CHAPTER III

THE HOUSING GOALS AND ALTERNATIVES CONSIDERED

This chapter presents the core of HUD's regulatory analysis as required by OMB Circular A-4 (September 17, 2003), based on projections of the impacts of HUD's proposal relative to impacts of less stringent and more stringent alternatives. Section A discusses HUD's approach to fulfilling the requirements of the Circular for analysis of benefits and costs of the proposed regulation. Section B summarizes HUD's regulatory proposal regarding the housing goals and home purchase subgoals and describes the alternatives against which it is compared. Section C discusses projected effects of implementation of the proposed regulations in several categories of impacts. Sections D and E compare the projections from section C with projected impacts under two regulatory alternatives, namely, (in section D) establishing the goals and subgoals at higher levels than HUD is proposing, and (in section E) retaining the current levels of the Housing Goals and not introducing subgoals for GSE purchases of home purchase mortgages. Section F discusses elements of HUD's regulatory proposals beyond the levels of the goals and establishment of subgoals. Section G presents a tabular summary of HUD's analysis.

This chapter relies heavily on material developed in Chapters IV-VI of this Economic Analysis and in Appendices A-D of the proposed GSE Rule and includes references to that material where readers can find background information and more detailed discussions of certain issues.

A. Approach

This section first discusses the Government-Sponsored Enterprise status of Fannie Mae and Freddie Mac and the statutory context for HUD's proposed rule. With this background, the relevant concepts of costs and benefits applicable to establishing affordable housing goals for the housing GSEs, both of which raise unique conceptual issues, are then discussed. The third subsection sketches the alternatives to HUD's proposal which are considered in this Regulatory Analysis.

A.1. The GSEs' Agency Status and the Need for This Regulatory Action

In establishing housing goals for the GSEs in 1995 and 2000 and in the present rulemaking process, HUD is acting within a statutorily established framework of regulatory relationship between the Federal Government and the two GSEs, Fannie Mae and Freddie Mac. In granting Federal charters to the GSEs, and in various related legislative initiatives, Congress established a series of business advantages for the GSEs which are not available to other business enterprises. These include, among others—

Investment status of GSE-issued debt securities and mortgage-backed securities similar to that of U.S. Treasury debt, in terms of eligibility to be purchased and held by various categories of financial institutions.

Exemption from State "Blue-sky" laws and from debt and equity securities registration requirements of the Securities and Exchange Commission (although Fannie Mae has voluntarily registered its equity securities and Freddie Mac has announced its intention to do so)

Favorable risk weights in risk-based capital requirements of depository institutions

Exemption from State and local taxes, except for property taxes

A $2.25 billion line of credit with the Federal government (exercisable at the discretion of the Secretary of the Treasury)[1]

The effect of these statutorily based advantages, taken together with the statutory obligations imposed on the GSEs relating to their housing mission, is to make purchasers of the GSEs' debt and mortgage-backed securities willing to accept a lower risk-adjusted rate of return than purchasers of securities of other business enterprises which lack such statutorily-based advantages and obligations. In benefit-cost terms, the lower borrowing rate is a *benefit* which the GSEs enjoy. It has, however, an associated *cost*, namely, the value of the risk that taxpayers might find it necessary in some future situation to bear costs associated with the inability of one or both GSEs to fulfill their financial obligations associated with the securities that they issue. It is important to note that the GSEs' securities are required by law to bear a disclaimer of any such obligation on the part of the Federal Government to step in, in such a situation. However, investors evaluate the risk that they bear in holding GSE securities as less than the risk associated with securities of other enterprises having similar institutional risk characteristics as the GSEs. This implies that investors believe that there is at least a possibility that the Federal Government would intervene in the event of a future GSE financial problem.

Published studies have estimated the value of the costs implicitly borne by taxpayers. For example, the Congressional Budget Office (CBO) estimated the funding advantage for the year 2000 to be $10.6 billion annually for both GSEs.[2] CBO terms this value a "subsidy" even though it does not take the form of cash payments from the

[1] There are several others. See HUD, *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility*, 1996, pp. 26-29.

[2] *Federal Housing Subsidies and the GSEs*, May 2001. See also *Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac*, May 1996, chapter 2. See below for discussion of CBO's analysis and other related analysis.

Government. In recent testimony a CBO representative stated that the subsidy has increased since this estimate was prepared.[3]

Fannie Mae and Freddie Mac "are legislatively chartered for public purposes."[4] Specifically, they are expected "to assist in the financing of affordable housing"[5] both for low- and moderate-income families and in underserved geographical areas. In effect, in exchange for the benefits which they are granted, they are statutorily obligated to undertake activities which have *costs* associated with them. These obligations are summarized in the legislation in the form of four statutory public purposes:[6]

(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 related 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.

Among the important effects of this statutory framework is reduction in mortgage interest rates. Estimates of the effect have generally been based on comparison between interest rates below the conforming loan limit—i.e., in the range of loan amounts within which Fannie Mae and Freddie Mac are able to purchase mortgages—and interest rates in the "jumbo" sector. The effect has been estimated to be in the range of 25 to 40 basis points.[7]

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[3] "Regulation of the Housing Government-Sponsored Enterprises," Statement of Douglas Holtz-Eakin before the Committee on Banking, Housing, and Urban Affairs, United States Senate, October 23, 2003.

[4] Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Report 102-282 (1992), p. 9.

[5] Ibid., p. 27.

[6] 12 U.S.C. 1716 for Fannie Mae and 12 U.S.C. 1451 note for Freddie Mac, as amended by the Housing and Community Development Act of 1992, secs. 1381(a) and 1382(a), respectively.

[7] Robert Cotterman and James Pearce, "The Effects of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation on Conventional Fixed-Rate Mortgage Yields," in *Studies on Privatizing Fannie Mae and Freddie Mac*, U.S. Department of Housing and Urban Development, 1996.

FHEFSSA[8] assigned to the Secretary of Housing and Urban Development the responsibility to establish percentage-of-business goals for the GSEs' purchases of mortgages on housing for low- and moderate-income families, special affordable housing (i.e., housing for very-low-income families and low-income families in low-income areas) and housing in geographically underserved areas, which were initially defined by FHEFSSA as central cities, but beginning in 1996 were defined as determined by the HUD Secretary. The Secretary's specification of the goals was to be based on consideration of statutorily specified factors for consideration, as follows:

(a) national housing needs;
(b) economic, housing and demographic conditions;
(c) the performance and efforts of the GSEs toward achieving the Housing Goal in previous years;
(d) the size of the market for mortgages targeted by the Housing Goal relative to the overall conventional mortgage market;
(e) the ability of the GSE to lead the industry in making credit available for mortgages targeted by the Housing Goal; and
(f) the need to maintain the sound financial condition of the GSEs.

After the enactment of FHEFSSA the Secretary established interim goals based on requirements in FHEFSSA in 1993, a first set of goals based on full consideration of the statutory factors for consideration in 1995 (effective January 1, 1996), and revised goals in 2000 (effective January 1, 2001). In 1995 and 2000, as well as in the present proposed rule, the establishment of goals has been based on a review of GSE performance and projection of market ratios for a three- or four-year period into the future. The present rulemaking thus represents the product of a reconsideration of the goals which HUD undertakes periodically. An added factor is the recent issuance of data from the 2000 censuses of population and housing. Changes in levels and patterns of area median incomes and minority concentrations between 1990 and 2000 necessitate substantial re-calibration of the Underserved Areas Housing Goal and modest re-calibration of the Special Affordable Housing Goal. However, as explained in HUD's regulatory proposal and in this Regulatory Analysis, HUD believes that it is also appropriate to raise the levels of the goals and introduce a new system of home purchase subgoals related to the three goals, to encourage the GSEs to take a leadership position in creating homeownership financing opportunities within the categories that Congress expressly targeted with the housing goals.

A.2 Benefits and Costs of Proposed Housing Goals Regulation

Within the statutory framework summarized in the preceding subsection, the role assigned to the Secretary of HUD is to establish housing goals, which may impose costs on the GSEs, for the public benefit. This chapter of HUD's regulatory analysis discusses

[8] The Federal Housing Enterprises Financial Safety and Soundness Act, Title XIII of the Housing and Community Development Act of 1992, approved October 28, 1992.

the types of benefits and their magnitudes, although given their nature, which relates largely to matters of economic distribution rather than economic efficiency, no attempt is made to "monetize" them, in the language of Circular A-4.[9]

The analysis is largely developed in terms of the analytical categories mandated by FHEFSSA: Important *national housing needs* are discussed and related to measures that the GSEs may take, motivated by the housing goals, to improve credit access and housing affordability and to increase homeownership opportunities for targeted groups. *Economic, housing, and demographic conditions* are highlighted, particularly for categories of households that have experienced problems of access to housing, including first-time homebuyers, racial and ethnic minorities, renters as well as homeowners, and low-income households which are supported by the goals. These distributional effects are among the most significant consequences of the housing goals. The analysis also considers the factors of *GSEs' past performance and effort, size of markets for goal-qualifying mortgages relative to the overall market, and GSEs' ability to lead the industry,* as a convenient framework for considering the ability of the GSEs to increase their performance within the time-frame presented by the goals, without disrupting markets within which they do their business. Finally, the analysis considers the *need to maintain sound GSE financial condition,* i.e., the potential costs and impacts on the GSEs' financial returns of raising the goals to various levels.

Circular A-4 directs agencies, when important benefits and costs cannot be monetized, to present a "threshold analysis" which presents a value of monetized net costs which must be overcome in order to generate positive net benefits. This can be done in terms of the overall situation of the GSEs as Government-sponsored enterprises, based on recent estimates of the GSEs' funding advantages compared to the value of benefits that they pass through to borrowers through reduced mortgage interest rates prepared by the Congressional Budget Office (CBO) and by Wayne Passmore, an economist with the Federal Reserve Board.[10] Although these two studies are concerned with the aggregate net borrowing advantage associated with GSE agency status overall, while this rulemaking is concerned with the appropriate setting of the three housing goals and associated subgoals, nevertheless the studies are helpful in identifying an order of magnitude of benefits from the housing goals and other benefits generated by the GSEs by virtue of their agency status necessary to yield positive net benefits, in a cost-benefit analysis framework.

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[9] The GSEs are chartered as private corporations, governed by Boards of Directors, free to pursue profits in the interests of their shareholders, within their statutory framework as Government Sponsored Enterprises, subject to mission regulation by the Secretary of Housing and Urban Development and financial safety-and-soundness regulation by the Office of Federal Housing Enterprise Oversight. Their profit motivation is also a motivation for them to pursue efficiency in their operations.

[10] Congressional Budget Office, *Federal Housing Subsidies and the GSEs*, May 2001. "Updated Estimates of the Subsidies to the Housing GSEs", attachment to a letter from Douglas Holtz-Eakin, Director, Congressional Budget Office, to the Honorable Richard C. Shelby, Chairman, Committee on Banking, Housing, and Urban Affairs, United States Senate, April 8, 2004. Wayne Passmore, "The GSE Implicit Subsidy and Value of Government Ambiguity," Board of Governors of the Federal Reserve System, FEDS working paper 2003-64, December 2003.

The two studies are similar in that they are based on estimates of the funding advantage of the GSEs' debt securities and mortgage-backed securities and estimates of the conforming-jumbo interest rate differential. CBO estimates a 41 basis point funding advantage on debt securities; Passmore, a 40 basis point advantage. CBO uses a figure of 5 basis points for net funding advantage on MBS; Passmore, a 2 basis point advantage. CBO performed regression analysis on conforming and jumbo mortgage rates and estimated a 22 basis point spread, to which CBO adds an estimate of 3 basis points effect on jumbo rates, for a total of 25; Passmore did regressions and found a 16-18 basis point jumbo/conforming spread. Passmore went on to perform a "second stage" analysis in which he disaggregated the spread into components reflecting differences (by month and state location of the mortgages) in various mortgage risk characteristics and in the estimated GSE funding advantage. Based on this analysis he concluded that the GSEs' effect on mortgage interest rates was around 7 basis points.[11]

CBO proceeds to estimate the net funding advantage to the GSEs which is not passed through to mortgage borrowers on debt securities and MBS issued by Fannie Mae and Freddie Mac in one year, in terms of a present value of current-year and discounted future values through the time the securities are repaid. The resulting estimate, for securities issued in 2000, is $3.9 billion, calculated as a gross funding advantage of $10.6 billion (which includes estimates for tax benefits and regulatory exemptions), less passed-through benefits (in reduced mortgage interest rates) of $6.7 billion.

Passmore pursues a different objective: He estimates the net funding advantage with respect to the two GSEs' entire businesses—all outstanding debt securities and MBS, plus the present value of projected future securities issuances, less estimated benefits passed through—expressed as a net present value. His after-tax median estimate (based on 1997-2003 data) is $72 billion, relative to which he acknowledges a substantial range of uncertainty. He estimates that the subsidy value is 60 percent of the market value of GSE stock, with a substantial range of variation around this figure.

These, then, are two estimates of the aggregate net advantages accruing to the two GSEs (i.e., net of the portion of the borrowing advantages that they pass through to mortgage borrowers in the form of reduced mortgage interest rates), one for annual net borrowing advantage and the other for discounted present value of current and projected future net borrowing advantage. The broad threshold analysis issue is whether the non-monetized benefits provided by the GSEs are commensurate. These benefits include not only the benefits associated with implementation of the housing goals administered by HUD which are the focus of this regulatory analysis, but also other categories of benefits, of which the literature discusses several including market stabilization, liquidity, and the

[11] A methodological critique of Passmore's two-stage procedure may be found in a Fannie Mae-funded "Commentary on 'The GSE Implicit Subsidy and Value of Government Ambiguity'" by William Greene, an econometrics expert, at http://www.fanniemae.com/commentary/pdf/021804.pdf.

GSEs' contribution to technological advances in the industry such as their development of automated underwriting systems, among others.[12]

For example, it can be argued that the GSEs have brought and maintain tremendous financial benefits to homebuyers both within and outside the conforming mortgage market through economies resulting from standardization and credit stabilization throughout the conventional mortgage market. Homebuyers at large benefit from lower interest rates and longer term mortgages than might otherwise prevail absent the substantial presence of government sponsored credit enhancements. Both longer-term mortgages and lower interest rates enable borrowers to leverage each dollar of income to support a larger mortgage or to qualify for a given mortgage amount with less income. Depending on the prevailing interest rate, homebuyers can borrow 6 to 8 percent more for every half-point reduction in interest and between 30 to 60 percent more with a 30-year mortgage rather than a 15-year loan. Thus, it could be argued that homebuyers at large derive substantial benefit from the GSEs in the absence of the GSE goals. The housing goals seek to bring these benefits to qualified potential homebuyers who through fear or misunderstanding have not sought them or have been routed to a more costly non-GSE or FHA mortgage product.

The preamble and appendices to the proposed rule establish that the GSEs have increased their role in providing financing for low- and moderate-income housing, special affordable housing, and housing in underserved areas, with the effect of increased access to mortgage credit for the purchase of housing in these categories. The measures that the GSEs have taken to do this include innovative product development, more flexible underwriting guidelines taking advantage of new, computerized mortgage scoring technology, and increased outreach to particular segments of the housing market (for example, borrowers with blemished credit, mortgages for first-time homeownership, and immigrants).

Within the framework of cost-benefit analysis, such impacts are distributional effects. Since they cannot be monetized, a threshold analysis approach is necessary. This Regulatory Analysis develops qualitative statements on the effects of the goals on the GSEs' business activities, coupled with a quantitative analysis of the profile of GSE loan and borrower characteristics as potentially affected by changes in the housing goals. The threshold issue is, then, whether the value of these effects exceeds the value of aggregate net advantages that accrue to the two GSEs, as described above (i.e., their borrowing advantages net of the portion that they pass through to mortgage borrowers in the form of reduced mortgage interest rates).

[12] These particular benefits are emphasized in papers in the recently published collection of Fannie Mae-sponsored research papers, *Housing Matters: Issues in American Housing Policy* (Fannie Mae, 2004) but they have long been focuses of attention in many previous discussions of GSE issues in the literature.

A.3 Alternatives Considered

HUD's regulatory approach first describes impacts of HUD's proposed approach and then compares the impacts with those of two specific alternatives, namely—

> A "no-change approach" in which the Housing Goals would be extended at their current levels subject only to adjustment to reflect changes associated with replacing 1990 census data with 2000 census data as the basis for determining the levels of various parameters; and
>
> An approach of more substantial adjustment in goal levels, in which the subgoals would also be increased to higher levels for 2008 than those proposed.

B. The Proposed Housing Goals and Some Background Information

B.1 Description of Proposed Housing Goals and Subgoals[13]

The Low- and Moderate-Income ("low-mod") Goal is intended to achieve increased purchases by the GSEs of mortgages on housing for low- and moderate-income families—i.e., families with incomes below the median income for the area. After consideration of the relevant factors, HUD is proposing that the annual goal for mortgage purchases qualifying under the Low-and Moderate-Income Housing Goal be 52 percent of eligible units financed in calendar year 2005, 53 percent in 2006, 55 percent in 2007, and 57 percent in 2008.

The Underserved Areas Housing Goal is intended to achieve increased purchases by the GSEs of mortgages on housing for housing located in "central cities, rural areas, and other underserved areas." The goal established by HUD targets the sections of these areas which have historically been underserved by the primary and secondary mortgage markets. After consideration of the relevant factors, HUD is proposing that the annual goal for mortgage purchases qualifying under the Underserved Areas Goal be 38 percent of eligible units financed in calendar year 2005, 39 percent in 2006 and 2007, and 40 percent in 2008.

The Special Affordable Housing Goal is designed to target mortgages on rental and owner-occupied housing to meet needs of low-income families in low-income areas and very low-income families. HUD is proposing that the annual goal for mortgage purchases qualifying under the Special Affordable Housing Goal be 22 percent of eligible units financed in calendar year 2005, 24 percent in 2006, 26 percent in 2007, and 28 percent in 2008.

[13] This section provides an overview of the proposed housing goals and subgoals. The specific rationales for the home purchase subgoals and for increasing the housing goals are detailed in Sections C.1 and C.2 below.

Subgoals. In 2000 HUD discussed the option of establishing home purchase mortgage subgoals. The Department reviewed the comments on that proposal, but decided not to institute such subgoals in the final 2000 rule. In this proposed rule, the Department is proposing to establish such home purchase subgoals for 2005-2008.

Given the Administration's emphasis on increasing homeownership opportunities, including those for low and moderate-income and minority borrowers, this rule, in addition to establishing overall goals, proposes also to set subgoals for GSE mortgage purchase activities to increase financing opportunities for low and moderate-income, underserved and special affordable borrowers who are purchasing single-family homes.

Specifically, the Department is proposing subgoals for home purchase loans that qualify for the Housing Goals ("Home Purchase Mortgage Subgoal" or "Subgoal"). As discussed in Section C.1 below and in Chapter IV, the Department's analysis shows that the GSEs historically have not been leading the market in purchasing single-family, owner-occupied loans that qualify for the Housing Goals. The purpose of the Home Purchase Mortgage Subgoals is to assure that the GSEs focus on financing home purchases for the homeowners targeted by the Housing Goals. The Department believes that the establishment of Home Purchase Mortgage Subgoals will place the GSEs in an important leadership position in the Housing Goals categories while also facilitating homeownership. The GSEs have years of experience in providing secondary market financing for single-family properties and are fully capable of exerting such leadership.

As detailed in Chapter IV, evidence suggests that there is a significant population of potential homebuyers who are likely to respond well to increased homeownership opportunities produced by increased GSE purchases in this area. Immigrants and minorities, in particular, are expected to be a major source of future homebuyers**.** Furthermore, studies indicate the existence of a large untapped pool of potential homeowners among the rental population**.** Indeed, the GSEs' recent experience with new outreach and affordable housing initiatives confirms this potential.

Thus, the Department is proposing to establish Subgoals for home purchase loans that qualify for the three Housing Goals to encourage the GSEs to take a leadership position in creating homeownership financing opportunities within the categories that Congress expressly targeted with the Housing Goals. The specific rationales for the Subgoals are discussed further in Section C.1 below.

Under this proposed rule, performance on the Home Purchase Mortgage Subgoals would be calculated as goal-qualifying percentages of the GSEs' total purchases of mortgages that finance purchases of single-family, owner-occupied properties located in metropolitan areas, based on the owner's income and the location of the property.[14] Specifically, for each GSE the following subgoals would apply:

[14] These proposed goals are expressed in terms of percentages of mortgages financed on owner-occupied 1-4 unit homes, rather than in terms of the shares of dwelling units in such properties. This departure from the normal units-based approach is due to the fact that the primary mortgage market data, provided in accordance with the Home Mortgage Disclosure Act, do not indicate the numbers of units in properties

- 45 percent of home purchase mortgages purchased by the GSE in metropolitan areas must qualify under the Low- and Moderate-Income Housing Goal in 2005, 46 percent in 2006, and 47 percent in 2007 and 2008;

- 33 percent of home purchase mortgages purchased by the GSE in metropolitan areas must qualify under the Underserved Areas Housing Goal in 2005, 34 percent in 2006, and 35 percent in 2007; and

- 17 percent of home purchase mortgages purchased by the GSE in metropolitan areas must qualify under the Special Affordable Housing Goal in 2005, 18 percent in 2006, and 19 percent in 2007 and 2008.

If the proposed subgoals had been in effect in recent years, the GSEs' average performance would have been:[15]

- On the Low- and Moderate-Income subgoal, Fannie Mae's average performance in 2001-02 would have been 42.7 percent, while Freddie Mac's average performance would have been 41.0 percent;

- On the Underserved Areas subgoal, Fannie Mae's average performance in 2001-02 would have been 31.1 percent, while Freddie Mac's average performance would have been 29.5 percent; and

- On the Special Affordable subgoal, Fannie Mae's average performance in 2001-02 would have been 15.3 percent, while Freddie Mac's average performance would have been 14.5 percent.

Thus Fannie Mae and, especially, Freddie Mac would have had to increase their subgoals' performance somewhat to achieve these home purchase subgoals. But the Department's analysis of mortgage market origination data clearly indicates that the proposed subgoals are feasible. Further analysis of the GSEs' performance on the subgoals is provided in Sections C.1 and C.4.

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financed. Thus units-based market estimates are not possible for home purchase mortgages, but mortgage-based market estimates can be made.

[15] The 1999-2002 performance data for the GSEs reported below and in several places in this chapter have been adjusted to account for 2000 Census data (e.g., the increased number of census tracts that qualify for the underserved areas goal) and for OMB's new definitions of metropolitan areas. This adjustment was made so that the historical performance data will be consistent with how future GSE performance will be measured under the proposed goals and subgoals. The adjusted 1999-2002 subgoal percentages reported in this chapter will differ from similar percentages reported in Chapter IV, which focuses on the GSEs' historical performance compared with the primary market, and necessarily uses 1990-based census data as well as definitions of metropolitan areas that were in effect in 2002. Data reported in this chapter that are referenced as being drawn from Chapter IV are based on the 1990 Census and OMB metropolitan area definitions in effect in 2002.

B.2 Background: Feasibility of Housing Goals

An important issue with respect to determining the housing goals is the general issue of the feasibility of the specific goal targets. That is, are the goal targets feasible based on the GSEs' capacity (as indicated by past performance, for example) and by the opportunities in the marketplace. The FHEFSSA section 1336(b) states that if the Secretary determines that an enterprise has failed, or that there is a substantial probability that an enterprise will fail, to meet any of the three housing goals, the Secretary shall provide written notice to the enterprise of such a determination, the reasons for such determination, the requirement to submit a housing plan under subsection (c) of this section, and the information on which the Secretary based the determination or imposed such requirement. The enterprise may then submit to the Secretary any written information that the enterprise considers appropriate for consideration by the Secretary in determining whether such failure has occurred or whether the achievement of such goal was or is feasible. The Secretary shall then determine (i) whether the enterprise has failed, or there is a substantial probability that the enterprise will fail, to meet the housing goal, and (ii) whether (taking into consideration market and economic conditions and the financial condition of the enterprise) the achievement of the housing goal was or is feasible; and only if the goal is determined to be feasible may the Secretary take further regulatory action.

The feasibility of the housing goals is one factor in HUD's providing a range of market estimates, in order to allow for some variation in economic and mortgage market conditions during the 2005-08 period covered by the new goals. The discussion below of the proposed and alternative housing goals will present additional information related to the likely feasibility of the housing goals. These will include a range of indicators and analyses—comparing the GSEs' past performance with the new housing goal targets, projecting the GSEs' baseline performance under different market conditions (i.e., estimating what each GSE's goals performance would be assuming no change in the goal targets), estimating the additional goals-qualifying purchases needed for each GSE to meet the new goal targets, expressing the additional goals-qualifying purchases as a share of the number of loans originated in the non-GSE portion of the conventional conforming market, and considering the effects on the GSEs' financial returns as explained in Chapter VI. To meet the proposed higher goals in 2008 will require that the GSEs expand their level of involvement in the markets for mortgages on single-family rental housing and multifamily properties. Freddie Mac's performance has lagged behind Fannie Mae's, so Freddie Mac will need to take particularly major actions to bring its performance level up to the required levels.

The proposed housing goals and subgoals are based on a recognition that there is substantial room for the GSEs to grow in certain market segments. For example, consider the comparison provided in Chapter IV of the GSEs' role in the overall market with their role in the special affordable market. Between 1999 and 2002 the GSEs' purchases provided financing for approximately 23.6 million dwelling units, which represented 49 percent of the estimated 48.3 million single-family and multifamily units that were financed in the conventional conforming market in that 4-year period.

However, in the special affordable part of the market, the 4.6 million units that were financed by GSE purchases represented only 35 percent of the estimated 13.2 million dwelling units that were financed in the market. Thus, even though the GSEs may find certain segments of the special affordable market challenging, these data suggest there is room for the GSEs to improve their performance in the remaining 65 percent of the special affordable market. Additional comparisons will be made in the discussion below.

C. Analysis of Proposed Goals and Subgoals

This section summarizes the basic rationales for the proposed GSE housing goals and the proposed home purchase subgoals. The goals and subgoals are both integral parts of HUD's overall proposal—the subgoals, to encourage the GSEs to purchase home mortgages that reduce interest costs and improve credit access for lower-income homebuyers, and the overall goals, to ensure that the GSEs also continue their support for affordable rental housing and facilitate mortgage refinancings, which improve housing affordability and provide a source of funds for homeowners to purchase other items. This section looks at the rationale, benefits, and costs of both the proposed goals and subgoals. The main benefit includes enhanced financing of mortgages for lower-income and underserved families that qualify for the goals. To provide some indication of the likely impacts of the goals, this section also summarizes various activities the GSEs have undertaken in response to the housing goals in recent years and that may continue to be taken in response to these proposed goals, including, for example, increased flexibility in their mortgage underwriting, introduction of special affordable products, purchases of seasoned mortgages from portfolio lenders, stepped-up purchases in mortgage markets where they have traditionally played a minor role, and an enhanced role in the subprime mortgage market. Sections D and E below consider two alternatives—one set which would establish higher targets and one set which would establish lower targets.

C.1 Rationale for Home Purchase Subgoals

This section and section C.2 discuss the main reasons that underlie HUD's proposal to increase the levels of the goals and establish home purchase subgoals. The purpose is to summarize the benefits of introducing the new home purchase subgoals and of increasing the targets on the overall housing goals. Thus, these sections highlight the nature of the benefits from the housing goals, as well as providing a necessary background for examining the impacts of the proposed goals and of alternative sets of goals in later sections. This discussion draws heavily from Chapter IV of this Economic Analysis and from the Preamble and the summary sections of Appendixes A-C of the proposed GSE Rule. (Readers who are familiar with HUD's proposal as presented in the preamble and appendixes may wish to skip to Section C.3.)

As explained below, meeting the home purchase subgoals will assist the GSEs in meeting the overall goals. Thus, this section focuses on the home purchase subgoal, while the next section examines the overall housing goals. Because of the importance of home purchase loans in the GSEs' overall business, the GSEs' performance on the home purchase subgoals will impact their performance on the overall goals. Therefore, there is some overlap in the various rationales for the subgoals and overall goals.

a. Ability to Lead the Home Purchase Market

As explained in Appendix A of the proposed GSE Rule, the GSEs have the ability to lead the primary market for single-family-owner loans, which is the "bread-and-butter" of their business. Both GSEs have long experience in purchasing home purchase loans and have developed enormous capacity in funding single-family loans in the conventional conforming market. Their underwriting standards and purchase guidelines are used by primary lenders throughout that market; the GSEs have also taken the lead in the introduction of new technologies (e.g., automated underwriting) in this market. Thus, there is no issue of the degree to which the GSEs can penetrate the market, as there is with the single-family rental and multifamily markets (see discussion below)—together, the GSEs fund the majority of new originations in the conventional conforming market. In addition, because the subgoals focus on home purchase loans, and thus do not include refinance loans, there is no "denominator" issue involved which could impose difficulties in meeting the subgoals during heavy refinance waves such as those in 1998 and 2001-2003. To conclude, there is no reason that the GSEs cannot lead the market in purchasing affordable home loans.

b. The GSEs Have Historically Lagged the Home Purchase Market

Even though the GSEs have the ability to lead the primary market for single-family home purchase loans, they have not done so under the housing goals. Section D of Chapter IV of this Economic Analysis provides a detailed analysis of the GSEs' performance in purchasing home loans for first-time homebuyers and for borrowers that qualify for the housing goals. While the GSEs have significantly improved their performance, they have generally lagged the primary market in funding goals-qualifying loans since FHEFSSA was enacted in 1992. For example, between 1999 and 2002, borrowers with income below area median accounted for 43.1 percent of the conventional conforming primary market (without B&C loans), but only 41.4 percent of Fannie Mae's loans and 40.9 percent of Freddie Mac's home purchase loans.[16] During the same time period, loans qualifying as underserved accounted for 31.5 percent of the conventional conforming primary market, but only 29.5 percent of Fannie Mae's loans and 28.3 percent of Freddie Mac's home purchase loans.

[16] Note that these percentages differ from those reported in Table 4.8 of Chapter IV, which gives the following 1999-2002 averages for low-mod loans: 42.5 percent for Fannie Mae, 42.3 percent for Freddie Mac, and 44.3 percent for the conventional conforming market (without B&C loans). As explained in an earlier footnote, the historical performance data for the GSEs reported in this chapter have been adjusted to account for 2000 Census data and OMB's new definitions of metropolitan areas. The various percentages reported in Chapter IV use 1990-based census data and definitions of metropolitan areas that were in effect between 1993 and 2002.

c. The GSEs Have Improved Their Home Purchase Performance

While the GSEs have lagged the primary market, they have demonstrated that they can improve their performance, which suggests they have the capacity to lead the market in purchasing home loans covered by the housing goals. Along with mortgage lenders and private mortgage insurers, Fannie Mae and Freddie Mac have expanded their programs and implemented underwriting changes for purposes of increasing their business at the lower-income end of the market. Section F of Chapter IV reviews the wide variety of affordable lending initiatives that the industry and the GSEs have undertaken during the past few years. These initiatives are having an impact; for example, Home Mortgage Disclosure Act (HMDA) data indicate that conventional home purchase loans to low-income and minority borrowers have increased at much faster rates than loans to other borrowers (see Section C.2 of Chapter IV).

As a result of their efforts, the performance of both GSEs in funding historically underserved borrowers has significantly increased since 1993, when the housing goals were first put in place. For example, the special affordable share of Freddie Mac's purchases of home loans increased from 6.5 percent in 1992 to 15.8 percent in 2002; in addition, Freddie Mac's recent performance has been much closer to the market than its earlier performance. The special affordable share of Fannie Mae's purchases also increased, from 6.3 percent in 1992 to 16.3 percent in 2002.[17] (See Table 4.10 in Chapter IV.) It is also encouraging that Fannie Mae markedly improved its affordable lending performance relative to the market during 2001 and 2002, the first two years of HUD's higher housing goal levels. Fannie Mae's average performance during 2001 and 2002 approached the market on the special affordable and underserved areas categories and matched the market on the low-mod category. Chapter IV documents the recent improvement of both GSEs during 2001 and 2002 under the higher housing goal targets that HUD implemented in 2001. This experience demonstrates that the GSEs can improve their performance and that they have the capacity to lead the single-family market in purchasing goals-qualifying loans.

d. Need Continues to Exist

Section B of Chapter IV documents the substantial need for improved credit access for lower-income families and for those living in historically underserved neighborhoods (i.e., low-income and high-minority census tracts). There remain troublesome disparities in our housing and mortgage markets, even after the "revolution in affordable lending" and the growth in homeownership that has taken place since the mid-1990s. The homeownership rate for African-American and Hispanic households remains 25 percentage points below that of white households. In 2002, the mortgage denial rate for African-American borrowers was over twice that for white borrowers, even after controlling for the income of the borrower. There is growing evidence that

[17] These special affordable percentages are based on 1990-based Census data and OMB definitions of metropolitan areas in effect during 2002.

inner city neighborhoods are not always being adequately served by mainstream conventional lenders, leaving those areas to higher-cost subprime and FHA lenders.

The GSE housing goals are designed to provide one mechanism for addressing these credit problems. For example, consider the underserved areas goal, which is highly targeted to areas experiencing credit problems. The existence of substantial neighborhood disparities in mortgage credit is well documented for metropolitan areas. Research has demonstrated that census tracts with lower incomes and higher shares of minority population consistently have poorer access to mortgage credit, with higher mortgage denial rates and lower origination rates for mortgages (see Appendix B of the proposed GSE Rule). Thus, the income and minority composition of an area is a good measure of whether that area is being underserved by the mortgage market.[18] Research supports a targeted neighborhood-based definition of underservice, along the lines of the current goal definition.[19]

As discussed in Section B.6 of Chapter IV, there is also a large potential population that could benefit from affordable initiatives introduced by the GSEs to meet the two borrower low-income goals. Numerous surveys by Fannie Mae and other industry organizations show that current renters have a strong desire to become homeowners and hope to do so in the near future. Changing population demographics will result in a need for primary and secondary mortgage markets to meet nontraditional credit needs, respond to diverse housing preferences, and overcome information and other barriers that many immigrants and minorities face. Growing housing demand from immigrants (both those who are already here and those projected to come) and non-traditional homebuyers will help to offset declines in the demand for housing caused by the aging of the population. Immigrants and other minorities—who accounted for nearly 40 percent of the growth in the nation's homeownership rate over the past five years—will be responsible for almost two-thirds of the growth in the number of new households over the next ten years. As these demographic factors play out, the overall effect on housing demand will likely be sustained growth and an increasingly diverse household population from which to draw new renters and homeowners. These are the types of borrowers targeted by the special affordable goal and, to a lesser extent, by the low-mod goal.

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[18] Studies conclude that characteristics of mortgage loan applicants and the neighborhood where the property is located are the major determinants of mortgage denial rates and origination rates. Once these characteristics are accounted for, other influences, such as location in a central city, play only a minor role in explaining disparities in mortgage lending.

[19] As detailed in Appendix B of the proposed GSE rule, "underserved" means those areas that have an unmet demand for mortgage credit. An important issue in HUD's 1995 rule was the degree to which geographic areas under this goal should be targeted. The selection of a targeted approach in metropolitan areas has the benefit of more efficiently directing mortgages to those urban neighborhoods that have previously lacked access to mortgage credit. The Department adopted a targeted approach in the 1995 final rule, and continued and refined it in the 2000 final rule.

Thus, while the GSEs have offered new affordable products and reached out to underserved borrowers over the past few years, there remains much more that they can do under both the three housing goals and the home purchase subgoals.

e. Opportunities Exist for the GSEs to Improve Further

As the above discussion suggests, home purchase loans that qualify for the housing goals will continue to be available for the GSEs to purchase, which means the GSEs can improve their performance and lead the primary market in purchasing loans for lower-income borrowers and properties in underserved areas. Chapter IV discusses the following specific indicators:

First, the affordable lending market has shown an underlying strength over the past few years that is unlikely to vanish (without a significant increase in interest rates or a decline in the economy). Since 1999, the shares of the home purchase market accounted for by the three goal categories are as follows: 16.3 percent for special affordable, 31.5 percent for underserved areas, and 43.1 percent for low- and moderate-income.[20]

Second, market share data reported in Section H of Chapter IV show that approximately half of newly-originated loans that qualify for the housing goals are not purchased by the GSEs. The situation is even more extreme for special sub-markets such as the minority first-time homebuyer market, where the GSEs have only a minimal presence. In terms of the overall mortgage market (both conventional and government), the GSEs funded only 24 percent of all first-time homebuyers and 17 percent of minority first-time homebuyers between 1999 and 2001. Similarly, during the same period, the GSEs funded only 40 percent of first-time homebuyers in the conventional conforming market, and only 33 percent of minority first-time homebuyers in that market.

Finally, the GSEs' purchases that can count toward the subgoal are not limited to new mortgages that are originated in the current calendar year. The GSEs can purchase loans from the substantial, existing stock of affordable loans held in lenders' portfolios, after these loans have seasoned and the GSEs have had the opportunity to observe their payment performance. In fact, based on Fannie Mae's recent experience, the purchase of seasoned loans appears to be one useful strategy for purchasing goals-qualifying loans.

C.2 Rationale for Higher Levels of Overall Housing Goals

The Department is proposing to increase the housing goal levels for 2005 at 52 percent for the Low- and Moderate-Income Housing Goal, 22 percent for the Special Affordable Goal, and 38 percent for the Underserved Areas goal, and then to increase the goals further in annual steps through 2008. After commenting on the GSEs' recent performance under the housing goals, this section discusses the rationale for increasing the housing goals to these levels.

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[20] Percentages are based on 2000 Census data and new OMB definitions of metropolitan areas.

Many housing industry participants and analysts believe that the overall housing goals established by HUD have been a major factor underlying the increases in the GSEs' affordable lending performance in recent years. Fannie Mae's performance on the low-mod goal rose by 50 percent, from 34.2 percent in 1993 to 51.2 percent in 2000, the peak year for its low-mod performance; Fannie Mae's performance during the heavy refinancing years of 2001 and 2002 was 48.7 percent and 47.9 percent, respectively. Freddie Mac's record showed a 69 percent improvement over this same period, rising from 29.7 percent in 1993 to 50.2 percent in 2000; Freddie Mac's performance during the heavy refinancing years of 2001 and 2002 was 47.0 percent and 45.0 percent, respectively. During the 1996-2002 period, Fannie Mae's performance on the special affordable goal increased from 16.7 percent to 21.7 percent, before falling to 19.4 percent by 2002, while Freddie Mac's performance on the special affordable goal increased from 14.0 percent to 20.8 percent, before falling to 17.8 percent by 2002 . But despite their increased performance, the GSEs have lagged significantly behind the market. Between 1999 and 2002, the GSEs' overall performance on the low-mod goal averaged slightly less than 48 percent, which was more than nine percentage points lower than the average low-mod share (57 percent) of the primary conventional conforming market. Thus, this section also discusses issues related to the GSEs' performance relative to the market.

The reasons the Department is proposing to increase the level of the housing goals are summarized below. For a more extensive discussion, see the Preamble and the summary sections of Appendices A-C of the proposed GSE Rule.

a. Factors Listed Above for the Home Purchase Subgoals

The GSEs' purchases covered by the proposed home purchase subgoals account for a significant portion of the GSEs' business. Therefore, the various reasons given above for proposing new home purchase subgoals also apply to increasing the overall housing goals. Briefly, the reasons are (1) the GSEs have the resources and the ability to lead the market in providing affordable loans; (2) the GSEs have not led the market, even though they have the ability to do so; (3) troublesome disparities in our housing and mortgage markets indicate a continuing need for increased GSE activity; and (4) there are ample opportunities for the GSEs to improve their performance in the home purchase market. The remainder of the discussion provides a more complete picture of the GSEs' activities, including the refinance portion of the single-family-owner market and the rental portion of the market.

b. Continued Need in the Overall Market

This section focuses on needs in the portions of the overall market not included in the home purchase subgoals—namely, the rental market (both multifamily and single-family rental units) and the refinance mortgage market, as they affect families targeted by the housing goals.

"Worst Case" Renters. With regards to renters, data from the American Housing Survey demonstrate that there are substantial housing needs among low- and moderate-income families, especially among lower-income and minority families in this group. Many of these households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's "Worst Case Housing Needs" report, 5.07 million very low-income unassisted renter households paid more than 50 percent of their income for housing or lived in seriously inadequate housing in 2001. This was up from the corresponding figure of 4.86 million "worst case needs" in 1999.[21]

Other renters. This "Worst Cases" study focuses on the problems faced by very low-income renters—those with incomes less than 50 percent of area median family income. But it also contains information on renters with incomes between 51 percent and 80 percent of area median income (referred to here as "R51-80 renters")—these families' units would also qualify under HUD's low- and moderate-income goal. Their problems are not as severe as those in the "Worst Cases" category, but they are significantly greater than those faced by higher-income renters, especially those with incomes in excess of 120 percent of area median income (referred to here as "R120+ renters"). For example, 30.5 percent of R5180 renters paid more than 30 percent of their income in rent, while only 2.5 percent of R120+ renters were in this category. And 36.8 percent of R5180 renters reported priority problems or "other problems," well above the corresponding figure of 11 percent for R120+ renters. On the other side, 87.8 percent of R120+ renters reported no problems, much higher than the 58.5 percent of R5180 renters.

Needs of single-family renters. One particular area where the GSEs could play a greater role is in the mortgage market for single-family rental dwellings. These properties, containing 1-4 rental units, are an important source of housing for low- and moderate-income families, but the GSEs have not played a major role in this mortgage market. The Department recognizes that such properties, which are generally owned by "mom and pop" businesses, are not financed in the secondary market to the same extent as mortgages on one-unit owner-occupied properties. Single-family rental properties are very heterogeneous, making it more difficult to develop standardized underwriting standards for the secondary market. However, the GSEs can do more to play a leadership role in providing financing for such properties. They have increased their role in this market in the 2001-03 period, and the experience from that period should enable them to further step up their participation.

Benefits of Refinancing to Targeted Families. HUD's proposed home purchase subgoals do not indicate that the Department is unmindful of the benefits of refinancings to families targeted by the overall housing goals. Borrowers typically refinance their mortgages in order to lower the interest rate on their loans, to change the term (duration) of the mortgage, or to undertake "cash-out refinancings," in which the new loan amount exceeds the unpaid principal balance on their previous loan. Thus under a "cash-out refi"

[21] *Trends in Worst Case Needs for Housing, 1978-1999*, Department of Housing and Urban Development, Office of Policy Development and Research, (December 2003).

a borrower taps into the equity on his home to finance other expenses, which may or may not be housing-related. Borrowers whose main goal is a rate reduction generally refinance in low interest rate periods, but "cash-out" refinancers may be less sensitive to interest rate changes. Higher-income borrowers are most likely to refinance their loans when interest rates are lowest, as shown in a recent HUD study, which presented the distribution of refinance mortgages by income level for the 1998-2000 period.[22] That study also presented average interest rates for this period, as reported by the Federal Housing Finance Board—these ranged from 7.10 percent in 1998 to 7.96 percent in 2000. Nearly 60 percent of refinancers with incomes in excess of area median income took out their new loans in 1998, when mortgage rates were at the lowest level of this period, but only 47 percent of very low-income refinancers took advantage of these lowest rates. In contrast, only about 10 percent of above-median income refinancers were in the market in the higher interest rate year of 2000, compared with 17 percent of very low-income refinancers. Thus, higher-income borrowers tend to dominate the market during heavy refinance years such as 1998.

Data on the interest rates on individual loans is not available, but the timing of refinancings suggests that on average lower-income families paid higher rates on their refinancings than higher-income borrowers for the 1998-2000 period as a whole. This may reflect better knowledge of the benefits of refinancing among higher-income borrowers, or it may be because lower-income borrowers are more likely to take out "cash-out refis." Whatever the case, this data demonstrates the potential benefits of refinancings to lower-income homeowners, and it indicates that there would be benefits from better educating lower-income homeowners about the gains from refinancing their loans in low-interest rate periods.

c. Market Opportunities in the Overall Market

The GSEs appear to have substantial room for growth in serving the overall affordable housing mortgage market. As shown in Table 4.4 of Chapter IV, Fannie Mae and Freddie Mac accounted for 49 percent of the total (single family and multifamily) conventional, conforming mortgage market between 1999 and 2002. In contrast, GSE purchases comprised 42 percent of the low- and moderate-income market, 41 percent of the underserved areas market, and a still smaller 35 percent of the special affordable market. Thus, 58-65 percent of the goals-qualifying markets has not yet been touched by the GSEs. The GSEs' presence in mortgage markets for rental properties, where much of the nation's affordable housing is concentrated, is below that in the single-family-owner market. The GSEs' share of the rental (both single-family and multifamily) market was only 30 percent during the 1999-to-2002 period. Obviously, there is room for the GSEs to increase their presence in the single-family rental and multifamily rental markets. As noted below, it is recognized that the GSEs will face challenges in these markets, and may never penetrate them to the same degree that they penetrate the single-family-owner market. But their low current market shares suggest that there are ample opportunities

[22] Paul B. Manchester, *Goal Performance and Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1998-2000*, Working Paper in Housing Finance No. HF-015, May 2002.

for the GSEs to increase their presence in these markets and improve the affordability of rental housing for low-income families. Likewise, studies show there are opportunities for the GSEs to improve their purchases in underserved areas. Between 1999 and 2002, Fannie Mae' baseline performance on the underserved areas goal averaged 35 percent, while Freddie Mac's performance averaged 33 percent—by comparison the market average was much higher, at 39 percent.

The GSEs have indicated that they expect their role in the mortgage market to continue to increase in the future, as they develop new products, refine existing products, and enter markets where they have not played a major role in the past. The increased housing goals and new subgoals anticipate that their involvement in the targeted end of the mortgage market will continue to increase. There are a number of segments of the single-family-owner, single-family rental and multifamily markets that the GSEs have not tapped and where the GSEs might play an enhanced role, thereby increasing their shares of targeted loans and their performance under the housing goals. These areas are discussed in the Appendices A-C of the proposed GSE rule and Chapters 4 and 5 of this Economic Analysis.

d. Impact of Multifamily Mortgage Purchases on Goal Performance

Fannie Mae and, especially, Freddie Mac have rapidly expanded their presence in the multifamily mortgage market under the housing goals. In the past, the limited role of the GSEs, and particularly Freddie Mac, has been a constraint limiting the increase in the housing goals. Freddie Mac has successfully rebuilt its multifamily acquisition program, as shown by the increase in its purchases of multifamily mortgages: from $27 million in 1992 to $3 billion in 1997 and then to approximately $7 billion during the next three years (1998 to 2000), before rising further to $11.9 billion in 2001, and $14.3 billion in 2002. Multifamily accounted for 9.1 percent of all dwelling units (both owner and rental) financed by Freddie Mac between 1999 and 2001. Concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to the housing goals. Fannie Mae never withdrew from the multifamily market, but it has also stepped up its activities in this area substantially, with multifamily purchases rising from $3.0 billion in 1992 to $9-10 billion in 1999 and 2000, and over $18 billion in 2001 and 2002. Multifamily accounted for 10.6 percent of all dwelling units (both owner and rental) financed by Fannie Mae between 1999 and 2001. During the heavy refinancing year of 2002, multifamily units accounted for slightly over seven percent of all dwelling units financed by both Fannie Mae and Freddie Mac.

The increased role of Fannie Mae and Freddie Mac in the multifamily market has major implications for the Low- and Moderate-Income Housing and Special Affordable Goals, since a very high percentage of multifamily units have rents which are affordable to low- and moderate-income and special affordable families. However, the potential of the GSEs to lead the multifamily mortgage industry has not been fully developed. The GSEs' purchases between 1999 and 2002 accounted for only 30 percent of the multifamily units that received financing during this period. Certainly there are opportunities and room for expansion of the GSEs' share of the multifamily mortgage market. The GSEs' size and market position between loan originators and mortgage investors make them the logical institutions to identify and promote needed innovations and to establish standards that will improve market efficiency. As their role in the multifamily market continues to grow, the GSEs will have the knowledge and market presence to push simultaneously for standardization and for programmatic flexibility to meet special needs and circumstances, with the ultimate goal of increasing the availability and reducing the cost of financing for affordable and other multifamily rental properties.

e. Proposed Goal Levels More Consistent with Market Shares

One factor that HUD is required to take into account in establishing the housing goals is the size of the conventional conforming mortgage market serving families eligible to obtain mortgage financing that would qualify under each goal, relative to the size of the overall conventional conforming mortgage market. HUD's market share methodology and specific estimates of the size of the low- and moderate-income market are discussed in detail in Appendix D of the proposed GSE rule. The market estimates for the years covered by the new housing goals (2005-2008) are as follows:

- 51-57 percent for the Low- and Moderate-Income Housing Goal
- 24-28 percent for the Special Affordable Housing Goal
- 35-40 percent for the Underserved Areas Housing Goal (based on 2000 Census geography).

The 51-57 percent estimate is interpreted as follows: 51-57 percent of all dwelling units (both owner and rental) that are financed in the conventional conforming market qualify for the low- and moderate-income goal. The market estimates include the effects of all three major property types: (1) single-family-owner-occupied units, (2) single-family-rental units, and (3) multifamily units. The market estimates exclude the B&C (subprime loans that are not A-minus grade) portion of the subprime market.

There are two reasons that each market estimate is reported as a range, rather than as a point estimate. First, a variety of data sources had to be pulled together and several assumptions had to be made in order to produce a market estimate that covered both the owner and rental markets; thus, the range incorporates some degree of uncertainly around the various estimates (such as the size of the multifamily market), although sensitivity analyses reported in Appendix D of the proposed GSE Rule indicate that the estimates are robust with respect to reasonable changes in assumptions. Second, and more importantly, the estimates are expressed as ranges to allow for economic and market affordability conditions that are more adverse than recent conditions. The low-end of each range reflects market conditions (e.g., high interest rates) that might limit the entry of lower-income families into the mortgage market, as compared with recent periods of record housing affordability. Appendix D provides examples of the mortgage market environments that are captured by the above market ranges. The last few years have been characterized by record affordability conditions and high market shares for goals-qualifying loans. As shown in Table 3.1, the low-mod market averaged 57 percent between 1999 and 2002, while the special affordable market and the underserved areas market averaged 28 percent and 39 percent, respectively.[23] [24]

The relationship of the proposed goal levels to the market shares will be discussed in more detail later. However, as background for that discussion, a few points can be made at this stage based on the information in Table 3.1.

First, the GSEs' performance on all of the Housing Goals has been significantly below the market average.[25] As shown in Table 3.1, Freddie Mac's average performance on the low-mod goal was 47 percent between 1999 and 2002, compared with the market average of 57 percent. Fannie Mae's average performance on the underserved areas goals has been 35 percent, compared with a market average of 39 percent. Thus, there appears to be substantial room for the GSEs to grow in serving the affordable housing mortgage market. And of course, the higher housing goal levels are intended to encourage this growth and move the GSEs closer to the market.

Second, the high end of the range for HUD's 2005-2008 market estimates is the same or within one percentage point of the 1999-2002 average of the market levels for the Housing Goals. Thus, as noted earlier, the market range incorporates estimates for more adverse economic and housing affordability environments than have existed recently.

Third, it is evident from Table 3.1 that the proposed 2005 level (22 percent) for the Special Affordable Housing Goal is below the low end (24 percent) of HUD's projected market range for 2005-2008. The proposed level (52 percent) of the Low- and Moderate-Income Housing Goal is at the low-end of HUD's market estimate range. The proposed goal level for underserved areas is in the middle of the market range. These goal levels present modest challenges to the GSEs as they develop and implement their

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[23] As noted earlier, the analysis reflected in Table 3.1 is based on 2000 census data and the metropolitan area boundaries specified in June 2003 by the Office of Management and Budget. This affects the market percentages for all three housing goals, as well as the figures on area median incomes and minority percentage figures that will be used to measure GSE performance on the housing goals beginning in 2005. For example, expressing the Underserved Areas Goal in terms of 2000 Census data adds approximately 5 percentage points to the Housing Goal and market levels, compared with analysis using 1990-based geography.

[24] It should be noted that the market shares were lower than the reported averages during the two heavy refinance years of 2001 and 2002, due mainly to a reduction in the low-income share of the single-family-owner refinance market and to a reduction in the multifamily share of the market (due to the substantial increase in single-family-refinance originations). The low-mod share of the market was 54-55 percent during these two years compared with 58-59 percent during 1999 and 2000. During 2001 and 2002, the special affordable share (underserved areas share) of the market was 26-27 percent (37-38 percent), compared with 29-30 percent (39-40 percent) during 1999 and 2000.

[25] The GSEs' baseline performance figures in Table 3.1 exclude the effects of the bonus points for multifamily and single-family 2-4 unit properties and the Temporary Adjustment Factor for Freddie Mac which were applied in official scoring toward the housing goals in 2001-2003. The Department did not extend these adjustments beyond 2003.

Table 3.1

Percentages of Eligible Units Financed and HUD's Proposed Housing Goals

	2001-2004 Housing Goals	2005-2008 Proposed Housing Goals				GSEs' Average Baseline Performance 1999-2002 (Fannie Mae/ Freddie Mac)	Estimated 1999-2002 Market Average[1]	HUD's Projected Market Estimate
		2005	2006	2007	2008			
Low- and Moderate-Income	50%	52%	53%	55%	57%	49% 47%	57%	51-57%
Underserved Areas	31%	38%	39%	39%	40%	35% 33%	39%	35-40%
Special Affordable	20%	22%	24%	26%	28%	20% 19%	28%	24-28%

[1] See Appendix D for reasons why the 1999-2002 average market estimate for special affordable loans is at the top end of the market range projected for the years 2005-2008.

strategies for attaining the successively higher levels of the goals as established for 2006, 2007, and 2008.

Fourth, it should be noted the underserved areas goal was affected by the introduction of new 2000 Census data. As explained in Appendix D of the proposed GSE Rule, the expansion in the number of 2000-based census tracts increased the underserved areas market by approximately five percentage points. HUD increased the proposed goal an additional two percentage points for reasons similar to those discussed above for the home purchase subgoals—(1) a more active GSE secondary market in inner city neighborhoods will help reduce existing lending disparities by encouraging mainstream lenders to lend in those neighborhoods; (2) because the GSEs have lagged the primary market in purchasing loans in these neighborhoods, there is ample room for them to improve their performance; and (3) the GSEs have the ability to lead the market in underserved areas. Section I of Appendix B of the proposed GSE Rule details these reasons. Section IV of this Economic Analysis provides information on the size of the market available to the GSEs in these areas.

f. Ability of the GSEs to Lead the Overall Market

Given that the proposed housing goals are set below the market levels, this raises a question about whether the goals should be set higher so that the GSEs would be leading the market. It was Congress' intention that the ability of the GSEs to lead the industry be an important factor in setting the overall housing goals. The legislative history of FHEFSSA indicates Congress's strong concern that the GSEs need to do more to benefit low- and moderate-income families and residents of underserved areas that lack access to credit.[26] The Senate Report on FHEFSSA emphasized that the GSEs should "lead the mortgage finance industry in making mortgage credit available for low- and moderate-income families."[27] FHEFSSA, therefore, specifically required that HUD consider the ability of the GSEs to lead the industry in establishing the level of the housing goals. FHEFSSA also clarified the GSEs' responsibility to complement the requirements of the Community Reinvestment Act[28] and fair lending laws[29] in order to expand access to capital to those historically underserved by the housing finance market.[30]

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[26] See, e.g., S. REP. at 34.

[27] S. REP. at 34.

[28] 12 U.S.C. 2901 et seq.

[29] See section 1335(3)(B).

[30] While leadership may be exhibited through the GSEs' introduction of innovative products, technology, and processes and through establishing partnerships and alliances with local communities and community groups, leadership must always involve increasing the availability of financing for homeownership and affordable rental housing. Thus, the GSEs' obligation to "lead the industry" entails leadership in facilitating access to affordable credit in the primary market for borrowers at different income levels and housing needs, as well as for underserved urban and rural areas.

The earlier discussion of the home purchase subgoals argued that the GSEs have the ability to lead the market in purchasing home loans—a market in which they clearly dominate. With the background information presented in the previous section, the question of why the overall goal levels are not set at or above the market levels can be addressed. Particularly important are why the special affordable goal level is set below the market range, and why the Low- and Moderate-Income Housing Goal is set only at the low end of the market range. One factor concerns the GSEs' performance. An analysis of their purchases by property type shows that they have much less presence in the "goals rich" rental segments of the market, as compared with the "less-goals-rich" owner segment of the market.

As shown in Table 4.4 of Chapter IV, GSE mortgage purchases represented only 27 percent of single-family rental units financed between 1999 and 2002, and only 30 percent of multifamily units financed during that time period—both figures are much lower than their 57 percent market share for single-family owner-occupied properties. Typically, about 90 percent of rental units in single-family rental and multifamily properties qualify for the Low- and Moderate-Income Housing Goal, compared with about 44 percent of owner units. Corresponding figures for the Special Affordable Housing Goal are approximately 60 percent of rental units and 16.4 percent of owner units. Thus, one reason that the GSEs' performance under the Low- and Moderate-Income Housing and Special Affordable Housing Goals falls short of HUD's market estimates is that the GSEs have had a relatively small presence in the two rental market segments, notwithstanding that these market segments are important sources of affordable housing and important components in HUD's market estimates.

In the overall conventional conforming mortgage market, rental units in single family properties and in multifamily properties are expected to represent approximately 30 percent of the market, 45 percent of the units that collateralize mortgages qualifying for the Low- and Moderate-Income Housing Goal, and 60 percent of the units that collateralize mortgages qualifying for the Special Affordable Housing Goal. Yet between 1999 and 2002, units in such properties accounted for only 17 percent of the GSEs' overall purchases, 31 percent of the GSEs' purchases meeting the Low- and Moderate-Income Housing Goal, and 44 percent of the GSEs' purchases meeting the Special Affordable Housing Goal.[31]

The continuing weakness in GSE purchases of mortgages on single-family rental and multifamily properties is a major factor explaining the shortfall between GSE performance and that of the primary mortgage market. For a variety of reasons discussed in the appendices to the proposed GSE Rule, the single-family rental and multifamily market segments have been more difficult for the GSEs to penetrate than the single-family owner-occupied mortgage market, although, as noted above, the GSEs have been increasing their purchases in the multifamily market.[32] The GSEs will now have to make

[31] These percentage shares are computed from Table 4.4 in Chapter IV. Note that B&C loans are excluded from these data.

[32] One particular area where the GSEs could play a greater role is in the mortgage market for single-family rental dwellings. These properties, containing 1-4 rental units, are an important source of housing for low-

up gaps and lead in markets in which they can do well, while also increasing their presence in the single-family rental and multifamily rental markets. The approach taken in the proposed rule for staged increases in the goals until they are at the top of the estimated market range will enable the GSEs to take new initiatives in a correspondingly staged manner to achieve the goals each year.

g. Financial Capacity to Support All Types of Affordable Housing

A wide variety of quantitative and qualitative indicators demonstrate that the GSEs' have the financial strength to improve their affordable lending performance; Section G.2 of Appendix A of the proposed GSE Rule reviews these factors in some detail. For example, the combined net income of the GSEs has risen steadily over the last 15 years, from $677 million in 1987 to $10.4 billion in 2002. This financial strength provides the GSEs with the resources to lead the industry in making mortgage financing available for families and neighborhoods targeted by the housing goals. And at the end of 2002, Fannie Mae ranked second among all American corporations in assets, and Freddie Mac ranked fourth.

h. Need to Maintain the Sound Financial Condition of the GSEs

Based on the analysis reported in Section E of Chapter VI, the proposed levels of the goals will not adversely affect the sound financial condition of the GSEs. The GSEs have earned more than reasonable returns on their goals-qualifying loans in the past, and there is no reason to believe that this will not continue. The return on equity for their goals-qualifying loans has been only slightly below that on their non-goals-qualifying loans. As discussed below, it is anticipated the GSEs will have to penetrate more deeply into the mortgage market to meet the proposed housing goals; there appear to be many opportunities for the GSEs to increase their goals-qualifying purchases in the non-GSE portion of the market. As discussed in Chapters IV and VI, the GSEs have entered new market segments (such as the subprime market) in a very prudent manner and have used numerous techniques (e.g., mortgage scorecards, loss mitigation strategies) to control their credit risk on affordable loans. Continuing to take such initiatives will be required.

C.3 Impacts of the Proposed Housing Goals

This section and the following section continue the discussion of the rationale for the proposed housing goals and home purchase subgoals by examining their likely impacts. The various impacts are examined in both qualitative and quantitative terms.

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and moderate-income families, but the GSEs have not played a major role in this mortgage market. It is recognized that such properties, which are generally owned by "mom and pop" businesses, are not financed in the secondary market to the same extent as mortgages on one-unit owner-occupied properties. Single-family rental properties are very heterogeneous, making it more difficult to develop standardized underwriting standards for the secondary market. However, the GSEs can do more to play a leadership role in providing financing for such properties. They have increased their role in this market in the 2001-03 period, and the experience from that period should enable them to further step up their participation.

The data and analysis concerning impacts also relate to the sensibility of the goals. Relevant information is provided throughout this section.

After some introductory remarks, this section provides a qualitative discussion of how the GSEs respond to the housing goals, referring to the types of activities the GSEs have implemented to meet past housing goal targets. In summary, the GSEs have introduced targeted programs, made adjustments to their underwriting standards, moved into new market areas (e.g., subprime lending), and employed various methods (e.g., partnerships with local governments and non-profit groups) to reach out to low-income borrowers and their communities—and as a result, they have improved their affordable lending performance relative to the primary market, as documented in Chapter IV. As reviewed below, the economics literature indicates that the types of programs the GSEs have introduced and the nature of their underwriting changes both have the potential to reduce well known barriers to homeownership, such as lack of downpayment and income and poor credit history. Thus, in that sense, the GSEs have been moving in the right direction, although, as discussed in Chapter IV, there remain questions about how far and how aggressive they have been in reaching out to lower income families and underserved neighborhoods.

The qualitative presentation of this section is followed in section C.4 by a quantitative analysis of characteristics of the housing and borrowers whose mortgages can be projected to be affected by the higher housing goals.

The likely impacts of higher goals on the GSEs will be similar to the activities that the GSEs have undertaken since the housing goals were put in place in 1993. These activities, such as underwriting changes and low-downpayment programs, focus on relaxing well-known barriers to homeownership. In fact, the 1990s saw a "revolution in affordable lending" characterized by new targeted programs and increased underwriting flexibility, introduced not only by the GSEs but also by primary lenders and private mortgage insurers. In general, many believe these programs had an impact on the recent growth in low-income mortgage lending and homeownership. In their analysis of the trends in homeownership rates by race and income, Bostic and Surrette find that demographic factors account for a substantial portion of the recent increase in homeownership rates for higher income households, but cannot account for increases among lower income households. They believe that this indicates that there is a potential explanatory role for recent changes in outreach by lending institutions, including the increased availability of affordable low down payment mortgages.[33] Listokin and Wyly state that the expansion of standardized, securitized affordable products in the past decade has "effectively carved out new frontiers for institutions interested in tapping new markets" (p. 605).[34] From their analysis of HMDA data, Quercia, McCarthy, and Wachter conclude that affordable lending initiatives of recent years may be having an

[33] R. W. Bostic and B. J. Surrette, "Have the Doors Opened Wider? Trends In Homeownership Rates By Race and Income," *Journal of Real Estate Finance Economics*, Volume 23, pp. 411-434.
[34] David Listokin and Elvin K. Wyly, "Making New Mortgage Markets: Case Studies of Institutions, Home Buyers, and Communities," *Housing Policy Debate*, Volume 11, Issue 3, 2000, pp. 575-644.

impact, saying HMDA data "suggest that affordable home loan programs may be increasing the flow of funds to non-traditional borrowers and communities," although they caution that the literature on this subject "lacks an examination of the potential impacts of specific affordable lending products on the homeownership propensities of underserved populations."[35]

A general discussion of the benefits and market effects of the proposed goals and subgoals are contained in Chapter IV for single-family owner properties and in Chapter V for multifamily and single-family rental properties. Some of the key insights from those discussions are summarized in the next few paragraphs. There are many strategies that the GSEs might adopt to meet the proposed affordable housing goals. These include:

- **Increased flexibility in their mortgage underwriting guidelines.** The GSEs' guidelines are used by almost all mortgage originators, even if they do not plan to sell the mortgages they originate to the enterprises. Thus, with the exception of government-backed loans such as those insured by FHA or guaranteed by the Department of Veterans Affairs, almost all mortgage loans are written using these guidelines to evaluate mortgage applications. The GSEs were criticized in the early 1990s for "plain vanilla" underwriting guidelines oriented to "cookie cutter homes in the suburbs." Over the last decade Fannie Mae and Freddie Mac have liberalized their guidelines in response to earlier concerns of this nature, and these liberalizations played a significant role in the increase in affordable lending during the 1990s and the past few years. (See Section F.3 in Chapter IV.) But further modifications, consistent with maintenance of the safety and soundness of the GSEs, could be made to facilitate additional affordable lending.

- **Enhanced focus on lower down payment mortgages.** Research by HUD has shown that many of the lower-income loans purchased by the GSEs have relatively low loan-to-value ratios (that is, relatively high down payments.) (See Appendix A of Chapter IV.) A number of studies have shown that the greatest impediment to homeownership for lower income families, minority families, and families in underserved areas is not inability to afford the requisite monthly mortgage payments, but lack of sufficient resources to make the down payment. Thus although the enterprises' purchases of affordable mortgages with high down payments count toward the housing goals, they may not address the needs of many families and geographic areas targeted by the housing goals. As discussed in Sections F.3 and F.4 of Chapter IV, the GSEs have recently been introducing low-downpayment programs aimed at wealth-constrained borrowers.

- **Purchases of portfolios of seasoned mortgages.** All targeted mortgages purchased by the GSEs count toward the housing goals, whether such mortgages were originated in the same year or whether they are seasoned mortgages, originated in a year prior to the year of purchase. The GSEs' purchases of CRA-

[35] Roberto G. Quercia, George W. McCarthy, and Susan M. Wachter, "The Impacts of Affordable Lending Efforts on Homeownership Rates," *Journal of Housing Economics*, March 2003, pp. 29-59.

type loans from bank and thrift portfolios provide additional capital and liquidity for these institutions to re-invest in their local market. In some cases the GSEs have purchased large portfolios of seasoned mortgages in which high shares of the mortgages qualify for HUD's housing goals. (See Section F.6 and Table 4.6 of Chapter IV.) Such purchases are also attractive to the GSEs because of the existence of payment history data. Thus, some degree of emphasis on acquisitions of seasoned goal-qualifying mortgages would contribute toward achievement of the proposed housing goals by the GSEs.

- **Increased role in the subprime mortgage market.** The GSEs have traditionally focused on the prime (or A) mortgage market, for borrowers with excellent credit histories. This has meant that otherwise qualified borrowers with less than excellent credit histories have been borrowing in the subprime mortgage market, where credit is much more expensive. In fact research by Freddie Mac has shown that some borrowers who could have qualified for prime loans have taken out mortgages at subprime rates. The percentage of borrowers in the subprime market who qualify for the various housing goals has consistently been higher than the corresponding percentage for prime borrowers. Thus an enhanced role for the GSEs in the subprime market would increase their performance on the housing goals, as well as reducing the cost of financing for subprime borrowers.. As explained in Section F.7 of Chapter IV, both enterprises have stepped up their presence in that market, but additional steps could be taken without endangering the GSEs' safety and soundness.

- **Further development of the GSEs' mortgage scoring systems.** The automated underwriting (AU) or mortgage scoring systems developed by Fannie Mae and Freddie Mac have revolutionized the mortgage origination process and made it possible for lenders to process record application volume in the past few years. A Freddie Mac study reviewed in Section G of Chapter IV concluded that the increased risk predictiveness of automated underwriting systems can enable lenders and the GSEs to expand homeownership opportunities among underserved populations.[36]

- **Increased outreach programs and partnership efforts.** Both Fannie Mae and Freddie Mac have made significant efforts in recent years to take the initiative and become involved in developing new programs and products that benefit families targeted by the housing goals. They have implemented their programs through numerous partnership efforts with lenders, private mortgage insurers, local governments, and non-profit groups. These programs and partnership efforts are

[36] As discussed in Chapter IV, there are concerns, however, that some lower-income borrowers may be disadvantaged by automated underwriting systems if they have nontraditional credit histories. Both GSEs state that applications that do not qualify under their mortgage scoring systems are not necessarily rejected—rather, they are supposed to be referred for manual underwriting. But given the time and expense involved in manual underwriting, and the fact that fixed origination costs make up higher shares of targeted mortgages than mortgages for higher income borrowers, some observers have questioned how well this process works in practice, especially in record mortgage markets such as those of the past few years.

well documented in various GSE publications and in the Annual Housing Activity Reports submitted to HUD and Congress by the enterprises; they are summarized in Sections F.4 and F.5 of Chapter IV. The GSEs would now be in a position to evaluate the effectiveness of these initiatives in recent years and modify them as appropriate to further adapt their programs to meet the needs of borrowers and locations targeted by the proposed housing goals and subgoals.

GSE Initiatives Consistent With Literature On Reducing Barriers.[37] The economics literature suggest that programs and underwriting changes such as those listed above have the potential to reduce well known barriers to homeownership, such as lack of downpayment and income and poor credit history. Thus, in that sense, the GSEs have been moving in the right direction under the housing goals. There is an extensive literature on barriers to homeownership that has focused attention on the obstacles posed by various borrower and property underwriting requirements used to assess borrower capacity and creditworthiness and a property's continued marketability to limit credit risk to an acceptable level. Underwriting requirements have generally been implemented as rules regarding minimum down payment and assets to close a loan, maximum expense-to-income qualifying ratios, satisfactory credit history, and satisfactory collateral. These underwriting rules, however crafted, have generally represented a major challenge for those having little or no wealth, lower income, weaker credit, or seeking to finance an atypical property. Moreover, lack of understanding about the mortgage process and racial discrimination pose additional barriers to homeownership.

Insufficient savings to pay required up front down payment and closing costs has long been understood to be the single greatest obstacle to buying a home. Research studies by Linneman and Wachter (1989), Savage and Fronczek (1993), Savage (1997), Haurin and others (1997), Quercia and others (2002), and Listokin and others (2002) have consistently found a lack of sufficient wealth to pay down payment and closing costs is a significant limitation on the ability of renter households to become homeowners.[38] In general, these studies have found that a lack of wealth to meet down payment requirements is a much more important limitation on homeownership than a lack of income to meet limits on monthly payments. For example, Listokin and others (2002) found that 90.8 percent of renters could not afford to purchase a modestly priced home. Of these, 95.6 percent were constrained from buying this home by a lack of savings and 71.9 percent had incomes that were too low to support monthly mortgage

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[37] Readers not interested in this brief review of the barriers literature may want proceed to the next section.

[38] Peter D. Linneman and S.M. Wachter (1989) "The Impacts of Borrowing Constraints on Homeownership," *Journal of the American Real Estate and Urban Economics Association* 17:389-402. Howard Savage and Peter Fronczek (1993) "Who Cannot Afford to Buy a House in 1991," *Current Housing Reports*, U.S. Bureau of the Census. Howard Savage (1997) "Who Cannot Afford to Buy a House in 1993," *Current Housing Reports*, U.S. Bureau of the Census. Donald R. Haurin, Patric Hendershott, and Susan Wachter (1997) "Borrowing Constraints and Tenure Choice of Young Households," *Journal of Housing Research* 8:137-154. David Listokin, Elvin K. Wyly, Brian Schmitt, and Ioan Voicu (2002) "The Potential and Limitations of Mortgage Innovation in Fostering Homeownership in the United States," *Housing Policy Debate* 12(3):465-513.

payments and other housing costs. However, most of the income-constrained households also faced a wealth constraint, with only 4.4 percent of financially constrained households facing only an income constraint. Thus, about two-thirds of renters were limited by a lack of both income and wealth from being able to purchase their target home, while another quarter were limited solely by a lack of wealth. Less than 5 percent faced only an income constraint. Thus, the Listokin study and most other studies conclude that while greater underwriting flexibility is very helpful, some form of down payment assistance would be most effective at expanding homeownership.

In terms of relative importance as a barrier to increased homeownership, Quercia and others (2002) find that removing down payment requirements could increase homeownership rates by about 8 percentage points, while more moderate reductions in down payment requirements and relaxation of payment ratios would increase homeownership by about 3 percentage points. In both cases, gains are found to be slightly larger for Blacks and low-income households, thus contributing to a narrowing of homeownership gaps. This same study finds that a reduction in interest rates of 2 percentage points would increase homeownership rates by less than 1 percent overall, and have nearly no impact on homeownership among Blacks. This finding is consistent with other studies that find little impact from lower interest rates on the ability of households to qualify for a mortgage.

In keeping with these findings, Rosenthal (2002) also finds that the removal of credit barriers generally, including wealth and income limitations as well as problematic credit histories, would raise overall homeownership rates by about 4 percentage points. Homeownership gaps by race and income are projected to decrease as gains among Hispanics and "Other" minorities would be about 2 percentage points higher, while lower income households would have gains from 7 to 11 percentage points. Blacks, however, are projected to have smaller gains than average. Overall, the studies by Quercia and others (2002) and Rosenthal (2002) suggest that removing credit barriers could boost homeownership rates by 4 to 8 percentage points.[39]

However, Bradley and Zorn (1996) conducted focus group studies that found many renter households who were financially capable of becoming homeowners remained renters out of fear or lack of information about the lending process.[40] And, a study by Galster and others (1999) confirmed that a significant fraction of renter households appear attractive prospects for homeownership, with low credit risk and high

[39] Barakova et al. recently analyzed the effects of poor credit quality on homeownership. They conclude (p. 334) that financing constraints "continue to have an important impact on potential homebuyers," and in particular "wealth and credit quality based constraints significantly reduce the likelihood of whether individuals and households opt to own a home." While identifying poor credit history as a significant barrier, consistent with other work, they also find the lack of cash to be the major barrier to homeownership. Irina Barakova, Raphael W. Bostic, Paul S. Calem, and Susan M. Wachter, "Does Credit Quality Matter for Homeownership?" *Journal of Housing Economics*, December 2003, pp. 318-336.

[40] Donald S. Bradley and Peter Zorn (1996) "Fear of Homebuying: Why Financially Able Households May Avoid Homeownership," *Secondary Markets* 13(2):1, 24-30.

probabilities of transitioning to homeowner status, but who nonetheless remain renters.[41] Moreover, the Listokin (2002) study found that 9.2 percent of renters could qualify to purchase a modestly priced home without any additional assistance and roughly half that number or 5 percent of renters could qualify without additional assistance to purchase the *target* home each renter family was individually estimated to choose. That percentage translates into a potential increase in the overall homeownership rate for all households of 1.3 percentage points were barriers of fear and lack of understanding or discrimination to be removed. Thus, the potential impact on homeownership rates of more affordable mortgage products could be evaluated against this baseline potential increase from standard mortgage underwriting.

Thus, the types of new program and outreach activities that the GSEs have been undertaking under the housing goals are appropriately aimed at barriers to homeownership. However, as discussed in Chapter IV, there remain questions about how far and how aggressive the GSEs have been in initiating programs and reaching out to lower income families and underserved neighborhoods.

Additional Qualitative Impacts of the Goals. The literature reviewed above suggests that there is a substantial population of renters who meet GSE underwriting standards and might be inclined toward homeownership with the right kind of outreach that overcame their fears and misunderstanding. These households would constitute a net addition to the homeownership population with an attendant increase in the homeownership rate. In addition there are no doubt homebuyers who purchase homes in underserved areas with FHA or subprime financing who could with proper outreach benefit from a less costly GSE mortgage. These households could utilize the savings to finance a larger or better home. Moreover, there are some potential homebuyers that in the past would have had to use FHA to obtain some underwriting flexibility, such as a higher LTV or payment to income ratio, or delay their home purchase who could now use one of the GSE affordable lending programs. One may recall that each half point reduction in interest translates into a 6 to 8 percent increase in mortgaged funds for a given amount of income and every percentage point of income available for housing expense increases mortgaged funds by about 3 percent. Hence, a household who qualified for mortgage of $100,000 at 6.5 percent interest could qualify for an additional $16,000 with a percentage point reduction to 5.5 percent or an additional $10,700 with a relaxation of 3 percentage points in the payment to income ratio. Borrowers who have been paying higher interest rates in the non-GSE portion of the market would benefit from the low interest rates offered by the GSEs.

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[41] George Galster, Laudan Aron, and William Reeder (1999) "Encouraging Mortgage Lending in 'Underserved' Areas: The Potential for Expanding Home Ownership in the US," *Housing Studies* 14(6):777-801 They estimated that approximately 9.6 percent or 2.7 million of renter households (excluding households of unrelated individuals) represented in the 1990 Survey of Income and Program Participation (SIPP) who remained renters over an 18-month period had estimated probabilities of transitioning to homeownership in excess of the median probability for renters who actually became homeowners over the same period while having no greater likelihood of default.

As noted above, the goals could have homeownership impacts with net additions obtained through greater outreach or accelerated transitions as well as lowering the cost and improving the quality of the homes attainable by both the net new homebuyers and those who would have otherwise utilized a more costly subprime or FHA mortgage product. While this section provides quantitative information on the likely impact of the proposed goals and subgoals in terms of types of addition mortgages purchased by the GSEs, it is difficult to translate them into specific numbers. Despite the difficulty is coming to any precise quantification, it should be clear that the resulting impacts are nevertheless, real and significant.[42]

C.4 Quantitative Analysis of Proposed Housing Goals

a. Introduction

This section provides a quantitative analysis showing the likely effects of increasing the housing goals and establishing subgoals on GSE purchases of goals-qualifying loans, and on various subgroups such as first-time homebuyers. Estimates are provided of the impacts of the Department's proposals on groups including first-time homebuyers and minority families. As explained earlier, the analysis of the higher housing goals must also consider the ability of the GSEs to reach the goals. Therefore, information related to feasibility is also provided throughout this section.

While it is difficult to predict the GSEs' exact strategy for meeting the goals, some additional-purchase numbers are generated that provide a sense of the overall magnitude of the GSEs' additional purchases. To gain further insight into the impacts of the new goals and subgoals, the additional purchases are categorized in section C.4 along interesting policy dimensions such as first-time homebuyer and minority status. However, there is no suggestion here that the additional GSE purchases automatically translate into additional homeowners. Rather, the GSEs' impact on the housing and mortgage markets is a wide ranging one—for example, providing both homebuyers and refinancing borrowers with lower interest rates than they otherwise could have obtained, increasing the access of families living in underserved neighborhoods to credit offered by

[42] While there are a number of studies that have examined the potential for increasing homeownership (see earlier discussion), there are few studies that have estimated the effectiveness of different policy approaches, largely due to the challenges of isolating program impacts in a market context. The economics literature on estimating the impacts of specific programs on homeownership is thin. Those studies that exist often do not find much impact, even for FHA's low down payment program (although this probably reflects more about the adequacy of the data and studies than it does about FHA's impact on homeownership). Goodman and Nichols (1997) analyzed the impact of FHA insurance on home ownership. They found (p. 197) that FHA insurance "increases the amount of housing that consumers can purchase and, for some consumers, reduces the cost of owning a given house, and, for sure, some households could not become owners without FHA." But they caution (p. 198) that the main effect on homeownership is "mostly to accelerate home purchase, not to enable it." A more recent study by Onder (2002) finds that the level of FHA activity is positively associated with homeownership rates across census tracts, but the impact is small. Monroe (2001) also concludes that FHA's market share is associated with higher homeownership rates but the magnitude of the impact is fairly small.

mainstream lenders, allowing low-income families to qualify for home or a higher valued home, or to purchase a home in advance of their initial plans. With respect to the GSEs and market impacts, it is important to keep in mind the fact that they dominate the single-family mortgage market, which means their underwriting standards are immediately adopted by most primary lenders in the conventional conforming market, and their new product offerings are offered by major lenders in that market. This is the perception among several researchers. Listokin and Wyly (2000) note that "most lenders involved in underserved markets tailor underwriting to government-sponsored enterprise (GSE) guidelines" (604). Goldberg and Harding, who studied the investment characteristics of low- and moderate-income mortgage loans, note that because the GSEs purchase or guarantee more than half of all new conventional mortgages originated in the U.S., the housing goal targets "have substantial impact" (p. 152)[43] Thus, rather than being a targeted policy tool such as cash grants for downpayments, the housing goals seek to encourage the GSEs to increase their outreach to lower-income families through underwriting flexibilities and new affordable product offerings. Through these means, access to low-cost mortgage funds is provided a greater number of to low-income families, although admittedly not in the form of a direct cash grant program, which researchers have concluded is the most efficient method for overcoming the wealth constraint that limits homeownership for many lower-income renters.

In setting the overall housing goals and the home purchase subgoals, HUD does not attempt to prescribe or micromanage the GSEs' mortgage purchase activities, either as to the types of mortgages they should buy to meet the goals and subgoals or the particular mortgage markets they should be involved in. These decisions are and should be made by the GSEs themselves. But, as described earlier, there are ample opportunities in the various portions of the mortgage market to purchase mortgages that would enhance the GSEs' goal performance. As also discussed in detail throughout Appendices A-C of the proposed GSE Rule, increased purchases of mortgages on rental properties, whether these are single-family properties or multifamily properties, in general will enhance goals performance. And within the single-family owner occupied market, purchases of certain types of mortgages (e.g., first-time homebuyer, subprime, CRA-portfolio, manufactured homes) can make a major contribution to goal performance. This section presents the results from various simulation techniques, which can be used to generate estimates of GSE goal performance under different mortgage purchase scenarios.

The section presents several types of analyses to gauge the impacts of the both the home purchase subgoals and the overall housing goals. The past performances of the GSEs are compared with the proposed goal targets and the GSEs purchases under different future mortgage markets are estimated. While it is recognized there is some uncertainty with such analysis, it highlights the overall impacts of the goals and provides insights into how the GSEs might meet the new goals.

[43] Gerson M. Goldberg and John P. Harding, "Investment Characteristics of Low- and Moderate-Income Mortgage Loans," *Journal of Housing Economics*, September 2003, pp. 151-180.

b. Proposed Goals and Subgoals Compared With Past Performance

A first indication of the impacts of the proposed housing goals[44] can be gained by simply comparing the proposed goals with the recent performance of the GSEs in the categories of mortgages covered by the goals. This provides a sense of the increased GSE purchase activity that is likely to take place under the proposed goals purchases. It also highlights the differences in the past performance of the two GSEs, which turns out to be an issue with respect to measuring the impacts of the proposed goals and with respect to determining the feasibility of different goal and subgoal levels. Tables 3.2a and 3.2b provide information on the GSEs' recent past performance (1999 to 2002) under the housing goals and home purchase subgoals.

Overall Housing Goals. First, consider the Low- and Moderate-Income Housing Goal (or low-mod goal), which is proposed to be 52 percent for 2005, 53 percent for 2006, 55 percent for 2007, and 57 percent for 2008. As shown in Table 3.2a, during the 1999-2002 period, the GSEs' performance was below the proposed 52 percent target for 2005, even though the low-mod share of the primary market averaged 57 percent during this period, as discussed earlier. Under the new counting rules,[45] Fannie Mae's low- and moderate-income performance was 46.3 percent in 1999, 51.2 percent in 2000, 48.7 percent in 2001, and 47.9 percent in 2002—Fannie Mae would have to increase its performance by 3.5 percentage points over its average (unweighted) performance of 48.5 percent over these last four years, or by 0.8 percentage point over its previous peak performance (51.2 percent in 2000). Freddie Mac's performance is estimated to have been 46.0 percent in 1999, 50.2 percent in 2000, 47.0 percent in 2001, and 45.0 percent in 2002—Freddie Mac would have to increase its performance by 4.9 percentage points over its average (unweighted) performance of 47.1 percent over these last four years, or by 1.8 percentage points over its previous peak performance (50.2 percent in 2000). Thus, under the new proposed 2005 low-mod target of 52 percent, each GSE would have to improve its performance, Freddie Mac more so than Fannie Mae.[46] These required improvements would increase further by an additional one percentage point in 2006 and by an additional two percentage points in each of the years 2007 and 2008. The objective of these increases is to bring the GSEs' performance to the upper end of HUD's market range estimate for the Low- and Moderate-Income Housing Goal, consistent with the statutory criterion that HUD should consider the GSEs' ability to lead the market for each Goal. To enable the GSEs to achieve this leadership, the Department is proposing modest

[44] For brevity, the text frequently only mentions "housing goals" when it should be understood that both "housing goals" and "home purchase subgoals" are being considered.

[45] The bonus points for small multifamily properties and owner-occupied 2-4 units, as well as Freddie Mac's Temporary Adjustment Factor, will no longer be in effect for goal counting purposes; therefore, the effects of these provisions are excluded from the calculations in Table 3.2. In addition, the data in Table 3.2 include the effects of 2000-Census income re-benchmarking and the new OMB metropolitan area definitions. These changes are what are being referred by the phase "under the new counting rules."

[46] It should also be noted that the fall-off during 2001 and 2002 in each GSE's performance on the low-mod goal (as well as on the other two goals) was due to the heavy refinancing activity during these years; goals-performance issues raised by a heavy refinancing environment will be discussed later.

Table 3.2a

Proposed Housing Goals, Alternatives, and 1999-2002 Performance

(Based on Proposed Scoring, 2000 Census Data)

	GSEs' Purchases					Market (W/O B&C Loans)*				
Goal	1999	2000	2001	2002	Unweighted Average	1999	2000	2001	2002	1999-02
Low- and Moderate-Income Goal										
Fannie Mae	46.3%	51.2%	48.7%	47.9%	48.5%					
Freddie Mac	46.0%	50.2%	47.0%	45.0%	47.1%					
						58.2%	59.1%	54.9%	54.1%	56.6%
Underserved Areas Goal										
Fannie Mae	31.6%	37.5%	35.7%	35.0%	35.0%					
Freddie Mac	31.6%	34.1%	32.5%	32.8%	32.8%					
						39.0%	40.4%	37.7%	37.2%	38.6%
Special Affordable Goal										
Fannie Mae	18.6%	21.7%	20.1%	19.4%	20.0%					
Freddie Mac	17.4%	20.8%	19.1%	17.8%	18.8%					
						29.2%	30.0%	26.5%	25.8%	27.9%

	Goals and Alternatives			Projected Market Range**
	2005-08 Proposed	2005-08 Low Alt.	2008 High Alt.	
Low- and Moderate-Income	52%-57%	50%	59%	51%-57%
Underserved Areas	38%-40%	36%	42%	35%-40%
Special Affordable	22%-28%	20%	30%	24%-28%

* From Table D.9, limited to mortgages in metropolitan areas

** Including multifamily mortgages

Table 3.2b

Proposed Home Purchase Subgoals and 1999-2002 Performance
(Based on Proposed Scoring, 2000 Census Data)

	GSEs' Purchases				Market (W/O B&C Loans)				
Suboal	1999	2000	2001	2002	1999	2000	2001	2002	1999-02
Low- and Moderate-Income Subgoal									
Fannie Mae	39.2%	40.1%	41.7%	43.6%					
Freddie Mac	40.0%	41.7%	39.8%	42.1%					
					44.0%	43.7%	41.6%	43.1%	43.1%
Underserved Areas Subgoal									
Fannie Mae	25.7%	29.1%	29.8%	32.3%					
Freddie Mac	26.1%	27.3%	27.4%	31.7%					
					30.7%	32.2%	30.9%	32.3%	31.5%
Special Affordable Subgoal									
Fannie Mae	12.5%	13.4%	14.7%	15.8%					
Freddie Mac	12.8%	14.5%	13.9%	15.1%					
					17.1%	17.0%	15.4%	15.7%	16.3%

	Goals and Alternatives	
	2005-08 Proposed	2008 High Alt.
Low- and Moderate-Income	45%-47%	48%
Underserved Areas	33%-35%	36%
Special Affordable	17%-19%	20%

increases in Housing Goal levels for 2005 which will increase further, year-by-year through 2008, to achieve the ultimate objective for the GSEs to lead the market under a range of foreseeable economic circumstances by 2008. Such a program of staged increases is consistent with the statutory requirement that HUD consider the past performance of the GSEs in setting the Goals. Staged annual increases in the Goals will provide the enterprises with opportunity to adjust their business models and prudently try out business strategies, so as to meet the required 2008 levels without compromising other business objectives and requirements.

Next, consider the Special Affordable Goal, which is proposed to be 22 percent for 2005, 24 percent in 2006, 26 percent in 2007, and 28 percent in 2008. The 2005 goal represents a two percentage point increase over the current target of 20 percent. Under the new counting rules, Fannie Mae's special affordable performance was 18.6 percent in 1999, 21.7 percent in 2000, 20.1 percent in 2001, and 19.4 percent in 2002—Fannie Mae would have to increase its performance by 2.0 percentage points over its average (unweighted) performance of 20.0 percent over these last four years, although its 2000 performance (21.7 percent) was close to the proposed goal level. Freddie Mac's performance is estimated to have been 17.4 percent in 1999, 20.8 percent in 2000, 19.1 percent in 2001, and 17.8 percent in 2002—Freddie Mac would have to increase its performance by 3.2 percentage points over its average (unweighted) performance of 18.8 percent over these last four years. However, as noted earlier, the Special Affordable market averaged 28 percent during the 1999-2002 period, suggesting the GSEs could have improved their performance to meet the 2005 target of 22 percent. These required improvements would increase by an additional two percentage points in each of the years 2006, 2007, and 2008. As stated above, staged annual increases in the Goals are designed to enable the enterprises to meet the required 2008 levels without compromising other business objectives and requirements.

Finally, consider the Underserved Areas Goal, which is proposed to be 38 percent of eligible purchases in 2005, 39 percent in each of the years 2006 and 2007, and 40 percent in 2008. The 2005 goal represents an increase of seven percentage points over the current goal level of 31 percent. Of the seven percentage point increase, approximately 5 percentage points simply reflect the expanded coverage of HUD's definition in the 2000 Census tract data (see Appendices B and D of the proposed GSE Rule for further explanation). Fannie Mae's performance is estimated to have been 31.6 percent in 1999, 37.5 percent in 2000, 35.7 percent in 2001, and 35.0 percent in 2002, under a 2000-based underserved area goal. Freddie Mac's performance is estimated to have been 31.6 percent, 34.1 percent in 2000, 32.5 percent in 2001, and 32.8 percent in 2002. However, as noted earlier, the underserved areas market is estimated to have averaged 39 percent during the 1999-2002 period, again suggesting the GSEs could have improved their performance. In addition to the increases in performance required to meet the 2005 Underserved Areas Housing Goal, there will be further increases in required performance of one percentage point for 2006-07 and one additional percentage point for 2008. As stated above, staged annual increases in the Goal are designed to enable the enterprises to meet the required 2008 levels without compromising other business objectives and requirements.

The above data are based on the GSEs' past performance on the housing goals. To provide an alternative view of how much the GSEs will have to improve their performance under the proposed housing goals, Section C.4.d below will provide an analysis of the GSEs' projected baseline performance during 2005-2008 under different economic environments. The GSEs' projected baseline performance can then be compared with the proposed goal targets to gauge the likely additional purchases under the housing goals.

Home Purchase Subgoals. The above past-performance analysis can be repeated for the home purchase subgoals, as a means of providing a first indication of the impact of the proposed subgoal targets. Each of the three home purchase subgoals are discussed next, as summarized in Table 3.2b.

The proposed target for the low-mod home purchase subgoal is 45 percent for 2005, 46 percent for 2006, and 47 percent for 2007 and 2008. The purpose of this subgoal is to encourage the GSEs to improve their acquisitions of home purchase loans for lower-income families and first-time homebuyers who are expected to enter the homeownership market over the next few years. Between 1999 and 2002, the average low-mod share of the home purchase market (without B&C loans) was 43.1 percent based on projected data.[47] Thus, based on projected data, the 45-percent home purchase subgoal for 2005 is approximately two percentage points above the 1999-2002 market average, 3.4 percentage points over the 2001 market experience, and 1.9 percentage points above the 2002 market experience, while the 47 percent subgoal for 2007-08 is approximately four percentage points above the 1999-2002 market level, 5.4 percentage points above the 2001 market experience, and 3.9 percentage points over the 2002 market experience. To reach the 45-percent 2005 subgoal based on projected data, Fannie Mae would have to improve its performance by 1.4 percentage points over its 2002 low-mod

[47] The low-mod subgoal can be used to illustrate the differences between "historical data," which are used in the past performance sections of Chapter IV, and "estimated data," which are used in this chapter's analysis of the likely impacts of the new goals targets. As discussed in Chapter IV, HMDA data show that low- and moderate-income families accounted for an average of 44.3 percent of single-family-owner loans originated in the conventional conforming market of metropolitan areas between 1999 and 2002—thus, the proposed subgoal of 45 percent is slightly above average market performance, based on "historical data." (Loans in the B&C portion of the subprime market are not included in these averages.) Using these "historical data", the GSEs would have to improve their historical performance to reach the 45- percent target for 2005 as follows: Fannie Mae by 0.8 percentage points over its average performance of 44.2 percent in 2001 and 2002, and Freddie by 2.4 percentage points over its average performance of 42.6 percent during the same period. But, as explained in Appendix A to the proposed GSE Rule, HUD will be re-benchmarking its median incomes for metropolitan areas and non-metropolitan counties based on 2000 Census median incomes, and will be incorporating the effects of the new OMB metropolitan area definitions. HUD estimated the effects of these two changes on the low- and moderate-income shares of the single-family-owner market for the years 1999-2002. The low-mod share of the market averaged 43.1 percent (see text) based on "estimated data," compared with 44.3 percent (see Chapter IV) based on "historical data." The "estimated data" for Fannie Mae and Freddie Mac are reported in the text. Fannie Mae's (Freddie Mac's) average low-mod performance between 1999 and 2002 based on the "estimated data" was 41.4 percent (40.9 percent), compared with 42.5 percent (42.3 percent) based on "historical data."

performance of 43.6 percent; to reach its 47 percent 2007-08 subgoal, Fannie Mae would have to improve by an additional two percentage points. To reach the 45-percent 2005 subgoal based on estimated data, Freddie Mac would have to improve its performance by 2.9 percentage points over its 2002 low-mod performance of 42.1 percent, and to reach its 47-percent 2007-08 subgoal Freddie Mac will have to improve by an additional two percentage points. The type of improvement needed to meet this new low-mod subgoal was demonstrated by Fannie Mae during 2001 and 2002, as Fannie Mae increased its low-mod purchases from 40.1 percent of its single-family-owner business in 2000 to 43.6 percent in 2002, as shown in Table 3.2b. The approach taken is for the GSEs to obtain their leadership position by staged increases in the subgoals; this will enable the GSEs to take new initiatives in a correspondingly staged manner to achieve the new subgoals each year. Thus, the increases in the housing subgoals are sequenced so that the GSEs can gain experience as they improve and move toward the new higher subgoal targets.

The proposed target for the home purchase subgoal for special affordable loans is 17 percent for 2005, 18 percent for 2006, and 19 percent for 2007-08. The purpose of this subgoal is to encourage the GSEs to improve their purchases of mortgages for very low-income and minority first-time homebuyers who are expected to enter the housing market over the next few years. If the GSEs meet the 17-percent 2005 subgoal, they will be leading the primary market by approximately 0.7 percentage points based on the income characteristics of home purchase loans reported in HMDA between 1999 and 2002, and by 1.3 percent based on 2002 market data. Meeting the 19-percent 2006-07 subgoal will bring them two additional percentages points above the market level. To reach the 17-percent 2005 subgoal, both GSEs would have to improve their performance—Fannie Mae by 1.2 percentage points over its performance of 15.8 percent during 2002; and Freddie Mac by 1.9 percentage points over its performance of 15.1 percent during 2002. To reach their 19-percent 2007-08 subgoals each GSE will have to improve by an additional two percentage points, i.e., by 3.2 percentage points over Fannie Mae's 2002 performance and 3.9 percentage points over Freddie Mac's 2002 performance level. The type of improvement needed to meet this new special affordable subgoal was demonstrated by Fannie Mae during 2001 and 2002. Between 2000 and 2001, special affordable loans declined as a percentage of Freddie Mac's purchases (from 14.5 to 13.9 percent) and as a percentage of primary market originations (from 17.0 to 15.4 percent), but they increased as a percentage of Fannie Mae's purchases (from 13.4 to 14.7 percent). During 2002, Fannie Mae further increased its special affordable share (from 14.7 percent tin 2001 to 15.8 percent in 2002), placing it at the market level. This subgoal is designed to encourage Fannie Mae as well as Freddie Mac to lead the special affordable market. As noted above for the Low- and Moderate-Income Housing Goal, the approach taken is for the GSEs to obtain their leadership position by staged increases in the subgoals to enable the GSEs to gain experience as they improve and move toward the new higher subgoal targets.

The proposed target for the home purchase subgoal for underserved areas is 33 percent for 2005, 34 percent for 2006, and 35 percent for 2007-08. The purpose of this subgoal is to encourage the GSEs to improve their purchases of mortgages for homeownership in underserved areas, thus providing additional credit and capital for neighborhoods that historically have not been adequately served by the mortgage industry. If the GSEs meet this subgoal, they will be leading the primary market, based on the census tract characteristics of home purchase loans reported in HMDA. Between 1999 and 2002, HMDA data show that underserved areas accounted for 31.4 percent of single-family-owner loans originated in the conventional conforming market of metropolitan areas; market experience was 30.9 percent in 2001 and 32.3 percent in 2002.[48] To reach the 33-percent 2005 subgoal, both GSEs would have to improve their performance—Fannie Mae by 0.7 percentage points over its performance of 32.3 percent in 2002 and Freddie Mac by 1.3 percentage points over its performance of 31.7 percent in 2002. To reach their 35-percent 2007-08 subgoal Fannie Mae will have to improve by 2.7 percentage points over its 2002 performance level, and Freddie Mac by 3.3 percentage points over its 2002 performance level. As noted above for the Low- and Moderate-Income and Underserved Areas Housing Goals, staged increases in the subgoals enable the GSEs to obtain their leadership position by gaining experience as they improve and move toward the new higher subgoal targets.

c. Additional Purchases Under the Home Purchase Subgoals—A First Look

The first step in gauging the impact of the proposed housing goals and subgoals is to determine their impact on the magnitude and characteristics of the mortgages purchased by the GSEs. To begin the impact analysis, this section estimates the additional goals-qualifying home purchase loans that would have been purchased by the GSEs assuming that the proposed home purchase subgoals had been in effect between 1999 and 2002. While this analysis is rather simplistic,[49] it does provide a sense of the overall magnitudes involved and the types of borrowers that would have benefited if the

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[48] HUD will begin defining underserved areas based on 2000 Census geography and new OMB definitions of metropolitan areas in 2005, the first year of the proposed rule. As explained in Appendix B of the proposed GSE Rule, the 2000-based definition of underserved areas includes 5,372 more census tracts in metropolitan areas than the 1990-based definition, which means the GSE-market comparisons had to be updated to incorporate tract designations from the 2000 Census. Therefore, for the years 1999, 2000, 2001, and 2002, HUD used various apportionment techniques to re-allocate 1990-based GSE and HMDA data into census tracts as defined by the 2000 Census. Switching to the 2000-based tracts increases the underserved area share of market originations by 5.7 percentage points. Between 1999 and 2002, 31.5 percent of mortgage originations (without B&C loans) were originated in underserved tracts based on 2000 geography, compared with 25.8 percent based on 1990 geography. As shown in Table B.8 of Appendix B of the proposed GSE Rule, the underserved areas share of each GSE's purchases also rises by approximately 5.5 percentage points. Thus, conclusions about the GSEs' performance relative to the market are similar whether the analysis is conducted in terms of 2000 Census geography or 1990 Census geography.

[49] The analysis does not consider the effect of the home purchase subgoals on the GSEs' goals-qualifying purchases of single-family refinance loans, single-rental loans, and multifamily loans; in other words, if the home purchase subgoals had been in effect during the 1999-2002 period, the GSEs might have reduced their goals-qualifying purchases in these other sectors (given the level of the overall goals during this period). On the other hand, Chapter 6 reports that the GSEs have earned relatively high returns on equity from their goals-qualifying purchases, which suggests the impact on the other sectors may have been small. Section C.4.d below presents a projection analysis that considers the various interactions of the home purchase subgoals with goals-qualifying purchases in other sectors.

home purchase goals had been in effect. For this purpose, the proposed goals for 2005 are taken as an example.

For each of the three subgoal categories, the GSEs' goals-qualifying purchases during the 1999-2002 period fell short of what was needed to meet the proposed home purchase subgoal (see above discussion and Table 3.3). This analysis took the GSEs' actual purchases of home mortgages during the 1999-to-2002 period as a baseline, and then computed the additional purchases of goals-qualifying home mortgages that would have been needed for each GSE to meet the percentage target for each of the home purchase subgoals.[50] The results of this exercise are presented in Table 3.3.

If the proposed 2005 subgoals had been in effect since 1999, it is estimated that the GSEs together would have purchased 366,553 additional special affordable home purchase loans, 702,983 additional low-mod home purchase loans, and 605,777 additional underserved areas home purchase loans. Accounting for the overlap among the three subgoal categories—e.g., all special affordable loans qualify as a low-mod loan, a certain percentage of special affordable loans qualify as underserved, and so on, the net number of subgoals-qualifying loans is 927,253—501,805 purchased by Fannie Mae and 425,448 purchased by Freddie Mac.[51] Although Freddie Mac's total purchases during this period make up 41 percent of the GSEs' total purchases, Freddie Mac ends up purchasing 46 percent of goals-qualifying loans because it has larger shortfalls in performance than Fannie Mae, which must be made up with additional goals-qualifying purchases. This pattern will show up throughout the analysis in this section.

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[50] The methodology for estimating the number of additional purchases for both GSEs' for the 1999 to 2002 period is demonstrate using Freddie Mac's home purchase loans in 1999. Two key features of this analysis include (a) accounting for the increase in the denominator resulting from the additional purchases and (b) accounting for the overlaps that occur when loans qualify for more than one goal. Freddie Mac's 1999 baseline (i.e., its home purchase loans for 1999) is 653,218 loans of which 12.8 percent qualified for the special affordable subgoal, 40.0 percent qualified for the low-mod subgoal, and 26.1 percent qualified for the underserved areas subgoal. A hypothetical increase in Freddie Mac's baseline loans in 1999 is assumed to meet the proposed three subgoals. Additional purchases for each subgoal are further allocated according to historical patterns across overlap categories. For example, of the 47,762 additional special affordable loans needed to meet the 17 percent special affordable subgoal, 17,967 loans qualify as only special affordable while the remaining 29,795 loans qualify for both the special affordable and the underserved areas subgoal. Of the 86,466 additional low-mod loans needed to meet the 45 percent low-mod subgoal, in addition to the 47,762 loans just described, the remaining 38,704 loans that qualify as low-mod but not special affordable are allocated as follows: 21,633 qualify for the low-mod and underserved areas subgoal and 17,072 qualify only as low-mod loans. There are 84,529 additional loans purchased to meet the underserved areas subgoal. In addition to the loans already qualifying under the special affordable and low-mod subgoals, the remaining 33,101 loans purchased in underserved areas are for borrowers with incomes greater than the area median.

[51] The net additional purchases are less than the sum of the loans needed to meet the individual subgoals. The difference is accounted for by the following overlap categories: all loans qualifying for the special affordable subgoal also qualify for the low- and moderate-income subgoal; loans to very-low-income borrowers in targeted areas qualify for both the special affordable and underserved areas subgoals, and similarly, loans to low- and moderate-income borrowers in targeted areas qualify for the low- and moderate income and underserved areas subgoals.

Table 3.3

Hypothetical Example: Additional GSE Purchases
Applying Subgoals to 1999-2002 Period
Both GSEs

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	155,381	78,057	44,050	57,682	366,553	133,255	60,123	104,062
Low- Mod	269,377	130,874	66,556	92,803	702,983	247,300	95,807	184,102
Underserved Areas	229,198	116,099	56,545	102,005	605,777	230,166	81,271	215,960
Additional Purchases**	332,674	155,954	72,948	118,347	927,253	315,117	107,855	255,850

*Includes 95 percent and greater LTVs

**The net additional purchases are less than the sum of the loans needed to meet the individual subgoals. The difference is accounted for by the following overlap categories: all loans qualifying for the special affordable subgoal also qualify for the low- and moderate-income subgoal; loans to very-low-income borrowers in targeted areas qualify for both the special affordable and underserved areas subgoals, and similarly, loans to low- and moderate-income borrowers in targeted areas qualify for the low- and moderate income and underserved areas subgoals.

Explanation: This hypothetical example provides estimates of the GSEs additional purchases if the home purchase subgoals had been in effect for the years 1999 to 2002. The column "All" under the heading "All Purchases" indicates the GSEs' shortfalls for each of the subgoal individually as well as the net number of home purchase loans. These shortfalls are a combination of the additional purchases computed for each GSE for each year between 1999 and 2002. For a given year for a given GSE, this analysis took the GSEs' actual purchases of home mortgages as a baseline, and then computed the additional purchases of goals-qualifying home mortgages that would have been needed for each GSE to meet the percentage target for each of the home purchase subgoals. Two key features of the model include (a) accounting for the increase in the denominator resulting from the additional purchases and (b) accounting for the overlaps that occur when loans qualify for more than one goal. A hypothetical increase in the baseline in each year is assumed to meet the proposed three subgoals. These additional purchases are further allocated by subgoal across the other colums in this table according to historical patterns.

The figure of 927,253 represents a large number of goals-qualifying purchases. This large number reflects the fact that the GSEs are huge corporations that account for a large share of the conventional conforming market. As noted earlier, one of the advantages of housing goals as a policy tool, is that the goals influence the two firms whose purchase policies dominate the mortgage market. The next question in the impact analysis concerns the characteristics of these additional goals-qualifying loans—do the characteristics of the loans purchased suggest that the GSEs are solving problems of credit access and extending homeownership opportunities?

As background, consider Table 3.4, which examines special affordable, low-mod, and underserved area loans along a number of dimensions (such as first-time homebuyer and minority status) related to credit access and homeownership opportunities. Not surprisingly, these results show that, compared with a non-goals-qualifying loan, a goals-qualifying loan is more likely to be a first-time homebuyer loan, or a minority loan, or a low-downpayment loan. For example, in 2001, 42 percent of Special Affordable loan purchases were from first-time homebuyers compared to 27 percent for all loan purchases. Twelve percent of Low- Moderate-Income loans had an LTV greater than 95 percent, compared to only 7 percent for all loans. Thirty-six percent of loan purchases from Underserved Areas were from minority homebuyers compared to 20 percent from all loan purchases.[52, 53]

Table 3.5 shows credit score distributions for a sample of GSE acquired home purchase loans in 12 large metropolitan areas between the years 1998 and 2000.[54] These data illustrate the patterns of credit scores for the three metropolitan home purchase loan subgoals. For example, 14.3 percent of special affordable loan purchases had a FICO score below 620 compared to 9.8 percent for all loan purchases. Low-mod and underserved area loans also show a higher percentage of low FICO scores of 12.7 percent and 14.2 percent, respectively. Goals-qualifying loan purchases also have relatively fewer FICO scores above 720. While 60.7 percent of all loans purchased had a FICO score greater than 720, only 54.9 percent of special affordable, 57.1 percent of low-mod, and 51.2 percent of underserved area loans had high FICO scores. However, these

[52] Note that the percentages for the more broadly defined low- and moderate-income category are closer to those of all loans purchased, as compared with the percentages for the special affordable and underserved areas categories.

[53] 2001 goal performance is cited because it reflects more closely the higher levels of loan purchases consistent with having to purchase additional goals-qualifying loans.

[54] The distribution of goals purchases across FICO scores is based on the FICO score distribution of GSE purchased loans between 1998 and 2000 for 12 Metropolitan Areas, as shown in Table 3.5. These data are "illustrative" because of the uncertainty of the representativeness of the sample. However, they are useful in illustrating patterns of FICO scores by goal category. They were obtained by merging Experian data with HMDA data for 12 large metropolitan areas. It is not clear whether this distribution reflects the GSEs' overall purchases. Therefore these data should be interpreted cautiously. In addition, it is known that Experian FICO scores tend to be lower than FICO scores generated by Trans Union and Equifax.

Table 3.4

Housing Goals by Borrower/Loan Characteristics
Home Purchase Loans in Metropolitan Areas
Both GSEs

	2001			
	First-Time Homebuyers	Minorities	Over 90% LTV*	Over 95% LTV
Special Affordable	41.7% **	27.3%	35.5%	15.9%
Low- and Moderate-Income	35.5%	22.2%	33.0%	11.8%
Underserved Areas	36.3%	35.5%	37.1%	12.5%
Total	27.4%	19.5%	27.3%	6.8%
	2002			
	First-Time Homebuyers	Minorities	Over 90% LTV*	Over 95% LTV
Special Affordable	36.3%	27.0%	32.4%	12.9%
Low- and Moderate-Income	32.2%	23.4%	30.6%	10.3%
Underserved Areas	32.4%	37.1%	33.4%	10.9%
Total	26.0%	21.5%	25.4%	6.7%

* Includes 95 percent and greater LTVs.

** Interpreted as follows: 41.7% of special affordable home purchase loans purchased by the GSEs in metropolitan areas during 2001 are first-time homebuyer loans (compared with 27.4% of all home purchase loans).

Table 3.5

Illustrative Example: Housing Goals by Credit Scores for GSE Purchases in 12 Metropolitan Areas, 1998 - 2000

Both GSEs

	FICO Scores				
	0 - 620	621 - 660	661 - 720	721 +	Total
Special Affordable	14.3%	8.5%	22.2%	54.9%	100.0%
Low- and Moderate-Income	11.7%	8.1%	22.2%	58.1%	100.0%
Underserved Areas	14.2%	9.6%	25.0%	51.2%	100.0%
Total GSE Purchases	9.8%	7.5%	22.1%	60.7%	100.0%

NOTES: These data are referred to as "illustrative" because of the uncertainty of the representativeness of the However, they are useful for illustrating patterns of FICO scores by goal category. They were obtained by merging sample. Experian data with HMDA data for 12 large metropolitan areas; the GSE identifier in HMDA was used to identify GSE loans. It is not clear whether this distribution reflects GSE overall purchases in these metropolitan areas or in the nation as a whole. Therefore, these data should be interpreted cautiously. In addition, it is known that Experian FICO scores tend to be lower than FICO scores generated by Trans Union and Equifax. The data includes only home purchase loans differentials do not appear to be particularly large, and over half of the loans in each goals-qualifying category had FICO scores in excess of 720.[55]

The data in Tables 3.4 and 3.5, while showing that goals-qualifying loans are more targeted to important subgroups than are non-goals-qualifying loans, also raise some questions about the impact of the goals-qualifying purchases of the GSEs. For example, why do a large percentage of the goals-qualifying loans purchased by the GSEs have such large downpayments. The point that stands out is that one cannot assume that all the goals-qualifying purchases of the GSEs are necessarily expanding credit access and extending homeownership opportunities; rather, many of the families that qualify for the housing goals do not appear to be constrained in any way.[56] Thus, in examining the impacts of the housing goals, it is important to go beyond the three goal categories (special affordable, low-mod, and underserved areas) and look at the underlying characteristics of the loans.

Table 3.3 disaggregates the 927,253 additional goals-qualifying purchases into the various dimensions discussed above. If the 2005 subgoals had been in effect since 1999 (and given the various assumptions of this analysis), under HUD's simulation model, the GSEs would have purchased 332,674 additional first-time homebuyer loans, 255,850 additional minority loans (of which 118,347 would have been for first-time homebuyers), and 315,117 additional less-than-ten-percent downpayment loans (of which 107,855 would have been less-than-five-percent downpayment loans).[57] It is also important to focus on subgroups who face the more severe problems accessing mortgage credit. For example, if the 2005 subgoals had been in effect since 1999, the GSEs would have purchased 72,948 additional first-time homebuyer loans with a less-than-five-percent downpayment. Based on the purchasing patterns of the GSEs in 12 metropolitan areas, 200,000 of the 927,253 additional purchases over the years 1999 through 2002 would have been from borrowers with a FICO score less than 660. The additional low-FICO (less than 660 score) purchases include 89,000 special affordable, 156,000 low-mod and 145,000 underserved area loans. Still, over half, 510,000, of the additional purchases would have had high (greater than 720) FICO scores.[58]

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[55] These patterns could be due to the limited sample, but that is unknown. The issue of the credit scores on GSE loans is an area that needs further study, but unfortunately research has been hampered by lack of available data on credit scores.

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[56] This argument may not apply in considering the underserved areas goal. That is, that goal is designed to encourage additional mortgage lending in low-income and high-minority census tracts, which, based on HUD's research, historically have had high mortgage denial rates and low mortgage origination rates. Thus loan characteristics, such as the level of the down payment, may not be relevant in determining whether or not the GSEs are adequately providing financing for such areas.

[57] The goal percentages in Table 3.3 may understate the number of additional goals-qualifying loans for these categories due to the removal of all loan records with missing information. For instance loan records were removed where borrower income was not available. If some of these loans were included in the Underserved Areas goal calculation for minority homebuyers, goal qualifying loan levels would increase.

[58] The distribution of additional purchases across FICO scores is based on the FICO score distribution by GSE of purchased loans between 1998 and 2000 for 12 Metropolitan Areas. A combined distribution of the GSEs purchases by FICO score is provided later, in Table 3.5. Results discussed here are different

These calculations are based on comparisons of the proposed home purchase subgoals for 2005 with what actual performance on the subgoal categories was during 1999-2002. They are instructive, but in practice if these subgoals had been in effect, the GSEs' performance on them might have been higher. Also, it should be noted that the gaps between the proposed subgoal levels and the estimates of what performance would have been were greater in 1999 than in the past couple of years. For example, average GSE performance on the low-mod home purchase subgoal in 1999 was 39.5 percent, 5.5 percentage points below the proposed subgoal of 45 percent, but the gap would have shrunk to 2.0 percentage points in 2002, when average performance would have been 43.0 percent.

Despite these caveats, these calculations indicate that the size of the GSEs is such that their activities have large impacts on the home purchase mortgage market, at least in terms of the numbers of loans involved. And they illustrate clearly that loans targeted by HUD's housing goals are more concentrated among groups such as first-time homebuyers, minority homebuyers, and home buyers who cannot afford to make large downpayments.

d. GSE Purchases Needed to Meet the Housing Goals and Subgoals: Additional Analysis

Overview of Purchase Model. Chapter 6 develops a model for estimating the additional purchases under the proposed housing goals and new home purchase subgoals. This section uses results from that model to examine the impacts of the proposed goals and subgoals, along the same lines as discussed in the previous section. While Chapter 6 presents the technical details of the model, an overview of the model's main components and assumptions is provided here; this should assist the reader in interpreting the various estimates of additional GSE purchases. The anticipated impacts of the housing goals and subgoals on the GSEs' purchases are estimated by (1) projecting each GSE's performance if the goals were not changed (this is called "baseline performance"); (2) calculating the magnitude of any shortfalls from the new goals and subgoals; and (3) specifying scenarios for how the additional goals business is distributed across various property types in order to eliminate the shortfalls. As explained in Chapter 6, there are many ways in which the GSEs can target purchases to meet the goals. Purchase scenarios are based on several assumptions and are <u>purely illustrative</u>. However, the estimates provide some sense of the magnitude of additional goals-qualifying mortgages that the GSEs must purchase to meet HUD's housing goals.

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from what would be obtained by multiplying the category percents by the all additional purchases in Table 3.3. For example, 366,553 (from Table 3.3) times 0228 (14.3 percent plus 8.5 percent from Table 3.5) equals 83,574, not the 89,000 reported here. This result is because the distribution across goals and GSEs in Table 3.5 is based on sampled historical loan purchases, whereas the distribution across goals and GSEs in Table 3.3 is based on an historical example of additional purchases over the years 1999-2002 that would have been needed to meet the new goals during each of those years.

The analysis starts with a baseline, that is, assumptions about what the GSEs would buy in absence of the new goals. The higher a GSE's baseline performance (e.g., low-mod percent of business), the smaller is its shortfall from a given set of goal and subgoal targets, and the smaller are the additional goals-qualifying loans that GSE has to purchase to meet the goal and subgoal targets. As explained in Chapter 6, there are two key assumptions that drive the baseline results and the required additional purchases. First, is an assumption about the goals-qualifying percentages for the GSE's single-family-owner purchases, which account for over four-fifths of each GSE's business. The purchase model can assume that the GSEs' single-family-owner performance is similar to their performance in 2000, 2001 and 2002, and to their average performance between 2000 and 2002. As an example, consider the purchase model based on 2000-2002 performance. By "performance in 2000-2002" or "2000-2002 parameters" we mean the *average* share of a GSE's single-family-owner loans accounted for by low- and moderate-income loans, loans in underserved areas, and special affordable loans during the period, 2000 through 2002. The "individual performance" years (2000, 2001 and 2002) are interpreted similarly. For example, by "performance in 2002" or "2002 parameters" we mean the share of a GSE's single-family-owner loans accounted for by low- and moderate-income loans, loans in underserved areas, and special affordable loans during 2002. Sensitivity analyses can be conducted based on varying each GSE's 2000-2002 performance.

Second, is an assumption about each GSE's baseline "multifamily mix," that is, the share of all GSE-financed dwelling units that are multifamily. Multifamily units qualify for the housing goals at a much higher rate than do single-family-owner units.[59] Therefore, a higher assumed multifamily mix for a GSE's baseline business yields higher baseline projections for that GSE's goals performance (and thus a smaller shortfall from the new housing goals and less need to purchase additional goals-qualifying mortgages). The multifamily shares of total (both single-family and multifamily) mortgage market originations and of the GSEs' purchases tend to be larger in a "home purchase" environment, as compared with a "refinance environment"; in the latter case, single-family originations (driven by heavy refinancing) dominate both the market and the GSEs' purchases, thus producing low multifamily mixes, with the result being lower projected housing goal percentages.

Third, and related to the first two assumptions, is an assumption about the type of mortgage market environment that might exist during the 2005-2008 period when the proposed housing goals are in effect; for example, a "home purchase environment" or a "heavy refinance environment," and in the case of the former, whether interest rates are assumed to remain at low, affordable levels as they have in the recent past, or whether they are expected to rise. The analyses reported below and in Chapter 6 focus on a "home purchase environment"[60] characterized by affordable interest rates; sensitivity

[59] For example, over 90 percent of multifamily units qualify for the low-mod goal, compared with about 40-45 percent of single-family-owner units. Single family rental units also qualify at a high rate.

[60] The mortgage market is projected to be $1.7 trillion, which produces a conventional conforming market of $1,197 billion. The GSEs are projected to have a combined 60 percent share of the single-family

analyses are presented for a less affordable "home purchase environment" and a "heavy refinance environment." In the home purchase environment, Fannie Mae's baseline multifamily mix is 12.0 percent and Freddie Mac's, 10 percent, although alternative multifamily mixes are considered below.[61]

In cases where a GSE's baseline performance is below the proposed goal and subgoal levels, the simulation model calculates the number of metropolitan area single-family-owner home purchase mortgages needed to meet the metropolitan home purchase subgoals. Any additional shortfalls on the overall housing goals are satisfied by the GSE purchasing additional single-family and multifamily mortgages in the same pattern that it has met past housing goals. The end result is a combination of additional single-family and multifamily purchases that result in each GSE meeting all three housing goals and all three home purchase subgoals. While this provides an overview of how the purchase model works, readers are referred to Chapter 6 for a more detailed explanation of how the model estimates the additional GSE purchases to meet the goal and subgoal targets. As noted earlier and as emphasized in Chapter 6, any set of additional purchases generated by the model is purely illustrative, as there are a multiplicity of ways for Fannie Mae or Freddie Mac to meet a given set of housing goals and home purchase subgoals.[62]

Baseline Performance. As reported in Section C.4.b above, the GSEs' performance on the overall housing goals during 2001 and 2002 fell significantly short of the proposed housing goals. But in a home purchase environment such as that described in the previous section, the GSEs' baseline goals performance would be much better than their performance during heavy refinancing years such as 2001 and 2002. There are two reasons for this, one concerning refinance loans and one concerning the multifamily share

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conventional conforming mortgage market—34.8 percent for Fannie Mae and 25.2 percent for Freddie Mac. But as emphasized in Chapter 6, the important assumption in this analysis is not the overall dollar amount of single-family originations, but the assumption about the multifamily share of the market (as well as the multifamily share of each GSE's purchases).

[61] The 12.0 assumption for Fannie Mae is above its 1999-2002 average mix of 9.3 percent but below its 2000 level of 12.6 percent. Freddie Mac's baseline multifamily mix is 10.0 percent, which is 1.6 percentage points above its 1999-2002 average mix of 8.4 percent. Taking into consideration that (i) 2001 and 2002 were relatively high single-family refinance years, which lowered the multifamily share of both GSEs relative to what it would have been in a more typical year, and that (ii) Freddie Mac has been substantially increasing its multifamily purchases recently, the higher multifamily mix (compared with its 1999-2002 average) for Freddie Mac during the projection period appears reasonable. See the text for the results of alternative multifamily mixes.

[62] As explained in Chapter 6, the purchase model assumes that goals will be met by additional, goals-related purchases rather than by restrictions on core business. This assumption is appropriate as long as there are no binding resource constraints on GSE loan purchase volumes, which there are not. Analysis in Chapter 6 also shows that the GSEs earn rather high rates of return on both their core business and their goals-qualifying business, which suggests that the GSEs would not likely deviate, or pull back too much from their past purchase patterns (although some exceptions are discussed in the text). However, as emphasized in the text, there are a multiplicity of ways the GSEs could choose to meet the proposed housing goals, which could result in lower or higher single-family and multifamily purchases than those provided in the text.

of the GSEs' business. First, in a heavy refinance environment, refinance loans are characterized by low goals-qualifying shares (because middle-income and high-income homeowners dominate a refinance market) and, of course, they account for most of the GSEs' single-family-owner business at that time. On the other hand, during a home purchase environment, refinance loans account for a much lower share of the GSEs' single-family-owner business and, in addition, the goals-qualifying characteristics of refinance loans are typically not much different than those of home purchase loans. Second, in a heavy refinance environment, single-family-owner loans (specifically refinance loans) dominate the GSEs' business, which reduces the multifamily share of the GSEs' business (about 7 percent in 2002). On the other hand, in a home purchase environment, the multifamily share is higher (e.g., the 10-12 percent mentioned earlier), which increases the goals-qualifying shares of the GSEs' baseline business.

This can be illustrated in the case of Freddie Mac. In one of the simulations of a home purchase environment that assumed a 10-percent multifamily mix for Freddie Mac, the baseline goals performance for Freddie Mac was as follows: 20.3 percent for special affordable, 49.8 percent for the low-mod goal, and 36.0 percent for the underserved areas goal—called "scenario A" below In another simulation that assumed a 10-percent multifamily mix for Freddie Mac but also assumed slightly lower single-family-owner goal-qualifying percentages for Freddie Mac, the baseline goals performance for Freddie Mac was as follows: 20.0 percent for special affordable, 49.0 percent for the low-mod goal, and 35.4 percent for the underserved areas goal—called "scenario B" below. Freddie Mac's baseline performance in scenarios A and B is larger than its actual performance (reported earlier) during 2001 and 2002: special affordable (19.1 percent in 2001 and 17.8 percent in 2002), low-mod (47.0 percent in 2001 and 45.0 percent in 2002), and underserved areas (32.5 percent in 2001 and 32.8 in 2002). Again, the reasons for these differences are the higher multifamily mix in the two scenarios (10 percent versus 7.3 percent in 2002), the lower weight for refinance loans (40 percent of single-family-owner business in the two scenarios, versus approximately 70 percent in 2002), and higher goals-qualifying percentages for refinance loans in the two scenarios (explained below). Thus, the two scenarios project a higher baseline performance for Freddie Mac in a home purchase environment, which means the shortfalls from the proposed goals are less than when compared to actual 2001 and 2002 experience. For example, the 2005 goal shortfalls under scenario A and actual 2002 experience are as follows: special affordable (1.7 percent for scenario A and 4.2 percent for 2002), low-mod (2.2 percent for scenario A and 7.0 percent for 2002), and underserved areas (2.0 percent for scenario A and 5.2 percent for 2002). Obviously, the proposed goals look much more feasible when examined in the context of a home purchase environment. As explained earlier, the increases in the housing goals are sequenced so that the GSEs can gain experience as they improve and move toward the new higher goals, essentially developing a new baseline performance standard each year (at that year's higher goal levels). Still, the above baseline under Secenario A can be compared to the proposed higher goal levels (below such as comparison is the basis for projecting the number of additional purchases under the new goals). In the case of 2007 goals, for example, Freddie Mac's shortfall under the Scenario A baseline is as follows: special affordable (5.7 percent); low-mod (5.2 percent), and underserved areas (3.0 percent). In the case of the proposed 2008 goals, Freddie Mac's shortfall under the Scenario A baseline is as follows: special affordable (7.7 percent); low-mod (7.2 percent), and underserved areas (4.0 percent). While the shortfalls appear large, the GSEs have time to improve their performance before the higher goal levels take effect.

Goals-Qualifying Percentages for Single-family-Owner Loans. While scenarios A and B assume the same multifamily mix for Freddie Mac, they different with respect to their assumptions about the goals-qualifying characteristics of Freddie Mac's baseline purchases of single-family-owner (SFO) loans. Explaining those differences will highlight the key assumptions in the purchase model that produce different estimates of both goal shortfalls and additional-purchase impacts. Readers not interested in this discussion may want to move to the presentation of the results below.

As a basis for projecting Freddie Mac's baseline goal purchases for 2005-2008, both scenarios A and B employ "2002 parameters" (see earlier discussion) for Freddie Mac's SFO purchases. One advantage of using the GSEs' "2002 parameters" is that they reflect both GSEs' recent improvement in purchasing goals-qualifying home purchase loans—given that housing and mortgage market conditions are not expected to deteriorate to any significant degree over the next few years, one might expect the GSEs (assuming no increase in the housing goals) to continue purchasing goals-qualifying home loans at the same (or a similar) rate as they did in 2002. Thus, the "2002 parameters" capture the GSEs' recent improvement, which provides a realistic starting point for projecting their future baseline purchases of special affordable, low-mod, and underserved areas loans. Scenario A was derived from 2002 data by making the following two adjustments:

(1) The SFO goals-qualifying percentages for special affordable and low-mod loans (e.g., the 2002 low-mod share of Freddie Mac's purchases of home loans) were multiplied by a discount factor of 0.98 to reflect historical patterns of missing borrower incomes in the GSEs' SFO data. Loans with missing borrower income data are excluded (subject to certain caps) in the denominator of the official goals calculations, but included in these calculations, which means that these calculations yield lower goal performance than the official goal performance numbers. That is, since the input data in the purchase model did not account for missing data, it was necessary to discount the various official goals-qualifying percentages. The GSEs have mentioned that loans with little or no documentation (low-doc or no-doc loans) present a particular problem. Whether missing data will account for the same share of loans as they have in the past is an open question.

(2) The 2002 special affordable and low-mod percentages of SFO refinance loans were increased so that they are only slightly below the corresponding 2002 home purchase percentages. In the projection model, the underserved area percentage for refinance loans was assumed to equal the 2002 underserved area percentage for home purchase loans. As noted earlier, it would have been unrealistic to apply low goals-qualifying percentages for refinance loans from a heavy refinance environment (such as 2002) to refinance loans in a home purchase environment.

Scenario B makes the following further adjustment:

> (3) As noted earlier, housing and mortgage market conditions are expected to remain favorable over the next few years (see Appendix A of the proposed GSE Rule for a summary of market forecasts). However, interest rates are expected to increase slightly (to about 6.5 percent), although they would still remain at historically low levels. To reflect the possibility of slightly less affordable conditions, sensitivity analyses were conducted by reducing the various goals-qualifying percentages from steps (1)-(2) by discount factors of such as 0.99 and 0.98.[63] While these represent only slight reductions, they could be realistic ones.[64] The above baseline percentages reported for Scenario B included the 0.98 discount factor.

To conclude, the above three adjustments were made to account for missing data, to recognize that refinance loans in a heavy refinance environment have different goals-qualifying characteristics than they do in a home purchase environment, and to conduct some simple sensitivity analyses. As explained earlier, other simulations could be based on other sets of goals-qualifying parameters (such as assuming the average of the goals-qualifying percentages between 2000 and 2001) and other multifamily mixes. In addition, as explained below, baseline simulations were run to reflect a heavy refinance environment. As noted above, one advantage of using the "2002 parameters" as a starting point for predicting the GSEs' future goals performance is that they reflect the recent improvement in the GSEs' funding of home purchase loans for lower income families.

Additional Purchases to Meet the Goals and Subgoals. The proposed housing goals for 2005 can be used to illustrate the additional purchase calculations. As the above data indicate, Freddie Mac is projected to fall short of the 2005 proposed housing goals and home purchase subgoals, and thus would have to make additional purchases to satisfy the goal and subgoal targets. Under Scenario A, Freddie Mac could meet the proposed targets by purchasing (over its baseline purchases) about 79,000 additional goals-qualifying home purchase loans and 17,000 goals-qualifying refinance loans. The additional purchases of home loans are driven by the home purchase subgoal for metropolitan areas. In this particular scenario, Freddie Mac also increased it multifamily purchases by 16 percent (over baseline multifamily purchases), raising its multifamily mix from the assumed baseline level of 10.0 percent to 10.9 percent. Under scenario B, which reflects slightly lower goals-qualifying percentages for Freddie Mac's baseline SFO purchases, Freddie Mac could meet the proposed targets by purchasing (over its baseline purchases) about 90,000 additional goals-qualifying home purchase loans and 39,000 goals-qualifying refinance loans; in scenario B, Freddie Mac increased it multifamily purchases by 20 percent (over baseline multifamily purchases), again raising its multifamily mix from the assumed baseline level of 10.0 percent to 11.1 percent.

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[63] For example, a 0.99 (0.98) discount factor would reduce the 2002 low-mod share of Freddie Mac's home purchase loans in metropolitan areas from 42.1 percent to 41.7 (41.3) percent.

The figures reported above for additional goals-qualifying purchases are "net figures" in the sense that they were calculated accounting for the overlap among the three separate housing goals—for example, a special affordable loan is also a low-mod loan. The additional purchases can also be presented by individual housing goal. Under scenario A, Freddie Mac acquired the following additional home purchase loans in order to meet the three home purchase subgoals in metropolitan areas: special affordable, 33,885; low-mod, 70,446; and underserved areas, 44,684.[65] These additional purchases can also be expressed as a percentage increase over the baseline purchases in metropolitan areas. For example, the 33,885 additional special affordable loans under scenario A represented 24.4 percent of Freddie Mac's baseline purchases of special affordable home loans in metropolitan areas. In all, the percentage increases under scenario A were as follows: special affordable, 24.4 percent; low-mod, 18.2 percent; and underserved areas, 15.0 percent.

As explained earlier, these numbers are purely illustrative, as Freddie Mac could choose entirely different strategies to meet the proposed 2005 goals. However, they provide some sense of the magnitude of the additional effort required by Freddie Mac—to meet the 2005 goal and subgoal levels, Freddie Mac would have to purchase both single-family-owner and multifamily loans that qualify for the housing goals. The need for additional goals-qualifying purchases is not surprising given the significant shortfalls from the proposed goal levels of Freddie Mac's baseline goals percentages (see above).

The additional purchase requirements for Fannie Mae to meet the proposed 2005 goals and subgoals are much lower than those described above for Freddie Mac. This is due to Fannie Mae's higher goals-qualifying percentages for SFO loans and to the higher multifamily mix (12 percent) assumed for Fannie Mae—these factors result in Fannie Mae's baseline goal and subgoal percentages being higher than Freddie Mac's, which calls for fewer additional goals-qualifying purchases for Fannie Mae to meet the proposed goal and subgoal targets. Recall that Fannie Mae's actual goals performance during 2001 and 2002 was as follows: special affordable (20.1 percent in 2001 and 19.4 percent in 2002), low-mod (48.7 percent in 2001 and 47.9 percent in 2002), and underserved areas (35.7 percent in 2001 and 35.0 in 2002). These performance figures for 2001 and 2002 are below the goal targets for 2005 (and thereafter). But, for the same reasons discussed above for Freddie Mac, Fannie Mae's baseline performance is much higher in a home purchase environment.

An assumed multifamily mix of 12 percent combined with the various assumptions captured by scenario A produces the following baseline goals percentages for Fannie Mae: 23.3 percent for special affordable, 52.7 percent for the low-mod goal,

[65] Under scenario B, Freddie Mac figures for additional home purchase loans in order to meet the 2005 subgoals in metropolitan areas are as follows: special affordable, 37,460; low-mod, 79,559; and underserved areas, 52,560. For various reasons, the purchase model slightly overshoots the subgoal for underserved areas by 0.6 percentage points; thus, the additional underserved area purchases are slightly overstated (by approximately 6,000).

and 38.7 percent for the underserved areas goal. In this case, Fannie Mae's baseline performance surpasses the housing goal targets for 2005 (and approaches the housing goal targets for 2006). However, Fannie Mae falls short of the 2005 home purchase subgoal targets (see earlier discussion). Under scenario A, Fannie Mae could meet the proposed subgoal targets by purchasing (over its baseline purchases) about 56,000 additional goals-qualifying home purchase loans in metropolitan areas.[66] The following are the additional home purchase loans that Fannie Mae would have to purchases in order to meet the three home purchase subgoals in metropolitan areas: special affordable, 30,062; low-mod, 55,169; and underserved areas, 27,420.[67] Fannie Mae's additional 2005 purchases can also be expressed as a percentage increase over its baseline purchases in metropolitan areas: special affordable, 15.0 percent; low-mod, 9.9 percent; and underserved areas, 6.5 percent. These percentage increases in projected 2005 purchases of goals-qualifying home loans in metropolitan areas are much lower than those reported earlier for Freddie Mac.[68]

As explained in the earlier analysis of Freddie Mac's purchases, the magnitude of the additional purchases depends importantly on certain key baseline assumptions, such as the assumed multifamily mix and the goals-qualifying parameters that are used to project SFO home purchase mortgages. Fannie Mae's baseline performance would fall with lower initial multifamily mixes and with SFO parameters based on earlier years (such as the 2000-2002 average). However, in a home purchase environment, it is likely

[66] The additional purchases reported in the text, combined with Fannie Mae's baseline purchases, meet the proposed housing goals. Again, it is important to emphasize that Fannie Mae (like Freddie Mac) could choose strategies that result in a larger or smaller number of additional loan purchases—for example, a policy of purchasing only loans (e.g., special affordable loans in underserved areas) that have the greatest overlap with the three housing goals would lead to a smaller number of additional purchases needed to meet the proposed goals and subgoals.

[67] The following are the additional home purchase loans that Fannie Mae would have to purchase in order to meet the 2005 subgoals in metropolitan areas under Scenario B: special affordable, 37,038; low-mod, 74,222; and underserved areas, 41,961.

[68] A different perspective could be taken with respect to Fannie Mae. The model in the text assumes that Fannie Mae would actually purchase its baseline projections if there were no change in the 2005 housing goals; this seems like a reasonable assumption given the high financial returns (see Section E of Chapter VI) that Fannie Mae earns on goals-qualifying loans, as well as non-goals-qualifying loans. One could take a different perspective—that Fannie Mae would revert back to the current goal levels if the proposed goals and subgoals were not put in place. Assuming Fannie Mae's baseline goals percentages equaled the current goal percentages would yield a higher estimate of additional purchases due to the proposed goals and subgoals. In scenario A, Fannie Mae was projected to purchase about 56,000 additional goals-qualifying home loans in metropolitan areas. If Fannie Mae's baseline goal percentages had been the current goal levels (without any subgoals), then Fannie Mae's additional purchases under the proposed goals and subgoals would have been approximately 80,000 (roughly estimated), much higher than the 56,000 reported in the text for scenario A. But as noted earlier, there is reason to believe that Fannie Mae would purchase according to the baseline estimates provided in the text. Still, there could be situations over time where Fannie Mae might reduce its baseline behavior and revert back to the current goals—the proposed goals and subgoals for 2005-08 ensure that Fannie Mae would not do that. (This footnote assumes that Fannie Mae's baseline goals percentages are above the current goals, which they are in the home purchase environment defined by scenario A.)

that the multifamily share of Fannie Mae's business will return to earlier, pre-refinance-environment levels. In addition, there is no reason to assume that Fannie Mae will pull back from its recent improved performance purchasing goals-qualifying home loans in metropolitan areas. Therefore, the above results probably provide a reasonable approximation of Fannie Mae's future goals performance, under the assumption of a home purchase environment characterized by affordability conditions similar or only somewhat less favorable than has existed recently.

Characteristics of Additional Purchases. Numerous purchase models were run for 2005 goals in a home purchase environment, along the lines described above. Considering both GSEs, the estimates of additional, goals-qualifying home loans varied rather widely. Under the Scenario A described above, the additional goals-qualifying purchases of home loans in metropolitan areas totaled approximately 135,000. The question examined in this section concerns the characteristics of these additional goals-qualifying loans—do the characteristics of the loans purchased suggest that the GSEs are solving problems of credit access and extending homeownership opportunities.

Recall Table 3.4, which showed that special affordable, low-mod, and underserved area loans were more likely than non-goals-qualifying loans to be first-time homebuyer loans, minority loans, or low-downpayment loans—the latter three being important dimensions for gauging the impact of the new housing goals and subgoals. This section continues using 2005 to illustrate the methodology; the additional 2005 goals-qualifying purchases are disaggregated into the various dimensions mentioned above. The top portion ("2005) of Table 3.6 shows the results of that analysis. Several points stand out from the results reported in this table. The number of first-time homebuyer loans would increase by 50,245, while those first-time homebuyer loans with less-than-ten-percent downpayment would increase by 24,028.[69] Considering both first-time and repeat homebuyer loans (see "All Additional Purchases" on the right side of Table 3.6), the GSEs would purchase an additional 46,607 loans with a downpayment less than 10 percent, and of these, an additional 17,465 would have a downpayment less than five percent. It is also important to focus on subgroups who face the more severe problems accessing mortgage credit. As shown in Table 3.6, the GSEs would purchase in 2005 an additional 35,075 loans originated for minority borrowers.

Poor credit is being increasingly recognized as a major barrier to homeownership. Earlier, Table 3.5 presented some illustrative results based on a small sample of credit data for 12 metropolitan areas. Table 3.7 continues that analysis by presenting a breakout of the additional purchases by credit (FICO) score. Of the 135,267 additional loans, 29,245 (or 21.6 percent) would have a borrower FICO score less than 660. Note, however, that 75,120 (or 55.5 percent) would also have a borrower FICO score greater than 720. As discussed in Chapter IV, compared with the non-GSE portion of the

[69] It should be noted that the GSE loan-to-value data may not always be a good indicator of the cumulative loan-to-value (or inversely, the borrower's downpayment). For example, as part of their affordability initiatives, the GSEs purchase first-lien loans that have been combined with "soft seconds"; in these cases, the borrower's downpayment is less than indicated by the inverse of the loan-to-value ratio. Unfortunately, data are not available on these situations.

Table 3.6
Projected Additional GSE Purchases of Home Loans Under the Proposed Subgoals
Both GSEs

2005

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	27,297	13,786	7,793	10,276	**63,947**	23,443	10,587	18,490
Low- Mod	47,579	22,968	11,634	15,981	**125,605**	43,648	16,833	31,761
Underserved Areas	30,118	16,239	8,813	13,930	**72,103**	29,768	12,342	27,221
Additional Purchases**	50,245	24,028	11,945	17,110	**135,267**	46,607	17,456	35,075

2006

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	40,712	20,690	11,714	15,501	**94,625**	35,027	15,814	27,729
Low- Mod	67,680	32,993	16,877	23,344	**175,595**	61,872	24,096	45,803
Underserved Areas	47,288	25,207	13,399	21,603	**114,588**	46,535	18,654	42,441
Additional Purchases**	73,510	35,305	17,486	25,723	**196,359**	68,169	25,263	52,555

2007

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	56,924	28,928	16,360	21,636	**132,037**	48,873	22,007	38,603
Low- Mod	89,012	43,619	22,528	31,115	**227,736**	80,788	31,826	60,342
Underserved Areas	64,479	34,337	18,204	29,341	**155,608**	63,067	25,130	57,239
Additional Purchases**	97,380	46,933	23,362	34,478	**257,328**	89,726	33,388	69,751

2008

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	62,986	32,017	18,137	23,991	**146,558**	54,263	24,530	42,952
Low- Mod	97,861	48,013	24,887	34,315	**250,796**	89,084	35,341	66,668
Underserved Areas	70,325	37,553	20,027	32,177	**169,569**	68,965	27,759	62,808
Additional Purchases**	106,700	51,515	25,784	37,887	**282,132**	98,563	37,034	76,713

2005 - 2008

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	187,919	95,421	54,004	71,404	**437,167**	161,605	72,938	127,774
Low- Mod	302,132	147,593	75,926	104,756	**779,732**	275,391	108,095	204,574
Underserved Areas	212,211	113,335	60,442	97,052	**511,868**	208,334	83,884	189,708
Additional Purchases**	327,835	157,782	78,577	115,198	**871,086**	303,065	113,141	234,094

*Includes 95 percent and greater LTVs.

**Additional Purchases is not the sum of the above three rows since a single loan purchase may qualify for more than one goal. See text for more explanation.

Table 3.7

Illustrative Example: Projected Additional GSE Purchases of Home Loans by Credit Scores* Both GSEs

	2005				
	FICO Scores				
	0 - 620	621 - 660	661 - 720	721 +	Total
Special Affordable	9,886	5,644	14,504	33,913	63,947
Low- and Moderate-Income	16,664	10,718	28,485	69,738	125,605
Underserved Areas	11,610	7,048	17,750	35,696	72,103
Total Additional Purchases**	17,655	11,590	30,903	75,120	135,267

	2006				
	FICO Scores				
	0 - 620	621 - 660	661 - 720	721 +	Total
Special Affordable	14,801	8,442	21,561	49,821	94,625
Low- and Moderate-Income	23,861	15,207	40,069	96,458	175,595
Underserved Areas	18,166	11,175	28,299	56,948	114,588
Total Additional Purchases**	26,027	17,048	45,308	107,976	196,359

	2007				
	FICO Scores				
	0 - 620	621 - 660	661 - 720	721 +	Total
Special Affordable	20,681	11,824	30,121	69,411	132,037
Low- and Moderate-Income	31,488	19,888	52,087	124,273	227,736
Underserved Areas	24,764	15,194	38,462	77,187	155,608
Total Additional Purchases**	34,596	22,492	59,580	140,660	257,328

	2008				
	FICO Scores				
	0 - 620	621 - 660	661 - 720	721 +	Total
Special Affordable	22,876	13,061	33,379	77,242	146,558
Low- and Moderate-Income	34,626	21,833	57,280	137,057	250,796
Underserved Areas	27,075	16,516	41,854	84,124	169,569
Total Additional Purchases**	37,909	24,598	65,205	154,420	282,132

*The distribution of additional purchases across FICO scores is based on the FICO score distribution of GSE purchased loans between 1998 and 2000 for 12 Metropolitan Areas; see Table 3.5 for cautions concerning these data.

**Additional Purchases is not the sum of the above three rows since a single loan purchase may qualify for more than one goal. See text for more explanation.

market, the GSEs appear to have been cautious with respect to purchasing loans for borrowers with poor or blemished credit. As explained in Chapter IV, the GSEs have used their automated underwriting systems and the concept of compensating variables to reduce the risk on loans that they purchase. They argue that this is a prudent way to enter into targeted markets, particularly when compared with traditional methods of underwriting.

The above estimates of the numbers of first-time homebuyer, low-downpayment, and minority loans to be purchased by the GSEs are driven by their past patterns of purchasing for the housing goals. As shown in Table 3.4, the GSE goals-qualifying loans have had higher proportions of first-time homebuyer, low-downpayment, and minority loans than non-goals-qualifying loans. In fact, this mechanism—the goals being correlated with groups that face credit constraints—is how the housing goals increase credit access and homeownership opportunities. However, as also shown in Table 3.4, most of the GSEs' goals-qualifying-loans do not fall into these three groups. This is not totally unexpected, given findings from Chapter IV that the GSEs lag far behind the conventional conforming market in purchasing first-time homebuyer loans. In other words, if the GSEs had relied more heavily on first-time homebuyer loans to meet the housing goals in the past, the projection methodology would suggest more first-time homebuyer loans would be included in the additional purchase calculations. Of course, the higher housing goals should encourage the GSEs to reach out to groups such as first-time homebuyers. In fact, there are situations where the GSEs would have to deviate from their past purchase patterns in order to reach the new home purchase subgoals. If the types of goals-qualifying home loans that the GSEs have relied on in the past to meet the housing goals are not readily available in the non-GSE portion of the market, then the GSEs would have to purchase different types of loans, such as more first-time home buyer loans or more low-downpayment loans.

A first indicator of whether the GSEs can rely on their past purchase patterns is to examine the size of the non-GSE portion of each goals-qualifying market relative to the required additional GSE purchases. For example, if the additional special affordable loans needed to meet the subgoal and goal targets account for a large percentage of the non-GSE special affordable market (defined as the total special affordable originations minus the GSEs' baseline special affordable purchases), then the GSEs may have to deviate from past purchase patterns by reaching deeper into the market, possibly loosening their underwriting standards in order to attract enough borrowers that qualify as special affordable. On the other hand, if the additional GSE purchases account for a small or moderate percentage of the remainder of the market, then the GSEs will probably be able to meet their goal targets with the same types of goals-qualifying loans that they have purchased in the past (as reflected in Table 3.4).

For each goals category, the following are estimates of (a) the additional 2005 GSE goals-qualifying purchases of home loans in metropolitan areas under scenario A <u>divided by</u> (b) the non-GSE portion of the market, calculated by subtracting the GSEs' baseline purchases from total market originations: (1) 11.0 percent for special affordable,

(2) 9.9 percent for low-mod, and (3) 7.8 percent for underserved areas.[70] These results suggest that the additional goals-qualifying purchases will not require the GSEs to loosen their underwriting standards in a manner that requires them to take on any undue risk. Rather, as was emphasized in the rationale for the goals and subgoals, there appear to be goals-qualifying loans for the GSEs to purchase in the remainder (non-GSE portion) of the market. As noted above, this is particularly the case for important categories such as first-time homebuyers, where the GSEs account for a relatively small portion of the market.[71]

The 2005 proposed goals and subgoals are not likely to cause any significant reduction in the GSEs' profits or any significant increase in costs due to higher defaults. As explained in Chapter 6, the return on equity for the additional goals-qualifying loans is projected to be lower than that for the GSEs' standard business, but not by much. The GSEs have earned profitable returns on their goals business, and based on the above analysis of the additional 2005 purchases as a share of the non-GSE market, there is no reason to expect any significant reduction in financial returns or any significant increase in mortgage defaults and losses. This is because the GSEs can meet the proposed 2005 goals without overly loosening their underwriting standards—there are plenty of goals-qualifying loans (both seasoned and newly-originated) for the GSEs to purchase to meet the proposed goals.

With this background for the proposed 2005 goals, one can now consider the housing goals and subgoals for 2006-08. The housing goals for these years aim to move the GSEs toward the market (compare the market estimates and proposed goal levels in Table 3.2a), while the home purchase subgoals for these years aim to move the GSEs' into a true leadership position in the home loan market (compare the subgoal levels with the 1999-2002 market data in Table 3.2b).

Recall that in the home purchase environment characterized by scenario A, Freddie Mac's (Fannie Mae's) baseline goals performance was as follows: 20.3 (23.3) percent for special affordable, 49.8 (52.7) percent for the low-mod goal, and 36.0 (38.7) percent for the underserved areas goal. Thus, with respect to the proposed 2006 goals, Freddie Mac (Fannie Mae) has the following shortfalls: 3.7 (0.7) percent for special affordable; 3.2 (0.3) percent for low-mod; and 3.0 (0.3) percent for underserved areas. With respect to the proposed 2007 goals, the shortfalls from projected baseline

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[70] The results reported in the text are adjusted to exclude the GSEs' purchases of prior-year mortgages. That is, not all of the additional GSE purchases will involve newly-originated mortgages, as one strategy the GSEs have used to meet the housing goals involves their purchasing targeted seasoned loans. Between 2000 and 2002, purchases of prior-year home loans represented 26.6 percent of the GSEs' total special affordable purchases, 21.7 percent of their low-mod purchases, and 24.7 percent of their underserved area purchases.

[71] It should be noted that focusing solely on the non-GSE portion of the conventional conforming market is somewhat restrictive, given that there could be an expanding market due to the GSEs' outreach; in addition, some of the GSEs' additional purchases could be borrowers who otherwise would have received an FHA loan. Still, the non-GSE portion of the conforming market provides a reasonable benchmark for examining feasibility issues.

performance for Freddie Mac (Fannie Mae) are as follows: 5.7 (2.7) percent for special affordable; 5.2 (2.3) percent for low-mod; and 3.0 (0.3) percent for underserved areas. Obviously, Fannie Mae's performance is projected to be much closer to the goal levels than Freddie Mac's performance. Thus, Freddie Mac would have to make more additional purchases to satisfy the 2006 and 2007 goal targets than Fannie Mae.

Under Scenario A, Freddie Mac could meet the 2006 targets by purchasing (over its baseline purchases) 104,000 additional goals-qualifying home purchase loans and 36,000 goals-qualifying refinance loans, for a total of 140,000 SFO loans. The additional purchases of home loans are driven by the home purchase subgoal for metropolitan areas while additional purchases of goals-qualifying refinance loans are needed to meet the higher alternative goals.[72] Under scenario A, Freddie Mac's 2006 multifamily purchases would increase by 21 percent over baseline multifamily purchases, raising its multifamily mix from the assumed baseline level of 10 percent to 11.1. Under Scenario A, Fannie Mae could meet the 2006 targets by purchasing 93,000 additional goals-qualifying home purchase loans; these purchases, which are needed for Fannie Mae to meet the home purchase subgoals, will enable Fannie Mae to meet the overall 2006 housing goals—no additional purchases are required for Fannie Mae. The additional 2006 purchases for the three separate home purchase subgoals can be expressed as a percentage increase over baseline purchases (with Fannie Mae's in parentheses): special affordable, 33 (24) percent; low-mod, 24 (15) percent; and underserved areas, 21 (13) percent. Further increases are required to meet the 2007 goals and subgoals. Freddie Mac would have to purchase 126,000 home loans and 61,000 refinance loans; there would also be a 31 percent increase in Freddie Mac's multifamily purchases (over projected baseline, not over the previous year level), raising Freddie Mac's multifamily mix from the baseline 10.0 percent to 11.6 percent.[73] Fannie Mae could meet the 2007 goals and subgoal levels by purchasing an additional 131,000 home loans and 21,000 refinance loans; Fannie Mae would have to slightly increase its multifamily purchases over baseline (by six percent).

The 2006 and 2007 goals will require increases in purchases, particularly for Freddie Mac. To meet the 2006 and 2007 goals, Freddie Mac could choose an entirely different strategy than suggested by HUD's purchase simulation model, for example, a strategy possibly involving fewer loan purchases (e.g., by focusing on loans that meet multiple goals). Even with this caveat, however, it appears that the 2006 and 2007 goals and subgoals will require a significant increase in additional purchases by Freddie Mac.

[72] After satisfying the home purchase subgoals, the simulation model places additional SFO purchases into the refinance category until the model's assumed refinance rate is met. Of course, Freddie Mac could choose to meet the overall goals by purchasing home purchase loans (in addition to those needed to meet the subgoals) instead of refinance loans. Freddie Mac as well as Fannie Mae have begun purchasing subprime loans (which are mainly refinance loans) as one mechanism for meeting the housing goals.

[73] If Freddie Mac's baseline multifamily mix is 11 percent (instead of 10 percent), then additional multifamily purchases increase by 24 percent (instead of 31 percent). In this case, Freddie Mac's final multifamily mix is 12.1 percent.

Tables 3.6 and 3.7 report the characteristics of the additional 196,359 home loans purchased by the GSEs to meet the 2006 subgoals and the additional 257,328 home loans purchased to meet the 2007 subgoals. Focusing on the 2007 data, increased purchases are as follows: 97,380 first-time homebuyer loans; 46,933 first-time homebuyer loans with less-than-ten-percent downpayment; 89,726 loans with a downpayment less than 10 percent (considering repeat as well as first-time homebuyers); 69,751 home loans for minorities; 34,478 loans for minority first-time homebuyers; and 57,088 loans with a borrower FICO score less than 660.[74]

These estimates are based on the GSEs' past purchase patterns under the housing goals, as reported in Table 3.4. Given the size of the required additional purchases (see above), the GSEs would likely have to begin to alter their purchase patterns during 2006 and 2007, as they sought to attract more goals-qualifying loans. Thus, the characteristics of the additional loans may differ from those reported above—for example, there could be more first-time homebuyer loans since that is a part of the market when there is ample room for the GSEs to improve. Thus, the data reported in Tables 3.6 and 3.7 for 2006 and particularly 2007 (as well as 2008) may be minimal estimates.

Earlier, the goals-qualifying purchases of home loans in metropolitan areas needed to meet the 2005 subgoals were expressed as a percentage of the non-GSE portion of the market, the latter calculated by subtracting the GSEs' baseline purchases from market originations. These percentages are an indicator of how far into the market the GSEs would have to go in order to meet a given set of housing goals. The percentages for 2006 and 2007 are as follows (with 2007 in parentheses): (1) 16 (23) percent for special affordable, (2) 14 (18) percent for low-mod, and (3) 11 (16) percent for underserved areas.[75] Thus, the additional GSE purchases of 94,625 special affordable loans in 2006 (see Table 3.6) represent 16 percent of the remaining (non-GSE) special affordable market. The additional GSE purchases of 132,037 special affordable loans in 2007 (see Table 3.6) represent 23 percent of the remaining (non-GSE) special affordable market. The larger number of additional purchases under the 2006 and 2007 goals (as

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[74] The 2006 numbers are approximately three-fourths of these numbers.

[75] The market estimates assume the following averages across both home purchase and refinance loans: 18.0 percent for special affordable, 45.5 percent for low-mod, and 34.0 percent for underserved areas. By comparison, the corresponding percentages for the last two home purchase environments (1999 and 2000) were as follows: 1999 (18.5 percent for special affordable, 45.5 percent for low-mod, and 33.8 percent for underserved areas); and 2000 (19.6 percent for special affordable, 46.8 percent for low-mod, and 36.1 percent for underserved areas). After Scenario A's missing data adjustment, the market percentages were reduced to 17.6 percent for special affordable, 44.6 percent for low-mod, and 33.2 percent for underserved areas. Scenario B (with a discount factor of 0.98) further reduces the figures as follows: 17.3 percent for special affordable, 43.7 percent for low-mod, and 32.7 percent for underserved areas); a market share analysis based on Scenario B for the year 2007 is discussed later. The market share analysis in the text is based on Scenario A. In this case, the beginning percentages refer to the entire conventional conforming market. An adjustment within the simulation model deducts B&C loans. While the adjustment is generally one-half, in this case, A-minus loans are assumed to represent two-thirds of the subprime market (i.e., B&C loans are assumed to represent one-third of the subprime market). This seems consistent with one potential strategy that the GSEs might choose to meet the higher housing goals—move deeper into the subprime market.

compared with the 2005 goals) would require the GSEs to reach further into the non-GSE portions of the affordable market. Under the assumptions in this analysis, to meet the 2007 special affordable subgoal, the GSEs would have to purchase almost one-fourth of newly-originated special affordable loans in the non-GSE portion of the market, compared with purchasing 11 percent under the 2005 subgoal. Focusing solely on newly-originated mortgages in the non-GSE portion of the conventional conforming market as the source of new goals-qualifying loans for the GSEs, however, does not fully consider the options available to the GSEs. The GSEs could increase their purchases of seasoned (prior-year) loans (beyond the percentages assumed in this analysis). The GSEs could also attract borrowers from the government (e.g., FHA) sector as well as new entrants into the homeownership market. They could also go deeper into the subprime market, or further into markets that are not fully included in this analysis such as manufactured housing.

As explained earlier, the aim of the new housing goals is to give the GSEs time to improve their performance. Thus, the GSEs' performance on the year-2008 goals should benefit from their experience meeting the 2005-2007 goals. In 2008, the home purchase subgoals are set at their 2007 levels while the overall goals go up as follows: special affordable (from 26 percent in 2007 to 28 percent); low-mod (from 55 percent in 2007 to 57 percent); and underserved areas (from 39 percent to 40 percent). Compared with its baseline, Freddie Mac would have to purchase an additional 257,000 home purchase and refinance loans and increase its multifamily purchases by 45 percent and its single-family rental purchases by 37 percent. Thus, even though the home purchase subgoals are not increased in 2008, Freddie Mac will likely purchase additional goals-qualifying single-family loans (both home purchase and refinance loans) in order to meet the overall housing goals, as well as additional loans on rental properties. It is possible that Freddie Mac's baseline multifamily mix will be higher by 2008. If Freddie Mac's baseline multifamily mix is 12 percent, its additional single-family purchases will fall to 223,000 and the percentage increase in multifamily purchases would be 32 percent. Compared with its baseline, Fannie Mae would have to purchase an additional 209,000 home purchase and refinance loans and increase both its single-family rental and multifamily purchases by 20 percent.[76]

The bottom portion of Tables 3.6 and 3.7 give the characteristics of the additional purchases. However, given the large increases in goals-qualifying purchases under the subgoals and goals for 2006-2008, it is not clear that the GSEs could rely on their past purchase patterns to reach the proposed targets. Whether they could meet the 2006-2008 targets with their currently improving efforts (e.g., new programs and products, targeted purchases of seasoned loans, moving into special markets such as subprime lending) without loosening their underwriting standards in any significant way is unclear. Freddie Mac, in particular, has to increase its goals purchases (including home purchase loans, refinance loans, and multifamily loans) much more than Fannie Mae. As noted above,

[76] If Fannie Mae's baseline multifamily mix is 13 percent (instead of 12 percent), its additional single-family purchases falls slightly to 197,000 and the percentage increase in multifamily purchases would be 17 percent.

the GSEs' purchases of new home mortgages in metropolitan areas under the 2007 subgoals represented 23 percent of the non-GSE special affordable market, 18 percent of the non-GSE low-mod market, and 16 percent of the non-GSE underserved areas market. the percentages were somewhat similar when all new single-family (both home purchase and refinance mortgages in both metropolitan and non-metropolitan areas) were considered. The GSEs' projected purchases of new single-family mortgages under the 2008 goals represent even larger shares of the non-GSE market, with their special affordable purchases totaling slightly over one-third of that market.

The earlier discussion concluded that the 2005 goals and subgoals would not likely cause any significant reduction in the GSEs' profits or any significant increase in costs due to higher defaults—they would continue purchasing goals-qualifying loans that resembled the types of loans they have purchased in the past. Over time, the purchase requirements on the GSEs will increase, particularly in 2007 and 2008. If these goals and subgoals required the GSEs to significantly loosen their underwriting standards, there could be some reductions in their returns on equity (ROE) for the additional purchases. Chapter 6 reports returns on equity for additional purchases of goals-qualifying loans where the conditional default rates are increased and REO proceeds are decreased for low-income loans and loans secured by properties located in underserved areas. These adjustments are intended to simulate a hypothetical degradation in loan performance in the event the GSEs need to adopt less restrictive underwriting standards in order to comply with the housing goals regulations. These "adjusted" simulations may be more appropriate for the 2007-08 targets than the "unadjusted" simulations (which serve as the base case in Chapter 6).

In the adjusted simulations, baseline default rates are multiplied by 1.5 if the loans are classified as low-income or in an underserved area; baseline default rates for low-income loans in underserved areas are multiplied by 2.25 (or 1.5 squared). Three economic scenarios are considered: #1 (4 percent house price appreciation); #2 (2 percent house price appreciation; and #3 (minus 2 percent house price appreciation). Tables 6.10 and 6.11 in Chapter 6 report the average lifetime cumulative default rates corresponding to each of the loan portfolios (Fannie Mae and Freddie Mac, respectively) and economic scenarios underlying the ROE results in Tables 6.8 and 6.9.

Under Chapter 6's economic scenario 1 (4 percent house price appreciation), the return on equity of additional SFO goals-qualifying loans is slightly below the return on equity for baseline loans (28.4 percent for additional purchases versus 31.4 percent for baseline purchases).[77] Under the "adjusted" simulations (again assuming economic scenario 1), the ROE of additional SFO goals-qualifying loans falls to 22.1 percent, or six percentage points less than the ROE of 29.1 percent for baseline purchases in this "adjusted" simulation. The ROEs between additional and baseline purchases show even wider gaps under the alternative economic scenarios, reflecting the even higher propensity of goals-qualifying loans to default during more stressful economic

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[77] These ROEs represent unweighted averages of Fannie Mae (see Table 6.8) and Freddie Mac (see Table 6.9) data.

conditions. The three economic scenarios produce substantially different loan performance outcomes, and these are magnified under the results for the adjusted default rate models in the bottom panel of each table. For example, the unadjusted cumulative default rate for Fannie Mae's baseline (additional) purchases is 0.81 (1.10) percent under economic scenario 1, compared with an adjusted cumulative default rate of 1.04 (1.84); on the other hand, under economic scenario 3, the unadjusted cumulative default rate for Fannie Mae's baseline (additional) purchases is 3.93 (5.42) percent, compared with an adjusted cumulative default rate of 4.88 (8.39) percent. Freddie Mac's data show similar results. Thus, one effect of the higher goals levels would likely be an increase in default rates and a reduction in the ROE on additional purchases to satisfy the goals.

However, from the perspective of the GSEs' financial returns, it is important to keep two things in mind. First, although single-family default rates on additional targeted lending are significantly greater than default rates on baseline purchases under the most stressful scenarios, this does not translate directly into the same relative differences in ROE values because of higher GSE guarantee fees and higher mortgage insurance coverage ratios on high LTV loans (compare the default and ROE tables in Chapter 6). While pressure to meet the higher 2006-2008 housing goals could make it more difficult to increase guarantee fees, the GSEs have always been adept at protecting their financial returns as they have moved into the affordable end of the market. Second, even in the case of a significant decline in the ROEs for targeted loans, these additional goals-qualifying purchases, although large and significant, still account for only a relatively small share of the GSEs' overall business. For example, consider the above example of a 22.1 percent ROE on additional goals-qualifying loans versus a 29.1 percent ROE on baseline purchases. The additional goals-qualifying loans received their largest dollar weight in 2008—7.2 percent for Fannie Mae and 11.9 percent for Freddie Mac. Thus, in this example, the weighted average ROE would be 28.6 percent[78] for Fannie Mae and 28.3 percent for Freddie Mac. Similar calculations can be done for the various "Baseline" and "Additional" ROEs reported in Tables 6.8 and 6.9 of Chapter 6. Thus, it appears that the GSEs will continue earning ample returns on equity under the higher housing goals. Based on their experience purchasing goals-qualifying loans over the past 10 years, and based on the financial returns associated with these loans, there is no reason to believe that the GSEs will not continue earning more than reasonable returns.

Additional Analysis. The above discussion has focused mainly on a home purchase environment characterized by affordable interest rate conditions, as proxied by goals-qualifying percentages for home purchase loans from 2002 (i.e., Scenario A). While this is the type of market that is expected during the 2005-2008 period, recent experience suggests that market conditions can change. This section briefly examines two other environments—a moderately less affordable home purchase environment and a refinance environment.

The home purchase environment described above (12 and 10 percent multifamily mixes for Fannie Mae and Freddie Mac, respectively) was adjusted first by reducing the

[78] Obtained by multiplying (0.072 times 22.1) and adding the result to (0.928 times 29.1).

SFO home purchase and refinance percentages by a factor of 0.98, which was defined earlier as Scenario B. For example, in the above analysis, the underserved area share of the market was assumed to be 33.2 percent (after adjustment for missing data); [79] multiplying this figure by 0.98 yields a lower underserved area share of 32.7 percent. Similar adjustments were made to the baseline SFO goals-qualifying shares for Fannie Mae and Freddie Mac. This will have two effects. First, the baseline goals shares for each GSE will be reduced, which will call for additional purchases to meet the goal and subgoal targets. Second, the additional purchases will represent a higher share of the non-GSE part of the goals-qualifying market, suggesting that meeting the goals will be more of a challenge for Fannie Mae and Freddie Mac. As an example, consider the housing goals for 2007. In this case, the additional purchases of home loans in metropolitan areas increased from 257,000 to 303,000. The GSE purchases as a share of the non-GSE market increased from 22.8 to 25.9 percent for the special affordable market, from 17.9 to 21.2 percent for the low-mod market, and from 16.3 to 19.7 percent for the underserved areas market. A further discount (e.g., 0.95) would yield even larger additional purchase requirements. Because of the discount factor, both Fannie Mae's and Freddie Mac's baselines for the home purchase subgoals are reduced, leaving them further short of the three subgoal targets While the specific numbers may vary depending on how the GSEs responded to such an environment, this scenario is illustrative of the types of challenges that the GSEs could face under less favorable affordability conditions. However, as discussed in Appendix D of the proposed GSE Rule, the affordable lending market has shown an underlying strength over past few years, which means that the special affordable, low-mod, and underserved areas shares of the home loan market are unlikely to fall much, unless there is a serious deterioration in interest rate conditions. It should also be pointed out that if single-family origination volume falls, the multifamily share of the market rises. Thus, with respect to the overall goals, this helps offset any decline in SFO baseline performance due to higher interest rates.

A heavy refinancing environment possess a different sort of challenge for the GSEs, as it makes the overall goals particularly more difficult due to a decline in the multifamily mix and a decline in the goals-qualifying share of refinance loans (which account for about two-thirds of the SFO market during a refinancing wave). The home purchase subgoals are less of a problem because of the low interest rates that characterize refinancing environments. The model simulated a refinance environment similar to 2002 and produced baseline results that approximated the GSEs' actual performance that year. Under this scenario, Freddie Mac's baseline housing goal shares are as follows (with the shortfall from the proposed goal in parentheses): 17.8 percent for special affordable; 45.1 percent for low-mod; and 32.4 percent for underserved areas. Fannie Mae's baseline housing goal shares are as follows: 19.8 percent for special affordable; 47.9 percent for low-mod; and 34.8 percent for underserved areas. Obviously, these baseline percentages are short of the 2005-2008 goals. More moderate refinance environments, with higher multifamily mixes than the 7.5 percent mix assumed here and with higher goals-qualifying percentages for refinance loans, would lead to higher baseline percentages for

[79] This 43.5 percent is an initial input into the model that includes the effects of B&C loans; see Appendix D to the proposed GSE Rule for an explanation of how B&C loans are taken out of the model results.

both GSEs. Still, these baseline shares indicate the challenge that the GSEs face in a heavy refinance environment—in this situation, the challenge relates more to the overall goals rather than the home purchase subgoals.

There are a variety of strategies for meeting the goals during a refinance environment, as can be seen by the recent experience of the GSEs. For example, in the past the GSEs have on occasion undertaken large transactions of seasoned mortgages held in lenders' portfolios that the GSEs have determined to be "goal-rich," to improve their housing goal performance.

As explained in Appendix D of the proposed GSE Rule, changing economic conditions can affect the validity of HUD's market estimates as well as the feasibility of the GSEs' accomplishing the housing goals. The volatile nature of the mortgage market in the past few years suggest a degree of uncertainty around projections of the origination market. Large swings in refinancing, consumers switching between adjustable-rate mortgages and fixed-rate mortgages, and increased first-time homebuyer activity due to record low interest rates, have all characterized the mortgage market during the nineties. These conditions are beyond the control of the GSEs but they would affect their performance on the housing goals. A mortgage market dominated by heavy refinancing on the part of middle-income homeowners would reduce the GSEs' ability to reach a specific target on the housing goals, for example. A jump in interest rates would reduce the availability of very-low-income mortgages for the GSEs to purchase. But on the other hand, the next few years may be favorable to achieving the goals because of the high refinancing activity in 2001, 2002, and 2003. A period of low-to-moderate interest rates would sustain affordability levels without causing the rush to refinance seen earlier in 1998 and 2001-2003. A high percentage of potential refinancers have already done so, and are less likely to do so again. However, these same predictions were made after the 1998 refinance wave, which indicates the uncertainty of making predictions about the mortgage market.

As stated in the 2000 Rule, HUD is well aware of the volatility of mortgage markets and the possible impacts on the GSEs' ability to meet the housing goals. FHEFSSA allows for changing market conditions.[80] If HUD has set a goal for a given year and market conditions change dramatically during or prior to the year, making it infeasible for the GSE to attain the goal, HUD must determine "whether (taking into consideration market and economic conditions and the financial condition of the enterprise) the achievement of the housing goal was or is feasible." This provision of FHEFSSA clearly allows for a finding by HUD that a goal was not feasible due to market conditions, and no subsequent actions would be taken. As HUD noted in both the 1995 and 2000 GSE Rules, it does not set the housing goals so that they can be met even under the worst of circumstances. Still, FHEFSSA and HUD recognize that conditions could change in ways that require revised expectations.

[80] Section 1336(b)(3)(A).

D. Alternative of Higher Housing Goals and Subgoals

This section considers the alternative of higher goals and subgoals; specifically, the following alternative is considered:

Special Affordable: Goal of 30 percent and Subgoal of 20 percent;

Low- and Moderate-Income: Goal of 59 percent and Subgoal of 48 percent; and

Underserved Areas: Goal of 42 percent and Subgoal of 36 percent.

This alternative would place the GSEs above the market ranges for the overall goals (see Table 3.2a) and significantly above previous market experience on the home purchase subgoals (see Table 3.2b). The arguments against these higher goal alternatives deal primarily with the fact that they are substantially above the GSEs' actual performance levels of recent years, raising questions about the reasonableness and feasibility of attaining such goal and subgoal levels within the time frame covered by this proposed rule without necessitating wrenching adjustments in the structure of the GSEs' businesses. Extensive business adjustments would be difficult for the GSEs to accomplish in too brief a period. This consideration argues for the staged annual adjustments to the goals, as proposed. After experience has been gained with the proposed 2005-2008 goal levels, it could then be considered whether further adjustments would be reasonable, along the lines of the higher alternative.

Table 3.8 presents the additional purchases under the high alternative. Recall that Freddie Mac's (Fannie Mae's) baseline goals performance under Scenario A was as follows: 20.3 (23.3) percent for special affordable, 49.8 (52.7) percent for the low-mod goal, and 36.0 (38.7) percent for the underserved areas goal. As discussed earlier, the baselines were even lower under other environments (such as a refinancing environment).

E. Alternative of Leaving Goals as They Are and Excluding Subgoals

With regard to the **Low- and Moderate-Income Goal**, one alternative for 2005-08 is to leave the goal at the 2004 level of 50 percent. This is the goal that was also in effect for 2001-03, although the bonus points for both GSEs and Freddie Mac's temporary adjustment factor expired at the end of 2003. Such a goal might still require increased effort for both GSEs, since Fannie Mae's performance, measured on this basis, averaged 48.5 percent over the 1999-2002 period, and exceeded 50 percent only in 2000, when it was 51.2 percent. Similarly, Freddie Mac's performance, measured on this basis, averaged 47.1 percent over the 1999-2002 period, and it also exceeded 50 percent only in 2000, when it was 50.2 percent.

However, a low-mod goal of 50 percent would not represent a reasonable and appropriate share of the GSEs' business. See Section C.2 which provided the rationale for increasing the housing goals. A low- and moderate-income goal of 50 percent would be seven percentage points lower than the average low-mod share of the conventional conforming market over the past four years. Goals set at the 50 percent level would be

Table 3.8
Projected Additional GSE Purchases of Home Loans Under the High Alternative Subgoals
Both GSEs

	Additional First-Time Homebuyers Purchases				All Additional Purchases			
	All	90%+ LTV*	95%+ LTV	Minority	All	90%+ LTV*	95%+ LTV	Minority
Special Affordable	83,478	42,410	24,012	31,741	194,241	71,857	32,454	56,798
Low- Mod	134,998	65,880	33,803	46,693	348,539	122,963	48,061	91,182
Underserved Areas	94,704	50,523	26,837	43,159	228,149	92,752	37,117	84,125
Additional Purchases**	146,429	70,408	34,936	51,280	388,932	135,158	50,179	103,992

*Includes 95 percent and greater LTVs

**Additional Purchases is not the sum of the above three rows since a single loan purchase may qualify for more than one goal. See text for more explanation.

inconsistent with the legislative history of FHEFSSA, which calls for goals such that "the enterprises will need to stretch their efforts to achieve them."[81] With respect to encouraging the GSEs to lead the market, it should also be noted that a goal of 50 percent would be below Freddie Mac's performance of 50.2 percent in 2000, and also below Fannie Mae's performance.[82]

With regard to the **Underserved Areas Goal**, the no change alternative would be a goal of 36 percent. For 2004 the goal is 31 percent, but converting this to a goal based on 2000 census data would yield a goal of 36 percent. The 2004 goal of 31 percent was also in effect for 2001-03, although the bonus points for both GSEs and Freddie Mac's temporary adjustment factor expired at the end of 2003. Fannie Mae's performance, measured on this basis, averaged 35.0 percent over the 1999-2002 period, and exceeded 36 percent only in 2000, when it was 37.5 percent. Similarly, Freddie Mac's performance, measured on this basis, averaged 32.8 percent over the 1999-2002 period, and it was below 36 percent in all four years. However, as for the low-mod goal, an underserved areas goal of 36 percent would not represent a reasonable and appropriate share of the GSEs' business. As noted above, the expanded number of census tracts qualifying as underserved based on the 2000 Census geography required that HUD increase the goal target. Given that the market averaged 39 percent over the past four years (based on 2000 Census geography), a goal of 36 percent does not seem appropriate, given the significant credit needs in underserved areas (see Appendix B of the proposed GSE Rule).

With regard to the **Special Affordable Goal**, the no change alternative would be continuation of the goal for 2005-08 at the 2004 level of 20 percent. This is the goal that was also in effect for 2001-03, although the bonus points for both GSEs and Freddie Mac's temporary adjustment factor expired at the end of 2003. Measured on this basis, Freddie Mac's performance averaged 18.8 percent over the 1999-2002 period, and it exceeded 20 percent only in 2000, when it was 20.8 percent. However, as for the other two goals, a special affordable goal of 20 percent would not represent a reasonable and appropriate share of the GSEs' business. As noted above, a special affordable goal of 20 percent would be 8 percentage points lower than the average special affordable 28 percent share of the conventional conforming market over the past four years. Similarly, a special affordable goal of 20 percent would also be below the projected special affordable market share range of 24-28 percent, as detailed in Appendix D of the proposed rule—the low end of this market share range reflects housing market conditions that are much less affordable than have existed recently. And a 20 percent goal would not be much of a challenge for Fannie Mae, since its performance, measured on this basis, averaged 20.0 percent over the 1999-2002 period, and exceeded 20 percent in 2000 (when it was 21.7 percent) and 2001 (when it was 20.1 percent).

[81] Senate Report No. 102-282, 102d Cong., 2d Sess., at 35 (1992).

[82] These goal percentage exclude the effects of bonus points and its temporary adjustment factor, but include changes reflecting data from the 2000 Census and other counting rules that took effect in 2001.

In the home purchase environment characterized by scenario A, Freddie Mac's (Fannie Mae's) baseline goals performance was as follows: 20.3 (23.3) percent for special affordable, 49.8 (52.7) percent for the low-mod goal, and 36.0 (38.7) percent for the underserved areas goal. Thus, under these assumptions, Freddie Mac could reach the existing goals with few additional purchases. Fannie Mae's baseline purchases would exceed the goal levels, thus not requiring any additional purchases.

F. Other Issues

F.1. Multifamily market and special affordable multifamily subgoal

Fannie Mae and, especially, Freddie Mac have rapidly expanded their presence in the multifamily mortgage market under the housing goals. Freddie Mac has successfully rebuilt its multifamily acquisition program, as shown by the increase in its annual volume of purchases of multifamily mortgages: from $27 million in 1992 to $3 billion in 1997 and then to approximately $7 billion during the next three years (1998 to 2000), before rising further to $11.8 billion in 2001 and $13.3 billion in 2002. Freddie Mac's return as a major participant in the multifamily market was an important factor in the improvement in its performance on the Low- and Moderate-Income Housing Goal, as shown in Figure A.1 of Appendix A of the Proposed Rule, and it mitigates an impediment to higher goals for both GSEs. Concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to the housing goals. Fannie Mae never withdrew from the multifamily market, but it has also stepped up its activities in this area substantially, with multifamily purchases rising from $3.0 billion in 1992 to $9.4 billion in 1999 and over $18 billion in 2001 and 2002.

The increased role of Fannie Mae and Freddie Mac in the multifamily market has major implications for the Low- and Moderate-Income Housing and Special Affordable Goals, since a very high percentage of multifamily units have rents which are affordable to low- and moderate-income and special affordable families. However, the potential of the GSEs to lead the multifamily mortgage industry has not been fully developed. The GSEs' purchases between 1999 and 2002 accounted for only 30 percent of the multifamily units that received financing during this period. Certainly there are ample opportunities and room for expansion of the GSEs' share of the multifamily mortgage market. The GSEs' size and market position between loan originators and mortgage investors make them the logical institutions to identify and promote needed innovations and to establish standards that will improve market efficiency. As their role in the multifamily market continues to grow, the GSEs will have the knowledge and market presence to push simultaneously for standardization and for programmatic flexibility to meet special needs and circumstances, with the ultimate goal of increasing the availability and reducing the cost of financing for affordable and other multifamily rental properties. These goals will create new opportunities for the GSEs to further step up their support of mortgages on properties with rents affordable to low- and moderate-income families.

Background for the Multifamily Special Affordable Subgoal. The initial purpose of the multifamily special affordable subgoal was to ensure some minimum level of GSE multifamily loan purchases targeted at the very-low-income end of the rental market. This proposed rule would continue the requirement for purchases of multifamily special affordable mortgages. For 2001-2004 the requirement is that such purchases comprise an amount at least equal to 1.0 percent of the GSE's 1997-99 average volume of mortgage purchases—this equates to $2.85 billion annually for Fannie Mae and $2.11 billion annually for Freddie Mac. These goals were set at a very low level in 1995 ($1.29 billion annually for Fannie Mae and $0.99 billion annually for Freddie Mac for each year, 1996-2000), due to Freddie Mac's very small multifamily purchase volume in the early 1990s, and they were increased only modestly in 2000.

Level of subgoals. This proposed rule would establish the Special Affordable multifamily subgoal at 1.0 percent of the average annual dollar volume of each GSE's combined (single family and multifamily) 2000-02 mortgage purchases for each year from 2005 through 2008. This implies the following thresholds for the two GSEs:

Fannie Mae: $5.49 billion per year

Freddie Mac: $3.92 billion per year

These 2005-2008 subgoals represent increases of approximately 90 percent for Fannie Mae and Freddie Mac above the levels that prevailed in 2001-04—$2.85 billion for Fannie Mae and $2.11 billion for Freddie Mac. These subgoals are reasonable or even conservative, given that special affordable multifamily purchases for Fannie Mae amounted to $7.36 billion in 2001 and $7.57 billion in 2002, and $4.65 billion in 2001 and $5.62 billion in 2002 for Freddie Mac. Appendix C of the proposed rule further discusses the rationale for the subgoal.

This proposed rule would continue a provision that any low-income rental unit in a property where at least 20 percent of the units are affordable to especially low-income families—families whose incomes are 50 percent of area median income or less—or where at least 40 percent of the units are affordable to very low-income families will count toward the goal. This provision has a relatively small effect on the GSEs' performance.

Because of the high affordability of multifamily housing, it makes a disproportionate contribution to GSE performance on the special affordable goal. Specifically, in 2002 multifamily units contributed 20 percent of units qualifying toward Fannie Mae's Special Affordable Housing Goal in 2002, but only 7 percent of all units financed by Fannie Mae; the corresponding figures for Freddie Mac are 22 percent of special affordable units and 7 percent of all units financed in 2002.

Industry observers believe that the Special Affordable multifamily subgoal has contributed toward a significantly increased presence by Freddie Mac in the multifamily market, one of the Department's principal objectives in establishing the subgoal. Prior to

1993, following losses on multifamily mortgage loans, Freddie Mac had virtually no multifamily mortgage purchase capacity. The multifamily subgoal was established in 1995 to ensure that Freddie Mac established and maintained some presence in the special affordable portion of the multifamily market.[83] Over the past ten years, Freddie Mac has built new multifamily capacity and has expanded its presence in the multifamily financing market to the point that it purchased $13.3 billion in total multifamily mortgages in 2002.

Fannie Mae was well established in the multifamily mortgage market prior to the establishment of the Special Affordable multifamily subgoal. Fannie Mae's performance has consistently surpassed the subgoal by a wide margin, as noted above.

Alternative Levels for the Multifamily Subgoal. The Department has considered alternative levels for the special affordable multifamily subgoal. Due to the large volume of refinance mortgages in the past few years, HUD considered setting the goals equal to 1 percent of average annual mortgage volume over a four-year period, 1999-2002, rather than a three-year period. This alternative would yield somewhat lower goals than those proposed above—specifically, $4.92 billion per year for Fannie Mae and $3.54 per year for Freddie Mac. These would represent increases over the goals currently in effect of 73 percent for Fannie Mae and 68 percent for Freddie Mac. But these goals would be well below the average level of such purchase in 2001-02—$7.4 billion per year for Fannie Mae and $5.9 billion per year for Freddie Mac.

The Department has also considered higher levels for the special affordable multifamily subgoal. Due to the large volume of the GSEs' purchases of such mortgage in recent years, HUD considered setting the goals equal to 1.2 percent of average annual mortgage volume over the three-year period, 2000-02, rather than 1.0 percent of such average annual volume. This alternative would yield somewhat higher goals than those proposed above—specifically, $6.58 billion per year for Fannie Mae and $4.70 billion per year for Freddie Mac. These would represent increases over the goals currently in effect of 131 percent for Fannie Mae and 123 percent for Freddie Mac. But the GSEs purchases of such mortgage volumes might not be reasonable, in light of the record GSE multifamily volumes in the past few years of heavy refinancing activity

Alternative Approach to Setting the Multifamily Subgoal Level. One consequence of the subgoal as proposed above is that, to the extent that the GSEs experience certain fixed transactions costs in each multifamily acquisition, they can attain the special affordable multifamily subgoal with the smallest possible transactions costs by purchasing multifamily mortgages with large unpaid principal balances that have a high proportion of units that qualify for the Special Affordable Housing Goal. This approach, therefore, could have the effect of fostering the GSEs' purchases of loans on large properties with more than 50 units, which are already relatively liquid, at the

[83] It was anticipated that the overall housing goals, particularly the low-mod goal, would ensure that Freddie Mac would build up its overall multifamily capacity, as it would need multifamily purchases in order to meet the overall goals. In fact, that is what happened.

expense of loans on smaller properties, a sector which has not benefited from same degree of exposure to secondary markets.

A further consequence of the subgoal as proposed above is that a dollar-based goal does not adjust for the effects of inflation over the period of years during which the subgoal is in effect. Thus, the number of mortgages the GSEs would be required to purchase under the subgoal, and the number of units in the associated properties, would both be expected to decrease over the goals period. For example, the rise in multifamily property values over the 1996-2002 period contributed to an increase in per-unit loan amounts in the GSEs' multifamily special affordable purchases of approximately 15 percent, and a commensurate decrease in the number of units corresponding to the minimum dollar-based purchase volume required under the multifamily special affordable subgoal. If the loan amount per unit continues to rise, fixed dollar goals over the 2005-2008 period would mean that fewer mortgages, and fewer units, would have to be financed to meet the goal in 2008 than in 2005.

Another consequence of a dollar-based multifamily special affordable goal is that it provides some incentive for the GSEs to finance relatively more expensive, and thus relatively less affordable, special affordable units. That is, if a GSE had a choice between financing 100 special affordable units at an unpaid principal balance of $50,000 per unit or 200 special affordable units at an unpaid principal balance of $20,000 per unit, the former would contribute $5.0 million under a dollar-based subgoal, while the latter would contribute only $4.0 million toward a dollar-based subgoal. Thus the GSE would like lean toward the former option, since it would contribute more toward the dollar-based subgoal. But the latter option would be preferred if the goal were expressed in terms of a minimum number of special affordable units to be financed annually, since it would result in financing twice as many special affordable units as the former option.

While the proposed rule specifically proposes a dollar-based subgoal, the Department considered a units-based subgoal as an alternative approach to structuring the Special Affordable multifamily subgoal—a unit-based subgoal. One approach would be to translate the proposed subgoals of $5.49 billion annually for Fannie Mae and $3.92 billion annually for Freddie Mac into unit-based subgoals by dividing these figures by, for example, $24,101, the average unpaid principal balance per special affordable multifamily unit for the GSEs combined in 2002. This would yield minimum special affordable goals of approximately 228,000 units per year for Fannie Mae and approximately 163,000 units per year for Freddie Mac. These would compare with Fannie Mae's special affordable multifamily acquisition volumes of 287,185 units in 2001 and 280,907 units in 2002, and Freddie Mac's special affordable multifamily acquisition volumes of 252,035 units in 2001 and 249,697 units in 2002. This units-based approach would mitigate some of the potential problems with a dollar-based approach as described above. However, HUD has proposed to continue to express the special affordable multifamily subgoal in dollar terms, in order to maintain continuity with the subgoal as specified in previous years.

F.2. Underservice Definition for Metropolitan Areas

As noted above, HUD updated its 1995 and 2000 research on mortgage flows and mortgage denial rates, and the major conclusions of that research remain unchanged. Specifically, HUD has reaffirmed its finding that this goal should target low-income and/or high minority portions of metropolitan areas—specifically, (1) census tracts where minorities comprise 30 percent or more of the residents and the median income of families does not exceed 120 percent of area median income, and (2) census tracts where the median income of families does not exceed 90 percent of area median income. No distinctions are made between underserved census tracts in the central city and suburban portions of metropolitan areas.

In the Proposed GSE Rule, the underserved census tracts are defined in terms of the 2000 Census rather than the 1990 Census. Switching to 2000 Census data and re-specified MSA boundaries as of June 2003, increases the number of underserved census tracts in metropolitan areas. The definition now covers 26,959 (51.3 percent) of the 52,585 census tracts in metropolitan areas, which include 48.7 percent of the population and 38.0 percent of the owner-occupied housing units in metropolitan areas. The 1990-based definition covered 21,587 (47.5 percent) of the 45,406 census tracts in metropolitan areas, which included 44.3 percent of the population and 33.7 percent of the owner-occupied units in metropolitan areas.

The census tracts included in HUD's definition of underserved areas exhibit low rates of mortgage access and distressed socioeconomic conditions. Between 1999 and 2002, the unweighted average mortgage denial rate in these tracts was 17.5 percent, which was almost twice the average denial rate (9.3 percent) in excluded tracts. The underserved tracts include 75.3 percent of the number of persons below the poverty line in metropolitan areas.

One alternative considered in 1995 would have been to include all OMB-designated central cities in the definition of underserved areas, but this would have been much less targeted. Research conducted by HUD, Freddie Mac, and other mortgage market analysts supported the conclusion that central city location had little impact on whether a neighborhood was adequately served or underserved by the mortgage market. Thus these studies concluded that a tract-based definition was a more effective way to define underserved areas than using entire central cities. No studies since the 1995 rule have questioned these findings of earlier research that defining underserved areas to include all parts of OMB-designated central cities would include many areas that are adequately served by the mortgage market.

For 2005 the Secretary considered alternatives to the definition of underserved areas contained in the proposed rule. One alternative, also considered in 2000, would be to define such areas using an "enhanced" tract income ratio, and defining qualifying tracts as those with an enhanced tract income ratio at or below 80 percent.

This "enhanced option" would have two parts. First, it would change the definition of tract income ratio from one that is calculated using MSA median income to one that is based on the greater of either the national metropolitan median income or the MSA median income. This approach would ensure that low-income census tracts in low-income MSAs are classified as underserved. With this change, 2,261 tracts would be added as underserved. Second, the enhanced option would lower the maximum income ratio for underserved tracts to 80 percent of "enhanced" income, compared with a tract income ratio of 90 percent of area median income under the current definition. With this change, 2,638 tracts would no longer be classified as underserved areas. The average denial rate of 10.9 percent for the tracts that would be dropped is not much higher than the average denial rate of 10.6 percent for all metropolitan areas. This suggests that these areas are not experiencing severe problems in obtaining mortgage credit. The denial rate for the 2,261 tracts that would be added to underserved under this option is 12.9 percent. The number of tracts that would qualify as underserved areas under this enhanced option is 26,867, with an average denial rate of 15.0 percent, as compared with the 27,252 tracts qualifying under the current definition with an average denial rate of 14.6 percent. Under the "enhanced option," underserved tracts would cover 51.7 percent of owner-occupied housing in metropolitan areas; the current definition covers 51.8 percent of such housing.

Another approach to targeting high denial areas would be to raise the threshold for the definition of a "high-minority tract" from 30 percent to 50 percent of tract population. This option would drop 2,307 of the 26,812 underserved tracts, with an average denial rate of 10.5 percent. These tracts comprised 11 percent of the 2002 mortgage originations in underserved areas. The average denial rate for underserved tracts would increase from 14.6 to 15.3 percent under this alternative option. The impact from removing these tracts from underserved areas is minimal. The current underserved areas goal appears to be targeted and provides a sound basis focusing the GSEs efforts on neighborhoods with credit problems. Therefore, it was decided to continue with the current minority definition.

The Proposed GSE Rule does not adopt either alternative as a definition of underserved metropolitan census tracts. The current definition of underserved areas seems to be doing a good job targeting GSE activities, although it is recognized the GSEs need to continue to improve their purchases in these neighborhoods. The proposed higher goal percentage of 38 percent and the proposed home purchase subgoal of 33 percent will encourage the GSEs to increase their purchases in low-income and high-minority neighborhoods. Changing the definition might also disrupt the GSEs' marketing, operations, and business strategies for achieving the goals.

F.3. Underservice Definition for Nonmetropolitan Areas

In its 1995 and 2000 rules, HUD defined nonmetropolitan underserved areas in terms of counties, rather than census tracts, as used in metropolitan areas. Specifically, non-metropolitan underserved areas were counties in which (1) minorities comprised at least 30 percent of the residents and the median income of families did not exceed 120 percent of the state nonmetropolitan median income, and (2) the median income of families did not exceed 95 percent of the greater of state nonmetropolitan median income or nationwide nonmetropolitan median income.

In 2000 HUD considered and sought comments on an alternative in which non-metropolitan underserved areas would be defined in terms of census tracts, as in metropolitan areas, rather than counties. In the final 2000 rule HUD did not make this change, thus the county-based definition of underserved areas from the 1995 rule was also in effect for 2001-03.

Based on additional research, HUD is now proposing to follow a tract-based approach, rather than a county-based approach, in defining non-metropolitan underserved areas. The Department is proposing to make this change for 2005-2008 because it believes that a more targeted approach is preferable to the less targeted method followed in 2001-2004, because lenders increasingly rely on computer software which will readily identify census tracts for all properties, and because the current approach counts as underserved some highly affluent areas such as some coastal resort communities in non-metropolitan counties.

Specifically, for 2005-2008, HUD is proposing to define as underserved areas non-metropolitan census tracts in which (1) minorities comprised at least 30 percent of the residents and the median income of families did not exceed 120 percent of the state nonmetropolitan median income in 2000, and (2) the median income of families did not exceed 95 percent of the greater of state nonmetropolitan median income or nationwide nonmetropolitan median income.

For 2005, the Secretary considered several alternatives to the definition of underserved areas in nonmetropolitan (rural) areas.[84] These included whether to retain counties as the basis of definition or change to census tracts, as well as several combinations of values of the parameters that define the underserved areas goal. Relative to the current definition based on a 30 percent minority population percentage in the area (whether tract or county) and 95 and 120 percent area median incomes, the following alternatives were considered:

- Change from 95 to 90 percent area median income, retaining the 30 percent and 120 percent thresholds

- Change from 90 to 80 percent area median income, retaining the 30 percent and 120 percent thresholds

- Change from 120 to 110 percent area median income, retaining the 30 percent and 95 percent thresholds

[84] HUD has used the general term "rural" to be identical to "nonmetropolitan" to facilitate analysis and to establish workable goals. The Census Bureau’s definition of "rural" differs from "nonmetropolitan," but the Bureau’s definition would not be readily usable in establishing housing goals. Thus the general terms "rural" and "nonmetropolitan" are used interchangeably herein.

- Change from 120 to 110 percent and change from 95 to 90 percent, retaining the 30 percent threshold

- Change from 30 percent to 50 percent, retaining the 120 and 95 percent thresholds

- Defining the reference median income as the statewide nonmetropolitan median income, instead of the maximum of the statewide or nationwide nonmetropolitan median income as in the current rule.

The effects of six alternatives to the current definition were considered.[85] These alternatives evaluated the following at the tract level: impact of relative socioeconomic, demographic, and housing characteristics in served and underserved areas; dispersion of geographic impact, coverage efficiency, and GSE purchasing performance. While all alternatives resulted in a reduced number of targeted tracts, these areas had relatively greater housing needs, higher minority populations, and weaker socioeconomic conditions than the current definition. However, the resulting served areas would also include a greater number of low-income and minority households. In other words, under the alternative definitions a tradeoff is made between the better targeting of households with greater housing need and the greater number of low-income and minority households that may experience less access to financing since they no longer reside in targeted areas. The net effect of any one of the alternatives does not justify a change to the current nonmetropolitan underserved definitions.

G. Conclusion

Circular A-4 directs agencies to summarize benefit and cost estimates for each alternative, including the qualitative and non-monetized factors affected by the rule. This section presents such a summary.

In Section C.4 of this chapter, impacts of HUD's proposed rule are compared with impacts of (a) leaving the housing goals at their current levels and not establishing home purchase subgoals baseline, and (b) establishing goals and subgoals at higher levels than under HUD's proposed rule. The analysis is only illustrative, in view of the discretion left to the GSEs to determine how they will attain the specified goal levels, as well as variability of future market conditions. HUD's analysis was performed under assumptions regarding the "goal-richness" of the GSEs' mortgage purchases and whether the mortgage market environment is relatively more oriented toward originations of home purchase mortgages or refinance mortgages.

Main findings are as follows:

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[85] The analysis is contained in a report to HUD, *Indicators of Mortgage Market Underservice in Non-Metropolitan Areas* by Economic Systems, Inc. (2004).

Relative to outcomes if HUD does not increase the goals or establish home purchase subgoals, HUD projects, under one scenario reflecting a home purchase environment, additional GSE purchases over four years of approximately 871,000 home mortgages in metropolitan areas that qualify under at least one of the housing subgoals. Based on characteristics of recent GSE mortgage purchases, these would include approximately 234,000 mortgages from minority borrowers, 303,000 mortgages at 90 percent of more loan-to-value ratio, 113,000 mortgages at 95 percent or more loan-to-value, and 328,000 first-time-homebuyer mortgages. Of the 871,000 mortgages, 437,000 would qualify under the Special Affordable Housing Goal, 780,000 under the Low- and Moderate-Income Housing Goal, and 572,000 under the Underserved Areas Housing Goal. (See Table 3.6 for further detail.) This analysis assumes a market environment of relatively low refinance volume. Attaining the goals in a high-refinance environment would be more of a challenge for the GSEs given the somewhat lower "goals-richness" of refinance mortgage as compared with home purchase mortgages, and given the lower share of "goals-rich" multifamily loans in a period of heavy single-family refinancing.

Assuming higher levels of the goals and subgoals than under HUD's proposal, the projected annual qualifying mortgage purchase volumes are higher, even under the assumption of a home purchase environment. Achieving these goals would pose a greater challenge to the GSEs. HUD's analysis questions the feasibility of attaining the goals particularly in a high-refinance environment, and for Freddie Mac considering the relatively greater increase in goal-qualifying mortgages necessary for it to attain any specified level of the goals, compared to Fannie Mae. The proposed 2005-2008 goals represent a reasonable challenge for the GSEs, consistent with the statutory factors that HUD must consider in establishing the goals.

This analysis does not address questions of ultimate impacts of raising the goals on market volumes of mortgages with various characteristics of policy impacts, such as low-downpayment mortgages, mortgages originated by minority borrowers, or first-time homebuyer mortgages. Research is needed to determine the extent to which market outcomes in these areas are realized in relation to the housing goals, although it is recognized that such research would be challenging given the difficulty of isolating impacts in a general market context.[86] However, as emphasized throughout this chapter, the types of programs, outreach, and underwriting flexibilities offered by the GSEs are the appropriate vehicles for addressing barriers to homeownership. In addition, the dominant role of the GSEs in the conforming market means that they can play an important leadership role and have major impacts. However, the main issue with respect to the GSEs has always been their aggressiveness in reaching out to the most constrained lower-income and underserved families. The proposed housing goals and subgoals are intended to increase the GSEs' outreach and service in those families who face the most difficulty obtaining homeownership. In addition, the goals ensure that the GSEs will continue to provide financing support to the affordable end of the multifamily market.

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[86] For a promising start in such research, see *An Analysis of the Effects of the GSE Affordable Goals on Low- and Moderate-Income Families*, by Thomas Thibodeau, Brent Ambrose, and Kenneth Temkin, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2001. Chapter IV and Appendix A of the proposed GSE Rule include a summary of this report.