A Narrative Analysis of Mortgage Asset Purchases by Federal Agencies

ANDREW FIELDHOUSE

Cornell University

KAREL MERTENS*

FRB Dallas, NBER, CEPR

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Abstract

This paper provides a narrative analysis of regulatory policy changes affecting the purchases and holdings of mortgages and related securities of five US government entities over the 1968–2014 period. We focus on federal government policies that aim to influence the allocation and/or supply of residential mortgage credit. We use contemporary primary sources and various institutional histories to identify significant policy interventions, to document their economic and regulatory context, surrounding motives, and pertinent timing, as well as to quantify projected impacts on agencies' mortgage holdings. Finally, we classify each significant policy change as either 'cyclically motivated' or 'non-cyclically motivated.' The results of the narrative analysis of federal housing credit policy changes yield a record of events that can be used as an instrumental variable for agency purchase activity.

Keywords: Credit Policy, Mortgage Markets, Government-Sponsored Enterprises, Narrative Approach
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* *Contact*: Federal Reserve Bank of Dallas, karel.mertens@dal.frb.org, tel: +(214) 922-6000.

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1 Introduction

This paper provides a narrative analysis of regulatory policy changes affecting the purchases and holdings of mortgages and related securities of five US government entities. We focus on federal government policies that aim to influence the allocation and/or supply of residential mortgage credit. We use contemporary primary sources and various legislative and institutional histories to identify significant policy changes expected to affect government agencies' permissible volumes of commitments to purchase mortgages, net purchases, and retained mortgage portfolios. We quantify the projected impact of each policy change on agencies' ability to purchase mortgage assets using ex ante balance sheet data and estimates of congressional staff, market analysts, regulators, and agency executives. We use an array of primary sources to document the economic and regulatory context of each major policy change, including the timing of policy events being announced and taking effect, as well as purported and discerned motives. Each significant policy change affecting agencies' retained mortgage portfolios is then classified as either 'cyclically motivated' or 'non-cyclically motivated' for those policies deemed unrelated to contemporaneous changes in the business cycle and housing credit conditions.

The documentation, quantification, dating, and classification of federal housing credit policy interventions is intended to yield an input for studying their use and impact. In a companion paper, Fieldhouse, Mertens, and Ravn (2017), we use the policy changes and narrative classification to analyze the impact of government mortgage purchases on mortgage lending, interest rates, residential investment, home prices, homeownership, the stance of monetary policy, and other financial indicators and macroeconomic aggregates.

We focus on five government agencies that have actively participated in mortgage asset markets: the Federal National Mortgage Association (FNMA, or Fannie Mae), Federal Home Loan Mortgage Corporation (FHLMC, or Freddie Mac), Government National Mortgage Association (GNMA, or Ginnie Mae), Federal Reserve, and US Treasury Department. We restrict our focus of interest for significant policy changes to 1968–2014, a period of relative institutional stability in secondary mortgage markets. A historical overview of US federal housing credit policy provides background and context for these individual policy changes, and the history of Fannie Mae is traced back to its Great Depression origins in an accompanying online appendix for broader context regarding its charter, public mission, and the evolution of housing credit policy.

The remainder of the paper is structured as follows. Section 2 provides a historical overview of US federal housing credit policy institutions and trends. Section 3 outlines the methodologies and principal data sources used in compiling the narrative histories of the relevant agencies and policy changes. Section 4 offers a chronological narrative analysis relating to the purchases of mortgage assets for each of the five agencies. Section 5 presents the end result of the narrative analysis, which consists of a time series of significant federal housing credit policy innovations, along with our projected annualized impact on each agency's mortgage holdings (in nominal dollars), determination of the policy change's pertinent timing as a news shock about

pending purchases, and classification of the policy as either cyclically or non-cyclically motivated.

2 Historical Overview of US Federal Housing Credit Policy

To provide broader context for the discussion of each agency's significant policy changes, we first overview the origins and evolution of US federal housing credit policy and the housing agencies of interest. As a reference, Table 1 lists the major housing credit policy institutions and their years active, and Table 2 provides a glossary of all acronyms used in this paper.

The origins of present day US federal housing credit policy stem from policy responses intended to ameliorate the collapse of mortgage credit and resuscitate the housing market during the Great Depression. The Depression was led by a sharp and sustained downturn in housing starts, which plunged from a peak of over 900,000 in 1925 to 500,000 by 1929 and a low of under 100,000 in 1933, having dropped 90% (Leamer (2007), Eichengreen (2015)). The stock market crash of 1929 had been preceded by a speculative residential real estate development boom and bust in Florida, sparking a slew of regional bank failures, the fallout of which "*soured bankers and homebuyers on the residential real estate market*" across the country (Eichengreen (2015)). During the Great Depression, banking panics and failures, falling incomes and rising unemployment, and the prevailing terms of mortgage contracts all contributed to a severe mortgage credit crunch and unprecedented foreclosure crisis. At the time, almost all mortgages were short-term loans of only up to 5-6 years, required large down payments, with loan-to-value ratios (LTVs) not exceeding 60%, and were structured as balloon mortgages as opposed to self-amortizing loans; borrowers would take out a new mortgage to repay the principal of their previous maturing mortgage, but this financing system imploded when panicked or failing banks stopped making new loans.

The first major federal intervention in residential mortgage markets was the creation of the Federal Home Loan Bank System (FHLBS) by the Hoover administration in 1932, which was intended to provide a liquidity backstop for mortgage lenders. The FHLBS was modeled after the Federal Reserve System, organized as a governing Federal Home Loan Bank Board (FHLBB), twelve regional Federal Home Loan Banks (FHLBanks), and private mortgage lenders as members. The FHLBanks were chartered to facilitate and stabilize mortgage lending by providing liquidity via wholesale loans to member institutions, secured by members' mortgages. Membership was mandatory for federally chartered savings and loan associations (S&Ls) and voluntary for other institutions making long-term home mortgage loans.

The scope of housing credit policy interventions expanded considerably under the Roosevelt administration's New Deal legislation. In response to the foreclosure crisis, Congress established and capitalized the Home Owners' Loan Corporation (HOLC) in 1933 to purchase mortgages in default from lenders and refinance delinquent mortgages on enticing terms. One year later, the watershed National Housing Act of 1934

created the Federal Housing Administration (FHA) to stimulate the construction sector and improve housing standards. Qualifying borrowers could obtain an attractive FHA-insured loan from a private mortgagee, while lenders could file mortgage insurance claims with the FHA if a borrower defaulted, thereby transferring credit risk to the federal government. The Act also created the Federal Savings and Loan Insurance Corporation (FSLIC) to extend deposit insurance to the thrift industry and stabilize mortgage market funding. Through the statutory terms for HOLC and FHA-insured mortgages, Congress transformed the norm for mortgage contracts to closely resemble the long-term fixed-rate self-amortizing mortgages prevalent today.[1] In 1935, the Reconstruction Finance Corporation (RFC) incorporated and capitalized the RFC Mortgage Company, principally to serve as a secondary market supporting FHA-insured mortgages.

In 1938, the Federal National Mortgage Association was established and authorized to support a more liquid secondary market for FHA-insured mortgages. Congress had repeatedly tried, albeit unsuccessfully, to induce the incorporation of legally privileged private national mortgage associations, which had been authorized by the National Housing Act of 1934; after several years of private sector inaction, FNMA was chartered as a wholly owned subsidiary of the RFC, which also provided Fannie's initial capitalization.

The Servicemen's Readjustment Act of 1944 (or 'GI Bill') established the Veterans Administration (VA) mortgage guarantee program, which allowed veterans to obtain mortgages with very low down payments.[2] The program was intended as a cheap alternative reward to cash bonuses for veterans, as well as to reinvigorate housing construction, which had cratered again during the war. The RFC Mortgage Company initially expanded secondary market operations to support VA mortgages. After the RFC Mortgage Company was dissolved in 1948, Fannie was rechartered and authorized to support a secondary market in VA mortgages later that year. The Korean GI Bill extended the VA home loan benefit to Korean War vets, setting precedent that eligibility would be extended following every major subsequent conflict or deployment.

The National Housing Act of 1954 rechartered a nearly bankrupted Fannie Mae, turning it into a mixed-ownership corporation by requiring that mortgagee counterparties purchase common stock, and authorized Fannie to issue debt, subject to leverage constraints.[3] The bill envisaged an eventual full privatization, but set no mechanism or timeline for such a transition; the Act also introduced a standby line of credit with the Department for Fannie's secondary market operations, intended as a liquidity backstop to reassure private lenders. The Housing and Urban Development Act of 1968 split FNMA into a quasi-private Fannie Mae and a government-owned Government National Mortgage Association—a move largely intended to remove

[1] HOLC loans allowed higher LTVs of up to 80%, were self-amortizing over a longer 15 year maturity (later revised to 25 years), and bore fixed interest rates capped at 5%. Loan limits were set at $14,000, a relatively modest size at the time. FHA-insured loans initially imposed maximum LTVs of 80%, maturities of 20 years, interest rates of 5%, and loan limits of $16,000.

[2] Subject to eligibility requirements, veterans enjoyed a limited guarantee on loans used for the purchase or construction of residential property, or home repairs and improvement; the VA would pay the private lender a portion of losses in the event that a veteran defaulted on a guaranteed loan.

[3] Preferred stock ownership remained with the federal government.

Fannie Mae's balance sheet and debt issues from the federal budget ledger. The new shareholder-owned Fannie Mae assumed secondary market operations, but retained the ability to borrow from the Treasury, widely perceived as an implicit government guarantee. Ginnie Mae assumed the other functions, which largely entailed cyclically motivated interventions or purchases supporting difficult-to-market FHA/VA mortgages. The Department of Housing and Urban Development (HUD), established as a Cabinet-level agency in 1965, fully administered Ginnie and retained considerable regulatory authority over Fannie. Ginnie was actively used to intervene in mortgage markets until its purchase programs were wound down in the early 1980s.

The 1970s ushered in the ascendence of government-sponsored secondary mortgage markets. Following the 1969 credit crunch, the Emergency Home Finance Act of 1970 authorized Fannie to expand its activities from dealing solely in FHA/VA mortgages to the much larger conventional mortgage market.[4] That Act also chartered the Federal Home Loan Mortgage Corporation as a companion government-sponsored enterprise (GSE) to support a secondary market for conventional mortgages for the S&Ls.[5] Like Fannie, Freddie was chartered with preferential tax and regulatory treatment, but ownership and regulation of Freddie was placed with the FHLBS. Freddie was authorized to issue debt securities and sell mortgage-backed securities (MBS) issued against pools of mortgages. In February 1970, GNMA issued the first publicly traded pass-through securities, backed with interests in pools of FHA/VA mortgages, with timely payment explicitly backed by a government guarantee. In 1971, Freddie started a program of pass-through securities, or 'participation certificates,' backed by conventional mortgages, with default risk guaranteed by Freddie.

Freddie's MBS were largely sold to third parties, so its retained portfolio—primarily used for MBS pooling inventory—remained small relative to that of Fannie through the 1980s. Fannie's greater retained portfolio and interest rate risk exposure led to large losses in the early 1980s. The Reagan administration's plans to fully privatize both GSEs were delayed while Fannie's balance sheet was recovering, aided by accommodating tax and regulatory policies. A deregulatory regime tried to help both the thrift industry and Fannie grow their way back to health without taxpayer bailouts or recapitalizations, exacerbating the subsequent S&L crisis, which again delayed any attempt at privatization.

Amidst the S&L crisis and public resolution of failed thrifts, the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 expanded the GSEs' secondary mortgage market objectives to include promoting housing for low- and moderate-income borrowers. The Act also converted Freddie into a publicly traded shareholder-owned corporation, transferring regulatory authority to HUD. Freddie was also extended the same $2.25 billion standby credit line with the Treasury as afforded Fannie, bolstering the perception of an implicit government guarantee of agency debt securities. Congress also diverted FHLBank earnings to affordable housing goals and repaying thrift resolutions; this action had the unintended consequence of

[4]Conventional mortgages are loans that are not directly guaranteed by the federal government.

[5]The FHLBS is also a housing GSE, while the government-retained Ginnie Mae is not a GSE. With an abuse of notation, we use the term 'GSEs' or 'Enterprises' to refer simply to Fannie and Freddie, the only housing GSEs of focus in this paper.

pressuring the FHLBS to increase earnings, prompting a leveraged balance sheet expansion into MBS. The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 established minimal capital requirements for the GSEs and mandated that HUD set affordable housing goals.

The 1990s and early 2000s saw considerable balance sheet growth of Fannie and Freddie largely unrelated to deliberate federal policy changes. After publicly listing, earnings pressure drove Freddie to exploit the profitability of balance sheet expansion, and its retained portfolio began catching up with Fannie (Greenspan (2005)). The GSEs' automated underwriting systems became widely used by originators, guaranteeing that their mortgages could easily be sold to secondary markets, helping the GSEs gain market share. An era of low interest rates triggered a massive mortgage refinancing wave, which Fannie and Freddie capitalized on. And Fannie and Freddie successfully courted and expanded debt issuance to foreign institutional investors, aided by a falling supply of Treasuries. New FHLBank programs were also authorized for portfolio purchases of whole loans from members, creating an alternative secondary market for their members.

Accounting scandals that surfaced in the early 2000s, however, prompted greater regulatory oversight of the GSEs, capital surcharges, and portfolio caps, contributing to declining agency shares of mortgage holdings and guaranteed mortgage debt in the mid-2000s. The GSEs' purchase and securitization activity also slowed with the end of the refinancing boom in 2003. The explosion of subprime and alt-A mortgage lending and private-label MBS issuance was also an important factor behind the agencies' falling market shares.

Government agencies rapidly regained and then surpassed their previous market share highs as the housing market and private mortgage lending collapsed ahead of and during the Great Recession. Fannie and Freddie were heavy-handedly reminded of their public missions and pushed to expand purchases in a tanking market; their portfolio limits were relaxed in September 2007 and again in February 2009, while capital surcharges were removed in March 2008. The Economic Stimulus Act of 2008 vastly increased conforming loan limits to expand the reach of GSE purchases and securitization.[6] The FHLBanks also effectively served as an alternative discount window (on more favorable terms than the Fed), and saw lending activity and mortgage holdings rise sharply.

The Housing and Economic Recovery Act of 2008 authorized the Treasury Department to purchase securities issued by Fannie and Freddie and dissolved several regulatory agencies, consolidating authority into the newly created Federal Housing Finance Agency (FHFA). In September 2008, Fannie and Freddie were placed under the conservatorship of the FHFA and Treasury, and were ordered to first increase, then gradually reduce their mortgage portfolios. The Treasury concurrently announced an agency MBS purchase program that resulted in nearly $200 billion worth of purchases through the end of 2009. The Federal Reserve launched its first round of quantitative easing (QE) asset purchases in November 2008, initially committing

[6]Conforming loans are mortgages that meet the GSEs' guidelines for eligible purchases, notably a loan limit and LTV limit.

to purchase $500 billion in agency MBS and $100 billion in agency debt.[7] The March 2009 expansion of QE1 committed to purchasing an additional $750 billion in agency MBS and another $100 billion in agency debt. Operation Twist, announced in September 2011, shifted reinvestment of principal repayments from agency MBS and agency debt holdings back into agency MBS, instead of Treasuries. When launched in September 2012, QE3 committed to purchasing $40 billion in agency MBS a month, tapered to $35 billion in December 2013, and terminated in October 2014. For a period during these active mortgage market interventions, agency net portfolio purchases and pool issues effectively accounted for all US mortgage originations. As of this writing, the Fed's balance sheet held $1.77 trillion worth of securitized US residential mortgage debt, more than 15% of that outstanding.[8] Fannie's and Freddie's portfolios continue to be shrunk while they remain in government conservatorship, but their eventual fate remains unclear.

3 Overview of Methodology

The principal purpose of this narrative analysis of federal housing credit policy changes is developing a record of events that can be used as a valid instrumental variable for agency purchases of mortgage assets. The narrative development of policy instruments follows five steps. We start by restricting the sample and focus of housing credit interventions for consistent use as news shocks. We then identify binding, significant policy changes expected to affect agency's purchases and retained portfolio activity. We quantify these significant policies' ex ante projected impact on agency mortgage holdings. We also pinpoint our best determination of when news of each policy change was made public. Lastly, we classify each significant policy as either 'cyclically motivated' or 'non-cyclically motivated.' Here we provide an overview of the procedures and data sources used in each of these steps. The companion paper, Fieldhouse, Mertens, and Ravn (2017), also provides a similar but substantially abbreviated overview of this methodology.

3.1 Sample Restriction

The starting point for the narrative analysis is the landmark Housing and Urban Development Act of 1968, a choice made to select a period of relative institutional stability. That Act split off FNMA's secondary mortgage market operations into a quasi-privatized shareholder-owned Fannie Mae, while creating a HUD-retained Ginnie Mae to assume FNMA's remaining operations. This choice also roughly coincides with the creation of Freddie Mac in 1970, Fannie Mae's authorization to enter the conventional market in 1970, the emergence of a nationwide secondary market for both FHA/VA and conventional mortgages, the beginning of mortgage securitization and its rapid growth, and the ascendancy of the quasi-privatized GSE era. We

[7] The Interest Rate Adjustment Act of 1966 temporarily amended the Federal Reserve Act to make any security of any government agency eligible for the conduct of open market operations, authority made permanent in 1968 (Haltom and Sharp (2014)).

[8] The Fed's balance sheet included $1.77 trillion worth of FNMA, FHLMC, and GNMA MBS as of June 28, 2017, or 15.3% of the $11.54 trillion in total mortgage debt outstanding for one- to four-family residences and multifamily residences as of 2017Q1, the most recently available quarter (Federal Reserve Statistical Release H.4.1 and Mortgage Debt Outstanding (1.54).

largely focus on the mortgage portfolio activity of Fannie, Freddie, and Ginnie, ignoring less significant government entities for which monthly portfolio data is not easily available.[9] Fannie has historically accounted for the largest share of post-war mortgage holdings, although Freddie grew rapidly and began catching up after being privatized in 1989. Ginnie also accounted for a significant share of mortgage holdings before its purchase programs were wound down in the early 1980s.[10] As shown in Figure 1, these three housing agencies of focus have accounted for the vast majority of government agency mortgage holdings prior to the financial crisis. We also include as significant policy changes the agency MBS purchase programs of the Federal Reserve and Treasury Department during the Great Recession, although all of these policies were clearly cyclically motivated.

3.2 Identifying Significant Policy Changes

We restrict our attention to 'significant' policy events that would either be expected to impact agencies' permissible volume of net purchases and retained portfolio holdings or considerably expand the pool of eligible mortgages an agency was authorized or required to purchase. Policies influencing retained portfolio volumes include leverage ratios, portfolio caps, and direct appropriations or provision of working capital, whereas policies considerably expanding the pool of eligible mortgages include changes to conforming loan limits, affordable housing goals, or classes of mortgages eligible for purchase, such as conventional, adjustable-rate, or second mortgages.

We use a wide range of sources for identifying legislative and regulatory changes affecting agency purchases, using primary sources, whenever possible, both in searching for and analyzing policy changes. We also cross-reference identified policy changes with multiple sources whenever possible. As a reference, Table 3 lists all primary sources used in compiling the narrative analysis.

Policy changes affecting agency mortgage purchases have been directed by a range of policymakers, notably Congress, the President, Treasury Secretary, and HUD Secretary, various regulatory agencies in the executive branch, and the Federal Open Market Committee (FOMC). The relevant regulatory institutions setting policy have varied over the decades, particularly as regulatory bodies were disbanded and reinvented in the aftermath of various crises or perceived regulatory failures, further necessitating the use of a wide range of sources. Principal sources used in identifying and analyzing significant policy changes include the legislative text of public laws, the Federal Register, the *Budget of the United States Government*, the *Economic Report of the President*, and periodical reports of the agencies and their regulators, notably the annual

[9] The FHLBS has also played a large role in US federal housing credit policy, albeit principally by providing wholesale liquidity to member mortgage lenders. The FHLBS did start purchasing and holding MBS in the early 1990s and several FHLBanks created quasi-secondary markets for whole loans starting in the late 1990s, but we ignore these purchases due to data limitations for purchases and holdings at a monthly frequency.

[10] Guaranteeing timely payment of MBS has comprised of nearly all of Ginnie's subsequent activity in mortgage markets, but unlike the housing GSEs, Ginnie does not directly hold a pooling inventory or retain MBS on portfolio.

reports of the Enterprises, HUD, FHFA, and Office of Federal Housing Enterprise Oversight (OFHEO).

Significant policy changes affecting government agencies' mortgage holdings generally originate from enacted legislative changes, regulatory policy changes published in the Federal Register or as other binding agreements, or macroeconomic stabilization policies managed by the Federal Reserve or Treasury. Significant policy changes determined legislatively include adjustments to statutory leverage ratios, capital requirements, and conforming loan limits, provisions of working capital, mandatory retirements of public stock, direct appropriations or borrowing authority for purchases, and authorizations for agencies to enter new segments of the mortgage market, among others. Significant regulatory policy changes include setting permissible debt-to-capital ratios, imposing capital surcharges in excess of statutory capital requirements, capping portfolio size or growth, setting affordable housing goals, and authorizing agencies to enter new segments of the mortgage market. Macroeconomic stabilization actions include the Treasury Department and FHFA taking Fannie and Freddie into conservatorship in September 2008, subsequent amendments to the conservatorship agreements, and large-scale asset purchases of agency MBS conducted by the Federal Reserve and Treasury since 2008.

We use the comprehensive Congressional Research Service (CRS) report *A Chronology of Housing Legislation and Selected Executive Actions, 1892-2003* (CRS (2004)) as a starting point for identifying significant policy changes, particularly pertinent public laws. This legislative history is cross-referenced with the *Congressional Quarterly Almanac*'s Housing and Development and/or Appropriations trackers. Appendices of the *Budget of the United States Government* are additionally searched for information about policy changes affecting Ginnie Mae during relevant years, cross-referenced with HUD appropriations bills and related reports of the House and Senate Appropriations Committees. After identifying public laws affecting Fannie, Freddie, and Ginnie, we use the ProQuest Congressional Publications Database's Legislative & Executive Publications to collect the legislative text of those enacted laws, related committee reports, related Congressional hearing transcripts, and the preceding House and Senate versions of the final bill, if applicable. We then analyze relevant sections of these primary sources to confirm these laws' material impact on mortgage holdings and better understand the nature and timing of the policy changes at hand. Transcripts of all public laws, committee reports, and hearings were contemporaneously made publicly available, and are easily accessible online for recent decades.[11]

Legislative actions are often also the impetus for drafting new regulatory rules, and identified significant legislative events are the starting point for a directed search of related, significant regulatory changes us-

[11]The ProQuest Congressional Publications Database's Legislative & Executive Publications provides a comprehensive compilation of all such documents (http://congressional.proquest.com/congressional, subscription required). Public laws and related legislative actions since 1973 are available from Congress.gov, a project of the Library of Congress, along with committee reports since 1995. Most older public laws are available through LegisWorks Statutes at Large Project (http://legisworks.org/sal/), created and maintained by Joe Carmel. Most hearing transcripts are digitally available since 1985 from the US Government Publishing Office (https://www.gpo.gov/fdsys/browse/collection.action?collectionCode=CHRG).

ing HeinOnline's Federal Register Library. We obtain information from the *Annual Report of the Federal National Mortgage Association* and *Annual Report of the Federal Home Loan Mortgage Corporation* about significant regulatory changes for the GSEs, and from their 10-K filings for events after 2003, when Fannie and Freddie 'voluntarily' registered with the Securities and Exchange Commission (SEC) and began filing audited financial reports. Sections of the *Economic Report of the President* and *Annual Report of the Board of Governors of the Federal Reserve* related to housing are also scanned for information about regulatory changes, as are various reports of regulators. After identifying regulatory policy events, we use newspapers, financial newswires, and mortgage industry newsletters to help direct the search for information about the rulings and their publication in the Federal Register, particularly the *Wall Street Journal*, *American Banker*, and *National Mortgage News*. This is principally accomplished by Factiva, LexisNexis Academic, and ProQuest Historical Newspapers searches of key words related to the regulatory policy change, in search windows around the vicinity of the event. After roughly pinpointing the publication date of a rule, we search HeinOnline's Federal Register Library for the rule itself, and then work backwards to initial rulings, if applicable. Final rules published in the Federal Register almost always include a detailed background and overview of the initial proposed rule, public comments received, and any subsequent modification of the rule.

All significant policy changes identified and documented below in this narrative analysis begin with a table summarizing the regulatory policy change, the affected agency, the policy's projected annualized impact on that agency's retained purchases (in nominal billions), our determination of its news being made public, the timing of the policy becoming effective, and our classification of the policy as motivated by either cyclical or non-cyclical concerns. These policy specific tables are then compiled chronologically in Table 4.

3.3 Quantification

Significant policy changes must be sufficiently material that primary sources either explicitly cite projections of their pending impact or can be used to quantify likely short-run impacts back-of-the-envelope. For each policy, we use information available in contemporaneous sources to obtain an ex ante estimate of the projected impact on the agencies' capacity to purchase mortgages, measured in annualized billions of nominal dollars. For relatively large, open-ended changes, such as leverage ratio increases or permanent funding authorizations, potential effects on mortgage holdings are annualized using a 'two-year rule,' which assumes that only half of the full potential impact would be realized within the first year of taking effect. The two-year rule is meant to accommodate the likelihood that, driven by profit incentives and/or regulatory pressure, balance sheet policy changes would have an impact within a year without necessarily becoming a tightly binding constraint.

We use ex ante balance sheet data on regulatory capital, liabilities, and/or assets in conjunction with standing leverage or capitalization requirements to estimate the impact of related changes. If a baseline is needed for quantifying a policy change, say for regulatory capital when a permissible debt-to-capital ratio is increased,

we use the most recent data publicly available prior to the policy change's news being made public. For example, the HUD Secretary increased Fannie's permissible debt-to-capital ratio from 25-to-1 to 30-to-1 in December 1982. We use regulatory capital from the end of calendar year 1981—the most recent publicly available baseline we could find prior to the announcement—of $2.5 billion (Department of the Treasury (1990), p. A-82), implying maximum growth in mortgage assets of $12.5 billion ($2.5 billion × (30 - 25) = $12.5 billion). Using the two-year rule, we assign a $6.25 billion annualized increase in Fannie's permissible purchase activity. All such back-of-the-envelope calculations are explicitly spelled out in Section 4 below.

Public capital injections are quantified as a multiple of one more than the prevailing leverage ratio, to capture the potential increase in assets supported by related debt issues plus the working capital itself. Direct appropriations are the most straightforward policies to quantify, at most requiring a pro-rata annualization adjustment based on relevant implementation lags.

To quantify potential impacts of discretionary conforming loan limit changes, we rely, whenever possible, on estimates from accompanying Congressional committee reports, which typically cite projections of the extent to which a large conforming loan limit increase would restore a GSE's real purchase activity; we quantify the impact of such adjustments as the difference between annualized purchase volumes immediately preceding the policy change and the home price index-adjusted purchase volume of the benchmark year being restored. For example, the Housing and Community Development Act of 1974 raised the conforming loan limit for conventional mortgages eligible for purchase by Fannie and Freddie from $33,000 to $55,000. The accompanying House committee report stated that raising FNMA's loan limit to $55,0000 "*would permit FNMA to serve much the same housing market in terms of constant dollars as it was authorized to serve when the Emergency Home Finance Act was enacted [in July 1970]*" (House Committee on Banking and Currency (1974), p. 29). Pursuant to House and Senate committee report language, we assume that the change would restore FNMA's real purchasing power relative to purchase volumes around enactment of the Emergency Home Finance Act in July 1970 and the last FHA Section 203(b) loan limit increase in December 1969.[12] The $5.93 billion average net purchase volume over 1969Q4 through 1970Q3 would have translated to $7.91 billion at the end of June 1974, adjusted for the 33.3% increase in OFHEO's seasonally adjusted Constant-Quality House Price Index for new homes sold over 1970Q3 and 1974Q2. We use four-quarter rolling averages to smooth out any residual seasonality and other idiosyncratic sources of volatility. Relative to the $6.77 billion average net purchase volume over 1973Q3 and 1974Q2, the year before enactment of the Housing and Community Development Act of 1974, this represents an increase of $1.14 billion, which we assign as the projected impact of the policy change on Fannie's purchase capacity for the year starting August 1974.

For other policies that are inherently harder to quantify, such as authorizations for program expansions

[12]The standing $33,000 limit was based on the Section 203(b) loan limit for FHA-insured mortgages.

into new mortgage market segments, we search for ex ante estimates of projected impacts on purchasing activity from committee reports, market analysts, regulators, or agency executives. The impacts of such policies largely depend on the size of the relevant market segment being entered and, in many cases, how secondary market access might expand primary market issuance, rendering these policies much more difficult to quantify back-of-the-envelope. For instance, Fannie Mae announced that it would begin purchasing second mortgages beginning in late November 1981, shortly after the HUD Secretary temporarily approved FNMA to purchase second lien mortgages and revised HUD's regulatory definition 'mortgage loan' to enable such purchases (The American Banker (11/20/1981)). While trying to secure approval, Fannie had recently estimated it could finance up to $5 billion worth of second mortgage loans a year, or roughly one-quarter of originations (The Washington Post (8/8/1981)), an estimate we use as the basis of our quantification.

In trying to capture regulatory shocks to agency purchases, we do not consider as significant any laws or regulations that merely extend prior authorizations or rules. For example, when Fannie was authorized to purchase second mortgages and create a secondary market for subordinate liens in September 1981, this authority was set to expire in March 1983. In practice, this authorization was renewed several times before being made permanent in 1987. We only count the first temporary authorization as a significant policy change. Similarly, we use a current policy baseline as opposed to a current law baseline for scoring annual funding changes, if applicable, for certain authorizations, particularly those affecting Ginnie. For example, after the GSEs' conforming loan limit was indexed to annual growth in a home price index in 1980, we do not consider any related changes from indexation to be significant, as such adjustments were both a continuation of current policy and easily anticipated based on public information about the growth of home prices.

We do not treat as significant policies that would not have been expected to impose or alleviate binding constraints on agency retained portfolio activity. More specifically, when adjustments to leverage ratios or affordable housing goals are viewed as non-binding by most accounts and this appears consistent with the agencies' balance sheet and purchase behavior, we do not consider the policy change significant. For instance, the statutory capital requirements imposed on both Fannie and Freddie in 1992 had no expected impact on the balance sheet behavior of Freddie Mac, which had a much stronger capital position than Fannie and did not appear to be the focus of regulators' concerns; indeed no effort to increase capitalization could be discerned for Freddie ex post, while the opposite was true for Fannie. Authorization extensions or other policies that may have had only an incidental impact on purchases are, however, often documented to shed light on the motivation of related significant policy changes and to present a more comprehensive narrative of the pertinent evolution of US federal housing credit policy. Similarly, we take note of regulatory changes for which we could not obtain credible estimates of the impact on holdings, but exclude these from our instrument.

When estimating the quantitative aspects of policies, we rely on information released by the Congressional

Budget Office (CBO), Government Accountability Office (GAO), Treasury Department, and CRS that contain detailed analyses of policy changes, background information, and/or balance sheet data for the agencies in question.[13] We also use information from the annual or periodic reports of the government agencies and regulators, particularly regarding balance sheet data. We use information from appropriations bills and budget appendices for certain policies affecting Ginnie Mae. For legislative housing policy authorizations, the accompanying reports of the US Senate Committee on Banking, Housing, and Urban Affairs and the US House Financial Services Committee (or their preceding committees of jurisdiction) typically include CBO cost estimates and/or staff estimates of a bill's impact, if applicable.[14] Newspapers, financial newswires, and mortgage industry newsletters are also used to search for projections of policies that are difficult to quantify.

3.4 Timing

At the operational level, housing agencies generally sell commitments to purchase mortgages from primary market lenders at a predetermined price, which may then be exercised by the mortgagee up to an expiration date, often up to one year. Consequently, actual agency purchases lag somewhat behind the issuance of commitments to purchase mortgages from primary market mortgagees. The quantified policy events are thus best thought of as news shocks about pending agency purchases and balance sheet expansions or contractions. As such, we date each policy intervention to the month in which we determine that it became publicly anticipated, rather than the month in which it was formally announced or took effect.

Disagreements over provisions in House and Senate versions of a bill, wholesale amendments in the conference process, and uncertainty about bills stalling out entirely makes it harder to characterize expectations about pending legislative policy changes than regulatory changes.[15] A policy proposal arising from a single chamber does not seem likely enough to be enacted to be actionable news, and relevant housing credit policy provisions are often materially changed in conference committee. As such, legislative changes are dated to the provision containing the policy change of interest being agreed upon by both the House and Senate—often a conference committee's negotiation of a compromise bill—rather than upon first proposal by one chamber or the bill's subsequent enactment. Enactment usually follows within a week or so of both chambers agreeing to a conference report, if necessary.

For regulatory changes, we typically use the month in which final rules were first reported in the press or published in the Federal Register, as opposed to the date of the final rule's effect. But regulations are often backdated to a proposed rule first being published in Federal Register, if materially similar to the final

[13] The Government Accounting Office was renamed the Government Accountability Office in 2004.

[14] The House Committee on Banking and Currency and then the House Committee on Banking, Finance, and Urban Affairs preceded the House Financial Services Committee. The Senate Committee on Banking and Currency preceded the Senate Committee on Banking, Housing, and Urban Affairs.

[15] If the House and Senate are in disagreement about legislation, one chamber can reject the other chamber's amended legislation and request forming a conference committee to negotiate a bill acceptable to both chambers. Conference committees are usually comprised of senior committee members from the bill's committees of jurisdiction.

rule. When new legislation serves as the impetus for a discretionary regulatory change, say by the HUD Secretary, as opposed to directly changing policy itself, we date the timing of the policy change to the first announcement of the pertinent regulatory change. If applicable, policies are dated when leaked to the press ahead of formal announcement, or when agencies are found to be demonstrably getting ahead of the curve of pending policy changes they view as both anticipated and actionable.

For Fannie and Freddie, we also cross-reference announcements about policy events with excess stock returns, measured relative to daily changes in the S&P 500, when available, as well as financial newspapers and newswires to help verify the timing of policy changes, specifically whether news about the policy was being priced in to shares. The underlying idea is that portfolio purchases, for a variety of reasons including implicit government guarantees as well as tax and regulatory advantages, are profitable for Fannie and Freddie, and thus loosening regulatory balance sheet restrictions should influence their stock returns relative to the market at large (see Fieldhouse, Mertens, and Ravn (2017)).

The ProQuest Congressional Publications Database, HeinOnline's Federal Register Library, *CQ Almanac*, and newspapers and newsletters are the primary sources used for documenting pertinent news surrounding policy changes, as well as subsequent implementation dates. Factiva, LexisNexis Academic, ProQuest Historical Newspapers, and Gale Business Insights: Essentials are the principal sources used in searching for pertinent information from newspapers and newswires, particularly from *The Wall Street Journal*, *The New York Times*, *The Washington Post*, *Financial Times*, *American Banker*, *National Mortgage News*, *Dow Jones Newswires*, and *The Bond Buyer*. These sources are also often used for classifying policy's underlying motivations, discussed below.

3.5 Classification by Motivation

The aim behind classifying the policy changes is to distinguish between regulatory actions that were prompted by concerns about the prevailing business cycle, credit cycle, or the housing and mortgage markets in particular, versus those motivated by unrelated concerns. As an instrumental variable for agency purchase activity, the intent is to restrict usage to policy events deemed orthogonal to cyclical concerns, omitting those displaying some degree of endogenous, economically driven policy response. There is a systematic, counter-cyclical response of US federal housing credit policy to economic downturns and credit crunches, as extensively documented in Section 4, so such an exclusion is important for addressing reverse causality between credit aggregates and agency purchases. Our classification is primarily based on identifying stated or perceived motivations underlying each policy intervention, but as discussed below, the related political process and economic circumstances are often also quite informative. In classifying policies' overarching motivations, we parse historical documents, paying particular attention to the rationales invoked by policymakers and the press, the nature of the legislative vehicles or regulatory processes, the relation to known periods of economic and financial stress, and the time horizon of policy objectives.

The principal data sources used in identifying policy motives include Congressional committee reports and hearings, Presidential speeches, the *Budget of the United States Government*, *Economic Report of the President*, *Federal Reserve Bulletin*, *Annual Report of the Board of Governors of the Federal Reserve*, *CQ Almanac*, and newspapers, financial newswires, and mortgage industry newsletters. For legislative housing policy authorizations, the accompanying reports of the US Senate Committee on Banking, Housing, and Urban Affairs and US House Financial Services Committee (or their preceding committees of jurisdiction) typically detail the committees' motivations and any pertinent economic context. These reports also often include additional views or dissenting opinions by Committee members, providing a range of perspectives. Major housing policy laws are also usually accompanied by a Presidential signing statement explaining the bill's motivation, context, and intended impact.[16] State of the Union addresses and other Presidential speeches, the *Budget of the United States Government*, and the *Economic Report of the President* often shed insight on the motivation behind housing policies newly proposed by the White House. Budget appendices and/or committee reports accompanying appropriations bills usually explain the impetus for certain policy changes affecting Ginnie Mae. Final rules published in the Federal Register almost always include a detailed background and history of the rule, shedding light on regulators' motives for policy changes.

Policies classified as principally cyclically motivated tend to emphasize short-term outcomes, such as boosting housing starts in a recession. Legislative vehicles for such policy changes also tend to be quickly drafted and enacted, with a relatively concise legislative history and narrow focus. Policymakers are typically quite explicit about cyclical concerns and objectives, overwhelmingly so when policies are implemented in close proximity to recessions or credit crunches. Policies enacted during or near a recession or credit crunch are extensively scrutinized and held to a particularly high bar for being classified as unrelated to the business cycle, but are not categorically classified as cyclically motivated, and on the rare occasion are instead classified as non-cyclically motivated. When analyzing committee reports, signing statements, and the like, examples of language we tend to interpret as strongly indicative of cyclical concerns include, but are in no way limited to, "*emergency, crisis, recession, credit shortage, credit crunch, housing starts, employment, construction, downturn, depressed, stimulus, boost*," although such terms must be evaluated within the context of surrounding phrases. When inferring motives from policymakers' quotes or other primary sources in Section 4, such particularly informative language is typically emphasized in boldface, within broader quotations, for transparency about our interpretation and relevant context.

Conversely, policies principally motivated by social policy, budgetary, or other more ideological political objectives are classified as unrelated to the business or financial cycle—provided the narrative record is not also suggestive of significant short-term economic or financial concerns. Political rather than economic context shapes the development of these non-cyclically motivated policy changes, such as an administration's

[16]Presidential speeches and signing statements are publicly available online from The American Presidency Project (www.presidency.ucsb.edu), a collaboration of John T. Woolley and Gerhard Peters.

emphasis on expanding affordable homeownership opportunities to lower-income households, concerns regarding the structural budget deficit, or ideological hostility toward the GSEs motivating moves toward full privatization. Legislative policies classified as non-cyclically motivated emphasize longer-term outcomes, such as boosting homeownership rates. Legislative vehicles for such policy changes tend to be slower-moving bills, particularly deliberate overhauls of housing policy with a lengthy legislative history; the National Housing Acts, Housing and Urban Development Acts, and Housing and Community Development Acts of various years tend to meet this description, being slowly crafted and negotiated between the House, Senate, and White House, and focusing on broad, long-term objectives for housing policy, such as urban revitalization or access to affordable housing for various constituencies. The drafting of new regulatory rules set in motion by such bills also tend to be classified as unrelated to cyclical concerns, such as HUD setting new affordable housing goals for the GSEs. More broadly, interventions classified as non-cyclically motivated tend to be actions shaped by prior law or prompted by events fundamentally unrelated to the business or credit cycle, such as the accounting scandals that surfaced at Freddie and then Fannie in 2003–2004. Examples of language we generally take as indicative of such non-cyclical motives include "*long-term, far-sighted, comprehensive, low-income, affordable housing, American Dream, homeownership, budget deficit, reduce borrowing, off-budget, privatize*," again with the caveat regarding the importance of context.

Based on our reading of the historical record, we simply classify all significant policy changes as either cyclically motivated or non-cyclically motivated, as this binary classification is relatively straightforward and a more precise distinction between non-cyclical objectives is not particularly relevant. The non-cyclical classification spans policy changes with social policy concerns, structural budgetary motives, and more ideological political pursuits; it is often harder to establish a single precise rationale for these non-cyclical actions, in part because these policy changes unrelated to the business cycle tend to be enacted in deliberate and comprehensive bills frequently characterized by much deliberation and compromise between the House and Senate or Congress and the White House, often to the effect of promoting multiple non-cyclical objectives. For instance, the quasi-privatization of Fannie by the Housing and Urban Development Act of 1968 was largely motivated by structural budget concerns of the Johnson administration. But while the particular timing of Fannie's privatization was driven by budgetary concerns, privatization also fulfilled long-standing Congressional intent dating back to Fannie's 1954 Charter Act. More broadly, the Act's stated purpose was "*[t]o assist in the provision of housing for low and moderate income families, and to extend and amend laws relating to housing and urban development*," and the expansive bill did much to advance an array of social policy objectives and redistributional concerns. Similarly, beyond promoting access to affordable housing for minorities and lower-income families, it has been suggested that the Bush administration pushed HUD to increase the Enterprises' affordable housing goals in 2004 in part "*to make sure Fannie and Freddie understood who was the boss in the relationship*" as part of a broader effort to rein in the GSEs being coordinated with the Federal Reserve (McLean (2015), p. 88).

3.6 Examples of Methodological Application and Classification

For a better sense of our application of the methodology overviewed above, particularly with respect to classification, below we provide concise examples of classifying one policy of each of the four broad categories of motivations outlined above.

Example 1: Business or Financial Cycle Motives. Policies motivated by economic or financial cycle concerns include those aimed at boosting housing starts or construction employment, and smoothing mortgage credit or lowering borrowing costs for would be homeowners. A clear example of a policy change motivated by both cyclical economic and financial concerns was a congressional authorization for up to $7.5 billion in "*emergency special assistance authority*" funding for Ginnie Mae to make subsidized purchases of conventional mortgages, one prong of the Emergency Home Purchase Assistance Act of 1974 (Pub. L. 93-449). The Act authorized the HUD Secretary to instruct GNMA to make emergency mortgage commitments and purchases "*whenever the Secretary finds* ***inflationary conditions and related governmental actions*** *are having a severely disproportionate effect on the housing industry and the resulting* ***reduction in the volume of home construction or acquisition threatens seriously to affect the economy*** *and to delay the orderly achievement of the national housing goals...*" (Sec. 3(a)). The bill was drafted and passed in a remarkably short time frame during the recession lasting from November 1973 through March 1975, moving from introduction in Senate committee on September 10, 1974 to being enacted on October 18; President Ford explicitly thanked "*Congress for* ***responding so quickly***" in order to "*provide a* ***shot in the arm for the housing industry***" (Ford (1974a)) when signing the bill into law. The bill was clearly enacted in response to depressed housing market conditions, with the accompanying Senate Committee report stating that the bill "***responds to a mortgage credit crisis*** *which has crippled the residential real estate industry in the United States. Housing activity in the Nation is severely depressed*" (Senate Committee on Banking (1974a), p. 1). We classify news of Ginnie's new conventional mortgage purchases under this Brooke-Cranston Tandem program authorization as having been made public in October 1974, when the bill cleared both chambers, and when the HUD Secretary released the funds immediately upon its enactment.

Example 2: Structural Budget Deficit Motives. Policies motivated by federal budget concerns are those intended to reduce public debt or those made for improved budgetary optics, such as moving programs 'off-budget' to decrease the unified budget deficit. For instance, the privatization of Fannie's secondary market operations under the Housing and Urban Development Act of 1968 (Pub. L. 90-448) was widely viewed as being largely motivated by the Johnson administration's desire to reduce federal debt (FCIC (2011), p. 38). While Congress had originally intended Fannie Mae to be chartered as a private entity, and intended to eventually privatize Fannie when it was rechartered in 1954, the timing of Fannie's eventual privatization was largely driven by budgetary concerns influencing the deliberative process of drafting the Housing and Urban Development Act of 1968.

A budgetary reform commission established in 1967 had recommended moving Fannie's secondary market operations onto the Federal Budget as a matter of sound budgeting, but doing so would have increased the deficit by $2.5 billion at the time, which was considered 'untenable.' Historical background materials accompanying hearings before the Senate Committee on Banking, Housing, and Urban Affairs explained that "*spinning off Fannie's Secondary Market Operations into a separate corporation was proposed as a means of accomplishing the transition to private ownership,* ***keeping Fannie Mae from showing up on the Federal Budget****, and retiring the outstanding preferred shares owned by the US Treasury*," which would further reduce the deficit (Senate Committee on Banking, Housing and Urban Affairs (1976a), pp. 104–105). The conversion of secondary market operations to private ownership was estimated to reduce US public debt by $6 billion in 1969 (The Budget for Fiscal Year 1970 Special Analyses, p. 27), concurrent with the escalation of the Vietnam War and associated increases in defense spending and public borrowing. Federal expenditures had risen to 19.8% of GDP and the federal budget deficit had expanded to 2.8% of GDP in fiscal year (FY) 1968, or the year ending June 30, 1968, their highest levels since the Korean War and demobilization from World War II, respectively (OMB Historical Table 1-2). In his remarks upon signing the Act, President Johnson hailed the bill as "*the most* ***farsighted****, the most* ***comprehensive****, the most massive housing program in all American history*" (Johnson (1968)); his remarks made no mention of countercyclical motivations. We classify the increase in FNMA's debt-to-capital ratio prompted by the Act's privatization of Fannie as unrelated to the business or financial cycle, as privatization was motivated by long-standing Congressional intent and budgetary concerns unrelated to the business cycle, underscored by the Act being the result of a deliberative legislative process, oriented toward long-term housing objectives, and crafted and enacted during neither a recession nor a credit crunch.

Example 3: Social Policy Objectives. Regulatory changes intended to meet social policy objectives include those deliberately aimed at increasing homeownership rates, or targeting homeownership assistance to particular demographics, such as veterans or low- and moderate-income households. For instance, when HUD's affordable housing goals for Fannie and Freddie came up for renewal in 2004 for the first time under the George W. Bush administration, aggressive new goals were set to rise every year between 2005 and 2008. HUD projected that to meet the new housing goals, Fannie and Freddie together would have to purchase an additional 400,000 goal-qualifying home loans during 2005–2008, above what they would purchase without the increase in the housing goals, or about $61 billion of additional mortgage debt based on the average balance of goal qualifying mortgages purchased in 2003 (HUD (2004)). This policy change fell under a broader policy umbrella of the administration prioritizing expanding affordable home ownership, particularly for minorities. The President had emphasized using the GSEs to promote minority homeownership in a June 2002 speech: "*Too many American families, too many minorities do not own a home. There is a* ***home ownership gap in America****. The difference between Anglo America and African American and His-*

panic home ownership is too big... Fannie May and Freddie Mac, as well as the federal home loan banks, will increase their ***commitment to minority markets*** *by more than $440 billion... This means they will purchase more loans made by banks after Americans, Hispanics and other minorities, which will encourage homeownership*" (Bush (2002)). Similarly, in signing into law the American Dream Downpayment Act of 2003, President Bush emphasized that "*This administration will constantly strive to promote an ownership society in America. We want more people owning their own home. It is in our national interest that more people own their own home. After all, if you own your own home, you have a vital stake in the future of our country*" (Bush (2003)). The increased goals were clearly motivated by the administration's broader social policy objective of expanding affordable housing and minority homeownership. McLean (2015) also suggested that the Bush administration pushed HUD to increase the Enterprises' affordable housing goals in 2004 in part "*to make sure Fannie and Freddie understood who was the boss in the relationship*" as part of a broader effort to rein in the GSEs being coordinated with the Federal Reserve (McLean (2015), p. 88). We classify this increase in the GSEs' affordable housing goals as non-cyclically motivated.

Example 4: Ideological Political Preferences. Policies that are predominantly politically motivated for reasons unrelated to social policy include efforts to shrink and eventually privatize the GSEs—periodically prioritized by Republican administrations—or regulatory backlashes to public scandals or crises. For instance, in the political backlash to Fannie Mae's accounting scandals in the early 2000s, regulators capped Fannie's portfolio and forced it to achieve a 30% capital surplus above statuary minimum capital requirements after ruling that Fannie had misapplied accounting rules; in conjunction with a restatement of earnings, OFEHO's regulatory reprisal required that Fannie Mae abruptly close a $12.5 billion hole in its capital base, which would require a significant reduction in Fannie's retained portfolio. The George W. Bush administration, which, along with the Greenspan Fed, wanted the GSEs downsized and eventually privatized, was perceived as exploiting the scandal to rein in Fannie, and later Freddie as well (McLean (2015), pp. 85–86, Greenspan (2007), p. 242). Senator Chuck Schumer, for instance, claimed that "*there are a whole lot of people who want to take advantage of the auditing problems that Fannie and Freddie have done to take the whole thing down*" (Dow Jones Capital Markets Report (5/23/2006)). Ex post, the accounting scandal and regulatory backlash appear somewhat overblown and perhaps politically exploited to an even greeter degree. The eventual restatement of Fannie's results for 2002–2004 actually resulted in an increase of shareholder's equity of $4.1 billion, the SEC and Justice Departments both eventually dropped their investigations into Fannie's accounting practices, and a civil suit against ousted Fannie CEO Raines was dismissed (McLean (2015), pp. 90–91). We classify the regulatory changes arising from FNMA's accounting scandal capital shortfalls as regulatory backlash to an unforeseen event and being motivated by longstanding political preferences, but certainly unrelated to cyclical or financial concerns.

4 Narrative Analysis of Government Mortgage Purchases

This section contains the discussion of individual housing credit policy changes, which are presented chronologically, in turn for each of the following agencies: the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Government National Mortgage Association, Federal Reserve, and US Treasury Department. We focus on policy changes since the Housing and Urban Development Act of 1968. The online appendix traces the history of FNMA back to its Great Depression origins to provide broader context regarding its charter, public mission, and the evolution and systematic nature of US federal housing credit policy. Following Freddie Mac's privatization in 1989, HUD was tasked with regulatory authority over both Fannie and Freddie, and numerous policy changes applied to both Enterprises. In these cases, the pertinent context and details regarding quantification, timing, and classification are covered thoroughly in the policy's first listing under Fannie, with minimal repetitiveness in its listing under Freddie.

4.1 Federal National Mortgage Association

The Federal National Mortgage Association, established by Congress in 1938, was authorized to buy FHA-insured mortgages with the objective of supporting a secondary market. To that end, Congress had intended the National Housing Act of 1934 to induce the incorporation of legally privileged private national mortgage associations, first authorized by that bill. Congress's repeated failure to induce private incorporation of such associations led to the National Housing Act Amendments of 1938, which ordered the creation of the Federal National Mortgage Association as a wholly owned subsidiary of the RFC. FNMA was transferred to the Federal Loan Agency in 1939, to the Department of Commerce in 1942, and back to the Federal Loan Agency in 1945. The Housing Act of 1948 granted an explicit statutory basis for Fannie, which was also newly authorized to deal in and support a secondary market for the new class of VA-guaranteed mortgages. In 1950, FNMA became part of the Housing and Home Finance Agency.

Title II of the National Housing Act of 1954, titled the FNMA Charter Act, rechartered a nearly bankrupted Fannie Mae into a three part corporation, separating a special assistance function, management and liquidations function, and secondary mortgage market operations. The special assistance function amounted to a direct government lending program for certain FHA loans that were not generally acceptable to investors, primarily because of their low interest rates. The management and liquidations function was created to dispose of Fannie Mae's previously amassed mortgage portfolio in an orderly fashion, although it also continued mortgage purchases for many months because of outstanding precommitments to purchase mortgages. Secondary market operations were to continue supporting the market for FHA/VA mortgages. The 1954 Act turned Fannie Mae into a mixed-ownership corporation by requiring authorized mortgagees to purchase common stock while the federal government retained Fannie's preferred stock, transferred from the RFC to Treasury. The Act also allowed Fannie to issue debt in capital markets, subject to statutory leverage constraints. To facilitate such issuance, the secondary market facility was granted standby powers to borrow up to $1 billion from the Treasury Department, which would come to be perceived as an implicit government guarantee of Fannie's debt. The 1954 Act envisaged an eventual full privatization of Fannie Mae, but provided no timeline or mechanism for such a transition.

The Housing and Urban Development Act of 1968 split off the secondary market operations into a privatized Fan-

nie Mae, while transferring the special assistance and management and liquidations functions to a newly created and government-retained Government National Mortgage Association (see Sec. 4.3). The 1968 Act gave HUD considerable regulatory authority over Fannie Mae, including the authority to require that it devote a reasonable portion of its mortgage purchases to support low- and moderate-income housing. The Act also preserved Fannie's ability to borrow from the Treasury, which reduced the perceived riskiness of its debt. Following the 1969 credit crunch, the Emergency Home Finance Act 1970 allowed Fannie Mae to expand its activities to the conventional mortgage market, subject to loan limits comparable to those applying to FHA mortgages and conditional on the approval of the HUD Secretary. The same Act also established the Federal Home Loan Mortgage Company (see Sec. 4.2), intended as a counterpart to Fannie, but supporting a secondary mortgage market for conventional mortgages originated by the thrift industry.

In the aftermath of the S&L crisis, the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) expanded the objectives of Fannie's secondary mortgage market operations to promote homeownership for low- and moderate-income borrowers. The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) created OFHEO, a new regulatory agency within HUD charged with the safety and soundness supervision of Fannie and Freddie. FHEFSSA also established statutory minimal capital requirements, instructed OFHEO to develop additional risk-based capital requirements, and mandated that HUD set and enforce affordable housing goals. Accounting scandals in the early 2000s prompted greater oversight, as well as the imposition of capital surcharges and portfolio caps. The Housing and Economic Recovery Act of 2008 abolished the OFHEO along with the Federal Housing Finance Board (FHFB), the regulator of the FHLBanks at the time, and consolidated regulatory authority in the newly formed FHFA. The Act also authorized Treasury to purchase securities issued by Fannie or Freddie. In September 2008, both Enterprises were placed under the conservatorship of the FHFA and Treasury, and were ordered to first increase then gradually reduce their retained mortgage portfolios. Shortly thereafter, the Treasury Department and Federal Reserve began large-scale asset purchases of agency MBS and agency debt.

In this section we discuss significant policy events affecting Fannie Mae and related context, starting with the Housing and Urban Development Act of 1968. In the accompanying online appendix, we discuss Fannie's early evolution and important preceding policy events, starting with the National Housing Act of 1934.

Housing and Urban Development Act of 1968 (Pub. L. 90-448) Enacted: August 1, 1968

Policy Change	Agency	Impact	News	Effective	Classification
Increased Debt-to-Capital Ratio	FNMA	+$1.39 billion	Oct. 1968	Oct. 1968	Non-Cyclical

The Act split FNMA into the Government National Mortgage Association and a quasi-private Fannie Mae, and ushered in a new era of secondary mortgage market purchases and mortgage securitization by government agencies and government-sponsored enterprises. Retained as a government corporation fully under HUD administration, Ginnie Mae assumed FNMA's management and liquidations and special assistance functions. Fannie Mae, a government-sponsored private corporation, retained the secondary market operations and was given permission to issue MBS, which could be structured as other debt obligations or trust certificates. The purpose of the new MBS authorization

was "*[t]o provide a greater degree of liquidity to the mortgage investment market and an additional means of financing its operations*" (Sec. 803(a)). The Act also authorized GNMA to guarantee timely payments of MBS issued by Fannie or other authorized issuers, and Ginnie issued the first mortgage-backed bond in 1970 (see GNMA, Sec. 4.3).

The Act required the retirement of all the Treasury's preferred FNMA stock and authorized issues of subordinated debt, to be included in regulatory capital, up to twice the sum of equity capital, surplus, and retained earnings. Private stockholders received two-thirds representation on Fannie's board of directors, with the remaining third to be appointed by the President, who could also remove any member of the board for good cause. The association was allowed to operate nationwide in the secondary market while being exempt from SEC disclosures and securities fees, as well as exempt from state and local income taxes. Most significantly, the newly charted Fannie also retained standby borrowing authority of up to $2.25 billion from the Treasury, and FNMA securities joined Treasuries in privileged exemption from depository institutions' portfolio limitations (Hagerty (2012), p. 40).[17]

In exchange for these privileges, the HUD Secretary received general regulatory powers over Fannie to ensure that the purposes of the newly amended FNMA Charter Act continued to be served. These powers included the ability to restrict dividends paid to stockholders and to increase Fannie's permissible debt-to-capital ratio beyond the statutory limit of 15 times its capital and retained surplus. The HUD Secretary's prior approval was to be required for issuances of securities and debt obligations as well as for any changes in minimum stock retention requirements. The Act also gave the HUD Secretary the authority to require that a reasonable portion of Fannie's mortgage purchases advanced the national policy objective of providing adequate housing for low- and moderate-income families, provided these provide purchases provided "*a reasonable economic return*" to FNMA's stockholders. Through these various regulatory powers, Congress intended that "*the Secretary would participate in the decision making process as to the level of mortgage purchases at various time*" (Senate Committee on Banking and Currency (1968), p. 82). At the same time, the Act explicitly limited HUD's involvement in Fannie's activities; regulatory powers were not to extend to Fannie's internal affairs, such as staffing, salaries, and other usual corporate matters, unless to protect the financial interests of the federal government.

On September 30, 1968, a total of $250 million in subordinated debentures were sold to the public to retire the Treasury's preferred stock and share of retained earnings. This issuance exceeded the amount required for retirement by $33 million, which was added to FNMA's capital stock (Bartke (1971), p 43). Fannie had obtained a letter from the Treasury Secretary guaranteeing that, if necessary, the Treasury would make loans to Fannie to ensure the timely payments of principal and interest on its debt (Senate Committee on Banking, Housing and Urban Affairs (1976a)). Because the Treasury's guarantee letter was a deliberate, discretionary policy action that was not compelled by the Act, we view this as a distinct and significant policy change. The subordinated debentures were included in regulatory capital for Fannie's debt-to-capital restriction. On October 1, 1968, one day after the Treasury stock was retired and Fannie became a private corporation, the HUD Secretary increased Fannie's debt-to-capital limitation on secondary market facility borrowing leverage from 15 to 20 times Fannie's regulatory capital (33 FR 14779). Based on regulatory capital of $452.1 million at the end of calendar year 1968 (FNMA Annual Report 1969, p. 19) and taking into account the $33.0 million capital stock addition aided by the Treasury yields an estimated potential portfolio expansion of up to $2.79 billion ($452.1 $\times$ (20+1) - ($452.1 million - $33.0 million) $\times$ (15+1) = $2.79 billion).[18] Using the two-year

[17]The Housing Act of 1957 (Pub. L. 85-104) had increased FNMA's standby authority to $2.25 billion (see online appendix).

[18]It is not possible to use ex ante balance sheet data in this one particular case, as the balance sheet of the Federal National Mortgage Association prior to enactment of the Housing and Urban Development Act of 1968 was split between Ginnie and

rule, we assign one half of that amount as an annualized increase in Fannie's portfolio capacity of $1.39 billion starting October 1968.

The Act amended Fannie's statutory purpose under Section 301 of the FNMA Charter Act to read as follows (revisions underlined):

> "*SEC. 301. The Congress hereby declares that the purposes of this title are to establish secondary market facilities for home mortgages, to provide that the operations thereof shall be financed by private capital to the maximum extent feasible, and to authorize such facilities to*
>
> "*(a) provide supplementary assistance to the secondary market for home mortgages by providing a degree of liquidity for mortgage investments, thereby improving the distribution of investment capital available for home mortgage financing;*
>
> *"(b) provide special assistance (when, and to the extent that, the President has determined that it is in the public interest) for the financing of (1) selected types of home mortgages (pending the establishment of their marketability) originated under special housing programs designed to provide housing of acceptable standards at full economic costs for segments of the national population which are unable to obtain adequate housing under established home financing programs, and (2) home mortgages generally as a means of retarding or stopping a decline in mortgage lending and home building activities which threatens materially the stability of a high level national economy; and*
>
> *"(c) manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the home mortgage market and minimum loss to the Federal Government.*"

Of note, the revisions to Fannie's statutory purpose underscore Congressional intent to sponsor multiple secondary markets and to manage multiple federally owned mortgages portfolios, as opposed the narrower scope of "*the existing mortgage portfolio of the Federal National Mortgage Association*" as set by the National Housing Act of 1954.

The privatization of Fannie's secondary market operations is widely viewed as being largely motivated by the administration's desire to reduce federal debt (FCIC (2011), p. 38). A budgetary reform commission established in 1967 had recommended moving Fannie's secondary market operations onto the Federal Budget as a matter of sound budgeting, but doing so would have increased the deficit by $2.5 billion at the time, which was viewed as 'untenable.' Historical background materials accompanying hearings before the Senate Committee on Banking, Housing, and Urban Affairs explained that "*spinning off Fannie's Secondary Market Operations into a separate corporation was proposed as a means of accomplishing the transition to private ownership,* ***keeping Fannie Mae from showing up on the Federal Budget****, and retiring the outstanding preferred shares owned by the US Treasury*," which would instead reduce the deficit (Senate Committee on Banking, Housing and Urban Affairs (1976a), pp. 104–105). The conversion to complete private ownership reduced Federal debt by about $6 billion (The Budget for Fiscal Year 1970 Special Analyses, p. 27). The escalation of the Vietnam War, in conjunction with the Great Society expansions of social insurance, were adding to concerns about the budgetary outlook. The HUD Secretary also underscored that the transfer of FNMA's secondary market operations to entirely private ownership fulfilled the intent of Congress when it had rechartered FNMA in 1954 (Senate Committee on Banking and Currency (1968)), but the timing of the transition appears to be explained by budgetary motives.[19]

Fannie, rendering December 1968 the earliest baseline available for the newly privatized Fannie's regulatory capital.

[19]Federal expenditures had risen to 19.8% of GDP and the federal budget deficit had expanded to 2.8% of GDP in fiscal year (FY) 1968, or the year ending June 30, 1968, their highest levels since the Korean War and demobilization from World War II,

The accompanying committee report also underscored that the Act was the result of a multi-year deliberative process seeking to address longer-term homeownership goals unrelated to stabilization. The report framed the bill as intended to meet the President's proposed "*program of Federal assistance for the construction and rehabilitation of 6 million housing units* ***over a 10-year period*** *for the* ***low and moderate income families*** *of this country,*" which had been requested in his State of the Union Address to Congress, delivered January 17, 1968. With the Act, Congress established an even more aggressive new national goal of creating 26 million new dwelling units over the next decade (Senate Committee on Banking, Housing and Urban Affairs (1976a), p. 66). In his remarks upon signing the Act, President Johnson hailed the bill as "*the most* ***farsighted****, the most* ***comprehensive****, the most massive housing program in all American history*," framing the bill as the capstone to more than three decades of housing policy that began with "*President Franklin D. Roosevelt's conviction that a compassionate and farsighted government cannot ignore the plight of the ill-housed or the ill-fed or the ill-clothed*" (Johnson (1968)). His remarks made no mention of countercyclical motivations or other short-term policy objectives.

The *Federal Reserve Bulletin*'s October 1968 overview of construction and mortgage markets highlighted record construction volumes and strong levels of housing starts, with demand buoyed by a two-year backlog of under-building. The Fed further noted that disintermediation fears had eased considerably since June (Federal Reserve Bulletin October 1968, p. 787). The Fed characterized the Act as "*extremely comprehensive*" but noted that implementation of much of the Act "*will be delayed because of funding requirements and time needed to develop and adjust to new regulations. Consequently, although the long-run implications are very substantial, only a limited net stimulus to residential and other construction in particular to real estate markets in general may be realized from this legislation during the current fiscal year*" (Federal Reserve Bulletin October 1968, p. 789).

We classify the increase in FNMA's debt-to-capital ratio prompted by the Act's privatization of Fannie as unrelated to the business or financial cycle, as privatization was motivated by long-standing Congressional intent and budgetary concerns unrelated to the business cycle, underscored by the Act being the result of a deliberative legislative process, oriented toward long-term housing objectives, and crafted and enacted during neither a recession nor a credit crunch.[20]

HUD Increase of Debt-to-Capital Ratio (34 FR 19656) Announced: December 4, 1969

Policy Change	Agency	Impact	News	Effective	Classification
Increased Debt-to-Capital Ratio	FNMA	+$1.13 billion	Dec. 1969	Dec. 1969	Cyclical
Treasury-Guaranteed Capitalization	FNMA	+$2.6 billion	Apr. 1970	Apr. 1970	Cyclical

On December 4, 1969, HUD Secretary George Romney, recently appointed by the incoming Nixon administration, again increased Fannie's permissible debt-to-capital ratio for secondary market operations from 20 to 25 times its regulatory capital, effective December 8, 1969 (34 FR 19656). Using regulatory capital of $452.1 million at the end of calendar year 1968 (FNMA Annual Report 1969, p. 19) yields an estimated portfolio expansion of up to $2.26 billion

respectively (OMB Historical Table 1-2).

[20]The dating of pre-1986 credit crunches is from Eckstein and Sinai (1986). The dating of post-1986 crunches is based on Owens and Schreft (1993) for the 1990 commercial real estate crunch, Lehnert, Passmore, and Sherlund (2008) for the 1998 Russian default/LTCM crisis, and Bordo and Haubrich (2010) for the 2007/08 financial crisis. As Eckstein and Sinai (1986) note, recessions are often led by such periods of credit shortages. Recession dates are from the National Bureau of Economic Research.

($452.1 million × (25 - 20) = $2.26 billion). Using the two-year rule, we assign an annualized increase in FNMA's purchase capacity of $1.13 billion starting in December 1969, when the leverage change was first announced.

The move took place as the Nixon administration sought to 'get control' of Fannie during its transition to private ownership by sacking and eventually ousting Fannie's President, Raymond Lapin—a Democrat and Johnson administration appointee supposedly uncooperative with Romney and the Republican White House. Lapin publicly fought and legally challenged his removal without cause, but eventually conceded (Hagerty (2012)), pp. 43–45). This partisan power struggle during Fannie's transition suggested that FNMA was not as independent as the 1968 Act had intended, and presaged that FNMA would remain a political football in the coming decades.

On April 1, 1970, Fannie sold another $200 million in subordinated debentures with an accompanying Treasury letter—again guaranteeing timely repayment with a Treasury backstop—allowing a further portfolio expansion of up to $5.2 billion ($200 million × (25+1) = $5.2 billion). Because the Treasury's guarantee letter was a deliberate, discretionary policy action and unrelated to the HUD Act of 1968, we view this as a distinct and significant policy change. Moreover, Fannie was still in the midst of transitioning between a publicly owned and shareholder owned enterprise. Using the two-year rule, we assign an annualized increase in FNMA's purchase capacity of $2.6 billion starting in April 1970.

The transitional period towards private ownership officially ended on May 21, 1970, when the HUD Secretary signed a proclamation converting Fannie from a government agency to a private corporation. On August 31, FNMA stock was traded for the first time on the New York Stock Exchange (NYSE). As a result of "*the increasing market acceptance for FNMA's subordinated debt,*" no Treasury letter was requested for subsequent issues, and no explicit government guarantee was volunteered (Senate Committee on Banking, Housing and Urban Affairs (1976a), p. 232).

The economic environment had shifted markedly between the HUD Secretaries' first and second increase of Fannie's debt-to-capital ratio during the transition period. Hearing transcripts from the Senate Committee on Banking, Housing, and Urban Development explicitly cited that the second leverage increase was the consequence of Fannie's portfolio growth "***during a period of tight money***" (Senate Committee on Banking, Housing and Urban Affairs (1976a), p. 110). The *Federal Reserve Bulletin*'s July 1969 overview of mortgage, construction, and real estate markets cited that residential construction activity had been declining since January, also noting "***a growing dissatisfaction among financial investors with mortgages****—as with all types of fixed-income investments*" in the prevailing inflationary environment (Federal Reserve Bulletin July 1969, p. 565). HUD's second debt-to-capital ratio increase during Fannie's transition period was granted during what would later be classified as the credit crunch persisting from 1969Q1 through 1970Q1, as dated by Eckstein and Sinai (1986). In December 1969, the economy entered a recession lasting through November 1970. The *Federal Reserve Bulletin*'s March 1971 overview of mortgage, construction, and real estate markets noted that housing starts bottomed out in early 1970, after monetary policy had transitioned to accommodation, and housing construction bottomed out in July (Federal Reserve Bulletin March 1971, p. 167). Consequently, we classify both these transition-support policy changes as cyclically motivated.

Housing and Urban Development Act of 1969 (Pub. L. 91-152) Enacted: December 24, 1969

The Act extended various authorizations from the Housing and Urban Development Act of 1968 by one- to- two-years. Most pressingly, authorization of the FHA's mortgage insurance program had been set to expire on October 1, 1969, and a temporary extension had to be authorized while work on the Act was completed (Pub. L. 91-78, enacted September 30, 1969). The Act increased FHA mortgage insurance loan limits by 10%, raising the limit on Section

203(b) mortgages—and hence FNMA's loan limit for secondary market purchases—from $30,000 to $33,000.[21] The Senate version of the bill would have increased the FHA loan limits by $2,500 while also indexing loan limits to the annual change in the average sales price of new homes, but the conference committee adopted the House's approach of a one-off percentage increase. In conjunction with the bill's enactment, the Federal Housing Commissioner issued a rule on December 24 increasing the FHA loan limit, along with other adjustments to FHA programs (35 FR 284).

Insufficient references and documented estimates could be found in the historical record to reliably quantify a projected impact of this loan limit increase, so this policy change is not considered significant. If it could be quantified, however, it would be classified as cyclically motivated. Cyclical concerns had been flagged as Congress began working on the bill in July 1969, and the final bill was enacted in the midst of the 1969 credit crunch. When pressed by members of the House Committee on Banking and Currency Subcommittee on Housing about falling housing starts, Secretary Romney had warned in July 1969 testimony that "*We are experiencing a **credit crunch** that certainly in terms of interest rates and tightness of money exceeds that of 1966*" (House Committee on Banking and Currency (1969a), p. 7). The Annual Report of the Federal Reserve for 1969 noted that liquidity pressures had markedly intensified for thrifts in the latter half of the year, and that FNMA and the FHLBB were trying to "*channel a large volume of funds into housing finance*" (Annual Report of the Federal Reserve for 1969, p. 6).

Emergency Home Finance Act of 1970 (Pub. L. 91-351) Enacted: July 24, 1970

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Mortgage Program Approval	FNMA	+$0.4 billion	Nov. 1971	Feb. 1972	Non-Cyclical

Unprecedented volumes of housing subsidies for low-income families provided by the Housing and Urban Development Act of 1968, as well as Fannie's rapidly expanding support of the FHA/VA market in 1968 and 1969, gave rise to concerns that middle income families were being neglected by federal housing policy (HUD (1987), pp. 29–30). According to a Treasury Department report, Congress was also seeking to more efficiently resolve chronic regional mismatches between savings deposits and the demand for mortgage credit (Treasury (1990), p. B-1). Among other concerns motivating calls for renewed housing finance reform, Bartke (1972) cited the declining share of national resources invested in housing, the fact that the housing sector had consistently borne the brunt of tight money policies, and views that the burdens of monetary policies should be shared more equitably.

Legislation was introduced in Congress in September 1969 that would, among other things, permit Fannie to expand into the conventional mortgage market, conditional on the HUD Secretary's approval. The bill additionally proposed establishing a new GSE to provide secondary market support for the S&L industry. The Federal Reserve expressed strong reservations to Congress expanding secondary mortgage market operations, but the Emergency Home Finance Act of 1970 was nonetheless enacted on July 24, 1970, its passage aided by robust support from segments of the housing and mortgage industries. The enacted bill created the Federal Home Loan Mortgage Corporation to support a secondary market for conventional loans originated by the S&Ls (see FHLMC, Sec. 4.2), and also extended Fannie's purchase authority to include the conventional market, again subject to the HUD Secretary's approval. The Act also

[21] On February 3, 1967, Fannie had established that it would purchase mortgage loans of up to the FHA's Section 203(b) loan limit, reversing an earlier policy intended to conserve cash. See the online appendix.

authorized HUD to make certain interest-subsidy payments to Fannie for mortgages purchases during periods of high mortgage rates, and provided Ginnie with increased special assistance purchase authority (see GNMA, Sec. 4.3).

Fannie's purchases of conventional loans would initially be statutorily limited to mortgages 'conforming' to a number of underwriting standards. LTVs were not to exceed 75% unless the seller (1) retained a 10% participation, (2) agreed to repurchase the loan in case of default within three years, or (3) the amount of the loan in excess of 75% was privately guaranteed or insured. Conforming mortgage amounts could not exceed limits under the FHA Section 203(b) program, currently set at $33,000 as of December 24, 1969 (see above). The conforming loan limits were intended to avoid diversion of scarce credit from housing production for low- and moderate-income households.[22]

The stated purpose of the conventional mortgage program was not only to pump a modest amount of additional funds into housing, but also to eventually popularize a more standardized and marketable conventional mortgage instrument. An accompanying committee report stressed that expansion into the conventional mortgage market was not intended to compromise Fannie's primary role supporting a secondary mortgage market for FHA/VA mortgages, noting "*the committee has been assured that FNMA will take whatever action is appropriate to prevent its expansion into the conventional field from jeopardizing the soundness of its credit or from adversely affecting its traditional role in buying and selling FHA and VA mortgages. The committee wants to remind FNMA that it was set up primarily for FHA and VA mortgages and that conventional mortgage purchasing should in no way diminish its support of the FHA and VA market*" (Senate Committee on Banking and Currency (1970), p. 7). Contrary to Congressional intent, Fannie's purchases of conventional mortgages would quickly surpass those of FHA/VA mortgages in 1976 (HUD (1983)).

On December 3, 1970, Fannie announced tentative details of its pending new conventional program, stating that it aimed to purchase between $300 and $500 million of conventional loans in 1971 (The Wall Street Journal (12/3/70)). Conventional mortgages for single-family owner-occupied houses were to be purchased via a free market system auction, similar to its purchases of FHA/VA mortgages. Noting that its tentative plan was already being postponed one month because of a rights issue, Fannie stated that it hoped to enter the market by February 1971, conditional on approval from the HUD Secretary, which the agency hoped to secure by January 1, 1971. Preliminary program approval to buy conventional mortgages was granted in a letter from the HUD Secretary to Fannie's president on January 25, 1971. The final authorization and implementation of the program was, however, significantly delayed because of the difficulties involved with drafting uniform mortgage contracts and other instruments needed for packaging loans from across the United States, and there was considerable uncertainty about when the program would launch. Fannie and Freddie had struggled for months to negotiate uniform contracts, and eventually failed to reach compromise over prepayment options; Fannie's proposed contracts, published in November, would have allowed prepayment without penalty and allowed the buyer of an existing home to assume the previous owner's mortgage; on the insistence of the thrifts, Freddie's contracts included prepayment penalties and non-assumption provisions (The Wall Street Journal (12/16/71)). Consumer and civil rights groups—strongly favoring penalty free prepayment options—had also slowed the development of contracts, and under pressure, Fannie revised its conventional mortgage guidelines in late 1971. On November 15, 1971, it was announced that HUD Secretary Romney had approved Fannie's standardized mortgage forms, clearing the final major regulatory hurdle ahead of launching conventional secondary market operations (The Wall Street Journal (11/15/71)).

In a news conference on December 15, 1971, Fannie announced the first auction involving conventional mortgages on single-family homes, to take place in February 1972 (The Wall Street Journal (12/16/71)). The first conventional

[22]Conventional mortgages with loan values exceeding the conforming loan limit are termed 'jumbo' mortgages.

single-family mortgage purchase was made on February 15, 1972. In May 1971, Fannie Mae President Oakley Hunter had projected that conventional mortgage purchases would initially not exceed $400 million per year (Hunter (1971) p. 834), which was consistent with the prior target range of $300 million to $500 million for the first year of operation. We assign that estimate of an annualized $400 million for the year starting November 1971, upon Secretary Romney's approval of the consequential standardized mortgage contracts, as the initial impact upon Fannie's portfolio from program expansion into the conventional market. In practice, Fannie purchased conventional mortgages totaling $55 million in 1972, $939 million in 1973 and $1.129 billion in 1974 (FNMA Annual Report 1975, p. 14).

The Act opening the doors for Fannie to enter the conventional market was passed in the midst of the recession lasting from December 1969 through November 1970, but unlike certain other provisions, Fannie's new authorization was not representative of the Act's title. The accompanying Senate committee report characterized the Act as "*designed to encourage and expedite the construction and financing of a substantial number of new and existing homes. Primary emphasis is placed on the expansion of existing mortgage credit facilities and the* ***creation of new secondary market facilities to broaden the availability of mortgage credit***" (Senate Committee on Banking and Currency (1970), p. 2). That report's general statement opened with economic concerns and countercyclical motivations: "*It is obvious to the committee that economic conditions in this Nation are approaching a critical level, and that* ***immediate action is necessary if we are to avoid a further drop in the economy*** *and possibly a serious recession by the end of the year... Unfortunately, the policies currently being used by the administration to fight inflation are having an extremely disastrous effect on housing*" (Senate Committee on Banking and Currency (1970), p. 1). The subsequent House committee report accompanying that chamber's bill, on the other hand, acknowledged varying short-run cyclical concerns and longer-run policy objectives behind the expansions of secondary mortgage market operations: "*The home buying public, the mortgage lending institutions, and the homebuilding industry are confronted with the highest interest rates in a century and an extreme scarcity of mortgage credit.... While this bill is an attempt to alleviate the immediate crisis, the committee will continue to work toward a solution to provide serious and* ***long-term changes to provide new sources of funds for mortgage credit***" (House Committee on Banking and Currency (1970), pp. 4–5).[23]

Contrary to these nods to near-term stabilization, House Committee on Banking and Currency Chairman Wright Patman lambasted that the only provision to improve the near-term housing outlook was the appropriation of $250 million to the FHLBanks for a mortgage interest rate subsidy, stating that the bill "*may contain some useful sections, but it nevertheless completely fails to provide a meaningful response to the Nation's housing crisis... The bill, in its present form, does not add one dollar to the country's pool of mortgage funds and because of this* ***it is an Emergency Home Finance Act in name only****. The* ***real effect of the bill in its present form is to appropriate more money to subsidize high interest rates*** *on loans made from a pool of mortgage funds that is now and will continue to be entirely inadequate to meet the Nation's housing needs*" (House Committee on Banking and Currency (1970), p. 16).

In his statement upon enacting the law, President Nixon emphasized the legislation as intended to "*alleviate the Nation's critical housing shortage*," both to meet "*growing demand for housing but also to make up the large housing deficit which has accumulated over the past 4 years, and to permit people to move from the many substandard housing units which are now in existence*" (Nixon (1970)). The statement noted that "*housing production is still substantially*

[23]The House report included the following estimate of the disproportionate impact of monetary tightening on housing: "*One member of the Federal Reserve Board has calculated that, whereas the home construction industry accounts for approximately 3 percent of the gross national product, 70 percent of the impact of a tight-money policy falls on the home construction industry*" (House Committee on Banking and Currency (1970), pp. 11–12).

below desirable levels," but the emphasis was on permanently increasing the housing stock to meet demand, not increasing home production to stabilize the economy.

Moreover, the House report explicitly characterized the authorization for FNMA to enter conventional mortgage secondary market operations as foreword looking, acknowledging that it would take too long to implement to alleviate the current credit crunch and hasty action would be imprudent: "*If, as seems likely, the current money market situation should continue for some time,* ***FNMA should not implement this authority immediately****. A great deal of spadework should be done in the way of establishing an appraisal system, drafting uniform mortgage documents and making other preparations before FNMA could engage in the buying and selling of conventional mortgages to any significant degree. The time to begin these undertakings is now, so that FNMA will be ready to begin encouraging and* ***supplementing a market for conventional mortgages when the pressure on the FHA and VA market has eased***" (House Committee on Banking and Currency (1970), p. 7). The Senate report contained nearly identical language (Senate Committee on Banking and Currency (1970), p. 7). And as noted above, Fannie's final authorization by the HUD Secretary and subsequent first conventional mortgage purchases both took place more than a year after the recession of December 1969 to November 1970 had ended, following a long, deliberative process of drafting mortgage contracts.

While short-term provisions for targeted mortgage purchases by Ginnie Mae and interest rate subsidies through the FHLBanks were intended to take effect during the recession and were clearly cyclically motivated, we take exception in classifying FNMA's conventional market program approval and subsequent expansion into that market as unrelated to the business and financial cycle, given its stated longer-term objective and intended delay in implementation (see also listings under FHLMC, Sec. 4.2, and GNMA, Sec. 4.3). The Act's overhaul of US secondary market operations was principally intended to improve the efficiency of mortgage markets by spreading credit from regions with excess savings to markets with high credit demand, and to improve the efficiency of secondary mortgage markets by standardizing contracts across the countries, neither of which was understood to be capable of ameliorating the housing credit shortage prevailing at the time of the bill's enactment.

Housing and Community Development Act of 1974 (Pub. L. 93-383) Enacted: August 22, 1974

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Loan Limit	FNMA	+$1.14 billion	Aug. 1974	Aug. 1974	Non-Cyclical

The Act decoupled the limit on the outstanding balance of a conventional mortgage eligible for purchase by Fannie and Freddie from the FHA Section 203(b) mortgage insurance limit, and instead tied it to the Section 5(c) limit for mortgages originated by insured S&L associations. Prior to the bill's enactment, the Section 5(c) limit was set at $45,000, above the $33,000 Section 203(b) limit currently limiting Fannie's purchases. The reason for the change had more to do with Freddie than with Fannie (HUD (1987)). As the Senate Committee on Banking, Housing, and Urban Affairs report explained, it was "*not realistic to permit savings and loans to originate $45,000 mortgages and to restrict [Freddie] to the purchase of mortgages with a maximum principal mortgage tied to a varying FHA limit*" (Senate Committee on Banking (1974b), p. 85). The change for Fannie apparently followed in order to roughly maintain parity between both GSEs (HUD (1987), p. 35). Adopted from the House bill, the Act also raised the FHA 203(b) limit to $45,000 and the S&Ls Section 5(c) limit to $55,000, with up to an additional 50% for dwellings in

Alaska, Guam, and Hawaii. Hence the Act raised the conforming loan limit for conventional mortgages by 66.67%, from $33,000 to $55,000. The conforming loan limit changes were effective upon enactment.

The House committee report stated that raising FNMA's loan limit from $33,000 to $55,0000 "*would permit FNMA to serve much the same housing market in terms of constant dollars as it was authorized to serve when the Emergency Home Finance Act was enacted [in July 1970]*" (House Committee on Banking and Currency (1974), p. 29). The increase in the 5(c) limit was intended to "*help adjust the limit in line with the substantial increases that have occurred in recent years in the cost and value of single-family homes, particularly in the nation's high-cost areas*" (House Committee on Banking and Currency (1974), p. 43). The Senate committee report noted that "*single-family housing costs have increased between 20 and 25 percent since late 1969 when the FHA section 203 (b) limit was last set*" (Senate Committee on Banking (1974b), p. 86). That report also noted that "*of the new homes built for sale today, 35% are now priced at $35,000 or over; 22% are priced at $40,000 or over. A recent study indicates that 25% of the sales of existing single-family homes in the second quarter of 1973 were over $40,000; 46.6% were over $30,000.*"

The Act also increased the limit on the Enterprises' holdings of conventional mortgages originated more than one year prior to purchase, from 10% to 20% of their aggregate portfolio. Other eligibility restrictions were relaxed and the LTV restriction for conventional mortgage purchases was lifted from 75% to 80% of the value of the property securing the mortgage, unless the seller (1) retained a participation of at least 20% (up from 10%), (2) the seller agreed to repurchase the mortgage on demand, or (3) the excess over 80% was privately guaranteed or insured. The portfolio and LTV relaxations were deemed necessary in light of housing cost increases since the 1960s.

To quantify the impact of the increase in FNMA's conforming loan limit, we assume, pursuant to the House and Senate committee report language, that the change would have restored FNMA's real purchasing power relative to purchase volumes surrounding the December 1969 Section 203(b) increase and July 1970 enactment of the Emergency Home Finance Act. The $5.93 billion net purchase volume over 1969Q4 through 1970Q3 would have translated to $7.9 billion at the end of June 1974, adjusted for the 33.3% increase in OFHEO's seasonally adjusted Constant-Quality House Price Index for new homes sold over 1970Q3 and 1974Q2.[24] Relative to the $6.77 billion net purchase volume over 1973Q3 through 1974Q2, the year before enactment of the Housing and Community Development Act of 1974, this represents an increase of $1.14 billion, which we assign to the year starting August 1974, when the conference committee resolved policy disagreements on the conforming loan limit.[25] In practice, Fannie's retained portfolio increased $2.41 billion in the year starting in 1974Q3, with its net purchase volume decelerating slightly to $5.09 billion for the year, down slightly from $6.77 billion in the preceding year.

While these policy changes were enacted in the midst of the recession lasting from November 1973 through March 1975, there is exhaustive evidence that the bill's origins considerably preceded the recession, and that the timing of the bill's enactment predominantly reflected the breaking of a longstanding political impasse unrelated to the business or financial cycle. The purpose of the bill stated in its preamble was "*[t]o establish a program of community development block grants, to amend and extend laws relating to housing and urban development, and for other purposes.*" The accompanying Senate committee report asserted that "*the main thrust of the proposed legislation is to consolidate and simplifying existing [housing and community development] programs,*" and noted that the origins of the bill stemmed from the administration's proposal for program consolidation in 1970, and subsequent failure of the House to act on

[24] We use annual volumes to smooth out seasonality and other idiosyncratic sources of volatility.

[25] The House bill containing the eventually enacted provisions was finalized in June 1974, but the pertinent differences with the Senate bill's smaller increase in the conforming loan limit was not resolved until the August 1974 conference committee bill.

a Senate-passed bill during the 92nd Congress (Senate Committee on Banking (1974b), pp. 1–3).[26] Similarly, the supplemental views of Senators Tower, Packwood, and Brock in the accompanying committee report emphasized that "***The bill reflects the fact that major housing and urban development legislation has been delayed many years, with the last comprehensive bill enacted in 1968.*** *It is a long and complex measure...*" (House Committee on Banking and Currency (1974), p. 165).

The drive to resolve the multi-year congressional political impasse and pass a comprehensive housing bill had been amplified when the Nixon administration halted several HUD programs in January 1973, well ahead of the recession, based on ideological opposition to the recent Great Society housing legislation; one month later, the administration proposed entirely defunding community development programs in its FY1974 budget request.[27] While the Senate and companion House bills were introduced in February 1974 and June 1974, respectively, the Act was related to a myriad of stalled housing bills, as there had been no comprehensive housing policy authorization since the Housing and Urban Development Act of 1969.[28] According to *CQ Almanac*, the Senate version of the bill largely resuscitated the bill killed by the rules committee in 1972, while making additional concessions to the Nixon administration (CQ (1975a)). Despite the Senate's compromises, the HUD Secretary had threatened that President Nixon would veto the Senate draft, and the bill was only eventually enacted in the first month of the Ford administration, following President Nixon's resignation on August 9, 1974. This additional political risk and uncertainty surrounding a veto threat further substantiate the determination that news of the policy change was only materially made public in August 1974, concurrent with the conference agreement, and that the timing of enactment was unrelated to the recession.

In his statement on signing the Act, President Ford touted the legislation as "*far-reaching and perhaps historic significance, for it not only* ***helps to boost the long-range prospects for the housing market*** *but also marks a complete and welcome reversal in the way that America tries to solve the problems of our urban communities...****No one expects this bill to bring substantial immediate relief to the housing market,*** *but over the* ***long haul*** *it should provide the foundations for better housing for all Americans*" (Ford (1974b)).

Given the bill's multi-year, stalled development, long-term, comprehensive focus on overhauling housing policy,

[26]The House rules committee killed the 1972 bill by refusing to grant a rule for floor consideration. Underscoring the same point, the introduction and background of the bill in the House committee report explained: "*The committee bill is the product of an extensive period of hearings and studies brought about by two acts of critical importance to Federal housing and urban development efforts: first, the rejection by the House Rules Committee in late 1972 of an omnibus housing bill which would have, in part, continued and expanded highly controversial housing subsidy programs; and second, the suspension of these programs by the President in January 1973.*" There is no mention of business or financial cycle concerns motivating the bill, but overwhelming concern with an "*effort to break the deadlock over HUD's housing and community development programs so that the Nation can resume its activities in these areas with broad political support*" (House Committee on Banking and Currency (1974), pp. 1–2).

[27]*CQ Almanac* offered the following summary: "*On Jan. 8, 1973, the Nixon administration announced a moratorium on all new commitments for major subsidized housing and urban programs in order to review what former HUD Secretary George Romney called 'the entire Rube Goldberg structure' of housing and urban development laws. The moratorium also included a temporary suspension of interest subsidy programs for home ownership (section 235) and for rental and cooperative housing (section 236) under the National Housing Act. In addition, the administration's fiscal 1974 budget request did not include funds for community development programs, scheduled to be phased out and replaced in fiscal 1975 by the President's proposed urban community development revenue-sharing plan*" (CQ (1975a)).

[28]Prominent related bills include the Housing and Urban Development Act of 1970 (91 H.R. 16643); Housing and Urban Development Act of 1971 (92 H.R. 9688); Middle and Low Income Housing Act of 1971 (92 H.R. 1574); Community Development Assistance Act of 1971 (S. 2333); Housing and Urban Development Act of 1972 (92 S. 3248); Community Development Assistance Act of 1973 (S. 1744); Housing and Urban Development Act of 1973 (93 H.R. 10036); and the Housing Act of 1973 (93 S. 2507). ProQuest Legislative Insight cites more than 80 related bills introduced between 1969 and 1974.

and timing reflective of breaking of a longstanding political impasse unrelated to the business cycle, we classify the bill and conforming loan limit increase as unrelated to the business cycle.

Housing and Community Development Act of 1977 (Pub. L. 95-128) Enacted: October 12, 1977

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Loan Limit	FNMA	+$4.82 billion	Oct. 1977	Oct. 1977	Non-Cyclical

The Act raised the FHA 203(b) single-family limit from $45,000 to $60,000 and the S&Ls Section 5(c) single-family limit from $55,000 to $60,000. The Act also increased the conforming loan limits for conventional mortgages to 125% of the 5(c) loan limit, thereby increasing Fannie's loan limit for purchases from $55,000 to $75,000 on net. The conforming loan limit changes were again effective upon enactment.

The committee report accompanying the House bill, which more closely resembled the enacted law, explained that high rates of inflation compelled the loan limit increases, particularly to the FHA 203(b) limit: "*The most recent increase to $45,000 for the section 203(b) basic homeownership program (authorized by the Housing and Community Development Act of 1974) has not been adequate to restore the maximum [mortgage amount] to the same relationship to the price of new homes as prevailed in the mid-1960's when the FHA insured 15.3 percent of the new home market. In fact, the current limits have resulted in the widest gap between the maximum mortgage amounts and new home prices that has ever existed. To eliminate the gap, the committee bill establishes a new maximum insurable amount of $60,000 for the section 203(b) program. The new limit is designed both to reflect increases in the prices of homes and mortgage amounts since 1974 and to anticipate likely increases for at least the near future*" (House Committee on Banking (1977a), p. 16). That report explained that increasing the 5(c) loan limit from $55,000 to $60,000, as adopted in the enacted conference report, was viewed as consistent with increasing the 203(b) loan limit from $45,000 to $60,000, and that the 25% higher conforming loan limit for Fannie and Freddie was "*necessary to adjust the limit to the increased cost and value of single-family homes, particularly in high-cost areas*" (House Committee on Banking (1977a), pp. 21, 25).

The Senate Committee report, based on a bill that would have increased the 5(c) limit from $55,000 to $65,000 without further increasing the Enterprises' loan limits, similarly stated that proposal was taken "*in response to the substantial increases in housing costs which have occurred since the ceilings were raised in 1974*" (Senate Committee on Banking, Housing and Urban Affairs (1977), p. 32). Unlike their House counterparts, the Senate committee had deliberately rejected a proposal to do more for high-cost areas. The conference committee also rejected a proposal to further increase the loan limits in high-cost areas, opting instead "*to adjust the maximum loan limit to keep pace with inflation, while preserving these limits as meaningful ceilings*" (House Committee on Banking (1977b)), but adopted the 25% higher purchase limit for the Enterprises from the House bill.

To quantify the impact of the increase in FNMA's conforming loan limit, we assume, pursuant to the House and Senate committee report language, that the change would restore FNMA's real purchasing power relative to purchase volumes around the enactment of the Housing and Community Development Act of 1974 (see above). The $7.43 billion net purchase volume over 1973Q4 through 1974Q3 would have translated to $9.98 billion at the end of September 1977, adjusted for the 34.3% increase in OFHEO's seasonally adjusted Constant-Quality House Price Index for new homes sold over 1974Q3 and 1977Q3. Relative to the $5.16 billion net purchase volume over 1976Q4 and 1977Q3,

the year before enactment of the Housing and Community Development Act of 1977, this would have represented an increase of $4.82 billion, which we assign to the year starting October 1977.[29] To the extent that the enacted provisions were meant to anticipate further near-term inflation, we view this as a conservative estimate. In practice, Fannie's net purchase volume more than doubled to $10.44 billion in the year starting in 1977Q4, up $5.28 billion from the preceding year.

In his remarks upon signing the Act, President Jimmy Carter noted that "*There's **no immediate solution** that can be offered*" to the housing needs of older and more distressed communities, and emphasized that the Act's cornerstone funding for the Community Development Block Grant would span the next three years (Carter (1977)). There was no mention of housing starts or contemporaneous economic conditions, or immediate stimulus to the housing market. Similarly, the accompanying report of the Senate Committee on Banking, Housing, and Urban Affairs made no mention of near-term economic or other countercyclical motives (Senate Committee on Banking, Housing and Urban Affairs (1977)). Given the bill's long-term and comprehensive focus on overhauling housing policy, coupled with the lack of any discernible cyclical motive, we classify the conforming loan limit increase as unrelated to the business cycle.

Expansion to Conventional Multifamily Mortgages February 1, 1978

On January 20, 1978, Fannie announced that conventional mortgages on two-to-four family houses would become eligible for purchase on February 1, 1978. Fannie Mae's Chairman Oakley Hunter explained that "*We expect that this broadening of our conventional program should be especially helpful in urban areas, many of which have a large existing stock of two-to-four-family structures*" (The Washington Post (1/21/1978)). Because Fannie's entry into multifamily conventional mortgages does not appear to have required regulatory approval, it is not considered a significant policy change.

1978 HUD Regulations (43 FR 36200) Issued: August 15, 1978

At the start of the Carter administration, HUD officials and some key members of Congress voiced concerns that Fannie had been putting too much emphasis on profit margins for its stockholders and was not fulfilling its public mission of advancing national housing goals. In hearings before the Senate Committee on Banking, Housing, and Urban Affairs on June 7, 1977, newly appointed HUD Secretary Patricia Roberts Harris rebuked FNMA, stating that mortgage bankers were reluctant to make urban mortgage loans because they believed "*Fannie Mae won't buy them*" (The Washington Post (6/8/1977)). She also criticized her own department during its previous tenure under Republican administrations for failing to exercise statutory authority over Fannie's operations (The Washington Post (6/8/1977)). Ire was also growing on Capital Hill. At a February 1978 hearing of the Senate Committee on Banking, Housing, and Urban Affairs, Chairman William Proxmire lambasted that "*FNMA's charter is entirely clear that it has public responsibilities including the support of low- and moderate-Income housing... It is the Committee's impression that, in the case of FNMA, this public oversight function has been neglected by HUD, leaving this massive corporation to conduct its affairs in any manner it sees fit*" (43 FR 36200). Beyond neglecting distributional concerns, Fannie was also criticized for ignoring its role in stabilizing mortgage credit across the financial cycle; since Fannie's privatization in 1968, its portfolio had only rapidly expanded, without any significant volume of mortgage sales despite the 1970s

[29] As a major policy difference regarding the Enterprises' purchase limit was resolved in conference, our determination of the news of the policy change being made public is based on the conference agreement. The Senate agreed to the conference report on October 1, 1977 and the House agreed to the conference bill on October 4, 1977.

real estate boom-bust cycle.

On several occasions in early 1978, HUD delayed approvals of Fannie's borrowing authority—previously a routine matter—until the last moment.[30] In March 1978, HUD proposed new rules expanding regulatory powers and imposing tighter restrictions on Fannie, including a much more stringent approval process for individual debt issuance and a ceiling on short-term discount notes. After strong pushback from Fannie and the mortgage and real estate industries, HUD issued a weaker final regulation without short-term debt limits, but nonetheless exerting greater approval authority over Fannie's issues of obligations and securities (43 FR 36200).[31] The maximum debt-to-capital ratio of 25-to-1 was also written into the regulations. HUD established housing goals for low-and moderate-income housing and for housing located in central cities, with each goal set at 30% of FNMA's total mortgage purchases (coined the '30/30' goals).[32] Statutory authority for such targets had been set by the Housing and Urban Development Act of 1968, but had not previously been exercised. Fannie objected to the mandatory credit allocations on several grounds, notably that they ignored the FNMA Charter Act's statutory requirement to promote a "*reasonable economic return*" for the association. According to various reports, the 30/30 goals were never consistently monitored or enforced prior to Congress establishing affordable housing goals in 1992, and HUD collected insufficient mortgage data to monitor compliance with the goals (GAO (1996), p. 82). HUD established a Fannie oversight unit after the issuance of these regulations, but it was disbanded shortly thereafter by the incoming Reagan administration. Because the 1978 HUD regulations do not appear to have materially influenced Fannie's purchase activity, we do not consider them a significant policy change.

Housing and Community Development Amendments of 1979 (Pub. L. 96-153) Enacted: December 21, 1979

The Act increased the S&L Section 5(c) mortgage loan limits from $60,000 to $75,000. On January 3, 1980, Fannie and Freddie announced a new conforming limit of 125% of this amount, or $93,750, up from $75,000 on single unit mortgages (The Washington Post (1/4/1980)). The Act also increased the FHA Section 203(b) loan limit for single-family homes from $60,000 to $67,750. In explaining the increase in the FHA 203(b) limit, the committee report accompanying the Senate bill noted that the median sales price of homes had jumped roughly 30% since the loan limits had last been increased by the Housing and Community Development Act of 1977 (see above), and that the FHA's market share had dropped from roughly 15% to 5% because loan limits had not kept up with inflation or the market (Senate Committee on Banking, Housing and Urban Affairs (1979), p. 14). Regarding the 5(c) limit, the report similarly explained that "*[b]ecause home prices have escalated 20 to 25 percent in the past 2 year, the committee believes that the $60,000 limit has become obsolete and is severely restricting the ability of thrifts to meet the borrowing amounts requested by today's home buying public*" and that increasing that limit to $75,000 was an adjustment to "*reflect inflation in home prices (and increase in mortgage size) since last amended in 1977*" (Senate Committee on Banking, Housing and Urban Affairs (1979), p. 20).

Committee reports, however, did not cite a benchmark year for which purchasing power would be restored. Assuming the Act would restore purchasing power when limits were last adjusted in 1977 and applying the same methodology as in quantifying the impacts of the Housing and Community Development Acts of 1974 and 1977 (see above) implies

[30]For example, see The Washington Post (2/11/1978).

[31]The Secondary Mortgage Market Enhancement Act of 1984 (Pub. L. 98-440) substantially curtailed HUD's approval authority over Fannie as codified by this ruling (see below).

[32]The new regulations also required Fannie to file an annual Business Activities Report, in large part based on the annual reporting requirements of the Securities and Exchange Commission, but Fannie remained exempt from SEC filings.

no increase in net purchasing capacity from the increase in loan limits.[33] Hence we do not consider this a binding, significant policy change for Fannie Mae. The Act's loan limit increase, however, represented a smaller relative increase for Fannie and Freddie than the prior two increases, and the legislation did not carve out additional increases for the Enterprises, unlike the prior legislative increase in loan limits.[34]

Housing and Community Development Act of 1980 (Pub. L. 96-399) Enacted: October 8, 1980

The Monetary Control Act of 1980 (Pub. L. 96-221, enacted March 31, 1980) eliminated the S&L Section 5(c) loan limit. Because conforming loan limits for FNMA and FHLMC were set at 125% of the 5(c) limit, that Act also inadvertently eliminated loan limits for the GSEs. The Housing and Community Development Act of 1980 quickly restored conforming loan limits and established a formula for automatic annual adjustments. The limit for a mortgage on a single-family unit was reinstated at $93,750 for 1980, unchanged from the lapsed value based on the 5(c) loan limit, while higher limits were introduced for multifamily units. Beginning in 1981, annual upward adjustments were to be made, effective January 1, equal to the year-to-October percentage change in the national average single-family home price for new and existing units from the FHLBB's survey of major lenders. The legislative history does not identify any rationale for the formula, which was not subject to much scrutiny before enactment; there was no public discussion in the House or Senate committees of jurisdiction regarding the new limits or adjustment formula (HUD (1987) p. 37).

On December 23, 1980, Fannie and Freddie announced that, based on the new adjustment formula, the single-family loan limit would be increased to $98,500 on January 1, 1981. According to *Dow Jones Newswire*, "*Fannie Mae said it was adjusting loan amounts upwards to keep pace with rising home prices*" (Dow Jones News Service (12/23/1980)). FNMA also announced that the higher loan limit would be applied to all conventional mortgages with at least a 5% downpayment, whereas low downpayment loans were previously subject to a lower $75,000 ceiling (The American Banker (12/29/1980)). The reinstatement of the $93,750 loan limit was a continuation of current policy, and we do not consider subsequent changes based on the home price indexation formula to be significant policy changes, because they would have been both a continuation of current policy and easily anticipated. As the latter action was taken administratively by Fannie, we do not consider it a policy change.

Of particularly lasting consequence, the Act set in motion the creation of Fannie's MBS program by mandating that if Fannie submitted a MBS program for approval to the HUD Secretary or Treasury Secretary, their agency would have to either approve said program within 90 days or transmit to Congress a report explaining why it was rejected (CBO (1983)). Through fees for issuing commitments and guaranteeing timely payment, a program packaging and selling MBS to third parties was seen as a way to generate revenue while reducing the association's interest rate risk—a considerable prevailing concern given the Fed's policy stance. As off-balance sheet obligations, MBS were also excluded from capital requirements, making them an attractive source of revenue growth. In July 1981, Fannie announced that it would soon be launching an MBS program, with the first securities to be on the market by year's end. Fannie CEO Maxwell believed the program had "*the potential to attract billions of dollars from pension funds and other investors*," and explained that the program would behave similarly to Ginnie's MBS program, but for the conventional

[33] Applying a comparable methodology to Fannie's retained portfolio as opposed to purchases also suggests the policy change was not alleviating a binding constraint.

[34] The Act increased conforming loan limits by 25%, versus 66.7% and 36.4%, respectively, in the prior two increases.

market, which was four-fold the FHA/VA market being served by GNMA (The Bond Buyer (7/29/1981)).[35]

Authorization for Fannie Mae to issue MBS was approved by HUD on September 23, 1981 (HUD (1996), p. 52). The first Fannie-guaranteed MBS were issued in December 1981, in the amount of roughly $700 million, and the program expanded rapidly thereafter. By the end of 1981, Fannie had committed to issue $3.3 billion in MBS (FNMA Annual Report 1981, p. 2) and in 1982, the program's first full year of operation, issuance jumped to $13.8 billion (HUD (1987), p. 78–79). Whereas mortgage sales were limited between 1968 and 1981, Fannie's new leadership decided to sell larger quantities of higher yielding mortgage assets through the new MBS program. Around $2.9 billion of the $13.8 MBS issuance in 1982 resulted from sales of its own portfolio, leaving roughly 79% of the total issuance securitized from new purchases. We were unable to quantify or find ex ante projections of Fannie's associated purchase or securitization volume in the first year or two of operations, so we do not treat Fannie's entrance into mortgage securitization as a significant policy change affecting portfolio size. While the new MBS program hoped to attract billions of dollars into conventional mortgage financing, the appetite of investors to hold conventional MBS seemed somewhat uncertain relative to the thriving Ginnie Mae secondary market. If it could be quantified, however, it would have been classified as cyclically motivated.[36]

The Housing and Community Development Act of 1980 additionally authorized Fannie to deal in loans secured by manufactured housing, subject to HUD approval. The last regulatory hurdle was cleared by a FHLBB ruling on July 28, 1981 clarifying that, regardless of ambiguities in state laws, mortgages on manufactured housing were considered real estate loans. In August 1981, Fannie announced that it would launch a nationwide program buying mortgages on manufactured housing (The Washington Post (8/15/1981)). We were unable to quantify or find an estimate of Fannie Mae's likely purchases of manufactured home mortgages, so we do not consider this a significant policy change.

Adjustable-Rate Mortgage Program Announced: June 25, 1981

Policy Change	Agency	Impact	News	Effective	Classification
ARM Program Approval	FNMA	+$0.4 billion	June 1981	Aug. 1981	Cyclical

On June 25, 1981, Fannie announced it would initiate a purchase program for eight types of variable-rate mortgages, with purchases to start on August 7, 1981 (The Washington Post (6/26/1981)). A Fannie spokesperson announced that commitments would first be made in late July, and that FNMA was unlikely to set any upward limit for August purchases (The American Banker (6/26/1981)). Adjustable-rate mortgages (ARMs) had first been authorized in primary markets earlier in 1981, as the FHLBB, Office of the Comptroller of the Currency (OCC), and National Credit Union Administration (NCUA) approved various programs and lifted interest rate restrictions imposed on federally chartered

[35] In an October publication in *The American Banker*, Maxwell elaborated on these themes: "*We predict the FNMA-guaranteed mortgage-backed security will do for conventional home lending what Ginnie Maes have done for government-backed loans. Ginnie Maes have achieved a volume of $120 billion, yet the FHA market they serve is a fraction of the size of the conventional market to be served by the FNMA security. The potential for housing is enormous, and so is the potential flow of fee income to FNMA. Because of their FNMA guarantee, their attractive yields, and their simplicity, our new securities will appeal strongly to both mortgage lenders and investors. We believe they will attract new funds into housing. To that end, we have worked closely with managers of major pension funds in designing our security. We will issue our first securities in November*" (The American Banker (10/26/1981)).

[36] The request for MBS program approval was made in an environment of heightened interest rate risk and depressed earnings due to monetary tightening, and HUD's approval was granted early during the recession from July 1981 through November 1982.

banks and thrifts (45 FR 1425, 45 FR 79494, 46 FR 18932).[37] FHLBB approval of thrifts issuing adjustable-rate loan issuance on April 23, 1981 also paved the way for Freddie to purchase ARMs from FHLBank members (46 FR 24148, see also FHLMC, Sec. 4.2). Without established secondary market support, however, mortgagees were initially hesitant to issue ARMs, and there was little issuance until Fannie and Freddie unveiled their guidelines for adjustable-rate secondary market purchase programs. Because secondary market entry into ARMs was de facto set in motion immediately following deregulation of the primary mortgage market and was necessary for mortgagees to issue ARMs, we consider entry into ARMs by Fannie and Freddie as driven by US federal housing credit policy regulatory changes.

Upon Fannie's announcement, *The American Banker* reported that its program would be "*substantially broader than the purchase plan recently put together by the Federal Home Loan Mortgage Corp*" (The American Banker (6/26/1981)). Four of Fannie's announced ARM products were negative amortization mortgages, which Freddie's program had not included at the time. Furthermore, industry analysts "*had said at the time the FHLMC plan was announced in late May that many lenders would likely postpone plans to sell ARMs until FNMA's program was disclosed*" (The American Banker (6/26/1981)). No estimate could be found for the volume of FNMA's pending ARM purchase program and independently quantifying such an impact is constrained by uncertainty and related regulatory changes for the primary market, but there were public projections of Freddie's pending ARM purchase program, unveiled just one month earlier. Given the expectation of a larger ARM program for Fannie, we adopt the high-end estimate of FHLMC's ARM program, for an annualized impact of $400 million in the program's first year of operations.[38]

After Freddie and Fannie announced their ARM programs in May and June, respectively, thrifts rapidly began originating ARMs in the summer of 1981, but initially tended to prefer holding them in portfolio—to reduce their own interest rate risk exposure—rather than selling to the secondary market (HUD (1987), pp. 135–136). But by the end of 1981, Fannie had made commitments to buy more the $1 billion in ARMs (FNMA Annual Report 1981, p. 2). During the first full year of the program in 1982, Fannie's purchases totaled $3.2 billion (HUD (1987), p. 71), and FNMA's purchase volume of ARMs subsequently rose steadily. In 1984 and 1985, ARMs constituted over one-third of its retained portfolio purchases, reaching $7.1 billion in 1985, and about 20% of its MBS issuance. The share of ARMs in Fannie's retained portfolio increased from 5% in 1982 to about 18% in 1985 (HUD (1987), p. 71, Treasury (1990), p. A-32).[39]

On June 23, FNMA's chief economist leaked that Fannie would unveil its program on June 25, and additionally confirmed that multiple loan types would be purchased—including negative amortization loans. Market analysts reported that the program would be more expansive and flexible than FHLMC's ARM program (The American Banker (6/24/1981)). Breaking from a streak of falling prices and predominantly negative excess stock returns, Fannie's share price rose 2.5% on the June 23, a gain of 1.4 percentage points over the S&P 500 for the day. Shares flatlined on June 25 when the program was formally announced, slightly behind a 0.1% gain for the S&P 500. No earlier concrete news of a pending ARM program could be found being priced into shares. Consequently, we date the news of Fannie's pending ARM program being made public to June 23, 1981.

The program expansion into ARMs was made in an environment of heightened interest rate risk and depressed earnings resulting from monetary tightening, and the program took effect early in the recession lasting from July 1981

[37] The Office of the Comptroller of the Currency ruling allowed an annual rate adjustment of up to 2 percentage points, and the FHLBB rules removed interest rate caps on variable-rate mortgages (HUD (1987), p. 135).

[38] FHLMC President Brinkerhoff had projected that Freddie would purchase $500 to $600 million worth of ARMs in the first 18 months of program operations, or up to $400 million on an annualized basis (see ARM Program under FHLMC, Sec. 4.2)

[39] Because of declining interest rates, ARM purchases dropped sharply to 4% of total purchases in 1986.

through November 1982 and in the midst of the credit crunch persisting from 1978Q2 through 1981Q4. Primary market deregulation was explicitly driven by economic conditions; for instance, the introduction of the FHLBB's proposed rule for allowing renegotiable-rate mortgage instruments cited that the Board was "*monitoring the **money market situation***" and that "*recent credit tightening policies of the Federal Reserve have resulted in **extremely volatile interest rates**, causing growing reluctance of discretionary mortgage lenders to make long-term loan commitments, and a resulting **scarcity of home mortgage funds***" (45 FR 1425). Moreover, the ARM program was explicitly intended to help revitalize Fannie's balance sheet by reducing interest rate risk and increasing revenue in light of Fannie's ongoing financial difficulties; HUD estimated that Fannie had a negative net worth of $7 billion in 1980 and $10 billion in 1981, and FNMA's program was intended to enhance profits (HUD (1987), p. 100). Consequently we classify the ARM program's approval and launch as cyclically motivated.

Second Mortgage Purchase Program Announced: September 10, 1981

Policy Change	Agency	Impact	News	Effective	Classification
Second Mortgage Program Approval	FNMA	+$5.0 billion	Sep. 1981	Nov. 1981	Cyclical

In June 1981, Fannie appealed to HUD for approval of a second mortgage purchase program aimed at increasing the yield on its portfolio as well as lowering second mortgage costs. Because of high prevailing interest rates, many homebuyers were increasingly relying on second mortgages for home purchases, and Fannie argued it could help provide liquidity for this financing instrument. In 1980, between $15 billion and $20 billion worth of home equity loans were made nationwide, up from $3 billion to $4 billion in the mid-1970s (The Washington Post (8/8/1981)). Second mortgages, or home equity loans, have shorter maturities, and were thus also intended to improve Fannie's maturity match between assets and liabilities.

On July 9, 1981, the HUD Secretary submitted an interim rule, effective August 3, 1981, redefining 'mortgage loan' to allow FNMA to request approval for a second mortgage purchase program (46 FR 39434). The interim rule found that the FNMA Charter Act was consistent with Fannie dealing in secondary mortgages, but that standing HUD regulations defining mortgage loans were a barrier, and needed modification to keep up with the evolving structure of the housing market. The interim rule was atypically accelerated, bypassing the customary initial notice of proposed rule making, subsequent comment period, and 30-day delay in taking effect, as a delay "*could cause unnecessary hardships to homebuyers and sellers who would benefit from the development of a secondary market in second mortgages, and to FNMA in forgoing profitable business transactions.*" The HUD Secretary later issued the interim rule for adoption without amendment on January 20, 1982, to take effect March 18 (47 FR 5410).

Even before final adoption of the interim rule, HUD Secretary Pierce sent a letter on September 10, 1981 approving Fannie's request to purchase second mortgages, citing the need for liquidity as a key motivation. But against Fannie's wishes, HUD only granted explicitly temporary approval, set to expire on March 31, 1983. HUD viewed the program appropriate given the importance of second mortgages for housing finance in the high interest rate environment. But upon an anticipated return to more normal interest rates, HUD regarded the role of second mortgages allowing homeowners to access their home equity for non-housing purposes as outside of Fannie's statutory purpose (HUD (1987), p. 171). In practice, however, this approval was extended several times and was later made permanent by the Housing

and Community Development Act of 1987 (Pub. L. 100-242).[40]

On November 19, 1981, Fannie officially announced that it would begin purchasing second mortgages beginning on November 30 (The American Banker (11/20/1981)). Fannie had recently estimated it could finance up to $5 billion worth of second mortgage loans a year (The Washington Post (8/8/1981)). Based on that projection, we assign a $5 billion annualized increase in Fannie's potential retained portfolio in the year starting September 1981, on the first public news of the program's approval by the HUD Secretary. In practice, second mortgage purchases totaled $176 million in 1981, $1.55 billion in 1982, $1.41 billion in 1983, and $0.94 billion in 1984. There is no direct evidence explaining the reversal in purchase volumes (HUD (1987) p. 71), but the decline in interest rates may have reduced demand for home equity loans, both from homeowners and Fannie.

Shares of Fannie rose 5.4% on July 10, 1981, 5.4 percentage points above the daily return on the S&P 500, when the HUD Secretary's interim rule redefined 'mortgage loan' to accommodate a second mortgage program. Upon approval of Fannie's request on September 10, shares jumped another 5.4%, closing 3.9 percentage points above the S&P 500. No alternative explanations for these excess stock returns could be identified through newspapers or other periodical finance sources.

FNMA's request was made in an environment of heightened interest rate risk and depressed earnings resulting from contractionary monetary policy, and the regulatory ruling was made in the midst of the recession lasting from July 1981 through November 1982. The interim HUD rule was explicitly made "*[i]n view of recent inflation in both costs and interest rates, and* ***given recent demand for second mortgage financing***" (46 FR 39435). That rule also explained that program approval was in part intended to increase Fannie's profitability and improve its balance sheet: "*[s]ince second mortgages usually bear a higher interest rate than first mortgages, dealing in them could prove attractive to FNMA as a method of increasing its portfolio yield on investments*" (46 FR 39435). The regulatory approval process was also unusually fast-tracked, further suggesting that immediate economic concerns were paramount. We thus classify the second mortgage program's approval and launch as cyclically motivated.

HUD Increases Debt-to-Capital Ratio to 30-to-1 (47 FR 58044) Announced: December 22, 1982

Policy Change	Agency	Impact	News	Effective	Classification
Increased Debt-to-Capital Ratio	FNMA	+$6.25 billion	Dec. 1982	Dec. 1982	Non-Cyclical

A rule proposed by HUD on May 17, 1982 (47 FR 21093) and published unamended on July 22 (47 FR 31866), to take effect September 10, newly permitted the HUD Secretary to increase FNMA's debt-to-capital ratio by expedited means of simply publishing a notice in the federal register, subject to an adequately justified request by Fannie. The rule had been proposed "*due to the [HUD] Secretary's determination that the interests of neither the public nor FNMA or the purposes of the Charter Act require resort to rulemaking procedures upon FNMA requests for increase in its maximum debt-to-capital ratio, and in order to permit the Secretary to respond to requests for increases in a manner more directly focused on FNMA's immediately foreseeable requirements than would be practicable in rulemaking proceedings*" (47 FR 21094). Fannie's debt-to-capital ratio had risen sharply in 1981, and the association had projected its debt-to-

[40] A June 27, 1983 letter extended authorization through September 30, 1984, and the Secondary Mortgage Market Enhancement Act of 1984 (Pub. L. 98-440) provided temporary statutory authorization, subject to further restrictions on the program (see below).

capital ratio would reach the standing 25-to-1 limit by the end of 1982.[41] FNMA had initially appealed to HUD to markedly increase its leverage limit to 35-to-1, "*based in major part upon the length of time inevitably consumed by rulemaking proceedings and a desire to avoid such repetitive proceedings*" (47 FR 21094), a borrowing cushion and implementation lag that HUD's new rule sought to obviate. Following the rule's implementation, Fannie modified its request to 30-to-1 and the HUD Secretary granted the modified request on December 22, 1982, effective immediately, thereby increasing Fannie's cap on secondary market facility borrowing from 25 to 30 times Fannie's capital, surpluses, reserves, and undistributed earnings (47 FR 58044).

Using 1981 year end regulatory capital of $2.5 billion (Department of the Treasury (1990), p. A-82), the HUD Secretary's approval would have implied maximum growth in mortgage assets of $12.5 billion ($2.5 × (30 - 25) = $12.5). Using the two-year rule, we assign a $6.25 billion annualized increase in the year starting December 1982, dated to the HUD Secretary's approval. Shares of Fannie rose 3.6% on December 22, 1982, when the HUD Secretary's rule modification was announced, closing 3.4 percentage points above the daily return on the S&P 500. No alternative explanation for this daily excess stock return could be identified through newspapers or other periodical finance sources. In practice, Fannie's debt-to-capital ratio rose from 23.2 in 1981 to 25.9 in 1982 and 27.3 in 1983, suggesting that the policy change indeed alleviated an otherwise binding regulatory constraint.[42]

The HUD Secretary's approval stressed that the maximum limit could affect FNMA's borrowing ability, or the "*attractiveness of its securities*," and that the increase was intended to keep Fannie advancing its public mission: "*As FNMA's actual debt-to-capital ratio approaches the limit set by the Secretary, indicating the possibility of an urgent need for an increase in the near future, uncertainty and consequent adverse market reaction could result. The Secretary believes, therefore, that it is both prudent and in the interest of* ***facilitating FNMA's continued ability to meet its statutory purposes*** *that the maximum ratio be maintained at a level which will permit* ***continuation of projected activities*** *without artificial hindrance for the proximately* ***foreseeable future***" (47 FR 58045). That published rule made no mention of cyclical concerns.

Both the request and HUD's eventual approval were, however, a response to Fannie's lingering balance sheet woes following the interest rate increases of 1979–1981 (HUD (1987), p. 95). After posting profits for its first 12 years of operations as a shareholder owned company, Fannie sustained losses of $190 million in 1981 and $105 million in 1982, stemming from a negative interest rate margin and amplified by Fannie's inability to diversify its portfolio away from mortgage assets. By year's end 1982, Fannie's net worth had fallen to $953 million, down 27% over two years, against an asset portfolio of $73.0 billion (Department of the Treasury (1990), p. A-11). Loosening Fannie's debt-to-capital ratio fit into a larger deregulatory effort to help both Fannie and the S&Ls recover, or 'grow their way back to health,' without a direct injection of public capital (Elliot (2013), p. 34). Fannie and its regulators turned their attention to increased fee income, diversification into ARMs and second mortgages (see above), and leveraged purchases of newly originated mortgages bearing higher interest rates (GAO (1985)).[43] Agency status in particular

[41] HUD noted that "*[i]ncreases in the [debt-to-capital] ratio during 1981 resulted more from contraction of stockholders' equity (caused by losses due to the negative spread on FNMA's portfolio) than from large increases in total borrowings*," and this dynamic was expected to continue in 1982 (47 FR 21094).

[42] Ratios are calculated at year's end based on balance sheet data reported by Treasury (Treasury (1990), pp. A-11, A-82).

[43] A number of legislative actions around this time underscore this deregulatory approach. The Mortgage Purchase Amendments of 1981 (Pub. L. 97-110, enacted December 26, 1981) amended the FNMA Charter Act and the FHLMC Act to remove the portfolio limitations on the GSEs' holdings of conventional mortgages over one year old, which were previously limited to 20% of investments. The Garn-St. Germain Depository Institutions Act of 1982 (Pub. L. 97-320, enacted October 15, 1982) largely served to loosen regulations on the S&Ls in an effort to improve their beleaguered balance sheets. To facilitate recapitalization, that Act

was seen as key to enabling Fannie to grow its way out of its financial difficulties; by increasing its debt-to-capital ratio, HUD allowed Fannie to finance new activity with debt instead of equity, permitting Fannie to increase borrowing at relatively favorable interest rates.

By 1982, increasing Fannie's profitability was also seen as a key intermediate step to fully privatizing the GSEs. The 1982 Report of the President's Commission on Housing concluded that Fannie and Freddie "*should play important roles in the development of markets for conventional mortgage passthrough securities. Federal policy should encourage the operation of FNMA and FHLMC as private corporations that retain limited benefits arising from Congressionally mandated commitments to housing... Eventually, both FNMA and FHLMC should become privately owned corporations with common responsibilities and advantages*" (The President's Commission on Housing (1982), pp. 167–168). The report concluded, however, that a transition period was first needed to address "*FNMA's profit problem*" putting it at a serious competitive disadvantage relative to the recently recapitalized FHLMC, which had significantly less interest rate risk exposure heading into the 1980 and 1981–1982 recessions. The administration wanted to help Fannie return to a "*positive profit position*" before phasing out "*FNMA's **Treasury backstop** borrowing authority and **agency status for its obligations***" (The President's Commission on Housing (1982), p. 168).

FNMA's request was made during the recession lasting from July 1981 through November 1982, and HUD's approval was granted shortly after the recession's end. But following monetary easing in the second half of 1981 and a drop in mortgage rates that fall, the housing market had begun recovering in late 1981, and interest rate risk had considerably abetted by late 1982 (Federal Reserve Bulletin February 1983). Final approval was also made more than seven months after the enabling rule for expedited policy changes was first proposed, in stark contrast to the rapid and explicitly fast-tracked regulatory approval process for Fannie's second mortgage program in 1981 (see above). The request and its approval seemed principally motivated by supporting Fannie's core statutory mission, repairing the cumulative balance sheet damage from 1981–1982, helping to advance the administration's longer-term objective of privatization, and avoiding the possibility of a public capital infusion. Moreover, the HUD Secretary's published rule approving the increase made no mention of cyclical concerns. Consequently, we classify the regulatory ruling as contemporaneously unrelated to the business or credit cycle.

Secondary Mortgage Market Enhancement Act of 1984 (Pub. L. 98-440) Enacted: October 3, 1984

The Act aimed to remove barriers to the issuance of private-label (i.e., non-GSE) MBS. The goal was to greatly expand the private sector's role in the growing market for MBS, which was dominated by regulation-favored Fannie and Freddie. The Act, for instance, newly allowed state-regulated pension funds and insurance companies to invest in private-label MBS and removed state and federal limitations on thrift and bank holdings of private-label MBS. The Act additionally introduced several amendments to the FNMA Charter Act, and modified several of HUD's regulatory powers over Fannie (HUD (1987)). The Act eliminated HUD's approval authority over Fannie's issuance of obligations, securities, participations or other instruments, effective October 1, 1985, but maintained HUD's approval authority over stock issues and debt obligations convertible into stock (HUD (1987)).[44] It also required HUD to approve or disallow additional programs within 45 days (60 if it required additional information from Fannie). The Act also statutorily

additionally permitted Fannie to issue preferred stock and made such stock freely transferable. And the Miscellaneous Revenue Act of 1982 (Pub. Law 97-362, enacted October 25, 1982) changed Fannie's net operating loss carryback and carryforward tax rules to improve its balance sheet.

[44]This short-lived approval authority had been established in HUD's 1978 regulatory rulings (see above).

extended FNMA's second mortgage purchase authority, but with a sunset of October 1, 1987. Subordinate mortgages were also limited to 50% of the conforming loan limit and the sum of all liens on a property had to cumulatively adhere to LTV ratios.[45] These changes were perceived as reducing regulatory delays and increasing Fannie's flexibility to respond to market conditions (GAO (1985), p. 104). Finally, the Act forced HUD to meets its requirement to submit an annual report on Fannie to Congress, which did not happen until 1987 (HUD (1987)).

HUD Decreases Debt-to-Capital Ratio to 25-to-1 Announced: April 21, 1987

Policy Change	Agency	Impact	News	Effective	Classification
Decreased Debt-to-Capital Ratio	FNMA	-$2.7 billion	Apr. 1987	Dec. 1987	Non-Cyclical

The Tax Reform Act of 1986 (Pub. L. 99-514, enacted October 22, 1986) introduced real estate mortgage investment conduits (REMICs), a new tax-preferred vehicle for structuring pass-through mortgage securities. Congress intended REMICs to provide another source of mortgage funds and expand the volume of mortgage credit. Because of their favorable tax treatment, market analysts predicted that REMICs would eventually become the dominant securitization instrument in secondary mortgage markets.

Fannie quickly announced its intentions to enter the REMIC market, which drew strong opposition from private mortgage lenders concerned that agency status gave FNMA an unfair competitive advantage that could be used to corner the market. HUD approval was not required for Fannie to structure REMICs backed by FHA/VA loans, but was required for REMICs backed by conventional mortgages. On November 17, 1986, HUD issued a complaint to Fannie for its failure to request approval for its proposed REMIC program, most of which would be backed by conventional mortgages. On December 17, Fannie issued its first REMICs, a $500 million sale backed with only FHA/VA mortgages.

On January 21, 1987, Fannie requested HUD's approval for REMICs backed by conventional mortgages (HUD (1987), pp. 175–176). HUD approved limited REMIC issuance backed by conventional mortgages of up to $15 billion on April 21, with authorization expiring June 30, 1988 (The American Banker (4/23/1987)).[46] HUD's ruling also included a requirement that Fannie Mae work with HUD to develop legislation for fully privatizing the association. The rule also immediately and unexpectedly lowered Fannie Mae's debt-to-capital-ratio from 30-to-1 to 25-to-1, which the HUD Secretary stated would be further reduced to 20-to-1 by December 31, 1988. The financial press interpreted the scheduled December reduction as a definitive constraint, with *The Bond Buyer* characterizing the HUD Secretary as having "*directed Fannie Mae to* ***boost its capital or shrink its balance sheet***" and elaborating that "*[t]he agency will be required to lower its debt-to capital ratio to 25-to-1 from 30-to-1 immediately and to reduce it to 20-to-1 by the end of 1988*" (The Bond Buyer (4/22/1987)).[47]

[45] Second mortgage limits were previously the same as first mortgage limits.

[46] HUD later eased several of these restrictions on Fannie's REMIC issues on April 20, 1988, allowing issuances of up to $20 billion of REMICs through September 30, 1989. Citing continued fears by thrifts and investment banks that Fannie would unfairly dominate the new REMIC market, HUD refused to give the secondary mortgage market operator the permanent, unlimited issuance authority its officials had sought. Fannie had issued about $4 billion of REMICs at the time, and its executives said the additional $16 billion in authority would be adequate for expected market demand (The Wall Street Journal (4/21/1988)). On October 13, 1988, HUD granted Fannie permanent and unlimited authority to issue REMICs. This unexpected regulatory reversal came as Congress was preparing to circumvent HUD and statutorily grant Fannie such authority. A Fannie official explained that "*[n]o federal agency wants to see its authority upstaged by Congress*" (The Wall Street Journal (10/14/1988)).

[47] *National Mortgage News* similarly characterized the regulatory moves as follows: "*the HUD official ordered an immediate*

In an April 21 letter to Fannie's chairman, the HUD Secretary explained that he was concerned Fannie would dominate the REMIC market and was acting in accordance with "*the desire of the administration to* ***move Fannie Mae toward privatization***" (The Wall Street Journal (4/22/1987)). The *Wall Street Journal* similarly framed HUD's policy announcements as intended to rein in Fannie, consistent with the administration's objective of privatization: "*[t]he* ***Reagan administration has long sought to shrink the federally sponsored corporations*** *that operate the secondary mortgage market and to leave as much of the business as possible for the private sector*" (The Wall Street Journal (4/22/1987)). Fannie CEO David Maxwell suggested that the capital reductions would require balance sheet adjustments, but the agency was willing to comply without a fight in exchange for securing REMIC market entry, stating "*FNMA readily accepts the reductions in debt-to-capital ratio. They are in line with our objective of lowering the company's leverage*" (National Mortgage News (4/27/1987)).

At year's end 1986, the regulatory ratio of unsecured debt-to-capital was 27.7 and regulatory capital was \$3.3 billion, the same level as in 1984 and 1985 (Treasury (1990), p. A-82). The decrease in the debt-to-capital ratio therefore suggests an eventual capital shortfall of \$1.3 billion (\$3.3 $\times\left(\frac{27.7}{20}-1\right)$ = \$1.3). Taking into account a \$375 million common stock issue in February 1987 and conservatively assuming that 75% of the remaining shortfall would be eliminated by increasing retained earnings or loan loss reserves suggests a reduction in Fannie's \$94.17 billion asset portfolio of roughly \$4.73 billion (\$94.17 $\times\left(\frac{3.3+0.375+0.75\times(1.3-0.375)}{3.3+1.3}-1\right)=$ -\$4.73) by the end of 1988. Applying a pro rata annualization, we assign a \$2.7 billion decrease in Fannie's portfolio capacity from the reduced debt-to-capital limit, dated to HUD's announcement in April 1987 (-\$4.73 $\times\frac{12}{21}$ = -\$2.7).[48]

The development of the REMIC market following the Tax Reform Act of 1986 and HUD's subsequent decision to allow REMIC issues by Fannie did not directly affect the supply of MBS, because the GSEs mostly re-securitized outstanding agency MBSs. Instead, the issuance of tax-preferred REMICs backed by Fannie MBS created greater overall demand for MBS (FNMA Information Statement March 30, 1992, p. 32). As such, we do not attribute any change in Fannie's purchases resulting from HUD's approval of conventional mortgage REMIC issues.

Both lowering Fannie's debt-to-capital ratio and the coincident, reluctant approval of limited conventional mortgage REMIC issues clearly reflected the Reagan administration's anti-GSE sentiments. Various other concurrent actions of the Reagan administration further underscored their efforts to pressure Fannie and Freddie toward privatization. For instance, the administration had started threatening legislation to permanently limit the GSEs mortgage purchase authority in early 1987. The administration's FY1988 Budget touted that "*[t]he administration is studying ways of privatizing [Fannie Mae and Freddie Mac]... The administration also plans to propose legislation that will limit permanently the maximum amount of a mortgage these Government-sponsored enterprises can purchase. This will limit their continued encroachment on the market served by private firms for as long as these entities enjoy the advantages conferred by their association with the Federal Government*" (The Budget for Fiscal Year 1988, p. 2-48). The Office of Management and Budget (OMB) also proposed that the GSEs' loan limits be frozen at "*the lesser of the new \$153,000 ceiling or the 75th percentile of home sales prices for each standard metropolitan statistical area*" (National

reduction in Fannie Mae's leverage to a debt/equity ratio of 25-to-1 and a further cut to 20-to-1 before the end of 1988" (National Mortgage News (4/27/1987)).

[48]Corroborating this scoring, *The American Banker* reported that "A Fannie Mae spokesman said the agency's current debt-to-capital-ratio there is 21.7-to-1" (The American Banker (4/23/1987)) following Fannie's common stock issue. Meeting the remaining debt-to-capital shortfall through portfolio reductions alone would require asset sales of \$7.38 billion between April and December 1987 ($94.167\times(\frac{21.7}{20}-1)=-7.38$), relative to assets at year's end 1986. Our estimated portfolio reduction of \$2.7 billion is consistent with this score, making further allowances for capital growth through retained earnings.

Mortgage News (1/12/1987)).[49] The administration had also proposed imposing user fees for programs run by Fannie and Freddie.

While the charters of Fannie and Freddie were consistent with issuing REMICs and the Tax Reform Act of 1986 was explicitly supportive of their issuance of REMICs, authority to enter the conventional market was by no means guaranteed, particularly given the Reagan administration's hostility (GAO (1988), pp. 40–41). Both the decision—including the accompanying decrease in the debt-to-capital ratio—and its timing appear somewhat unanticipated; on the news of REMIC authorization, Fannie's share price jumped 4.0% on April 21, 1987, for an excess return of 1.5 percentage points above the S&P 500. Newspaper accounts underscore that perceived profitability from Fannie's entry to the conventional REMIC market clearly exceeded downsides from a lower debt-to-capital ratio.

The conventional mortgage REMIC authorization and decrease in the debt-to-capital ratio were made when the economy was neither in recession nor experiencing a credit crunch. Because shrinking Fannie's leverage ratio was explicitly intended to rein in Fannie and advance the Reagan administration's objective of GSE privatization, we classify the policy change as politically motivated and unrelated to the business cycle.

Housing and Community Development Act of 1987 (Pub. L. 100-242) Enacted: February 5, 1988

The Act made permanent the authorization for Fannie and Freddie to purchase second mortgages on single-family properties. It also banned imposing any user fees for programs run by Fannie and Freddie, which the Reagan administration had recently proposed as a step towards full privatization (see above). The bill was enacted despite the administration's objections, and thwarted many of its recent efforts to reduce the federal role in housing markets, effectively killing momentum toward GSE privatization for well over a decade. A Treasury official explained that "*[w]e had too many other other problems and we didn't have enough political capital to take on Fannie and Freddie...*" (Hagerty (2012), p. 73). The administration's focus had pivoted to the collapsing S&L industry and fallout from the Latin American debt crisis. Beyond the GSEs' effective lobbying efforts on Capital Hill, Wall Street and the Mortgage Bankers Association were not keen on the GSEs and primary mortgage markets, respectively, loosing access to cheap funding (Hagerty (2012), pp. 72–73).

Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (Pub. L. 101-73)

Enacted: August 9, 1989

FIRREA primarily served as a major regulatory overhaul of the thrift industry and FHLBS in response to the S&L crisis. It established the Resolution Trust Corporation (RTC) to wind down insolvent thrifts, abolished the FSLIC and transferred S&L deposit insurance to the Federal Deposit Insurance Corporation (FDIC), and moved regulatory oversight of Freddie to HUD from the FHLBB, which was also dissolved. The Act additionally contained several provisions affecting Fannie, most notably by amending its statutory purpose to read as follows (revisions underlined):

> "*SEC. 301. The Congress hereby declares that the purposes of this title are to establish secondary market facilities for home mortgages, to provide that the operations thereof shall be financed by private capital to the maximum extent feasible, and to authorize such facilities to*
>
> "*(1)* ***provide stability*** *in the secondary market for home mortgages;*
>
> "*(2) respond appropriately to the private capital market;*

[49]The conforming loan limit freeze was never implemented, and the limit was subsequently raised to $168,700, a 10.2% increase, based on the adjustment rule introduced by the Housing and Community Development Act of 1980 (see above).

"(3) ***provide ongoing assistance*** *to the secondary market for home mortgages (including mortgages securing housing for* ***low- and moderate-income families*** *involving a* ***reasonable economic return****) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for home mortgage financing; and"*

"(4) manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the home mortgage market and minimum loss to the Federal Government."

Of particular note, FIRREA modified Fannie's statutory purpose from providing 'supplemental' assistance to the mortgage market with directions to providing 'stability' and 'ongoing assistance' to the secondary mortgage market. These charter revisions charged Fannie with maintaining a continuous presence in the secondary market (Department of the Treasury (1990), p. A-5). The revised statement of purpose also newly expanded Fannie's responsibility to support mortgages for low- and moderate-income families involving a 'reasonable' economic return. Prior language set by the 1954 FNMA Charter Act had more narrowly only promoted "*providing a degree of liquidity*," supporting special assistance programs for certain mortgages, and intervening "*as a means of retarding or stopping a decline in mortgage lending and home building activities which threatens materially the stability of a high level national economy*" (see online appendix).

Freddie Mac, which had previously operated without a statutory statement of purpose, was also rechartered with an identical statutory purpose. An accompanying House committee report elaborated upon the revised role Congress envisioned for Fannie and Freddie: "*A* ***primary purpose is to provide stability in the secondary market for home mortgages including mortgages securing housing for low and moderate income families****. This can be* ***accomplished through both portfolio purchasing and selling activities****, as well as through the securitization of home mortgages. The* ***continuous presence of the FHLMC and FNMA in the secondary market in bad as well as good economic times*** *provides assurances of a dependable and substantial funding source for home mortgages. FHLMC and FNMA are also required to respond appropriately to the private capital market. They must take a leading role in developing and marketing new and innovative finance and mortgage products and assure that their products are* ***responsive to the changing demands of the capital market****. Lastly, FHLMC and FMNA are responsible for providing ongoing support to the secondary mortgage market. They should increase the liquidity of mortgage investments by refining and improving their securitization and credit enhancement products, as well as developing new products that add to the liquidity of mortgage investments. They should improve the distribution of investment capital available for home mortgage financing by seeking to attract new, in addition to traditional, sources of mortgage investment*" (House Committee on Banking (1989), p. 2). Put differently, FIRREA did not so much as usher in mission creep for Fannie and Freddie, but rather mandated a considerably expanded role for the Enterprises in US mortgage finance.

FIRREA established tougher risk-based capital standards for thrifts, but not for Fannie or Freddie. The Act, however, had the effect of increasing thrifts' demand for agency MBS, since Fannie Mae and Freddie Mac securities received a lower risk weighting than whole loans, encouraging thrifts to swap mortgage holdings for agency MBS (HUD (1996), p. 57). Similarly, the Act increased the FHLBanks' demand for agency MBS, as the FHLBS came under pressure to meet the Act's new assessments on its earnings (Hoffman and Cassell (2010), pp. 55–57).[50]

In bailing out insured deposits at failed thrifts, Congress was forced to recognize that the perceived implicit government guarantee behind Fannie and Freddie also posed a considerable potential liability for taxpayers (Hagerty (2012), p. 77). But Congress punted such concerns a few years down the line with FIRREA, which simply mandated

[50]New assessments were levied on the FHLBS to fund the RTC's resolution of S&Ls and to affordable housing programs.

that Treasury conduct two annual studies analyzing the safety and soundness of the GSEs and granted GAO auditing authority over Fannie's mortgage transactions. Treasury's May 1990 report was particularly critical of Fannie, most notably of its credit stress test model and capital management practices, and spurred Fannie to strengthen its capital base in anticipation of legislation imposing stricter capital requirements (see the discussion of FHEFSSA below).

Cranston-Gonzalez National Affordable Housing Act of 1990 (Pub. L. 101-625) Enacted: November 28, 1990
The Act expressed the view of Congress that "*every American family be able to afford a decent home in a suitable environment*," and outlined seven objectives and related policies to advance that goal. The Act predominantly affected the FHA, HUD, and state-level Public Housing Agencies, as opposed to the GSEs. But it nonetheless marked a distinct shift in the stance and objectives of US federal housing policy with respect to mortgage finance for low- and moderate-income households that would soon be felt by Fannie and Freddie (see below). Signing the bill into law, President George H.W. Bush declared the Act "*an exciting bipartisan initiative to break down the walls separating low-income people from the American dream of opportunity and homeownership*" (Bush (1990)).

Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Pub. L. 102-550)
Enacted: October 28, 1992

Policy Change	Agency	Impact	News	Effective	Classification
Capital Requirements	FNMA	-$4.25 billion	Mar. 1990	Mar. 1990	Non-Cyclical
Affordable Housing Goals	FNMA	+$1.0 billion	July 1991	Jan. 1993	Non-Cyclical

Spurred on by general concerns about taxpayer-funded financial bailouts in the aftermath of the S&L crisis and Treasury's reports on the GSEs mandated by FIRREA, the capital adequacy of Fannie and Freddie became a focal point in the early 1990s. The Treasury Secretary's May 1990 report on the GSEs—the first of the two annual studies mandated by FIRREA investigating the risks posed by the GSEs—concluded that Fannie was undercapitalized, though it deliberately refrained from quantifying the degree of the shortfall (Treasury (1990)).[51] In particular, the report concluded that existing capital regulations—principally HUD's leverage ratio—were inadequate because of the exclusion of outstanding MBS, which were still held off balance sheet; in a counterfactual application of bank and thrift capital standards, the 1990 Treasury report found that Fannie did not come close to meeting capital requirements for banks and thrifts (Treasury (1990), p. A-73). The final April 1991 Treasury report and a May 1991 GAO report both called for tougher regulatory oversight of the housing GSEs (GAO (1991)).[52] With support from the White House, Congress

[51]The introduction of the May 1990 Treasury study was clear about the GSEs' special status: "*GSEs are in an unusual position. While other corporations are able to diversify their operations, GSEs are mandated to serve specific credit needs in a single business area, which makes them particularly vulnerable to economic downturns in these areas. Furthermore, the financial risks inherent in institutions of this size pose a greater systemic risk that cannot be completely hedged or eliminated... Some GSEs are among the most thinly capitalized of major US financial entities. Unlike other private sector corporations, GSEs are not subject to the usual market-imposed disciplines of increased cost or reduced access to capital as their balance sheet leverage increases beyond normally prudent levels. This is due to the market's perception of a unique and special relationship to the Federal Government. Market participants believe that, if a GSE experiences extreme financial difficulties, Congress would step in to ensure that debt holders and investors in GSE-guaranteed securities would experience no losses*" (Treasury (1990), pp. 7–8).

[52]On the other hand, an April 1991 report by CBO, ordered by the Omnibus Budget Reconciliation Act of 1990 (Pub. L. 101-508), concluded that Fannie and Freddie were "*reasonably well capitalized relative to, and pose a low level of risk of loss to the government from, their exposure to credit risk and interest rate risk*" (CBO (1991), p. xviii).

subsequently began drafting legislation establishing a new regulator as an independent arm of HUD, to be charged with developing new risk-based capital standards for the GSEs, among other roles.

On October 28, 1992, President George H.W. Bush signed into law the Housing and Community Development Act of 1992 (Pub. L. 102-550). Title XIII of the Act, named the Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA), established the Office of Federal Housing Enterprise Oversight within HUD as the new regulator of Fannie and Freddie. Lobbying efforts by Fannie to weaken the legislation were, however, widely considered successful. In anticipation of the Senate vote's on the Act, the *New York Times* commented that the proposed bill "*satisfies Fannie Mae and Freddie Mac but does not go nearly far enough to appease their critics, who contend that the two investor-owned companies enjoy an implicit Federal guarantee on loans that could someday cost taxpayers billions of dollars if defaults soared on mortgages... Drafted in response to fears of a future burden on taxpayers, the bill has been so watered down that Fannie Mae and Freddie Mac are in the slightly odd position of lobbying for a bill to impose regulations on them*" (The New York Times (6/30/1992)). Compared to the federal regulators of banks and thrifts, OFHEO was structurally weak and had few legal enforcement powers (FCIC (2011), p. 40, Hagerty (2012), pp. 91–93). The new regulator had little flexibility to adjust capital requirements and was dependent upon Congress for its annual budget request, rather than charging the entities it regulated for related costs, as was the case for all other regulators. The Act also rescinded the requirement of HUD approval for all issues of stock and securities convertible into stock, unless Fannie or Freddie failed to meet their capital standards.

One of the main provisions of the Act affecting Fannie was the introduction of new statutory capital requirements and the mandate that OFHEO develop risk-based capital standards based on stress tests. Addressing Treasury's concern about the Enterprises' unfunded off-balance sheet MBS liabilities, a statutory 'minimum capital' requirement was set at the greater of 2.5% of aggregate on-balance sheet assets or 0.45% of the unpaid principal balance (UPB) on outstanding MBS and equivalent off-balance sheet instruments. OFHEO was to determine what off-balance sheet assets had a similar credit risk as MBS and would thus be subject to the 0.45% minimum capital requirement. The minimum capital requirements were scheduled to take effect on April 28, 1994, preceded by an 18-month transition period with slightly less stringent minimum capital requirements of 2.25% and 0.4%, respectively, assessed upon on-balance sheet assets and off-balance sheet instruments. If capital fell below the minimum level, the OFHEO Director could limit increases in obligations and growth in assets. The Act also established a 'critical capital' requirement of 1.25% of aggregate on-balance sheet assets and 0.25% of the UPB on outstanding MBS and equivalent off-balance sheet instruments; if core capital fell below these thresholds, Fannie would be classified as critically undercapitalized and required to be placed in conservatorship. Finally, the Act mandated that OFHEO devise supplemental 'risk-based capital' standards that could be more stringent than the statutory requirements. The risk-based capital requirement was to be set at 130% of the amount necessary to withstand ten years of severe credit stress, with the extra 30% designed to protect against managerial and operational risk.[53]

Apart from the capital regulations, the 1992 Act also imposed new affordable housing requirements and expanded HUD's authority to set affordable housing goals. As mission regulator, the HUD Secretary was required to set three classes of housing goals for: 1) low- and moderate-income housing; 2) housing in central cities, rural areas, and other underserved areas; and 3) special affordable housing for low- and very low-income families.[54] During a two-year

[53]Final regulations regarding the risk-based capital standards were not issued until September 2001 (see below).

[54]The Act defined 'low income' as not in excess of 80% of median income in their local area and 'moderate income' as not in excess of median income.

transition period following its enactment, the Act set interim targets for each of the first two goals equal to 30% of the total number of units financed. The HUD Secretary was additionally required to establish a separate annual interim goal for the two-year transition period, and was authorized to set annual goals thereafter. The amounts under the first two goals were essentially the same as the 30/30 percentage goals that had been previously established for Fannie Mae under HUD's 1978 regulations (see above). Under the additional special affordable housing goal, Fannie was obliged to cumulatively purchase an additional $2 billion of mortgages financing housing for low- and very-low income families during the two-year transition period in 1993 and 1994. Annualizing, we assign a $1 billion portfolio increase to take effect in January 1993 as a result of affordable housing goals.

The Act also revised Fannie's statutory purpose to read as follows (revisions underlined):

"*SEC. 301. The Congress hereby declares that the purposes of this title are to establish secondary market facilities for residential mortgages, to provide that the operations thereof shall be financed by private capital to the maximum extent feasible, and to authorize such facilities to*

"*(1) provide stability in the secondary market for residential mortgages;*

"(2) respond appropriately to the private capital market;

"(3) provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing;"

"(4) promote access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and

"(5) manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the residential mortgage market and minimum loss to the Federal Government."

Freddie's statutory purpose saw identical amendments. Of particular note, FHEFSSA amended the statement of purpose for Fannie and Freddie to compel them to accept "*a reasonable economic return that may be less than the return earned on other activities*" in promoting affordable housing. This clause indicated that, in exchange for the special privileges afforded by their unique public charters, profit maximization might have to take a back seat to meeting affordable housing goals. The revision of 'home mortgages' to 'residential mortgages' was also indicative of a broader push to promote affordable homeownership via multifamily and condominium residences. The explicit emphasis added regarding supporting "*central cities, rural areas, and underserved areas*" was a clear nod to redirecting or sustaining mortgage credit toward historically underserved communities.

The Act additionally mandated a number of studies on the effect of fully privatizing the Enterprises, to be drafted by the Comptroller General of the United States, HUD, Treasury, and CBO.

It is quite clear that FIRREA and the ensuing release of Treasury's first report on the GSEs, published May 31, 1990, raised red flags with Fannie's management about tougher pending capital regulations and triggered preemptive action to increase its capitalization. In an effort to supersede Treasury's first report, Fannie hired former Federal Reserve Chairman Paul Volcker to assess its capitalization. Volcker's report, published March 6, 1990, stated that if Fannie followed its own proposed capital adequacy standards "*the Company would be in a position to maintain its solvency in the face of difficulties in the housing markets and an interest rate environment significantly mores adverse*

than any experienced in the post-World War II period" and risks of a public bailout "*would be remote*" (Hagerty (2012), p. 76–77).[55] To meet those standards, Fannie Mae concurrently announced that it would increase its capital stock to roughly \$6 billion by the end of 1991, up from \$3.7 billion in early 1990, a goal it repeatedly claimed was easily feasible (Barron's (5/21/1990)). Hagerty (2012) characterized Volcker's report as "*an audacious maneuver—perhaps [Fannie's] most brilliant lobbying coup ever*," as it had the effect easing pressure from Congress to increase FNMA's capitalization. Irrespectively, HUD announced in mid-March that it was ramping up oversight of Fannie and Freddie, appointing six HUD executives to a new oversight board focusing on the Enterprises' "*credit risk, interest rate risk, and capital adequacy*" (The American Banker (3/16/1990)). HUD Deputy Secretary Alfred DelliBovi said the housing agency would postpone a ruling on capital adequacy until the first round of Treasury and GAO reports were completed. A market analyst's report published for Bernstein Research on May 10, 1990 discussed and largely dismissed concerns about capital adequacy impeding earnings per share ahead of the GAO and Treasury reports (Gray (1990)). The research note projected that Fannie would accumulate \$2.7 billion in capital over the two years to December 1991—roughly in line with Fannie's pledged increase in capitalization accompanying the Volcker report—with \$2 billion from retained earnings net of dividends, \$500 million from the expiration of warrants in the spring of 1991, and another \$250 million from net reserve additions.

Fannie consistently surpassed its regulatory requirements after the minimum capital thresholds were enacted in 1992 (OFHEO (1998)). In a 1998 report, OFHEO concluded both that Fannie did not meet the 1992 capital requirements before mid-1990 and that Fannie began boosting capital ratios around the time of the May 1990 Treasury report in anticipation of legislative action (OFHEO (1998)). Assessing the impact on asset growth associated with the anticipation of the new requirements is inherently difficult. To arrive at an estimate, we assume perfect foresight about the eventual 1992 regulations. Using the transitional minimum capital requirements under the 1992 Act, OFHEO retroactively estimated a counterfactual capital deficiency in 1989 of 40% of the transitional minimum requirement (OFHEO (1998)). Based on year end 1989 core capital of \$3.4 billion, the implied shortfall would have been \$2.3 billion (\$3.4 $\times(\frac{1}{0.6}-1)$ = \$2.3) at the end of 1989—in line with Fannie's recapitalization plan. FNMA added \$500 million in common stock in 1991 through the exercise of outstanding warrants. Assuming 75% of the remaining shortfall was achieved through retained earnings and reserve additions by year end 1991, the residual implied reduction from its \$107 billion in mortgage holdings would be roughly \$8.5 billion (\$107 $\times(\frac{3.4+0.5+0.75\times(2.3-0.5)}{3.4+2.3}-1)$ = \$8.5). Using the two-year rule, we assign an annualized \$4.25 billion decrease in Fannie's retained portfolio starting in March 1990, based on expectations of new capital regulations, dated to the Volcker report and Fannie's recapitalization plan.

Identifying the proper timing for the news of expected capital regulations is difficult, but it is clear that Fannie was anticipating more stringent capital requirements and actively increasing its capitalization by March 1990 to May 1990. Fannie's share price rose 2.5% on the news of the Volcker report and preemptive capitalization plan on March 6, 1990, a gain of 1.2 percentage points above the S&P 500 for the day. Shares fell 0.7%, for a negative excess return of 1.8 percentage points below the S&P 500, on March 16, the day *The American Banker* reported that HUD was ramping up regulatory oversight of Fannie, particularly with respect to regulatory capital. There was less stock price movement surrounding the release of the Treasury report in late May. We identify March 1990 as the month that anticipated regulatory capital increases were priced in and began to be acted upon.

[55] Fannie's proposed capital standards were "*nonrecourse credit risk at a ratio of 135-to-1, recourse and collateralized credit risk at 250-to-1, interest-rate risk on on-balance-sheet mortgages at 50-to-1, and credit and interest-rate risk of other on-balance-sheet assets at 50-to-1*" (Barron's (5/21/1990)).

The special affordable housing goals enacted in October 1992 and made effective in January 1993 had also long been anticipated, having been backed by both Fannie and Freddie in July 1991 (National Mortgage News (9/23/1991)). The original version of the House-originated Government-Sponsored Enterprises Financial Safety and Soundness Act of 1991 (102 H.R. 2900), introduced July 16, 1991, would have required that Fannie and Freddie develop affordable housing programs (AHPs) funded at no less than 20% of the previous year's dividends payments, with no provision for a lower transitional requirement.[56] Starkly opposed to efforts to amend the bill to instead divert 10% of the Enterprises' annual net earnings to affordable housing—similar to FIRREA's assessment on the FHLBanks—the GSEs were instructed by the House Financial Services Committee to negotiate a mutually agreeable AHP framework with a number of housing advocacy groups. After weekend negotiations over July 27–28, 1991, Fannie and Freddie promised to purchase $3.5 billion in low-income single- and multifamily housing loans over 1992–1993 (Congressional Quarterly Weekly Report (8/3/1991)). On July 30, that $3.5 billion AHP commitment was incorporated in a leadership amendment during subcommittee markup (Dow Jones News Service (7/30/1991)). In response to the introduction and early evolution of the GSE oversight bill, Fannie's common shares fell 2.0% on July 16, 1991, for a negative excess return of 1.8 percentage points below the S&P 500 for the day, a skid that extended through the next day of trading. This movement reversed course around the subcommittee markup, with Fannie's shares rising 1.4% on July 30 and 3.8% on July 31, for excess returns of 0.4 percentage points and 3.5 percentage points, respectively.[57]

The final version of H.R. 2900, referred to the Senate Committee on Banking, Housing, and Urban Affairs on September 30, 1991, contained affordable housing goals of $2 billion and $1.5 billion, respectively, for Fannie and Freddie during a two-year transition period starting January 1, 1992, followed by a minimum of 1% of purchases in subsequent years. The bill also included the sense of Congress that the GSEs had "*an affirmative obligation to promote affordable housing for low- and moderate-income families, consistent with the corporation's overall mission*" and required both to develop their own affordable housing goals. When introduced on May 15, 1992, the Federal Housing Enterprises Regulatory Reform Act of 1992 (110 S. 2733) also included the $2 billion and $1.5 billion special affordable housing goals, with the transition period delayed to cover 1993–1994. The accompanying Senate committee report argued that the GSEs were not doing enough to improve homeownership for disadvantaged populations and noted that "*many parties contend that the standardizing and dominant influence of the GSEs has actually hurt the ability of lower-income and non-suburban borrowers to obtain mortgage loans.*" (Senate Committee on Banking, Housing and Urban Affairs (1992), pp. 28–29). Roughly coinciding with the Senate bill being reported on May 15, Fannie announced on May 13 a new 'House America' partnership with mortgage originator Countrywide Financial, promising to provide $1.25 billion worth of mortgage financing for low- and moderate-income families over the next 18 months (Reuters (5/14/1992)), in line with the enacted $2 billion transition period goal for 1993–1994. Using the two-year rule, we assign an impact of $1 billion to Fannie's affordable housing goals for 1993, but date the news of this policy change to the July 1991 negotiations, rendering the policy as anticipated well in advance of taking effect.

The Senate committee report accompanying FHEFFSA stated that the main motive was to "*improve the regulation of government sponsored enterprises,*" and identified FIRREA's mandated studies as the origin of the legislation, further underscoring that the Act was the result of a long and deliberative process (Senate Committee on Banking, Housing and Urban Affairs (1992), pp. 1, 6). The Senate report made no mention of economic stabilization or the

[56] According to *The Washington Post*, dividends paid in 1990 would have implied affordable housing funding of $34.6 million from Fannie and $19.4 million for Freddie (The Washington Post (7/27/1991)).

[57] We could not discern whether adoption of the leaders' amendment occurred before or after the closing bell on July 30, 1991.

current state of the economy as a motivation for either policy change. In his statement upon signing the Housing and Community Development Act of 1992, President Bush emphasized an array of policy changes entirely unrelated to the business cycle, touting that the bill "*establishes a sound regulatory structure for Government-sponsored enterprises (GSEs), combats money laundering, provides essential regulatory relief to financial institutions, authorizes several key Administration housing initiatives, and reduces the risk of lead-based paint poisoning*" (Bush (1992)). The only mention of improving economic performance was related to "*reducing the regulatory burden*" on the banking system.

The bill was enacted during the tail end of the credit crunch persisting from 1990Q1 through 1992Q4. But single-family housing starts and total residential investment rebounded throughout 1992, spurred by a combination of low interest rates, unseasonably warm weather early in the year, and tax reasons (Annual Report of the Federal Reserve Board 1992, pp. 21, 50–51, 75). Mortgage rates had fallen to their lowest levels since the 1970s. Multifamily housing starts continued to drop throughout the year, but the decline was largely attributed to an excess supply of vacant units and depressed rents. Given the forward-looking nature of the bill, its gradual development starting with FIRREA and oversight reports in 1990, political motives related to avoiding a future taxpayer bailout of the GSEs, and that the economy and housing markets had recovered well before the bill's enactment, we classify the Act as unrelated to the business or financial cycle.

HUD Interim Notices on Housing Goals Issued: October 13, 1993; November 30, 1994

On July 22, 1993, HUD proposed interim affordable housing goals and provided Fannie and Freddie with an opportunity to review and comment. Fannie stated that it would be 'hard-pressed' to meet the low-income lending targets, signaling that the company would take a confrontational stance against HUD's tough line on the lending targets and performance monitoring (The American Banker (8/12/1993)). On October 13, 1993, HUD issued interim housing goals for 1993–1994 that were only slightly revised in response to comments received. The interim goals were not mandatory, but carried a lot of weight in the politically charged environment in which the GSEs were operating (The American Banker (10/14/1993)). For Fannie, the goals with respect to low- and moderate-income housing remained at 30% of total purchases for 1993 and 1994. For housing located in underserved areas, the goals were set at 28% and 30% for 1993 and 1994, respectively. The special assistance goal remained $2 billion for the 1993–1994 period. For both years, only purchases exceeding the level of business activity supporting households targeted by this goal in 1992 would count toward meeting the $2 billion interim goal.[58] On a current policy basis, HUD's interim notices did not necessitate any change from the $2 billion statutory interim housing goal for increased mortgages purchases over 1993 and 1994, as required by FHEFSSA (see above).

On November 30, 1994, HUD temporarily extended the modified housing goals into 1995. The goals were to apply on a pro-rated basis until permanent goals were established later in the year (see below). The annualized goal for special assistance purchases for Fannie Mae was lowered to $4.6 billion in 1995, calculated as half the 1992 baseline plus $1 billion (59 FR 61504). The special assistance goal baseline was lowered out of recognition that the dollar volume of conventional mortgages originated in 1995 was projected to be substantially lower than that originated in 1992. The reduced goal for 1995 was therefore entirely due to changes in mortgage market conditions rather than policy objectives, and thus we do not consider it a significant policy event.

[58]Fannie Mae estimated that it purchased $7.2 billion of mortgages in 1992 that would have qualified toward the special assistance goal, had it applied. Fannie's 1993–1994 special assistance goal was then established as twice the 1992 baseline ($14.4 billion) plus the $2 billion interim goal, for a two-year goal of $16.4 billion (58 FR 53048).

National Homeownership Strategy Released: May 2, 1995

On November 5, 1994, President Clinton called for a national drive to increase the homeownership rate, which had started declining in 1980 and, despite increases in the preceding two years, remained well below its historical peak. He directed HUD to form a partnership with leaders in the housing industry, non-profits, and every level of government to develop a national homeownership strategy. In May 1995, HUD released a report, *The National Homeownership Strategy: Partners in the American Dream*, outlining a detailed plan to add as many as eight million new families to the homeownership rolls by 2000. This goal translated to targeting a national homeownership rate of 67.5%, relative to 64% in 1994. The strategy recommended a series of concerted actions to help middle- and low-income families, racial and ethnic minorities, families with children, and young adults overcome barriers to homeownership (HUD (1995)). Fannie and Freddie were among the national partners in developing and implementing this strategy, and the report approvingly noted some recent relaxations in the agencies' underwriting standards, as well as their efforts to develop automatic underwriting software starting in 1994. The Clinton administration had already been increasing its emphasis on combating discrimination in home mortgage lending, and the Enterprises were coming under more public relations pressure to increase purchases of mortgages for minorities and lower-income families. In particular, a Boston Fed study first circulated in 1992, later published in the *American Economic Review* (Munnell et al. (1996)), had recently documented evidence of systematic discrimination in mortgage lending, based on early data collected as a result of the Home Mortgage Disclosure Act (HMDA) of 1975 (Pub. L. 94-200, enacted December 31, 1975); the paper reverberated throughout the industry and with the GSEs.

HUD Final Rule on Housing Goals Issued: December 1, 1995

In November 1994, HUD temporarily extended the 1994 housing goals for Fannie Mae and Freddie Mac into 1995 (see above), but also drafted more stringent permanent housing goals for subsequent years, which were submitted to OMB for review (The American Banker (12/2/1994)). It was reported that the drafted rules would increase the required share of mortgage purchases meeting the low- and moderate-income goal from 30% to 44% by 1998. The new goals for 1996–1999 were formally issued on December 1, 1995. The low- and moderate-income goal was raised from 30% to 40% of the total number of dwelling units financed by mortgage purchases for 1996, and to 42% for 1997–1999. The underserved areas goal was lowered from 30% to 21% of the total number of units for 1996, and to 24% for 1997–1999. The special assistance goal was set at 12% of the total number of units for 1996, and at 14% for 1997–1999. The final rule also included additional subgoals for multifamily mortgages. HUD also announced it would establish annual goals for 2000 and beyond, but pending their issuance, the annual goals for subsequent years would be the same as those for 1997–1999 (60 FR 61846).

Fannie and Freddie had increased their holdings of mortgages for low-income borrowers and underserved areas over 1992–1995. HUD reported that it designed the final goals for the program's early years to be attainable under more adverse conditions than prevailed at the time, but noted that goals would likely become binding constraints as economic conditions changed (Treasury (1996), p. 54). Studies by HUD (1996) and Treasury (1996) concluded that Fannie's 1995 performance already exceeded all of the new goals that became effective in 1996. A 1998 GAO report later stated that "*[a]vailable evidence from HUD's final housing goal rule indicates that the HUD Secretary generally adopted a conservative approach to setting the final goals in December 1995 for the period 1996 through 1999. This conservative approach placed a high priority on maintaining the enterprises' financial soundness. For example, in 1994 and 1995, HUD and OFHEO conducted research which found that additional mortgage purchases required*

under the goals were modest and would not materially affect the enterprises' financial condition" (GAO (1998), p. 8). Based on this evidence, we conclude that the higher goals issued for 1996–1999 did not induce significant changes in Fannie's purchase volume or composition, and thus we do not consider the new housing goals a binding, significant policy change.

OFHEO Ruling on Off-Balance Sheet Assets Proposed: June 8, 1995

The Housing and Community Development Act of 1992 granted OFHEO moderate discretion in determining what off-balance sheet assets had a similar credit risk profile as MBS and would thus also be subject to the 0.45% minimum statutory capital ratio for off-balance sheet assets. OFHEO determined that interest rate and foreign exchange contracts posed a greater risk than MBS, meriting greater capital adequacy ratios. A rule proposed on June 8, 1995 would have required higher capital ratios of 3.0% of the credit equivalent amount of uncollateralized interest rate and foreign exchange rate contracts and 1.5% of the credit equivalent amount of collateralized contracts (60 FR 30201). OFHEO published a final rule setting those higher minimum capital requirements on July 8, 1996 (61 FR 35607). An OFHEO official stated that the ruling "*in no way implies any significant increase in their capital standards*" and *National Mortgage News* reported that "*it appears the two government-sponsored enterprises already are in compliance*" (National Mortgage News (7/15/1996)). Accordingly, we do not consider the rule a binding, significant policy change.

New HUD Regulations on Housing Goals Published: October 31, 2000

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals	FNMA	+$24.4 billion	July 1999	Jan. 2001	Non-Cyclical

Affordable housing goals came up for renewal in 1999, and HUD had the choice of leaving them unchanged, lowering them, or raising them. On July 29, 1999, HUD Secretary Andrew Cuomo announced a policy of large increases in the goals for 2000–2004, stating that such action would address the nation's housing needs, strengthen the economy, create jobs through home construction, and transform the lives of millions of families (HUD (1999)). The low- and moderate-income goals for Fannie and Freddie would have been increased from 42% to 48% in 2000 and 50% for 2001–2003, requiring the two GSEs to purchase an estimated $488.3 billion in additional affordable housing mortgages over the next decade. A proposed rule reflecting this policy was formally issued by HUD on March 2, 2000 (65 FR 12632).

The final rule, which largely resembled the proposed rule, was issued on October 31, 2000, to take effect January 1, 2001 (65 FR 65044). The low- and moderate-income goal was raised from 42% to 50%, the underserved areas goal was increased from 24% to 31%, and the special assistance goal was raised from 14% to 20% (all as in the proposed rule). The one-year transition period at a lower 48% target for the low- and moderate-income goal was, however, dropped. Absent from the proposed rule, the final rule additionally adopted recommendations from a June 2000 report by HUD and Treasury on predatory lending, with the rule adding more stringent rules and lending guidelines to disallow high-cost loans with predatory mortgage lending features from counting toward the AHP goals (HUD (2000)).

HUD's final policy announcement again stated that under the higher goals, Fannie Mae and Freddie Mac would buy an additional $488.3 billion in mortgages that would provide affordable housing for 7 million more low- and moderate-income families over the next decade. Those new mortgages and families were above and beyond the $1.9 trillion in mortgages for 21.1 million families that would have been purchased if HUD's standing goals had been

retained (HUD (1999)). Assigning half of the increased volume to Fannie and dividing equally over ten years yields additional purchases of $24.4 billion annually, as announced in July 1999, and to take effect January 1, 2001.

The purchase behavior of Fannie and Freddie was somewhat influenced by the affordable housing goals issued in 2000, although the Financial Crisis Inquiry Commission report noted that "*until HUD set new affordable housing goals for 2005, the GSEs only supplemented their routine purchases with a small volume of loans and non-GSE mortgage-backed securities needed to meet their requirements*" (FCIC (2011), p. 185). The elevated affordable housing goals became more difficult to meet during the refinance boom of the early 2000s, though it was later estimated that the net cost of meeting the goals was close to negligible through 2004 for both Fannie and Freddie; while "targeted affordable" loans purchased just to meet the AHP goals had higher expected default rates and charge offs, they also generated greater fee income (FCIC (2011), p. 186). Profitable expansion of multifamily portfolio purchases also helped meet the goals without hurting the GSEs' bottom line, particularly for Freddie Mac.

Financial markets appeared to react to new information revealed with both the proposed rule and final rule publication, gradually pricing in the higher affordable housing goals and suggesting that they had been anticipated well ahead of taking effect. News of the proposed rule leaked on July 28, 1999, after HUD announced a scheduled press conference with Secretary Cuomo and Fannie Mae Chairman Franklin Raines the following day.[59] Fannie's share price slid -1.0% on July 28, for a negative excess return of -1.2 percentage points below the S&P 500. When the proposed rule was detailed on March 2, 2000, Fannie's stock price fell 1.8%, for a negative excess return of -2.0 percentage points below the S&P 500. Fannie's share price fell 3.1% upon the announcement of the more aggressive final rule on October 31, 2000, for a negative excess return of 5.3 percentage points below the return on the S&P 500.

Shortly after HUD had published its proposed rules, Fannie announced a new 'The American Dream Commitment' on March 15, 2000, which was intended to fund $2 trillion in mortgages for 18 million households over the next decade in order to "*close homeownership gaps, strengthen communities and stabilize neighborhoods, and fight discrimination and unfair practices in the mortgage marketplace*" (FNMA Annual Report 2000, p. 41). Coinciding with the final rule's issuance, Fannie unveiled a new 'My Community Mortgage' pilot program on October 31 for low- and moderate-income borrowers, pledging to purchase $2 billion in loans with higher LTVs and lower down payments than usual as well as $500 million in mortgages for two- to four-family unit buildings. The rollout of both programs are again suggestive that the ruling had been long anticipated. Given financial markets' gradual pricing of the policy change and the overwhelming similarities between HUD's initial and final rules, we date the news of this policy change to the July 1999 unveiling of the proposed rule, rendering the policy anticipated well in advance of taking effect in January 2001.

While HUD Secretary Cuomo's July 1999 remarks noted that the rule would be good for the economy, the emphasis was clearly placed on expanding homeownership opportunities, particularly for minority communities: "*This action will transform the lives of millions of families across our country by giving them new opportunities to buy homes or move into apartments with rents they can afford... It will strengthen our economy and create jobs by stimulating more home construction, it will* ***help ease the terrible shortage of affordable housing plaguing far too many communities****, and it will help reduce the huge* ***homeownership gap*** *dividing whites from minorities and suburbs from cities*" (HUD (1999)). HUD's press release noted that the policy changes would "*disproportionately* ***benefit minorities and city***

[59] Dow Jones News Service reported: "*HUD plans to raise the level of commitment pledged by Fannie and Freddie to repurchasing home loans initiated by low- and moderate-income families to 48% next year from the current 42% level, according to people familiar with the matter. In addition, the new standards are set to jump to 50% in 2002, the sources said. The new level raises the bar significantly for Fannie and Freddie, though analysts said the higher commitment to such loans is not expected to have a detrimental impact on their operations*" (Dow Jones News Wire (7/28/1999)).

residents, helping to close the homeownership gap" and "*help ease the crisis-level* ***shortage of affordable housing*** *documented by a HUD report issued in March*" (HUD (1999)). Moreover, President Bill Clinton's remarks on HUD's action underscored that the increase in the goals was part of a long-standing policy initiative to increase homeownership and affordable housing, making no mention of cyclical or economic concerns.[60] HUD's final rule emphasized the GSEs' public responsibility for promoting homeownership for underserved populations and combating predatory lending but made no mention of cyclical concerns, noting instead that the "*mortgage market remained strong*" (65 FR 65051). Fannie Mae's Annual Reports for 1999 and 2000 similarly both stressed the association's positive role in expanding access to affordable housing and closing homeownership gaps in relation to the HUD goals, without mentioning any cyclical concerns about housing or mortgage markets. The Annual Report of the Federal Reserve for 1999 described a "*strong housing market*," noting that "*[n]early all the indicators of housing activity showed upbeat results for the year*," particularly new and existing home sales, both of which hit record highs (Annual Report of the Federal Reserve Board 1999, p. 8). The development of the rules had also been set in motion long ago by the Housing and Community Development Act of 1992 and precedent from previous HUD housing goals. Consequently, we classify the increase in affordable housing goals as non-cyclically motivated.

OFHEO Ruling on Capital Requirements Issued: September 13, 2001

OFHEO's development of risk-based capital standards for Fannie and Freddie, pursuant to FHEFSSA, was a slow process. On June 10, 1996, OFHEO published a first notice of proposed rule making outlining the risk-based capital 'stress test' being developed, identifying a proposed methodology for calculating the 'benchmark loss experience' to be used for determining the GSEs' likely credit losses (61 FR 29592). In September, OFHEO stated that Fannie Mae and Freddie Mac would probably be required to hold more capital than they currently had on hand, in order to withstand severe economic disturbances (National Mortgage News (9/23/1996)). In June 1997, Fannie boasted that, to the contrary, it would have a $1.5 billion surplus over required capital if OFHEO's proposed risk-based capital rule had been in effect (National Mortgage News (6/2/1997)).

But reports surfaced in March 1999 that Fannie was actively lobbying for 'substantive changes' in the proposed risk-based capital rule under review by OMB (The American Banker (3/2/1999)). The *Washington Post* reported that FNMA would have needed an additional $3.5 billion as of September 30, 1996 to meet the $16.55 billion cushion that would have been required under the proposed rules, and an additional $3.68 billion to meet the $17.73 billion that would have been required if the rules had been in effect on June 30, 1997 (The Washington Post (3/27/1999)). Despite these projected shortfalls, Fannie's shares jumped 6.5%, for a gain of 7.1 percentage points above the daily return on the S&P 500, when they were reported in conjunction with news of the final rule clearing OMB; markets reacted positively to OFHEO's statement that "*relatively inexpensive hedging strategies can dramatically reduce required capital*," while Fannie spokesman John Buckley touted success in Fannie's lobbying efforts, claiming "*the OMB review process was helpful in improving the rule*" (Dow Jones News Service (3/26/1999)). Following the fierce behind-the-scenes efforts by Fannie Mae officials to substantially alter the rule, OFHEO officially issued a second proposal fleshing out the rest

[60]President Clinton's prepared remarks were as follows: "*During the last six and a half years, my Administration has put tremendous emphasis on promoting homeowners and making housing more affordable for all Americans. Our housing programs and institutions have been a success. Today, the homeownership rate is at an all-time high, with more than 66 percent of all American families owning their homes. Today, we take another significant step. Raising the GSEs goals will help us generate increased momentum in addressing the nation's housing needs. I congratulate HUD Secretary Andrew Cuomo and the entire HUD team on their efforts in this important area*" (HUD (1999)).

of the stress test on April 13, 1999 (64 FR 18084).

On December 19, 2000, OFHEO announced that the risk-based capital rule had been completed and was again under review by OMB (The American Banker (12/19/2000)). The final rule was made public in July 2001 and published in the Federal Register on September 13, 2001 (66 FR 47730), but enforcement was delayed for one year, until September 13, 2002—a full decade after the Housing and Community Development Act of 1992 mandated the rule's development. The final risk-based capital standard subjected the GSEs to a severe national economic shock that was assumed to last for ten years, required the GSEs to maintain sufficient capital to withstand the shock, and required additional capital for management and operations risk. An evaluation of the stress test by Stiglitz, Orszag, and Orszag (2002) concluded that if Fannie Mae and Freddie Mac could meet the standard, their risk of insolvency was conservatively one in 500,000, though that test might fail to reflect a Great Depression-type scenario.

The risk-based capital requirements were consistently and considerably lower than the statutory minimum capital requirements that had already been imposed by FHEFSSA (Frame, Gerardi, and Willen (2015)), so we do not consider their imposition to be a binding, significant policy change. In practice, Fannie Mae and Freddie Mac both maintained capital well in excess of the regulatory risk-based capital standard until mid-2008 (Frame, Gerardi, and Willen (2015)).

SEC Disclosure Requirements Announced: July 12, 2002

In response to growing fears that the expansion of Fannie and Freddie posed a systemic risk to the economy, a bill was introduced in Congress to curtail the GSEs' privileges and tighten their regulatory oversight. The GSEs' private competitors had been particularly displeased with Fannie's budding expansion into the profitable subprime mortgage market. After HUD released a study in early 2000 reporting that Fannie Mae was discriminating against African Americans, the attack from business lobbies and Congress was joined by the Clinton administration. In a March 2000 statement before the House Financial Services Committee, a Treasury official stated that the Treasury Department supported removing Fannie's statutory lending backstop. Fannie took a confrontational approach while ramping up its formidable lobbying efforts.[61] In October 2000, Fannie announced a number of voluntary initiatives to appease their critics (see above), but anti-GSE sentiment continued to build, spurred on by the change in administrations in January 2001. The George W. Bush administration's FY2003 Budget, published in February 2002, contained an unusual amount of detail on the risks posed by Fannie and Freddie, citing concerns about the growth of their debt outstanding and market perceptions of a government guarantee (The Washington Post (2/6/2002)).

The Enron accounting scandals, which broke into national headlines in October 2001, started tipping the tide of public sentiment against the Enterprises. A bill was introduced in March 2002 that would have revoked the exemptions for Fannie and Freddie from SEC disclosure requirements (The New York Times (7/12/2002)). On April 1, 2002, Fannie and Freddie volunteered new and more in-depth disclosures about their use of derivatives and other risk management practices (The American Banker (4/2/2002)). But following charges of inadequate disclosures, OFHEO announced on April 9 that it was launching a comprehensive review of the companies' financial statements, with assistance from the SEC (The American Banker (4/9/2002)). In an effort to preempt legislative action and fiercer regulatory oversight, Fannie and Freddie 'voluntarily' agreed on July 12, 2002 to register their common stock with the SEC and comply with SEC disclosure requirements, including filing audited 10-K annual reports, 10-Q quarterly reports, and

[61] Testifying before Congress, Fannie's CEO combatively fired back that "*there is a school of thought that if you harass Fannie Mae, maybe they'll pull their punches... but anybody who knows me knows that would be a very large tactical error. Anyone who thinks that trying to intimidate us would be productive would be making a mistake*" (The American Banker (1/31/2001)).

8-Ks (Pitt (2002)). While the agreement was entered voluntarily, it could not be revoked without SEC approval.

New HUD Regulations on Housing Goals Issued: November 1, 2004

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals	FNMA	+$7.6 billion	Apr. 2004	Jan. 2005	Non-Cyclical

The GSEs' affordable housing goals again came up for renewal in 2004, the first time under the Bush administration. On April 5, 2004, HUD sent Congress proposed aggressive new rules that would have raised the low- and moderate-income goal from 50% in 2004 to 58% by 2008, the underserved goal from 31% to 40% in 2008, and the special assistance goal from 20% to 28% in 2008. In an effort to boost support for first-time homeowners, HUD additionally proposed a new quota that 45% of the single-family, owner-occupied mortgages purchased by Fannie and Freddie in 2005 had to qualify for the low- and moderate-income goal, to be raised to 47% by 2007. A HUD spokesperson said the proposed housing goals would not be made public until the 15-day Congressional review process was complete, but the targets had been reported by *The American Banker* on April 7 (The American Banker (4/7/2004)).

On November 1, 2004, HUD announced the final rule for housing goals for 2005–2008, which were slightly scaled back from those proposed in April (The Wall Street Journal (11/1/2004)). Unlike the previous goals, the new rules provided for increases in the goals for every year between 2005 and 2008.[62] The stated purpose of the elevated goals, according to HUD Secretary Jackson, was to "*help the GSEs achieve the standard that Congress intended–leading the mortgage finance industry in helping low- and moderate-income families afford decent housing*" (HUD (2004)).

HUD projected that to meet the new housing goals, Fannie and Freddie together would have to purchase an additional 400,000 goal-qualifying home loans during the four-year period 2005-2008, above what they would purchase without the increase in the housing goals (HUD (2004)). The average unpaid principal balance on goal-qualifying mortgages acquired by Fannie in 2003 was $152,000 (HUD (2008), Table 14a-2003). This estimate suggests a four-year cumulative additional purchase volume of $60.8 billion ($152,000 $\times$ 400,000 = $61 billion). We apportion half this amount to Fannie and divided equally over four years, for an annualized increase in purchases of $7.6 billion resulting from the increase in affordable housing goals for 2005–2008.

When the proposed goals were leaked in early April, Fannie's shares fell 1.3% on April 6, 2004, closing 1.1 percentage points below the S&P 500 for the day. Fannie's stock price rose 0.4% on November 1 and 1.5% on November 2 on leaked news of the final rule and its publication in the Federal Register, respectively, closing 0.4 percentage points and 1.4 percentage points above the S&P 500 those days. The final rule's one percentage point reduction across the three goals, relative to the proposed rule, was received positively, although the response to shares may have been muted by speculation about the imminent presidential election.[63] Given the similarity of the final rule to the proposed rule, and markets' initial pricing of the more aggressive rules, we date the news of the housing goals being made public to the April 2004 leak of the proposed rules.

[62]The low- and moderate-income goal was raised to 52% in 2005, 53% for 2006, 55% for 2007, and 56% for 2008 (American Banker (11/2/2004)). The underserved areas goal was raised to 37% in 2005, 38% for 2006 and 2007, and 39% for 2008. The special assistance goal was raised to 22% in 2005, 23% for 2006, 25% for 2007, and 27% for 2008 (69 FR 63581).

[63]The following day shares fell 3.7%, 4.9 percentage points below the return on the S&P 500, with the skid was attributed to President Bush winning reelection and Republicans gaining in the House and Senate on November 2nd—election outcomes perceived as increasing the odds of GSE reforms and further diminishing the Enterprises' political favor (Reuters (11/3/2004))

The new affordable housing goals appeared to have noticeably affected both Fannie's purchase behavior and bottom line. According to the Final Report of the Financial Crisis Inquiry Commission, HUD's affordable housing goals predominantly resulted in supplementing routine purchases with small purchases prior to 2004 (see above), but the goals for 2005 onward were considerably more difficult to meet and risked considerably greater carrying losses (FCIC (2011), pp. 186–187). Fannie expanded several initiatives purchasing targeted loans, including its My Community Mortgage program, and loans with lower underwriting standards. Targeted goals loan purchases totaled $18 billion in 2006, or 3.4% of FNMA's $524 billion in single-family purchases for the year; these targeted loan purchases were estimated at a holding opportunity cost of $390 million, nearly 10% of FNMA's annual income, and which would rise to roughly $1 billion as the market deteriorated in 2007.

HUD's aggressive affordable housing goal increases fell under a broader policy umbrella of the administration prioritizing expanding affordable home ownership, particularly for minorities. President Bush had emphasized using the GSEs to promote minority homeownership in a June 2002 speech: "*Too many American families, too many minorities do not own a home. There is a* ***home ownership gap*** *in America. The difference between Anglo America and African American and Hispanic home ownership is too big... Fannie May and Freddie Mac, as well as the federal home loan banks, will increase their commitment to* ***minority markets*** *by more than $440 billion... This means they will purchase more loans made by banks to African Americans, Hispanics and other minorities, which will encourage homeownership. Freddie Mac will launch 25 initiatives to eliminate homeownership barriers*" (Bush (2002)). In signing into law the tellingly titled American Dream Downpayment Act of 2003 (Pub. L. 108-186, enacted December 16, 2003), President Bush emphasized that "*[t]his administration will constantly strive to promote an* ***ownership society*** *in America. We want more people owning their own home. It is in our national interest that more people own their own home. After all, if you own your own home, you have a vital stake in the future of our country*" (Bush (2003)).

McLean (2015) also suggested that the Bush administration pushed HUD to increase the Enterprises' housing goals—a politically motivated move "*to make sure Fannie and Freddie understood who was the boss in the relationship*" (McLean (2015), p. 88)—as part of a coordinated effort to rein in the GSEs, precipitated by investigations into Fannie's books and ensuing accounting scandal (see below). The 2004 Annual Report of the Federal Reserve Board noted that, despite the end of the refinancing boom, "*the* ***housing market remained robust***" in 2004, with new and existing home sales reaching record highs and housing starts accelerating from already high levels in 2003; the report noted that demand was "*supported by nominal mortgage interest rates that have remained near their lowest levels since the late 1960s*" (Annual Report of the Federal Reserve Board 2004, pp. 7, 11–12). Given the lack of discernible cyclical concerns and the explicit long-term objective of promoting homeownership for low- and moderate-income households enshrined by FHEFSSA—and reaffirmed by HUD Secretary Alphonso Jackson's announcement of the new housing goals—we classify HUD's increased goals for 2005–2008 as motivated by social policy and, to a lesser extent, political concerns, and unrelated to credit cycle concerns amidst the US housing boom.

Accounting Scandal: Capital Shortfall and Surcharge Agreement: September 27, 2004

Policy Change	Agency	Impact	News	Effective	Classification
Capital Surcharge	FNMA	-$141.4 billion	Sep. 2004	Sep. 2004	Non-Cyclical

Allegations of accounting irregularities at Freddie Mac surfaced in 2002, and were subsequently confirmed in 2003 both

by the company and an OFHEO investigation (see listing below under FHLMC, Sec. 4.2). On July 30, 2003, Fannie's chairman reassured investors at a press conference that its books were clean. Having been embarrassed by Freddie's accounting scandal, OFHEO Director Armando Falcon hired Deloitte to undertake an investigation of Fannie's books, while OFHEO started gathering its own information on Fannie's accounting policies in preparation of a special report (McLean (2015), p. 85).[64] On March 31, 2004, OFHEO announced that the special examination could prompt a restatement of prior period earnings results. OFHEO's preliminary report, released on September 22, 2004, concluded that Fannie had misapplied generally accepted accounting principles (GAAP) regarding accounting of hedges and the amortization of purchase premiums, discounts on loans, securities, and other deferred charges. Among many irregularities, the report stated that Fannie inappropriately deferred $200 million of estimated amortization expenses incurred in 1998, allowing the company to report earnings per share at exactly the minimum level required to trigger the largest possible executive bonuses (OFHEO (2004a)). OFHEO's damning report also spurred the SEC to launch its own investigation into Fannie's accounting practices.

On September 27, 2004, OFHEO and Fannie Mae entered into an agreement requiring FNMA to achieve a capital surplus of 30% above its minimal capital requirement by June 30, 2005, in order to provide coverage for uncertainties regarding Fannie's controls and accounting practices (OFHEO (2004b)). The agreement additionally stipulated that until Fannie reached its targeted capital surplus it had to acquire OFHEO's prior written approval before raising its common stock dividends, calling any preferred stock, paying preferred stock dividends above stated contractual rates, or making any payment to repurchase, redeem, or retire any of its shares (OFHEO (2004b)).

The SEC announced on December 15, 2004 that it concurred with OFHEO's ruling on Fannie's accounting improprieties, meaning that FNMA would have to restate earnings, prompting Fannie's CEO Franklin Raines and CFO Timothy Howard to both step down. On December 21, 2004, OFHEO classified Fannie as 'severely undercapitalized' as of the third quarter of 2004, forcing Fannie to develop and submit a recapitalization plan to OFHEO; the regulator subsequently approved Fannie's capital restoration plan on February 17, 2005. The plan detailed how FNMA would achieve the 30% capital surplus over the minimum capital requirement, coined the 'OFHEO-directed capital requirement,' by a revised target date of September 30, 2005. Fannie Mae would be required to maintain this additional capital buffer until OFHEO's Director determined the requirement should be modified or expire.

OFHEO's report deliberately refrained from quantifying the degree of FNMA's capital shortfall, but the *Wall Street Journal* quickly projected that it implied regulatory capital had likely sunk $4.6 billion below the minimum requirement by the end of 2003 (The Wall Street Journal (9/27/2004)), and Fannie would face a much large recapitalization if required to increase its capital cushion by 30%, as had recently been required of Freddie in lieu of its own agreement with OFHEO (see listing under FHLMC, Sec. 4.2). The *Journal* also suggested that Fannie might have to reduce debt and sell some of its $989 billion asset portfolio, likely MBS holdings (The Wall Street Journal (9/27/2004)). On November 15, FNMA announced that being required to restate earnings in accordance with GAAP hedging rules would likely result in cumulative losses of $9 billion—the first concrete estimate of Fannie's balance sheet fallout from the accounting scandal (American Banker (11/16/2004)).[65] In determining Fannie's capital shortfall, OFHEO's December 21 announcement that Fannie was significantly undercapitalized similarly identified the necessary adjustment to core

[64] OFHEO had declared Freddie to be financially sound just months before their accounting scandal broke.

[65] According to *The American Banker*, Fannie explained that if it had to adjust hedging treatment dating back to the adoption of Financial Accounting Standard 133 in 2001 "*it would have to cumulatively recognize after-tax losses of roughly $13.5 billion on cash flow hedge relationships that have been deferred, and recognize gains of approximately $4.5 billion on fair value hedges*" (American Banker (11/16/2004)).

capital at $9.18 billion as of September 30, 2004 (OFHEO (2004c), p. 2).[66]

OFHEO and FNMA estimated that Fannie's downwardly revised core capital of $28.86 billion fell $2.98 billion under its minimum capital requirement of $31.84 billion as of September 30, 2004 (OFHEO (2004c), p. 2). Adjusting for the 30% required capital surplus implied a total capital shortfall of $12.5 billion as of September 2004, to be eliminated by September 30, 2005 (1.3 × ($31.84) - $28.86 = $12.5). Fannie Mae issued $5 billion in preferred stock at the end of December 2004, but this was not sufficient for OFHEO to change Fannie's capital classification at year's end 2004 (Mortgage Markets and the Enterprises in 2004, pp. 31–33). Even after the preferred stock issue, the *New York Times* reported that Fannie was estimated to need to raise an additional $7 billion over the next six months, some of which market analysts' expected to come from diverting some of its $2 billion to $3 billion in retained earnings from dividends; analysts also noted that FNMA "*could also sell part of its portfolio holdings to raise additional funds*" (The New York Times (12/30/2004)).

To 'accelerate' rebuilding its capital stock, FNMA announced on January 18, 2005 that it was halving its quarterly dividend from $0.52 per share to $0.26 per share in the first quarter of 2005. The dividend cut would reduce quarterly outlays by $252 million, or $1.0 billion on an annualized basis, as was reported at the time (The New York Times (1/19/2005)). Interim FNMA Chairman Stephen Ashley cast the move as "*a prudent and responsible action to take as the company moves expeditiously to increase its capital*" (The New York Times (1/19/2005)). OFHEO Director Falcon echoed that the dividend cut exemplified Fannie's "*commitment to taking necessary measures to increase the company's capital*," and noted that OFHEO would continue reviewing and authorizing each quarterly dividend payment (The Washington Post (1/19/2005)). The OFHEO-FNMA agreement required OFHEO's approval for any dividend increase relative to the prior quarter, suggesting that FNMA's dividend cut would not last merely one quarter. The dividend cut—Fannie's first since 1981—reportedly "*surprised many on Wall Street*," and was widely interpreted as being forced upon Fannie by OFHEO (The New York Times (1/19/2005)).[67] The financial press generally seemed to suggest that the dividend cut would not be reversed in the near-term, in part because of OFHEO's involvement and discretion over dividends (The Wall Street Journal (1/19/2005)). Ex post, FNMA's dividend would not be raised from $0.26 per share until December 2006 (FNMA 10-K Filing Report 2005, pp. 38, 158).[68]

The company also cancelled plans to build new corporate offices as another measure in Fannie's approved recapitalization effort. Complicating such cost-cutting efforts and the ability to recapitalize through retained earnings, however, were expenses accruing from its multiple ongoing investigations and overhauling its accounting and risk management practices. Fannie later estimated that costs incurred because of the scandal—covering additional lawyers, accountants, and fines—totaled $1.6 billion in 2005 and 2006 (Hagerty (2012), p. 140).

Beyond the preferred stock issue, dividend cut, cost-cutting measures, and increased retained earnings, the capital restoration plan also included "*significantly reducing the size of [FNMA's] investment portfolio, through both normal mortgage liquidations and selected sales of mortgage assets, which reduced the amount of assets in the consolidated balance sheets and thereby reduced [FNMA's] overall minimum capital requirements*" (FNMA 10-K Filing Report 2005, p 158). Market analysts had begun suggesting that Fannie would have to reduce its portfolio to meet the capital

[66] In line with OFHEO's projection, Fannie later estimated that the disallowed hedge and other accounting practices had reduced core capital by $9.0 billion as of September 30, 2004 (FNMA 10-K Filing Report 2006, p. 19).

[67] The *Wall Street Journal* had noted, however, that "*[s]ome analysts had warned that the company might have to cut its dividend*" (The Wall Street Journal (1/19/2005)).

[68] In practice, FNMA's dividends payments on common and preferred shares fell from $2.19 billion in 2004 to $1.38 billion in 2005 (FNMA 10-K Filing Report 2005, p. F-5).

surcharge almost immediately after it was announced and the gravity of FNMA's capital shortfall began to be realized. The *Washington Post* reported on September 28 that "*[s]everal analysts said Fannie Mae would probably choose to sell assets or reduce growth, in part because selling stock would require the firm to warn investors that its current financial statements are under review and may have to be restated*" (The Washington Post (9/28/2004)). *National Mortgage News* reported in January that Fannie was "*expected to grow more slowly*" as it recapitalized, and that its November loan purchases indeed suggested as much; Fannie's retained portfolio fell 1.7% from October, with purchases down 15% for the month and 30% from the previous year (National Mortgage News (1/17/2005)).

Quantifying the related implications for Fannie's balance sheet is inherently complicated given the sheer magnitude of Fannie's $12.5 billion capital shortfall, short turnaround for its closure, and varying market expectations; the extent to which both dividend cuts and portfolio reductions would be used to rebuild Fannie's capital was the subject of much disagreement. We assume perfect foresight as of the September 27, 2004 OFHEO-FNMA agreement of information revealed over the next four months, notably the magnitude of Fannie's shortfall, Fannie's preferred stock issue, and dividend cut. We also assume that the September 30, 2005 recapitalization deadline imposed by the OFHEO-directed capital requirement would be a binding constraint. The $5 billion preferred stock issuance reduced Fannie's shortfall to $7.5 billion, of which another $750 million would be filled in the year from September 2004 by dividend cuts, which we assume would be maintained until Fannie was recapitalized. Assuming other cost cutting measures and retained earnings could not have closed more than an additional $1 billion of the shortfall within a year would imply a residual portfolio reduction of up to 13.8% ($\frac{28.86+5+0.75+1}{1.3\times 31.84} - 1 = -13.8\%$) by September 30, 2005. Based on Fannie's $1.03 trillion in assets as of September 30, 2004 (FNMA 10-K Filing Report 2004, p. F-103), this estimate would imply a portfolio reduction of $141.4 billion within one year.[69] We assign this impact to Fannie's retained mortgage portfolio, with its news being made public in September 2004, when OFHEO released its preliminary report and entered the recapitalization agreement with Fannie.

Retrospectively, Fannie's 2005 10-K report emphasized that "*mortgage investment activities during 2005 were conducted within the context of our capital restoration plan... The size of our net mortgage portfolio declined 20% during 2005 to $736.5 billion as of December 31, 2005, due to a significant increase in portfolio sales, normal liquidations and fewer portfolio purchases*" (FNMA 10-K Filing Report 2005, p. 98). The Annual Report of the Federal Reserve Board similarly noted that "*Fannie Mae reduced its mortgage portfolio about 20%*," which "*occurred partly because of* ***regulatory concerns about the adequacy of its capitalization***" (Annual Report of the Federal Reserve Board 2005, p. 27). Fannie's total mortgage portfolio fell $179.3 billion, or 19.6%, from $917.2 billion at the close of 2004 to $737.9 billion at the end of 2005 (FNMA 10-K Filing Report 2006, p 121). An OFHEO report also noted that Fannie constrained its retained portfolio activities in 2005, both to comply with the capital restoration plan and because addressing its accounting problems limited Fannie's ability to respond to innovations in mortgage markets: "*Fannie Mae, which needed to shrink its assets in order to raise its capital ratios, reduced its retained portfolio purchases to $147 billion in 2005, down 44 percent from 2004*" (Mortgage Markets and the Enterprises in 2005, p. 19). That their lower purchase volume was primarily due to capital deficiencies was further evidenced by the fact that Freddie Mac, during the same year, saw retained portfolio purchases increase 42% to $320.6 billion (Mortgage Markets and the Enterprises in 2005, pp. 19–20).[70]

[69] We do not apply the two-year rule here because of the September 2005 deadline for Fannie's recapitalization.

[70] Similarly, Fannie's total purchase volume declined 8% to $558 billion in 2005, whereas Freddie's total purchase volume increased 7% to $393 billion (Mortgage Markets and the Enterprises in 2005, pp. 19–20).

In May 2005, OFHEO reported that Fannie was "***adequately capitalized***" as of March 31, meaning that its core capital exceeded the minimum capital requirement, and was on track to meet its September 30 deadline for the 30% capital surplus (The Wall Street Journal (5/20/2005)). Fannie's core capital had been increased to $35.0 billion, and its minimum capital requirement had decreased to $30.96 billion, down $880 million since September 30, as a result of portfolio reductions. On November 1, 2005, OFHEO announced that Fannie had indeed succeeded in achieving a 30% surplus over their minimum capital requirement by the September 30, 2005 deadline. Fannie's 2005 10-K cited portfolio reductions as instrumental: "*Lowering our net mortgage portfolio enabled us to achieve our capital objective*" (FNMA 10-K Filing Report 2005, p. 98).

The revelations of September 2004 had certainly not been priced into the market before that month, but that quickly changed as market analysts and the financial press caught on to the implications for Fannie's core capital and portfolio. The *Wall Street Journal* scooped the most damning of OFHEO's charges against Fannie on September 20, 2004, ahead of a meeting between OFHEO and Fannie executives, reporting "*evidence of a pattern of decisions by executives aimed at manipulating earnings to present a smoother performance*" (The Wall Street Journal (9/20/2004)). According to the *American Banker*, the *Journal's* scoop immediately started adversely affecting Fannie's share price (American Banker (9/21/2004)). Fannie released a summary of OFHEO's findings the morning of Wednesday, September 22, and OFHEO's report was made public after markets closed that afternoon. Fannie's common shares fell throughout the week, for a cumulative drop of 15.1%, with the largest declines of -6.6% and -5.0%, respectively, realized on Wednesday and Thursday (negative excess stock returns of 5.2 and 4.5 percentage points below the S&P 500, respectively). The market reaction to Fannie's classification as severely undercapitalized after markets closed on December 21, 2004 was considerably more muted, suggesting that the fallout from the capital surcharge had largely been priced in already. Shares jumped 2.2% on December 22, 2004, rising 1.9 percentage points above the S&P 500 index, seemingly driven by the concurrent news that Raines and Howard, Fannie's top executives, were being forced out—which investors hoped would staunch the regulatory crackdown.

The Annual Report of the Federal Reserve Board portrayed the housing market as quite healthy but not overheated in 2004 (see 'New HUD Regulations on Housing Goals' above), and we found no evidence that concerns about an overheating housing market contributed to OFHEO's regulatory actions. The backlash of capital surcharges and increased micromanagement of Fannie did, however, follow a trajectory of increased political opposition to the GSEs by the Bush administration and Federal Reserve, which were advocating shrinking both Fannie and Freddie by either legislative or regulatory means. As part of that coordinated effort, "*Greenspan, with support from the administration, began to testify about the risks the GSEs, particularly their huge portfolios of mortgages, posed to the financial system*" (McLean (2015), p. 86). Greenspan stated in his autobiography that an "*effort that began in 2003 to* ***curb the excesses at Fannie Mae and Freddie Mac***" succeeded in convincing President Bush to back the Fed "*through a two-year struggle that resulted in crucial reforms*" around the time of the accounting scandal (Greenspan (2007), p. 242).[71]

[71] According to Greenspan: "*The [George W. Bush] administration also took the Fed's advice on policies we thought were essential for the health of the financial markets. Most important was the effort that began in 2003 to curb excesses at Fannie Mae and Freddie Mac, the companies chartered by Congress to help underwrite home mortgages. They are granted a de facto subsidy by financial markets in the form of interest rates with very low credit-risk premiums on their debt—the markets presume Uncle Sam will bail them out in the event of default. Fannie and Freddie had been using this subsidy to pad their profits and grow. But their dealings had begun to distort and endanger the markets and seemed likely to become a bigger and bigger problem. The companies employed skillful lobbyists and had powerful advocates in Congress. President Bush had very little to gain politically by supporting a crackdown. Yet he backed the Fed through a two-year struggle that resulted in crucial reforms*" (Greenspan (2007), p. 242).

McLean (2015) described the accounting scandals and OFHEO's investigation into Fannie as a politically exploited turning point against the Enterprises' lobbying clout: "*what had been sporadic, fairly uncoordinated efforts to* ***rein in the GSEs*** *became a concerted push... The Bush administration made common ground with [OFHEO Director] Falcon and began ramping up a push for* ***stronger regulation of Fannie and Freddie***" (McLean (2015), pp. 85–86).[72] We thus classify the regulatory changes arising from FNMA's accounting scandal capital shortfalls as regulatory backlash to an unforeseen event and being politically motivated to some degree, but certainly unrelated to cyclical or financial concerns.[73]

OFHEO-SEC-Fannie Settlement: Portfolio Caps Agreement: May 23, 2006

Against the backdrop of the accounting scandals and OFHEO's continued work on its final report investigating Fannie Mae, the Bush administration and Federal Reserve ratcheted up pressure to limit GSE portfolio growth through legislative or regulatory action (American Banker (2/9/2005)). Testifying before Congress in February and April 2005, Federal Reserve Chairman Alan Greenspan warned that the current size of the mortgage portfolios held by Fannie Mae and Freddie Mac posed a substantial risk to the economy. Greenspan repeatedly proposed limiting each GSE's retained portfolios to somewhere between $100 billion and $200 billion (American Banker (2/18/2005), American Banker (4/7/2005)). In April 2005 testimony before the Senate Committee on Banking, Housing, and Urban Affairs, Treasury Secretary John Snow echoed the administration's view that some type of limit should be placed on the GSEs' retained mortgage portfolios (Department of the Treasury (2005)). In his prepared testimony for Congress, CBO Director Douglas Holtz-Eakin stated that "*[t]he large mortgage portfolios held by Fannie Mae and Freddie Mac are not necessary for the secondary mortgage market to operate efficiently; those enterprises' issuance of mortgage-backed securities (MBS) can accomplish that outcome*" (CBO (2005)). On May 19, the administration delivered a proposal for tighter regulation of Fannie and Freddie that included portfolio limits (The Washington Post (5/20/2005)). Fannie, however, countered that massive reductions in the Enterprises' portfolios could raise mortgage rates or disrupt the housing market in other ways; swayed by lobbying efforts, Congress did not pass GSE regulatory reform legislation. In April 2006, Federal Reserve Chairman Ben Bernanke countered that the Treasury Department should consider using its power to curb debt issuances of Fannie and Freddie if regulatory reform of the GSEs was not enacted by Congress (American Banker (4/28/2006)).

OFHEO's final investigative report into FNMA's accounting practices, released May 23, 2006, claimed that Fannie had cumulatively overstated earnings by $10.6 billion, and had improperly smoothed earnings over 1998–2004 in order to increase executive compensation.[74] Concurrent with the report's release, Fannie announced it had agreed to pay a $400 million fine and 'voluntarily' cap its retained portfolio as part of its settlement with OFHEO and the SEC. The accompanying OFHEO consent order retained the 30% capital surplus over Fannie's minimum capital requirement. OFHEO's report explained that FNMA's portfolio should be limited due to "*ongoing internal controls, risk management and accounting deficiencies and the need for the Enterprise to provide OFHEO an acceptable business plan for*

[72]Falcon, a Democrat, had been appointed by President Clinton and had previously been more supportive of the GSEs than the Greenspan Fed and parts of the administration. He quickly changed his tune, publicly deriding Fannie as "*a government-sponsored Enron*" (McLean (2015), p. 90).

[73]Ex post, the accounting scandal and regulatory backlash appear somewhat overblown and perhaps politically exploited to an even greeter degree. The eventual restatement of Fannie's results for 2002–2004 actually resulted in an increase of shareholder's equity of $4.1 billion, the SEC and Justice Departments both eventually dropped their investigations into Fannie's accounting practices, and a civil suit against ousted Fannie CEO Raines was dismissed (McLean (2015), pp. 90–91).

[74]In December 2006, Fannie Mae released restated financial results for 2002, 2003, and 2004.

managing its market activities" (OFHEO (2006a), p. 1). The consent order capped Fannie's mortgage portfolio assets at their value as of December 31, 2005, calculated as $727.75 billion according to GAAP standards; the portfolio cap was to be maintained until the OFHEO Director determined that modification or expiration of this limitation was merited based on improvements in Fannie's internal controls, accounting practices, and risk management (OFHEO (2006a), p. 6). The GAAP accounting calculation was not an apples-to-apples comparison with Fannie's typical measurement of it portfolio based on UPB; the UPB on Fannie's retained mortgage portfolio totaled $736.5 billion as of December 31, 2005 (FNMA 10-K Filing Report 2005, p. 14). And the UPB on Fannie's retained portfolio stood at a lower $721.1 billion as of March 31, 2006, slightly below the cap (Dow Jones Newswires (5/22/2006)). Fannie was given a window of 60 days to propose a plan for improving its business practices and risk management, and such a plan was allowed to propose a "*moderate per annum increase in the 'mortgage portfolio' assets for reasons including liquidity, housing goals, portfolio flexibility, and competitive considerations*" (OFHEO (2006a), p. 6).

Financial markets' reaction to the OFHEO consent order was muted, with Fannie's stock price jumping slightly as analysts interpreted the report as putting an end to the OFHEO inquiry, although the SEC and Justice Department investigations remained ongoing (The New York Times (5/24/2006)). Shares responded positively to details of the report leaked a day in advance on May 22, which accurately reported allegations of deliberate earnings manipulation and recommendations of limiting Fannie's growth and maintaining the 30% capital surcharge (Dow Jones Newswires (5/22/2006)). Fannie's shares rose 0.8% on May 22 and 0.9% on May 23, posting excess stock returns of 1.2 percentage points and 1.3 percentage points, respectively, above the daily performance of the S&P 500. But much of the fallout from Fannie's accounting scandals had already been priced in; the *New York Times* noted that Fannie's stock was down 28% since the disgraced departure of former CEO Raines in December 2004 (The New York Times (5/24/2006)).

This subdued response of Fannie's share price to OFHEO's final report and the portfolio limit's imposition was consistent with the recent trajectory of Fannie's retained portfolio. Fannie's portfolio had fallen from $913.2 billion in September 2004, when OFHEO released its preliminary report on Fannie's accounting practices and FNMA agreed to raise a surplus of 30% above its minimal capital requirement, to $717.3 billion in September 2005, Fannie's deadline for closing its related $12.5 billion capital capital shortfall (see above). While Freddie's portfolio continued to grow rapidly thereafter, Fannie's portfolio roughly flatlined. *Reuters* noted that Fannie's retained mortgage portfolio had grown at an annualized rate of only 0.5% to $721.1 billion in March, dwarfed by an annualized 17.2% growth rate for Freddie's portfolio, which reached $715.4 billion for the month (Reuters (5/23/2006)). Fannie's (not timely) 10-Q report filed on May 9, 2006 had explained that market conditions and credit spreads "*were not sufficient to present significant opportunities to add assets to our portfolio that met our return requirements*" (FNMA NT 10-Q Filing Report May 9, 2006, p. 11).[75] Fannie's first (not timely) 10-Q filing after entering the May 2006 consent agreement again cited market conditions as unfavorable for portfolio growth, but also explained that the agency had not requested an increase in its portfolio cap when submitting a business plan to OFHEO in July because of "*the need to remediate our identified control deficiencies*" (FNMA NT 10-Q Filing Report August 9, 2006, p. 12).[76] Supportive of that

[75]The report elaborated that "*[i]n the first quarter of 2006, competition for mortgage assets remained strong. Nominal and intermittent improvements in spreads were not sufficient to present significant opportunities to add assets to our portfolio that met our return requirements. Portfolio purchases during the first quarter of 2006 were $37.8 billion, compared with $54.9 billion in the fourth quarter of 2005.... The net impact of our liquidations, purchases and sales during the first quarter of 2006 was a less than one percent decline in our portfolio balances, to $721.5 billion at March 31, 2006 from $727.5 billion at December 31, 2005*" (FNMA NT 10-Q Filing Report May 9, 2006, p. 11).

[76]The report specifically explained its decision as follows: "*Based on current market conditions, including strong demand for*

view, the *New York Times* quoted an analyst as interpreting OFHEO's report to mean that "*Fannie's fixing of their problems is going to take a lot more money and a lot more time than anyone had anticipated*," which would continue to impede its business operations (The New York Times (5/24/2006)). In a similar vein, shortly before the cap had been announced Bank of American analysts noted that they "*[did] not expect to see [FNMA's] retained portfolio continue on the growth trajectory that began in the mid-1990s*" (National Mortgage News (5/22/2006)). Regardless of whether Fannie's portfolio growth was previously being restrained by unfavorable market conditions—perhaps hard to believe, given Freddie's steady portfolio growth in the same market—or preoccupation with fixing internal deficiencies and getting out from underneath greater regulatory scrutiny, there does not appear to be a counterfactual retained portfolio growth path that would suggest the portfolio limit was a binding, significant constraint on balance sheet activity.[77]

Reactions in the financial press also generally seemed to suggest that the May 2006 FNMA-OFHEO-SEC agreement was not a binding, significant regulatory constraint. The *American Banker* cited that "*several analysts said they believe OFHEO's cap on the portfolio would only last a few months*" (American Banker (5/24/2006)). *Dow Jones Newswires* quoted Thomas Stanton, a GSE expert, claiming that the "*portfolio limitation appears to be symbolic rather than an effective approach to limiting the company's growth*" (Dow Jones Capital Markets Report (5/23/2006)). The *Financial Times*, on the other hand, quoted a stock analyst projecting the portfolio limit implying a slight reduction in Fannie's holdings on impact, but not beyond: "*Robert Lacoursiere, Bank of America analyst, said that based on April estimates the cap would require Fannie to trim its holdings by about [$3 billion]. But he said the cap would probably not have a major impact on Fannie's performance or its competitive position*" (Financial Times (5/24/2006)). Financial markets' muted response to the regulatory action only seems to underscore that the OFHEO agreement was not seen as an impediment to Fannie's profitability or desired business operations.

Because Fannie's balance sheet had not been appreciably growing in the nine months before the cap's announcement, there was no indication that Fannie imminently planned to grow its balance sheet, Fannie's portfolio stood below the cap, and Fannie could request modest increases in the cap, we do not consider its imposition to have been a binding, significant constraint when announced, which we view as consistent with the reaction of analysts and financial markets.

OFHEO Relaxes Portfolio Caps Announced: September 19, 2007

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FNMA	+$17.15 billion	Sep. 2007	Sep. 2007	Cyclical

Turmoil erupted in the subprime mortgage market in July 2007, and foreclosure concerns spread regarding ARMs and subprime mortgages resetting at higher rates. In early August 2007, several members of Congress called for easing

mortgage assets by other investors, we believe that the rate of liquidations in our mortgage portfolio will provide ample ability for us to support liquidity in the secondary market while maintaining our net mortgage portfolio assets below the limit prescribed in the OFHEO consent order. Given our need to remediate our identified control deficiencies, the business plan we submitted to OFHEO in July 2006, which remains subject to OFHEO's approval, did not request an increase in the current limitation on our mortgage portfolio during 2006. If market conditions change significantly, the portfolio limit could constrain our ability to capitalize fully on economically attractive opportunities to add mortgage assets to our portfolio" (FNMA NT 10-Q Filing Report August 9, 2006, p. 12).

[77] To the contrary, Freddie had projected that its portfolio would continue to grow in line with the MBS market shortly before OFHEO unexpectedly forced it to adopt a portfolio limit in July 2006, which very much appeared to be a binding, significant constraint on its retained portfolio purchases. See listing under FHLMC, Sec. 4.2.

the Enterprises' portfolio restrictions as well as increasing conforming loan limits to address problems fomenting in mortgage markets (American Banker (8/8/2007)).[78] Fannie had requested on August 1 to have its portfolio limit raised by 10%, but OFHEO rejected the request on August 10, citing lingering concerns about the safety and soundness of the housing GSEs, which had still been unable to issue timely, audited financial statements years after accounting scandals exposed weaknesses in their accounting practices and internal controls (The Washington Post (8/11/2007), FNMA 10-K Filing Report 2006, p. 9). President Bush stated that the portfolio caps on Fannie and Freddie should not be lifted until Congress passed a bill reforming regulation of the GSEs, and Fed Chairman Bernanke asserted that lifting the caps was unnecessary because the GSEs could still support the mortgage market with purchases if they sold some of their MBS holdings to the private secondary market (The Washington Post (8/30/2007)).

After repeatedly urging OFHEO to lift the GSEs' portfolio caps, Senator Chuck Schumer threatened to introduce legislation circumventing the administration to increase the GSEs' portfolios (American Banker (8/17/2007)). In September, a bill was introduced to expand the reach of the GSEs by allowing their mortgage portfolios to grow by 10%, and by raising the conforming loan limit from $417,000 to $625,500. Schumer described the bill as an "***emergency measure***" and both provisions were to be temporary, sunsetting after one year (American Banker (9/11/2007)). The bill was intended to "*infuse $145 billion into the mortgage market*," with half of that amount earmarked for mortgages refinancing ARMs with rates resetting between June 2005 and December 2009.

On September 19, OFHEO announced changes to its methodology for calculating the mortgage portfolio cap in order to provide both Fannie and Freddie greater flexibility in managing market-based fluctuations in an increasingly volatile market. The regulator changed both GSEs' retained portfolio caps from being measured on a marked-to-market basis, as required by GAAP, to the Enterprises' preferred, less volatile UPB method. OFHEO also adjusted the measurement of retained portfolios from an end-of-quarter basis to a less volatile average of monthly closing values (OFHEO (2007)); the OFHEO press release explained that "*UPB often exceeds the GAAP value for the Enterprises. Due to market fluctuations over the first seven months of 2007, this difference has ranged from $0.1 billion to $9.4 billion*" (Market News International (2007)). The new agreement also loosened Fannie's flat portfolio limit to allow 2% annual growth—not to exceed 0.5% per quarter—from a baseline of $735 billion in UPB at the end of 2007Q3, revised from the previous $727.75 billion portfolio limit based on GAAP measurement. The quarterly growth limit of 0.5% was doubled to 1.0% for the fourth quarter of 2007, to provide even more near-term support for mortgage markets. The binding 2% annual limit would have allowed Fannie a portfolio of up to $749.7 billion in UPB by September 30, 2008. Fannie's Monthly Volume Surveys for August and September 2007 both suggested that their retained portfolio was roughly $4.8 billion as higher measured on a UPB basis rather than a GAAP basis (FNMA Monthly Volume Survey August 2007, p. 2, FNMA Monthly Volume Survey September 2007, p. 2). In scoring the policy change, we add this difference to the prior $727.75 billion portfolio limit based on GAAP as a baseline measured in UPB. Assuming the caps were binding constraints, we assign an annualized increase in Fannie's potential purchases of $17.2 billion in the year starting September 2007 ($\$735 \times 1.02 - (\$727.75 + \$4.8) = \$17.2$).

In line with this estimate, the portfolio limit modifications were intended to encourage each of the Enterprises to purchase and/or securitize up to $20 billion each in subprime loans over the next six months, and both GSEs had made commitments to do so (American Banker (9/20/2007)).[79] The OFHEO press release made it explicitly clear that the

[78] The House had passed a GSE reform bill in May that would have lifted the conforming loan limit 50% in high-cost areas, but the bill stalled in the Senate and its future seemed uncertain (American Banker (8/17/2007)).

[79] Given this short-run emphasis on purchasing $20 billion in subprime MBS, we do not use the two-year rule.

policy change was motivated by the subprime crisis and rising foreclosure rates: "*With the **ongoing concerns about the subprime mortgage market**, both Fannie Mae and Freddie Mac have announced commitments to purchase tens of billions of dollars of subprime mortgages over the next several years... These efforts should assist lenders in helping some subprime borrowers avoid foreclosure*" (OFHEO (2007)). While OFHEO motivated the action by the need to add liquidity to the subprime market, the response was viewed by many critics as too little, too late. Fannie's share price rose 2.3% on September 19, a gain 1.7 percentage points above that of the S&P 500 for the day. Fannie executives had still been lobbying for a substantially larger 10% increase in their portfolio limitation (The New York Times (9/20/2007)). Given policymakers' near-term focus on aiding the subprime mortgage market and addressing rising foreclosure rates, we classify the portfolio limit modifications as motivated by financial and credit cycle concerns.

Economic Stimulus Act of 2008 (Pub. L. 110-185) Enacted: February 13, 2008

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FNMA	+$41.57 billion	Feb. 2008	Apr. 2008	Cyclical

As the housing crisis worsened, several legislative efforts were floated in 2007 that would have increased the conforming loan limit in high-cost areas. OFHEO warned that such an increase would divert credit from less expensive housing and push the Enterprises deeper into some of the riskiest mortgage markets (The Washington Post (2/8/2008)). As house prices continued to fall, OFHEO announced on November 24, 2007 that conforming loan limits for 2008 would remain at the same levels as in 2006 and 2007 (American Banker (11/28/2007)). By early 2008, the deteriorating economic situation had rapidly become a higher congressional priority than strengthening oversight of the Enterprises. The Economic Stimulus Act of 2008 (ESA), enacted on February 13, 2008, allowed a temporary increase in conforming loan limits for first lien mortgage loans in high-cost areas—dubbed 'super-conforming' loans—originated between July 1, 2007 and December 31, 2008. Effective April 1, 2008, the limit for single-family homes was increased from $417,000 to the higher of that limit or 125% of the area median home price, but not to exceed $729,750 (175% of the previous limit). The increase did not prove fully effective until May 2008, in part because of issues regarding the pooling and trading of the new class of super-conforming mortgages (Vickery and Wright (2013), Fannie Mae MBSenger April 2008, p. 2).

We could not find a direct estimate of the impact of ESA's conforming loan limit change for 2008, so we splice together several estimated impacts. Important to our scoring, the super-conforming loan limit was subsequently reduced from the $729,750 maximum set by ESA to $625,500 for 2009, set in motion by the Housing and Economic Recovery Act of 2008 (HERA), detailed below. Assuming the super-conforming loan limit December 31, 2008 sunset would take effect, we assume the policy to be fully operational from April 2008 through December 2008. An OFHEO document later estimated that, under the high-cost area limits of up to $625,500, $42.3 billion worth of mortgages would have been additionally eligible for Enterprise purchase for the first half of 2007, or $84.6 billion on an annualized basis (OFHEO Mortgage Market Note 08-1, p. 9). Pro-rating this volume for April through December 2008, we assume the agencies could have purchased $63.45 billion worth of super-conforming loans of between $417,000 and $625,500 in 2008. According to CRS, Fannie and Freddie had securitized 83% of eligible conforming loans in 2006 (CRS (2008), p. 4), and we extend that share to assume that 83% of eligible super-conforming loans would have been purchased by Fannie and Freddie. The FHFA also subsequently reported that the Enterprises acquired approximately $30 billion in

mortgages in 2010 with loan balances between the $729,750 ESA limits and the lower $625,500 limit subsequently set by HERA, or roughly 1.77% of the $1.698 trillion total origination volume in 2010 (FHFA Mortgage Market Note 11-01, p. 4).[80] Applying that percentage to 2007 originations of about $2.3 trillion would imply additional purchases of $40.64 billion for all of 2008, or an annualized $30.48 billion for the portion of the year starting April 1, 2008 ($\$2,300 \times \frac{\$30}{\$1,698} \times \frac{9}{12} = \$30.48$). Combining the two scores suggests a total impact of $83.14 billion for 2008 (0.83 × $63.45 + $30.48 = $83.14). As these were all annualized figures applicable to a time-limited policy, we do not invoke the two-year rule, but allocate half this amount, or $41.57 billion, to Fannie for the year starting February 2008, while assigning the remaining half to Freddie Mac (see below).

On January 28, the House introduced a stimulus bill negotiated with the administration, which included the eventually enacted increase in the conforming loan limits, and the bill was passed in the House the next day. The companion bill introduced in the Senate, however, had no provision for hiking the loan limit. But on February 7, 2008, the Senate passed a version of the bill including the conforming loan limit increase, and the House made it clear that it intended to pass the Senate version. Shares of Fannie increased 3.4% on February 7, closing 2.6 percentage points above the S&P 500 for the day, whereas shares posted a smaller 2.0 percentage point excess return over the S&P 500 on the date of enactment.[81] We date the pertinent timing of the policy to the Senate's February 7 passage of the House version of the bill.

The preamble of the revealingly titled Economic Stimulus Act stated that its purpose was to "***provide economic stimulus*** *through recovery rebates to individuals, incentives for business investment, and an increase in conforming and FHA loan limits*." President George W. Bush's signing statement described the bill as "*a* ***booster shot for our economy****: a package that is robust,* ***temporary****, and puts money back into the hands of American workers and businesses. Congress passed a really good piece of legislation, and they did so in a* ***very expeditious manner****. The bill I'm signing today is large enough to have an impact, amounting to more than $152 billion this year, or about 1 percent of GDP*" (Bush (2008)). Given policymakers' explicit cyclical motivations and the short time horizon of both the bill's legislative history and policy focus, we classify the introduction of super-conforming loan limits as cyclically motivated.

OFHEO Reduces Capital Surcharge Announced: March 19, 2008

Policy Change	Agency	Impact	News	Effective	Classification
Removal of Portfolio Limit	FNMA	+$9.28 billion	Feb. 2008	Mar. 2008	Non-Cyclical
Reduced Capital Surcharge	FNMA	+$53.33 billion	Mar. 2008	Mar. 2008	Cyclical

On February 27, 2008, OFHEO announced that the caps on the Enterprises' portfolios were being removed effective March 1, 2008. Fannie and Freddie had begun filing timely financial reports again, for the first time since the accounting scandals, which purportedly motivated the change (The New York Times (2/28/2008)). OFHEO also noted substantial progress made by both GSEs in reforming and improving internal systems and controls. Citing recent losses and market conditions, however, OFHEO deliberately retained the 30% capital surcharge above the statutory minimum capital requirement, but noted that it would discuss phasing out the surcharge buffers as the Enterprises' consent orders

[80] The FHFA was created by HERA to replace OFHEO as the housing GSEs' regulator (see below).

[81] Even more pointedly, Freddie's stock price increased 6.6% on February 7, closing 5.8 percentage points above the S&P 500 for the day, whereas its shares were flat on the day of enactment, compared with a gain of 1.4% for the S&P 500.

approached being lifted. Regarding the decision not to remove the capital surcharges, OFHEO Director James Lockhart stated "*[w]e have to be very careful in this market not to do too much... This capital has served them extremely well over the last nine months*" (The New York Times (2/28/2008)).

To assess the impact of the removal of the portfolio limits, we rely on the January 23, 2008 Greenbook forecasts of 3.1% and 3.0% growth in mortgage debt for 2008 and 2009, respectively. Applying this growth rate to a retained portfolio of \$727.75 billion at year end 2007 suggests a projected increase for 2008 and 2009 of \$8 billion and \$15.7 billion, respectively, in mortgage assets in excess of the 2% growth permitted before the removal of the portfolio limits. Pro-rating growth between the two years, we assign a potential annualized increase in Fannie's retained portfolio of \$9.28 billion $\left(\$8.0 \times \frac{10}{12} + \$15.7 \times \frac{2}{12} = \$9.28\right)$, with news of the change being made public in February 2008. A fund manager, however, suggested that in the deteriorating mortgage market conditions the remaining capital surcharges were much more of an impediment to portfolio growth than the portfolio caps: "*Given the losses that the agencies are taking, the binding constraint to the growth of the portfolio is not the Ofheo caps but the regulatory capital*" (Financial Times (2/28/2008)).

The decision to remove the Enterprises' portfolio caps was announced "*just hours after Fannie Mae was able to successfully file its 2007 financial statements on time*" and Freddie was expected to report its 2007 statements later that day, also on time (The Wall Street Journal (2/28/2008)). Lifting the caps was framed by the *Financial Times* as giving "*a green light to expand their loan portfolios yesterday amid mounting evidence that the US housing slump is deepening*" (Financial Times (2/28/2008)), but we could find no direct evidence that the caps were tied to market conditions rather than the Enterprises' timely filings. Moreover, OFHEO was making good on a September 2007 commitment "*to give the Enterprises more flexibility to increase their portfolios, in line with the agreements, when they produced timely financial reports*" (OFHEO Annual Report 2008, p. 63). Consequently, we classify the removal of the portfolio caps in February as principally motivated by a standing regulatory commitment and not cyclically motivated.

The removal of the Enterprises' portfolio caps quickly escalated pressure from Congress, particularly Senator Schumer, to also immediately remove their capital surcharges. The financial crisis also escalated considerably immediately following OFHEO's removal of the portfolio limits. Rumors had surfaced in early March that Bear Stearns was in trouble, precipitating a market selloff; after a first failed attempt to provide a federal lifeline to the investment bank, the Fed arranged a fire sale takeover over by JP Morgan Chase over the weekend of March 16-17 (Johnson and Kwak (2010), pp. 158–159).[82] Along with announcing its approval of the financing arrangement for JP Morgan's acquisition on March 16, 2008, the Fed also announced two new policy moves to provide increased liquidity.[83]

On March 19, Fannie, Freddie, and OFHEO jointly announced an "*initiative to increase mortgage market liquidity*" (OFHEO (2008)). As part of the initiative, the capital surcharge was reduced from 30% to 20% of the minimal capital requirement, effective immediately. And as part of a deal, Fannie and Freddie promised to raise additional capital and buy more mortgage securities to calm financial markets. The plan effectively reduced Fannie's capital requirement from \$41.5 billion to \$38.3 billion, or a reduction of \$3.2 billion (The Washington Post (3/20/2008)). Made possible by the earlier removal of the portfolio caps, OFHEO estimated that the combined reduction of required capital of about \$5.9 billion would allow Fannie and Freddie to immediately add up to \$200 billion worth of MBS to their portfolios

[82] As an investment bank, Bear Stearns was, at the time, ineligible for direct loans from the Federal Reserve.

[83] These included a Primary Dealer Credit Facility to allow investment banks to borrow directly from the Fed for the first time, and a 25 basis point reduction in the primary credit rate (Federal Reserve Press Release March 16, 2008).

(OFHEO (2008)). OFHEO Director James Lockhart stressed that "*both companies have prudent cushions above the OFHEO-directed capital requirements and have increased their reserves. We believe they can play an even more positive role in* ***providing the stability and liquidity the markets need right now***" (OFHEO (2008)).

OFHEO's projected $200 billion impact on the Enterprises' holdings is consistent with the release of a combined $5.9 billion in capital leveraged at the 3% minimum capital requirement. For FNMA, the release of $3.2 billion in capital could thus expand their potential retained portfolio by up to $106.7 billion $\left(\frac{\$3.2}{0.03} = \$106.7\right)$. Using the two-year rule, we assign an annualized impact of $53.33 billion for FNMA's retained portfolio in the year starting March 2008 resulting from the capital surcharge reduction, its news having been made public earlier that month.

On the announcement of the cap's removal, shares of Fannie jumped in mid-day trading on February 27, initially gaining up to 17%; shares closed up 1.1% for the day, or 1.2 percentage points above the daily return on the S&P 500, as markets priced in both OFHEO's move and worse-than-expected fourth quarter losses also announced later that day (Dow Jones Newswires (2/27/2008)). Fannie's stock soared again on March 18, 2008, a day ahead of the announced surcharge relaxation, as OFHEO announced a press conference for the following day and the *Wall Street Journal* reported that the regulator was "*close to reducing—but not eliminating—an excess-capital requirement*" (The Wall Street Journal (3/18/2008)). Later in the day *Reuters* reported that "*a source familiar with the deal said the companies would be granted on the order of $200 billion in new mortgage-buying power, which amounts to a one-third reduction in their excess capital*" (Reuters (3/18/2008)). Shares rose 27.1% on March 18, gaining 22.8 percentage points more than the S&P 500, and another 8.8% on March 19, rising 11.3 percentage points above the daily return on the S&P 500.

OFHEO's press release regarding the capital surcharge reduction stressed that the move was "*expected to provide up to $200 billion of* ***immediate liquidity to the mortgage-backed securities market***" (OFHEO (2008)). The reduction of the capital surcharge from 30% to 20% of minimum capital requirement was specifically attributed to a mix of "*[reporting and control compliance] progress, the* ***public purpose*** *of the two companies, and* ***ongoing market conditions***." Given policymakers' unequivocally stated cyclical motivations and the short time horizon and narrow focus of the policy change, we classify the reduction of capital surcharges as cyclically motivated.

Provisional Fed Lending to Fannie and Freddie Announced: July 13, 2008

On July 13, 2008, the Federal Reserve Board of Governors authorized provisional lending to Fannie and Freddie if such lending proved necessary. The move was intended to supplement the Treasury Department's statutory lending authority and to "***promote the availability of home mortgage credit during a period of stews in financial markets***" (Annual Report of the Federal Reserve Board 2008, pp. 216–217). No lending was made under this authorization before the Enterprises were taken into government conservatorship on September 7, 2008 (see below).

OFHEO Reduces Capital Surcharge Announced: May 19, 2008

Policy Change	Agency	Impact	News	Effective	Classification
Reduced Capital Surcharge	FNMA	+$17.75 billion	May 2008	May 2008	Cyclical

On May 6, 2008, Fannie announced a plan to raise $6 billion in capital, including a common stock offer. Fannie also announced that it planned to cut its third quarter dividend from 35 cents to 25 cents. OFHEO concurrently informed

Fannie that it had lifted its May 2006 Consent Order, effective immediately, and would reduce the standing OFHEO-directed capital surplus requirement from 20% to 15% above Fannie's statutory minimum capital requirement when the capitalization plan was successful completed. OFHEO also informed Fannie that it intended to reduce the capital surcharge by an additional 5 percentage points by September 2008, provided Fannie could maintain excess capital well above OFHEO's regulatory requirement (Fannie Mae Offering Circular May 8, 2008).

Fannie CEO Daniel Mudd said the extra capital would be used to "*shore up [FNMA's] financial strength, 'pursue the best business opportunities we have seen' and* ***help the housing market recover***" (The Washington Post (5/7/2008)). Mudd added that Fannie was "*being asked to play a broader role in the future of US housing.*"

On May 19, 2008, OFHEO announced that Fannie's capital surcharge was being reduced from 20% to 15% above the statutory minimum capital requirement. Based on the statutory minimum capital requirement of $31.335 billion as of March 31, 2008, the 5 percentage point reduction in the capital surcharge would have freed up $1.57 billion in working capital, effective immediately. FHFA reported that Fannie's core capital had been $42.676 billion at the end of March (FHFA (2008a)). The *Washington Post* reported that "*Each dollar of additional capital it raises would enable it to increase its mortgage holdings by about $35 or expand its mortgage guarantees by about $193, according to OFHEO*" (The Washington Post (5/7/2008)). Fannie's retained mortgage portfolio totaled $726.7 billion and its guaranteed MBS held by third parties totaled $2,201.0 billion as of March 31, 2008 (FNMA 10-Q Filing Report, March 31, 2008, p. 3), suggesting that these volumes were supported by roughly $20.8 billion and $11.4 billion in capital, respectively. In keeping with this split, we assume 64.8% of the released capital would have been allocated to retained portfolio expansion as opposed to its MBS guarantee book, allowing an expansion of up to $35.6 billion from the 5 percentage point capital surcharge reduction $\left(\$1.57 \times \frac{\$20.8}{\$20.8+\$11.4} \times 35 = \$35.5\right)$. Using the two-year rule, we assign a potential annualized increase to Fannie's retained portfolio of $17.75 billion for the year starting May 2008.

OFHEO's announcement that the consent order was being lifted and portfolio surcharges eased appears to have been unanticipated; after falling more than 7% in morning trading on the news of a $2.2 billion first quarter loss, shares rebounded to gain 7.1% by the afternoon "*as investors focused their attention on the concession that Fannie won from the Office of Federal Housing Enterprise Oversight*" (Financial Times (5/7/2008)).

The *Financial Times* framed the regulatory change as Fannie having "*received permission from its regulator to expand its activities amidst the* ***global credit squeeze***" (Financial Times (5/7/2008)). And according to the *Financial Times*, "*Members of Congress [had] called for the surplus capital requirement to be lowered or eliminated so that Fannie and Freddie can buy more mortgages and* ***help stabilise the market***" (Financial Times (5/7/2008)). Given policymakers' stated objective, the similarities between OFHEO's March and May capital surcharge reductions, and the prevailing economic context, we also classify the May reduction as cyclically motivated.

Housing and Economic Recovery Act of 2008 (Pub. L. 110-289) Enacted: July 30, 2008

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FNMA	-$13.34 billion	July 2008	Jan. 2009	Cyclical

The omnibus housing bill overhauled regulatory oversight of the GSEs and the FHA mortgage insurance program, and enacted an array of other housing-related provisions.[84] With regard to the GSEs, the Act ordered the dissolution

[84] Other provisions included a first-time homebuyer credit, an expanded low-income-housing tax credit, and a HOPE for Home-

of OFHEO, FHFB, and HUD's GSE mission team and consolidation of their responsibilities into a new independent agency, the FHFA, tasked with regulating Fannie, Freddie, and the FHLBanks. The FHFA was granted more power to set capital requirements than OFHEO had been, and was newly authorized to take the GSEs into conservatorship or receivership if classified as 'critically undercapitalized,' with a large amount of discretion to determine whether such action was necessary. The Act also legislated that HUD's annual housing goals for 2008 would remain in effect for 2009 and thereafter, until the FHFA adjusted the goals.

Of considerable near-term consequence, HERA temporarily authorized the Treasury Department to make unlimited capital and debt investments in Fannie and Freddie, up until a December 31, 2009 sunset. Late in the bill's development, Treasury Secretary Hank Paulson had urged Congress to amend the bill to include "*largely unfettered authority to provide Fannie and Freddie with capital and potentially to take them over*" after the Enterprises had taken a beating in financial markets in early July (see below), and confidence was starting to erode regarding their ability to repay some $1.5 trillion in debt (CQ (2009b)). Congress acquiesced to Treasury's request of not limiting a potential capital injection into the Enterprises, but the Act increased the statutory debt ceiling from $9.815 trillion to $10.615 trillion, which *Congressional Quarterly* characterized as intended to provide enough room for Treasury to potentially intervene but also to "*set the limit for Treasury's purchase of stock*" (CQ (2009a)).

The Act set a new structure for conforming loan limits for the nation as a whole, as well as for high-cost areas, which would be annually indexed based on a home price index chosen and maintained by the FHFA director. The FNMA Charter Act was amended to set the national conforming loan limit at $417,000 and increase the loan limit for high-cost areas, defined as areas in which 115% of the median home price exceed the national limit, permanently setting super-conforming loan limits to the lesser of 115% of the area median home price or 150% of the conforming loan limit. The changes were effective December 31, 2008, when the ESA super-conforming loan limit was set to expire. The Act also established that the conforming loan limit would be changed, effective January 1 of each year, by the percentage change in the FHFA's preferred home price index over a preceding 12-month period; and if the home price index was falling, no downward adjustment would be made.

On November 7, 2008, FHFA announced that the single-family home conforming loan limit for most areas of the country would be kept at $417,000 for 2009, thus setting the super-conforming loan limit to 115% of the area median home price, but not to exceed $625,500 (FHFA (2008b)).[85] The lower super-conforming loan limit authorized as a result of HERA took effect on January 1, 2009, a decrease from the $729,750 maximum temporarily set by ESA for 2008. Adopting a current policy baseline from the ESA limits, we consider this a reduction in the conforming limit, further underscored by the House bill's intent to maintain ESA's higher super-conforming formula, which was clawed back in conference (see below).

As noted above, FHFA subsequently reported that the Enterprises acquired approximately $30 billion in mortgages in 2010 with loan balances between the $729,750 limit set by ESA and the lower limits subsequently set in accordance with HERA, or roughly 1.8% of the $1.698 trillion total origination volume in 2010 (FHFA Mortgage Market Note 11-01, p. 4). Applying that percentage to 2008 originations of about $1.51 trillion yields roughly $26.68 billion in originations between the two conforming loan limits ($\$1,510 \times \frac{\$30}{\$1,698} = \$26.68$). We do not invoke the two-year rule as these were all annualized figures, but we allocate half this potential reduction in purchases, or $13.34 billion, to

owners program enabling the FHA to insure up to $300 billion of newly refinanced mortgages through FY2011 (CQ (2009a)).

[85] Because home price indices were declining, it should have been no surprise that the statutory indexation floor set by HERA would bind instead of the FHFA announcing a higher conforming loan limit for 2009.

Fannie while assigning the other half to Freddie Mac (see below).

We do not consider news of the reduction from the ESA to HERA conforming loan limit to have been made public until the conference version of HERA was agreed upon in July 2008. Work on the bill had begun in February 2008, drawing in part from unmoved legislation from 2007. The Senate passed a first version of a mortgage relief bill on April 10, focused largely on housing tax provisions, but which would not have overhauled conforming loan limits and high-cost area provisions (CQ (2009b)). The House passed a more expansive version of the bill on May 10, which included, among other amendments, language increasing the GSEs' conforming loan limits. But the House-amended bill was almost entirely replaced with a substitute when the Senate took the measure up again, which was passed on July 7, and substantive differences remained between the two chambers' versions regarding conforming loan limits. The enacted conference bill, which was not finalized until July 22, included the Senate's preferred formula of the lesser of 115% of the median home price or $625,000, as opposed to House's preferred extension of the higher ESA formula (CQ (2009b)). According to *CQ Almanac*, the escalating "*crisis swept away the remaining differences over the mortgage provisions*" (CQ (2009b)).

The White House had been threatening to veto the bill because of objections to various mortgage lending and Community Development Block Grant provisions, but the veto threats were dropped in late July to secure the inclusion of the GSE bailout authority. Treasury Secretary Paulson "*recommended that Bush sign the bill because of the* ***urgency of providing a backstop to the mortgage finance*** *giants in order to* ***calm the jittery financial markets***" (CQ (2009b)). Paulson had also urged Congress to pass the bill before the looming August recess. Senators Chris Dodd and Richard Shelby, the Chairman and Ranking Member, respectively, of the Senate Committee on Banking, Housing, and Urban Affairs issued the following statement upon the bill's enactment: "*Today marks an important change in the federal government's response to the economic strain being felt by millions of Americans across the country and our financial markets. This is the most sweeping housing legislation since the Great Depression, representing a turning point in our country's* ***commitment to economic growth*** *and affordable housing, and* ***providing relief to homeowners*** *and communities across the country. I congratulate the President for signing it, and I am committed to ensuring that this law is implemented effectively and expeditiously, and that it fulfills its promise to* ***prevent foreclosures, restore home values, stabilize our housing markets, and create economic growth***" (Senate Committee on Banking, Housing and Urban Affairs (2008)). Given this context and the bill's extensive provisions aimed at increasing home purchases, boosting refinancing activity, mitigating foreclosures, and calming financial markets, we classify enactment of the tellingly titled Housing and Economic Recovery Act as cyclically motivated.

FHFA Conservatorship Announced: September 7, 2008

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FNMA	+$67.5 billion	Sep. 2008	Sep. 2008	Cyclical

As their losses and capital position worsened, concerns about a possible government takeover of Fannie and Freddie increased markedly in July 2008. The two Enterprises had posted cumulative losses exceeding $11 billion for operations spanning July 2007 through March 2008. The *Wall Street Journal* reported on July 10 that the Bush administration had been holding increasingly serious talks about contingency plans for the agencies faltering, prompting a heavy market selloff; shares of Fannie and Freddie fell 13% and 24%, respectively, to both close at their lowest values since 1992

(The Wall Street Journal (7/10/2008)). Treasury Secretary Hank Paulson's attempts to assuage investors' fears that common shareholders would be wiped out if either company were taken into receivership—notably "*suggesting that no government takeover of Fannie and Freddie was imminent*"—backfired, and shares of Fannie and Freddie closed the week down roughly 30% and 45%, respectively (The New York Times (7/12/2008)). Concerns about a bailout and wild swings in the GSEs' share prices spilled over into one of the most volatile days of trading since the collapse of Bear Stearns in March. On July 14, the Federal Reserve announced that it would grant Fannie and Freddie access to its discount window, while the Treasury announced its intention to seek legislation expanding the GSEs' statutory credit lines with the Treasury Department. Treasury's request for GSE bailout authority was quickly amended onto HERA, enacted July 30, which authorized unlimited purchases of the Enterprises' securities through 2009 (see above).

In early September, reports started to leak that an imminent rescue deal was expected to involve placing Fannie and Freddie in conservatorship of the FHFA (The Wall Street Journal (9/6/2008), The New York Times (9/6/2008)). On September 7, one week before Lehman's failure, the Treasury and FHFA announced that Fannie and Freddie were being placed in government conservatorship; the Enterprises had collectively posted losses exceeding $14 billion in the preceding four quarters. In conjunction with the conservatorship arrangement, Treasury announced it was providing two facilities to support the Enterprises.[86] A Government Sponsored Enterprise Credit Facility was made available to provide liquidity through short-term loans collateralized by agency MBS, as needed, until December 31, 2009. And a Senior Preferred Stock Purchase Agreement (SPSPA) was entered with each Enterprise to ensure they would have positive net worth for a considerable time. Under its SPSPA, Treasury agreed to provide Fannie with up to $100 billion in capital in exchange for senior preferred stock and warrants representing an 79.9% ownership stake; 80% ownership would have triggered a budgetary requirement to carry the Enterprises' obligations on the federal government's balance sheet, which the administration was keen to avoid. The Treasury Department received an initial $1 billion in senior preferred stock from each Enterprise, which carried a mandatory 10% annual dividend to be paid quarterly. If the FHFA determined that either Enterprise's liabilities exceeded its assets, as measured by GAAP, the Treasury would provide capital making up the difference and an equal amount would be added to the Treasury's senior preferred stock holdings, again carrying a 10% dividend rate. The SPSPA contracts were indefinite in duration, and could only be amended or removed by mutual agreement (FHFA (2008c)).

As part of the SPSPA, Fannie's retained mortgage and MBS portfolio was capped at $850 billion as of December 31, 2009, with this limit to be subsequently reduced by 10% each year until reaching $250 billion in 2021 (FHFA (2008c)). Prior to being taken into conservatorship, Fannie's total retained portfolio was approximately $760 billion as of August 30, 2008, and the conservatorship portfolio cap was deliberately set considerably higher. Within two weeks of entering conservatorship, "*Fannie and Freddie were instructed to ramp up their mortgage bond purchases as the financial crisis deepened and credit activity came to near standstill*" and the financial press began reporting in October that federal regulators were ordering each Enterprise to purchase at least $20 billion in mortgage securities each month, of "*mostly subprime, Alt-A and non-performing prime mortgage securities*" (MarketWatch (10/11/2008)). The Treasury Department's language also strongly suggested that the GSEs' were being compelled to increase their mortgage holdings before their portfolio limits began to ratchet down. In a press statement, Treasury Secretary Paulson explained "*the primary mission of these enterprises now will be to* ***proactively work to increase the availability of mortgage finance***," elaborating that in order "*to* ***promote stability in the secondary mortgage market*** *and lower the cost of funding,* ***the GSEs will modestly increase their MBS portfolios through the end of 2009****. Then, to address*

[86]Treasury also initiated a temporary agency MBS purchase program (see listing under US Treasury Department, Sec. 4.5).

systemic risk, in 2010 their portfolios will begin to be gradually reduced at the rate of 10 percent per year, largely through natural run off, eventually stabilizing at a lower, less risky size" (Department of the Treasury (2008a)).[87] The *Washington Post* cited anonymous government officials explaining that the GSEs would "*expand their lending programs to make mortgages available to more borrowers*," with a source elaborating that "*[t]he companies were starting to contract, and that was not very useful... They were having trouble fulfilling this mission*" (The Washington Post (9/9/2008)). We thus considerer the FHFA conservatorship agreement to be a binding political constraint forcing a balance sheet expansion.

In his September 7 statement announcing and detailing the move to conservatorship, FHFA Director Lockhart explained that "*the Enterprises will be allowed to grow their guarantee MBS books without limits and continue to "**purchase replacement securities for their portfolios, about $20 billion per month without capital constraints***" (FHFA (2008d)). The FHFA subsequently announced on October 10 that the capital classifications of Fannie Mae and Freddie Mac were being suspended and none of the standing regulatory capital requirements would be in effect during conservatorship (FHFA (2008a)). Paulson had acknowledged that "*[d]uring this ongoing housing correction, the GSE portfolios have been constrained, both by their own capital situation and by regulatory efforts to address systemic risk,*" but explained that "*the **GSEs are expected to moderately increase the size of their portfolios over the next 15 months through prudent mortgage purchases***" (Department of the Treasury (2008a)). The easing of regulatory efforts to address systemic risk were clearly intended to enable retained portfolio growth. We do not consider the release of working capital from eliminating the remaining capital surcharge to be a binding constraint, as it would have allowed a greater balance sheet expansion than permitted by the portfolio cap, which we view as the only constraint.[88]

Given the volatile mortgage market conditions and heightened political risk surrounding agency debt and equity, we do not attempt to estimate the counterfactual evolution of the Enterprises' mortgage portfolios in the absence of the SPSPA agreements and simply measure the impact relative to the portfolio outstanding on August 30, 2008. On that date, Fannie's total retained portfolio was approximately $760 billion, implying a maximum increase of $90 billion enabled by the SPSPA by the end of 2009, or an annualized $67.5 billion increase over the next year $\left(\$90 \times \frac{12}{16} = \$67.5\right)$.[89]

While speculation about the Enterprises being taken into conservatorship had been growing since July, we found no evidence that a compelled portfolio expansion and/or elimination of capital constraints had been anticipated before September 2008, our determination of the news of the conservatorship policy details being made public. Shares had already fallen 88.8% in the year to September 5, 2008, but conservatorship clearly had not been fully priced into Fannie's shares, and the announcement wiped out nearly all remaining stockholder equity. When markets reopened on Monday, September 8, shares of Fannie collapsed 89.6%, to 73 cents, from previously closing at $7.04 per share. Hereafter we largely cease reporting information about Fannie's share price, as its movements became highly volatile and generally uninformative after hitting penny stock status.

In a statement, President Bush emphasized that "*[p]utting these companies on sound financial footing and reforming their business practices is **critical to the health of our financial system and to making further progress with the***

[87] FNMA stated an "*intention to hold the majority of our mortgage assets to maturity to realize the contractual cash flows*" (FNMA 10-K Filing Report 2008, p. 43), further suggesting that post-conservatorship purchases would expand its balance sheet.

[88] Based on the statutory minimum capital requirement of $32.63 billion as of June 30, 2008, the elimination of the remaining 15% capital surcharge would have freed up $4.89 billion in working capital, effective immediately (FHFA (2008a)).

[89] We do not invoke the two-year rule because of the political pressure to immediately ramp up purchases by $20 billion a month and the scheduled tightening of portfolio caps after 2009.

housing correction that today is weighing heavily on our economy. *Allowing the companies to fail or further deteriorate would damage our home mortgage market and could weaken other credit markets that are unrelated directly to housing. Americans should be confident that the actions taken today will strengthen our ability to weather the housing correction and are critical to* ***returning the economy to stronger sustained growth***" (Bush (2008)). Less than one month later, the Emergency Economic Stabilization Act of 2008 (Pub. L. 110-343, enacted October 3, 2008) authorized a $700 billion Troubled Asset Relief Program (TARP) fund to be used by the Treasury Department to further bolster the US financial system. Given the prevailing economic contact and the justifications of Secretary Paulson and President Bush, we classify taking Fannie and Freddie into conservatorship as clearly cyclically motivated.

American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) Enacted: February 17, 2009

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FNMA	+$13.34 billion	Feb. 2009	Feb. 2009	Cyclical

Shortly after the FHFA announced the super-conforming loan limit was being reduced for 2009 pursuant to HERA, Congress intervened to statutorily restore ESA's higher super-conforming loan limit. On February 17, 2009, the American Recovery and Reinvestment Act of 2009 (ARRA) re-established the $729,750 maximum super-conforming loan limit for mortgages originated during calendar year 2009, which had lapsed at the end of 2008 (see above). Often referred to simply as the 'Recovery Act,' ARRA was a package of deficit financed tax cuts, transfers to state and local governments, increased unemployment benefits and safety net spending, and infrastructure investment; it was the largest fiscal stimulus bill enacted to combat the Great Recession, estimated at the time to cost $787 billion by the CBO.[90]

The sunset of the higher super-conforming loan limit reestablished by ARRA was extended twice. The Department of Interior, Environment, and Related Agencies Appropriations Act of 2010 (Pub. L. 111-88, enacted October 30, 2009) extended the $729,750 maximum super-conforming loan limit for mortgages originated through the end of calendar year 2010. The Treasury Secretary and HUD Secretary had both been calling on Congress to renew the elevated super-conforming loan limit as part of a broader initiative to support the housing market, including a temporary extension of the first-time homebuyer tax credit (American Banker (10/30/2009)). Industry trade groups had also been lobbying, rather successfully, for an extension well ahead of its expiration, citing that uncertainty about its extension was making it harder to originate loans with balances above $625,500 (National Mortgage News (11/2/2009)). The Continuing Appropriations Act of 2011 (Pub. L. 111-242, enacted September 30, 2010) again extended the $729,750 maximum limit for mortgages originated through the end of FY2011 (September 30, 2011), after which the temporary statutory limits expired and the lower permanent limits under HERA would again become binding.

We again estimate that the difference between the ESA and HERA super-conforming loan limits for 2009 would have amounted to roughly $26.7 billion in annualized originations being purchased by the Enterprises (see HERA above), and allocate half this potential increase in retained portfolio purchases to Fannie. The bill was introduced in the House in late January, considered in the Senate in early February, and passed and enacted within three weeks of being introduced. The enacted bill more closely resembled the Senate-passed bill, which faced a much tougher

[90] ARRA's price tag was subsequently revised to $840 billion (CBO (2015)).

legislative hurdle of requiring three Republican votes to clear a filibuster, and we date the news of the conforming loan limit increase to the Senate's passage of the bill on February 10 (CQ (2010)). We consider the two subsequent extensions to reflect a continuation of current policy in the aftermath of the Great Recession, assigning no impact.

The preamble of ARRA stated that its purpose was "*[m]aking supplemental appropriations for job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization*." Upon signing the bill into law, President Barack Obama offered the following characterization of the stimulus package and the economic context motivating it: "*The Act provides a* ***direct fiscal boost to help lift our Nation from the greatest economic crisis in our lifetimes and lay the foundation for further growth****. This recovery plan will help to* ***save or create as many as three to four million jobs*** *by the end of 2010, the vast majority of them in the private sector... The situation we face could not be more serious. We have inherited an* ***economic crisis as deep and as dire as any since the Great Depression***" (Obama (2009)). We classify ARRA's increase in the super-conforming loan limit as clearly cyclically motivated.

Homeowner Affordability and Stability Plan Announced: February 18, 2009

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FNMA	+$50.0 billion	Feb. 2009	May 2009	Cyclical

On February 18, 2009, President Obama announced the Homeowner Affordability and Stability Plan, a set of new initiatives and $75 billion in funding to support the housing and mortgage markets.[91] The first two prongs of the housing initiative were mortgage refinancing programs, one assisting refinancing by non-delinquent homeowners with conforming loans owned or guaranteed by Fannie and Freddie (the Home Affordable Refinance Program, or HARP) and another helping homeowners with documented hardship via write-down modifications to their existing mortgages (the Home Affordable Modification Program). The third and final prong was to "*support low mortgage rates by strengthening confidence in Fannie Mae and Freddie Mac*" (Department of the Treasury (2009a)), and the Treasury's press release noted that purchases under their agency MBS program would continue in conjunction with the Homeowner Affordability and Stability Plan (see listing under US Treasury Department, Sec. 4.5). The HARP program was intended to help 4- to- 5 million homeowners refinance mortgages guaranteed by Fannie or Freddie, in part by removing the restriction that the Enterprises could not refinance mortgages valued at more than 80% of a home's worth, thus granting underwater homeowners access to credit for refinancing (Obama (2009)). The loan modification program was to be financed with up to $50 billion in TARP funds and $25 billion from the Enterprises.

As part of the plan, Fannie's mortgage portfolio cap was revised upward to allow a maximum retained portfolio of $900 billion as of December 31, 2009, up from the $850 billion cap set by the initial FHFA conservatorship agreement. The new agreement, however, maintained the wind-down requirement of 10% annual reductions to the retained portfolio cap until it reached $250 billion, just from a higher starting point. These modifications were formally established in an amendment of the SPSPA agreement on May 6, 2009. Based on Fannie's current mortgage portfolio, the revision also delayed requiring Fannie reduce its portfolio in 2010, increasing that limit by $45 billion relative to the first SPSPA.[92] We measure the impact of the SPSPA amendment as the difference in portfolio limits and mandated

[91] The Homeowner Affordability and Stability Plan would also come to be known as the Making Home Affordable plan.

[92] On December 31, 2008, the total retained portfolio was approximately $792 billion, implying a maximum increase of $108

reductions before and after the amendment, assigning an annualized increase in Fannie's potential portfolio of $50 billion, with the news of Fannie's increased purchase capacity being made public in February 2009.

In conjunction with the rollout of the Homeowner Affordability and Stability Plan, the Treasury Department also announced that it was amending the SPSPAs to increase the Treasury's maximum funding limit for each Enterprise from $100 billion to $200 billion (Department of the Treasury (2009a)). Neither Fannie nor Freddie were close to having exhausted the initial $100 billion, having collectively drawn about $66 billion to date, but the move was intended to bolster confidence in the Enterprises. The increased funding commitments were intended to help the Enterprises "*carry out ambitious efforts to ensure mortgage affordability for responsible homeowners, and provide forward-looking confidence in the mortgage market*" (Department of the Treasury (2009b)). The May amendments to the SPSPA also increased the Enterprises' maximum permissible level of indebtedness from 110% of its debt outstanding as of June 30, 2008, as stipulated in the first agreement, to 120% of the prevailing retained portfolio limit (FHFA (2009a)).

Market analysts characterized the administration as exploiting control over the Enterprises in order to address the foreclosure crisis, and in a manner that would probably worsen their losses—hence the increased Treasury commitments and continued purchase of agency securities to assuage investors (Dow Jones Newswires (2/18/2009)). For their part, Fannie promised to work with the administration, the FHFA, and industry partners.

The stated purpose of the increased lines of funding and the elevated retained portfolio caps was "*to ensure the **strength and security of the mortgage market**, to help maintain mortgage affordability, and to help keep interest rates low*" (Department of the Treasury (2009b)). President Obama's remarks about the program emphasized that the government was taking "*major steps to **keep mortgage rates low***" and that the plan would "*help us **end this crisis***" (Obama (2009)). We classify the Homeowner Affordability and Stability Plan and the increased retained portfolio limit as cyclically motivated.

Enterprise Transition Affordable Housing Goals for 2009 Issued: August 10, 2009

After reviewing market conditions, FHFA concluded that meeting the affordable housing goals for 2009 would not be feasible unless they were adjusted. Revised goals issued on August 10, 2009 lowered the low- and moderate-income goal from 56% to 43% in 2009; the underserved areas goal from 39% to 32%; and the special assistance goal from 27% to 14%. The reason given by FHFA was that market conditions, such as stricter underwriting standards, increased standards of private mortgage insurers, and the elevated rate of unemployment, would result in the origination of fewer goals-qualifying loans, as would a surge in refinancing activity. Moreover, the increased market share of mortgages insured by the government and vastly decreased private-label MBS issuance would also contribute to fewer goal-qualifying mortgages being available for purchase by the Enterprises (74 FR 39873). The FHFA rule also expanded the mortgage qualification for housing goals to include any mortgages already held or guaranteed by the Enterprises that had been modified as part of the Homeowner Affordability and Stability Plan (see above). Because Fannie and Freddie were already committed to temporarily expanding their retained portfolios to support the mortgage market (see above) and this policy was intended to reflect a changing landscape in mortgage originations, we do not consider this a binding, significant policy change affecting their retained portfolios.

billion by the end 2009, an increase of $18 billion by end 2010, a decrease of $63 billion by end 2011, and a total portfolio reduction of $542 billion by the end of 2022. Before the SPSPA amendment, these corresponding portfolio changes would have been an increase of $58 billion in 2009 followed by decreases of $27 and $103.5 billion in 2010 and 2011, respectively.

Second Amendment to Senior Preferred Stock Purchase Agreement Announced: December 24, 2009

On December 24, 2009, the Treasury Department announced amendments to both SPSPAs that would provide unlimited access to credit for Fannie and Freddie. The move was made just before the December 31, 2009 deadline stipulated by HERA for the Treasury to act without Congressional approval and authorization of additional funds. The amendments removed the cap from each agency's standing $200 billion funding line, effective through 2012 (FHFA (2009b)). At the time of the amendments, Treasury had injected $60 billion into Fannie and $51 billion into Freddie—well shy of their prevailing funding lines (Dow Jones Business News (12/24/2009)). The Treasury Department stated that the action "*should leave no uncertainty about the Treasury's commitment to support these firms as they continue to play a vital role in the housing market during this current crisis*" (The New York Times (12/25/2009)). We do not classify this amendment to be a binding, significant policy change affecting the Enterprises' retained portfolios, as the unlimited backstop was intended to build market confidence and, if necessary, absorb losses from purchases already constrained by the SPSPA portfolio limits.

New Enterprise Housing Goals for 2010-2011 Announced: September 2, 2010

On September 2, 2010, FHFA released new housing goals for the remainder of 2010 and 2011, which were made effective October 14, 2010 (75 FR 55892). The new regulations modified the housing goal structure and established overhauled goals for single-family, owner-occupied home mortgage purchases for low-income families; very low-income families; and families living in geographical areas with lower-income populations, areas with high concentrations of minority residents, and federally declared disaster areas. The newly issued goals again included multifamily housing subgoals, and additionally set a new refinancing mortgage goal for low-income families. The home purchase and refinancing goals were expressed as minimum goal-qualifying mortgage shares of mortgages acquired by the Enterprises.[93] The new goals also considerably restricted the pool of mortgages and mortgage securities that could count toward affordable housing goals, notably excluding private-label MBS, second mortgages, and single-family government loans (FNMA 10-K Filing Report 2010, p. 45).

In line with restricting qualifying types of mortgages, FHFA stated that it did not intend for Fannie to undertake uneconomic or high-risk activities to meet the housing goals, but rather that support should not be withdrawn from these market segments simply because the Enterprises were in conservatorship (75 FR 55892). And it is not clear that the goals were intended and/or perceived to have been binding; Fannie's 10-K stated that if they missed the new housing goals, FHFA would start by reevaluating how feasible those goals had been. Fannie made its multifamily subgoals and exactly hit its low-income areas home purchases goal for 2010, but missed all other single-family purchase and refinancing goals (FNMA 10-K Filing Report 2010, p. 45). In 2011, Fannie again made its multifamily subgoals and hit its refinancing goal, but missed all single-family purchase goals (FNMA 10-K Filing Report 2011, p. 48). Because this policy in part reflected changing mortgage market conditions and was not intended to expand purchase volumes, merely to retain some support for various market segments while maintaining "sound financial conditions of the Enterprises," we do not consider this a binding, significant policy change affecting their retained portfolios.

[93]The benchmark single-family goals were set at 27% for the low-income family home purchases goal, 8% for the very low-income family home purchases goal, 24% for the low-income areas home purchases goal, and 21% for the low-income family refinance goal. The low-income areas home purchases also included a subgoal that at least 13% of purchases were to finance mortgages for families in low-income census tracts or moderate-income families in minority census tracts.

Third Amendment to Senior Preferred Stock Purchase Agreement Announced: August 17, 2012

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Decrease	FNMA	-$22.16 billion	Aug. 2012	Aug. 2012	Non-Cyclical

Freddie Mac returned to profitability in the fourth quarter of 2011, and Fannie Mae followed suit the following quarter (McLean (2015), pp. 114–115). The second quarter of 2012 was the first time since being taken into conservatorship that both agencies were able to pay the required 10% dividend on Treasury's senior preferred stock (Financial Times (8/17/2012)). The positive net worth requirement in the SPSPAs forced Fannie and Freddie to borrow from the Treasury whenever their earnings fell short of the required 10% dividend, thus increasing the overall Treasury injection on which dividends would be assessed. Fannie and Freddie had collectively borrowed $188.4 billion through 2012Q2, some of which had been used to finance $45.7 billion in required dividend payments (Reuters (8/17/2012)). The circular practice of borrowing from the Treasury to repay the Treasury was reportedly undermining flagging market confidence in the Enterprises, particularly unnerving institutional investors and Asian sovereign investors of agency debt; market analysts also expected the 'borrow-to-repay problem' to worsen as the Enterprises' requisite portfolio wind-down decreased earnings (American Banker (8/20/2012)).

On August 17, 2012, the Treasury Department announced a third SPSPA amendment that would cap each Enterprise's retained portfolio at $650 billion as of December 31, 2012, and which accelerated the required portfolio limit wind down from an annual rate of 10% to 15% (Department of the Treasury (2012a)). The revised agreement would reduce the Enterprises' retained portfolios to $250 billion by 2018, four years faster than previously scheduled (FHFA (2012)). Along with accelerating their wind down, the mandatory 10% quarterly dividend was replaced by a requirement that all quarterly net profits be paid to the Treasury—eliminating both the possibility of the Enterprises having to borrow from Treasury in order to pay dividends and of the Enterprises rebuilding positive net worth (Financial Times (8/17/2012)). This revision to the SPSPAs was quickly and disparagingly coined the 'net worth sweep.' The revised portfolio caps were made effective upon signing the agreement, while the net worth sweep was to be made effective September 30, 2012.

As of July 31, 2012, Fannie's total retained portfolio was approximately $673 billion, implying a total mandated reduction by $23 billion by the end 2012, a reduction of $120.5 billion by the end of 2013, and a total reduction of $423 billion by the end of 2018. We measure the impact of the SPSPA amendment as the difference in mandated reductions before and after the third amendment. The SPSPA previously would have capped Fannie's portfolio at $656.1 billion at the end of 2012 and $590.49 billion at the end of 2013, whereas the new amendment capped the portfolio at $552.5 billion at the end of 2013.[94] We assign an annualized requisite portfolio reduction of $22.16 billion for the year starting in August 2012, being the cumulative required reduction for 2013 pro-rated through July of that year $\left((\$552.5 - \$590.49)\times\frac{7}{12} = -\$22.16\right)$.

News of the accelerated portfolio wind down and net earnings sweep had not leaked and was clearly made public in August 2012. While the Enterprises' share prices and excess returns became exceedingly volatile and generally uninformative after conservatorship sunk shares under a dollar, stock movements nonetheless suggest that the third

[94]The portfolio being reduced by 10% annually from $900 billion at the end of 2009 would have yielded $590.49 by the end of 2013 ($900 $\times(0.9)^4$), while the new 15% rate reduction from $650 billion at the end of 2012 would have implied a portfolio limit of $552.5 billion by the end of 2013 ($650 $\times(0.85)$).

SPSPA amendment was genuinely unanticipated; Fannie's share price fell an unusually steep 20.0% on August 17, with trading volumes up more than ten-fold from the previous day of trading, and the news seemed to take the financial press and market analysts aback. The net worth sweep certainly flabbergasted Fannie's common shareholders—at this point primarily consisting of hedge funds, several of which had been buying up shares of Fannie and Freddie on the cheap—and the action precipitated numerous lawsuits challenging the legality of the third SPSPA.[95]

In a press release the Treasury stated: "*We are taking the next step toward responsibly winding down Fannie Mae and Freddie Mac, while continuing to support the necessary process of repair and recovery in the housing market. ... [We want] to* ***make sure that every dollar of earnings each firm generates is used to benefit taxpayers*** " (Department of the Treasury (2012b)). The Treasury statement made clear that the overwhelming motivation for the amendment was budgetary—protecting taxpayers—as opposed to economic.[96]

According to McLean (2015), Treasury officials were concerned about the optics of hedge funds earning windfall profits from a publicly funded bailout of the Enterprises as they returned to profitability (McLean (2015), p. 114). The net worth sweep was, however, publicly justified as assuaging the concerns of foreign institutional investors regarding the 'borrow-to-repay' practice (McLean (2015), p. 115). FHFA Director Edward DeMarco explained that "*[t]hese changes provide certainty to Fannie Mae, Freddie Mac and market participants as they continue to perform their critical mission of providing liquidity and stability to the country's housing market*" (The Washington Post (8/18/2012)). DeMarco had been a driving force behind the net worth sweep, which he reportedly believed would strong-arm Congress into following his advice to "*abolish the GSEs' charters as part of a broader legislative package of housing finance reform*" (National Mortgage News (12/16/2014)). The Treasury statement also signaled the intention to wind down Fannie Mae and Freddie Mac, rather than restore them to their former role. In a 2014 speech, DeMarco, recently retired, corroborated this view, noting that "*[t]here was broad consensus at that time that not only had Fannie Mae and Freddie Mac failed, but the GSE model had failed* " (National Mortgage News (12/16/2014)).

The policy priority in Congress had also switched from promoting economic recovery to deficit reduction, most notably signaled by the legislative history and enactment of the Budget Control Act of 2011 (Pub. L. 112-25, enacted August 2, 2011). McLean (2015) noted that the third amendment came a year after the related showdown over raising the federal statutory debt ceiling, and by reducing Treasury's borrowing, the net worth sweep "*helped buy breathing room*" during subsequent fiscal showdowns (McLean (2015), p. 117). The practical effect was a significant decrease in the federal budget deficit, with Fannie and Freddie remitting more to the government as a result of the net worth sweep than they had initially borrowed. CBO estimated that the Enterprises had cumulatively paid the Treasury dividends and net earnings of $250 billion as of September 2016, and were projected to pay an additional $180 billion over the next decade under current law (CBO (2016), p. 1).[97]

[95] Almost all of these challenges have been thrown out to date based on HERA's highly restrictive limitations upon judicial review when the agencies are in FHFA conservatorship (see SEC. 1367(a)(11)(D)).

[96] The five "*important objectives*" advanced by the amendment, in order highlighted in the statement, were: "*1) Making sure that every dollar of earnings that Fannie Mae and Freddie Mac generate will be used to benefit taxpayers for their investment in those firms; 2) Ending the circular practice of the Treasury advancing funds to the GSEs simply to pay dividends back to Treasury; 3) Acting upon the commitment made in the Administration's 2011 White Paper that the GSEs will be wound down and will not be allowed to retain profits, rebuild capital, and return to the market in their prior form; 4) Supporting the continued flow of mortgage credit by providing borrowers, market participants, and taxpayers with additional confidence in the ability of the GSEs to meet their commitments while operating under conservatorship; and 5) Providing greater market certainty regarding the financial strength of the GSEs*" (Department of the Treasury (2012b)).

[97] Congress had set prior precedent for exploiting the conservatorship of Fannie and Freddie for budgetary purposes; the Temporary Payroll Tax Cut Continuation Act of 2011 (Pub. L. 112-78, enacted December 23, 2011) required the Enterprises increase

There was bipartisan support for the third amendment on Capitol Hill, with Republicans supportive of starving the Enterprises of capital—seen as preventing them from rebounding, and a step toward killing them off entirely—and Democrats supportive of de facto nationalization as retaining the agencies public mission without privatizing their upside gains. The housing market had begun to recover, enough so that the Enterprises were in a position to start rebuilding their capital bases, and the accelerated wind down only served to reduce support to the housing market. We thus classify the third SPSPA amendment as motivated by varying political priorities and budgetary concerns, as opposed to being cyclically motivated.

New Enterprise Housing Goals for 2012-2014 Issued: November 13, 2012

On November 13, 2012, FHFA issued final rules establishing new benchmark levels for the single-family housing goals for 2012 through 2014, to be made effective December 13, 2012 (77 FR 67535). The benchmark single-family goals for Fannie were decreased from 27% to 23% for the low-income home purchase goal; from 8% to 7% for the very low-income family home purchase goal; and from 21% to 20% for the low-income family refinance goal. In justifying the reduced benchmarks, FHFA pointed out that Fannie and Freddie were both unable to meet the higher benchmarks set for 2010–2011 (77 FR 67535). Because this policy was not intended to expand purchase volumes, merely to retain some support for various segments of the market while maintaining "*sound financial conditions of the Enterprises*," and does not appear to have been intended or perceived as a binding constraint for the Enterprises, we do not consider the revised goals a significant policy change affecting their retained portfolios.

4.2 Federal Home Loan Mortgage Corporation

The Federal Home Mortgage Loan Corporation was established by the Emergency Home Finance Act of 1970, following the 1969 credit crunch. The purpose of Freddie Mac was to create a secondary market for conventional mortgages purchased from insured financial institutions and to supplement Fannie Mae in providing funds for housing, particularly in alleviating periodic credit shortages among thrift banks. Ownership was placed with the FHLBanks, and the FHLBB originally served as FHLMC's Board of Directors. Freddie was authorized to purchase and make commitments to purchase residential mortgages from the FHLBanks and their members, the FSLIC, or other financial institutions with government-insured deposits, including commercial banks, other insured S&Ls, and mutual savings banks. Freddie was initially to raise funds by issuing debt securities and by selling MBS. In 1971, Freddie started the first program of pass-through securities backed by conventional mortgages (coined 'participation certificates'). In 1983, Freddie issued the first collateralized mortgage obligation (CMO), a new type of security splitting mortgage pools into multiple classes of bonds with varying seniority.

Like Fannie, Freddie was chartered with preferential tax and regulatory treatment, including a statutory lending backstop with the Treasury Department. Freddie's debt issuance, however, was not subject to concrete leverage restrictions. And unlike Fannie, Freddie was not chartered with an explicit statutory purpose, although FIRREA amended FHLMC's charter to add such a purpose in the aftermath of the S&L crisis.

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fees on new guarantees by 10 basis points, to be used as an offset for extending the expiring payroll tax cut. The Enterprises paid $8 billion in such guarantee fees to the Treasury over 2013-2016 (CBO (2016), p. 4).

While mortgage purchases were primarily financed by debt in its first years of operation, Freddie's purchases were primarily being financed through MBS issuance by 1976. Freddie Mac was initially exposed to far less interest rate risk than Fannie Mae—and correspondingly weathered the 1980 and 1981–82 recessions much better—because its MBS were largely sold to third parties. Consequently, Freddie's retained portfolio remained fairly small relative to that of Fannie through the 1980s, as it was used primarily to fund inventory for pooling mortgages into MBS or to fund new mortgage purchase programs where volume was not yet sufficient to support securitization.

In 1989, FIRREA turned Freddie from a corporation owned by the thrift industry to a publicly traded shareholder-owned corporation. FIRREA also transferred regulatory authority over Freddie to HUD, and expanded its secondary mortgage market objectives to include promoting housing for low- and moderate-income borrowers. Freddie was also extended the same $2.25 billion standby credit line with the Treasury as afforded Fannie, bolstering the perception of an implicit government guarantee of agency debt securities. After its public listing, earnings pressure drove Freddie to exploit the (newly enhanced) profitability of leveraged balance sheet expansion, and its retained portfolio began catching up with Fannie (Greenspan (2005)). Accounting scandals exposed first at Freddie and then at Fannie in the early 2000s, however, prompted greater regulatory oversight over Freddie Mac and the imposition of portfolio limitations. In September 2008, Freddie was placed under the conservatorship of the FHFA, and was ordered to first increase then gradually reduce its portfolio of mortgage assets.

Emergency Home Finance Act of 1970 (Pub. L. 91-351) Enacted: July 24, 1970
See listing under FNMA (Sec. 4.1) for legislative and economic context.

On July 24, 1970, the Emergency Home Finance Act of 1970 chartered the Federal Home Mortgage Loan Corporation, or Freddie Mac, in order to create a secondary market for conventional mortgages purchased from insured financial institutions. Title III of the Act, the Federal Home Loan Mortgage Corporation Act, established the corporation as a subsidiary of the FHLBS and a member of each of the FHLBanks. Unlike Fannie, Freddie's charter act did not initially define a statutory purpose, but according to Bartke (1972), Congressional intent was for Freddie to supplement Fannie in providing additional funds for home building and buying, as well as to alleviate the periodic liquidity problems facing the S&L industry. Freddie Mac's first Annual Report characterized its own mission as "*to increase the secondary market volume of sales and purchases of residential mortgages and, thus, to increase the effective supply of mortgage financing, the flexibility of mortgage investors and the attractiveness of mortgage investments. With the goal of improving the availability of housing to all Americans, FHLMC works to strengthen the existing secondary markets in FHA insured and VA-guaranteed mortgages and, more significantly, to develop a secondary market in non-federally insured (conventional) residential mortgages*" (FHLMC Annual Report 1972, p. 2).

Freddie was authorized to purchase and make commitments to purchase residential mortgages from the FHLBanks and their members, the FSLIC, or any other financial institution whose deposits were insured by a federal agency. Purchases of conventional mortgages were required to be of quality acceptable to private investors and were restricted to those whose principal balance outstanding was under 75% of the value of the property securing the mortgage, unless the seller retained a participation of at least 10%, the seller agreed to repurchase the mortgage on demand, and the portion of principal balance outstanding exceeding 75% was insured by a qualified private insurer. Another restriction was that conventional mortgages originated more than one year before purchase could not exceed 10%

of total mortgage holdings. Finally, the Act mandated loan limits 'comparable' to those for Section 203(b) FHA mortgages, set at $33,000 for single-family homes at the time of enactment.

Initial capital was provided through $100 million in nonvoting common stock issued only to the FHLBanks. As the owners of the FHLBanks, the thrift industry therefore indirectly owned Freddie Mac. Because the stock was nonvoting, however, the FHLBanks could not not directly influence corporate policy. Freddie was exempt from all federal and state taxation save property taxes, granted all the rights and limitations of FHLBank membership, and allowed to borrow and issue market securities. While Fannie was subject to a debt-to-capital limitation, there was no such analogous restriction for Freddie. The Act also permitted financing operations by issuing MBS.

Mortgage purchases were initially financed through long-term debt issuance. In its first year of operation, the corporation purchased $326 million in FHA/VA mortgages. In 1971, Freddie Mac developed a continuously offered program for buying participation interests in conventional mortgages. Later in 1971, Freddie started issuing Mortgage Participation Certificates ('PCs'), the industry's first conventional mortgage security.[98] PCs were pools of mortgages purchased from thrifts and packaged into pass-through securities, which were guaranteed by the corporation as to timely payment of interest and full return of principal. Sales of PCs rapidly increased from $67 million in 1971 to $493 million in 1972. Development of the security was part of the corporation's strategy to reach investors who traditionally had not financed mortgage credit. Because of tight credit markets in 1973–1975 and an investor base comprised mostly of S&Ls, the PC did not become the corporation's major source of financing until 1976 (FHLMC Annual Report 1980, p. 34). A conventional whole loan purchase program was introduced in 1972. By December 31, 1972, Freddie had accumulated $144 million in conventional mortgage loans in portfolio, and another $141 million worth of participations in conventional mortgage loans (FHLMC Annual Report 1972).

From the beginning, Freddie clearly planned to steer a very different course than Fannie, and focused overwhelmingly on securitization rather than portfolio growth. The first annual report in 1972 stated that: "*FHLMC does not seek to operate the national secondary mortgage market but, rather, to create an economic and regulatory climate in which the private sector can take on that function*" and "*While the temptation simply to buy mortgages and sell bonds is great, such activity does not contribute to creation of the kind of privately operated liquid secondary mortgage that FHLMC is trying to help develop* " (FHLMC Annual Report 1972, pp. 5, 8).

While the creation of Freddie Mac was unequivocally a significant policy event, we could find no estimate or convincing manner of quantifying the impact of Freddie Mac's chartering in July 1970 for its near-term purchase activity, likely the result of considerable uncertainty regarding the time frame for getting the corporation up and operational.

Presidential Plan To Revitalize the Housing Market Announced: May 10, 1974

Policy Change	Agency	Impact	News	Effective	Classification
Subsidized Mortgage Purchase Program	FHLMC	+$1.5 billion	May 1974	May 1974	Cyclical

On May 10, the Nixon administration authorized Freddie Mac to make $3 billion worth of below-market forward commitments to purchase conventional mortgages from the member institutions of the FHLBank System, with funds

[98] In the early years of the program, mortgagees were required to maintain a participating interest in the resulting security, of roughly 5% of its total principal, hence its name (Hu (2011), p. 88).

provided by the Treasury, in support of the sagging housing industry (CQ (1975b)).[99] As part of the same four-point housing market plan to direct more than $10 billion to mortgage markets, the administration also authorized the FHLBB to provide $4 billion in loan advances to member S&Ls at interest rates below their usual borrowing costs (CRS (2004), p. 173). And the administration authorized an additional $3.3 billion for Ginnie Mae's subsidized purchases of mortgages (see GNMA, Section 4.3).

When Freddie launched the program on May 20, mortgagees entered a record $581 million worth of the commitments in a single day, and the full $3 billion in commitments had been exhausted within 2 months. By the end of the year, Freddie had taken delivery of $696 million worth of loans in fulfillment of these commitments and was rapidly staffing up its underwriting and purchasing staffs to ramp up its operations accordingly (FHLMC Annual Report 1974, p. 3). At the time of its announcement, however, there was no indication that Freddie's $3 billion commitment authority would be used up so quickly. Using the two-year rule, we assign an annualized $1.5 billion increase in Freddie's purchase activity for the year starting May 1974, with the news of the purchase program being made public the same month. This program, also referred to as a 'tandem plan,' would pave the way for the larger Brooke-Cranston tandem program for the subsidized purchase of conventional mortgages by GNMA, which was authorized in October 1974 (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 83).[100]

In his May 10 statement about the plans and pending legislation to revitalize the housing market, President Nixon offered the following motivation for these policy changes: "*The higher cost of money affects all sectors of the economy, but none more directly than the housing market.* ***The Nation's housing industry****, which had been producing homes at record high rates in 1971, 1972, and 1973,* ***is now operating far below its potential***" (Nixon (1974)). He also noted that "*The conventional mortgage market normally does not require this type of Government support, but* ***present circumstances warrant these unusual measures***." These policy changes occurred in the midst of the recession lasting from November 1973 through March 1975, during a particularly acute mortgage credit crunch in 1974. The *CQ Almanac* explained that "*[t]he housing industry served as the whipping boy for many of the nation's economic ills in 1974. It was caught by the "double whammy" effects of inflation, which forced up the cost of its product, and tight monetary policy used to fight inflation, which dried up credit for the purchase of homes*" (CQ (1975b)). We thus classify the president's plan to revitalize the housing market as clearly cyclically motivated.

Under the Treasury-FHLB program, Freddie ultimately acquired $1.575 billion in conventional mortgage loans. The outstanding principal balance of the FHLBank advances to Freddie to fund the program was retired in 1976 and 1977, with the final payment made on February 25, 1977 (FHLMC Annual Report 1977, p. 23).

Housing and Community Development Act of 1974 (Pub. L. 93-383) Enacted: August 22, 1974

See listing under FNMA (Sec. 4.1) for legislative and economic context.

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Loan Limit	FHLMC	+$0.46 billion	Aug. 1974	Aug. 1974	Non-Cyclical

[99]The program was financed by loans from Treasury to the FHLBS, which in turn lent the funds to Freddie Mac as advances, rather than through Freddie's statutory lending backstop with the Treasury Department (FHLMC Annual Report 1977, p. 23).

[100]Broadly speaking, the tandem plans refer to programs for the subsidized purchases of mortgages to support certain segments of the market during times of credit scarcity. See GNMA (Sec. 4.3) for an overview and chronology of the various tandem programs. Unlike GNMA, FHLMC was permitted to hold the mortgages it acquired for extended periods of time.

The limit on the outstanding balance of a conventional mortgage eligible for purchase by Fannie and Freddie was switched from the FHA Section 203(b) limit to the Section 5(c) limit for mortgages originated by insured S&Ls. The Act additionally raised the Section 5(c) limit from $45,000 to $55,000, which thus became the new conforming loan limit. The net increase was $22,000, from the standing $33,000 203(b) limit, which the Act also raised to $45,000. The reason for the change had more to do with the Freddie than with the Fannie (HUD (1987)). As the Senate Committee on Banking, Housing, and Urban Affairs report explained, it was "*not realistic to permit savings and loans to originate $45,000 mortgages and to restrict Freddie to the purchase of mortgages with a maximum principal mortgage tied to a varying FHA limit*" (Senate Committee on Banking (1974b), p. 85). The change for Fannie apparently followed in order to roughly maintain parity between the GSEs (HUD (1987), p. 35). The Act also increased the limit on the Enterprises' holdings of conventional mortgages originated more than one year prior to purchase, from 10% to 20% of aggregate portfolio holdings.

The increase in the 5(c) limit was intended to "*help adjust the limit in line with the substantial increases that have occurred in recent years in the cost and value of single family homes, particularly in the nation's high-cost areas*" (House Committee on Banking and Currency (1974), p. 43). The House committee report stated that raising the Enterprises' loan limit from $33,000 to $55,0000 "*would permit FNMA to serve much the same housing market in terms of constant dollars as it was authorized to serve when the Emergency Home Finance Act was enacted [in July 1970]*" (House Committee on Banking and Currency (1974), p. 29). We accordingly score the conforming loan limit as keeping Fannie's net purchase activity in line with interim home price inflation, potentially increasing FNMA's retained portfolio by $1.14 billion, up 16.8% from the net purchase volume in the year before enactment (see listing under FNMA, Sec. 4.1).

But as Freddie's purchases only began in 1970Q4, the July 1970 enactment of Emergency Home Finance Act clearly does not work as a comparable benchmark for Freddie's portfolio activity, and the House, Senate, and conference committee reports accompanying the Housing and Community Development Act of 1974 offer no indication of the effect of conforming loan limit increases explicitly for Freddie. The increase in the loan limit for Fannie, however, was meant to maintain parity between the two GSEs, and both were operating in the same segment of the market. To quantify the impact of the conforming loan limit increase for Freddie, we thus apply the same 16.8% relative increase for Fannie's net purchases to Freddie's portfolio activity. Freddie's net purchases were, however, far more volatile, given their prevailing business model focused solely on securitization, so we assume the Act would have increased Freddie's purchasing as measured by their retained portfolio instead of net purchases. Applying a 16.8% increase to Freddie's $2.7 billion average retained portfolio over 1973Q3 and 1974Q2, the year before the bill's enactment, implies a potential increase of $456 million. In practice, Freddie's mortgage portfolio increased from $3.1 billion in May 1974 to $4.9 billion in May 1975.

As with Fannie, we determine the news of the conforming loan limit policy change to have been made public in August 1974. And as with Fannie, we classify the policy change as unrelated to the business or financial cycle (see listing under FNMA, Sec. 4.1, for a discussion of legislative context and classification).

Emergency Home Purchase Assistance Act of 1974 (Pub. L. 93-449) Enacted: October 18, 1974

See listing under GNMA (Sec. 4.3) for an overview of the Act and Brooke-Cranston Tandem program.

The Act established the Brooke-Cranston Tandem program, which granted the HUD Secretary powers to instruct

GNMA to make subsidized purchases of conventional mortgages, as opposed to the FHA/VA mortgages to which its activity was otherwise restricted, to try to slow or stop declines in housing market activity. Eligible conventional mortgages were, however, limited to an 80% LTV ratio and $42,000 loan limit, well below the standing conforming loan limit. As Ginnie was statutorily required to deal in government-guaranteed mortgages, Fannie and Freddie served as agents of GNMA for its commitments and purchases of below-market rate conventional mortgages, with each institution allocated roughly half of the funds for Ginnie's conventional purchases (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 14). As Freddie and Fannie were mere conduits and did not retain related purchases, we only consider the Brooke-Cranston Tandem program to be a significant policy change affecting Ginnie Mae (see listing under GNMA, Sec. 4.3).

Housing and Community Development Act of 1977 (Pub. L. 95-128) Enacted: October 12, 1977

See listing under FNMA (Sec. 4.1) for legislative and economic context.

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Loan Limit	FHLMC	+$0.21 billion	Oct. 1977	Oct. 1977	Non-Cyclical

The Act raised the conforming loan limit for conventional mortgages from $55,000 to $75,000, effective immediately. The conforming loan limit formula was revised to 125% of the S&Ls Section 5(c) limit, which was also revised upwards from $55,000 to $60,000. As with FNMA, we quantify the impact of the increase in FHLMC's conforming loan limit by assuming the change would restore Freddie's real portfolio activity back to volumes surrounding the August 1974 enactment of the Housing and Community Development Act of 1974, pursuant to the House and Senate Committee report language (see discussion in listing under FNMA, Sec. 4.1). Given their prevailing business model focused on pass-through securitization, Freddie's net purchases were, however, far more volatile Fannie's, so we again quantify the Act as having increased Freddie's portfolio activity relative to its retained portfolio instead of net purchases.

The $3.04 billion average retained portfolio over 1973Q4 through 1974Q3 would have translated to $4.08 billion at the end of September 1977, adjusted for the 34.3% increase in OFHEO's seasonally adjusted Constant-Quality House Price Index for new homes sold over 1974Q3 and 1977Q3. Relative to Freddie's average $3.87 billion retained portfolio over 1976Q4 and 1977Q3, the year before enactment of the Housing and Community Development Act of 1977, this would have represented an increase of roughly $210 million. To the extent that the enacted provisions were meant to anticipate further near-term inflation, we view this as a conservative estimate.

As with Fannie, we determine the news of the conforming loan limit policy change to have been made public in October 1977. And as with Fannie, we classify the policy change as unrelated to the business or financial cycle (see listing under FNMA, Sec. 4.1, for a discussion of legislative context and classification).

Housing and Community Development Amendments of 1978 (Pub. L. 95-557) Enacted: October 31, 1978

Policy Change	Agency	Impact	News	Effective	Classification
Mortgagee Expansion	FHLMC	+$2.0 billion	Oct. 1978	May 1979	Non-Cyclical

The Act amended the FHLMC Act to loosen restrictions and allow purchases from mortgage bankers, specifically "*any*

mortgagee approved by the Secretary of Housing and Urban Development for participation in any mortgage insurance program under the National Housing Act" (Sec. 321(a)). In doing so, Congress also explicitly clarified and expanded its intent with respect to Freddie Mac's operations, rejecting market segmented roles for Fannie and Freddie. These amendments were scheduled to become effective on May 29, 1979 (two hundred ten days after enactment) unless FHLMC prescribed an earlier date, which it did not.

An accompanying House Banking Committee report made clear that the amendment was clarifying a long-standing question of whether mortgage brokers were eligible to service loans sold to Freddie, which had repeatedly surfaced before the committee. Confusion had been amplified by language in the conference report for the Housing and Community Development Act of 1974, which sanctioned limited servicing. Freddie's regulations did not explicitly rule out loan servicing by mortgage bankers, but its regulations were designed to be met by S&Ls, and de facto ruled out loan servicing by others (House Committee on Banking (1977a), p. 38). Freddie had submitted a report to Congress on January 31, 1978, proposing 'rules of the road' for responsibly authorizing mortgage bankers to directly sell loans to the corporation (Senate Committee on Banking, Housing and Urban Affairs (1978), p. 52). The House report explained that: "*Underlying this whole issue was a basic question of whether the Congress created FHLMC solely to assist only one segment of the mortgage lending industry, to provide a secondary market facility, to the exclusion of all other segments.* ***It is the position of the committee that this facility created by the Congress was to assist the housing markets generally and not one favored segment.*** *It has been stated that mortgage bankers have FNMA and savings and loans have FHLMC. The committee rejects that justification.* ***These are entities created by Congress generally to assist the mortgage credit markets and not benefit just parts of it***" (House Committee on Banking (1977a), p. 39).

After the bill cleared both the House and Senate, the *Washington Post* reported that allowing mortgage bankers to sell to FHLMC "*could result in an additional $2 billion being recycled into the residential mortgage market by 1979*" (The Washington Post (5/13/1978)). Based on this projection, we assign an annualized increase in Freddie's purchase capacity of $2 billion for its first year of operation. Earlier versions of the bill had passed the House in June and the Senate in July, but the back-and-forth between House, Senate, and White House was particularly contentious and threatened to kill the bill. In an effort to reassert authority over an increasingly activist HUD, a House provision would have enabled a "legislative veto" over newly issued HUD regulations, which President Carter informed Congress the administration viewed as unconstitutional, and which the Senate rejected in its bill (CQ (1979)). It was only in conference that this House provision was dropped and the bill's passage seemed secured. The Senate agreed to the conference report on October 14 and the House followed suit a day later; correspondingly, we date the news of Freddie Mac's expanded mortgagee authorization as being made public in October 1978.

The Senate bill was the product of 11 hearings held between January and April 1978, and the bill enacted in October was the product of a slow and deliberate legislative process. The Act was focused on routine programatic authorizations and reforms aimed at longer-term housing policy objectives. The accompanying Senate committee report made no mention of housing starts, concerns about a recession, or other cyclical motives. The accompanying House report characterized the economy as "*in its third year of recovery from the recession of 1975*," noting that construction unemployment was unusually low and housing starts were roughly unchanged from the previous year, although inflation and higher interest rates were projected to slightly dampen home sales and housing starts.[101] The overview of

[101]The economic overview and discussion of inflation, housing, and the bill's likely impacts were included pursuant to Rule XI, Clause 2(1)(4) of the Rules of the House of Representatives, which required the committee make a statement regarding the inflationary impact of the bill. Hence the economic overview was not motivated by bill-specific cyclical economic concerns.

projected impacts of the bill stressed creating certain types of housing units, but in no way stressed boosting employment or overall housing starts. Moreover, the mortgagee expansion was intended to resolve a longstanding regulatory question and better advance Congress's original intent with respect to the creation of Freddie Mac. We thus classify the expansion of FHLMC-eligible mortgagees as clarifying past congressional intent and advancing longer-term policy objectives, while unrelated to the business or financial cycle.

Housing and Community Development Amendments of 1979 (Pub. L. 96-153) Enacted: December 21, 1979

Policy Change	Agency	Impact	News	Effective	Classification
Conforming Loan Limit	FHLMC	+0.86 billion	Dec. 1979	Dec. 1979	Cyclical

The Act amended the FHLMC Act to open purchase of Freddie's mortgages, mortgage securities, and obligations to any person trust or legally chartered organization, and granted Freddie's securities the same legal standing as US government securities, up to a sunset of June 30, 1985.[102] FHLMC's charter was also amended to make its securities and obligations legal collateral, including for public deposits. And the Act newly allowed Freddie to purchase liens and interests in housing cooperatives. The committee report accompanying the House bill, where the amendments to Freddie's charter originated, explained that they were "*intended to assure a broader market for the Corporation's securities*" (House Committee on Banking (1979a), p. 26).

The Act also raised the conforming loan limit for conventional mortgages from $75,000 to $93,750 by increasing the benchmark savings and loans Section 5(c) single-family mortgage limit from $60,000 to $75,000, effective immediately. Regarding the 5(c) limit, the committee report accompanying the Senate bill explained that "*[b]ecause home prices have escalated 20 to 25 percent in the past 2 years, the committee believes that the $60,000 limit has become obsolete and is severely restricting the ability of thrifts to meet the borrowing amounts requested by today's home buying public*" and that increasing that limit to $75,000 was meant to "*reflect inflation in home prices (and increase in mortgage size) since last amended in 1977*" (Senate Committee on Banking, Housing and Urban Affairs (1979), p. 20). In explaining similar increases in the FHA 203(b) limits, the Senate report similarly noted that median home sales prices had jumped roughly 30% since limits had last been increased by the Housing and Community Development Act of 1977 (see above), and that the FHA's market share had dropped from roughly 15% to 5% because loan limits had not kept up with inflation or the market (Senate Committee on Banking, Housing and Urban Affairs (1979), p. 14).

To quantify the impact of the increase in FHLMC's conforming loan limit, we assume, pursuant to the Senate Committee report language, that the change would restore Freddie's retained portfolio activity to that proximate to the October 1977 enactment of the Housing and Community Development Act of 1977 (see above).[103] The $3.40 billion average portfolio over 1977Q1 through 1977Q4 would have translated to $4.27 billion at the end of September 1979, adjusted for the 25.5% increase in OFHEO's seasonally adjusted Constant-Quality House Price Index for new

[102] More specifically, the amendment established that: "*Where State law limits the purchase, holding, or investment in obligations issued by the United States by such a person, trust, or organization, such Corporation mortgages, obligations, and other securities shall such Corporation mortgages, obligations, and other securities shall be considered to be obligations issued by the United States for purposes of the limitation*" (Pub. L. 96-153, Sec. 316(a)).

[103] Given their prevailing business model focused on pass-through securitization, Freddie's net purchases remained far more volatile Fannie's, so we again score the Act as having increased Freddie's portfolio activity on a retained portfolio basis instead of net purchases.

homes sold over 1977Q4 and 1979Q3; relative to an average portfolio of $3.41 billion over 1978Q4 to 1979Q3, this would imply an annualized portfolio increase of $857 million, which we assign to the year starting December 1979. In practice, Freddie's portfolio grew from $3.9 billion in December 1979 to $5.0 billion in December 1980.

Versions of the bill were introduced in both chambers in mid-May, passed the House in early June, and passed the Senate in mid-July, but there were substantive differences between the two bills—including over the 5(c) loan limit. The Senate bill proposed raising the single family loan limit from $60,000 to $75,000, whereas the House bill proposed no change (House Committee on Banking (1979b), p. 73). The loan limit increase won out in the conference report, which the Senate agreed to on December 18, followed by the House the next day. Because of this legislative uncertainty over the policy change at hand, we determine that credible news of Freddie Mac's conforming loan limit was made public only in December 1979, when the conference bill was agreed upon.

While the Act was signed into law shortly before the economy slipped into the recession of January through July 1980, the accompanying House committee report emphasized that the bill took "*account of the specter of inflation and the need for fiscal restraint... and the need to mitigate housing inflation*" (House Committee on Banking (1979a), pp. 3–4). The Annual Report of the Federal Reserve Board for 1979 noted that housing starts had fallen sharply during the end of the year, as financial conditions tightened and thrifts' deposit growth slowed (Annual Report of the Federal Reserve Board 1979, pp. 5, 7). Unlike the longer legislative horizon and policy scope of the Housing and Community Development Acts of 1974 and 1977, the Amendments of 1979 were passed in shorter order, and during the credit crunch that lasted from 1978Q2 through 1981Q4. We therefore classify this policy change as cyclically motivated.

Housing and Community Development Act of 1980 (Pub. L. 96-399) Enacted: October 8, 1980

The Act instituted a formulaic peg for annually adjusting the conforming loan limit, which was tied to home prices. The formula maintained the standing benchmark loan limit of $93,750 for 1980 and was a continuation of current policy, so we do not consider subsequent changes based on the home price indexation formula to be significant policy changes, because they would have been both anticipated and a continuation of current policy. The new formula had the effect of setting the conforming loan limit at $98,500 effective January 1, 1981. See listing under FNMA (Sec. 4.1).

Adjustable-Rate Mortgage Program Announced: May 28, 1981

Policy Change	Agency	Impact	News	Effective	Classification
ARM Program Approval	FHLMC	+$0.367 billion	May 1981	July 1981	Cyclical

The FHLBB had approved FHLMC to launch a secondary market program for variable-rate mortgages on July 1, 1979 (The American Banker (5/14/1980)). In a speech in July 1979, FHLMC President Philip Brinkerhoff announced that Freddie was gearing up to launch a secondary market for graduated payment mortgages (GPMs) and variable rate mortgages in 1980, and stated that "*during the first 18 months of the program, [Freddie] expected to buy from $500 million to $600 million worth of the [GPM] mortgages*" (The American Banker (7/16/1979)); the timing of the ARM program's launch, however, was rather uncertain given complications in standardizing documents meeting various state requirements. In May 1980, FHLMC announced that in addition to developing a GPM secondary market it was also developing standardizing documents for three-to-five year renegotiable-rate mortgages (RRMs), and intended to launch a secondary market for RRMs by December. In November 1980, FHLMC began sending standardized ARM

origination documents to mortgagees in preparation to launch a secondary market for ARMs in 1981 (The American Banker (11/21/1980)).

As Freddie was developing documentation for an ARM program, the supply of ARM originations in the primary market was an impediment to launching a program. Primary market deregulation only effectively authorized ARM issuance in early 1981, with the FHLBB authorizing Federal S&Ls to issue ARMs and variable-rate mortgage insurance on April 21, 1981 (46 FR 24148), which effectively opened the door to FHLMC implementing a program; the OCC and NCUA also approved various ARM programs and lifted impeding interest rate restrictions imposed on federally chartered banks and thrifts around the same time (see FNMA, Sec. 4.1). Without established secondary market support, however, mortgagees were initially hesitant to issue ARMs, and there was little issuance until Fannie and Freddie unveiled their secondary purchase program guidelines (Fannie launched an ARM program of its own a month after Freddie).[104] Because secondary market entry into ARMs was de facto set in motion immediately following deregulation of the primary mortgage market and was necessary for mortgagees to issue ARMs, we consider entry into ARMs by Fannie and Freddie as driven by US federal housing credit policy regulatory changes.

FHLMC announced on May 28, 1981 that it would begin a pilot program purchasing ARMs on July 1, 1981. At the press conference, an FHMLC official said that the purchasing program would initially be funded through debt financing. He added that the program would probably borrow no more than $1 billion, and then would offer participation certificates (The American Banker (5/29/1981)). Taking the midpoint estimate of $550 million from Brinkerhoff's projected GPM purchase volume around the same time as a proxy for entry into this new market, we assign an annualized increase in purchase capacity of $367 million ($\frac{\$500+\$600}{2} \times \frac{12}{18} = \$367$) dated to the year stating May 1981, given the considerable and long-standing uncertainty about the timing of the program's launch and requisite issuance approval for primary market originations.

The program expansion into ARMs was made in an environment of heightened interest rate risk and depressed earnings resulting from monetary tightening, and the program took effect in the midst of the credit crunch persisting from 1978Q2 through 1981Q4. Moreover, the ARM program and broader deregulatory movement favoring ARMs was intended to help mortgage lenders better manage interest rate risk in the prevailing economic context. Freddie's Annual Report for 1981 explained that the FHLBB's approval of ARMs in the primary market was explicitly motivated by elevated funding costs and heightened interest rate risk: "*Early in 1981 traditional mortgage lenders realized they could no longer afford solely to make 30-year loans with fixed interest rates while the interest rates they paid to borrow short term funds continued to rise. The [FHLBB] responded by issuing regulations in April which permitted federal savings and loans to originate mortgage loans with adjustable rates. The adjustable mortgage allows lenders the advantage of adjusting upwards the rates on loans in their portfolio to protect them when their cost of funds goes up. The Mortgage Corporation acted by developing and introducing its own [ARM] program for lenders*" (FHLMC Annual Report, pp. 14–15). Consequently we classify the ARM program's approval and launch as cyclically motivated, as we classify Fannie's program expansion into ARMs in June 1981 (see FNMA, Sec. 4.1).

Mortgage Purchase Amendments of 1981 (Pub. L. 97-110) Enacted: December 26, 1981

In May 1981, FHLMC had announced that it was preparing to request authorization from Congress to launch a new program guaranteeing pools of securities backed by conventional mortgages, which it planned to submit in July (The

[104] FHLMC's 1981 Annual Report explained the "*creation of a secondary market for adjustable rate mortgages enabled lenders to initiate ARM programs, secure in the knowledge that the mortgages could be sold*" (FHLMC Annual Report 1981, p. 15).

American Banker (5/7/1981)). The program was to more closely resemble Ginnie Mae's guarantees of securities backed by FHA/VA mortgages. Because its "*current level of capital [was] not sufficient to support a large guarantor business*," Freddie officials noted that it would also "*seek authorization to issue dividend-bearing stock that would be purchased by institutions participating in the guarantor program*" (The American Banker (5/7/1981)).

Congress opted for a more marginal deregulatory expansion into the conventional market and did not address Freddie's concerns about capital adequacy for supporting expanded secondary market operations, an early example of Freddie's greater constraints in raising capital holding back its portfolio relative to that of Fannie. In December, the Mortgage Purchase Amendments of 1981 removed the portfolio limitations on FNMA and FHLMC holdings of conventional mortgages over one year old when purchased, which were previously limited to 20% of holdings. Mortgages over one year old could only be purchased, however, from the FDIC, FSLIC, NCUA, or other sellers currently engaged in mortgage lending or investing activities. The Act also prohibited FHLMC from imposing any fee or charge upon an eligible seller differing from that imposed upon FHLBank members. Shortly after passage, FHLMC's board eliminated the fee charged to non-FHLBS member mortgagees (HUD (1983)).

Regardless of Congressional inaction regarding its capitalization, Freddie launched its Guarantor Program in August 1981, under which Freddie would purchase whole loans from thrifts and immediately sell back interests in PCs backed by those mortgages, providing struggling thrifts with a far more liquid asset (HUD (1983), p. 15). Freddie had made commitments to purchase more than $5.5 billion in mortgages and exchange them for PCs by the end of the year. The program was an "*instant success*" with over $25 billion in mortgages exchanged under the Guarantor Program in 1982 alone, leading to a rapid expansion of Freddie's aggregate PC issuance (Hu (2011), p 88, HUD (1983), p. 16).

Preferred Stock Authorization (Pub. L. 97-289) Enacted: October 6, 1982

While the FHLBB imposed no statutory leverage or capital requirement on Freddie, their regulator kept mortgage holdings and operations aligned with what they deemed prudent capitalization. In 1981, FHLMC and FHLBB had concluded that Freddie was adequately capitalized for current operations, but had insufficient capital to safely expand operations, and needed to raise more equity than the $100 million provided by the FHLBanks pursuant to the Charter Act (HUD (1983), p. 15). Freddie's capital base was $430 million as of July 1981 (The Washington Post (7/13/1981)). In late 1981, Freddie found congressional sponsors to introduce legislation that would recharter and recapitalize the organization, notably by allowing it to issue preferred stock. Freddie was proposing to convert its nonvoting common stock to voting shares and become a privately held, tax-paying entity while retaining a $200 million line of credit with the FHLBB—what it considered parity with Fannie's Treasury backstop. But the proposal met substantial opposition in Congress and from the Reagan administration, which thought the bill did not go far enough toward full privatization.

On October 6, 1982, Pub. L. 97-289 amended the FHLMC Act to allow Freddie to issue preferred stock at the discretion of the Board of Directors, provided that such stock did not change the status of the nonvoting common stock previously issued. In December 1984, the FHLBB approved a FHLMC dividend in the form of 15 million shares of preferred stock, pro-rated to the FHLBanks by each district's share of the initial $100 million common stock capitalization (National Mortgage News (1/7/1985)). The market valuation was quoted at roughly $600 million, although FHLMC said it would only show a transfer on its balance sheet at the book value of $150 million. Preferred shareholders would receive the first $10 million in FHLMC's annual dividends, and 90% of all additional dividends. The FHLBanks subsequently transferred FHLMC's preferred stock dividends as a dividend to their member institution shareholders. The timing of the dividend was motivated by the imminent repeal of Freddie's federal tax exemption,

effective January 1, 1985 (Pub. L. 98-369, see below). Restrictions were placed on the preferred stock so that it could only be traded among member institutions, each subject to a 1% ownership limitation (Treasury (1990), p. B-9).

This decision allowed thrifts to recognize a substantial portion of the value of Freddie Mac's stock, which they indirectly owned through the FHLBanks, thereby shoring up their balance sheets. The transfer was estimated to inject $600 million in previously unrecognized capital to FHLBank members; while a 'positive' development, analysts noted that the transfer of profits from FHLMC to thrift institutions would 'only marginally' improve the industry's beleaguered balance sheets (The American Banker (12/11/1984)). Because Freddie's preferred stock issuance took the form of a dividend payment, we assign no impact on its retained portfolio, as it did not raise any working capital.

This passthrough issue of preferred stock was quickly challenged by OMB, however, which requested a probe by the Department of Justice on the basis that the preferred shares were functioning as common shares, because the remaining 10% of dividends above $10 million would also be transferred to the thrifts owning preferred shares. The Justice Department, however, unequivocally ruled in favor of FHLMC and the FHLBB in a letter dated January 25, 1985 (Department of Justice (1985)). Preferred shares began trading on the NYSE on January 23, albeit with the caveat that only members of the FHLBS could purchase shares. By December 1985, the FHLMC advisory committee had voted unanimously to seek approval to repeal the restriction on trading, in large part to improve market liquidity and boost the price of shares (National Mortgage News (12/23/1985)). Broadening the base for ownership was also seen as a step toward public listing and full privatization, a long-standing priority for the Reagan administration.

Joint Resolution of Congress (Pub. L. 98-35) Enacted: May 26, 1983

In May 1983, President Reagan signed into law a Joint Resolution of Congress clarifying, among other things, that all securities issued or guaranteed Freddie Mac were exempt from SEC securities regulations, "*to the same extent as securities that are direct obligations of or obligations guaranteed as to principal or interest by the United States*" (Sec. 5), save guaranteed securities backed with mortgages it had not purchased outright.

Deficit Reduction Act of 1984 (Pub. L. 98-369) Enacted June 27, 1984

Under the provisos of the Act, Freddie became subject to federal income taxes, effective January 1, 1985. The Joint Committee on Taxation (JCT) explained that "*[t]he tax exemption for Freddie Mac was originally intended to allow the corporation to accumulate adequate capital so that it could compete against other entities in the secondary mortgage market, including Fannie Mae, which is a taxable entity. The purpose of this tax exemption was not to provide Freddie Mac with a competitive advantage. In the past 14 years, Freddie Mac has become highly profitable and has accumulated sufficient capital to compete in the secondary mortgage market. As a result, Congress believed that the exemption from tax had fulfilled its function and had begun to provide Freddie Mac with a competitive advantage. Accordingly, Congress believed it appropriate to repeal the tax exemption for Freddie Mac*" (JCT (1984), p. 551). Thrifts, however, were granted a tax deduction for FHLBank dividends allocated from previously taxed FHLMC income, thereby avoiding double corporate taxation. Freddie was also granted a net operating loss carryback provision.

JCT estimated that the repeal of FHLMC's tax exemption and related tax adjustments would, on net, increase federal receipts by $67 million in FY1985, $109 million in FY1986, and $142 million in FY1987 (JCT (1984), p. 551). These estimates imply roughly $94.25 million in net earnings otherwise on balance sheet that would be transferred to the Treasury in calendar year 1985.[105] Freddie Mac made $164 million in income tax provisions for 1985, reducing

[105] Calculations assume a 75-25 FY-CY split.

net income to $208 million, down from $267 million in 1984 (FHLMC Annual Report 1985, p. 10). We assume this new tax liability would have been too small to have necessitated significant related portfolio reductions, particularly given the lack of explicit leverage requirements.

Secondary Mortgage Market Enhancement Act of 1984 (Pub. L. 98-440) Enacted: October 3, 1984

The Act temporarily authorized FHLMC to purchase second mortgages for the first time, and renewed Fannie's prior authorization to do so; this authorization was extended several times before being made permanent by the Housing and Community Development Act of 1987 (Pub. L. 100-242). Enabling this authorization, the Act amended the definition of mortgage in the FHLMC Act to include subordinated liens. FHLMC was also prohibited from guaranteeing MBS backed by mortgages not purchased outright by the corporation.[106] And the Act clarified that the permissible maximum for loan purchases by FHLMC (and FNMA) applied to the full original principal, even if only a participation were purchased—intended to keep the GSEs out of the jumbo mortgage securitization market. See listing under FNMA (Sec. 4.1) for further discussion.

Second Mortgage Purchase Program Announced: January 1986

Policy Change	Agency	Impact	News	Effective	Classification
Second Mortgage Program Approval	FHLMC	+$1.0 billion	Jan. 1986	Jan. 1986	Non-Cyclical

On January 7, 1986, Freddie Mac announced that it would be launching a new program to purchase second mortgages, and that a second mortgage securitization program would begin once a sufficient number of liens had been inventoried on portfolio (Dow Jones News Service (1/6/1986)).[107] Freddie noted that purchases would begin in January and after accumulating an initial $500 million in loans, it would begin issuing second mortgage pass-through securities, with the first issuance expected by early 1987 (The American Banker (1/8/1986)). Freddie Mac's acting vice president for sales and marketing projected that the corporation would purchase roughly $1 billion worth of second mortgages during calendar year 1986 (National Mortgage News (1/13/1986)). As this programatic expansion was enabled by recent statutory authorization (see above), we consider this a significant regulatory policy change, and assign an annualized increase in purchase capacity of $1 billion for its first year of operation. As the timing of such a program's launch was entirely uncertain, and no earlier concrete announcement or leak could be found, we determine that the news of the second mortgage program was made public in January 1986.

In proposing second mortgage authorization for Freddie, a Senate report accompanying the Secondary Mortgage Market Enhancement Act of 1984 explained that "*[t]he committee considers this amendment to be consistent with the established mission of both Fannie Mae and Freddie Mac to foster a nation-wide system of home finance. Second mortgages are becoming an increasingly important source of financing for homeownership... the Committee bill would help ensure that there is an adequate secondary market for subordinate loans that are used for the specific purposes of purchasing or refinancing homes*" (Senate Committee on Banking, Housing and Urban Affairs (1983), p. 13).

[106] Ginnie Mae's securitization model involved guaranteeing the timely and full payment on qualified issuers' pools of FHA/VA mortgages that were never purchased outright by Ginnie; the amendment prohibited Freddie from adopting this model.

[107] Fannie had started a second mortgage purchase program in 1981, under which it had purchased $5 billion in second mortgages to date, but was retaining second mortgages on portfolio (see FNMA, Sec. 4.1). A HUD ruling had provided authority for Fannie to deal in second mortgages in 1981, before enactment of Pub. L. 98-440 expanded statutory authority to FHLMC (see above).

Freddie's 1986 Annual Report explained that its intent was "*to provide billions of dollars in housing equity for home owners and provide new opportunities for mortgage lenders who originate second mortgage loans*" and characterized the program expansion as expanding its 'product line' (FHLMC Annual Report 1986, pp. 3, 23). That report also described the prevailing economic and mortgage market environment as a period of "*favorable market conditions*." The economy was neither in a recession nor credit crunch, and the Federal Reserve characterized the housing and mortgage markets as healthy: "*Housing activity continued to expand in 1986. Total housing starts edged up to 1.8 million units for the year as a whole, their highest level since the late 1970s. Single-family homebuilding increased about 10 percent, bolstered not only by a sizable decline in mortgage rates—which brought rates on fixed-rate loans back to single digits for the first time since 1978—but also by continuing favorable demographic trends*" (Annual Report of the Federal Reserve Board 1986, p. 9). Given Congress's intent to modernize the structure of secondary mortgage finance, the protracted delay between's FHLMC's authorization and announced program launch, and Freddie's business diversification motive for the program expansion, we classify the program expansion into second mortgages as unrelated to the business or financial sector.[108]

Purchase Cap Announced: March 3, 1987

In early March 1987, FHLBB Chairman Edwin Gray announced that the regulator would limit Freddie Mac's mortgage purchases to $75 billion for the year, a reduction relative to the corporation's record $103 billion worth of conventional mortgage purchases in 1986, which had been driven by record refinancing activity as interest rates subsided (The Bond Buyer (3/9/1987)). Freddie had previously projected in its budgetary request that it would purchase $75 billion worth of mortgages for the year, which the Board then adopted as its purchase limit—the first in Freddie's history (The Bond Buyer (9/15/1987)). The Board sent Freddie a letter dated March 3 instructing it to develop a plan detailing how the $75 billion maximum would be attained. After news of the purchase cap broke, Freddie's acting president downplayed the cap as "*a flexible one and [that it] might be raised if necessary*" (The American Banker (3/10/1987)).

In announcing the purchase cap, the Board cited concerns about S&Ls' holdings and hedging use of certain 'Freddie Mac products,' notably floating-rate CMOs. Chairman Gray had also recently raised concerns that Freddie's market dominance was hurting thrifts' ability to raise funds in capital markets (The American Banker (3/10/1987)). But market analysts attributed the move as largely motivated by Gray's desire to reduce Freddie's activity in the secondary mortgage market, and as acting on behalf of the Reagan administration to circumvent Congress in reining in the Enterprises (The American Banker (3/10/1987)).

On September 14, Freddie Mac President and CEO Leland Brendsel announced that the Board had lifted the cap on purchases, and projected that Freddie's purchases would total $85 billion for the year (The Bond Buyer (9/15/1987)). Brendsel had hinted the week before that the Board was interested in lifting the limit, and predicted it would be lifted by year's end. According to a Freddie spokesperson, altered "*market conditions have convinced the Bank Board to rescind the limit*" (The Bond Buyer (9/15/1987)). Interest rates were rising, decreasing refinancing activity and increasing demand for ARMs, and Freddie pledged to increase support of the secondary AMR market. The $75 billion purchase cap does not appear intended or projected to be a binding constraint ex ante, and it certainly was not binding ex post, though its slack nature appears somewhat cyclically motivated by credit market conditions. We thus do not classify the temporary purchase cap as a significant regulatory event affecting Freddie's mortgage holdings.

[108] Fannie's first authorization into second mortgages in 1981, on the other hand, was an explicit response to cyclical conditions in the mortgage market, and authority was to be rescinded after interest rates were projected to have receded (see Sec. 4.1).

REMICs Authorization Authorized: February 1988

In February 1988, FHLMC sought and received permission from the FHLBB to issue REMICs. The temporary authority granted permitted the issuance of $15 billion in REMICs and other long-term debt between February 1988 and September 1989. Over the course of 1988, Freddie Mac sold nearly $13 billion in Multiclass PCs as REMICs (FHLMC Annual Report 1988, p. 3). We do not consider this authorization a significant regulatory affecting FHLMC's purchases of mortgages or MBS because the development of the REMIC market largely resulted in the re-securitization of outstanding agency MBS (see discussion under FNMA, Sec. 4.1).

Public Listing of Freddie Mac Effective: January 3, 1989

Policy Change	Agency	Impact	News	Effective	Classification
Stock Split Capitalization	FHLMC	+$1.62 billion	Nov. 1988	Nov. 1988	Non-Cyclical

In July 1988, Senator Al D'Amato introduced a bill that would have removed barriers to trading Freddie's preferred stock and opened purchases to the public, which was seen as both a means to improving the balance sheets of the thrifts holding the shares and a step toward privatization (The New York Times (6/7/1988)). Precluding Congressional action, Freddie Mac's Board of Directors—still comprised of the FHLBB—-decided in July to remove the trading restrictions on the preferred stock, opening ownership to public investors for the first time. In conjunction with the Board's decision, Freddie Mac offered to exchange each share of original preferred stock, along with a $7 per share capital contribution, for four shares of new senior participating preferred stock (Treasury (1990), p. B-9). The status of the non-voting, non-tradable common stock held by the twelve FHLBanks would remain unchanged.

The split offer, however, would be void without at least two-thirds of existing preferred shares being tendered, and thrifts faced a November 30 deadline to agree to exchange their shares in the split. If the deal was tendered, thrifts would able to realize a capital gain on their undervalued stock, which at the time of announcement, was projected to free $1 billion of new funds for the S&L industry, which had seen its capital levels diminish considerably over the previous few years (The New York Times (7/14/1988)). Within a week of the November deadline, a majority of thrifts had yet to exchange their shares, as they were delaying the $7 per share payment until the last possible minute to preserve cash (The American Banker (11/22/1988)). But in the end, nearly all of the thrifts' preferred stock was exchanged in the split, the cash contributions from which added $104 million to Freddie's capital base (Treasury (1990), p. B-9). Because Freddie's increase in paid in capital was contingent upon meeting the two-thirds tender threshold at the eleventh hour, we determine that the news of the capitalization was only made public in November 1989. Preferred shares began publicly trading on January 3, 1989.

While the FHLBB imposed no explicit statutory leverage or capital requirement on Freddie, their regulator kept mortgage holdings and operations aligned with what they deemed prudent capitalization, and portfolio expansion had been curbed earlier in the decade until more capital was raised (see Preferred Stock Authorization (Pub. L. 97-289) above). Assuming FHLMC's Board was keeping operations roughly in line with the 14.6-to-1 ratio of total liabilities on balance sheet to the primary capital base of $1.516 billion in 1987, the addition of $104 million in paid in capital would have enabled an increase in liabilities and purchases of $1.62 billion ($104 million $\times$ (14.6 +1) = $1.62 billion).[109]

[109]The primary capital base was defined as reserve losses on mortgages, participating preferred stock, voting and nonvoting common stock, retained earnings, and additional paid in capital, but excluding subordinated borrowings. Alternatively using the

The ratio of total liabilities to the primary capital base was a comparable 16.3-to-1 and 15.4-to-1 in 1986 and 1988, respectively (FHLMC 1988 Annual Report, p. 24). And Freddie's primary capital base had risen to $1.976 billion by the close of 1988, after the paid in capital increase, up 30.3% from 1987—well above either the 23.1% increase in the prior year or average increase over the prior three years.

The Federal Reserve's Annual Report for 1988 noted that the "*spread between interest rates on fixed-rate mortgages, which have an average life of roughly 10 years, and yields on 10-year Treasury notes did not change appreciably over 1988, which also indicates that the mortgage markets continued functioning well despite the problems of many savings and loan associations*" (Annual Report of the Federal Reserve 1988, p. 17). The report also noted that housing investment had picked up in the second half of the year, and was up in the year to 1988Q4 (Annual Report of the Federal Reserve Board 1988, p. 7). We classify the policy change as motivated by political preferences for privatization as well as addressing a long-standing, widely acknowledged constraint imposed by Freddie's statutorily restricted access to equity, and unrelated to the business or financial cycle.

Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (Pub. L. 101-73)

Enacted: August 9, 1989. See listing under FNMA (Sec. 4.1) for a broader overview of the Act and its context.

FIRREA rechartered Freddie and, for the first time, set its statutory purpose: "*(1) to provide stability in the secondary market for home mortgages; (2) to respond appropriately to the private capital markets; and (3) to provide ongoing assistance to the secondary market for home mortgages (including mortgages securing housing for low- and moderate-income families involving a reasonable economic return to the corporation) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for home mortgage financing*" (Sec. 731a). Freddie's mission had not previously extended to explicitly supporting housing for low- and moderate-income families. Congress simultaneously made conforming changes to the FNMA Charter Act, so that the Fannie and Freddie had identical statutory purposes. Of particular note, Congress's emphasis for both GSEs shifted to 'ongoing assistance' to the secondary market, signaling a continuous presence in the secondary mortgage market.

The Act turned FHLMC into a fully publicly traded shareholder-owned corporation. The law automatically converted Freddie Mac's senior participating preferred stock into voting, freely transferable common stock, effective August 9, 1989. Common stock began trading on the NYSE the following day. The conversion did not affect Freddie Mac's capitalization. The old Board of Directors, which consisted of the FHLBB members, was dissolved and replaced by a new 18-person Board of Directors, five of whom were to be appointed by the President and the remainder of whom would be elected by the voting common shareholders.[110] In harmonizing the special privileges and statutory treatment of Fannie and Freddie, the Act additionally amended Section 306(c) of the FHLMC Act to allow the Treasury Secretary to purchase up to $2.25 billion worth of Freddie Mac's obligations. As with Fannie, this statutory line of credit was perceived as an implicit government guarantee, lowering Freddie's cost of funds.

FIRREA transferred regulatory oversight of FHLMC from the FHLBB, which was also disbanded by the Act, to HUD, whose regulatory authority over Freddie was similar to its existing authority over Fannie. HUD could determine

ratio of liabilities to stockholder's equity of 20.72 at the end of 1987 (Treasury (1990), p. B-8), the implied maximum growth in mortgage assets from this capital injection would be $2.26 billion ($104 million × (20.72 +1) = $2.258 billion). A comparable ratio of liabilities to stockholder's equity of 20.69 prevailed at the end of 1988.

[110] An interim Board consisting of the President of the Corporation, outgoing FHLBB Chairman, and HUD Secretary were to serve until the first meeting of voting common shareholders.

the ratio of unsecured debt to total regulatory capital, which was statutorily set to no less then 15-to-1, and could require that a reasonable portion of Freddie's mortgage purchases be related to national housing goals, providing they allowed for a 'reasonable' economic return to Freddie. As was the case for Fannie, regulatory capital included subordinated debt. In 1989, Freddie's debt-to-capital ratio was only 4.25-to-1; only a small volume of Freddie's assets were funded by unsecured debt and the capital ratio calculation excluded PCs held by third parties, treated as off-balance sheet securities. The Act additionally required HUD's approval for the issuance of stock and securities convertible into stock.

It was clear that HUD's capital requirement did not constrain Freddie in any way (Treasury (1990), p. B-60). We therefore do not classify the imposition of this leverage requirement as a binding, significant policy change materially affecting Freddie's mortgage portfolio when FIRREA was enacted. The change in ownership structure in 1989, however, created strong profit incentives to exploit the advantages of government sponsorship and a perceived implicit guarantee through leveraged portfolio growth (Treasury (1996), p. 39). Prior to FIRREA, Freddie maintained a relatively small amount of mortgages in portfolio, primarily held for pooling inventory purposes, and securitized almost all of its purchases. As it was indirectly owned by the thrifts, this sufficed to accomplish the mission of providing secondary market liquidity. On February 6, 1990, one of the first actions taken by the new Board was to retire at par the nonvoting common stock held by the FHLBanks, further severing Freddie's ties with the FHLBS (FHLMC Annual Report 1990, p. 44, Treasury (1990), p. B-9). The business models of Fannie and Freddie subsequently converged towards expanding securitization fee income coupled with highly leveraged retained portfolio growth.

Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Pub. L. 102-550)

Enacted: October 28, 1992. See listing under FNMA (Sec. 4.1) for a broader overview of the Act and its context.

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals	FHLMC	+$0.75 billion	July 1991	Jan. 1993	Non-Cyclical

The Act created OFHEO as the safety and soundness regulator of Fannie and Freddie, imposed uniform capital requirements, and broadened the Enterprises' statements of purpose to expand affordable housing activities. FHLMC's charter was changed from providing stability in secondary market for 'home' mortgages to 'residential' mortgages, thus expanding emphasis on (lower-income) multifamily housing. One of the main provisions of FHEFSSA affecting Fannie and Freddie was the introduction new capital requirements and requirement that OFHEO develop of risk-based capital standards based on stress tests. As with Fannie, Freddie anticipated the new capital requirements (see discussion under FNMA, Sec. 4.1). For instance, Freddie's 1990 Annual Report stated that "*Congress and certain federal agencies are considering actions that could result in the imposition of capital standards and other regulatory requirements on Freddie Mac. Legislation may be enacted or regulatory requirements may be adopted in 1991*" (FHLMC Annual Report 1990, p. 24). But regulators had deemed that Freddie's capital position was significantly stronger than Fannie's, and unlike FNMA, there was no discernible effort by FHLMC to increase its capitalization in anticipation of pending regulations.

HUD had not previously extended national housing goals to Freddie Mac (GAO (1996), p. 82), but the Act introduced quantitative affordable housing goals for Freddie. As mission regulator, HUD was required to set goals for: (1) low- and moderate-income housing; (2) housing in central cities rural areas and other underserved areas; and

(3) special affordable housing for low- and very low-income families. During a two-year transition period starting from enactment, FHEFSSA set interim targets for each of the first two goals equal to 30% of the total number of units financed. Thereafter the HUD Secretary was authorized to set annual goals. Under the additional special affordable housing goal, Freddie was obliged to purchase an additional $1.5 billion of mortgages financing housing for low- and very-low income families over 1993–1994, split between single and multifamily housing loans. Given that Freddie had completely stopped purchasing multifamily mortgages in 1989, these affordable housing goals clearly would have been a binding constraint.[111] Splitting the $1.5 billion goal equally between the two years, we assign an annualized increase of $750 million to Freddie's purchase activity from the imposition of new affordable housing goals. As with Fannie, we classify this policy change as non-cyclically motivated (see discussion under FNMA, Sec. 4.1).

The special affordable housing goals enacted in October 1992 and made effective in January 1993, however, had long been anticipated, and were backed by both Fannie and Freddie in July 1991, when the GSEs negotiated them with housing public interest groups (see discussion under FNMA, Sec. 4.1). The original bill that evolved into FHEFSSA, which first introduced statutory affordable housing goals as a percentage of paid dividends, was introduced in the House on July 16, 1991, and the preferred $1.5 billion transition compromise for Freddie was substituted in during a subcommittee markup on July 30. In response to the introduction and early evolution of the GSE oversight bill, Freddie's common shares fell 1.7% on July 16, 1991, for a negative excess return of 1.5 percentage points below the S&P 500 for the day. This movement reversed around the subcommittee markup, with Freddie's shares rising 1.8% on July 30 and 3.3% on July 31, for excess returns of 0.8 percentage points and 3.0 percentage points, respectively. We thus date the news of the transition affordable housing goals to July 1991, well in advance of taking effect.

HUD published slightly revised interim housing goals for FHLMC in July 1993, which were published essentially unchanged as a final rule on October 13, 1993. The special affordable housing goal was set at $1.5 billion above Freddie Mac's existing performance and commitments for 1993–1994, hence a change from current policy. Freddie Mac's goals were set lower than Fannie Mae's, again because it had ceased purchasing multifamily mortgages a few years earlier, and was thus equipped to finance fewer of those units than Fannie Mae.[112] Freddie Mac estimated that it purchased $5.214 billion of mortgages in 1992 that would have qualified toward the special affordable housing goal, had it applied. The 1993–1994 special affordable housing goal for Freddie Mac was then established as twice the 1992 baseline ($10.428 billion) plus $1.5 billion, for a two-year goal of $11.928 billion (58 FR 53072).

On November 30, 1994, HUD temporarily extended the affordable housing goals for 1994 into 1995. The 1995 goal for special affordable housing purchases for Freddie Mac was set at $3.357 billion for 1995, $750 million above the revised baseline (59 FR 61504). The lower special affordable housing goal was meant to recognize that the dollar amount of conventional mortgages originated was expected to be substantially lower in 1995 than the volume of originations in 1992. The goals applied on a proportional basis for that portion of 1995 before permanent goals were established. The lower 1995 goal was therefore entirely due to changes in mortgage market conditions rather than policy, and we therefore do not record any change in purchase activity as a result of the extension of the interim goals.

The Federal Reserve's 1995 Annual Report suggested that the new affordable housing goals were substantially

[111] It had become clear by the end of 1989 that Freddie's multifamily mortgage portfolio's credit performance was in bad and deteriorating shape, and these loans started to raise red flags, despite accounting for just 3% of its total servicing portfolio. After first tightening underwriting standards, multifamily mortgage purchases under its Multifamily Cash Program were completely suspended in September 1990 (FHLMC Annual Report 1990, pp. 18–19).

[112] The goals with respect to low- and moderate-income housing were 28% for 1993 and 30% for 1994 (The American Banker (10/14/1993)). For housing located in central cities, the goals were 26% and 30% for 1993 and 1994, respectively.

altering the Enterprises' purchase behavior, noting they had recently "*initiated a variety of affordable home loan programs intended to benefit lower-income and minority households*" and impacts of affordable housing goals appeared to be showing up in HMDA microdata (Annual Report of the Federal Reserve Board 1995, p. 203).[113]

HUD Final Rule on Housing Goals Issued: December 1, 1995

See listing under FNMA (Sec. 4.1) for a broader overview of the revised housing goals.

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals: Multifamily	FHLMC	+$0.61 billion	Dec. 1995	Jan. 1996	Non-Cyclical

On December 1, 1995, HUD issued new housing goals for 1996–1999, effective January 2, 1996 (60 FR 61846). Freddie Mac had met HUD's headline housing goals throughout 1993–1995, but by much narrower margins than Fannie Mae. Freddie's relative struggles with the new goals was largely attributed to Fannie's larger presence in the multifamily mortgage market (GAO (1998)).[114] Freddie Mac missed its $750 million multifamily portion of the special affordable housing goal for 1993–1994, when it purchased just $495 million worth of qualifying multifamily mortgages (FHLMC Annual Report 1995, p. 31). Freddie also missed another HUD goal for the fraction of purchases for mortgages in central cities in both 1993 and 1994 (The American Banker (3/9/1995)). Freddie tried to compensate for these shortfalls in 1995, eclipsing that year's $375 million special affordable goal for multifamily mortgages.

But HUD's new special affordable goals set a considerably higher multifamily mortgage purchase goal of $988 million—set at 0.8% of Freddie's total purchases in 1994—annually for 1996–1999 (60 FR 61851).[115] By comparison, HUD's final rule noted that subgoal-qualifying multifamily mortgage purchases accounted for only 0.36% of Freddie's total purchases in 1994 (60 FR 61859). Given Freddie's challenges meeting the multifamily and central cities subgoals, we deem this large increase a significant policy change that would have affected Freddie's purchase behavior. We assign an annualized increase in purchases of $613 million in January 1996, scored as the difference between Freddie's multifamily special affordable housing goals for 1995 and 1996. Ex ante, Freddie was just barely able to meet its higher multifamily special affordable housing subgoals, whereas Fannie hit roughly twice its higher multifamily targets (GAO (1998), p. 18). And unlike Fannie, Freddie clearly had to change its purchase behavior to accommodate the multifamily goals, most notably reinstating its halted purchase program in 1993, though not all of its resumed multifamily purchases were goal-qualifying.

HUD had published proposed rules on February 16, 1995 (60 FR 9154), but citing credit risk, Freddie Mac pushed back vigorously against multifamily mortgage provisions during the ensuing public comments period; moreover, both GSEs pushed back against HUD's definition and measurement of the multifamily mortgage market. The final rule

[113]The report elaborated: "*A year-to-year comparison of the HMDA data suggests that these programs may be making a difference. From 1992 to 1993 the number of conventional home purchase loans extended to lower-income borrowers increased 38 percent compared with an 8 percent increase for higher-income homebuyers. The trend continued into 1994. The 1994 HMDA data show that the number of loans to lower-income borrowers increased about 27 percent while the number extended to higher income borrowers increased about 13 percent... Among racial or ethnic groups from 1993 to 1994, the number of loans to black applicants increased 55 percent, to Hispanic applicants 42 percent, and to Asian applicants 19 percent. The increase for white applicants was 16 percent over the same period*" (Annual Report of the Federal Reserve Board 1995, p. 203).

[114]After suffering large losses in the late 1980s, Freddie completely withdrew from the multifamily market in 1990, and only returned to the market in 1993 to satisfy the affordable housing goals (FHLMC Annual Report 1992, p. 34).

[115]See listing under FNMA (Sec. 4.1) for an overview of the headline affordable housing goals set by the final rule.

explained that "*[i]n response to comments received and upon further consideration by the Secretary this final rule substantially changes the proposed rule's formulation of the Special Affordable Housing Goal*," notably removing equal targets for owner-occupied versus rental housing subgoals and instead setting fixed minimum multifamily subgoals (60 FR 61859). HUD also chastised Freddie Mac, citing that "*[i]n 1994, Fannie Mae purchased five times as many multifamily mortgages as Freddie Mac... the economic analysis prepared for this rule does not support the argument that the goals will expose the GSEs to unacceptably high levels of credit risk.*" The rule elaborated that "*HUD recognizes that Freddie Mac experienced losses on its multifamily business in the late 1980s, in part because of flawed corporate oversight mechanisms, resulting in Freddie Mac's withdrawal from the multifamily market. However, half a decade has passed since that experience, providing Freddie Mac with sufficient time to develop a multifamily business*" (60 FR 61852). Given the GSE's pushback regarding multifamily subgoals and subsequent, substantive revisions to HUD's Special Affordable Housing Goals, we date the news of the multifamily mortgage subgoals being made public to publication of the final rule on December 1, 1995.

The tightening of affordable housing goals for 1996 was ostensibly about social policy objectives promoting homeownership and housing for lower-income households. The implementation of the new goals was also long required by the FHEFSSA of 1992, rather than an unexpected development stemming from housing market or financial conditions. We found no evidence that the increased goals were cyclically motivated, and the housing and mortgage market would not have justified any such cyclical motivations. The Federal Reserve's Annual Report for 1995 noted that, shaped by mortgage rate fluctuations, "*residential investment fell in the first half of 1995 but turned up in the second half... [but] the intra-year swings in the various housing indicators left the annual totals for these indicators at fairly elevated levels. Sales of existing homes in 1995 were well above the annual average for the 1980s, even after adjusting for increases in the stock of houses*" (Annual Report of the Federal Reserve Board 1995, p. 9). We thus classify the change as primarily motivated by social policy objectives, particularly increasing lower-income homeownership, and unrelated to the business or financial cycle.

New HUD Regulations on Housing Goals Issued: October 31, 2000

See listing under FNMA (Sec. 4.1) for a broader overview of the revised housing goals.

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals	FHLMC	+$24.4 billion	July 1999	Jan. 2001	Non-Cyclical

On October 31, 2000, HUD published a final rule significantly increasing affordable housing goals for 2001–2003 for both Fannie and Freddie, which were virtually identical to a new proposal outlined by the HUD Secretary on July 29, 1999. We assign the same $24.4 billion annualized increase in purchases for Freddie as assigned to Fannie (see listing under FNMA, Sec. 4.1). Financial markets appeared to react to new information revealed with both the proposed rule and final rule publication. News of the proposed affordable housing policy leaked on July 28, 1999, after HUD announced a scheduled press conference with Secretary Cuomo and Fannie Chairman Raines the following day. Freddie's share price fell 0.6% that day, 0.8 percentage points below the S&P 500's gain for the day, despite also announcing better-than-expected second quarter earnings results. Shares rebounded 0.7% the next day, closing 2.5 percentage points above the S&P 500, after Freddie 'balked' and lodged a formal complaint against HUD's proposed affordable housing goals, citing concerns about the size of the increase as well as Freddie's disadvantaged

position with respect to its multifamily housing program, which was a quarter the size of Fannie's (Dow Jones News Service (7/29/1999)); Freddie announced it would submit detailed objections during the public comment period for the proposed rule.[116] When the proposed rule was detailed on March 2, 2000, Freddie's stock price fell 3.3%, for a negative excess return of -3.5 percentage points below the S&P 500. Freddie's share price fell 0.8% upon the announcement of the final rule on October 31, 2000, for a negative excess return of 3.0 percentage points below the S&P 500.

As with Fannie, we determine news of the more aggressive affordable housing goals to have been made public in July 1999. The implications of the proposed rules and Freddie's unsuccessful efforts to water them down appear to have been gradually priced into Freddie's shares, well in advance of the eventual rules being made effective in January 2001. And as with Fannie, we classify the policy change as unrelated to the business cycle (see the listing under FNMA, Sec. 4.1).

OFHEO Ruling on Capital Requirements Issued: September 13, 2001

Pursuant to FIRREA, OFHEO gradually developed 'stress-test' risk-based capital rules, which were issued in September 2001, to be made effective September 13, 2002. But Fannie and Freddie both maintained capital well in excess of the regulatory risk-based capital standard until mid-2008, so we do not consider this to be a binding, significant policy change affecting the Enterprises' portfolio behavior. See listing under FNMA (Sec. 4.1).

SEC Disclosure Requirements Agreement: July 12, 2002

On July 12, 2002, Fannie and Freddie agreed to register their common stock with the SEC and 'voluntarily' comply with SEC disclosure requirements, preempting legislative action requiring them to do so. We do not consider this to be a significant policy change affecting the Enterprises' purchase behavior. See listing under FNMA (Sec. 4.1).

Accounting Scandal: Capital Surcharge Announced: January 29, 2004

Allegations of accounting irregularities at Freddie Mac emerged in 2002. On January 22, 2003, Freddie announced that disallowed accounting policies related to hedging employed by its previous external auditor, Arthur Anderson, necessitated restating financial results for 2001 and 2002, and possibly 2000. On June 7, 2003, OFHEO launched a special examination into the accounting irregularities. On June 8, 2003, Freddie Mac President David Glenn was terminated for due cause based on inadequate cooperation with an internal investigation and for altering personal records, while Chairman Leland Brendsel and Chief Financial Office Vaughn Clarke abruptly stepped down (The New York Times (6/9/2003)). On November 21, 2003 the company restated financial results, which led to a $5 billion increase in cumulative retained earnings and $5.2 billion increase in core capital (OFHEO (2003), p. 1). OFHEO released its special examination report on December 10, 2003 and Freddie agreed to pay a $125 million penalty for inappropriate conduct and improper management of earnings. The report concluded that Freddie Mac had disregarded accounting rules, internal controls, and disclosure standards, and ultimately violated the public trust in its pursuit of steady earnings growth—notably by improperly using a number of strategies to shift earnings among quarters, to

[116] Contrary to Freddie's combative stance and share price movements surrounding HUD's various announcements of the new affordable housing goals, its management claimed in the 1999 Annual Report that adoption of the proposed rule "*would not have a material adverse effect on Freddie Mac's results of operations or financial condition*," though this could have been an attempt to manage shareholder sentiment (FHLMC Annual Report 1999, p. 42).

stabilize growth in earnings per share. The report recommended that Freddie be required to hold a capital surplus and urged consideration of limiting retained portfolio growth until it produced certified financial statements.

On January 29, 2004, OFHEO imposed a capital surcharge of 30% above the minimum capital surplus in response to increased operational risk. The surcharge requirement was effective immediately and would remain in place until timely, certified financial statements were produced. The order also mandated OFHEO's approval for any corporate action that might impair Freddie's ability to achieve the targeted capital surplus. In the news release announcing the surcharge, OFHEO reported a capital surplus as of November 30, 2003 of $8.1 billion, 32.2% above the standing statutory minimum requirement (OFHEO (2004d)). The surplus for November 30, 2003 did not reflect pending 2003 financial statement adjustments, but did reflect the increase in capital of approximately $5 billion from the 2002 restatement process. Freddie's 2003 Annual Report explained that "*[w]hile OFHEO's framework includes stringent monitoring and imposes restrictions on share repurchases and other capital activities, we do not expect it to adversely affect our disciplined growth strategy in most scenarios. Had the target capital surplus been in effect at December 31, 2003, our estimated surplus in excess of the target would have been approximately $2.1 billion*" (FHLMC Annual Report 2003, p. 36). Similarly, Freddie's 2004 Annual Report reported core capital of $35.0 billion as of December 31, 2004, $10.9 billion in excess of the minimum statuary capital requirement and approximately $3.6 billion in excess of the amount required with the 30% capital surcharge (FHLMC Annual Report 2004, pp. 22, 89).[117]

Because the restatement of recent earnings resulted in an increase in core capital—unrelated to any policy change—to levels well exceeding the amounts newly required by the capital surcharge and no portfolio adjustments appeared to be needed, we do not classify the imposition of the capital surcharge as a binding, significant policy change expected to impact Freddie's retained portfolio.

New HUD Regulations on Housing Goals Issued: November 1, 2004.

See listing under FNMA (Sec. 4.1) for a broader overview of the revised housing goals.

Policy Change	Agency	Impact	News	Effective	Classification
Affordable Housing Goals	FHLMC	+$7.6 billion	Apr. 2004	Jan. 2005	Non-Cyclical

Affordable housing goals came up for renewal in 2004. In April, HUD proposed more aggressive rules for 2005–2008, and published a final rule in November setting goals that were slightly scaled back but quite similar to those initially proposed (see discussion under FNMA, Sec. 4.1). There is abundant evidence that this round of affordable housing goal increases began to substantially alter the Enterprises' purchase and portfolio behavior (FCIC (2011), pp. 186–187). Freddie's 2004 Annual Report stated that "*[w]e believe that meeting these goals and subgoals will be challenging and there can be no assurance that we will meet all of them in 2005 or beyond. We are making significant efforts to meet the new goals and subgoals through adjustments to our mortgage sourcing and purchase strategies, including changes to our underwriting guidelines and expanded and targeted initiatives to reach underserved populations*" (FHLMC Annual Report 2004, p. 11). Despite warning that the goals could reduce profitability, Freddie reiterated its support for the affordable housing component of its public mission: "*We view the purchase of mortgage loans benefitting low- and moderate-income families and neighborhoods as a principal part of our mission and business, and remain*

[117] While not required by OFHEO's capital surcharge, Freddie's capital surplus had grown by $2.0 billion since December 2003, driven by higher retained earnings and a slight contraction in Freddie's balance sheet, perhaps due to the refinancing boom's end.

committed to fulfilling the needs of these borrowers and markets." The 2006 Annual Report similarly emphasized that: "*We are making certain changes to our business to meet HUD's housing goals and subgoals, which may adversely affect our profitability. We are purchasing loans and mortgage-related securities that offer lower expected returns on our investment and increase our exposure to credit losses*" (FHLMC Annual Report 2006, p. 13).

Freddie Mac retroactively estimated that there was zero cost to meeting its affordable housing goals over 2000–2003, when goals were met through 'profitable expansion,' but goals became harder to meet as the refinancing boom increased the share of non-qualifying mortgage originations (FCIC (2011), p. 186). Freddie estimated that over 2005–2008, roughly 4% of loan purchases, or roughly $31.4 billion, were made "*specifically because they contribute to the goals*," suggesting that the goals issued in 2004 forced Freddie to alter and expand its purchases. Rather than being strictly profitable, costs associated with carrying such loans were estimated to average $200 million annually over 2003–2008 (FCIC (2011), p. 186), again suggesting significant portfolio effects from the elevated affordable housing goals. We assign the same impact to Freddie as to Fannie, an annualized increase in purchases of $7.6 billion for the goals' first year of effect (see discussion in listing under FNMA, Sec. 4.1).

When the proposed goals were first leaked, Freddie's shares fell 0.4% on April 6, 2004, closing 0.2 percentage points below the S&P 500 for the day. The final rule's one percentage point reduction across the three goals, relative to the proposed rule, was received positively, although the response to shares may have been muted by speculation about the imminent presidential election; Freddie's stock price rose 0.1% on November 1 and 0.9% on November 2 on leaked news of the final rule and its publication in the Federal Register, respectively, closing roughly 0.1 percentage points and 0.9 percentage points above the S&P 500 those days. Given the similarity of the final rule to the proposed rule, and markets' initial pricing of the more aggressive rules, we date the news of the housing goals as being made public in April 2004, as with Fannie. And as with Fannie, we classify the affordable housing goals as driven by social policy objectives as well as a longstanding legal requirement set by FHEFSSA, and unrelated to the business or credit cycle (see listing under FNMA, Sec. 4.1, for an explanation for this classification).

OFHEO-Freddie Settlement: Portfolio Growth Limit Announced: August 1, 2006

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Growth Limit Imposed	FHLMC	-$42.8 billion	June 2006	July 2006	Non-Cyclical

Throughout 2005 and 2006, political pressure built to rein in Fannie and Freddie, particularly by curbing the GSEs' retained portfolios.[118] In a high-profile May 2005 speech at the Federal Reserve Bank of Atlanta, Federal Reserve Chairman Alan Greenspan was highly critical of the GSEs' balance sheet expansion and recommended portfolio limits: "*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*" (Greenspan (2005)).

[118] See discussion in 'Accounting Scandal: Capital Shortfall and Surcharge' and 'OFHEO-SEC-Fannie Settlement: Portfolio Caps' listed under FNMA, Sec. 4.1.

Coinciding with the May 2006 release of OFHEO's final report investigating Fannie Mae's accounting scandal, Fannie entered an agreement with OFHEO and the SEC that included capping its retained portfolio at its value from the end of 2005.[119] In response to a request by OFHEO, Freddie announced on August 1, 2006 that it would voluntarily and temporarily limit the growth of its retained portfolio to no more than than 2.0% annually (and 0.5% each quarter) from its $710.3 billion portfolio as of June 30, 2006, as measured by GAAP accounting rules. Freddie's 2006 Annual Report stated: "*We expect to keep the limit in place until we return to producing and publicly releasing quarterly financial statements prepared in conformity with US generally accepted accounting principles*" (FHLMC Annual Report 2006, p. 4). Permissible portfolio growth was additionally limited to "*assets that are intended to help [Freddie] meet [their] affordable housing goals or subgoals*," particularly multifamily whole loans, private-label MBS, and commercial MBS (American Banker (8/2/2006)), further suggesting the limits would have a substantial impact on purchase behavior. The limits were made retroactively effective July 1, 2006.

Prior to the consent agreement, Freddie had "*stated that it will grow in line with the growth rate of the overall MBS (mortgage-backed securities) market*" according to a market analyst (Dow Jones News Wire (5/24/2006)). And unlike Fannie Mae, Freddie Mac's portfolio had been steadily growing throughout 2005 and 2006—widely interpreted as Freddie exploiting Fannie's accounting problems and capital shortfall to gain market share—until being abruptly curtailed by the portfolio limit. To measure the impact of the portfolio caps, we rely on counterfactual portfolio growth based on a June 21, 2006 Greenbook forecast of 9.5%, 8.4%, and 7.1% annualized growth rates for US mortgage debt for 2006Q3, 2006Q4, and 2007, respectively. Applying these growth rates to a retained portfolio of $710.3 billion as of June 30, 2006 suggests counterfactual mortgage portfolio growth of $31.1 billion in the second half of 2006 and another $25.9 billion in the first half of 2007 without the cap's imposition.[120] With the annual 2% portfolio growth cap, the maximum permissible portfolio expansion would have been $14.2 billion in the year from June 30, 2006. Annualizing, we assign a purchase reduction of $42.8 billion for the portfolio limit's initial imposition ($14.2 - ($31.1 + $25.9) = -$42.8).[121]

The introduction of portfolio caps had been publicly anticipated somewhat before being announced by Freddie. FHLMC had reduced its mortgage portfolio in both May and June 2006, slowing annualized growth for the first half of the year to 3.4%, down from 8.4% portfolio growth in 2005, though May's deceleration was only first made public in late June (American Banker (7/25/2006)). By stark contrast, its retained portfolio had grown at annualized rates of 17.2% and 14.0% in March and April, respectively (Dow Jones News Wire (5/24/2006)).[122] In a conference call with shareholders regarding 2005 net earnings, held after markets had closed on May 30, FHLMC CEO Richard Syron announced that the corporation expected to be in talks with OFHEO about the possibility of portfolio limits (Dow Jones Newswires (5/30/2006)).[123] On June 6, *The Wall Street Journal* reported that "*Freddie Mac may face limits on its holdings of mortgage loans and related securities*" (The Wall Street Journal (6/7/2006)). In testimony earlier that day before a House Financial Services subcommittee, OFHEO Director Lockhart flagged that the "*chairman of*

[119] See 'OFHEO-SEC-Fannie Settlement: Portfolio Caps' under FNMA, Sec. 4.1.

[120] For the second half of 2006 and first half of 2007 combined, $\$710.3 \times (1.095)^{1/4} \times (1.084)^{1/4} \times (1.071)^{2/4} - \$710.3 = \$57.0$.

[121] We do not apply the two-year rule here because of the quarter-by-quarter binding nature of the portfolio limits.

[122] These growth rates are based on the non-seasonally adjusted portfolio data reported at the time. Ex post, seasonally adjusted data show a similar decline from annualized growth rates slightly above 10% in March and April to portfolio contractions of 7.6% and 3.3%, respectively, in May and June.

[123] Syron stated that: "*[OFHEO Director] Lockhart has indicated that he intends to consider whether additional remedial actions may be appropriately applied to Freddie Mac while we continue to fix our control environment, and this could include consideration of portfolio growth limitations for some period of time*" (National Mortgage News (6/5/2006)).

Freddie Mac mentioned that, I believe last week, in a press conference he did mention that we have discussed the idea that there ***should be some sort of freeze*** *there as well*" and that a consent agreement was possible, but would require Freddie's voluntary agreement. Lockhart also claimed that Freddie was at least two years away from "*having acceptable accounting and internal controls and a risk management system.*" Shares of Freddie fell 3.3% for the day, for a daily negative excess stock return of 3.2 percentage points below the S&P 500. Shares had also fallen 2.5% on May 31, for a negative excess excess return of 3.3 percentage points below the S&P 500, as markets priced in both disappointing 2005 earnings results and Syron's warning about the potential for portfolio caps.

In mid-June, the Treasury Department publicly announced that it was reviewing its process for approving the Enterprises' debt issuance requests, widely interpreted as the Bush administration threatening that it would unilaterally limit the GSEs' portfolios if Congress or OFHEO did not act (The Wall Street Journal (6/14/2006)). On June 27, Freddie announced that it had reduced its retained portfolio in May, which was characterized at the time as "*a clear departure from April, when the housing-finance agency grew its portfolio by an annualized rate of 14.0%*" (Dow Jones Newswires (6/27/2006)). *Dow Jones Newswires* reported that the move was likely intended to avoid irking OFHEO, and that since the regulator's imposition of portfolio limits on Fannie in late May, "*market participants have speculated that similar constraints might be placed on Freddie, or that Freddie might voluntarily impose them on itself*" (Dow Jones Newswires (6/27/2006)). Considered in this context, particularly Treasury's threat about blocking agency debt issues, we consider the imposition of portfolio caps a de facto regulatory change as opposed to strictly 'voluntarily.'

In early July, *The Wall Street Journal* reported that OFHEO Director Lockhart would like to see the Enterprises maintain a countercyclical role yet be shrunk to a 'smaller scale,' and that "*Mr. Lockhart appears likely to impose a similar restraint on Freddie*" as on Fannie (The Wall Street Journal (7/5/2006)). On July 7, an interview with Lockhart published by the *American Banker* reported that "*Freddie would agree soon to cap its mortgage portfolio*," and that a deal was expected within the next three weeks (American Banker (7/7/2006)). While Lockhart's interview was re-reported in a number of outlets that day, shares of Freddie fell only 0.1% and outperformed the S&P 500 by 0.6 percentage points for the day, suggesting that the expectation of portfolio caps for Freddie had already been priced in. Upon the portfolio caps' announcement on August 1, Freddie's share price fell 0.6%, underperforming the S&P 500 by just 0.1 percentage points for the day. Moreover, *Dow Jones Newswires* reported that the announcement of portfolio limits "*was widely anticipated and had little impact on valuations of the debt it uses to fund its purchases*" (Dow Jones News Wire (8/1/2006)). Consequently, we date the expectation of portfolio caps as being made public in June 2006, when market participants learned that Freddie was starting to reduce its portfolio and the news of looming caps seemed to be priced into Freddie's shares.

The Federal Reserve's Annual Report noted that "*the housing market cooled substantially*" in 2006, and was dampening overall economic activity (Annual Report of the Federal Reserve Board 2006, p. 3), but we find no evidence that the imposition of portfolio caps was motivated by trying to further cool housing market activity. The Bush administration, which, along with the Greenspan Fed, wanted the GSEs downsized and eventually privatized, was widely perceived as exploiting the accounting scandals to rein in first Fannie and then Freddie as well (McLean (2015), pp. 85–86, Greenspan (2007), p. 242). Senator Chuck Schumer, for instance, claimed that "*there are a whole lot of people who want to take advantage of the auditing problems that Fannie and Freddie have done to take the whole thing down*" (Dow Jones Capital Markets Report (5/23/2006)). We classify the imposition of Freddie's portfolio caps as motivated by long-standing partisan objections to the GSEs' portfolio growth, particularly by the current administration, and unrelated to the business cycle.

OFHEO Relaxes Portfolio Caps Announced: September 19, 2007

See listing under FNMA (Sec. 4.1) for economic and regulatory context.

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FHLMC	+$2.14 billion	Sep. 2007	Sep. 2007	Cyclical

On September 19, 2007, OFHEO announced changes to its methodology for calculating the mortgage portfolio cap in order to provide both Fannie and Freddie greater flexibility in managing increasingly volatile market-based fluctuations. The new agreement increased FHLMC's baseline for the retained portfolio cap to $735 billion measured in UPB at the end of 2007Q3, revised upward from a $728.1 billion GAAP portfolio limit in place under the previous agreement (OFHEO (2007)). The 2.0% annual growth limit and 0.5% quarterly growth rate limit were maintained for Freddie and extended to Fannie, which had previously faced a flat nominal limit. As with Fannie, the changes were intended to encourage Freddie to purchase or securitize up to $20 billion in subprime loans in the short run.

The maximum permissible 2% growth rate would allow a portfolio of up to $749.7 billion in 2008Q3, as measured by UPB. The OFHEO press release explained that "*UPB often exceeds the GAAP value for the Enterprises. Due to market fluctuations over the first seven months of 2007, this difference has ranged from $0.1 billion to $9.4 billion*" (Market News International (2007)). Fannie's Monthly Volume Surveys for August and September 2007 suggested that their retained portfolio was roughly $4.8 billion higher when measured on a UPB basis rather than a GAAP basis (see listing under FNMA, Sec. 4.1).[124] In scoring the policy change, we add this difference to the $728.1 billion portfolio limit based on GAAP as a baseline limit measured in UPB. Assuming the caps were binding constraints, we assign an annualized increase in Freddie's potential purchases of $2.14 billion in the year starting September 2007 ($\$749.7 - 1.02 \times (\$728.1 + \$4.8) = \$2.14$). Given the emphasis of purchasing a higher $20 billion in subprime mortgage securities in the 'short run,' we do not invoke the two-year rule.

Freddie's share price rose 2.8% when the policy was announced on September 19, a gain 2.1 percentage points above that of the S&P 500 for the day. As with Fannie, we determine the news of the portfolio limit relaxation to have been made public in September. And as with Fannie, we classify the relaxation of portfolio caps as driven by cyclical financial concerns (see listing under FNMA, Sec. 4.1, for a more detailed discussion of this classification).

Economic Stimulus Act of 2008 (Pub.L. 110-185) Enacted: February 13, 2008

See listing under FNMA (Sec. 4.1) for economic context and legislative background.

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FHLMC	+$41.57 billion	Feb. 2008	Apr. 2008	Cyclical

The Act increased the conforming loan limit in high-cost areas from $417,000 to up to $729,750, the so-called 'super-conforming loan limit.' We estimate that the increase in the conforming loan limit raised the GSEs' purchase capacity by $83.14 billion for 2008, which we split evenly between Fannie and Freddie. As with Fannie, we determine the news of the conforming loan limit policy change to have been made public in February 2009. And as with Fannie,

[124] No comparable comparison between UPB and GAAP valuations could be found for Freddie's balance sheet during this period.

we classify this sizable increase in conforming loan limits as driven by cyclical financial concerns (see listing under FNMA, Sec. 4.1, for an overview of this scoring and classification).

OFHEO Reduces Capital Surcharge Announced: March 19, 2008

See listing under FNMA (Sec. 4.1) for economic context and regulatory background.

Policy Change	Agency	Impact	News	Effective	Classification
Removal of Portfolio Limit	FHLMC	+$9.05 billion	Feb. 2008	Mar. 2008	Non-Cyclical
Reduced Capital Surcharge	FHLMC	+$43.33 billion	Mar. 2008	Mar. 2008	Cyclical

On February 27, 2008, OFHEO announced that the caps on the Enterprises' portfolios were being removed effective March 1, 2008. Fannie and Freddie had begun filing timely financial reports again, for the first time since the accounting scandals, which reportedly motivated the change (The New York Times (2/28/2008)). OFHEO also noted substantial progress made by both GSEs in reforming and improving internal systems and controls. Citing recent losses and market conditions, however, OFHEO initially retained the 30% capital surplus above the statutory minimum capital requirement—much to the consternation of some lawmakers—but noted that it would discuss phasing out the surcharges as their consent orders approached being lifted. In a quick reversal after the collapse of Bear Stearns, OFHEO, Fannie, and Freddie announced an initiative on March 19 to increase mortgage market liquidity, including a reduction in the capital surcharges from 30% to 20% above the minimum statutory requirement, which was intended to pump $200 billion into the housing market (OFHEO (2008)).

To assess the impact of the removal of the portfolio limits, we rely on a January 23, 2008 Greenbook forecast of 3.1% and 3.0% annualized growth rates for US mortgage debt for 2008 and 2009, respectively. Applying this growth rate to a retained portfolio of $710 billion at year's end 2007 would suggest projected mortgage portfolio increases exceeding that under the previously permitted 2% growth rates of $7.8 billion in 2008 and $15.3 billion in 2009.[125] Pro-rating growth between the two years, we assign a potential annualized increase in Freddie's retained portfolio of $9.05 billion in the year starting March 2008 from the portfolio cap's removal $\left(\$7.8 \times \frac{10}{12} + \$15.3 \times \frac{2}{12} = \$9.05\right)$.

The decrease in the capital surcharge announced the following month lowered Freddie's capital requirement from $34.4 billion to $31.8 billion, or by $2.6 billion (The Washington Post (3/20/2008)). Made possible by the recent removal of the portfolio caps, OFHEO estimated that the combined reduction of about $5.9 billion would allow Fannie and Freddie to immediately add up to $200 billion of MBS to their portfolios, consistent with a binding 3% minimum capital requirement. For FHLMC, the release of $2.6 billion in capital would thus expand their potential retained portfolio by $86.67 billion $\left(\frac{\$2.6}{0.03} = \$86.67\right)$. Using the two-year rule, we assign an annualized impact of $43.33 billion for Freddie's retained portfolio resulting from the capital surcharge reduction in its first year of effect.

On the announcement of the caps' removal, Freddie's stock price jumped in mid-day trading on February 27, gaining up to 4% after the announcement, but shares closed down 0.5% for the day, 0.4 percentage points below the daily return on the S&P 500, as markets priced in worse-than-expected fourth quarter losses posted later that day (Dow Jones Newswires (2/27/2008)). Shares rose 26.2% on speculation and news leaking about a reduction in the capital surcharge on March 18, gaining 22.0 percentage points more than the S&P 500, and rising another 14.9% on March

[125] For 2008, $\$710 \times (1.031 - 1.02) = \$7.8$. For 2009, $\$710 \times (1.031 \times 1.03 - 1.02^2) = \$15.3$.

19, 17.3 percentage points above the daily return on the S&P 500. As with Fannie, we determine the news of the portfolio limit's removal to have been made public in February 2009 and news of the capital surcharge's termination to have been made public in March 2009. And as with Fannie, we classify the removal of the portfolio caps as principally motivated by a standing regulatory commitment and not cyclically motivated, whereas we classify the subsequent reduction of capital surcharges as cyclically motivated (see listing under FNMA, Sec. 4.1, for a detailed discussion of this classification).

Provisional Fed Lending to Fannie and Freddie Announced: July 13, 2008

On July 13, 2008, the Federal Reserve authorized provisional lending to Fannie and Freddie if it proved necessary. No such lending was made before the Enterprises were taken into conservatorship on September 7, 2008 (see below).

Housing and Economic Recovery Act of 2008 (Pub. L 110-289) Enacted: July 30, 2008

See listing under FNMA (Sec. 4.1) for economic context and regulatory background.

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FHLMC	-$13.34 billion	July 2008	Jan. 2009	Cyclical

The Act consolidated GSE oversight to the newly created FHFA. The Act also set a structure for conforming loan limits for the nation as a whole, as well as for high-cost areas, which would be annually indexed based on a home price index. The Act amended the Enterprises' charters to permanently set the national conforming loan limit at $417,000 and increase the conforming loan limit for high-cost areas, defined as areas in which 115% of the median home price exceeded the national conforming loan limit, setting super-conforming loan limits to the lesser of that amount or 150% of the conforming loan limit. The changes were effective December 31, 2008, when the ESA super-conforming loan limit expired. On November 7, 2008, FHFA announced that the single-family home conforming loan limit for most areas of the country would be kept at $417,000 for 2009, but the new formula reduced the maximum super-conforming loan limit from $729,750 to $625,500. Scored on a current policy basis, we estimate that the reduction in the super-conforming loan limit would have reduced Enterprises purchases by $26.68 billion in 2009, and allocate half this potential portfolio decrease, or $13.34 billion, to Freddie. As with Fannie, we do not consider the news of the reduction from the ESA to HERA conforming loan limit to have been made public until July 2008. And as with Fannie, we classify the policy change as cyclically motivated (see listing under FNMA, Sec. 4.1, for an overview of this scoring and classification).

FHFA Conservatorship Announced: September 7, 2008

See listing under FNMA (Sec. 4.1) for economic context and regulatory background.

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FHLMC	+$66.75 billion	Sep. 2008	Sep. 2008	Cyclical

Fannie and Freddie were taken into government conservatorship by the Treasury Department and FHFA on September 7, 2008. Freddie Mac's Senior Preferred Stock Purchase Agreement with Treasury mirrored Fannie's (see listing under

FNMA, Sec. 4.1). Freddie's retained mortgage portfolio was not to exceed $850 billion as of December 31, 2009, with this limit to be subsequently reduced by 10% each year until reaching $250 billion in 2021. There is abundant evidence that regulators were strong-arming both Enterprises to markedly ramp up their near-term purchases to provide additional liquidity to mortgage markets ahead of the portfolio cap reductions (see listing under FNMA, Sec. 4.1). We do not attempt to estimate the counterfactual evolution of the mortgage portfolio in the absence of the SPSPA and simply measure the impact relative to the portfolio outstanding on August 30, 2008. On that date, the total retained portfolio was approximately $761 billion, implying a maximum increase of $89 billion by the end of 2009, or an annualized increase of $67.5 billion $\left(\$89 \times \frac{12}{16} = \$66.75\right)$ in the year from September 2008.

The conservatorship announcement wiped out nearly all remaining stockholder equity, with shares having already fallen 91.5% in the year to September 5, 2008. When markets reopened on Monday, September 8, Freddie's share price fell 82.8%, to 88 cents, from previously closing at $5.1 per share. The possibility of conservatorship clearly had not been fully priced into Freddie's shares. Hereafter we largely cease reporting information about Freddie's share price, as its movements became highly volatile and generally uninformative. As with Fannie, we classify Freddie's placement into conservatorship as clearly cyclically motivated, with its news having been made public in September 2008 (see listing under FNMA, Sec. 4.1, for a more detailed discussion of context, scoring, and classification).

American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) Enacted: February 17, 2009

See listing under FNMA (Sec. 4.1) for economic context and regulatory background.

Policy Change	Agency	Impact	News	Effective	Classification
Jumbo Conforming Loan Limit	FHLMC	+$13.34 billion	Feb. 2009	Feb. 2009	Cyclical

Shortly after the FHFA announced the super-conforming loan limit for 2009 was being reduced to $625,500 pursuant to HERA, Congress intervened to statutorily reinstate the higher $729,750 maximum super-conforming loan limit set by ESA (see ESA, HERA listings under FNMA, Sec. 4.1). ARRA re-established the higher loan limit for 2009, which was then twice extended through the end of FY2011. We again estimate that roughly $26.68 billion in originations between the two super-conforming loan limits would have been acquired in 2009 (see HERA above), and allocate half this potential increase in retained portfolio purchases to Freddie. As with Fannie, we classify the reinstatement of the higher super-conforming loan limit as cyclically motivated, with its news having been made public in February 2009 (see listing under FNMA, Sec. 4.1, for an overview of this scoring and classification).

Homeowner Affordability and Stability Plan Announced: February 18, 2009

See listing under FNMA (Sec. 4.1) for economic context and regulatory background.

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FHLMC	+$50 billion	Feb. 2009	May 2009	Cyclical

The Homeowner Affordability and Stability Plan, a set of initiatives to prop up the beleaguered housing market announced by the President, Treasury Secretary, and HUD Secretary on February 18, 2009, increased Freddie's portfolio cap from $850 billion to $900 billion on December 31, 2009. The amendments to Freddie's SPSPA with the Treasury

were identical to the amendments to Fannie's SPSPA (see FNMA, Sec. 4.1). We measure the impact of the SPSPA amendment as the difference in portfolio limits before and after the amendment, assigning an annualized increase in Freddie's potential portfolio of $50 billion starting in February 2009. As with Fannie, we classify the increase in Freddie's portfolio limit as clearly cyclically motivated, with its news having been made public in February 2009 (see listing under FNMA, Sec. 4.1, for an overview of this scoring and classification).

Enterprise Transition Affordable Housing Goals for 2009 Issued: August 10, 2009.
FHFA concluded that the affordable housing goals would not be achievable in 2009 for a variety of economic reasons, and thus lowered all three goals in addition to making the Enterprises' mortgages modified under the Homeowner Affordability and Stability Plan count toward the goals. We do not consider this action to be a binding, significant policy change. See listing under FNMA (Sec. 4.1) for background and context.

Second Amendment to Senior Stock Purchase Agreement Announced: December 24, 2009
The Treasury Department replaced Freddie's $200 billion funding line with an unlimited funding commitment through 2012. We assign no related portfolio impact. See listing under FNMA (Sec. 4.1) for economic and regulatory context.

New Enterprise Housing Goals for 2010-2011 Issued: September 14, 2010.
The FHFA overhauled and revised down its affordable housing goals for Fannie and Freddie in response to market conditions. We do not consider this action a binding, significant policy change. See listing under FNMA (Sec. 4.1).

Third Amendment to Senior Stock Purchase Agreement Announced: August 17, 2012
See listing under FNMA (Sec. 4.1) for background and context.

Policy Change	Agency	Impact	News	Effective	Classification
Portfolio Limit Decrease	FHLMC	-$22.16 billion	Aug. 2012	Aug. 2012	Non-Cyclical

On August 17, 2012, the Treasury Department announced a third amendment to the Enterprises' SPSPAs, which capped both retained portfolios at a reduced $650 billion by the end of 2012, accelerated the annual pace of subsequent wind down from 10% to 15%, and replaced the standing 10% quarterly dividend requirement with a sweep of all present and future net earnings (see FNMA, Sec. 4.1). The amendments to Freddie's SPSPA were identical to Fannie's. As of July 31, 2012, Freddie's total retained portfolio was approximately $576 billion, implying no additional mandated reduction by the end 2012. Under the newly amended SPSPA, the Enterprises' portfolios were capped at $552.5 billion by the end of 2013, down from $590.49 billion prior to the third amendment. We measure the impact of the SPSPA amendment as the difference in mandated reductions before and after the amendment. We assign an annualized requisite portfolio reduction of $22.16 billion for the year starting in August 2012, being the the required reduction for 2013 pro-rated through July $\left((\$552.5 - \$590.49)\times\frac{7}{12} = -\$22.16\right)$.

While the Enterprises' share prices and excess returns became exceedingly volatile and rather uninformative after conservatorship sunk shares under a dollar, stock movements nonetheless suggest that the third SPSPA was genuinely unanticipated; Freddie's share price fell an unusually steep 23.3% on August 17, with trading volumes up more than 24-fold from the previous day of trading. Moreover, the news did not seem anticipated by the financial press. As with

Fannie, we determine the news of the third SPSPA to have been made public in August 2012. And as with Fannie, we classify the third SPSPA amendment as motivated by varying political priorities and budgetary concerns, as opposed to being cyclically motivated (see listing under FNMA, Sec. 4.1, for an overview of classification and related context).

4.3 Government National Mortgage Association

The Housing and Urban Development Act (HUDA) of 1968 partitioned the Federal National Mortgage Association into two separate corporations: a publicly retained Government National Mortgage Association and a privately chartered, shareholder-owned FNMA granted government sponsorship and special legal privileges. GNMA was to continue FNMA's special assistance functions and the management and liquidations functions, authorized under Sections 305 and 306 of the National Housing Act, respectively, and retained FNMA's standing special assistance authority, assets, and liabilities pursuant to those statutes. The rechartered FNMA was to assume all secondary market operations and to retain the assets and liabilities pursuant to Section 304 of the National Housing Act (see FNMA, Sec. 4.1).

Ginnie Mae's special assistance functions were initially used to smooth mortgage credit during credit crunches and/or to provide support for special classes of less attractive, policy oriented FHA/VA mortgages at below-market rates. GNMA's special assistance authority was split between control of the White House and Congress. Authority under Section 305(c) could be used at the discretion of the president ('general Presidential special assistance authority'). And Section 305(g) authorized Congress to direct HUD to purchase mortgages for low-cost housing for low- and moderate-income families ('special assistance for low- and moderate-income housing').

In 1974, Congress authorized a new Emergency Mortgage Purchase Assistance program ('emergency special assistance'), aimed at stabilizing housing construction and easing the effects of inflation and monetary tightening on the housing and mortgage markets. GNMA's special assistance and emergency special assistance programs would often purchase loans at below-market rates and later resell them at par, with these functions essentially serving as revolving funds for a credit subsidy. Losses on sales were financed with borrowing from the Treasury and/or direct appropriations. By selling off its subsidized purchases, Ginnie reduced its footprint on the unified budget deficit, from gross purchases to net-of-sales purchases. Emergency special assistance authority was repeatedly extended until expiring in 1981, and all of GNMA's special assistance functions were fully repealed in 1983.

Prior to the split of Fannie and Ginnie, the Participation Sales Act of 1966 (Pub. L. 89-429) had authorized FNMA to issue participation certificates backed by pools of loans made or acquired by federal credit agencies. Shortly thereafter, the HUDA of 1968 authorized GNMA to issue MBS, and Ginnie marketed the first ever MBS in 1970. Unlike the Enterprises, Ginnie's MBS were exclusively backed by mortgages insured or guaranteed by other government agencies, primarily FHA/VA mortgages, but also those of the US Department of Agriculture's Office of Rural Development and HUD's Office of Public and Indian Housing. In exchange for a fee, Ginnie guaranteed timely payment of interest and principal repayment, covering any loan losses in excess of the amount otherwise insured or guaranteed. Unlike the Enterprises' debt and securities, Ginnie's guarantee was always explicitly backed by the full faith and credit of the United States. And contrary to Fannie and Freddie, Ginnie always insured pools of mortgages issued by approved mortgagees (typically banks and credit unions) instead of purchasing and packaging securities themselves. Guaranteeing MBS

has comprised nearly all of Ginnie's activity in mortgage markets since Congress wound down its special assistance programs in the early 1980s.

Ginnie Mae was created as a government corporation under HUD administration, and thus remained on the federal budget balance, with profits or losses passed on to the Treasury. Through the federal budget process, Ginnie Mae was subject to more programatic oversight than Fannie or Freddie.[126] Special assistance program funding was periodically adjusted in the appropriations process, and appropriations bills started limiting GNMA's commitments to guarantee mortgage securities starting in the early 1980s.

Housing and Urban Development Act of 1968 (Pub. L. 90-448) Enacted: August 1, 1968

See listing under FNMA (Sec. 4.1) for economic context and legislative background.

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$0.25 billion	July 1968	July 1969	Non-Cyclical

The Act split FNMA into the Government National Mortgage Association and a quasi-private shareholder-owned Fannie Mae. Ginnie Mae, a government corporation under HUD administration, assumed FNMA's special assistance and management and liquidations functions. Ginnie Mae remained on the federal budget balance, with profits or losses passed on to the Treasury. The scope of Ginnie's mortgage market operations was also largely governed by the federal budget process.

The Act also authorized Ginnie to guarantee MBS issued by FNMA or other approved issuers.[127] Ginnie, however, was only allowed to guarantee the timely payment of principal and interest on trust certificates or securities backed by pools of mortgages insured under the National Housing Act (NHA) or guaranteed under the GI Bill. Ginnie was also authorized to collect guarantee fees from issuers. Unlike Fannie's MBS authorization, "*[t]he full faith and credit of the United States is pledged to the payment of all amounts which may be required to be paid under any guaranty*" authorized by GNMA's program. According to the 1970 Economic Report of the President, the objective of Ginnie's MBS program was "*to authorize a mortgage investment instrument that would be marketable and attractive to a wide range of investors not now interested in mortgages directly*" (Economic Report of the President 1970, p. 114).

[126]The federal budget process largely proceeds along three related tracks: administration budget requests, authorizations, and appropriation bills. The president requests a detailed budget from Congress, which proposes funding levels for agencies and programs. Through authorizing bills, Congress can create or repeal programs, and direct how federal funds should or should not be used. Appropriations bills set overall discretionary spending limits for agencies or programs. The Participation Sales Act of 1966 authorized the establishment of appropriations to cover interest payments to holders of government-backed PCs exceeding the interest payments received from the backing pool of mortgages or other obligations. Appropriations bills for the Department of Housing and Urban Development usually include a line item appropriating funds requested by the administration to cover any insufficiencies from participation sales, and a permanent, indefinite appropriation had been made for GNMA to cover insufficiencies for sales authorized through 1967 (The Budget for Fiscal Year 1979 Appendix, p. 493). Starting in 1980, the federal budget process began to impose explicit restrictions on federal credit programs and loan guarantees, including Ginnie Mae's MBS guarantees. Annual appropriations bills subsequently included a fiscal year aggregate limitation on Ginnie Mae's authorization to enter new commitments to issue guarantees under Section 306 of the National Housing Act. Prior to their repeal, the special assistance functions were also governed by congressional authorizations and appropriations, switching to loan limits in 1980 (also set through appropriations).

[127]FNMA was not issuing MBS at the time (see FNMA, Sec. 4.1).

The Act also increased Ginnie's special assistance authority under Section 305(c) of the NHA (general Presidential special assistance authority) by $500 million, to $3.325 billion, effective July 1, 1969. Using the two-year rule, we assign an annualized increase in GNMA's purchase capacity of $250 million. We determined that the news of this policy change was made public in July 1968, when the conference version of the bill was agreed upon, well in advance of the increased special assistance funding taking effect.[128] And we again classify the Act as non-cyclically motivated; legislative background, economic context, and this classification are discussed at length in the Act's listing under FNMA (see Sec. 4.1).

Housing and Urban Development Act of 1969 (Pub. L. 91-152) Enacted: December 24, 1969

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$0.75 billion	Dec. 1969	Dec. 1969	Cyclical

The Act raised Ginnie's Section 305(g) authorization for total purchases and commitments outstanding for its special assistance program for low- and moderate-income housing to $2.5 billion, an increase of $1.5 billion. The revision was effective upon the bill's enactment. Using the two-year rule, we assign an annualized increase of $750 million in Ginnie Mae's purchase capacity in the year starting December 1969. The Act also increased the per-dwelling-unit loan limits on mortgages eligible for purchase under GNMA's special assistance programs.

The $1.5 billion increase in GNMA's special assistance authority and a requirement that purchases be made at par was amended onto the House version of the bill on October 22, which passed the next day (CQ (1970)); the Senate bill, considered and passed on September 23, had included no such provision. The Senate conferees later dropped their disagreement over GNMA's special assistance authorization and the conference bill, agreed upon on December 12, adopted the House bill's preferred increase(House Committee on Banking and Currency (1969b)). Consequently, we date the news of the increase as being made public in December 1969.

The Act also expanded statutory authority to use Ginnie's special assistance funds for subsidized purchases of mortgages. In its first years of operation, GNMA developed a 'Tandem' plan designed "*to reduce cash outlays from mortgage purchases*" while supporting the mortgage market (GNMA Annual Report 1975, p. 15). Rather than referring to a specific plan or round of purchases, 'Tandem' referred more to a general approach of making subsidized loan purchases and resales *in tandem*, to minimize the program's appearance on the federal budget balance. As CEA staff economist George von Furstenburg explained to the Senate Committee on Banking, Housing, and Urban Development: "*Tandem or piggyback procedures were first introduced in 1968 partly to minimize the effect of federally assisted mortgage credit programs on the unified budget balance. Since the net lending of government agencies represents an outlay above the line, GNMA's acquisition of below-market interest rate mortgages increased the budget deficit by the full amount of the purchase price. Under tandem, these mortgages were resold to the private market at a price sufficiently below par to afford a normal return to investors. Thus only the discount or the present value of the interest subsidy represented an outlay and the cycle could continue 'in tandem' with further purchases*" (Senate Committee on

[128] An amendment to the Senate version of the bill, accepted on May 28, had reduced that bill's proposed increase in GNMA's special assistance funds from $500 million to $250 million. The higher $500 million increase was adopted in the conference agreement, which was agreed to by the Senate on July 25 and the House on July 26 (CQ (1969)).

Banking, Housing and Urban Affairs (1976b), p. 82).[129]

To bolster support for certain classes of less attractive FHA mortgages, the Housing and Urban Development Act of 1969 amended Section 305 of the NHA to provide statutory authorization for GNMA to make special assistance purchases "*at a price equal to the unpaid principal amount thereof at the time of purchase, with adjustments for interest and any comparable items, and to sell such mortgages at any time at a price within the range of market prices for the particular class of mortgages involved at the time of sale as determined by the Association*" (Sec. 115), a convoluted way of opening the door to subsidized purchases of FHA/VA mortgages. The conference report described this section of the enacted bill as the "*GNMA ('Tandem') Plan*," which "*would authorize GNMA to purchase certain mortgages at par for subsequent resale at the market price to FNMA or others*" (House Committee on Banking and Currency (1969b), p. 28). The accompanying Senate committee report had explained that "***under present mortgage market conditions**, FHA-insured mortgage loans can only be made at heavy discounts. As a result, many potential sponsors, particularly of section 236 rental and cooperative housing and section 221(d)(8) rent supplement housing, have been discouraged from sponsoring such housing or have done so at great financial sacrifice*" (Senate Committee on Banking and Currency (1969), p. 11).

Under the various Tandem programs, Ginnie Mae would commit to purchase mortgages for new home construction at a pre-specified (typically subsidized) interest rate, purchase those mortgages as the home sales were completed, and then auction off the mortgages at prevailing interest rates—doing so relatively quickly, to keep a minimal impact on federal outlays (Nixon (1974)). GNMA's Tandem commitments were generally priced 100 to 200 basis points below the market (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 79). When GNMA's resale price was below the purchase price, the subsidy cost would be passed along to the federal budget balance. The Tandem programs thus allowed Ginnie Mae to effectively operate its special assistance functions as a revolving fund for a credit subsidy. The perceived advantage of the program was locking in a favorable interest rate and reducing uncertainty for the buyer, lender, and home builder. Tandem programs were initially targeted toward subsidized mortgage programs for low-income homebuyers, particularly in multifamily units (FHA's Section 221(d)(3), 235, and 236 loan programs), but the purchase program was extended to all unsubsidized FHA mortgage insurance and VA mortgage guarantee programs in September 1971 (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 82). The only restrictions on GNMA's Tandem loan commitments was that the newly constructed homes qualify for FHA/VA insurance, and that the loan balance fall under a loan limit.

In addition to citing concerns about "*present mortgage market conditions*," the Senate committee report noted that the bill did "*not include any new far-reaching programs*" and framed the bill as making economically motivated funding adjustments to the 'comprehensive' housing bill enacted the previous year: "*The most significant part of the committee bill involves the dollar authorizations to fund the programs through fiscal year 1972. In general, the committee authorized funds to continue the programs at existing levels, but raised the amount authorized to take into account new program authority,* ***increased costs, and increased interest charges***" (Senate Committee on Banking and Currency (1969), pp. 1–2, 9). High and rising interest rates had also been cited as a concern during the Senate's hearings on the bill (CQ (1970)). Whereas the HUDA of 1968 evolved from a slew of related bills dating back to

[129]GNMA's 1975 Annual Report, however, instead framed the term as referring to cooperation between the public and private sector: "*the Government and the private sector can be said to be working in 'tandem' to provide support to the mortgage market and the housing industry*" (GNMA Annual Report 1975, p. 15).

1965, the HUDA of 1969 was drafted in just a few months and was much shorter-term in scope.[130] Moreover, the bill was fully drafted and then enacted in the midst of the credit crunch enduring from 1969Q1 through 1970Q1. Given the timing of enactment and congressional concern with prevailing mortgage market conditions, we classify the policy change as cyclically motivated.

Emergency Home Finance Act of 1970 (Pub. L. 91-351) Enacted: July 24, 1970

See listing under FNMA (Sec. 4.1) for economic context and legislative background.

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$0.38 billion	July 1970	July 1970	Cyclical

The Act authorized Fannie Mae to expand secondary market operations to the conventional mortgage market and charted Freddie Mac to serve as a secondary market for the FHLBS (see listings under FNMA, Sec. 4.1, and FHLMC, Sec. 4.2). The Act also loosened the requirement that Ginnie purchase mortgages at par value under its Section 305(g) special assistance program for low- and moderate-income housing. And the Act increased Ginnie's Section 305(c) general Presidential special assistance authorization by $1.5 billion, by amending a prior increase of $500 million, effective July 1, 1969, up to $2 billion. Part of this increase was offset by decreasing the authorization for Section 305(g) special assistance functions by $750 million, to $1.75 billion, effective upon enactment. Thus the Act's net impact across all special assistance authorities was a $750 million increase, again effective upon enactment. Using the two-year rule, we assign an annualized increase in Ginnie Mae's purchase capacity of $375 million in the year starting July 1970.

Testifying before the Senate Committee on Banking and Credit on March 3, HUD Secretary Romney had identified the administration's objective of delivering "*$20.5 billion of net new mortgage credit needed to finance 1.4 million **housing starts***," to be advanced by the transfer and $1.5 billion net increase of GNMA special assistance funds, GNMA MBS issues, and a FHLBank subsidy to members (CQ (1971)). The accompanying Senate committee report explained that the Section 305(g) program had an unused balance of over $2 billion, which with the reallocation of funds and loosened restrictions on the program, "*could be made **immediately available** upon enactment of this bill to **support the badly sagging FHA single-family construction program***" (Senate Committee on Banking and Currency (1970), p. 10), suggesting that our estimate for the impact on GNMA purchases is likely on the conservative side.

President Nixon had proposed simply reshuffling $1.5 billion from the congressional Section 305(g) allocation to the Section 305(c) general Presidential special assistance authority allocation. The Senate version of the bill would have reallocated $750 million in special assistance funds from the congressional to presidential allocations, whereas the House version of the bill left the congressional special assistance fund untouched, and proposed $1.5 billion in new, additional funds for the presidential allocation (CQ (1971), House Committee on Banking and Currency (1970)). As the net increase of $750 million in special assistance authority resulting half from reallocated funds and half from new authorizations was only agreed upon in conference, we date the news of the increase as being made public in July, when the conference report was agreed to in committee and both chambers.

[130]The Senate Committee on Banking and Currency held hearings in July 1969, and the bill was first reported on September 23, 1969, less than three months before its passage.

The Act was drafted and enacted in a relatively short timeframe.[131] Moreover, funds were being retargeted from the more long-term policy oriented congressional allocation to the more cyclically oriented presidential allocation. Given the clearly stated motivations of 'immediately' supporting the housing market and the bill's enactment in the midst of the recession lasting from December 1969 through November 1970, we classify this expansion of Ginnie's special assistance purchase authority as cyclically motivated. Legislative background, economic context, and this classification are discussed at more length in the Act's listing under FNMA (see Sec. 4.1).

Tandem Program for FHA/VA Loans Announced: September 19, 1973—May 10, 1974

Policy Change	Agency	Impact	News	Effective	Classification
FHA/VA Tandem Authorization	GNMA	$1.5 billion	Sep. 1973	Sep. 1973	Cyclical
FHA/VA Tandem Authorization	GNMA	$3.3 billion	Jan. 1974	Jan. 1974	Cyclical
FHA/VA Tandem Authorization	GNMA	$1.65 billion	May 1974	May 1974	Cyclical

On January 5, 1973, President Nixon ordered a moratorium on all federal housing subsidy programs, including the FHA Section 235 (homeownership for lower-income families) and Section 236 (rental and cooperative housing) programs that had been supported by Ginnie Mae's Tandem program to date (CQ (1974)). In his State of the Union Address on housing and community development that March, Nixon announced the administration was undergoing a comprehensive overview of HUD programs and would make recommendations regarding the halted programs within six months.[132] The emphasis of the speech and intended overhaul was addressing perceived inefficiencies and inequities in HUD programs, and there was no mention of mortgage market conditions (Nixon (1973a)).

But the administration's focus quickly shifted, and President Nixon announced a series of legislative and administrative proposals on September 19, 1973 primarily intended to ease the prevailing tight mortgage market conditions and improve low-income housing. Nixon stated that "*First, we are **facing certain problems in providing adequate housing credit**–and we must **move promptly** to resolve them. Second, too many low-income families have been left behind: they still live in substandard, overcrowded and dilapidated housing–and we must help them meet their needs*" (Nixon (1973b)). It was announced that the housing program moratorium was being lifted and HUD was authorized both to reinstate GNMA's Tandem plan and make up to $3 billion in commitments and purchases of mortgages for new home construction at subsidized interest rates. This was an unprecedentedly large release of Presidential special assistance authority. The FHLBanks were also authorized to make forward commitments of up to $2.5 billion at a predetermined interest rate to member savings and loan associations. The President also requested that Congress raise the maximum amount of a mortgage loan insurable by the FHA and purchasable by GNMA, and a reduction of FHA downpayment requirements, among other legislative proposals (Nixon (1973b)).

[131] The bill was considered and passed by the Senate on April 16, an amended version was passed by the House on June 25, the Senate rejected the House amendment and requested a conference at the end of June, and the Senate and House agreed to the conference report on July 17 and July 20, respectively.

[132] That speech reaffirmed the administration's commitment to the overarching goal of US housing policy of "*a decent home and a suitable living environment for every American family*" enshrined by the National Housing Act of 1949, and touted that "*the percentage of Americans living in substandard housing has dropped dramatically from 46 percent in 1940 to 37 percent in 1950 to 18 percent in 1960 to 8 percent in 1970,*" aided by federal programs (Nixon (1973a)).

On January 21, 1974, President Nixon authorized GNMA to purchase up to $6.6 billion worth of FHA/VA home mortgages at an interest rate of 7.75%, estimated to support roughly 200,000 housing unit purchases. A third authorization made on May 10 allowed purchases of up to an additional $3.3 billion at an interest rate of 8.0%, supporting another 100,000 units (Nixon (1974)), but this authority was not used until October, when the prior authorization had been fully expended. As no additional Congressional authorization was needed for any of these three major releases of general Presidential special assistance authority, we consider the news of each release as being made public on the President's first announcement. Using the two-year rule, we assign annualized increases in GNMA's purchase capacity of $1.5 billion in September 1973, $3.3 billion in January 1974, and an additional $1.65 billion in May 1974.

In a May 10 statement about plans to revitalize the housing market, Nixon clearly outlined cyclical motives for the Tandem reauthorization and broader housing stimulus agenda: "*The higher cost of money affects all sectors of the economy, but none more directly than the housing market... With this shrinkage of available housing funds, home buyers are either unable to find mortgage money, or the mortgages that are available are offered on terms which fewer families can meet. The home builder finds it increasingly difficult to sell the homes he has already built, and with the* ***uncertainties of the availability of such mortgage funds****, he is understandably reluctant to produce more housing.* ***As builders curtail operations, workers in the construction trades face the prospect of increased unemployment***" (Nixon (1974)). Nixon also stated that "*The Tandem Plan is a very useful instrument for* ***supporting the housing market in times of credit stringency***" (Nixon (1974)). Given the President's explicitly cyclical concerns and the timing of the authorizations just before and during the recession of November 1973 through March 1975, we classify Tandem reinstatement and all three of these releases of Presidential special assistance authority as cyclically motivated.

Emergency Home Purchase Assistance Act of 1974 (Pub. L. 93-449) Enacted: October 18, 1974

Policy Change	Agency	Impact	News	Effective	Classification
Brooke-Cranston Tandem Program	GNMA	+$3.88 billion	Oct. 1974	Oct. 1974	Cyclical

The Act amended Section 313 onto the NHA to establish a statutory Tandem program for the subsidized purchase of conventional mortgages, commonly referred to as the Brooke-Cranston Tandem program or 'emergency special assistance authority.'[133] The Act authorized the HUD Secretary to instruct GNMA to make emergency mortgage commitments and purchases "*whenever the Secretary finds* ***inflationary conditions and related governmental actions*** *are having a severely disproportionate effect on the housing industry and the resulting* ***reduction in the volume of home construction or acquisition threatens seriously to affect the economy*** *and to delay the orderly achievement of the national housing goals...*" (Sec. 3(a)). The Act authorized GNMA to make purchases and commitments of up to $7.75 billion outstanding at any given time under the Brooke-Cranston Tandem program, above and beyond GNMA's authority to purchase certain FHA/VA mortgages under its existing special assistance functions. The new $7.75 billion authorization was effective upon enactment but set to expire after one year, save purchases needed to honor prior commitments and for the provision of liquidations.

Unlike the previous Tandem programs primarily directed toward specific classes of FHA/VA mortgages promoting low-income housing, the Brooke-Cranston program was primarily intended "*as an* ***emergency device for stabilizing***

[133]The program was coined after Senator Alan Cranston and Senator Edward Brooke, sponsors of the Senate version of the bill.

the housing market against cyclical downturns" by stimulating housing construction (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 1). On the HUD Secretary's order, GNMA was to issue commitments to purchase conventional mortgages from originators, though qualifying mortgages were limited to an 80% LTV ratio and $42,000 loan limit, well below the prevailing conforming loan limit. Under a HUD regulation, at least 90% of the mortgages had to be for new home purchases, completed after October 1973, and not previously owned by a homeowner (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 14). As a secondary objective, the program was intended to improve home buying opportunities for households otherwise unable to purchase a home. Interest rates were set at the average yield on issues of 6-to-12-year Treasury bonds in the month preceding the commitment date, plus administrative costs (Senate Committee on Banking, Housing and Urban Affairs (1976b), pp. 13–14). And for legal reasons, Freddie and Fannie served as agents for GNMA in its purchases of below-market rate conventional mortgages, with each institution allocated roughly half of the funds for conventional mortgage purchases (Senate Committee on Banking, Housing and Urban Affairs (1976b), p. 14).

On the day of enactment, the HUD Secretary authorized $3 billion worth of commitments and purchases of conventional mortgages at an interest rate of 8.5% (Economic Report of the President 1975, p. 72). After this authority had been expended, an additional $3 billion was authorized for mortgages at an interest rate of 7.75% on January 16, 1975, including $1 billion for the purchase of FHA/VA mortgages. The terms were overly attractive, and the entirety of this authorization was exhausted on January 22. A final authorization of $2 billion was made in August 1975.[134] While the authorization was scheduled to expire after one year, subsequent purchases were allowed to fulfill commitments made in the program's first year; extensions of such authorization sunsets also had considerable precedent and the program was indeed repeatedly reauthorized before expiring in 1981 (see below). Accordingly we deem the two-year rule most appropriate for GNMA commitment authorizations under the Brooke-Cranston program, and assign a $3.875 billion annualized increase in GNMA's purchase capacity, measured as half of the $7.75 billion statutory limit outstanding for the program. We classify news of Ginnie's new conventional mortgage purchases under the Brooke-Cranston program as having been made public in October 1974, when the bill cleared both chambers and the HUD Secretary acted immediately upon its enactment.

The bill was clearly enacted in response to depressed housing market conditions, with the accompanying Senate Committee report stating that the bill "***responds to a mortgage credit crisis*** *which has crippled the residential real estate industry in the United States. Housing activity in the Nation is severely depressed*" (Senate Committee on Banking (1974a), p. 1). The Act also began with the three following 'findings' of Congress: "*(1) in many parts of the Nation, residential mortgage credit is or is likely soon to become prohibitively expensive or unavailable at any price; (2) the* ***unavailability of mortgage credit severely restricts housing production****, causes hardship for those who wish to purchase or sell new and existing housing, and delays the achievement of the national goal of a decent home for every American family; and (3) there is an* ***urgent need to provide an alternate source of residential mortgage credit on an emergency basis***" (Sec. 2). The bill was drafted and passed in a remarkably short time frame, from first being introduced in Senate committee on September 10 to passing the Senate on October 10 and the House on October 15, and President Ford thanked "*Congress for* ***responding so quickly***" to "*provide a* ***shot in the arm for the housing industry***" (Ford (1974a)). We classify the establishment of the Brooke-Cranston Tandem program as cyclically motivated.

[134]The three authorizations exceeded the $7.75 billion statutory limit outstanding in response to cancelled prior commitments.

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1976 (Pub. L. 94-116) Enacted: October 17, 1975

Policy Change	Agency	Impact	News	Effective	Classification
Brooke-Cranston Tandem Increase	GNMA	+$2.5 billion	Oct. 1975	Oct. 1975	Cyclical

The Emergency Housing Act of 1975 (Pub. L. 94-50), enacted July 2, 1975, authorized up to an additional $10 billion for emergency commitments and conventional mortgage purchases under the Brooke-Cranston Tandem program authorized under Section 313(g) of the NHA, subject to appropriations. The Act also permitted GNMA to purchase conventional mortgages on multifamily properties and individual condominium units, and expanded the pool of eligible purchases to include all FHA-insured mortgages in addition to conventional mortgages. And the Act rescinded authorization from any remaining uncommitted funds from the prior $7.75 billion authorization, effective October 18, 1975, unless approved by an appropriations bill.

The Department of Housing and Urban Development-Independent Agencies Appropriation Act for Fiscal Year 1976 (Pub. L. 94-116) authorized up to an additional $5.0 billion for purchases and commitments to purchase mortgages under the Brooke-Cranston Tandem program, above and beyond prior authorizations, which were extended beyond their October 18 sunset. GNMA was allowed to borrow from the Treasury as needed to meet obligations under this amended authorization. Using the two-year rule, we assign an annualized increase of $2.5 billion in GNMA's ability to purchase mortgages, starting October 1975, when the appropriations bill cleared the way for additional funds to be released. The HUD Secretary made $3 billion available in January 1976, and the remaining $2 billion was released in September 1976 (Senate Committee on Banking, Housing and Urban Affairs (1978), p. 25).

The committee report accompanying the Senate bill explained that the House provided for no additional Brooke-Cranston authorization, as the administration had yet to request such funds when the House acted in June (Senate Committee on Appropriations (1975), p. 20). Pursuant to the administration's budget request, the Senate version of the appropriations bill, which passed in July, would have authorized up to an additional $5 billion for the Brooke-Cranston program (Senate Committee on Appropriations (1975), p. 21). During conference, the House managers receded and agreed to a Senate amendment authorizing only an additional $5 billion (House Committee on Appropriations (1975), p. 10). We date the news of the Brooke-Cranston Tandem program expansion to the conference report, which both chambers agreed to on October 3, 1975.

The Senate committee report accompanying the HUD-Independent Agencies Appropriations Act stated that the objective of the $10 billion increase in the Brooke-Cranston Tandem authorization provided by the Emergency Housing Act was "*to* ***help support an increase in residential construction and thus provide jobs, reduce unemployment and stimulate the economy***" (Senate Committee on Appropriations (1975), p. 20). The release of the funds by the HUD Secretary was again conditional on a finding that a "***reduction in the volume of home construction or acquisition threatens seriously to affect the economy***." Given both the economic stimulus motives of the increased purchase authorization the overarching intent behind the Brooke-Cranston Tandem program (see above), we classify the policy change as cyclically motivated.

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1978 (Pub. L. 95-119) Enacted: October 4, 1977

The appropriations Act limited GNMA's Section 305 special assistance authorizations to make commitments and purchases out of recaptured purchase authority to $2 billion, without fiscal year limitation. Recaptured purchase authority was that generated by GNMA's portfolio sales, repayments, and commitment cancellations, and which circumvented the need for new budget authority. Prior to enactment, there was no limitation on how much recaptured special assistance authority could be used for new purchases. The policy change was made in the broader context of Congress trying to tighten control over federal credit subsidies and loan guarantees, and budget process reforms more generally.

Both the House and Senate bills would have initially barred all default use of GNMA's recaptured special assistance authority, clarifying that "*any loan or mortgage commitments made out of receipts of corporate funds, previously released in appropriations acts and subsequently recaptured, may not be reused without further appropriations action unless otherwise required by law*," further explaining that the provision was "*in agreement with the intent of the Congressional Budget and Impoundment Control Act that control be exercised over corporate receipts*" (House Committee on Appropriations (1977), p. 58). The conference bill added an amendment allowing up to $2 billion of recaptured special assistance purchase authority to be used. We could not find, however, any related explanation for the amendment in the conference agreement increasing special assistance authority via recaptured funds. It is also unclear how much recaptured special assistance authority was being used by Ginnie Mae ahead of this policy change. We thus consider this policy change as setting a baseline for current policy with respect to Ginnie's special assistance functions, instead of classifying it as a binding, significant policy change.

Housing and Community Development Act of 1977 (Pub. L. 95-128) Enacted: October 12, 1977

See listing under FNMA (Sec. 4.1) for economic context and legislative background.

Policy Change	Agency	Impact	News	Effective	Classification
Brooke-Cranston Tandem Expansion	GNMA	+$3.75 billion	Oct. 1977	Oct. 1977	Non-Cyclical

The Act extended the authorization of the Brooke-Cranston Tandem program under Section 313 of the NHA for one year, through October 1, 1978. The Act capped purchases and commitments to purchase under that authority at $7.5 billion for FY1978, which was not conditional on appropriations. The Act also expanded the purpose of the emergency special assistance program authorized by Section 313 of the NHA from solely economic stabilization to also promoting home ownership for moderate-income households, with the following language amended onto that Section's purpose: "*To the extent feasible and consistent with the primary purpose of this section to stabilize housing production, the Secretary may direct the exercise of the authority conferred by this section to* ***promote homeownership opportunities for moderate-income families***" (Sec. 407(a)). The Act also gave the HUD Secretary more flexibility in targeting purchases towards urban areas and housing rehabilitation.

The accompanying Senate Report explained that the $7.5 billion purchase ceiling for FY1978 "*does not constitute a new [budget authority] authorization, but rather places a limit on the amount which GNMA may use in the next fiscal year from funds which have previously been authorized. Since the program's enactment in 1974, Congress has authorized $17.750 billion, most of which has been used to purchase mortgages, and much of which has been recouped by the Federal Government when the loans were sold off... The Administration has proposed an amendment, currently pending before the Committee on Appropriations, which would prohibit GNMA from rolling over the program funds in this manner, in order to establish greater financial control. The Committee concurs that there is a need to establish*

an explicit congressional authorization for permitting re-use of recaptured funds, and has, therefore, set a $7.5 billion dollar ceiling in FY 1978. The Committee has taken this action as means of placing a limit on the use of previous authorizations, rather than as authorizing new budget authority" (Senate Committee on Banking, Housing and Urban Affairs (1977), pp. 30–31).

Since the enacted ceiling on rolling over previously authorized funds was looser than the administration's proposal to bar any roll over, and its design deliberately circumvented being subject to appropriating new budget authority—counter to prior authorizations—we view this amendment as increasing GNMA's purchase capacity rather than merely continuing current policy. And because the Brooke-Cranston Tandem program had been created as a temporary emergency power with purely cyclical motivations, the program was considerably repurposed by the Act, substantially changing the composition of GNMA's purchase capacity. While the authorization was scheduled to expire after one year, subsequent purchases were authorized to fulfill commitments made in the first year's authorization, and there was precedent for such sunsets being repeatedly extended as a matter of current policy (see above). Consequently we apply the two-year rule, scoring the impact as increasing annualized purchase capacity by $3.75 billion for the year starting October 1977.

The House version of the bill, passed in May, contained neither the permissible limit of up to $7.5 billion in purchases for FY1978, nor the HUD Secretary's expanded authority to use the Tandem program to promote middle-income homeownership or support urban areas and housing rehabilitation (House Committee on Banking (1977b), pp. 68–69). As these provisions were only agreed upon in the conference report, we determine news of the policy to having been made in October 1977, when both chambers agreed to that report.

The economy was experiencing neither a recession nor a credit crunch when the Tandem program was reoriented toward housing policy objectives for low- and moderate income households as well as urban areas. The 1977 Annual Report of the Federal Reserve Board described a robust housing market: "*Residential construction remained a strong expansive force in 1977. A vigorous sales pace in housing markets stimulated a further, major increase in homebuilding activity during the year. Private housing starts were at an annual rate of 2.1 million units in the final quarter, and for the year as a whole they totaled nearly 2 million, the most since 1973*" (Annual Report of the Federal Reserve Board 1977, p. 5). The amendment was also made in the context of a broader housing bill focused on longer-term policy goals, as opposed to emergency responses or depressed housing conditions. We thus classify the policy change as unrelated to the business or financial cycle. Economic and legislative background as well as the justification for this classification is discussed at more length in the Act's listing under FNMA (see Sec. 4.1).

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1979 (Pub. L. 95-392) Enacted: September 30, 1978

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$1.0 billion	Sep. 1978	Oct. 1978	Non-Cyclical

The appropriations bill increased the limitation on emergency special assistance purchases and commitments pursuant to Section 313 of the NHA by $1 billion, to be paid from recaptured purchase authority. The administration had not requested an increase in the authorization for the Brooke-Cranston Tandem program, and the House bill had not recommended it, but the Senate Appropriations Committee recommended granting "*stand-by authority to commit these*

funds in the event that a depressed housing market threatens to lower housing production, especially in the multifamily area" (Senate Committee on Appropriations (1978), p. 13). In the conference bill, the House and Senate compromised on a standby increase of $1 billion for the Tandem program, but added language instructing that "*the funds not be made available in the absence of a recession in the housing industry*" (House Committee on Appropriations (1978), p. 6).[135]

The Act also further increased special assistance authority under Section 305 of the NHA by $2 billion, of which $1.5 billion could be made from recaptured special assistance purchase authority and the remaining $500 million from new borrowing authority. There was no fiscal year limitation accompanying this authorization. The net $2 billion in new purchase authority had been requested by GNMA and the President's budget, primarily to fund the planned purchase of new and heavily rehabilitated housing for low- and moderate-income households. The $1.5 billion authorization from recaptured purchase authority was above and beyond the $2 billion cap to such funds enacted by the Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1978 (see above), so we consider it a significant policy change instead of a continuation of current policy for special assistance functions.

In conjunction with the appropriations bill, the Housing and Community Development Amendments of 1978 (Pub. L. 95-557), enacted October 31, 1978, extended authorization for the Brooke-Cranston Tandem program under NHA Section 313 for one year, through October 1, 1979. The latter Act also increased general special assistance authority by $500 million on October 1, 1978, subject to approval by an appropriations bill (as had just been approved). The Housing and Community Development Amendments of 1978 also substantially increased GNMA's loan limits for purchases of FHA/VA mortgages to $55,000 for single-family homes and up to $68,750 for four-unit homes, previously set at $33,000 and $40,500, respectively.

According to the accompanying Senate committee report, the $1.5 billion authorization from recaptured purchase authority was intended to "*support the production of approximately 50,000 new and substantially rehabilitated housing units for low- and moderate-income families assisted under the section 8 program*" (Senate Committee on Appropriations (1978), p. 13). The other $500 million increase was to be used for a 'Targeted Tandem' program for "*mortgages on projects located in distressed cities and neighborhoods which are undergoing or showing prospects for revitalization*" (Senate Committee on Appropriations (1978), p. 13). The purchases were to bear below-market interest rates as low as 7.5%, more than two percentage points below prevailing 30-year conventional fixed-rate mortgages.[136]

The economy was not in recession, but had just entered the credit crunch lasting from 1978Q2 through 1982Q4 when the bill was enacted. The 1979 Economic Report of the President, however, suggested that housing and mortgage market conditions were holding up quite well, and construction was at capacity, despite rising interest rates in the second half of the year: "***Housing activity remained on a plateau throughout last year**, following nearly 3 years of steady advance. Real residential construction, on a calendar year basis, was 3.5 percent above that in 1977, and there were 2.0 million housing starts last year... This leveling of housing starts and residential construction in 1978 was **not surprising**. Three years of strongly rising building activity had filled backlogs of demand created by the depressed level of new construction during the 1973-74 period of credit restraint and low income. Moreover, the sharp rise in prices of a wide range of building materials **suggests that the building industry was operating at close to capacity in 1978**. Indeed, the striking feature of the housing sector last year was its **continued high level of activity in the***

[135]The Senate version of the bill had proposed a $4 billion increase in the Brooke-Cranston Tandem authorization. The conferees' report language set a higher bar for releasing this authority than the standing requirement of a finding by the HUD Secretary that inflation and the federal government's response was adversely affecting the housing industry (see above).

[136]The report also noted that "*the net outlay per $1,000,000,000 of mortgage purchase authority exercised is only $150,000,000 or so*" (Senate Committee on Appropriations (1978), p. 13).

face of sharply rising interest rates" (Economic Report of the President 1979, p. 31). The 1978 Annual Report of the Federal Reserve Board similarly noted the strength of the housing market through the end of 1978, explaining that "*the sustained strength of residential construction activity apparently reflected both the appeal of housing investment as a hedge against inflation and the improved ability of mortgage markets to withstand tightening financial conditions*" (Annual Report of the Federal Reserve Board 1978, pp. 5, 8–9).

Because there was no imminent downturn in the housing market at the time, we do not consider the conditional standby emergency special assistance authorization to be a binding increase in purchase capacity. Using the two-year rule, we assign a $1 billion annualized increase in Ginnie's purchasing capacity from the Section 305 special assistance authority increase of $2 billion, as measured on a current policy basis. Because of substantive differences between the House and Senate versions of the bill regarding the top-line increase in GNMA's Tandem and special assistance programs (see above), we date news of the net increase as being dated to the agreement of the House and Senate to the conference report on September 19 and September 20, respectively.

The increase in general special assistance authority was distinctly oriented toward specific social policy objectives related to low-income housing, notably supporting urban revitalization and construction of multifamily housing for HUD's Section 8 low-income housing program. Moreover, the conditional increase in the Brooke-Cranston Tandem purchase authority served as an insurance policy in the event of a recession, suggesting that policymakers were not intending the general special assistance increase to also serve a contingent countercyclical role. The GNMA special assistance authority budget request in the FY1979 Budget emphasized supporting FHA programs with below-market interest rates, and made no mention of economic conditions or cyclical motives (The Budget for Fiscal Year 1979 Appendix, p. 493). The bill eventually just met the administration's request, which was made on January 20, 1978, predating the credit crunch, without any adjustment for subsequent economic trends. We thus classify the unconditional increase in Section 305 purchase authority as unrelated to the business or financial cycle.

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1980 (Pub. L. 96-103) Enacted: November 5, 1979

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$1.0 billion	July 1979	Nov. 1979	Non-Cyclical

The Act again further increased the Section 305 general special assistance authorization by $2 billion, to be funded entirely out of recaptured special assistance purchase authority. There was no fiscal year limitation accompanying this authorization. The additional $2 billion in purchase authority had been requested by GNMA and the President's budget, with $1.5 billion earmarked for the planned purchase of new and heavily rehabilitated housing for low- and moderate-income households, particularly through Section 8 housing assistance. The remaining $500 million was intended for the Targeted Tandem program for mortgage purchases related to urban revitalization in distressed cities (Senate Committee on Appropriations (1979), p. 15). The fiscal year had already started October 1, 1979, so this authorization was effective upon enactment. Using the two-year rule, we assign a $1 billion annualized increase in Ginnie's purchasing capacity from the Section 305 special assistance authority increase of $2 billion, as measured on a current policy basis. The Senate version of the bill, passed July 27, concurred with the GNMA special assistance

authorization in the House version previously passed on June 27, hence we date the news of the increase as being made public in July 1979, as opposed to the House and Senate agreeing to the conference report on October 24.

The economy was not in a recession, but had entered the credit crunch lasting from 1978Q2 through 1982Q4 when the bill was enacted. The 1980 Economic Report of the President offered the following overview of housing and mortgage market conditions: "*The decline in residential construction in 1979 was about in line with expectations at the beginning of the year, although interest rates increased much more than had been anticipated. For the year as a whole, real residential construction was 6 percent below the high 1978 level, and new housing starts fell to about 1.74 million units from 2 million in the previous year... The rising cost of mortgage and construction financing depressed housing sales and starts only moderately until late in the year... Following Federal Reserve action in early October to tighten monetary policy, mortgage interest rates rose sharply, reaching levels well above usury limits in many States*" (Economic Report of the President 1980, pp. 43–44).

The authorization of funds was, however, focused on longer-term policy toward urban revitalization and affordable housing for lower- and moderate-income households, particularly the Carter administration's prioritization of expanding Section 8 housing.[137] Moreover, the appropriations committee merely met the administration's budget request submitted January 22, 1979, with no adjustment for the subsequent changes in housing and mortgage market conditions. We thus classify the authorization as unrelated to the business cycle.

Housing and Community Development Amendments of 1979 (Pub. L. 96-153) Enacted: December 21, 1979
Among many other provisions, the Act waived GNMA's Section 305 special assistance program loan limits, to allow for the purchase of any loan insured under a number of targeted FHA programs when at least 20% of the mortgages fell under Section 8 of the National Housing Act. The stated purpose of the bill in its preamble was "*[t]o amend and extend certain Federal laws relating to housing, community and neighborhood development and preservation, and related programs, and for other purposes*," and the bill very much suggested that the stance of US federal housing policy was focused on longer-term distributional and social insurance motives, as opposed to cyclical concerns. We do not consider this a binding, significant policy change affecting Ginnie's purchase capacity, merely a modest change in the pool of mortgages eligible.

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1981 (Pub. L. 96-526) Enacted: December 15, 1980

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Decrease	GNMA	-$0.2 billion	Sep. 1980	Dec. 1980	Cyclical

The Housing and Community Development Act of 1980 (Pub. L. 96-399), enacted October 8, 1980, extended the authorization for the Brooke-Cranston Tandem program under Section 313 of the NHA for one year, through October 1, 1981. The authorization was subsequently allowed to expire. Eligible purchases under the Brooke-Cranston Tandem program were expanded to also include mortgage-related securities. The Act also increased GNMA's Section 305(c)

[137] In particular the Housing and Community Development Acts of 1977 and 1980 significantly expanded Section 8 housing programs, and the Housing and Community Development Amendments of 1979 expanded GNMA's purchase capabilities with respect to Section 8 housing (see below).

general Presidential special assistance authority by $900 million, effective October 1, 1980, again subject to approval in an appropriation act.[138]

Two months later, the corresponding Department of Housing and Urban Development-Independent Agencies Appropriation Act for FY1981 authorized a $1.8 billion loan limitation—as opposed to an authorization via recapture of payments—to fund commitment contracts and purchases under the NHA Section 305 special assistance program during FY1981, as well as additional obligations as necessary to meet prior years commitments.[139] The fiscal year had already started October 1, 1980, so this authorization was effective upon enactment. The budget had requested $1.8 billion in mortgage purchase authority for FY1981, which was earmarked for the Section 8 Tandem program and, to a lesser extent, the Targeted Tandem program for middle-income housing in distressed urban areas. The enacted loan limit represented a decrease of $200 million in GNMA's authority relative to current policy (see above). The Senate version of the bill, passed September 23, concurred with the GNMA special assistance authorization in the House version previously passed on July 28, hence we date the news of the increase as being made public in September 1980, as opposed to the House and Senate agreeing to the conference report in December 1980.

The appropriations act also authorized GNMA to make new commitments of up to $53 billion in FY1981 to issue MBS guarantees to carry out the purposes of Section 306 of the NHA—the first statutory limitation of its kind.[140] Previously, commitments to issue guarantees had been authorized in any such amounts as necessary to meet the objectives of the NHA, as amended. The authorization set by the Act matched the projected level of commitments and authorization request in the president's budget for FY1981 (The Budget for Fiscal Year 1981 Appendix, p. 524).

The first emphasis of the 1981 Economic Report of the President was that "*[w]e must find ways to bring down a stubborn inflation without choking off economic growth*" (Economic Report of the President 1981, p. 3), and Congress was trying to keep discretionary spending and program levels in check to fight inflation. The FY1981 Budget also proposed a trial $30 million grant program to assist in the financing of multifamily home construction as "*an experimental shift from the current mode of financing targeted tandem projects—a tandem program involving the purchase and sale of mortgages—to an interest rate reduction approach... a grant would be given to the lender as compensation for making a below-market interest-rate mortgage loan... The capital grant may accomplish the same purpose, without ever having to purchase, hold, and subsequently sell the mortgage*" (The Budget for Fiscal Year 1981 Appendix, p. 519). The appropriations committees rejected the administration's proposed trial interest rate subsidy program, signaling a shift in housing policy priorities from social policy objectives to budgetary and inflationary concerns. The accompanying Senate committee report explained that its refusal "*is not intended to be a condemnation of the program or its merits. Rather the Committee believes that it is inappropriate to start a new program at a time when* ***every effort is being made to eliminate the budget deficit as a means of fighting inflation***" (Senate Committee on Appropriations (1980), p. 17).[141] The appropriations bill also cut all agencies of jurisdiction, save the VA, by at least 2%, with Congress deliberately appropriating less than the administration's top-line budget request, again representative of

[138]See accompanying House Committee on Banking report for complete history of Sec. 305(c) revisions to general Presidential special assistance authority (House Committee on Banking (1980), p. 186).

[139]This authorization overhaul was again the result of ongoing budget process and credit program reforms. The President's FY1981 Budget had proposed subjecting all federal credit programs to annual reviews and authorizations through appropriations language (Senate Committee on Appropriations (1980), p. 5).

[140]Ibid.

[141]The 1981 Economic Report of the President had similarly emphasized the imperative that "*Our monetary and fiscal policies must apply steady anti-inflationary restraint to the economy*" (Economic Report of the President 1981, p. 8).

cyclical budgetary and inflationary concerns (CQ (1981)).[142]

The request for increased GNMA special assistance authority was made on January 28, 1980, early in the recession lasting from January through July 1980. The appropriations bill was enacted during the briefly ensuing expansion before the more severe recession from July 1981 through November 1982. The 1981 Economic Report of the President noted that "*[h]ousing and automobile sales were the key sectors of weakness, accounting for about two-thirds of this drop in final demand*" in the first recession (Economic Report of the President 1981, p. 136). The report noted that "*Federal and related agencies provided only modest support to the mortgage market as compared with the last cyclical downturn*" (Economic Report of the President 1981, p. 141), but also that the "*chief cyclical determinant of housing activity has become interest rates rather than credit availability. As events have demonstrated, however, [the development of secondary markets] did not insulate housing from tighter monetary conditions.*" Housing starts bottomed out in May 1980, but after a short summer rebound, weakness in the housing market remerged in the fourth quarter. Moreover, the *CQ Almanac* noted that cyclical concerns about the housing market affected the development of the appropriations bill, with Congress adding funds during conference: "*Conferees agreed to shift funds to revitalize the Section 235 mortgage subsidy program in an effort to stimulate homebuying and shore up the lagging home building industry*" (CQ (1981)). The Annual Report of the Federal Reserve noted that total real residential construction expenditures dropped 13% for the year, but HUD programs were responsible for the resilience and increased construction of multifamily and condominium units (Annual Report of the Federal Reserve Board, p. 7).[143] We thus classify the policy change as cyclically motivated by concerns about the housing and credit markets, cyclical budget deficits, and broader inflationary dynamics.

Omnibus Budget Reconciliation Act of 1981 (Pub. L. 97-35) Enacted: August 13, 1981

The Act revised upwards the previous increase in GNMA's Section 305(c) general Presidential special assistance purchase authority from $900 million effective October 1, 1980 (Pub. L. 96-339) to an increase of $1.1 billion on October 1, 1981, again subject to an appropriations act, but without fiscal year limitation. The Act also capped special assistance authority to enter commitments to purchase mortgages under Section 305 of the NHA to a total aggregate principal of $1.973 billion for FY1982, with the caveat that no more than $580 million could be commitments for projects without some units assisted under Section 8. Because the increase was subject to an appropriations bill, we do not consider it a binding, significant policy change affecting Ginnie's purchases. The bill reflected considerable negotiation and compromise between the Republican controlled Senate and Democratic House majority; presaging the approaching wind-down of Ginnie's special assistance functions, the House version of the bill additionally contained a provision that would have required GNMA to sell off at least $2 billion of its mortgage portfolio from the Section 305 special assistance programs in FY1982, but it was dropped in conference (House Budget Committee (1981), p. 703).[144]

[142]The 'high-employment budget surplus,' the prevailing structural budget deficit measure, was estimated to have been reduced by $10 billion in CY1980, though federal expenditures were surging because of higher net interest costs, elevated unemployment, and cost-of-living adjustments for mandatory social insurance programs (Economic Report of the President 1981, p. 157).

[143]The Economic Report of the President suggested that federal housing policies for multifamily construction were propping up overall housing starts following the summer rebound: "*Multifamily starts—which increased from September to November—were bolstered somewhat by Federal subsidy programs*" (Economic Report of the President 1981, pp. 171–172).

[144]The conference report explained that: "*The House bill contained a provision to increase GNMA's mortgage purchase authority under the Special Assistance Functions by $1.1 billion on October 1, 1981. The Senate amendment contained a similar provision, except that it increased GNMA's authority by $2,300,000,000 on October 1, 1981, and provided that not more than $942,800,000 of that amount shall be available for the purchase of or commitments to purchase mortgages secured by projects which do not*

Department of Housing and Urban Development-Independent Agencies Appropriation Act, 1982 (Pub. L. 97-101) Enacted: December 23, 1981

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Increase	GNMA	+$0.173 billion	Dec. 1981	Dec. 1981	Cyclical

The Act set a special assistance loan limitation for funding commitment contracts and purchases under Section 305 of the Housing Act to a total aggregate principle of $1.973 billion for FY1982, in line with the OBRA of 1981 (see above). The 1982 budget had requested an increased loan limit of $3.6 billion, up from $1.8 billion, which was matched by the House bill but not by the Senate bill. The enacted loan limit represented an increase of $173 million in GNMA's commitment authority relative to current policy for the prior fiscal year (see above). The fiscal year had already started October 1, 1981, so this authorization was effective upon enactment. The Senate's preferred lower funding limitation was accepted as an amendment onto the conference bill, thus we date the news of the policy change being made public to the conference bill clearing both chambers on December 10, 1981.

The higher unmatched request for Ginnie's special assistance functions was intended "*to 'buy-out' the existing pipeline of project applications for insurance (FHA) which are being processed on the assumption that tandem financing would be available. Commitments issued in 1982 will be in support of section 8 and targeted tandem projects which were covered by applications for FHA mortgage insurance commitments submitted on or before February 13, 1981*" (House Committee on Appropriations (1981), p. 8). Signaling a final wind-down of the Tandem programs, the enacted level was intended to only cover "*applications that had the status of 'conditional in process' to 'firm commitment" for insurance purposes as of February 13, 1981*" (Senate Committee on Appropriations (1981), p. 15).

The appropriations Act also increased GNMA authorizations to make new commitments to issue guarantees to carry out the purposes of Section 306 of the NHA by $15.25 billion, up to $68.25 billion for FY1982. The 1982 budget had proposed credit control language limiting GNMA's commitments to guarantee MBS to $48 billion, which the House and Senate rejected based on the concern that it "*could have a **negative effect on the already depressed housing industry***" (Senate Committee on Appropriations (1981), p. 16). The bill was enacted in the midst of the recession lasting from July 1981 through November 1982, and the accompanying committee report language explicitly cited concerns about a depressed housing market. We thus classify the policy change as cyclically motivated.

Continuing Appropriations for FY1983 (Pub. L. 97-377) Enacted: December 21, 1982

Policy Change	Agency	Impact	News	Effective	Classification
Special Assistance Decrease	GNMA	-$1.473 billion	Dec. 1982	Dec. 1982	Cyclical

contain units assisted under sec. 8 of the US Housing Act of 1937. The conference report contains the House provision... The House bill also included a provision not contained in the Senate bill providing that (1) during fiscal year 1982, GNMA may not enter into commitments to purchase mortgages, with an aggregate principal amount in excess of $1,973,000,000; and (2) that such amount shall not include any authority to enter into commitment which was authorized for use during fiscal year 1981 but was not utilized during such year." The conference report contained the first House provision, amended with the enacted Section 8 limitation on commitments (House Budget Committee (1981), p. 703).

The continuing appropriations bill set a special assistance loan limitation for GNMA commitment contracts and purchases under Section 305 of the NHA to a total aggregate principle of $500 million for FY1983, to be paid from collections received. Of this, $250 million was for the targeted tandem program, and the other $250 million was for Section 8 construction projects (House Committee on Appropriations (1982a), p. 189). The conference bill restored the $500 million increase initially proposed in the House bill, which had been struck in the Senate's version of the bill (House Committee on Appropriations (1982a), p. 189). The enacted loan limit represented a decrease of $1.473 billion in GNMA's commitment authority relative to current policy for the prior fiscal year (see above). The fiscal year had already started October 1, 1982, so this authorization was effective upon enactment. We determine that the news of Ginnie's decrease in special assistance authority was made public in December 1982, when the House, Senate, and conference versions of the bill all cleared both chambers.[145]

While the loan limitation amounted to decreased support for the housing and mortgage market relative to current policy, it nonetheless appears to have been intended as stimulative in the sense of delaying the administration's imminent repeal of the program (see below). The accompanying House report framed the special assistance programs as "***stimulating mortgage lending and building activities when credit conditions so warrant***" and stressed that the funds would have a positive impact on construction employment: "***these funds will create construction jobs in as short a time as possible***. *The projects are ready, for the most part, to go to* ***construction in the next three to six months.*** *In this connection, the Committee directs the Department to allocate the $500,000,000 included herein within 30 days of enactment of this joint resolution. It is expected that this level of funding* ***will generate approximately 15,000 jobs***" (House Committee on Appropriations (1982b), p. 8). Beyond explicitly referencing near-term concerns about mortgage market activity and construction employment, the bill was also drafted and moved exceptionally quickly.[146] And the bill was enacted just as the economy was bottoming out from the recession lasting from July 1981 through November 1982. We thus classify the policy change as cyclically motivated.

Supplemental Appropriations Act of 1984 (Pub. L. 98-181) Enacted: November 30, 1983

Policy Change	Agency	Impact	News	Effective	Classification
Repeal of Tandem Programs	GNMA	-$2.92 billion	Nov. 1983	Nov. 1983	Non-Cyclical

The Act repealed Sections 305 and 313 of the National Housing Act, which had authorized GNMA's general special assistance functions and Brooke-Cranston Tandem program, respectively. Repeal was effective upon enactment, but previously entered commitments to purchase mortgages, as well as the servicing and disposition of related mortgage holdings, would continue to be governed by the provisions of such sections as in effect immediately before repeal.

Citing 'large losses' to the federal government associated with the programs, Reagan administration's FY1984 Budget request had proposed winding down both subsidized special assistance programs and repealing their statutory authorizations, as later implemented by the Act.[147] Under existing law, the budget projected that outlays for GNMA's

[145]The FY1983 HUD-Independent Agencies bill previously reported by the House Appropriations Committee and partially incorporated into the continuing appropriations act had deliberately deferred action on GNMA's special assistance programs, rendering the conference bill the appropriate benchmark (House Committee on Appropriations (1982b), p. 4).

[146]The House version of the bill passed December 14, the Senate version of the bill passed December 19, and both chambers agreed to the conference report on December 20.

[147]The budget request elaborated, citing budgetary concerns about the programs: "*For 1984, the administration proposes no*

purchase activity would total $1.43 billion in FY1984 and $212 million in FY1985, but the administration's proposed legislation would instead result in negative outlays of -$842 million in FY1984 and -$1.038 billion for FY1985 (The Budget for Fiscal Year 1984, p. 5-57). Annualizing, we estimate the elimination of the special assistance programs would reduce federal outlays by $875 million in the year starting November 1983.[148] By the design of the program, special assistance purchase volumes were considerably larger than their associated net budgetary outlays, which made up the difference between purchase and sales price. Based on the recent estimate that $150 million in net outlays supported $1 billion in special assistance purchases (see Pub. L. 95-392 above), we estimate that this reduction in outlays would reduce purchases by $5.83 billion (-$875 million $\times \frac{\$1000}{\$150}$= -$5.83 billion). Using the two-year rule, we assign an annualized decrease in GNMA's purchases of $2.92 billion, relative to current policy. We determine that the news of GNMA's special assistance programs being repealed was made public in mid-November 1983, when the conference bill passed both chambers.[149]

The Reagan administration's efforts to pare back GNMA activity, particularly subsidized mortgage purchases, were part of a broader, widely recognized effort to shrink the government's active role in housing markets, and the GSEs in particular. The Reagan administration's FY1983 Budget request had proposed reducing GNMA's guarantee commitment level by $20 billion (The Budget for Fiscal Year 1983, p. 5-66), and requested no new authorization for the tandem programs, though it stopped short of proposing a full repeal of their authorization (see above). That budget had argued that reducing federal credit programs "*should relieve pressure on interest rates and lead to a sustainable and non-inflationary recovery of the mortgage finance and construction industries*" (The Budget for Fiscal Year 1983, p. 5-70). The administration had also cited budgetary concerns about the nature of the special assistance programs in proposing their statutory repeal. In October 1984, the President of the Mortgage Bankers Association had railed against the administration's 'ideological' effort to shrink the government, privatize, and deregulate: "*The Reagan administration's philosophy has shifted the allocation of federal government resources toward new priorities, intentionally or otherwise* ***diminishing the high social priority of housing in this country***" (The American Banker (10/18/1983)). Because the efforts to scale back Fannie and Freddie, and the more successful efforts to check Ginnie, were widely viewed as driven by political philosophy or long-term budgetary aims, we classify this policy as unrelated to contemporaneous economic conditions.

Following the repeal of the general and emergency special assistance functions, Ginnie's role in mortgage markets was almost entirely confined to guaranteeing timely payment on pools of FHA/VA mortgages. Annual appropriations bills continued to set authorization limits for Ginnie entering commitments to guarantee MBS, and this statutory limitation was frequently changed in response to economic, budgetary, and social policy objectives. But because Ginnie

further activity for the GNMA tandem mortgage subsidy programs. The statutory authority for these programs, which involves making direct loans at large losses to the Federal Government, is proposed for repeal. Contingent upon successful enactment of this proposal, outstanding Treasury borrowing for these programs will be forgiven, and the remaining fund balances transferred to the GNMA management and liquidating functions fund" (The Budget for Fiscal Year 1984, p. 5-56).

[148] As the Act took effect after the first two months of FY1984, we assume assume a 5/6–1/6 split between projected FY1984 and FY1985 impacts $\left((-842) \times \frac{10}{12} + (-1038) \times \frac{2}{12} = -875\right)$.

[149] The appropriations process had badly broken down in FY1984, resulting in a slew of continuing resolutions and supplemental appropriations bills, and the enacted bill was a highly contentious final funding measure for the year. President Reagan had, however, already signed into law the Department of Housing and Urban Development; Independent Agencies Appropriation Act, 1984 (Pub. L. 98-45), enacted July 12, 1983, which both deliberately ignored GNMA's special assistance authorizations and did not include repeal of Sections 305 and 313.

guaranteed pools issued by third parties, this guarantee activity did not result in purchase or retained portfolio activity.

4.4 Federal Reserve

During the Great Recession and ensuing period of housing and financial market fragility, the Federal Reserve Board became the principal buyer of agency debt and a major holder of agency MBS. The Federal Reserve announced on November 25, 2008 that it would initiate a program to purchase obligations of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks, as well as MBS backed by Fannie Mae, Freddie Mac, and Ginnie Mae (or 'agency MBS'). As of June 28, 2017, the Federal Reserve Bank held $1.77 trillion worth of agency MBS and $8.1 billion worth of federal agency debt securities, comprising 39.4% of the Federal Reserve System's $4.51 trillion balance sheet (FRB H.4.1). The Fed's holdings of agency debt peaked at $170 billion in March 2010.

Though this was the Federal Reserve's first foray into purchasing mortgage securities, transacting in agency securities had been authorized since the 1960s, and the Fed had previously purchased agency debt instruments. The Interest Rate Adjustment Act of 1966 (Pub. L. 89-597, enacted September 21, 1966), a bill regulating and attempting to reduce interest rates, had expanded the authority of the Federal Open Market Committee's open-market operations (OMOs) to include transacting in "*any obligation which is a direct obligation of, or fully guaranteed as to principal and interest by, any agency of the United States*." According to an accompanying Senate committee report, Congress's intent behind the provision was to "*broaden the scope of Federal Reserve open-market operations in regulating the supply of reserves available to the banking system*" (Senate Committee on Banking and Currency (1966), p. 2). The Act granted this expanded authority over OMO purchases for only one year, but Congress extended this authority in 1967 and permanently amended this change to Sec. 14(b)(2) of the Federal Reserve Act in 1968 (Haltom and Sharp (2014)). Pub. L. 90-505, enacted September 21, 1968, also expanded authority regarding agency security purchases to allow direct purchases from government agencies. Facing political pressure from Congress, the Federal Reserve, under Chairman Arthur Burns, first engaged in purchases of agency securities in 1971 (Haltom and Sharp (2014)). The Fed continued to purchase FNMA debt securities and that of other federally sponsored agencies through 1981, amassing as much as 10% of Fannie's debt outstanding by the mid-1970s, and the Fed still held FNMA debt on its balance sheet through 2000 (Haltom and Sharp (2014)). This expanded authority for OMO purchases proved highly consequential for the conduct of unconventional monetary policy during the Great Recession.

FOMC Announcement: QE1 Launch Announced: November 25, 2008

Policy Change	Agency	Impact	News	Effective	Classification
QE1 Launch	Federal Reserve	+$250.0 billion	Nov. 2008	Dec. 2008	Cyclical

The Federal Reserve announced on November 25, 2008 that it would initiate a program to purchase agency MBS and obligations of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks, shortly after FNMA and FHLMC had been taken into conservatorship by the FHFA and US Treasury Department (see listing under FNMA, Sec. 4.1). Concurrent with the September 2008 conservatorship announcement, the Treasury had also initiated its own agency MBS purchase program (see listing under Treasury, Sec. 4.5). Noting that "*[s]preads of rates on GSE debt and on GSE-guaranteed mortgages have widened appreciably of late*," the FOMC press release offered the following motivation:

"*This action is being taken to* ***reduce the cost and increase the availability of credit for the purchase of houses, which in turn should support housing markets and foster improved conditions in financial markets*** *more generally*" (Federal Reserve Press Release November 25, 2008). The Board of Governors initially authorized purchases of $100 billion worth of GSE debt obligations and up to $500 billion worth of agency MBS. The full schedule of purchases was not announced, but purchases were "*expected to take place over several quarters*," starting the following week, in early December. Given the uncertain duration and pace of purchases, we use the two-year rule and assign an annualized increase in the Federal Reserve's agency MBS purchases of $250 billion, with news of the policy change being made public in November 2008. The policy announcement significantly affected intraday trading volumes and yields on long-term bonds (Krishnamurthy and Vissing-Jørgensen (2011)).

This announcement marked the beginning of the first round of quantitative easing, or QE1, which would run from December 2008 to March 2010. The action was taken in the midst of the Great Recession, explicitly in response to a severe credit crunch, housing market collapse, and declining economic activity, and is thus classified as cyclically motivated.

FOMC Statement: QE1 Expansion Announced: March 18, 2009

Policy Change	Agency	Impact	News	Effective	Classification
QE1 Expansion	Federal Reserve	+$750.0 billion	Mar. 2009	Mar. 2009	Cyclical

The Federal Reserve announced on March 18, 2009 that it would expand its purchases of agency MBS by $750 billion, and double its purchases of agency debt from $100 billion to up to $200 billion. The FOMC noted that the expanded MBS purchases would bring "*total purchases of these securities to up to $1.25 trillion* ***this year***" (FOMC Statement March 18, 2009). The motivation for the expansion of the agency MBS program was "*[t]o provide greater support to mortgage lending and housing markets*." The FOMC also announced it would purchase up to $300 billion worth of long-term Treasury securities within the next six months to "*help improve conditions in private credit markets*" (FOMC Statement March 18, 2009). The policy announcement again significantly affected intraday trading volumes and yields on long-term bonds (Krishnamurthy and Vissing-Jørgensen (2011)). Given the explicit projection that the MBS purchase program would be completed within the year, we do not invoke the two-year rule and instead assign an annualized increase in the Federal Reserve's MBS purchases of the full $750 billion announced in March 2009.

The FOMC statement noted that the economy was still contracting, and that "*[j]ob losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending.*" The action was taken in the midst of the Great Recession, explicitly in response to a severe credit crunch, housing market collapse, and declining economic activity, and is thus classified as cyclically motivated.

FOMC Statement: Reduction of Agency MBS Program Announced: November 4, 2009

The FOMC announced that it was slowing the pace of both its agency debt and MBS purchases, and that the expected volume of agency debt purchased would be $175 billion, down $25 billion from the previously announced target. The FOMC offered the following explanation: "*The amount of agency debt purchases, while somewhat less than the previously announced maximum of $200 billion, is consistent with the recent path of purchases and reflects the limited availability of agency debt*" (FOMC Statement November 4, 2009). The deceleration in purchases was intended "*to*

promote a smooth transition in markets" and purchases were projected to be completed by the end of 2010Q1. The overall intent of both asset purchase programs was "*[t]o provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets*" (FOMC Statement November 4, 2009). Because the policy announcement did not affect the targeted volume of MBS purchases and only modestly extended the timing of purchases, we do not consider this a significant policy change for the Fed's MBS purchase program.

FOMC Statement: Conclusion of Agency MBS Program Announced: December 16, 2009

The FOMC again announced that it was slowing the pace of its agency debt and MBS purchases, and expected total purchases of $175 billion and $1.25 trillion respectively, and reiterated that the program was expected to be complete by projected to be completed by the end of 2010Q1. And the statement again reaffirmed the following motivation for the purchase program: "*To provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets*" (FOMC Statement December 16, 2009).

In total, the Federal Reserve purchased $432.3 billion worth of FHLMC MBS, $703.6 billion worth of FNMA MBS, and $114.0 billion worth of GNMA MBS, exhausting the entire $1.25 trillion MBS purchase commitment. And the Federal Reserve purchased $67.1 billion worth of FHLMC debt, $67.4 billion worth of FNMA debt, and $37.7 billion worth of FHLBank debt, leaving $2.9 billion of the revised $175 billion purchase commitment unused.

FOMC Statement: Reinvestment of Agency MBS Program Announced: August 10, 2010

The FOMC announced that it would maintain the present volume of the Federal Reserve's portfolio of securities held outright by reinvesting principal payments from its holdings of agency debt and MBS into longer-term Treasury securities, while continuing to rolling over the Federal Reserve's holdings of Treasury securities as they matured. The intent behind maintaining the size of its securities balance sheet was "*[t]o help support the economic recovery in a context of price stability*" (FOMC Statement August 10, 2010).

FOMC Statement: QE2 Launch Announced: November 3, 2010

The FOMC announced that it would purchase an additional $600 billion worth of longer-term Treasury securities at a pace of roughly $75 billion per month, to be concluded by the end of the second quarter of 2011. This announcement marked the beginning of the second round of quantitative easing, or QE2, which would run from November 2010 to June 2011. This round of Treasury purchases was intended "*[t]o promote a stronger pace of economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate*" (FOMC Statement November 3, 2010).

FOMC Statement: Reinvestment of Agency MBS Program Announced: September 21, 2011

Policy Change	Agency	Impact	News	Effective	Classification
Agency MBS Reinvestment	Federal Reserve	+$262.0 billion	Sep. 2011	Sep. 2011	Cyclical

On September 21, 2011, the FOMC announced that the principal payments from its holdings of agency debt and MBS would be reinvested into agency MBS, instead of Treasury securities. The motivation behind the change was "*[t]o help support conditions in mortgage markets*" (FOMC Statement September 21, 2011). The FOMC maintained its policy of rolling over maturing Treasury securities. The statement made clear that that housing market remained a far cry

from health: "*Investment in nonresidential structures is still weak, and the housing sector remains depressed.*" And the FOMC cited "*significant downside risks to the economic outlook, including strains in global financial markets*." The Federal Reserve also announced a maturity extension program in which it would purchase $400 billion worth of longer-dated Treasury securities with maturities between 6- and 30-years and sell an equal volume of Treasuries with maturities of under 3 years (popularly coined 'Operation Twist').

Market analysts at Morgan Stanley estimated that paydowns on the Fed's standing MBS portfolio could total $262 billion over the next twelve months, which was widely cited as an estimate of the Fed's expected increased demand for agency MBS as a result of the reinvestment program (Dow Jones Newswires (9/21/2011)). Financial newswires also underscored that the Fed's MBS reinvestment program had come as a surprise. *Dow Jones Newswires* explained that "*[t]he Fed decision to bolster the mortgage market surprised many traders and analysts who had been expecting the central bank would keep investing cash rolling off its existing portfolio into the Treasury market*" (Dow Jones News Service (9/21/2011)). Based on Morgan Stanley's projections, we score this policy as increasing the Fed's mortgage securities purchases by an annualized $262 billion starting in September 2011. Given the FOMC's stated concerns and objectives, we classify the agency MBS reinvestment program as cyclically and financially motivated.

FOMC Statement: QE3 Launch Announced: September 13, 2012

Policy Change	Agency	Impact	News	Effective	Classification
QE3 Launch	Federal Reserve	+$480.0 billion	Sep. 2012	Sep. 2012	Cyclical

On September 13, 2012, the FOMC announced that the Federal Reserve would purchase additional agency MBS at a pace of roughly $40 billion per month. No expected duration or target total volume of purchases was announced for this round of asset purchases. The FOMC also announced that it would continue Operation Twist, and estimated that the two purchase programs would collectively amount to increasing the Federal Reserve's holdings of long-dated securities by roughly $85 billion per month. The stated objective was "*[t]o support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate*," while noting that inflation was expected to remain below target over the medium term (FOMC Statement September 13, 2012). The statement also noted that the "*housing sector has shown some further signs of improvement, albeit from a depressed level.*"

This announcement marked the beginning of the third round of quantitative easing, or QE3, which would run from September 2012 through October 2014. According to a *Reuters* poll, around 60% of financial economists and market analysts had been expecting the Fed to launch a third round of quantitative easing at this FOMC meeting, but the consensus had been that the Fed would announce a mix of Treasury bond and agency debt purchases, as opposed to increasing its MBS acquisitions (Business and Finance Daily News Service (9/13/2012)). Lending further support to having surprised markets, the policy announcement significantly affected yields on long-term bonds in intraday trading (Krishnamurthy and Vissing-Jørgensen (2011)). In light of the uncertain duration of QE3, we assume purchases would continue for at least one year, and score this policy as increasing the Fed's mortgage purchases by an annualized $480 billion for the year starting September 2012 ($40 $\times$ 12 = $480). Given the FOMC's stated concerns and objectives, we classify the launch of QE3 as cyclically and financially motivated.

FOMC Statement: QE3 Expansion Announced: December 12, 2012

On December 12, 2012, the FOMC announced that the Federal Reserve would continue to purchase additional agency MBS at a pace of roughly $40 billion per month, and would begin net purchases of longer-dated Treasuries at a pace of $45 billion per month when Operation Twist was concluded at the end of December 2012. The FOMC explained that "*these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative*" (FOMC Statement December 12, 2012), and again cited concerns about downside risks from global financial markets.

FOMC Statement: QE3 Taper Announced: December 18, 2013

Policy Change	Agency	Impact	News	Effective	Classification
QE3 Taper	Federal Reserve	-$60.0 billion	Dec. 2013	Jan. 2014	Cyclical

On December 18, 2013, the FOMC announced that it would slightly reduce the pace of its agency MBS purchases from $40 billion to $35 billion per month and its purchases of Treasuries from $45 billion to $40 billion per month, starting in January 2014. The FOMC reaffirmed its policy of reinvesting the principal payments from its holdings of agency debt and MBS into more agency MBS and rolling over Treasuries. The deceleration of purchases was made in "*light of the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions*" (FOMC Statement December 18, 2013). The statement also noted that "*the recovery in the housing sector slowed somewhat in recent months*" and that "*[f]iscal policy is restraining economic growth*" (FOMC Statement December 18, 2013).

While talk of whether the Fed would 'taper' its bond buying program was rampant, *Market Watch* reported that only one out of four economists surveyed by the *Wall Street Journal* the Friday before the announcement had "*predicted the Fed will scale back its bond buying at its December meeting*" (MarketWatch (12/18/2013)). We do not consider the Fed's $5 billion monthly reduction of MBS purchases to have been well anticipated by financial markets, and view news of the policy change as having been made public in December. In light of the uncertain duration of QE3, we assume the reduced pace of purchases would continue for at least one year, and score this policy as reducing the Fed's mortgage purchases by an annualized $60 billion (($35 - $40) $\times$ 12 = -$60). Given the FOMC's stated concerns and objectives, we classify the tapering of QE3 as also cyclically motivated.

FOMC Statement: QE3 Termination Announced: October 29, 2014

On October 29, 2014, the FOMC announced that it would end its current program of purchasing agency MBS and Treasury securities at the end of October 2014, citing "*a substantial improvement in the outlook for the labor market since the inception of its current asset purchase program*" (FOMC Statement October 29, 2014). The FOMC again reaffirmed its policy of rolling over Treasuries and reinvesting the principal payments from its holdings of agency debt and MBS into more agency MBS. The announcement of the complete termination of QE3 had been widely expected and largely priced in. The *Financial Times* reported that "*The US central bank is widely forecast to announce the end of its third round of quantitative easing*" just ahead of the FOMC announcement (Financial Times (10/29/2014)). We thus consider the termination of the Fed's MBS purchases under QE3 as a significant but long-anticipated policy change.

Between October 2011 and September 2015, the Federal Reserve's reinvestment of principal payments from holdings of agency debt and MBS and additional agency MBS purchases totaled $572.3 billion worth of FHLMC MBS, $1.015 trillion worth of FNMA MBS, and $451.1 billion worth of GNMA MBS, collectively totaling $2.039 trillion.

4.5 US Treasury Department

The Housing and Economic Recovery Act of 2008 temporarily authorized the US Treasury Department to purchase securities issued by Fannie and Freddie and authorized the newly created Federal Housing Finance Agency to take the Enterprises into conservatorship, if deemed necessary. In September 2008, Fannie and Freddie were placed under the conservatorship of the Treasury and FHFA, and were ordered to first increase, then gradually reduce their mortgage portfolios. The Treasury concurrently announced an agency MBS purchase program that resulted in nearly $200 billion worth of purchases through the end of 2009. During conservatorship, Treasury provided the Enterprises with funds to ensure positive net worth in exchange for equal amounts of senior preferred stock, in accordance with periodically amended Senior Preferred Stock Purchase Agreements. Treasury unexpectedly announced it would begin unwinding its agency MBS purchase program in March 2011. Fannie and Freddie have never made use of their $2.25 billion standby credit lines with the Treasury Department.

Treasury Agency MBS Purchase Program Announced: September 7, 2008

Policy Change	Agency	Impact	News	Effective	Classification
MBS Purchase Program Launch	Treasury	+$80.0 billion	Sep. 2008	Sep. 2008	Cyclical

The Housing and Economic Recovery Act of 2008 (Pub. L. 110-289, enacted July 30, 2008) amended the FNMA Charter Act, FHLMC Act, and Federal Home Loan Bank Act to temporarily authorize the US Treasury to purchase any volume of FNMA, FHLMC, or FHLBank obligations or securities authorized under their respective charters, conditional on the Secretary making an emergency determination that such purchases were necessary to "*(i) provide stability to the financial markets; (ii) prevent disruptions in the availability of mortgage finance; and (iii) protect the taxpayer*" (Sec. 1117). The Secretary of the Treasury was authorized to use the proceeds of the sale of any securities to finance such purchases. This emergency authority was scheduled to expire on December 31, 2009.

Concurrent with the FHFA and Treasury Department taking FNMA and FHLMC into government conservatorship on September 7, 2008, the Treasury announced a GSE MBS Purchase Program to begin later that month. Treasury's stated objective behind the program was "*to broaden access to mortgage funding for current and prospective homeowners as well as to* ***promote market stability***" (Department of the Treasury (2008b)). The announcement did not contain specific amounts of the planned purchases, but stated that the scale of the program would be based on developments in capital markets and the housing market. The Fed's September 10, 2008 Greenbook stated that Treasury's expected outlays for purchasing equity and MBS of Fannie and Freddie were highly uncertain, but estimated outlays of $20 billion in calendar 2008 and $60 billion in 2009 (September 10, 2008 Greenbook, p. I-6). Accordingly we assign an $80 billion expected annualized volume of agency MBS purchases under Treasury's program for the year starting September 2008. While perceived odds of a federal rescue of the GSEs had been rising in the summer of

2008, the move to take the Enterprises into conservatorship—and its accompanying agency MBS purchase program—clearly surprised markets and were unequivocally cyclically motivated (see listing under FNMA, Sec. 4.1). In practice, Treasury accumulated a portfolio of agency MBS of $192 billion between September 2008 and December 2009.

Under another HERA authorization, the Treasury, in conjunction with FHFA, HUD, Fannie, and Freddie also created an initiative in October 2009 to provide support to state and local Housing Financing Agencies (HFAs). This initiative was designed to support low mortgage rates and expand resources for low- and middle-income borrowers to purchase or rent homes, making them more affordable over the long-term. In December 2009, two Treasury supported credit programs, the Temporary Credit and Liquidity Program and the New Issue Bond Program, were launched as part of the countercyclical HFA initiative.[150]

Emergency Economic Stabilization Act of 2008 (Pub. L. 110-343) Enacted: October 3, 2008

On September 20, 2008, the Treasury Secretary introduced a proposal to purchase mortgage-related assets up to a limit of $700 billion outstanding at any time. This proposal had the support of the President, and negotiations with leaders in Congress commenced to draft appropriate legislation. A first vote on the bill failed on September 28, sparking the largest stock market losses during trading on September 29 since Back Monday in 1987.

Congress quickly reversed course, and the Emergency Economic Stabilization Act of 2008 was enacted on October 3, 2008. The Act created the Office of Financial Stability within the Treasury Department, which was to administer a $700 billion Troubled Asset Relief Program (TARP). The legislation's statutory definition of 'troubled assets' eligible for purchase by the Treasury included residential or commercial mortgages and any securities, obligations, or other mortgage-related instruments originated or issued before March 15, 2008. The legislation limited the Secretary's authority to purchase troubled assets to: (1) $250 billion outstanding at any one time; (2) $350 billion outstanding at any one time if, at any time, the President certified to Congress that the Secretary needed to exercise authority for up to such an amount; and (3) $700 billion outstanding at any one time if, at any time after such a certification, the President reported to Congress a plan of the Secretary to exercise the authority authority for up to such an amount, unless Congress enacted a joint resolution of disapproval within 15 calendar days of the plan's transmission. The total authorization of $700 billion in October 2008 was later reduced to $475 billion by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub. L. 111-203, enacted July 21, 2010).

Contrary to its name, TARP funds were primarily used for a Capital Purchase Program, in which Treasury injected $250 billion in capital into a wide range of banks and recently rechartered bank holding companies (Department of the Treasury (2008c), p. 6). The Capital Purchase Program was announced on October 14, 2008. TARP funds were also later used for a federally incentivized mortgage refinancing program (see 'Homeowner Affordability and Stability Plan' under FNMA, Sec. 4.1).

The Initial Report to Congress of the Office of the Special Inspector General for the TARP explained that the program authorization could have been spent on MBS originated or issued by March 14, 2008. That report also characterized the Capital Purchase Program as a departure from the legislation's 'original intent': "*According to the Interim Assistant Secretary for Financial Stability, 'Purchasing equity in healthy banks around the country would be a faster and more direct way to inject much-needed capital into the system and restore confidence compared with asset*

[150]Treasury purchased a participation interest in the Temporary Credit and Liquidity Program, which was a liquidity facility for outstanding HFA bonds administered by Fannie and Freddie. Under the New Issue Bond Program program, Treasury purchased GSE securities backed by housing bonds issued by HFAs.

purchases.' Treasury decided that healthy banks would be in the best position to increase the flow of credit in their communities. The decision to provide a direct infusion of capital into banks was widely seen as a shift in approach from the original understanding of purchasing troubled assets, which would have presumably involved the purchase of troubled mortgages or mortgage-backed securities. The former Treasury Secretary explained: 'Given the severity and magnitude of the situation, an asset purchase program would not be effective enough, quickly enough. Therefore we exercised the authority granted by Congress in this legislation to develop and quickly deploy a $250 billion capital-injection program, fully anticipating we would follow that with a program for troubled asset purchases'" (SIGTARP (2009), p. 49).[151] The follow through never materialized, and TARP funds were not used for large scale purchases of troubled assets.

Wessel (2009) suggested that Federal Reserve Chairman Bernanke and some of Treasury Secretary Paulson's staff strongly favored capital injections over troubled asset purchases, and Paulson had reportedly concluded that funds would have to be used for bank capitalizations the morning after the first failed TARP vote because "*buying toxic assets was going to take too long*" (Wessel (2009), pp. 227, 236). Paulson abruptly killed the idea of any troubled asset purchases in a December 11, 2008 press conference, announcing off-the-cuff that doing so "*was no longer 'the most effective way' to use the money... Instead, he said, the Treasury Department planed to use nearly all the money to shore up the capital foundation of the nation's banks and to try to get consumer lending going again*" (Wessel (2009), p. 243). Consequently, we do not consider TARP to be a significant policy change affecting the Treasury Department's holding of mortgage securities, counter to its name and original intent. Authority to make new investments under the TARP program expired on October 3, 2010.

Treasury Agency MBS Purchase Program Sales Announced: March 21, 2011

Policy Change	Agency	Impact	News	Effective	Classification
MBS Purchase Program Sales	Treasury	-$120.0 billion	Mar. 2011	Mar. 2011	Cyclical

On March 21, 2011, the Treasury announced it would start selling up to $10 billion in agency MBS per month, subject to market conditions. It was also announced that sales would begin that month. Given the outstanding MBS balance of $142 billion, Treasury cited that at this pace, "*the portfolio would be unwound in whole* ***over approximately one year***" between sales and continued paydowns of $2 billion to $4 billion a month (Department of the Treasury (2011a), p. 1). Prior to March 2011, the Department's stated intent was to hold its MBS securities to maturity (Department of the Treasury (2011b), p. 104). A Treasury official also announced that the MBS purchase program was expected to yield a profit of $15 billion to $20 billion for taxpayers (Dow Jones Newswires (3/21/2011a)).

We score the policy to change to active portfolio disposal as reducing the Treasury's MBS net purchases by an annualized $120 billion in the year starting March 2011 ($10 $\times$ 12 = $120). The Treasury Department's announcement appeared to take market analysts by surprise, and Treasury yields fell in intraday trading. The head of RBC Capital Markets' government bond trading desk claimed that "*[t]he market was not prepared for this*" (Dow Jones Newswires (3/21/2011a)). The timing of the sale may also have been motivated by public debt outstanding approaching statutory debt ceiling limit; a Treasury official stated that the sale might delay hitting the debt ceiling, expected to be reached

[151] For an overview of the Capital Purchase Program authorization and background, see SIGTARP (2009), pp. 29–35.

between April 15 and May 31, by several days (Dow Jones Business News (3/21/2011b)).[152]

An accompanying Treasury Press Center FAQ addressed the motivation head-on: "*Selling MBS is consistent with the general pattern of Treasury divestment of financial assets acquired during 2008 and 2009 as part of the various financial stabilization programs. Aided by such programs, today, the* ***market for agency-guaranteed MBS has notably improved along with broader financial conditions since Treasury acquired the portfolio****. Additionally, Treasury's mission does not typically include managing a large mortgage portfolio*" (Department of the Treasury (2011a), p. 1). Given that the Treasury's sale was motivated by a reversal in cyclical economic conditions, we classify the MBS portfolio liquidation as principally cyclically motivated, although budgetary concerns were likely also a factor.

The Treasury FAQ also emphasized that the MBS sales would have no impact on the scheduled wind down of the GSEs' retained portfolios: "*The Enterprises are currently in the process of gradually reducing the size of their retained portfolios at a pace of no less than 10 percent per year, as they agreed to do in the preferred stock purchase agreements between the Treasury and the Enterprises. Both Enterprises are on track to meet or exceed the scheduled reductions, and the Administration does not anticipate any changes to this policy*" (Department of the Treasury (2011a), pp. 2–3).

The Enterprises remain in the conservatorship of the Treasury and FHFA, nearly nine years after their federal rescue. No substantial GSE reform has been enacted since the conservatorship agreements were entered.

[152]While raising the debt ceiling was typically a politicized but pro forma matter, the Republican majority in the House of Representatives was demanding spending cuts in exchange for an increase, and after a protracted showdown the ceiling was eventually increased by the Budget Control Act of 2011 (Pub. L. 112-25, enacted August 2, 2011), a spending reduction measure.

5 Results

Table 4 compiles the significant, binding policy events resulting from the narrative analysis. Each intervention is characterized by a brief description of the policy change, the agency affected, its annualized projected impact on mortgage purchase activity (in nominal billions of US dollars), our determination of when its news was made public, the timing of the policy taking effect, and our classification of the policy's motivation as either cyclical or non-cyclical. We document a total of 55 distinct significant policy changes over 1968–2014.[153] After aggregating to a monthly frequency, there are 48 months in which the news of an intervention is made public; there are 22 months with policy interventions classified as non-cyclically motivated and 28 months with those classified as cyclically motivated. News of both cyclically motivated and non-cyclically motivated policies are attributed to December 1982 and February 2008. In the sample that excludes the 2007/08 financial crisis by omitting policy interventions after December 2006, there are 20 months with non-cyclically motivated policy events and 15 months with those classified as cyclically motivated.

Mixing policy changes taking effect relatively quickly with those facing long implementation delays can be difficult to handle in certain econometric applications, particularly in the context of news shocks with further lags between mortgage commitments and purchases. For this reason, Fieldhouse, Mertens, and Ravn (2017) further exclude all regulatory instruments from this narrative analysis scheduled to take effect more than nine months after their news was made public. This additional sample restriction involves dropping three distinct policy events listed in Table 4: the increase in GNMA's special assistance authority from the Housing and Urban Development Act of 1968, announced in August 1968 but not taking effect until July 1969; the affordable housing goals set for both Fannie and Freddie in 1992, agreed upon in July 1991 but not taking effect until January 1993; and the affordable housing goals set for both Fannie and Freddie in 2000, announced in July 1999 but not taking effect until January 2001. These exclusions reduce the number of months with non-cyclically motivated interventions to 19 in the full sample, while there remain 28 months with cyclically motivated policy interventions. Similarly, there are 17 months with non-cyclically motivated interventions and 15 months with those cyclically motivated in the sample that excludes the 2007/08 financial crisis by omitting interventions after December 2006. As a result of these exclusions to the narrative instrument, Table 2 in Fieldhouse, Mertens, and Ravn (2017) is slightly different than Table 4 below.

[153] There are a total of 69 policy entries by each agency in Table 4, but one distinct policy change often applied to both Fannie and Freddie, albeit sometimes with different portfolio implications for each Enterprise.

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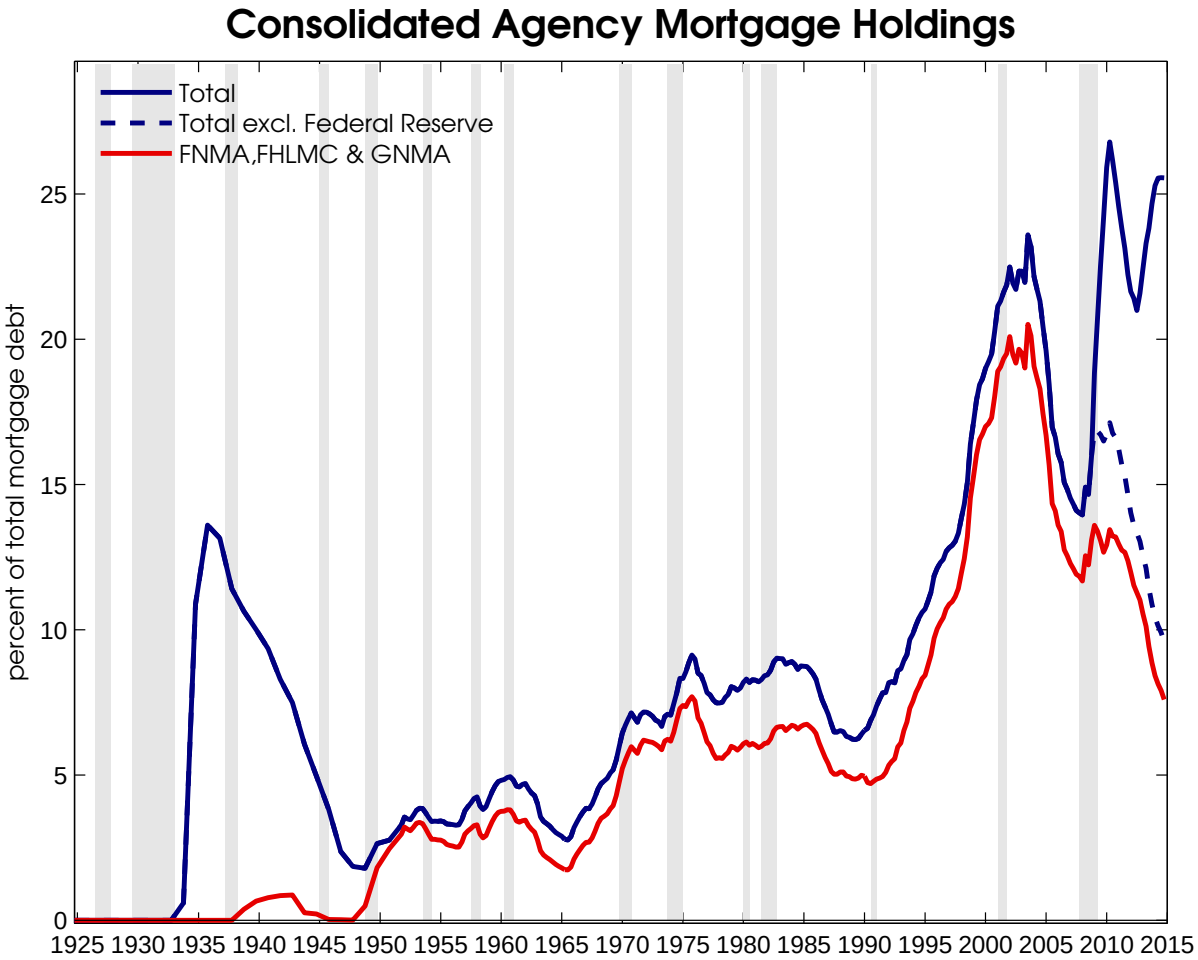

Figure 1 Agency Market Share of Mortgage Debt Outstanding

Notes: Residential mortgage debt and originations include home as well as multifamily mortgages. Agency holdings include holdings of both whole loans and pools. The grey bars are NBER-dated recessions. Sources: see data appendix of Fieldhouse, Mertens, and Ravn (2017).

Table 1 Principal Institutions of US Housing Credit Policy

FDIC	Federal Deposit Insurance Corporation	1933-
FHA	Federal Housing Administration	1934-
FHFA	Federal Housing Finance Agency	2008-
FHFB	Federal Housing Finance Board	1989-2008
FHLBB	Federal Home Loan Bank Board	1932-1989
FHLBS	Federal Home Loan Bank System	1932-
FHLMC	Federal Home Loan Mortgage Corporation	1970-
FNMA	Federal National Mortgage Association	1938-
FSLIC	Federal Savings and Loan Insurance Corporation	1934-1989
GNMA	Government National Mortgage Association	1968 -
HOLC	Home Owners' Loan Corporation	1933-1954
HUD	Department of Housing and Urban Development	1965-
OFHEO	Office of Federal Housing Enterprise Oversight	1992-2008
PHA	Public Housing Administration	1937-1965
RFC	Reconstruction Finance Corporation	1932-1957
RFCMC	RFC Mortgage Company	1935-1948
RTC	Resolution Trust Corporation	1989-1995
VA	Veterans Administration/Department of Veterans Affairs	1944-

Table 2 Glossary of Acronyms Used

AHPs	affordable housing programs
ARMs	adjustable-rate mortgages
ARRA	American Recovery and Reinvestment Act of 2009
CBO	Congressional Budget Office
CMOs	collateralized mortgage obligations
CRS	Congressional Research Service
ESA	Economic Stimulus Act of 2008
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration
FHEFSSA	Federal Housing Enterprises Financial Safety and Soundness Act of 1992
FHFA	Federal Housing Finance Agency
FHFB	Federal Housing Finance Board
FHLBanks	Federal Home Loan Banks
FHLBB	Federal Home Loan Bank Board
FHLBS	Federal Home Loan Bank System
FHLMC	Federal Home Loan Mortgage Corporation
FIRREA	Financial Institutions Reform, Recovery, and Enforcement Act of 1989
FNMA	Federal National Mortgage Association
FOMC	Federal Open Market Committee
FSLIC	Federal Savings and Loan Insurance Corporation
FY	fiscal year
GAAP	generally accepted accounting principles
GAO	Government Accountability Office
GNMA	Government National Mortgage Association
GPMs	graduated payment mortgages
GSE	government-sponsored enterprise
HERA	Housing and Economic Recovery Act of 2008
HARP	Home Affordable Refinance Program
HMDA	Home Mortgage Disclosure Act of 1975
HOLC	Home Owners' Loan Corporation
HUD	Department of Housing and Urban Development
HUDA	Housing and Urban Development Act of 1968
JCT	Joint Committee on Taxation
LTV	loan-to-value ratio
MBS	mortgage-backed securities
NCUA	National Credit Union Administration
NHA	National Housing Act of 1934
NYSE	New York Stock Exchange
OCC	Office of the Comptroller of the Currency
OFHEO	Office of Federal Housing Enterprise Oversight
OMB	Office of Management and Budget
PCs	Mortgage Participation Certificates
QE	quantitative easing
REMICs	real estate mortgage investment conduit
RFC	Reconstruction Finance Corporation
RRMs	renegotiable-rate mortgages
RTC	Resolution Trust Corporation
S&Ls	savings and loan associations
SEC	Securities and Exchange Commission
SPSPA	Senior Preferred Stock Purchase Agreement
TARP	Troubled Asset Relief Program
UPB	unpaid principal balance
VA	Veterans Administration/Department of Veterans Affairs

Table 3: Sources for Narrative Analysis

Government Publications	
Board of Governors	Annual Report, Press releases, *Federal Reserve Bulletin*
Congressional Budget Office	*The Housing Finance System and Federal Policy: Recent Changes and Options for the Future* (1983), *Controlling Risks of Government-Sponsored Enterprises* (1991)
Congressional Quarterly	*Congressional Quarterly Almanac*
Congressional Research Service	*A Chronology of Housing Legislation and Selected Executive Actions, 1892-2003* (2004), *The Conforming Loan Limit* (2008)
Council of Economic Advisors	*Economic Report of the President*
Department of Housing and Urban Development	HUD news releases, *The Secondary Market in Residential Mortgages* (1983), *1986 Report to Congress on the Federal National Mortgage Association* (1987), *The National Homeownership Strategy: Partners in the American Dream* (1995), *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility* (1996), *Profiles of GSE Mortgage Purchases in 2001-2004* (2008)
Department of the Treasury	Press releases and statements, *Report of the Secretary of the Treasury on Government-Sponsored Enterprises* (1990), *Government Sponsorship of the FNMA and the FHLMC* (1996)
Federal Home Loan Mortgage Corporation	Press releases and statements, Annual Report, Form 10-K
Federal Housing Finance Administration	Press releases and statements, *Mortgage Market Notes*
Federal National Mortgage Association	Press releases and statements, Annual Report, Form 10-K, *Monthly Volume Summary*, *Information Statement*, *MBSenger*, *Offering Circular*, *Background and History of the Federal National Mortgage Association* (1969, 1973)
Financial Crisis Inquiry Commission	*Final Report of the Financial Crisis Inquiry Commission* (2011)
Government Accountability Office	*The Federal National Mortgage Association in a Changing Environment* (1985), *GSEs: A Framework for Limiting the Government's Exposure to Risk* (1991), *Housing Enterprises: Potential Impacts of Severing Government Sponsorship* (1996), *HUD's Mission Oversight Needs to be Strengthened* (1998)
US Congress	Hearing transcripts and reports: Committees on Appropriations, Committees on Banking and Currency, Committee on Banking, Finance and Urban Affairs, and Committee on Banking, Housing and Urban Affairs
Office of Federal Housing Enterprise Oversight	Press releases and statements, Annual Report, *Mortgage Market Notes*, *Mortgage Markets and the Enterprises*, *Evaluating the Capital Adequacy of Freddie Mac and Fannie Mae* (1998), *Special Examination Reports* (2003, 2004, 2006)
Office of the Federal Register	*Federal Register*
Office of Management and Budget	*Budget of the United States Government*
The President's Commission on Housing	*The Report of The President's Commission on Housing* (1982)
Press and Online Sources	
	ABA Banking Journal, *American Banker*, *The American Presidency Project*, *The Bond Buyer*, *Dow Jones Capital Market Reports*, *Dow Jones News Service*, *Dow Jones Newswires*, *Financial Times*, *MarketWatch*, *National Mortgage News*, *The New York Times*, *Reuters News*, *The Wall Street Journal*, *The Washington Post*
Overview Books and Articles	
Bartke	*Fannie Mae and the Secondary Mortgage Market* (1971), *Home Financing at a Crossroads: A Study of the Federal Home Loan Mortgage Corporation* (1973)
Elliot, Feldberg, and Lehnert	*The History of Cyclical Macroprudential Policy in the US* (2013)
Greenspan	*The Age of Turbulence: Adventures in a New World* (2007)
Haar	*Federal Credit and Private Housing: The Mass Financing Dilemma* (1960)
Hagerty	*The Fateful History of Fannie Mae: New Deal Birth to Mortgage Crisis Fall* (2012)
Hoffman and Cassell	*Mission Expansion in the Federal Home Loan Bank System* (2010)
Hunter	*The FNMA: Its Response to Critical Financing Requirements of Housing* (1971)
McLean	*Shaky Ground: The Strange Saga of the US Mortgage Giants* (2015)

Table 4: Narrative Measures of Policy Changes

Policy Description	Agency	Impact	News	Effective	Classification
HUDA 1968: Special Assistance	GNMA	+$0.25 billion	July 1968	July 1969	Non-Cyclical
HUDA 1968: Increased Debt-to-Capital Ratio	FNMA	+$1.39 billion	Oct. 1968	Oct. 1968	Non-Cyclical
Increased Debt-to-Capital Ratio	FNMA	+$1.13 billion	Dec. 1969	Dec. 1969	Cyclical
HUDA 1969: Special Assistance	GNMA	+$0.75 billion	Dec. 1969	Dec. 1969	Cyclical
Treasury-Guaranteed Capitalization	FNMA	+$2.6 billion	Apr. 1970	Apr. 1970	Cyclical
EHFA 1970: Special Assistance	GNMA	+$0.38 billion	July 1970	July 1970	Cyclical
Conforming Mortgage Program Approval	FNMA	+$0.4 billion	Nov. 1971	Feb. 1972	Non-Cyclical
FHA/VA Tandem Authorization	GNMA	+$1.5 billion	Sep. 1973	Sep. 1973	Cyclical
FHA/VA Tandem Authorization	GNMA	+$3.3 billion	Jan. 1974	Jan. 1974	Cyclical
Subsidized Mortgage Purchase Program	FHLMC	+$1.5 billion	May 1974	May 1974	Cyclical
FHA/VA Tandem Authorization	GNMA	+$1.65 billion	May 1974	May 1974	Cyclical
HCDA 1974: Conforming Loan Limit	FNMA	+$1.14 billion	Aug. 1974	Aug. 1974	Non-Cyclical
HCDA 1974: Conforming Loan Limit	FHLMC	+$0.46 billion	Aug. 1974	Aug. 1974	Non-Cyclical
EHPA 1974: Tandem Program	GNMA	+$3.88 billion	Oct. 1974	Oct. 1974	Cyclical
FY1976 Approps: Tandem Program	GNMA	+$2.5 billion	Oct. 1975	Oct. 1975	Cyclical
HCDA 1977: Conforming Loan Limit	FNMA	+$4.82 billion	Oct. 1977	Oct. 1977	Non-Cyclical
HCDA 1977: Conforming Loan Limit	FHLMC	+$0.21 billion	Oct. 1977	Oct. 1977	Non-Cyclical
HCDA 1977: Tandem Program Expansion	GNMA	+$3.75 billion	Oct. 1977	Oct. 1977	Non-Cyclical
FY1979 Approps: Special Assistance	GNMA	+$1.0 billion	Sep. 1978	Oct. 1978	Non-Cyclical
HCDA 1978: Mortgagee Expansion	FHLMC	+$2.0 billion	Oct. 1978	May 1979	Non-Cyclical
FY1980 Approps: Special Assistance	GNMA	+$1.0 billion	July 1979	Nov. 1979	Non-Cyclical
HCDA 1979: Conforming Loan Limit	FHLMC	+0.86 billion	Dec. 1979	Dec. 1979	Cyclical
FY1981 Approps: Special Assistance	GNMA	-$0.2 billion	Sep. 1980	Dec. 1980	Cyclical
ARM Program Approval	FHLMC	+$0.37 billion	May 1981	July 1981	Cyclical
ARM Program Approval	FNMA	+$0.4 billion	June 1981	Aug. 1981	Cyclical
Second Mortgage Program Approval	FNMA	+$5.0 billion	Sep. 1981	Nov. 1981	Cyclical
FY1982 Approps: Special Assistance	GNMA	+$0.17 billion	Dec. 1981	Dec. 1981	Cyclical
Increased Debt-to-Capital Ratio	FNMA	+$6.25 billion	Dec. 1982	Dec. 1982	Non-Cyclical
FY1983 Approps: Special Assistance	GNMA	-$1.47 billion	Dec. 1982	Dec. 1982	Cyclical
FY1984 Supp. Approps: Tandem Repeal	GNMA	-$2.92 billion	Nov. 1983	Nov. 1983	Non-Cyclical
Second Mortgage Program Approval	FHLMC	+$1.0 billion	Jan. 1986	Jan. 1986	Non-Cyclical
Decreased Debt-to-Capital Ratio	FNMA	-$2.7 billion	Apr. 1987	Dec. 1987	Non-Cyclical
Public Listing: Stock Split Capitalization	FHLMC	+$1.62 billion	Nov. 1988	Nov. 1988	Non-Cyclical
FHEFSSA 1992: Capital Requirements	FNMA	-$4.25 billion	Mar. 1990	Mar. 1990	Non-Cyclical
Affordable Housing Goals of 1992	FNMA	+$1.0 billion	July 1991	Jan. 1993	Non-Cyclical
Affordable Housing Goals of 1992	FHLMC	+$0.75 billion	July 1991	Jan. 1993	Non-Cyclical
Affordable Housing Goals of 1995	FHLMC	+$0.61 billion	Dec. 1995	Jan. 1996	Non-Cyclical
Affordable Housing Goals of 2000	FNMA	+$24.4 billion	July 1999	Jan. 2001	Non-Cyclical
Affordable Housing Goals of 2000	FHLMC	+$24.4 billion	July 1999	Jan. 2001	Non-Cyclical
Affordable Housing Goals of 2004	FNMA	+$7.6 billion	Apr. 2004	Jan. 2005	Non-Cyclical
Affordable Housing Goals of 2004	FHLMC	+$7.6 billion	Apr. 2004	Jan. 2005	Non-Cyclical
Accounting Scandal: Capital Surcharge	FNMA	-$141.4 billion	Sep. 2004	Sep. 2004	Non-Cyclical
Portfolio Growth Limit Imposed	FHLMC	-$42.8 billion	June 2006	July 2006	Non-Cyclical

Policy Description	Agency	Impact	News	Effective	Classification
Portfolio Limit Increase	FNMA	+$17.15 billion	Sep. 2007	Sep. 2007	Cyclical
Portfolio Limit Increase	FHLMC	+$2.14 billion	Sep. 2007	Sep. 2007	Cyclical
ESA 2008: Jumbo Loan Limit	FNMA	+$41.57 billion	Feb. 2008	Apr. 2008	Cyclical
ESA 2008: Jumbo Loan Limit	FHLMC	+$41.57 billion	Feb. 2008	Apr. 2008	Cyclical
Removal of Portfolio Limit	FNMA	+$9.28 billion	Feb. 2008	Mar. 2008	Non-Cyclical
Removal of Portfolio Limit	FHLMC	+$9.05 billion	Feb. 2008	Mar. 2008	Non-Cyclical
Reduced Capital Surcharge	FNMA	+$53.33 billion	Mar. 2008	Mar. 2008	Cyclical
Reduced Capital Surcharge	FHLMC	+$43.33 billion	Mar. 2008	Mar. 2008	Cyclical
Reduced Capital Surcharge	FNMA	+$17.75 billion	May 2008	May 2008	Cyclical
HERA 2008: Jumbo Loan Limit	FNMA	-$13.34 billion	July 2008	Jan. 2009	Cyclical
HERA 2008: Jumbo Loan Limit	FHLMC	-$13.34 billion	July 2008	Jan. 2009	Cyclical
Conservatorship: Portfolio Limit Increase	FNMA	+$67.5 billion	Sep. 2008	Sep. 2008	Cyclical
Conservatorship: Portfolio Limit Increase	FHLMC	+$66.75 billion	Sep. 2008	Sep. 2008	Cyclical
MBS Purchase Program Launch	Treasury	+$80.0 billion	Sep. 2008	Sep. 2008	Cyclical
QE1 Launch	Fed	+$250.0 billion	Nov. 2008	Dec. 2008	Cyclical
ARRA 2009: Jumbo Loan Limit	FNMA	+$13.34 billion	Feb. 2009	Feb. 2009	Cyclical
ARRA 2009: Jumbo Loan Limit	FHLMC	+$13.34 billion	Feb. 2009	Feb. 2009	Cyclical
HASP: Portfolio Limit Increase	FNMA	+$50.0 billion	Feb. 2009	May 2009	Cyclical
HASP: Portfolio Limit Increase	FHLMC	+$50.0 billion	Feb. 2009	May 2009	Cyclical
QE1 Expansion	Fed	+$750.0 billion	Mar. 2009	Mar. 2009	Cyclical
MBS Purchase Program Sales	Treasury	-$120.0 billion	Mar. 2011	Mar. 2011	Cyclical
Agency MBS Reinvestment	Fed	+$262.0 billion	Sep. 2011	Sep. 2011	Cyclical
Third SPSPA Amendment	FNMA	-$22.16 billion	Aug. 2012	Aug. 2012	Non-Cyclical
Third SPSPA Amendment	FHLMC	-$22.16 billion	Aug. 2012	Aug. 2012	Non-Cyclical
QE3 Launch	Fed	+$480.0 billion	Sep. 2012	Sep. 2012	Cyclical
QE3 Taper	Fed	-$60.0 billion	Dec. 2013	Jan. 2014	Cyclical

Acronyms (in chronological appearance): Housing and Urban Development Act (HUDA); Emergency Home Finance Act (EHFA); Housing and Community Development Act (HCDA); Emergency Home Purchase Act (EHPA); fiscal year (FY); adjustable-rate mortgage (ARM); Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA); Economic Stimulus Act (ESA); Mortgage-backed securities (MBS); Housing and Economic Recovery Act (HERA); quantitative easing (QE); American Recovery and Reinvestment Act (ARRA); Home Affordability and Stability Plan (HASP); and Senior Preferred Stock Purchase Agreements (SPSPA).