<td>2007</td>
<td>1985</td>
</tr>
<tr>
<td>Conoco</td>
<td>$4bn</td>
<td>1998</td>
<td>1875</td>
</tr>
<tr>
<td>Travelers</td>
<td>$4bn</td>
<td>2002</td>
<td>1853</td>
</tr>
</tbody>
</table>

*Other than Facebook, none of the largest IPOs were startups. There will not be sufficient private sector capital for new participants that seek to replace the GSEs.*

Source: Thomson-Reuters

Note: Proceeds include over-alotment. General Motors represents the IPO of GM Motors Co. in 2010.
Private Sector Capital for Startups Will be Limited

Traditional sources of private sector capital are unlikely to provide new startups with sufficient funding to replace the GSEs

Capital Markets

- Startups will lack meaningful operating history, market credibility, and a track record of profitability to attract private capital

Private Equity

- Primarily invests in established businesses where operational improvements and financial leverage deliver significant returns
- Typical investment horizon not compatible with the long timeframe required by new startups

Venture Capital

- Primarily invests only a small amount of capital in a given company
- Startups will not provide the opportunity for the outsized return potential that venture capitalists require
## Returns are Uneconomic for New Participants

New participants will not be profitable at current g-fee levels because they will lack the GSEs’ economies of scale.

<table>
<thead>
<tr>
<th>% of Guarantees (bps)</th>
<th>5% Capital</th>
<th>7.5% Capital</th>
<th>10% Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-Fees</td>
<td>60 bps</td>
<td>60 bps</td>
<td>60 bps</td>
</tr>
<tr>
<td>Plus: Interest Income on Capital</td>
<td>15</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Less: Credit Expense</td>
<td>(10)</td>
<td>(10)</td>
<td>(10)</td>
</tr>
<tr>
<td>Less: Administrative Expense</td>
<td>(90)</td>
<td>(90)</td>
<td>(90)</td>
</tr>
<tr>
<td>Less: Taxes at 35%</td>
<td>9</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Net Income</td>
<td>(16) bps</td>
<td>(11) bps</td>
<td>(7) bps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROE</th>
<th>(3)%</th>
<th>(2)%</th>
<th>(1)%</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-Fee at 15% ROE</td>
<td>200 bps</td>
<td>251 bps</td>
<td>301 bps</td>
</tr>
<tr>
<td>Increase from Current G-Fees</td>
<td>140</td>
<td>191</td>
<td>241</td>
</tr>
</tbody>
</table>

G-fees, and in turn, mortgage rates, may need to be as much as 240bps higher to produce economic returns that might attract private sector capital to new, small-scale participants.

Source: Company filings and Pershing Square estimates

Note: Administrative expense of 90bps based on the ratio of Essent’s $71mm of underwriting and operating expenses and $7.8bn of risk-in-force for 2013. Interest income on capital assumes required capital invested at 3% interest rate based on 10-yr UST.
Returns are Uneconomic for New Participants (Cont.)

Even if new participants were able achieve the GSEs’ economies of scale, they will not cover their cost of capital at current g-fee levels and a 10% capital requirement

<table>
<thead>
<tr>
<th>% of Guarantees (bps)</th>
<th>5% Capital</th>
<th>7.5% Capital</th>
<th>10% Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-Fees</td>
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<td>60 bps</td>
</tr>
<tr>
<td>Plus: Interest Income on Capital</td>
<td>15</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Less: Credit Expense</td>
<td>(10)</td>
<td>(10)</td>
<td>(10)</td>
</tr>
<tr>
<td>Less: Administrative Expense</td>
<td>(6)</td>
<td>(6)</td>
<td>(6)</td>
</tr>
<tr>
<td>Less: Taxes at 35%</td>
<td>(21)</td>
<td>(23)</td>
<td>(26)</td>
</tr>
<tr>
<td>Net Income</td>
<td>38 bps</td>
<td>43 bps</td>
<td>48 bps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROE</th>
<th>8 %</th>
<th>6 %</th>
<th>5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-Fees at 15% ROE</td>
<td>116 bps</td>
<td>167 bps</td>
<td>217 bps</td>
</tr>
<tr>
<td>Increase from Current G-Fees</td>
<td>56</td>
<td>107</td>
<td>157</td>
</tr>
</tbody>
</table>

G-fees, and in turn, mortgage rates, would need to be as much as 160bps higher to deliver economic returns for new participants with significant economies of scale

Source: Company filings and Pershing Square estimates
Note: Interest income on capital assumes required capital invested at 3% interest rate based on 10-yr UST
The recent increase in interest rates for 30-year, fixed-rate mortgages has corresponded with a precipitous decline in mortgage origination volume.

Interest Rate for 30-Yr FRM and Quarterly Mortgage Originations Since 2009 ($ in Billions)

A further increase in mortgages rates could easily imperil the nascent housing recovery.

Source: Mortgage Bankers Association and Inside Mortgage Finance
The government’s treatment of the GSEs’ current shareholders will make it extremely difficult to attract new private capital.

Excerpt of letter to U.S. Treasury Secretary Jack Lew

“What comfort can you give to private sector investors considering investing in the future of the housing finance system when they believe that the government arbitrarily changed the rules of the game mid-stream with the Third Amendment?”

- Pat Toomey, Pennsylvania Senator, Senate Banking Committee member, 3/4/2014
The combined market cap of the private mortgage insurers that have operated continuously since 2000 has declined by 50%.

The combined market cap of the PMIs was down more than 90% through the end of 2012.

Source: CapIQ, as of May 2, 2014
Note: Years based on last day close. Does not included AIG’s United Guaranty and Genworth because their businesses are not primarily focused on private mortgage insurance.
At the peak of the market, only 15% of mortgage originations had private mortgage insurance and we estimate that PMI coverage totaled only ~2% of outstanding mortgage balances.

Source: Inside Mortgage Finance
Note: Pershing Square estimates assume PMI coverage amounts to 15% of mortgage amount
The history of the PMIs illustrates private capital’s pro-cyclical nature

History of the PMIs:

- Started in the early 1900s when title insurance firms expanded into mortgage insurance
- Became widespread during the real estate boom of the 1920s
- Went bankrupt or exited the business during the Great Depression
- Government was the sole mortgage insurance provider until MGIC entered the market in 1957
- Began to expand again until collapsing again in the 1980s due to the savings and loan crisis and multiple regional real estate crises
- Relaunched in the 1990s and again expanded until collapsing during the financial crisis
Private-label securitization nearly vanished as subprime and Alt-A loans have diminished.
Private label securitization is unlikely to experience a resurgence in the near to medium term

- Painful memories of substantial losses on subprime and Alt-A will limit investor demand
- Increased capital requirements under Basel III will discourage investment banks from issuing PLS
- Recent PLS have required issuers to retain subordinated tranches
- Investors are unlikely to purchase subordinated tranches from issuers
  - Even during the peak of private-label securitization, issuers were only able to sell subordinated tranches by selling them into CDO securitizations, which were improperly rated AAA by the rating agencies
The amount of mortgages that banks retain has decreased since the credit crisis and a substantial portion are floating-rate with short terms.

Banks have decreased their share of outstanding mortgages since the S&L crisis in the 1980s.

Source: Federal Reserve
Banks are unlikely to significantly increase the amount of long-term, fixed-rate mortgages they retain on their balance sheets

- Asset-liability management limits the proportion of their balance sheets that banks will invest in mortgages
- Capital requirements for GSE MBS are lower than for retained mortgages
- Basel III regulations significantly increase capital requirements for mortgage assets, lowering returns
- Mortgage rates are near historical lows, increasing future interest rate risk
Recent Proposals are Riskier than Reformed GSEs

Recent proposals are not only impractical, but also less effective and riskier than a reformed Fannie and Freddie.

Risks of recent proposals:

- Untested system that lacks the GSEs’ 80-year track record of market acceptance
- Increased cyclicality
- Numerous small-scale start-ups will be lower quality, riskier, and more difficult to regulate than the GSEs
- Explicit government guarantee will increase risk to taxpayers
The GSEs satisfy the needs of key market participants. Proposals to replace them with an untested system carry significant risk

“The current secondary market structure works well for community banks and credit unions and allows them to meet their borrowers’ needs. Restructuring of this system is unchartered and untested and therefore raises numerous questions regarding fees and functionality when applied to the real-world marketplace.”

- Credit Union National Association, Independent Community Bankers of America, National Association of Federal Credit Unions, 4/11/2014

A key risk with recent housing finance proposals is that they will only demonstrate efficacy when we can least tolerate failure – during a severe housing downturn
Recent history demonstrates that the availability of private capital is pro-cyclical and the GSEs’ market participation is countercyclical.

Share of Residential Mortgage Originations Since 2000

Source: Inside Mortgage Finance
Recent history demonstrates that the cost of private capital is pro-cyclical, while the rates on GSE MBS remain stable.

In early 2009, the interest rates on Freddie Mac’s 30-year, fixed-rate mortgages were nearly 200bps lower than the rates on mortgages of similar quality not backed by the GSEs.

Source: Bankrate and Freddie Mac as of 5/1/2014
New Participants will be Lower Quality and Riskier

Numerous small-scale start ups will be lower quality, riskier, and harder to regulate than the GSEs

Risks of numerous small-scale participants:

- Compete for a limited pool of private capital and executive talent
- Need to grow quickly to establish scale, which may lead to increased risk-taking
- Portfolios will lack the GSEs’ geographic diversity, which increases the risk of failure and a government bailout
- Will never gain the market acceptance that the GSEs have long held
- More difficult to oversee and regulate numerous firms than two GSEs
Recent Proposals Require a Government Guarantee

Recent proposals require an explicit guarantee from the U.S. government

An explicit government guarantee will put taxpayers at risk:

- The government will need to guarantee the ~$5 trillion of GSE MBS until the private sector raises sufficient capital

- If the amount of private capital is insufficient to replace the GSEs, the government will need to continue guaranteeing the GSEs’ MBS to prevent major market disruption

- The cyclical nature of private sector capital will require the government to play an outsized role during periods of economic distress

An effective solution for housing finance reform should not need to rely on an explicit government guarantee
If the GSEs are conservatively capitalized, avoid subprime and Alt-A loans, and exit the FIA business, they will not require an explicit government guarantee.
Our Recommendation for Housing Finance Reform
Key Objectives for Housing Finance Reform

Housing finance reform should achieve several additional objectives beyond those articulated in recent proposals

Key Objectives:

- Maintain the availability and affordability of the 30-year, fixed-rate, prepayable mortgage
- Protect taxpayers from bearing the cost of a housing downturn
- Respect the rule of law
- Maximize taxpayers’ profits on Treasury’s investment in the GSEs
- Eliminate the need for a government guarantee
Our Recommendation is to Reform, Not Liquidate, the GSEs

The best way to maintain widespread availability and affordability of the 30-year, fixed-rate, prepayable mortgage and provide substantial profit to the taxpayer is to reform the GSEs.

Key elements to reform the GSEs:

- Significantly increase the GSEs’ capital requirements
- Eliminate the GSEs’ FIA business
- Subject the GSEs to substantially increased regulatory oversight
- Develop appropriate compensation and governance policies

If the GSEs increase their capital levels and become pure mortgage guarantors, they can be a simple, low-risk, and effective solution for housing finance reform.
Significantly Increase Capital Requirements

A 2.5% equity ratio would provide the GSEs with a fortress balance sheet that would provide 5 times more capital than historical levels for their guarantee business.

Equity Requirement for Guarantee Business ($ in billions)

A 2.5% equity ratio would amount to more than 4 times the cumulative losses in the GSEs’ guarantee business during the financial crisis, based on our estimate of the GSEs’ actual credit losses excluding the elevated losses from subprime and Alt-A MBS.

Source: Company filings and Pershing Square estimates
Note: Capital ratios based on a total guarantee portfolio of $4,800bn. Adjusted Cumulative Losses (2007-2011) represents Fannie and Freddies’ cumulative fully-taxied net losses from 2007-2011, based on actual credit losses and excluding the elevated level of losses from subprime and Alt-A MBS. See footnote on pg. 33.
A 2.5% equity ratio is appropriate when benchmarked against the required capital levels for banks and private mortgage insurers.

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Private Mortgage Insurers</th>
<th>Reformed GSEs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional Mortgages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Risk</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Interest Rate Risk</td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Liquidity Risk</td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>High LTV</td>
<td>×</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Guarantee 80-100% LTV Tranche</td>
<td>×</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Minimum Equity Requirement</td>
<td>3.5% – 4.5%</td>
<td>4%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

The GSEs’ guarantee business should have a lower capital ratio than banks and PMIs to reflect the lower risks they incur.

Source: Company filings and Pershing Square estimates
Note: Equity requirements for banks based on 50% risk-weighting for residential mortgage assets and 7-9% Tier 1 common equity ratio under Basel III. Private mortgage insurers based on the maximum 25:1 risk-to-capital ratio requirement of most states.
Significantly Increase Capital Requirements (Cont.)

The GSEs should require significantly less capital than the PMIs because their guarantees are much safer

Illustrative Mortgage Guarantee Coverage as % of LTV

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Typical Severity</th>
<th>Capital Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSEs 0-80% LTV</td>
<td>~30%</td>
<td>2.5%</td>
</tr>
<tr>
<td>GSEs 80-100% LTV</td>
<td>100%</td>
<td>4%</td>
</tr>
<tr>
<td>PMIs</td>
<td>80-100% LTV</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Company filings and Pershing Square estimates
Note: Capital ratio for PMIs based on the maximum 25:1 risk-to-capital ratio requirement of most states.
The GSEs’ enormous earnings power adds a substantial additional layer of protection to a fortress balance sheet.

The GSEs’ balance sheets do not reflect the ~$30bn in annual revenue they will receive from g-fees on their ~$5 trillion of outstanding MBS.
**Significantly Increase Capital Requirements (Cont.)**

At the current level of g-fees and a 2.5% equity ratio, the GSEs’ guarantee business could have maintained a positive net worth while absorbing the same level of credit provisions (an accounting charge that represents an estimate of future credit losses) they incurred during the financial crisis.

### % of Guarantee Portfolio

<table>
<thead>
<tr>
<th></th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. G-Fees</td>
<td>0.6 %</td>
<td>0.6 %</td>
<td>0.6 %</td>
</tr>
<tr>
<td>Plus: Interest Income on Capital</td>
<td>0.0 %</td>
<td>0.1 %</td>
<td>0.1 %</td>
</tr>
<tr>
<td>Less: Avg. Credit Provisions</td>
<td>(1.2) %</td>
<td>(0.9) %</td>
<td>(1.1) %</td>
</tr>
<tr>
<td>Less: Avg. Admin. Expense</td>
<td>(0.1) %</td>
<td>(0.1) %</td>
<td>(0.1) %</td>
</tr>
<tr>
<td>Less: Avg. Taxes at 35%</td>
<td>0.2 %</td>
<td>0.1 %</td>
<td>0.2 %</td>
</tr>
<tr>
<td>Avg. Net Income</td>
<td>(0.4) %</td>
<td>(0.2) %</td>
<td>(0.3) %</td>
</tr>
<tr>
<td>5-Yr Cumulative Net Income</td>
<td>(2.0) %</td>
<td>(0.9) %</td>
<td>(1.6) %</td>
</tr>
<tr>
<td>Ending Equity Ratio</td>
<td>0.5 %</td>
<td>1.6 %</td>
<td>0.9 %</td>
</tr>
</tbody>
</table>

Source: Company filings and Pershing Square estimates

Note: Interest income on capital assumes required capital invested at 3% interest rate based on 10-yr UST and based on average equity during the 5-yr period.
At the current level of g-fees, the GSEs’ guarantee business could have been profitable while absorbing the same level of actual credit losses they incurred in the guarantee business during the financial crisis.

<table>
<thead>
<tr>
<th>% of Guarantee Portfolio</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. G-Fees</td>
<td>0.6 %</td>
<td>0.6 %</td>
<td>0.6 %</td>
</tr>
<tr>
<td>Plus: Interest Income on Capital</td>
<td>0.1 %</td>
<td>0.1 %</td>
<td>0.1 %</td>
</tr>
<tr>
<td>Less: Avg. Credit Losses</td>
<td>(0.5)%</td>
<td>(0.4)%</td>
<td>(0.5)%</td>
</tr>
<tr>
<td>Less: Avg. Admin. Expense</td>
<td>(0.1)%</td>
<td>(0.1)%</td>
<td>(0.1)%</td>
</tr>
<tr>
<td>Less: Avg. Taxes at 35%</td>
<td>(0.0)%</td>
<td>(0.1)%</td>
<td>(0.1)%</td>
</tr>
<tr>
<td>Avg. Net Income</td>
<td>0.1 %</td>
<td>0.2 %</td>
<td>0.1 %</td>
</tr>
<tr>
<td>5-Yr Cumulative Net Income</td>
<td>0.4 %</td>
<td>0.8 %</td>
<td>0.5 %</td>
</tr>
<tr>
<td>Ending Equity Ratio</td>
<td>2.9 %</td>
<td>3.3 %</td>
<td>3.0 %</td>
</tr>
</tbody>
</table>

Actual credit losses for the GSEs from 2007 to 2011 includes credit losses from subprime and Alt-A loans that will not be in their portfolios in the future.

Source: Company filings and Pershing Square estimates
Note: Interest income on capital assumes required capital invested at 3% interest rate based on 10-yr UST and based on average equity during the 5-yr period.
Eliminate the FIA Business

The GSEs’ FIA business should be wound down and the GSEs should be limited to a maximum of $100bn of mortgage loans for warehousing

Mortgage-Related Investment Assets ($ in Billions)

Source: Company filings and Pershing Square estimates
Improve Compensation, Governance, and Oversight

**Compensation for Key Executives**

- Salaries based on prevailing market rates
- Bonuses in the form of restricted stock with long-term vesting
- Compensation targets emphasize capital strength and operational risk management and controls, in addition to standard financial targets

**Governance**

- Independent directors
- Compensation based on restricted stock with long-term vesting

**Regulatory Oversight**

- Subject to continual in-depth, onsite examinations
- Subject to annual stress tests and capital plans
Our recommendation to reform the GSEs is analogous to how the government reformed the too-big-to-fail banks after the financial crisis.

<table>
<thead>
<tr>
<th>✔ Significantly increased capital levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Government injected large amounts of equity into the big banks via TARP</td>
</tr>
<tr>
<td>- Significantly increased capital requirements under Basel III</td>
</tr>
<tr>
<td>- Banks required to retain earnings to achieve higher capital levels</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✔ Significantly limited business activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Restrictions on proprietary trading and private equity investments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✔ Substantially increased regulatory oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Onsite examinations and annual stress tests</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✔ Improved compensation and governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Scrutiny of compensation plans, limited cash bonuses, and clawback provisions</td>
</tr>
</tbody>
</table>
The GSEs Have Significant Advantages

Fannie and Freddie have a substantial competitive advantage

- 80-year history, a proven track record, and global market acceptance for their MBS
- Significant scale advantages which allow them to be low-cost providers, resulting in lower mortgage rates
- Strong relationships with key participants in the secondary market
- Talented workforce with substantial knowledge base and strong technical know-how
- National presence and diversified exposures insulate them from regional housing downturns
- Large recurring earnings stream generates a substantial amount of capital
- G-fees on ~$5 trillion of outstanding MBS generate significant recurring revenue
The GSEs Will Remain Very Profitable

Fannie and Freddie’s current levels of profitability are likely to remain elevated over the medium term.

Key drivers of elevated profitability:

- Increase in average g-fee due to higher g-fees on newly-issued MBS
- Credit losses in the guarantee portfolio are approaching historical levels
- Significant future reserve releases of as much as $30bn for the guarantee portfolio
- Substantial profits from the wind-down of the FIA business
- Favorable legal settlements with banks and monolines for reps and warranties violations
## Significant Long-Term Earnings Power

We estimate that the GSEs’ combined long-term earnings power would be about $17bn at current g-fee levels.

<table>
<thead>
<tr>
<th>Fully-Taxed Net Income ($ in Billions)</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Tax Income</td>
<td>$17</td>
<td>$9</td>
<td>$26</td>
</tr>
<tr>
<td>Less: Taxes at 35%</td>
<td>(6)</td>
<td>(3)</td>
<td>(9)</td>
</tr>
<tr>
<td>Net Income</td>
<td>$11</td>
<td>$6</td>
<td>$17</td>
</tr>
</tbody>
</table>

*Our estimate of the GSEs’ earnings power does not incorporate the additional income they can earn by investing the float produced by the guarantee business.*

Source: Pershing Square estimates

Note: Based on current guarantee portfolio size and $100bn of mortgage loans used for warehousing. Assumes $100bn of mortgages loans generates $1bn per year.
Significant Long-Term Earnings Power

If FHFA continues to require the GSEs to increase their g-fees to approach a level that would attract private market participants, their earnings power would increase significantly.

Fully-Taxed Net Income at Various G-fees ($ in Billions)

Source: Pershing Square estimates
Note: Based on current guarantee portfolio size and $100bn combined mortgage portfolio.
At the current levels of g-fees and a historical level of credit losses, we estimate the GSEs’ guarantee business alone could generate long-term earnings of $16bn.

<table>
<thead>
<tr>
<th>Fully-Taxed Net Income ($ in Billions)</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G-Fees</strong></td>
<td>60</td>
<td>80</td>
<td>63</td>
</tr>
<tr>
<td><strong>Plus: Interest Income on Capital</strong></td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Less: Credit Expense</strong></td>
<td>(10)</td>
<td>(3)</td>
<td>(5)</td>
</tr>
<tr>
<td><strong>Less: Administrative Expense</strong></td>
<td>(6)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Less: Taxes at 35%</strong></td>
<td>(18)</td>
<td>(6)</td>
<td>(9)</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td>33</td>
<td>60</td>
<td>93</td>
</tr>
<tr>
<td><strong>Guarantee Portfolio</strong></td>
<td>3,100 bn</td>
<td>1,700 bn</td>
<td>4,800 bn</td>
</tr>
</tbody>
</table>

We estimate that the combined $100bn of warehouse mortgage loans will generate an additional $1bn of long-term earnings.

Source: Company filings, Pershing Square estimates
Note: Interest income on capital assumes required capital invested at 3% interest rate based on 10-yr UST
The GSEs’ guarantee business could generate significantly higher long-term earnings at increased g-fee levels.

### Fully-Taxed Net Income at Various G-fees ($ in Billions)

<table>
<thead>
<tr>
<th>G-fee</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
</tr>
</thead>
<tbody>
<tr>
<td>60bps</td>
<td>$10</td>
<td>$6</td>
</tr>
<tr>
<td>80bps</td>
<td>$22</td>
<td>$10</td>
</tr>
<tr>
<td>100bps</td>
<td>$29</td>
<td>$20</td>
</tr>
</tbody>
</table>

Source: Pershing Square estimates
Retained Earnings Will Build Capital

The GSEs will build capital through the retention of their earnings. To achieve a 2.5% capital level, the GSEs require ~$180bn of cumulative earnings.

Incremental Equity Requirement for a 2.5% Ratio ($ in Billions)

<table>
<thead>
<tr>
<th></th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 '13 Common Equity</td>
<td>($134)</td>
<td>($84)</td>
<td>($218)</td>
</tr>
<tr>
<td>Plus: Adj. for Excess Dividends to Treasury</td>
<td>75</td>
<td>49</td>
<td>124</td>
</tr>
<tr>
<td>Adj. Q4 '13 Common Equity</td>
<td>($59)</td>
<td>($35)</td>
<td>($94)</td>
</tr>
<tr>
<td>Plus: Junior Preferred Stock</td>
<td>19</td>
<td>14</td>
<td>33</td>
</tr>
<tr>
<td>Pro-Forma Q4 '13 Equity</td>
<td>($40)</td>
<td>($21)</td>
<td>($61)</td>
</tr>
<tr>
<td><strong>Equity at 2.5% Ratio</strong></td>
<td><strong>$79</strong></td>
<td><strong>$44</strong></td>
<td><strong>$123</strong></td>
</tr>
<tr>
<td><strong>Required Incremental Equity</strong></td>
<td><strong>$118</strong></td>
<td><strong>$65</strong></td>
<td><strong>$183</strong></td>
</tr>
</tbody>
</table>

Source: Company filings and Pershing Square estimates

Note: Adjustment for Excess Dividends to Treasury based on $124bn of dividends paid to Treasury above the original 10% dividend rate as part of the Net Worth Sweep
(1) Q4’13 Common Equity has been reduced by $18bn for the dividend paid to Treasury in March 2014
The GSEs Will Build Capital Quickly

At current g-fee levels of 60bps, we estimate that the GSEs’ guarantee business and the runoff of FIA will generate $197bn over the next 10 years, allowing them to retain $186bn as capital after Treasury’s preferred stock dividends.

Fully-Taxed Net Income Projections ($ in Billions):

We estimate the GSEs could repay the $65bn remaining Treasury preferred in 3 years based on their earnings and ~$72bn DTA.

Source: Pershing Square estimates
Note: Net Income is taxed at a 35% rate because the DTA is included in common equity. Expenses include remittance to the Treasury of 10bps of g-fees for newly issued MBS from 2014 to 2022 for the Temporary Payroll Tax Cut Continuation Act of 2011.
Guarantee Business Will Build Capital Quickly

At current g-fee levels of 60bps, we estimate that the GSEs’ guarantee business can generate $146bn of earnings over the next 10 years, including the benefit of future reserve releases.

Fully-Taxed Net Income Projections for Guarantee Business ($ in Billions):

Source: Company filings and Pershing Square estimates
Note: Net Income is taxed at a 35% rate because the DTA is included in common equity. Expenses include remittance to the Treasury of 10bps of g-fees for newly issued MBS from 2014 to 2022 for the Temporary Payroll Tax Cut Continuation Act of 2011.
Wind-down of FIA Business Will Build Capital Quickly

We estimate the GSEs’ FIA business will earn $51bn over the next 10 years as it winds down.

Fully-Taxed Net Income Projections for Fixed-Income Arbitrage Business ($ in Billions):

We estimate that the combined $100bn of warehouse mortgage loans will generate long-term earnings of $1bn.

Source: Company filings and Pershing Square estimates
Note: Net Income is taxed at a 35% rate because the DTA is included in common equity.
The GSEs Will Build Capital Quickly

At higher g-fee levels, we estimate that the GSEs could reach a 2.5% capital ratio in fewer than 7 years

Years Required to Achieve 2.5% Equity Ratio:

- 60bps G-fee: 10 years
- 80bps G-fee: 8 years
- 100bps G-fee: 7 years

Source: Company filings and Pershing Square estimates
Note: Net Income is taxed at a 35% rate because the DTA is included in common equity.
Future Value of Fannie & Freddie
### Illustrative Future Value of the GSEs

The government can generate an enormous profit for taxpayers by monetizing its substantial equity ownership in a fully-capitalized Fannie and Freddie in the next 7 to 10 years.

<table>
<thead>
<tr>
<th>Illustrative Future Value of the GSEs ($ in Billions, except per share)</th>
<th>60bps G-fee</th>
<th>80bps G-fee</th>
<th>100bps G-fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Income</td>
<td>$17bn</td>
<td>$23bn</td>
<td>$29bn</td>
</tr>
<tr>
<td>Less: Junior Preferred Stock Dividends</td>
<td>(2)</td>
<td>(2)</td>
<td>(2)</td>
</tr>
<tr>
<td>Net Income to Common</td>
<td>$15</td>
<td>$21</td>
<td>$27</td>
</tr>
<tr>
<td>P/E Multiple</td>
<td>14.0 x</td>
<td>15.0 x</td>
<td>16.0 x</td>
</tr>
<tr>
<td>Illustrative Future Value</td>
<td>$206 bn</td>
<td>$311 bn</td>
<td>$427 bn</td>
</tr>
<tr>
<td>Diluted Shares (bn)</td>
<td>9.0</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Illustrative Future Value of the GSEs per Share</td>
<td>$23</td>
<td>$35</td>
<td>$47</td>
</tr>
<tr>
<td>Multiple of Current Share Price</td>
<td>6 x</td>
<td>9 x</td>
<td>12 x</td>
</tr>
<tr>
<td>Future Value of Treasury Warrants</td>
<td>$165 bn</td>
<td>$248 bn</td>
<td>$342 bn</td>
</tr>
</tbody>
</table>

Source: Company filings and Pershing Square estimates
### Illustrative Value to Taxpayers

By reforming the GSEs, taxpayers could receive more than $600bn over time from Treasury’s original $187bn preferred stock investment.

<table>
<thead>
<tr>
<th>Illustrative Total Return Potential to Taxpayers ($ in Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Stock Dividends to Date</td>
</tr>
<tr>
<td>Plus: Future Preferred Stock Proceeds (1)</td>
</tr>
<tr>
<td>Plus: Future Value of Treasury Warrants</td>
</tr>
<tr>
<td><strong>Total Value for Taxpayers</strong></td>
</tr>
<tr>
<td><strong>Total Cash Investment</strong></td>
</tr>
</tbody>
</table>

Source: Company filings and Pershing Square estimates

(1) Based on $65bn adjusted remaining balance of preferred stock and 10% annual dividends and assumes preferred stock is repaid in 3 years.
Taxpayers’ economic ownership of the GSEs is greater than Treasury’s 79.9% common stock warrants because the government is also entitled to significant tax revenue from their future profits.

**Illustrative Taxpayer Ownership % of the GSEs**

<table>
<thead>
<tr>
<th>Ownership of Common Stock</th>
<th>79.9% Government</th>
<th>20.1% Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of Future Profits</td>
<td>86.9% Government</td>
<td>13.1% Private Sector</td>
</tr>
</tbody>
</table>

*Tax revenue from the GSEs’ future profits increases taxpayers’ effective ownership of the GSEs*

Annual tax revenue from the GSEs’ future profits could be as much as $15bn and growing

Source: Company filings and Pershing Square estimates

Note: Based on a 35% tax rate
Reforming the GSEs is the most effective, lowest risk, and most taxpayer-friendly solution for housing finance reform

<table>
<thead>
<tr>
<th>Feature</th>
<th>Recent Proposals</th>
<th>Reformed GSEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintains Availability of 30-Yr Mortgage</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Maintains Affordability of 30-Yr Mortgage</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Provides Sufficient Private Capital</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Functions without a Government Guarantee</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Future Risk to Taxpayers</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Incremental Future Value to Taxpayers</td>
<td>$0</td>
<td>$240bn - $420bn</td>
</tr>
<tr>
<td>Annual Future Tax Revenue</td>
<td>?</td>
<td>~$15bn</td>
</tr>
</tbody>
</table>
Potential Alternatives to Build Capital More Quickly

We estimate that the retention of the GSEs’ earnings will allow them to become fully capitalized in no more than a decade. There are several potential alternatives to capitalize them more quickly:

- Treasury converts its remaining $65bn of preferred stock into common stock at a share price that reflects the GSEs’ value
  - Similar to Treasury’s conversion of preferred stock in AIG and Citi
- Treasury allows the GSEs to raise new capital
We believe affordable housing is extremely important. Our recommendation provides an opportunity to fund affordable housing through a variety of potential alternatives.

Potential methods to fund affordable housing:

- A portion of the $240 to $420bn of future taxpayer profit could be allocated to fund affordable housing.
- A surcharge could be implemented on newly issued MBS.
- The GSEs could contribute a portion of their profits above an ROE threshold.
- A portion of the $15bn and growing annual tax revenue from the GSEs could be allocated to fund affordable housing.

We welcome additional alternatives to fund affordable housing, and believe our recommendation to reform the GSEs provides the largest potential source of funds for affordable housing.
Failing to reform the GSEs will impose significant costs on society

- Loss of available and affordable 30-year, fixed-rate, prepayable mortgages, reduced value of housing, and reduced local real estate tax revenue

- Loss of as much as $420bn of additional future proceeds to the Treasury on its preferred stock investment

- Loss of as much as $15bn and growing future annual federal tax revenue

- Loss of more than 12,000 jobs at Fannie and Freddie

- Loss of a system that has successfully served the needs of American homeowners for more than 80 years