

How to Privatize Fannie Mae and Freddie Mac

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This paper will address two complementary yet mutually independent proposals -- privatizing the three housing-related government-sponsored enterprises (GSEs) and authorizing banks and thrift institutions to own largely unregulated mortgage housing subsidiaries (MHS). MHS will enable banks and thrifts to retain the ownership of long-term, fixed-rate mortgages they have originated or purchased in a special-purpose subsidiary (an MHS) that will be funded in the capital markets, not by deposits.

The first section of the paper will outline the American housing finance problem. The paper's second section will explain the relatively straight-forward manner in which the three housing finance GSEs -- Fannie Mae, Freddie Mac, and the Federal Home Loan Banks (FHLBs) -- can be fully privatized. The third section of the paper will describe the MHS concept, explain why it is a complement to fully privatizing the housing GSEs, and describe how, in many cases, it will produce lower "all-in"¹ mortgage interest rates than Fannie Mae and Freddie Mac (F&F) can produce. The paper will close with some concluding remarks.

The American Housing Finance Problem

America is touted as having a very efficient housing finance system. However, while housing finance is readily available, America housing finance system suffers from several serious structural problems that have become increasingly evident in recent years.

First, the United States does not have a particularly efficient financing system, after factoring in mortgage origination and closing costs. Former HUD Secretary Mel Martinez, in October 2002, told the House Financial Services Committee that "Americans spend approximately \$50 billion each year on settlement costs."² Much of this amount goes towards obtaining mortgage financing for a home purchase or refinancing an existing mortgage. While the data are not precisely comparable, several studies of European mortgage finance systems indicate that some are as efficient, or more so, than the U.S. system, when measured on an "all-in" cost basis.

The GSEs provide a substantial and growing portion of housing finance, yet they retain a significant amount of the implicit subsidy they receive by virtue of being GSEs. In an April 8, 2004, letter to Senator Richard Shelby, Douglas Holtz-Eakin, Director of the Congressional Budget Office, estimated that in 2003 the three housing GSEs retained \$16.3 billion, or 35%, of their \$46.3 billion implicit subsidy.³ Together, these two amounts -- \$50 billion and \$16.3 billion -- total \$66.3 billion, or .6% of 2003 GDP.⁴ That is a significant slice of GDP and does not take into account the amount of interest paid on home mortgages or the cost of servicing them. Trimming that amount by half, or \$33 billion, would materially reduce the cost of housing finance, particularly for low and moderate-income home buyers.

Second, the GSEs, and particularly F&F, pose substantial and growing systemic risk to the U.S. financial system. As Federal Reserve Chairman Alan Greenspan stated so strongly in February 2004 testimony to the Senate Banking Committee, "concerns about

systemic risk are appropriately focused on large, highly leveraged financial institutions such as the GSEs that play substantial roles in the functioning of financial markets."⁵ While Chairman Greenspan expressed support for a stronger GSE regulator and advocated limiting the size of F&F's mortgage portfolio, he stated numerous times during the question-and-answer portion of his testimony that the only long-term solution to the GSE problem is to privatize the three housing GSEs.

As radical as Chairman Greenspan's proposal may seem, it has been echoed by the Organization for Economic Co-operation and Development (OECD), a leading organization of "30 member countries sharing a commitment to democratic government and the market economy."⁶ The OECD had this to say about F&F:

But [GSE regulatory] reforms should go beyond [what has been proposed] by eliminating [F&F's] special status. This status has led to the market perception of an implicit government guarantee and hence slightly lower borrowing costs, allowing them to expand strongly and move into activities beyond their original mandate of supporting the secondary market for residential mortgages. In any case, the marginal funding advantage is an inefficient way of promoting home ownership -- most of the benefits go to the shareholders of the two GSEs -- and such promotion is separately undertaken by multiple tax preferences granted to owner-occupied housing.⁷

The privatization proposal presented in the next section of this paper does exactly what Chairman Greenspan and the OECD have recommended -- it strips all three GSEs of their "special status" as GSEs.

Third, the GSE housing finance subsidy further tilts capital investment in the United States towards owner-occupied housing, reinforcing the powerful tilt towards housing investment provided by the tax laws, in the form of the mortgage interest and real-estate tax deductions and the highly favorable capital gains treatment owner-occupied housing now enjoys. Given America's insufficient savings rate, which has been neutralized by the United States' ability to borrow from the rest of the world, it is highly questionable if public policy should subsidize housing finance, especially since this subsidy appears to benefit primarily the middle class and above, hardly an underhoused sector of the U.S. population. Unfortunately, time and space constraints prevent a fuller discussion of the numerous distorting effects of the GSE housing finance subsidy.

The two proposals presented in this paper will redress the twin underlying causes of the U.S. housing finance problem -- a public-policy tilt towards securitizing home mortgages through the secondary mortgage market and a public-policy tilt against depository institutions holding home mortgages in portfolio. Fully privatizing F&F will eliminate the tilt towards securitizing home mortgages while authorizing the MHS concept will eliminate the tilt against depository institutions holding mortgages in portfolio.

Privatizing Fannie, Freddie, and the FHLBs

The need to privatize the three housing GSEs is no longer debatable -- the only question is how and when. As large as they are -- with \$4.5 trillion in outstanding debt and credit guarantees at the end of 2003⁸ -- fully privatizing these GSEs is a relatively straight-forward proposition. The highly successful 1990s' privatization of another GSE, the Student Loan Marketing Corporation, or Sallie Mae, reinforces this notion. In fact, the privatization proposal presented in this paper is modeled on the Sallie Mae privatization. Comprehensive GSE privatization legislation developed by the American Enterprise Institute (AEI) is posted on the AEI website.⁹

Privatizing Fannie and Freddie

Title II of the GSE privatization legislation (pages 42 to 54 of the AEI paper) mandates a timetable under which F&F will be privatized in a manner comparable to Sallie Mae's privatization. Sallie's privatization was launched in 1997 and will be completed by 2006, nine years later.¹⁰ Briefly, privatization will entail the transformation of F&F into completely private institutions, on a going-forward basis, within five years after enactment of the privatization legislation (hereinafter simply referred to as "enactment"). It is not necessary to take as long as nine years to fully privatize F&F. Sallie's privatization was dragged out due to federal budgetary reasons not present with regard to F&F. The balance of this section will explain how privatization will be implemented.

Figure 1 presents, in a highly simplified manner, the transition structure for separately privatizing Fannie and Freddie. This "double-breasted" model closely parallels Sallie Mae's privatization structure.¹¹ Upon enactment and after shareholder approval, each GSE will exchange its shares for shares in a new holding company. This will make the present GSE (left side of **Figure 1**) a subsidiary of the new holding company. Hence, there will be a new Fannie Mae holding company and a separate Freddie Mac holding company. Each GSE subsidiary will retain its present GSE attributes during the phase-out period discussed below. However, the maximum size of a single-family home mortgage a GSE can purchase (presently \$333,700) will be frozen as of the date of enactment. The holding company will be a state-chartered, general business corporation, it will have no presidentially appointed directors, it will be subject to all state and local taxes, and it will have absolutely no GSE-like attributes.

Each holding company can create non-GSE subsidiaries that can survive the five-year transition period (right side of **Figure 1**). However, these subsidiaries cannot commence operation until their affiliated GSE subsidiary has established a stand-alone AA credit rating. Like the holding company, each non-GSE subsidiary will be a state-chartered corporation, it will possess absolutely no GSE attributes, and it will not be subject to any activities restrictions or capital requirements. Over time, as will be discussed shortly, the GSEs' mortgage investment and mortgage guarantee businesses will be shifted to these non-GSE subsidiaries, if it is profitable to do so. If the holding company registers with the

Federal Reserve as a financial holding company, it can then form or acquire a bank or thrift, which in turn can form an MHS. Paralleling Sallie Mae, all of F&F's employees will be employed by non-GSE subsidiaries of their respective holding companies, which also will own each GSE's operating facilities. Mortgages and mortgage-backed securities (MBS) owned by a GSE will be managed by non-GSE employees.

Phasing out the Portfolio Investment line of business. Almost three-fifth's of Fannie's net income in 2003, measured on a core earnings basis, came from its investment in mortgages and MBS.¹² It calls this activity its Portfolio Investment line of business. Freddie has not yet issued its 2003 financial statements and it could not report its earnings by line-of-business for 2002 due to its accounting problems. Freddie previously reported that in 2001 it earned 73% of its net income from its 1-4 family mortgage and MBS investments (which it calls its Debt Financing line of business).¹³

Contrary to assertions by F&F, their investment in mortgages and MBS, beyond what is needed to support their mortgage securitization and guarantee activities, provides no liquidity to the financial marketplace. Instead, these purchases merely shift the funding of mortgages on which they have assumed the credit risk from a secured form (MBS) to an unsecured form (debt issued by Fannie or Freddie). For example, if Fannie purchases in the secondary market \$10 billion of MBS it previously had guaranteed, it will have to finance that purchase by issuing \$10 billion of unsecured debt and equity capital. These funds will come from funds the financial markets receive when they sell \$10 billion of MBS to Fannie.

This substitution process (effectively swapping GSE-guaranteed MBS for GSE-issued debt) adds no value to the mortgage marketplace nor does it alter the amount of money the capital markets invest in housing finance. In fact, F&F have rapidly grown their mortgage and MBS for just one reason, and a reason unrelated to their so-called housing mission -- to maintain their earnings growth.

Given the irrelevance of their mortgage and MBS investments to their purported housing mission, immediately upon enactment, F&F's GSE subsidiaries must stop purchasing MBS and whole mortgages beyond a minimal quantity needed to maintain liquidity in the mortgage and MBS marketplaces during the five-year transition period. Barring both GSEs from investing in large quantities of mortgages and MBS will, during the transition period, shift the GSE subsidiaries of both companies to the business model Freddie operated under during the 1970s -- simply a mortgage guarantor.

At December 31, 2003, Fannie's mortgage/MBS investment portfolio totaled \$907 billion while Freddie's added up to \$644 billion, for a total of \$1.55 trillion. Although large, these portfolios will be rendered benign by managing them strictly on a run-off basis during the five-year transition period. To bring these mortgage/MBS investments to a zero balance by the fifth anniversary of enactment, the portfolios must shrink by 5% per quarter, or 20% per year. Natural runoff through principal payments and mortgage payoffs will count

towards the 5% quarterly target. A penalty will be assessed against a GSE if it fails to meet a quarterly shrinkage requirement.

Although F&F have issued debt with maturities beyond five years, the average duration of F&F's debt is shorter than the duration of their mortgage assets. Consequently, the GSE subsidiaries will have to issue new debt to replace maturing debt, but only to the extent necessary to fund a steadily shrinking balance sheet. The GSE subsidiaries also can enter into derivatives contracts to hedge their remaining interest-rate risk. During this phase-down period, each GSE can dividend earnings and excess capital to its parent holding company, as long as it maintains at least an AA credit rating. The holding company will then use these dividends to build up the non-GSE side of its business or it can return this capital to its stockholders through dividends and share buybacks. Any GSE debt still outstanding on the fifth anniversary of enactment must be defeased by the GSE with U.S. Treasury debt of comparable maturities. This defeasement will eliminate any taxpayer risk the still-outstanding GSE debt poses.

Phasing out the Credit Guaranty line of business. Within six months after enactment, a 30-month transition schedule will kick in under which each of the two GSEs will shrink the amount of new mortgage guarantees it issues. The shrinkage rate will equal 10% per quarter of the average quarterly amount of guarantees it issued during the three-year period prior to enactment. That is, for the third quarter following enactment, the amount of guarantees issued must not exceed 90% of the average quarterly amount of guarantees the GSE issued over the three years prior to enactment, must not exceed 80% in the fourth quarter after enactment, and so forth. Each GSE holding company can offset the shrinking guarantee issue on the GSE side of its house by increasing the securitizing and guaranteeing activities of its new non-GSE subsidiaries. This shifting will be completed by the third anniversary of enactment.

The characteristics of the MBS guaranteed in any quarter by the GSE and non-GSE subsidiaries must be roughly comparable so as to avoid cherry-picking by the GSE subsidiary. Given that Fannie earned a well-above-market 32.5% after-tax return on the equity capital invested in its guarantee business in 2003,¹⁴ the non-GSE subsidiary should be able to charge guarantees fees comparable to what Fannie has been charging and still earn a market rate of return on its equity capital of 15%-16%.¹⁵ Hence, transitioning from a GSE-backed MBS guarantee to a non-MBS guarantee should not measurably impact the pricing of these guarantees. However, MHS competition may force down MBS guarantee fees for both types of subsidiaries.

As F&F's GSE subsidiaries phase out their MBS guarantee business, presumably other parties, including MHS, will become active as MBS guarantors, to the extent that type of business is sufficiently profitable, since F&F's non-GSE subsidiaries will have no competitive advantage as guarantors. However, others will issue mortgage guarantees only to the extent that this activity will generate an adequate return on capital.

A substantial amount of GSE-guaranteed MBS will still be outstanding on the fifth anniversary of enactment and will remain so up to thirty years after that anniversary date as F&F-guaranteed mortgages pay down. That MBS poses a slight taxpayer risk that will be handled in the following manner. On the fifth anniversary of enactment, the federal agency overseeing the GSE privatizations will appoint one or several independent trustees for the then outstanding MBS. A non-GSE subsidiary of each holding company will continue to monitor the servicing and loan payoffs of the mortgages securing the MBS, under the watchful eye of a trustee.

To give each GSE sufficient incentive to do a good monitoring job and to protect taxpayers from MBS defaults, the holding company must commit capital to its GSE subsidiary equal to 1% of the remaining principal balance of the outstanding MBS. This capital will generate earnings from the MBS guarantee fees that will continue to be charged. As the amount of outstanding MBS shrivels, the holding company can reduce its capital commitment to its GSE subsidiary.

Divesting F&F's intellectual property F&F have accumulated substantial intellectual property, consisting of their automated underwriting systems and their databases of borrowers and residential properties. Some who fear F&F's privatization are concerned that their intellectual property will give them an important competitive edge as private-sector firms. That concern has great merit. This problem is resolved by requiring each GSE, within six months after enactment, to transfer its intellectual property in a subsidiary and then to divest that subsidiary to its stockholders. These two new entities will then be required to sell their services, and particularly their data, to all comers on a non-discriminatory basis.

Privatizing the FHLBs

The FHLBs essentially are bankers' banks, doing for banks and thrifts what these institutions cannot easily do for themselves, which is to efficiently access the capital markets. While the largest banks and thrifts, and MBS, can access the capital markets directly, the nation's thousands of community banks, thrifts, and credit unions still need to work through intermediaries to access the capital markets, particularly to obtain long-term, fixed-rate funds. Hence the continuing need for bankers' banks, including privatized FHLBs.

The FHLBs must be privatized in a manner and time frame paralleling the F&F privatization. Otherwise, the FHLBs will expand to fill the GSE vacuum created when F&F are privatized. Because each FHLB is legally independent, there is no FHLB System as such to privatize. Other than sharing a regulator, the FHLBs have no ties to each other, with one important exception -- they are jointly and severally liable for the debt, called "consolidated obligations," they issue. At the end of 2003, \$741 billion of consolidated obligations were outstanding. Therefore, FHLB privatization will entail a separate privatization plan for each FHLB plus a resolution of the joint-and-several liability problem

and a separate resolution of the REFCORP interest and Affordable Housing Program (AHP) obligation each FHLB has.¹⁶

Upon enactment, each FHLB will have to decide, independently of the other FHLBs, what its fate will be. Each FHLB will have three options -- transform itself into a bankers' bank or other type of financial intermediary, seek to merge with another FHLB, or liquidate itself. No matter which option it elects, each FHLB must phase out its present GSE activities over the same five-year period F&F are phasing out their GSE activities. If an FHLB wants to continue in business, it must adopt the same type of holding company structure F&F must adopt. That is, its member/owners must vote to create a holding company structure, as illustrated in **Figure 1**. The FHLB holding company can then charter non-GSE subsidiaries through which it will provide bankers' bank and other financial services, including acting as a funding intermediary between the capital markets and its member institutions. Importantly, the non-GSE subsidiaries can do business anywhere they want to -- the FHLBs' present geographical exclusivity does not apply to the non-GSE subsidiaries.

The following GSE phase-down schedule applies both to continuing and liquidating FHLBs. The phase-down activities will be conducted within an entity referred to below as an FHLB GSE, as illustrated on the left side of **Figure 1**. The FHLB GSEs will operate within the present FHLB territories -- they cannot compete against each other.

Phasing out FHLB advances The core FHLB activity is making loans, called "advances," to its members. At the end of 2003, \$514 billion of advances were outstanding. Key to privatizing the FHLBs is phasing out advances they make as GSEs. Therefore, immediately upon enactment, no FHLB GSE can make an advance which matures more than five years after enactment. Within six months after enactment, each FHLB GSE must obtain at least an AA credit rating. Beginning on the sixth-month anniversary of enactment, each FHLB GSE must begin phasing down its issuance of new advances over the following 30 months. New advances must decline each quarter by an additional 10% of the average quarterly amount of advances made during the three years prior to enactment. That is, for the third quarter following enactment, the amount of new advances must not exceed 90% of the average quarterly amount of advances the FHLB made over the three years prior to enactment, must not exceed 80% in the fourth quarter after enactment, and so forth. Based on this schedule, each FHLB GSE will cease making new advances by the third anniversary of enactment. Further, all new advances made after enactment must mature by the fifth anniversary of enactment. These requirements will ensure that the GSE side of each FHLB has no post-enactment advances outstanding by the fifth anniversary of enactment.

New FHLB GSE borrowings after enactment cannot mature more than five years after enactment. However, each FHLB GSE must fund advances it makes after the sixth-month anniversary of enactment with debt it issues based solely on its own credit rating. That is, joint-and-several liability with regard to new FHLB debt will cease six months after enactment. However, joint-and-several liability will continue on FHLB obligations issued prior to that date.

On the fifth anniversary of enactment, some FHLB GSEs will have more pre-enactment advances outstanding than pre-enactment consolidated obligations while the reverse will be true for the other FHLB GSEs. If more advances are outstanding than the FHLB GSE's share of pre-enactment consolidated obligations, then the FHLB GSE must issue debt, without joint-and-several liability, to fund the difference. To the extent feasible, this post-fifth-anniversary funding must match the maturity schedule of the remaining outstanding advances. If more consolidated obligations are outstanding than advances, then the FHLB GSE must use its remaining assets and payoffs from maturing advances to fully defease the consolidated obligations with U.S. Treasury debt of comparable maturities until these obligations are fully defeased.

As FHLB GSE advances shrink, capital stock that FHLB members have purchased in their FHLB, which generally is linked to the amount they have borrowed, can be returned to the members as advances shrink, provided that the FHLB GSE maintains at least a stand-alone AA credit rating at all times. The federal agency overseeing GSE privatization will monitor this capital shrinkage.

Resolving the AHP and REFCORP obligation problem Collectively, the FHLBs owned \$173 billion of investments at the end of 2003. Income from a substantial portion of those investments, perhaps as much as \$100 billion of investments, is used to cover the FHLBs' AHP and REFCORP obligations. Although this was never Congress's intent, the FHLBs have arbitrated their GSE status, and in particular its favorable borrowing costs, to offset the cost of their AHP and REFCORP obligations. While the AHP activity lies outside the federal budget, the FHLBs' REFCORP obligation counts as income to the federal government for budget purposes. Privatizing the FHLBs will shrink the annual REFCORP tax payment the FHLB GSEs make, creating a politically unpalatable federal budget problem. Additionally, few supporters of the AHP will relish the disappearance of the AHP tax income as the FHLB GSEs shrink.

This problem can be addressed quite easily by creating an investment vehicle to maintain the income stream now generated by the AHP and REFCORP tax payments. Within six months after enactment, each FHLB GSE will transfer to a new AHP/REFCORP income trust a sufficient amount of investments, in proportion to its share of the annual tax payments, and an equal amount of consolidated obligations, to generate enough net income to cover the FHLB GSE's AHP and REFCORP tax payments, averaged over the three years prior to enactment. The trust will be managed by the GSE privatization overseer. The income trust cannot supplant the FHLB System as a lender to financial institutions. Instead, it can only invest in already-issued securities purchased in the secondary market. Congress will determine how the AHP portion of the trust's income will be spent.

Remaining FHLB investments and mortgages held in portfolio After transferring investments into the AHP/REFCORP income trust, the FHLBs will still own investments plus a substantial amount of mortgages purchased under the Mortgage Partnership Finance (MPF) and similar programs. As the end of 2003, the remaining

investments totaled about \$75 billion while the mortgages held in portfolio totaled \$113 billion. These assets are largely funded by consolidated obligations, but also by member deposits and capital stock.

Within six months after enactment, each FHLB GSE must cease purchasing mortgages under the MPF and similar programs. Thereafter, mortgage purchases can only be made by non-GSE subsidiaries of the holding company owning an FHLB GSE. By the sixth-month anniversary date, each FHLB GSE must adopt a plan for liquidating all of its assets at a steady pace by the fifth anniversary of enactment. Any consolidated obligations financing those assets still outstanding on the fifth anniversary date must be fully defeased with U.S. Treasury debt of comparable maturities. Because the asset and liability mix varies among the FHLBs, the GSE privatization overseer will have to approve each FHLB GSE's liquidation and defeasement plan. Each plan must integrate the liquidation of outstanding advances with the liquidation of the FHLB GSE's investments and mortgage portfolio.

Authorizing Mortgage Holding Subsidiaries

The MHS concept is quite simple -- banks, thrifts, and other financial intermediaries subject to capital regulation will be authorized by statute to form MHS not subject to capital regulation or other forms of bank-like safety-and-soundness supervision. Technically, an MHS will be comparable to a "financial subsidiary" of a national bank or a similar type of subsidiary of a state-chartered commercial bank, a thrift institution, or any other type of entity subject to capital regulation. As such, an MHS will strictly be a passive financing vehicle with no public interaction. MHS represent a genuine private-sector entity to replace the housing GSEs as the vehicle of choice for financing long-term, fixed-rate home mortgages.

Figure 2 illustrates the relationship of an MHS to its parent bank or thrift, showing the parent-subsidiary relationship.¹⁷ Legislation implementing the MHS concept will be found in Title IV (pp 64-72) of the draft legislation in the AEI paper, "Privatizing Fannie Mae, Freddie Mac, and the Federal Home Loan Banks: Why and How;" a section-by-section discussion of Title IV will be found on pages 79 to 87 of the AEI paper.

Lowering Housing Finance Costs¹⁸

In speaking at an AEI conference on February 6, 2004, Fannie Mae Chairman Franklin Raines argued that government backing of Fannie Mae (he denied there is a "subsidy") was a consequence of a national policy favoring homeownership. This is certainly true, but it raises two important questions:

- Given the risks they create for taxpayers and the economy generally, do F&F represent a sound way for the government to assist homeowners in financing their mortgages?

- Quite apart from a cost-benefit analysis of F&F, is there a better and more efficient way to finance mortgages?

The answer to the first question, as discussed above, is clearly no. F&F deliver very little benefit to homeowners, perhaps as little as the seven basis points, as estimated in a paper by Federal Reserve economist Wayne Passmore,¹⁹ while creating enormous risks for the taxpayers and the economy generally. Moreover, even if one were to support the idea that the government should assist homeowners in obtaining lower mortgage costs, F&F are a very inefficient way of achieving that purpose.

Discussing the Passmore paper in his February 24 testimony (pg. 5) to the Senate Banking Committee, Chairman Greenspan remarked:

Passmore's analysis suggests that Fannie and Freddie likely lower mortgage rates less than 16 basis points, with a best estimate centering on 7 basis points. If the estimated 7 basis points is correct, the associated present value of homeowner savings is only about half the after-tax subsidy that shareholders of these GSEs are estimate to receive. Congressional Budget Office and other estimates differ, but they come to essentially the same conclusion: A substantial portion of these GSEs' implicit subsidy accrues to GSE shareholders in the form of increased dividends and stock market value. Fannie and Freddie, as you know, have disputed the conclusions of many of these studies.

In other words, F&F and their shareholders receive substantial benefits from government backing, while homeowners -- the principal intended beneficiaries of the government's policy -- received relatively little. This point is reinforced by Holtz-Eakin's April 8 letter cited above.

The second question outlined above is really the key question. Given government policy favoring homeownership, and a desire on the part of the government to assist homeowners in obtaining the lowest possible mortgage rates, is there a better, more efficient housing finance system than the secondary mortgage market system that F&F dominate?

The answer is yes. In a plan developed for AEI, the author proposed the MHS concept to enable mortgage originators, such as banks, S&Ls and other mortgage market participants, to retain the ownership of mortgages they originate. MHS will deliver all the benefits homeowners receive from F&F without the need for government backing. In particular, the MHS concept provides an efficient and viable substitute for F&F as a vehicle for funding long-term, fixed-rate home mortgages. This attribute should alleviate any concern that homeowners and homebuyers will be in any way disadvantaged by the elimination of F&F as GSEs.

In essence, the MHS concept makes it financially feasible for mortgage originators to acquire mortgages that they will hold to maturity rather than to originate them for

eventual sale or securitization. The current structure of the mortgage finance market tilts towards the origination of mortgages for sale to F&F, to hold in their portfolios or for eventual securitization. At the same time, the U.S. bank regulatory system, and specifically its capital requirements, tilts against banks and thrifts holding mortgages in portfolio. This is the case because bank regulations require a minimum leverage capital ratio in addition to a minimum risk-based capital amount with respect to the consolidated assets and capital of banks, other insured depository institutions, and bank holding companies.²⁰

Although the risk-based capital requirement favors the retention of mortgages (which have a low risk weight), the leverage ratio creates a high effective capital charge associated with holding mortgages, thus forcing depository institutions to push these assets off their balance sheets into more capital efficient financing vehicles. As a result, banks and other depository institutions, the principal mortgage originators in the United States, prepare from the outset of the mortgage lending process for the eventual sale of the mortgages they originate. This preparation for sale and ultimate securitization entails costs that unnecessarily increase the effective or all-in interest rate on the mortgage.

If Congress is really serious about reducing mortgage interest rates, it will change the regulatory requirements to make it possible for banks and other originators to hold mortgages in portfolio. This can be done simply by exempting MHS from all bank regulatory capital requirements that otherwise are applicable to the consolidated capital requirements of a depository institution. The sound policy reason for this relief is that the depository institution's investment in its subsidiary MHS will be fully deducted from the institution's capital, and thus will not present a risk to the institution's capital position. Moreover, MHS will be funded entirely in the capital markets because they will be prohibited from accepting deposits, retail or wholesale, thus eliminating any rationale for applying bank-like regulation to these financial institutions. The MHS concept assumes that MHS will seek to achieve and maintain an AA rating, which will require an equity capital ratio of approximately 1 percent for credit risks assumed -- more than double the GSEs' statutory requirement of .45 percent for credit risks.

Because relief from the leverage requirement will make it financially feasible for an MHS to hold a mortgage to maturity, many costs associated with originating and refinancing mortgages in the course of the mortgage securitization process can be reduced or eliminated. These cost savings, in turn, will enable an MHS to offer mortgage financing for homeowners at "all-in" interest rates as low as, or lower than, those of F&F and certainly even lower in the case of refinancing -- all without any government backing or taxpayer risk.

Summary of the MHS cost argument The cost argument underlying the MHS concept begins by differentiating the two major cost components associated with a mortgage -- mortgage transaction costs (the cost of making and servicing a mortgage loan) and the pure cost of funding the mortgage.

After equating the risks borne by the MHS on one hand and the GSEs on the other, it appears that F&F have a funding cost advantage of approximately 15-20 basis points over an MHS that is rated AA. This conclusion is based on analyzing the daily differential, for the period January 1994 to January 2004, between yields on GSE or agency debt and yields on AA-rated industrial bonds (as reported by Bloomberg, L.P.) and is illustrated in **Figure 3**.²¹ This differential analysis excludes the interest and prepayment risks associated with home mortgages since those risks can be shifted entirely to investors through callable debt, MBS, "ratchet bonds" (described below), and interest-rate derivatives. In effect, this cost differential reflects only credit risk and any associated operational risks. The average differential ranged from 14.1 basis points at the 10-year mark on the yield curve to 17.6 basis points at the 5-year mark. In the interest of conservatism, this yield differential will be expressed as 15 to 20 basis points. This cost advantage is largely, if not entirely, the result of the GSEs' implicit government backing. This 15-20 basis point differential is the gap that MHS must close in order to offer mortgages that bear the same or a lower all-in interest rate than those F&F can produce.

Lower mortgage transaction costs For many mortgages, the MHS concept eliminates this 15-20 basis point gap by reducing the cost of making and servicing mortgage loans. These costs include marketing, loan origination, loan servicing, credit losses, and the cost of the mortgage lender's equity capital. First, however, it is necessary to note that certain intangible costs -- the taxpayer and systemic risks associated with the GSEs -- are eliminated by the MHS structure, although not priced into this analysis. These very significant costs are worth eliminating even when MHS do not drive the all-in interest rate on a mortgage to or below the rate on mortgages securitized through F&F-guaranteed MBS.

Mortgage origination costs The MHS concept will reduce loan origination costs because parent banks and other mortgage lenders will originate mortgages to hold in their MHS rather than to sell in the secondary mortgage market. Many costs in the origination process can be reduced or eliminated if the mortgage originator never intends to sell the mortgage to an unrelated party in the secondary mortgage market. Origination costs vary greatly, depending on house price, mortgage amount, jurisdiction where the home is located, and how well the costs are identified and quantified. For example, Fannie Mae estimated that origination costs ranged from \$1,601 to \$2,144 where a mortgage was originated through a correspondent and estimated that origination costs ranged from \$1,524 when the underwriting process was highly automated to \$2,549 when manual underwriting was used.²² The Washington Post cited closing costs ranging from \$1,207 in North Carolina to \$3,001 in Florida, with a \$1,834 average for Maryland, a \$1,924 average for Virginia, and a \$1,957 average for Washington, D.C.²³

If a borrower incurs a cost of \$1,500 in connection with originating a \$100,000 mortgage, she can easily save up to \$500, or one-third, if the originator will be selling the mortgage to its MHS rather than selling it into the secondary mortgage market. Cost savings on refinanced mortgages should be much greater, perhaps by two-thirds, or \$1,000, in case of the \$100,000 mortgage example. These savings can be substantial, in terms of dollars expended and the actual all-in interest rate. **Figure 4** illustrates the all-in interest-

rate reduction for origination cost savings, based on actual mortgage lives. The savings are especially significant if a mortgage is refinanced frequently.

An example will further illustrate the significant impact of reducing origination costs. Assume an original purchase mortgage of \$100,000, carrying an 8% interest rate, is refinanced every three years (as could well have been the case over the last decade) and then the home is sold at the end of the twelfth year, triggering a mortgage payoff. Further assume the mortgage was refinanced at the progressively lower rates of 7%, 6%, and finally 5.5%. Finally, assume an initial mortgage origination cost of \$1,000 and a \$500 charge for each refinance. This reduction in origination costs, from \$1,500 per origination or refinance, spread over 12 years, will reduce the all-in mortgage interest rate by 31 basis points, exceeding in itself the interest rate benefit F&F deliver to homeowners. That is, even though, on the basis of funding costs alone, a mortgage funded by Fannie/Freddie-guaranteed MBS will potentially be 15-20 basis points lower than a mortgage from any other source, that rate savings will be more than offset by the higher cost, over the actual life of the mortgage, of originating and periodically refinancing that mortgage through secondary market securitization.

The cost savings, in basis points, for larger mortgages is not as great -- because origination costs are lower in relation to the size of the mortgage -- but still significant. For example, assuming a \$200,000 mortgage with the same refinancing frequency and interest rates set out above (except for a \$2,000 initial origination cost), the reduction in the all-in rate of interest will equal about 22 basis points over the life of the loan. This second example highlights a key advantage of the MHS concept -- the benefits, in terms of interest-rate reduction, will be proportionally greater for smaller mortgages, which tend to be taken out by lower income families purchasing inexpensive homes. This feature should enhance the attractiveness of the MHS concept for those who believe lower mortgage rates are key to expanding home ownership opportunities.

Mortgage Servicing costs Where mortgages are securitized, mortgage-servicing rights are accounted for as an asset by the mortgage originator and often are later sold for hedging purposes; there is an active market for servicing rights. However, an originator that keeps the mortgages it originates by selling them to its MHS will not, under present accounting rules, create any servicing rights to sell, and so it will not incur any expense in preparing them for sale. Further, mortgage originators will lower their servicing expenses by originating mortgages to meet their own servicing standards, not industry standards governing the sale of mortgage servicing rights, which may require additional costs. Thus, in addition to trimming origination costs, the MHS structure should reduce servicing costs by a few basis points per mortgage dollar outstanding by (1) not requiring the originator to prepare to sell servicing rights; (2) not requiring the originator to account for servicing rights as an asset and to hedge those rights for prepayment risk; (3) permitting the issuer to integrate mortgage servicing more closely with other services provided to the homeowner; (4) reducing credit costs because of a broader customer relationship; and (5) increased cross-selling opportunities, particularly for property-related services such as property insurance, home equity lines of credit, owners' title insurance, and credit life insurance.

It is also more likely that homeowners will finance and refinance their mortgage where they have their primary banking relationship if the bank can retain the ownership of the mortgage in its MHS. This will allow the bank or thrift to capture the synergies of an integrated customer relationship -- an element that will also result in a lower mortgage interest rate. Together, the estimated savings to the borrower could reach five basis points, or one-half the present average estimated cost of mortgage servicing. No estimate has been made of the value of the other benefits of this closer, more integrated customer relationship, but in a recent study of the European mortgage market the authors noted that "there is strong evidence from interviews with mortgage lenders that the mortgage product is increasingly being seen as a 'gateway' product to gain access to the customer and use as a basis for cross-selling other products."²⁴

Lowering mortgage financing costs While MHS will fund themselves in whatever manner makes most sense at the time, MHS most likely will fund their mortgage assets with a combination of unsecured debt and secured debt raised through "in-situ securitizations" (ISS), and a variation of ISS, called "ratchet mortgages" funded by "ratchet bonds." Given their large asset size, MHS will issue debt in large tranches, which will make their debt extremely liquid.

An MHS owning mortgages comparable in credit quality to the mortgages owned or guaranteed by F&F should earn an AA credit rating with a capital ratio in the range of 1%, for just its credit risk and related operational risks, more than double F&F's minimum credit-risk capital requirement. Retained interest-rate and prepayment risks will require additional equity capital backing. Higher risk loans, such as subprime mortgages, also will require a larger equity cushion, the cost of which will be recovered through a higher interest rate on these mortgages.

Unsecured financing An MHS can fund its mortgages with a combination of senior unsecured debt and subordinated debt, plus equity capital, in much the same manner that F&F fund their on-balance-sheet assets. In so doing, an MHS assumes full credit risk on the mortgages it owns plus whatever interest-rate and prepayment risk it does not hedge through on-balance-sheet maturity matching, callable debt, and off-balance-sheet interest-rate derivatives, again as F&F do. The financial markets will determine the amount of capital backing for this portion of an MHS's balance sheet, based on (1) the riskiness of the mortgages financed in this manner, (2) the amount of interest-rate and prepayment risk the MHS has retained, and (3) management's target credit rating for the MHS's debt.

In-situ securitization In-situ securitization, or ISS, is functionally equivalent to funding mortgages with F&F-guaranteed MBS, except that with ISS financing, both the mortgages financed and the ISS debt remain on the MHS's balance sheet. That is, like F&F-guaranteed MBS, the MHS will retain all credit risk while shifting all interest-rate and prepayment risks to investors in ISS debt. However, mortgages financed with ISS debt will enjoy substantial origination cost savings because they will not be originated for sale in the

secondary mortgage market. Instead, ISS-financed mortgages will be "kept in the family" by being sold by a mortgage originator to its captive MHS.

Structuring an ISS debt financing will work as follows: The MHS sets aside a group or pool of mortgages it owns and then grants an undivided security interest in these mortgages to the purchasers of the ISS debt financing the mortgages. In effect, just these mortgages secure the debt financing them. This financing arrangement is comparable to a corporation financing a factory building with a syndicated loan secured by just that building. ISS debt can be structured as a simple pass-thru security or as a more complex, multi-tranche REMIC-like security. Either structure will pass through to the debt holders principal and interest payments, on a monthly basis, as they are being made, less a profit and expense margin for the MHS.

In order to obtain an AA or better credit rating on its ISS debt, an MHS most likely will covenant to maintain at all times an overcollateralization of a particular ISS debt issue by a specified multiple of expected credit losses projected for the pool of mortgages securing the debt issue. Overcollateralization will ensure timely payment of principal and interest on the ISS debt. The overcollateralization multiple most likely will fall in the range of 10 to 20 times the expected loss rate.²⁵ For example, if the expected loss rate is two basis points annually, the overcollateralization will equal .2% to .4% of the amount of ISS debt then outstanding. Additionally, MHS most likely will guarantee the timely payment of principal and interest on ISS debt, on the slight chance that the overcollateralization proves to be insufficient during a time of severe economic distress. Hence, the credit rating assigned to a particular ISS debt issue will reflect both the degree of overcollateralization backing the debt and the overall capital strength of the MHS. Due to the relatively low volatility of residential mortgage loan credit losses, an MHS's targeted pre-tax, pre-credit-loss return on its capital allocated to credit risk should exceed its actual credit losses even in high-loss years. Consequently, it should be extremely rare for an MHS to dip into its capital to absorb credit losses.

Competition among MHS in selling their in-situ financing securities will force an optimal level of transparency in mortgages financed with in-situ securities, specifically with regard to prepayment characteristics. If the non-GSE mortgage-backed securities marketplace (the so-called "jumbo" market) is any guide, the transparency of in-situ financings will be far greater than the transparency of GSE MBS. In-situ financing investors will pay for that transparency by demanding a lower yield premium than they now demand on GSE MBS—that is, there will be a reduction in the basis points investors demand for assuming uncertainty.

In addition, greater transparency will reduce the cross-subsidy now flowing from mortgages that prepay slowly to mortgages that prepay quickly. This cross-subsidy, which flows from the less well off to the better off, arises because the prepayment option in fixed-rate mortgages provides a benefit only when it is exercised; those who refinance more frequently tend to be higher income, more sophisticated borrowers. MBS investors value more highly, and therefore will accept a lower yield, on mortgage pools with slower

prepayment characteristics. Greater transparency in MHS "in-situ" securitizations should reduce this cross-subsidy, which will benefit lower-income homeowners.

By using the in-situ technique to finance mortgages originated by their parent banks, large MHS should be able to construct mortgage pools with larger tranches of securities than is true of many GSE MBS tranches. This will make in-situ securities more liquid, which in turn will further reduce interest rates on home mortgages as marketplace competition pushes the benefits of greater liquidity through to borrowers, in the form of lower mortgage rates. A firm estimate has not been developed for this potential cost savings, but a savings of even a few basis points per mortgage dollar financed will be significant since each basis point of cost savings in the \$5.7 trillion home mortgage market equals approximately \$570 million annually.

Ratchet mortgages funded by ratchet bonds Ratchet-mortgages-funded-by-ratchet-bonds is a variant of ISS mortgage financing. A ratchet mortgage is a one-way adjustable mortgage -- it only ratchets downward as interest rates declined. That is, the mortgage interest rate automatically declines as the interest-rate index to which it is linked declines. However, the mortgage interest rate does not increase if the rate index rises. In order to protect the MHS from interest-rate and prepayment risk, a pool of ratchet mortgages will be funded by ratchet bonds tied to the same interest-rate index. Hence, if the rate index declines, the rate on the bonds will decline by the same number of basis points, thereby preserving the MHS's interest-rate spread on that pool of mortgages. Like ISS debt generally, a set of ratchet bonds will be secured by the ratchet mortgages funded by these bonds.

Ratchet mortgages effectively represent automatic mortgage refinancing. That automatic refinancing completely eliminates the substantial mortgage origination costs homeowners now incur every time they refinance a mortgage, thereby materially reducing the all-in interest rate on the mortgage. Investors in ratchet bonds will not suffer from the reinvestment risk now plaguing investors in MBS and callable debt issued by F&F nor will they incur the expense of frequently reinvesting funds in a declining interest-rate environment. They face reinvestment risk only to the extent to which they must invest the principal repayments made on the ratchet mortgages and the payoff of mortgages on homes that have been sold.

Although the ratcheting feature in mortgage bonds might boost by a few basis points the initial interest rate on ratchet bonds over non-ratcheting ISS debt, that higher rate will be more than offset by the substantial reduction in the cost of periodically refinancing a mortgage in order to capture a lower interest rate.

Summary of cost savings. The estimated cost savings associated with the MHS vehicle, discussed above, are summarized in the following table, using the two mortgage amounts discussed above. In both cases, the total savings exceed the funding cost advantage F&F enjoy as a result of their implicit government backing.

Mortgage amount	\$100,000	\$200,000
Cost savings, in basis points per mortgage dollar:		
Origination	31	22
Servicing	5	5
Greater transparency	5	5
Larger financing tranches	<u>2</u>	<u>2</u>
Total savings	43	34
GSE funding advantage	(<u>20</u>)	(<u>20</u>)
Net savings for borrowers	<u>23</u>	<u>14</u>

This discussion has summarized numerous cost benefits of the MHS concept relative to MBS financing by F&F. If the MHS structure is not burdened with unnecessary costs associated with bank capital requirements, the lower mortgage origination and servicing costs for mortgages financed through the MHS structure can overcome the 20 basis point funding cost advantage F&F enjoy because of their implicit government backing. The other efficiencies cited above -- marketing synergies and greater transparency for investors, particularly with regard to prepayment risk -- should provide additional cost savings that intense marketplace competition will force through to home buyers. Finally, the elimination of the intangible costs associated with the taxpayer and systemic risks created by F&F alone justify adopting a mortgage financing system that does not depend on government support.

Key features of the MHS concept

The following section recapitulates key characteristics of the MHS concept:

- MHS will be funded entirely in the wholesale capital markets with medium- and long-term debt, reflecting the relatively long life of fixed-rate residential mortgages. This approach parallels the widespread practice in Europe of funding long-term, fixed-rate mortgages with "mortgage bonds" sold in the capital markets, largely to institutional investors. Under no circumstance can an MHS accept deposits or sell small-denomination debt instruments to the general public, an unfortunate practice in which F&F now engage.²⁶
- There will be no limit on the number of MHS which can be chartered. While MHS will be state-chartered general business corporations, the relationship of an MHS with its parent bank or thrift will be overseen by the parent institution's safety-and-soundness regulator. For example, the relationship between an MHS

and a national bank will be overseen by the Office of the Comptroller of the Currency (OCC). However, the OCC will not regulate the MHS's activities, *per se*.

- MHS will not be subject to any regulatory capital requirements, either simple leverage ratios or risk-based capital standards.²⁷ Instead, marketplace forces will determine the capitalization of an MHS.²⁸ The tradeoff between the cost of an MHS's equity capital and the cost of its debt will tilt MHS towards capital levels that will produce at least AA debt ratings, if not higher.²⁹ To strengthen the credit rating of unsecured MHS debt, the MHS authorizing statute could give that debt bankruptcy priority over other general unsecured creditors of the MHS in a manner comparable to the liquidation preference domestic depositors in banks and thrifts enjoy over other general creditors. **Figure 5** sets out a conceptual representation of an MHS balance sheet. In-situ mortgage securitization (including "ratchet bonds") is comparable to F&F's creation of MBS, which shifts all interest-rate and prepayment risk to MBS investors, while the bottom portion of **Figure 5**, funding whole mortgages with unsecured preferential debt, parallels F&F's on-balance-sheet investment in mortgages and MBS.
- The parent's investment in an MHS (or multiple MHS) will be fully deducted from the assets and equity capital of the parent for the purpose of calculating the parent's compliance with bank capital regulations. Hence, the parent cannot finance its investment in an MHS with deposits or borrowed funds.
- Sections 23A and 23B of the Federal Reserve Act³⁰ will govern transactions between an MHS and its parent bank or thrift. These restrictions on transactions between an MHS and its parent will prevent the parent from being harmed financially by transactions with its subsidiary MHS even though, as footnote 17 explains, it is not possible for transactions between a parent entity and its subsidiaries to harm the parent because the parent is the economic beneficiary of all of the subsidiary's activities. However, because an MHS, as a state-chartered general business corporation, can become a debtor under the U.S. Bankruptcy Code, while a bank or thrift cannot, it probably is prudent to subject transactions between a bank or thrift and its MHS to Sections 23A and 23B.
- The parent will be barred from injecting equity capital into an MHS if that capital injection would drop the parent from a well-capitalized status to an adequately capitalized or undercapitalized status. If a parent made such a capital injection, its regulator can direct its immediate return to the parent. In effect, an illegal capital injection into an MHS will be treated on the books of the MHS as a secured loan superior to all unsecured claims on the assets of the MHS.³¹
- An MHS can issue common stock to third parties (including other banks and thrifts), preferred stock, subordinated debt, unsecured debt, preferential unsecured debt, and secured debt. Secured debt can be secured by a specified

group of mortgages under the "in-situ securitization" concept discussed above. For financial reporting purposes, the MHS's financial statements will be consolidated with its parent in accordance with Generally Accepted Accounting Principles. However, the MHS will issue audited financial statements and register its debt offerings with the Securities and Exchange Commission (SEC) so that investors in an MHS's debt can judge the MHS's financial condition on a stand-alone basis. This reporting structure parallels the General Electric Company, which files with the SEC consolidated financial statements (annual 10-K and quarterly 10-Q) covering all of its activities as well as financial statements for each of its four financial subsidiaries.

- The MHS can be managed by its parent bank or thrift, it can share officers and directors with the parent, purchase mortgages from the parent (as well as from third parties), and it can contract with its parent to service those mortgages.
- There will be no restriction on the size or type of residential mortgages the MHS can purchase from its parent or from third parties. For example, an MHS could purchase a \$1 million mortgage on a mini-mansion as well as mortgages on second homes, apartment buildings, college dormitories, and other residential structures. In effect, there will be no conforming loan limit applicable to MHS comparable to the conforming loan limits applicable to F&F. At the same time, the MHS's parent will have complete latitude in determining which mortgages to sell to its MHS and which ones to keep in the parent bank or thrift. Quite likely, the parent will retain adjustable rate mortgages and fixed-rate mortgages with short maturities, funding them with deposits, while selling long-term fixed rate mortgages to its MHS.³² MHS will be as capable as the housing GSEs of supplying America with a sufficient quantity of long-term, fixed-rate mortgages. By the same measure, the parent might buy back from its MHS long-term, fixed-rate mortgages just a few years short of maturity.
- An MHS can dramatically lower the cost of refinancing mortgages, i.e., reducing the interest rate on an existing mortgage, by simply adjusting the interest rate on the mortgage and recalculating the monthly payment. So-called "cash out refinancings," will not entail much additional effort by the MHS or its parent. In addition to repricing the existing mortgage and increasing the remaining loan balance, the parent bank or thrift might want to verify the collateral value, run an updated credit check on the borrower, and file paperwork at the local courthouse evidencing the higher mortgage amount.
- In order to operate as efficiently as possible, particularly in dealing with mortgage refinances, the MHS can, to the extent tolerated by the financial marketplace, operate as one giant mortgage pool financed by preferential unsecured debt. This is how F&F operate with regard to the mortgages and MBS they own. However, when market conditions demanded, the MHS could create pools of mortgages

funded by debt secured by the mortgages in a process, described above, called "in-situ securitization."

- MHS can enter into interest-rate swaps and other interest derivatives to hedge interest-rate and prepayment risk. They also can enter into credit-derivative transactions to shift a portion of geographical or credit-quality concentrations to third parties.
- Since MHS will not be federally insured depository institutions, they will not be subject to the Community Reinvestment Act (CRA). The rationale for the CRA is that CRA is the price banks pay for having federally insured deposits. Since MHS will be barred from accepting deposits, there is no rationale for applying the CRA to MHS.
- Because of the close integration, operationally, of an MHS with its parent bank or thrift, MHS will be exempt from tying restrictions on banking products. That is, an MHS should be no more restrained, in terms of how it integrates financial products and services with its parent bank, thrift, or holding company, than would be the case if the MHS were an integral part of its parent organization.
- MHS will be exempt from the appraisal requirements applicable to banks and thrifts because MHS are not insured depository institutions. This exemption will extend to mortgages originated by a depository institution for sale to an MHS, assuming a timely sale takes place. However, this exemption will not apply to mortgages sold by the MHS back to its parent.

Conclusion

Despite appearances to the contrary, the American housing finance system is hardly the bastion of efficiency. It suffers from high mortgage transaction costs, an excessive reliance on the secondary mortgage market, inefficient funding mechanisms, and excessive taxpayer risk stemming largely from F&F's undercapitalization for the interest-rate risks they have assumed. The underlying causes of this inefficiency are a public policy tilt towards the secondary mortgage market, through the GSEs, and a companion public policy tilt against depository institutions holding mortgages in portfolio.

The solution to these underlying causes is relatively straight-forward and easy to implement -- privatize the three housing GSEs while authorizing the MHS concept, which will enable depository institutions to profitably and safely hold long-term, fixed-rate mortgages in portfolio, by selling the mortgages they originate to MHS they own and control. This proposal has moved to a crucial stage in public policy development -- legislation to implement both pieces of this proposal -- privatizing the GSEs and authorizing the MHS. With the AEI having sponsored the drafting of that legislation, the GSE privatization/MHS authorization proposal is now ready for implementation. Given growing

concerns about the systemic risk F&F pose, trumpeted by Chairman Greenspan in his February testimony to the Senate Banking Committee, this legislation has been drafted not a moment too soon.

Endnotes

1. The all-in mortgage interest rate equals the stated or contract interest rate on a mortgage plus the up-front mortgage origination costs paid by the borrower amortized over the actual life of the mortgage; i.e., until the mortgage is refinanced or paid off. Origination costs are the cash costs a borrower incurs at the time she obtains a new mortgage or refinances an existing mortgage, including: an appraisal, title insurance, flood certification, termite inspection, application fee, credit reports, mortgage broker fees, government fees and taxes, closing and settlement costs, recordation fees, courier charges, and miscellaneous expenses related to obtaining a mortgage. The borrower has to pay cash for these costs or they are deducted from the mortgage proceeds, which effectively means they are financed at the mortgage rate of interest over the actual life of the mortgage. Frequent mortgage refinancings can raise the all-in rate to 50 basis points, or more, above the stated mortgage interest rate.
2. Statement of Mel Martinez, Secretary of the Department of Housing and Urban Development, to the Financial Services Committee, U.S. House of Representatives, October 3, 2002.
3. Calculated from an April 8, 2004, letter from Holtz-Eakin to Senator Richard Shelby, Chairman of Senate Committee on Banking, Housing, and Urban Affairs, Table 3 on page 8.
4. \$66.3 billion/\$10.986 trillion, the latest available estimate of 2003 GDP for the United States, as reported in "Economic Indicators," February 2004, Prepared for the Joint Economic Committee of the United States Congress by the President's Council of Economic Advisors.
5. Statement of Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System before the Committee on Banking, Housing, and Urban Affairs, United States Senate, February 24, 2004.
6. Organization for Economic Co-operation and Development, website statement, "About OECD," April 15, 2004.
7. Ibid., Policy Brief, "Economic Survey of the United States, 2004," April 2004, pg. 5.
8. As of December 31, 2003, their outstanding debt and credit guarantees on MBS owned by third parties were as follows: Fannie Mae -- \$962 billion in debt plus \$1.3 trillion of credit guarantees, for a total of \$2.262 trillion; Freddie Mac -- \$720 billion of debt (estimated) plus \$773 billion of credit guarantees, for a total of \$1.493 trillion; FHLBs -- outstanding debt totalling \$741 billion. The total for all three GSEs is \$4.496 trillion, based on the estimate of Freddie Mac's debt.
9. Wallison, Peter J., Thomas H. Stanton, and Bert Ely, "Privatizing Fannie, Freddie Mac and the Federal Home Loan Banks: Why and How," American Enterprise Institute, March 18, 2004. The paper is posted at www.aei.org/docLib/20040315_GSEPrivatization.pdf. Privatization of the three GSEs is set out in Titles I to III in the draft legislation (pp. 39-64 of the paper); a section-by-section explanation of the legislation will be found at pp. 73-78.
10. Ely, Bert, "The Privatization of Sallie Mae: Lessons to be Learned," forthcoming. This paper explains how Sallie Mae was privatized and draws parallels and differences between that privatization and issues arising when privatizing F&F.

11. Ibid., Figure 2.
12. Fannie Mae Form 10-K for 2003, footnote 11 to its audited financial statements, table on page 156.
13. Freddie Mac Annual Report for 2001, Table 14-1, pg. 88.
14. Author's estimate, calculated as follows; Fannie reported net income (core earnings basis) in 2003 from its credit guaranty line of business of \$2.948 billion. Based on the minimum core capital requirement of .45% per dollar of credit risk, Fannie's estimated average minimum core capital commitment to its guarantee business in 2003 was \$9.06 billion. $\$2.948 \text{ billion} / \$9.06 \text{ billion} = 32.5\%$.
15. In 2002, the 100 largest banks and thrifts (as distinguished from their parent holding companies) earned an average after-tax rate of return on their equity capital (ROE) of 15.3%. The median ROE for these 100 institutions in 2002 was 16.2%. Calculated from bank call report and thrift financial report data compiled by Sheshunoff and Company, Austin, Texas. For all FDIC-insured institutions, the FDIC has calculated average ROEs for the 1997-2003 period that ranged from 12.98% to 15.04%, as reported in the FDIC Quarterly Banking Profile, fourth quarter 2003, Table 1-A, pg. 5. Because of the relatively low and predictable credit risk associated with residential mortgages, and particularly for mortgages on owner-occupied single-family homes, arguably the market-rate ROE for capital committed to a residential mortgage guaranty business is less than the market-rate ROE for the banking business overall.
16. Each FHLB is subject to a 10% AHP tax on its pre-AHP tax income, subject to a \$100 million annual minimum system-wide "contribution" to the affordable housing programs established by each FHLB. Additionally, each FHLB is subject to a 20% tax on its income (net of the AHP tax) to help pay the federal government's annual interest obligation on bonds issued by the Refinancing Corporation (REFCORP). The REFCORP obligation is equivalent to a \$300 million annual annuity whose final maturity date is April 15, 2030 (Federal Home Loan Banks 2003 Financial Report, pg. 53). Because the REFCORP tax has exceeded \$300 million annually in recent years, the excess over \$300 million has been used to defease the FHLBs' most-distant remaining REFCORP interest obligations. As of December 31, 2003, this obligation had been defeased back to July 15, 2020.
17. MHS should be subsidiaries of banks and thrifts rather than bank or thrift affiliates that share a common parent, such as a bank holding company. The parent-subsidiary relationship eliminates the potential for self-dealing that could harm the bank; that potential would exist if the MHS is an affiliate of the bank. Any dealings between a parent entity and its subsidiaries benefit the parent, on a consolidated financial basis, regardless of how a particular transaction between a parent and one of its subsidiaries is structured because the parent is the economic beneficiary of all of the subsidiary's activities. For example, even if a transaction is highly beneficial to a bank's subsidiary, to the bank's detriment, the bank is not harmed by that transaction because it owns the subsidiary. The same is not true of transactions between a bank and an affiliate of that bank, both of which are owned by a holding company. In that circumstance, a bank can be harmed by a transaction that is highly beneficial to the affiliate. However, the effects of that transaction will cancel out at the holding company level. While a bank-subsidiary structure is preferable to a bank-affiliate structure, the draft MHS legislation authorizes both structures.
18. Much of this section of the paper draws heavily on that portion (pp. 23-30) of the AEI paper cited above, "Privatizing Fannie Mae, Freddie Mac, and the Federal Home Loan Banks: Why and How," jointly written by Peter Wallison and the author.
19. Passmore, Wayne, "The GSE Implicit Subsidy and Value of Government Ambiguity," Board of Governors of the Federal Reserve System, December 2003, pg. 3.

20. The impact of bank capital requirements on the costs banks and thrifts incur in holding mortgages in portfolio is significant, which gives banks and thrifts a powerful incentive to sell mortgages rather than hold them. The MHS concept would dramatically reduce those costs, and thus reduce the present bias towards selling mortgages into the secondary market. If an MHS did not assume any interest-rate risk on the mortgages it owned, it could safely operate with a 1% capital level when owning mortgages with a credit quality comparable to the quality of mortgages Fannie and Freddie own or guarantee. That percentage is 4% below the minimum leverage ratio for a well-capitalized bank or thrift and 6.3% below the weighted average leverage capital ratio of 7.3% on September 30, 2003, for the nation's 100 largest commercial banks. Assuming a 14% after-tax return on equity capital placed at risk for home mortgage credit losses and a 39% tax rate, which produces a 23% required pre-tax return (.14/(1-.39)), and a 5% debt funding cost, the pre-tax cost differential between debt and equity capital is 18% (23% - 5%), or 18 basis points per 1% of the amount financed (18%/100). Therefore, an MHS exempt from regulatory capital requirements would operate at a 72 basis point cost advantage when compared to a bank, assuming the bank is capitalized at the 5% minimum leverage ratio ((5% - 1%) x 18). That regulatory cost advantage rises to 113 basis points ((7.3% - 1%) x 18) at the average leverage ratio for large banks. Barring MHS from accepting deposits will eliminate for MHS other expenses banks incur by virtue of being federally insured and regulated depository institutions. While these cost savings have not been estimated, they undoubtedly amount to at least a few basis points per asset dollar.

21. Although the funding costs of AA-rated banks are somewhat higher than industrial AA credits, the author is of the opinion that the stability and high quality of an MHS's portfolio would warrant its treatment for rating purposes as closer to an industrial than a bank credit.

22. Fannie: Origination Costs Up Sharply, "National Mortgage News Daily Briefly, September 30, 2003.

23. "Fees, Fees, and More Fees," The Washington Post, June 7, 2003, pg. F1.

24. Mercer Oliver Wyman, "Study on the Financial Integration of European Mortgage Markets," European Mortgage Federation, October 2003.

25. The 10-times requirement is quite reasonable in light of F&F's credit loss experience; the 20-times requirement is quite conservative. By law, F&F must each maintain equity capital equal to at least 45 basis points of their outstanding credit risk. For the 1971-2002 period, Fannie's unweighted average annual credit losses equaled 4.16 basis points with a peak loss of 13 basis points in 1985. Therefore, the minimum capital requirement is 10.8 times Fannie's average loss experience and 3.5 times its peak loss experience. Freddie's unweighted average annual credit loss for the 1987-2002 period was 6.44 basis points with a peak loss of 11 basis points in 1993 and 1995, due to especially high losses on apartment loans. The minimum capital requirement is 7 times Freddie's average credit loss and 4 times its peak loss. Due to a much lower loss experience, in basis points, in recent years in the face of much larger credit exposures, F&F's weighted average loss experience is lower.

26. At December 31, 2003, Fannie had \$13.7 billion outstanding in "Universal Retail Debt." A comparable figure is not yet available for Freddie.

27. Various banking laws would have to be amended to exempt MHS from consolidated capital regulation at the bank or thrift level and again at the holding company level. However, the MHS exemption would not apply to other types of banking-related activities. Section 111 of the Gramm-Leach-Bliley Act of 1999, by amending 12 U.S.C. §1844(c), established the principle of exempting subsidiaries of a bank holding company from consolidated capital regulation if the subsidiary is subject to capital regulation by a "Federal regulatory authority (including the Securities and Exchange Commission) or State insurance authority" or is licensed as an investment advisor or insurance agent. MHS can safely be exempted from consolidated capital regulation since various provisions of the MHS authorizing statute will prevent the MHS from inflicting

financial damage on its parent bank or thrift.

28. Earlier versions of this paper included a requirement that MHS be at least AA-rated and that each MHS have a cost of debt in line with the cost of debt of other MHS as a check on the efficacy of its debt rating. The author has become convinced by the argument put forth by others that MHS should not be subject to an arbitrary and often inaccurate debt-rating requirement. Instead, market forces, in conjunction with various legal protections discussed in this section of the paper, designed to protect an MHS's parent bank or thrift from financial problems in the MHS, will be sufficient to ensure the safe-and-sound operation of MHS. Further, it would be difficult to construct a workable regulatory mechanism to ensure that an MHS's cost of debt was comparable to the cost incurred by other MHS. Some commentators expressed a concern that a mandatory ratings requirement would lead to "ratings inflation."

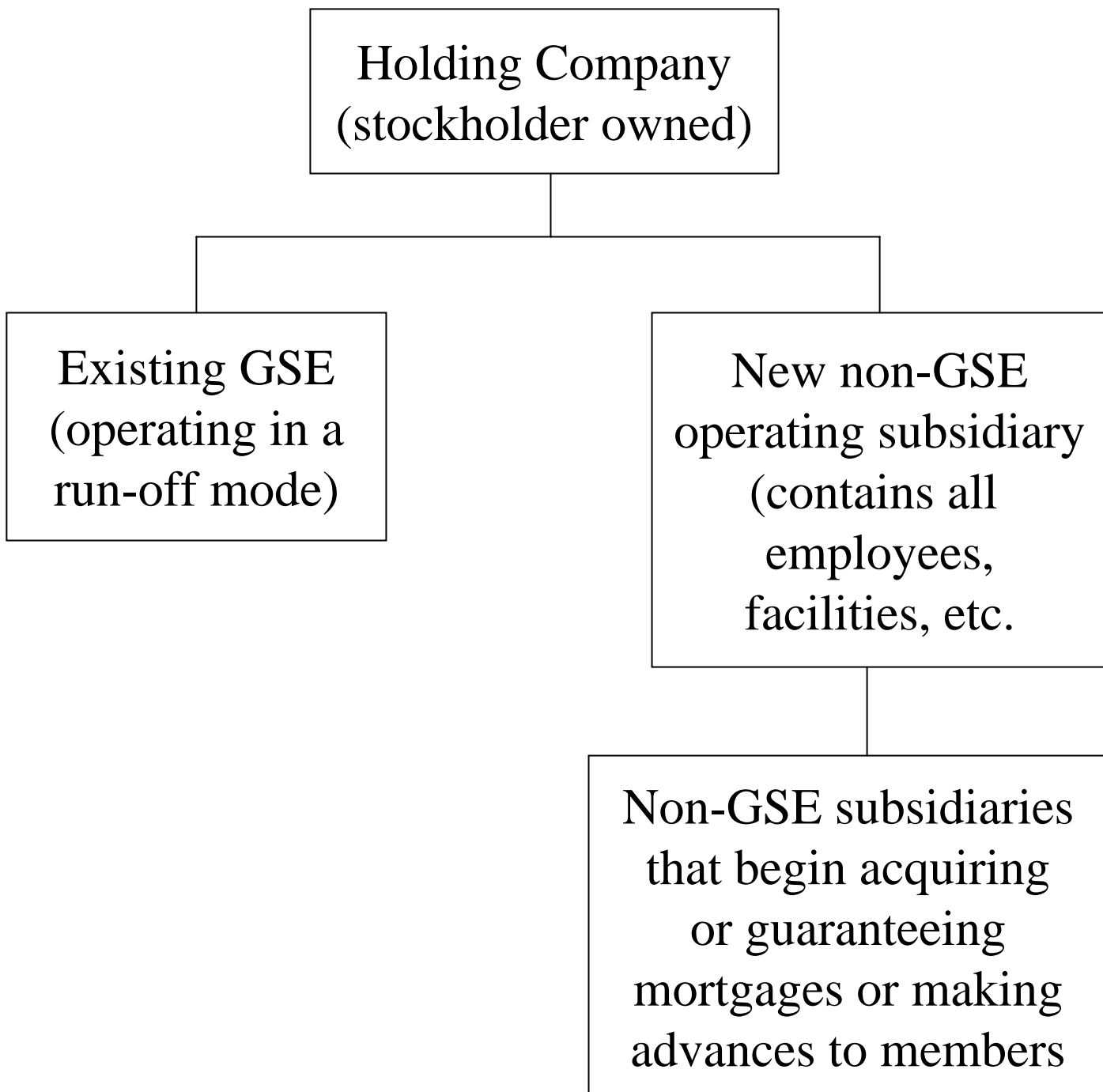
29. Some data will illustrate this point. Assume an MHS can fund itself with 2% equity capital, with a pre-tax cost of 23% (which will produce a 14% after-tax return, assuming a 39% tax rate) and 98% debt, with a cost of 4.5%. This mix will produce a weighted-average cost of funds of 4.87% $((.02 \times .23) + (.98 \times .045))$. Further assume that increases in the equity capital ratio reduce the likelihood of insolvency, which should, in turn, reduce the cost of the MHS's debt. Under this case, the MHS's weighted average cost of funds will hold constant at 4.87% if the average cost of its debt would decline by approximately 1.9 basis points for every 10 basis point increase in its capital ratio. For example, an MHS would increase its return on its equity if, by raising its capital ratio from 2% to 3%, it could lower the average cost of its debt by at least 19 basis points, in this case from 4.50% to 4.31%. Given the relatively low credit risk associated with home mortgages, trade-offs of this magnitude are quite feasible. That 19 basis point rate differential is roughly double the current yield differential between AAA and AA-rated industrial bonds and approximately two-thirds the current yield differential between AA and A-rated industrial bonds, per interest-rate data downloaded from Bloomberg, L.P.

30. 12 U.S.C. Sec. 371c and 12 U.S.C. Sec. 371c-1, respectively.

31. This policy reflects a long-standing regulatory concern that insured banks and thrifts not be weakened by bailing out troubled non-bank affiliates and subsidiaries. An example of that concern was reflected in a joint interagency policy statement issued by the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision on January 5, 2004, alerting "banking organizations . . . of the safety and soundness implications of and legal impediments to a bank providing financial support to investment funds advised by the bank, its subsidiaries, or affiliates. A banking organization's investment advisory services can pose material risks to the bank's liquidity, earnings, capital, and reputation, and can harm investors, if the associated risks are not effectively controlled."

32. An October 2003 report by consultants' Mercer Oliver Wyman, "Study on the Financial Integration of European Mortgage Markets," for the European Mortgage Federation had this to say about funding mortgages (page 63): "The mortgage bond appears to be an efficient mechanism for funding long term fixed rate products but possibly less efficient for short-term products where the flexibility of deposits make this a more attractive option."

Transition structure for fully privatizing each housing finance GSE (highly simplified)



A Private-Sector alternative to Fannie Mae and Freddie Mac – the Mortgage Holding Subsidiary model

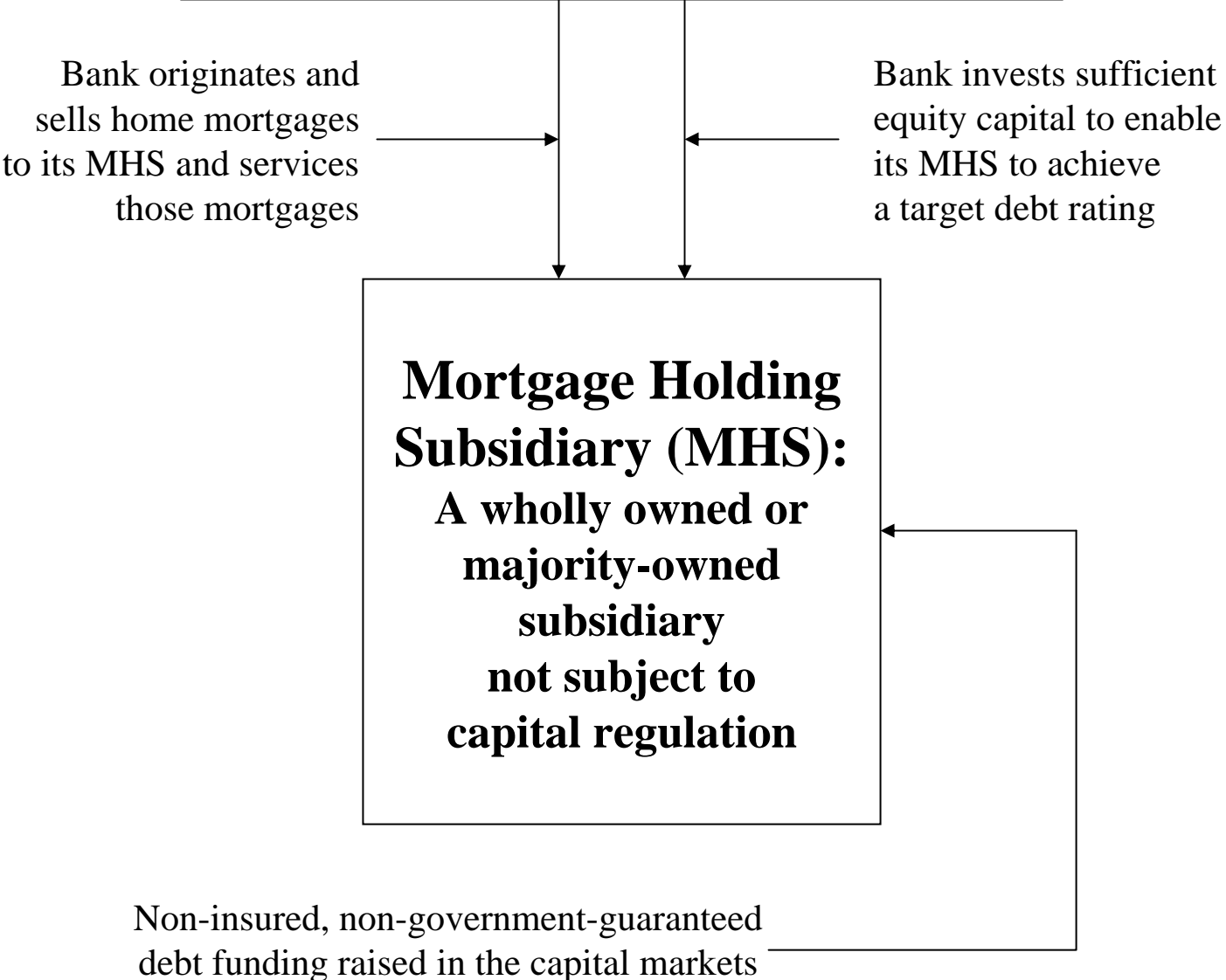
**Commercial bank, thrift,
or other financial firm
subject to capital regulation**

Bank originates and sells home mortgages to its MHS and services those mortgages

Bank invests sufficient equity capital to enable its MHS to achieve a target debt rating

**Mortgage Holding Subsidiary (MHS):
A wholly owned or majority-owned subsidiary
not subject to capital regulation**

Non-insured, non-government-guaranteed debt funding raised in the capital markets



Rate differential -- Industrial AA – Agencies, smoothed data, at 3, 5, 7, and 10 years

1/3/94 to 1/27/04

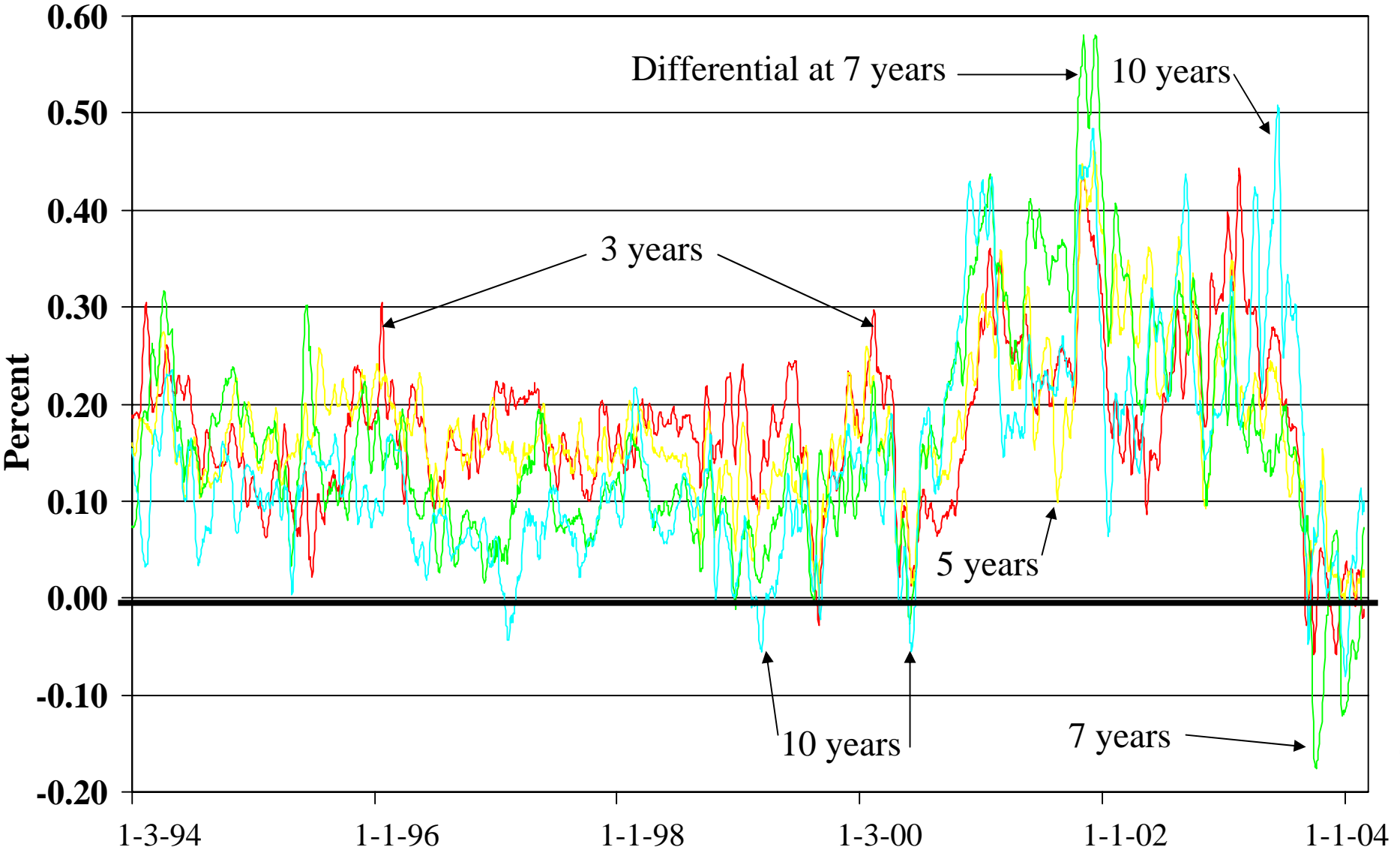


Figure 3

Annual reduction in actual interest rate by lowering mortgage origination costs

Based on a 30-year, \$100,000, 6% fixed-rate mortgage

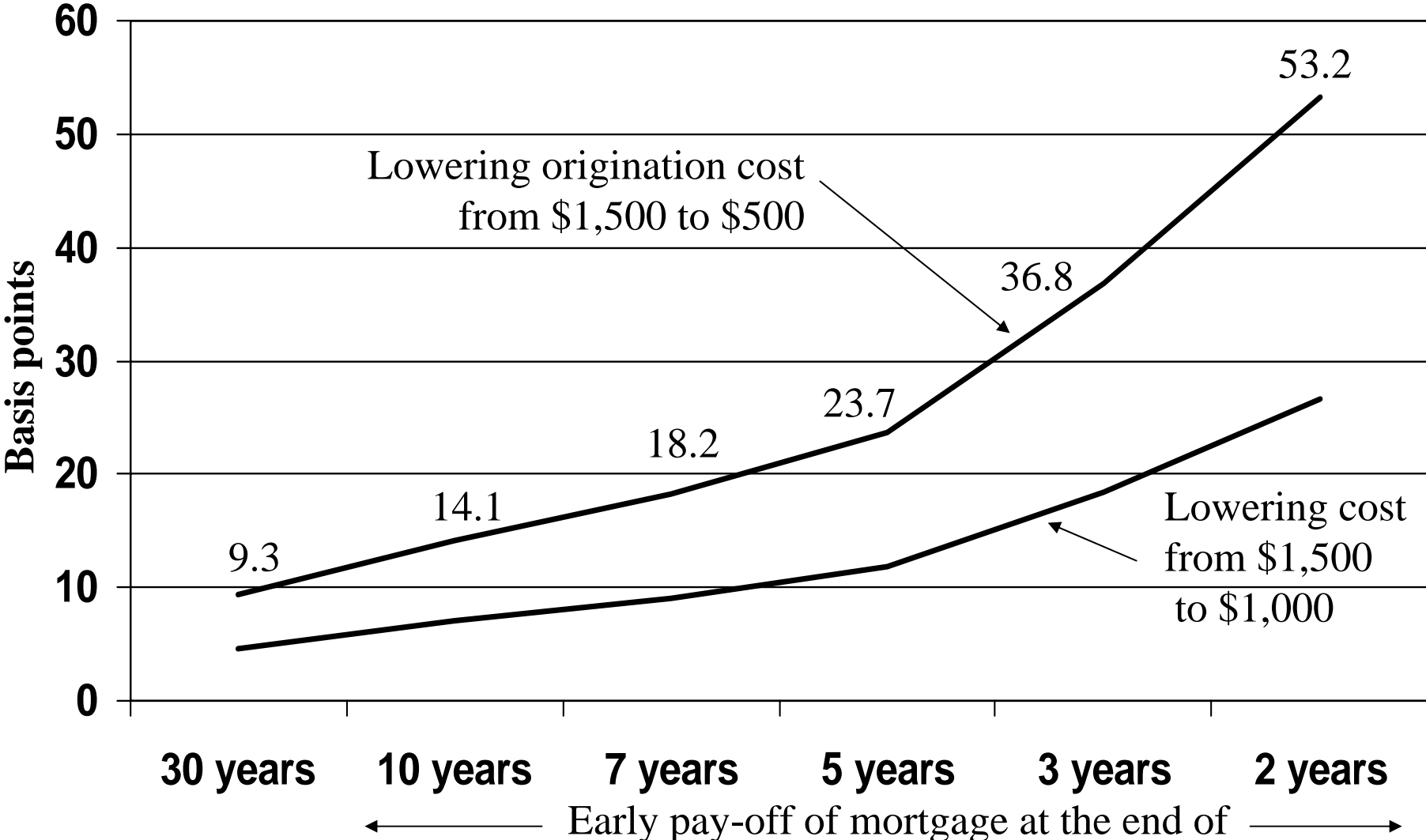


Figure 4

Balance sheet composition of an MHS

(not to scale)

Assets

=

Liabilities +
equity capital

Residential mortgages securitized “in situ” (in-situ securitization, or ISS)		ISS debt (debt secured by mortgages securitized “in situ”)
“Ratchet mortgages”		“Ratchet bonds”
Residential Mortgages (1-4 family and multi-family)		Unsecured preferential debt raised in the capital markets
Cash + short-term investments		Other unsecured liabilities
Other assets		Subordinated debt (optional)
		Equity capital