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Report to Congressional Requesters

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FEDERAL AGRICULTURAL MORTGAGE CORPORATION

Secondary Market Development and Risk Implications

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Congressional Requesters

As requested by your offices, we are providing you with a consolidation of the information that we have reported to the Congress since June 1987 on the development and implementation of a new secondary market for agricultural real estate and rural housing loans—the Federal Agricultural Mortgage Corporation, known as Farmer Mac. (Requesters are listed at the end of this letter.)

Results in Brief

The Agricultural Credit Act of 1987 (P.L. 100-233, Jan. 6, 1988) created a secondary market for agricultural real estate and rural housing loans to be administered by Farmer Mac. This report provides information on certain aspects of secondary markets and identifies issues that we believed merited further congressional consideration during the Congress' deliberations on developing and implementing Farmer Mac. The issues focus generally on the potential financial risks to the government of establishing such a market and specifically on whether the loan criteria, market structure, and risk parameters in the Farmer Mac-established standards would satisfy the broad expectations the Congress had when it passed the enabling legislation.

More specifically, this report contains information previously reported by us on (1) secondary markets, in general, including the purposes such markets have served in the past, (2) underwriting, in general, and risk management in other secondary markets, (3) major categories of underwriting standards used in secondary markets, (4) key issues concerning the development of a secondary market for agricultural real estate and rural housing loans, and (5) key issues concerning Farmer Mac underwriting standards.

Secondary Markets

A secondary market is one in which existing products—such as automobile and credit card loans—rather than new products—such as a new issue of stock—are bought and sold. A secondary mortgage market is a market for buying and selling mortgage loans or securities backed by mortgage loans. The sale of such loans and securities returns funds to the loan originator, creating liquidity and allowing the lender to make additional loans to qualified borrowers or otherwise reuse the funds. A secondary market also provides a mechanism for spreading financial risk.

Underwriting and Risk Management in Secondary Markets

Underwriting is the process of identifying potential risks associated with financial instruments, such as insurance policies and mortgage-backed securities, and either assessing the expected costs of covering those risks or providing the essential information that would allow others to assess the costs. Underwriting standards are used to limit the type and amount of risks of loss permitted in a financial portfolio and to establish methods to ensure against loss from those risks.

Generally, underwriting standards in secondary markets are used to establish the qualifications that individual loans must meet if they are to be eligible to be purchased and packaged into pools for resale. Standards for pools—such as maximum/minimum size of individual loans—must therefore be flexible enough to evolve over time, accommodating change in economic factors, risk-management techniques, and other factors that affect the secondary market. However, they must be constant in their ability to ensure that only loans within acceptable risk parameters are included in the pools.

Categories of Current Underwriting Standards

We identified 10 major categories of underwriting standards used in today's secondary markets. These standards are for (1) forming pools of loans, (2) providing loan pool covenants, (3) providing assurances of scheduled payments on securities, (4) registering securities and disclosing related information, (5) ensuring that poolers are qualified and certified, (6) designing securities that are marketable, (7) determining what loan and pool documentation is needed, (8) providing for individual loan and pool administrative services, (9) providing for review of lender and pooler performance, and (10) providing criteria for property appraisals. Each category applies to secondary markets in general and can be used to categorize underwriting standards designed for and by Farmer Mac.

Issues Concerning the Development of a Secondary Market for Agricultural Real Estate Loans

In a July 1987 report,[1] we raised five issues that we believed merited further consideration in the secondary market debate taking place at that time. Those issues are (1) whether federal government involvement is needed to develop a large national-scope secondary market for farm real estate loans, (2) what impact a large national-scope secondary market for farm real estate loans would have on the Farm Credit System (FCS) and other lenders, (3) whether FCS should be given powers to operate as the secondary market for all lenders, (4) whether a new secondary market entity could coexist with the FCS, and (5) what loans should be eligible to be sold in the secondary market.

[1] Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987).

Most of the issues raised in our July 1987 report are still the subject of debate today. Some were incorporated in the Agricultural Credit Act of 1987 as the basis for future GAO studies. Some of these studies are to focus on (1) implementation of Farmer Mac and its effect on producers, lenders, FCS, and the capital markets, (2) feasibility of an agricultural real estate loan secondary market without a Farmer Mac guarantee, and (3) feasibility of expanding Farmer Mac's authority for the sale of securities based on a pool of loans made to farm-related and rural small businesses. The issue of what loans should be eligible for sale in the new secondary market was the focus of congressional oversight hearings for Farmer Mac in September 1989.

Key Issues Concerning Farmer Mac Underwriting Standards

The requirements of the enabling legislation provided Farmer Mac with a number of issues to resolve as it developed and now implements its underwriting standards. The issues involve geographical and crop diversity of loans to be included in pools, agricultural real estate appraisals, risks associated with mandated reserves and risk-based fees for loan pools, Securities and Exchange Commission (SEC) registration and disclosure provisions as they apply to Farmer Mac, determination of loan-to-value ratios, and rural housing provisions.

In September 1989, we testified before congressional committees on our concerns related to specific standards that Farmer Mac had submitted to the Congress for review.[2] Our concerns focused on whether the loan criteria, market structure, and risk parameters in the Farmer Mac standards would satisfy the broad expectations that the Congress had when it passed the enabling legislation.

Objectives, Scope, and Methodology

During our studies of the development and implementation of a new secondary market for agricultural real estate loans, we interviewed private and government individuals and officials concerned with secondary markets in general and Farmer Mac in particular. We also reviewed the underwriting standards of the national residential secondary markets and researched manuals and other documentation from private entities, where possible, to identify specific standards, procedures, and practices.

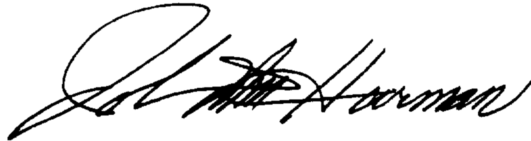
To consolidate our work into one report, as requested, we have essentially reprinted—with appropriate updates—sections of previous

[2] Issues Surrounding Underwriting Standards Developed by the Federal Agricultural Mortgage Corporation (GAO/T-RCED-89-62, Sept. 12, 1989, and GAO/T-RCED-89-71, Sept. 27, 1989).

reports and testimonies as stand-alone documents in this report. In doing so, we organized the report from primer information first to more detailed information later. Appendixes I-IX provide more details on the information discussed above. Appendix X provides further information on our objectives, scope, and methodology. Our previous reports and testimonies are listed in "Related GAO Products" at the end of this report.

We are sending copies of this report to the various congressional committees with jurisdiction over Farmer Mac; the Secretaries of Agriculture and the Treasury; the Chairman of the Board, Federal Agricultural Mortgage Corporation; the President and Chief Executive Officer, Federal Agricultural Mortgage Corporation; the Director, Office of Management and Budget; the Chairman, Securities and Exchange Commission; and the Chairman of the Board, Farm Credit Administration. Copies will also be made available to other interested parties who request them.

If we can be of further assistance, please contact me at (202) 275-5138. Major contributors to this report are listed in appendix XI.



John W. Harman
Director, Food and Agriculture Issues

List of Requesters

The Honorable Richard H. Lehman
Chairman, Subcommittee on Consumer Affairs and Coinage
Committee on Banking, Finance and Urban Affairs
House of Representatives

The Honorable Ben Erdreich
Chairman, Subcommittee on Policy Research and Insurance
Committee on Banking, Finance and Urban Affairs
House of Representatives

The Honorable Doug Bereuter
Ranking Minority Member
Subcommittee on Policy Research and Insurance
Committee on Banking, Finance and Urban Affairs
House of Representatives

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Abbreviations

CMO	collateralized mortgage obligation
Fannie Mae	Federal National Mortgage Association
Farmer Mac	Federal Agricultural Mortgage Corporation
FCA	Farm Credit Administration
FCS	Farm Credit System
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration
FmHA	Farmers Home Administration
Freddie Mac	Federal Home Loan Mortgage Corporation
GAAP	generally accepted accounting principles
GAO	General Accounting Office
Ginnie Mae	Government National Mortgage Association
REMIC	real estate mortgage investment conduit
SBA	Small Business Administration
SEC	Securities and Exchange Commission
VA	Veterans Administration

Secondary Markets: A Primer

Key questions on secondary markets:[1]

- What is a secondary market? The investment market is usually defined in terms of primary and secondary markets. A primary market exists at the point that an original debt or ownership interest is created, e.g., when a lender makes a loan directly to a borrower or a company sells a new issue of stock. In its simplest form, a secondary market transaction occurs when a loan is sold by the original lender or a stock is resold by an investor.
- What is the home secondary mortgage market? The home secondary mortgage market is a market for the sale of individual home loans or for the sale of securities backed by home loans. This market is the most widely recognized and developed secondary mortgage market.
- What factors assisted in the development of the home secondary mortgage market? The key factors that contributed to the successful development of the home secondary mortgage market include (1) ability to issue securities based on loans, (2) homogeneity of loans/securities, and (3) improved marketability of securities through high-quality collateral, insurance, government backing, or other means.
- What entities exist in the home secondary mortgage market? The home secondary mortgage market is composed of government and private organizations. Organizations most often associated with this market are the Government National Mortgage Association (Ginnie Mae), the Federal National Mortgage Association (Fannie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac). Large banks, mortgage bankers, and state and local governments are also active participants in this market.
- How does the home secondary mortgage market operate? In its simplest form, key steps occur in a secondary market transaction: a loan is made; the loan is sold or securities representing a pool of the loans are sold, often to securities dealers; and the securities are then sold to investors.
- What types of financial instruments are used in the home secondary mortgage market? Use of securities as opposed to single loan sales has been a major factor in the development of the secondary market for home mortgages. The financial instruments that promoted this development are generally referred to as mortgage-backed securities. Investors either—through the purchase of securities—take ownership in the loans backing the securities or—through the purchase of bonds—essentially lend money to sellers and the ownership of the mortgage stays

[1]This appendix was developed from information contained in section 1 of our report entitled Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987).

with the sellers. These securities are issued with and without government backing.

- What functions do secondary markets perform? Historically, secondary markets, especially the home mortgage secondary market, have been credited with performing the following economic functions that promote efficiency and equity in lending markets: (1) providing liquidity, (2) moderating cyclical flow of funds, (3) assisting regional flows of capital, and (4) reducing geographical spread in interest rates, and allowing portfolio diversification.

What Is a Secondary Market?

The investment market is usually defined in terms of primary and secondary markets. A primary market exists at the point that an original debt or ownership interest is created, for example, when a lender makes a loan directly to a borrower or a company sells a new issue of stock. In its simplest form, a secondary market transaction occurs when a loan is sold by the original lender or a stock is resold by an investor. Thus, essentially a secondary mortgage market involves the buying and selling of existing rather than new products.

Many types of financial instruments—stocks, corporate bonds, treasury securities, and home mortgages—have their own well-developed secondary markets. Perhaps one of the best-developed secondary markets is the New York Stock Exchange, where every week several hundred million shares of existing stock certificates are bought and sold by investors. Less-developed secondary markets exist for car loans, credit card debt, and manufacturers' notes receivable.

The success of obtaining large amounts of funds directly from individual lenders or investors can be attributed largely to active secondary markets for those financial instruments, that is, markets that provide the holders of those financial instruments the ability to sell them quickly, creating liquidity. The financial community has been successful in packaging, or pooling, many financial instruments for sale, such as loans of relatively small denominations, and selling a financial instrument representing an interest in the underlying loans. For example, lenders have packaged individual mortgage loans, with similar characteristics, and sold them as mortgage-backed securities.

The issuance of securities not backed by individual financial instruments, such as loans, has also had significant success in attracting funds to mortgage markets. For example, one of the home mortgage market entities sells general obligation bonds and uses the proceeds to, among

other things, buy home mortgages. General obligation bonds are backed by the full faith and credit of the issuing organization and are not backed by loans or specific collateral.

What Is the Home Secondary Mortgage Market?

The home secondary mortgage market is a market for the sale of securities backed by home loans or for the sale of individual home loans. This market is the most widely recognized and developed secondary mortgage market. It is composed of government and private organizations that make it possible for a large secondary market to exist for home mortgages. In 1988, $281 billion in home mortgages was sold. A closer look at the home secondary mortgage market will provide a better understanding of secondary market development, the different secondary market entities, market operations, and financial instruments used in the secondary mortgage market.

What Factors Assisted in the Development of the Home Secondary Mortgage Market?

Several factors played key roles in facilitating the development of the secondary market for home real estate loans. Probably most important were the development of securities backed by mortgages, the homogeneity of the mortgages underlying the securities, and the improvement of the securities' marketability by risk reduction mechanisms known as credit enhancements. One such mechanism is a guarantee that investors will receive certain returns on their investments. The government played an important role in all of these secondary market developments. It is unlikely that the home secondary mortgage market would have become so well developed if these factors had not been adequately considered and appropriately incorporated.

Mortgage-Backed Securities

As the housing finance industry developed, it increasingly obtained funds for home mortgage loans through sales of securities. Traditionally, lenders had made home mortgages by relying on customer deposits. As the secondary market developed, lenders increasingly obtained funds to support their home mortgage lending through government-sponsored enterprises, charged with ensuring access to capital for the housing market. These organizations, discussed later, sold general obligation bonds, bought loans from lenders, and held the loans in their portfolios. As the market developed further, the organizations issued securities backed by pools of mortgage loans. These mortgage-backed securities are the primary source of lending funds for home mortgages today.

The increasing use of securities has enabled the lending community to make more loans and has provided investors with an attractive investment. The ability to sell loans directly or indirectly to investors has provided lenders with an additional source of funding for long-term mortgages, not provided through relatively short-term customer deposits. The investors' ability to place large investments with relative ease and quickly convert them to cash has greatly increased the attractiveness of home mortgages as investments. Those factors reduce both the lenders' and investors' transaction costs.

Homogeneity of Mortgages

Standardization of home mortgages greatly facilitated pooling of home mortgages for securities and, therefore, development of the home mortgage secondary market. Development of the fixed-rate 30-year mortgage, home construction standards, and standard loan criteria sowed the seeds of secondary market growth. Traditionally, the ability to create loan pools with similar risks and terms has been desirable. Such standardization provides for ease of marketing and reduces administrative costs.

Improved Securities Marketability

Investor confidence in the integrity of the financial instrument is crucial to its marketability. Several types of credit enhancement mechanisms can be used to improve the marketability of an instrument including (1) insuring or guaranteeing certain returns to investors in the event of default by the borrowers, (2) requiring high levels of collateral, and (3) providing recourse to the original lender in the event of borrower default. These enhancement tools can be used singularly or in concert to obtain the desired level of product marketability.

Federal government backing of mortgages was a major element in the growth of the home mortgage secondary market by improving the marketability of securities. In the early stages of the market, Federal Housing Administration (FHA)-insured and Veterans Administration (VA)-guaranteed loans were the backbone of the market. Federal government guarantees of timely payment of principal and interest on certain securities, backed by FHA and VA loans, dramatically enhanced the acceptance of home mortgages by the investment community. With the increasing use of securities, the percentage of home loans sold has grown dramatically from about 30 percent of all home loans originated in 1978 to about 68 percent in 1988. Later, use of conventional-mortgage-backed securities gained acceptance as quasi-governmental organizations issued securities with guarantees on principal and interest payments, coupled

with private mortgage insurance requirements. Secondary market organizations also require certain levels of collateralizations, or loan-to-value ratios, for loans they purchase.

What Entities Exist in the Home Secondary Mortgage Market?

Organizations most often associated with the home secondary mortgage market are Ginnie Mae, Fannie Mae, and Freddie Mac. Other organizations, such as large banks, mortgage bankers, and state and local governments, are also active participants in the secondary home mortgage market. All of these organizations differ somewhat in the role they play in the secondary market for home loans, but all make it possible for the existence of a large, active investment market for home loans.

Because Ginnie Mae, Fannie Mae, and Freddie Mac were chartered by the federal government, the financial community perceives that their securities are backed by the government.[2] In reality, Ginnie Mae is a federal agency, and its debt is backed by the full faith and credit of the federal government. However, Fannie Mae and Freddie Mac are private organizations without explicit federal government guarantees.

These organizations do share a common characteristic of encouraging investors to buy mortgages or securities representing a pool of mortgages, by assuming risks that would otherwise be borne by the original lender or the investor. This is done by providing a guarantee to investors that the principal and interest on the securities, which is to be derived from the underlying mortgage payments, will be paid to the investor even in the case of borrower default.

In 1988, mortgage-backed securities issued by these organizations totaled $151 billion, or about 59 percent of all mortgaged-backed securities issued publicly. During the same year, private firms and state and local governments accounted for about $72 billion, or about 28 percent, and about $9 billion, or about 3 percent, respectively, of all publicly issued mortgage-backed securities.

[2]This perceived government backing has not been tested for Fannie Mae and Freddie Mac.

How Does the Home Secondary Mortgage Market Operate?

Many different players can become involved in a secondary mortgage market transaction, but key activities occur in the process: a loan is made; the loan is sold or securities representing a pool of the loans are sold, often to securities dealers; and the securities are then sold to investors. It is not unusual for one entity to perform several of these activities. For example, a mortgage banker may make the loan, pool it with other loans, and sell the security representing the loans to investors. Many other variations on this theme have developed.

Ginnie Mae, Fannie Mae, and Freddie Mac have established financial criteria and standardized mortgage applications that are used by most participants in the home secondary market. Fannie Mae and Freddie Mac both purchase loans that meet their prescribed criteria, providing cash to the lender to make new loans or for other purposes. The lender receives income by (1) charging the borrowers a loan origination fee and (2) receiving servicing fees for collecting the payments and forwarding them to the purchaser or designated agent. However, most of Fannie Mae's and Freddie Mac's activity is conducted through their "swap" programs through which they issue securities to holders of loans and take the loans in exchange. The holders can then hold the securities or sell them. Ginnie Mae does not buy loans; rather, it charges a fee to guarantee loan pools, which are packaged by financial institutions to sell to investors.

Once loans are purchased or guaranteed by a secondary market organization, they can be held in portfolio or packaged with other loans to form a pool that becomes the collateral for a securities issue. This issue is then sold to securities dealers, who, in turn, earn fees by selling the securities to investors. The investors in such securities include commercial banks; savings and loan associations; mutual savings banks; state and local government agencies; pension funds; and private citizens, either individually or through mutual funds.

What Types of Financial Instruments Are Used in the Home Secondary Mortgage Market?

The innovative use of securities to better match the investors' cash-flow and risk needs has been a major factor in the development of the secondary market for home mortgages. The securities that promoted this development are generically referred to as mortgage-backed securities. These securities are issued as both ownership and debt issues and are named for their cash-flow characteristics. They are issued with and without government backing.

The most commonly known ownership issues are called "pass-through" certificates, which represent ownership interests in the underlying pool of mortgages. Once the security certificate has been sold to investors, the ownership of the pool lies with the investors. Although the investors own the mortgages, the loan originator collects all payments, both principal and interest; and all payments, less a servicing fee, are "passed through" to the investors—hence the name "pass-throughs."

The most commonly known debt securities are called mortgage-backed bonds and "pay-through" bonds. A mortgage-backed bond is a debt obligation of financial institution and is collateralized by mortgage loans. The bonds' payment characteristics are much like other bonds, having stated maturities and interest paid at regular intervals. The pay-through bond is also a debt of a financial institution and is collateralized by the underlying mortgages. However, its cash-flow stream is like that of a pass-through security, in that investors receive payments each month as monthly payments are passed through to them. Several variations on those types of mortgage securities have developed in recent years to respond to specific investor requirements.

What Functions Do Secondary Markets Perform?

Historically, secondary markets, especially the home mortgage secondary market, have been credited with performing the following economic functions.

Provide Liquidity

A secondary market for a particular type of financial instrument improves the ability to convert it into cash, or create liquidity, and reduces transaction costs associated with selling the instrument. This enhances the value of the instrument and attracts a broader range of potential investors wishing to buy it.

Moderate Cyclical Flow of Funds

Traditionally, during periods of general capital shortages, the funds available for mortgages generally decreased; and real estate activity slowed down. For example, funds available for home mortgages were severely affected during the general capital shortages of 1969-70, 1974, and 1979-80, as depositors withdrew their funds from deposit accounts at savings and loan associations (thrifts) to seek higher returns on their money. This deposit flight occurred because deposit accounts at the thrifts had interest rate ceilings imposed on them by a provision of Federal Reserve Regulation Q.[3] As a result, when general interest rates went up in the economy, depositors withdrew their funds to invest them in the unregulated financial instruments. To some extent, the financial institutions operating in the secondary market helped to alleviate the severity of the shortage by purchasing mortgages from the thrifts and, therefore, providing funds for additional lending. In recent years, since general deregulation of interest rates, moderating cyclical flows of funds has not been a major function performed by the home secondary mortgage market.

Assist Regional Flows of Capital

Secondary markets stimulate the flow of funds from capital-surplus to capital-deficit areas. During the last decade, the home secondary mortgage market ensured that mortgage funds flowed to rapidly growing areas needing capital, such as the South and West, from capital-surplus areas of the Northeast.

Reduce Geographical Spread in Interest Rates and Allow Portfolio Diversification

As capital becomes more mobile, a geographical moderation in interest rates results because capital will flow to areas of high interest rates, thereby placing downward pressure on those rates. Because a strong secondary market broadens the geographical base of investors, it can spread the risk of a single region, such as the Midwest, to a geographically broader range of investors, potentially lessening its effects.

[3]That provision of regulation Q prescribed the maximum rates of interest that Federal Reserve System member banks were allowed to pay on time and savings deposits. It was rescinded on January 29, 1982.

Underwriting Standards and Risks in Secondary Markets: A Primer

Key questions on underwriting standards and risks in secondary markets:[1]

- What are underwriting standards? Underwriting standards are guidelines used to limit the type and amount of risks permitted in a financial portfolio and to establish methods of insuring against loss from those risks. The underwriting process identifies the potential risks associated with financial instruments, such as insurance policies and mortgage-backed securities, and provides the essential information that would allow determination of how much it will cost to cover these risks.
- How are risks borne in a secondary market? Existing secondary markets are structured to manage risks, and they offer securities designed to spread the risks to market participants in a method most acceptable to potential risk bearers. Risk bearers involved in these markets include lenders that originate loans, poolers who purchase loans from the lenders, guarantors and insurers of loan-backed securities, and investors in the securities.
- What risk implications exist in current secondary market securities? The success of various secondary markets in attracting a wide range of investors was made possible by the markets' ability to develop a variety of asset-backed securities attractive to investors. These securities have different risk implications for market participants, ranging from almost no risk to high risk.

What Are Underwriting Standards?

Underwriting standards are criteria, or guidelines, used to limit the type and amount of risk of loss permitted in a financial portfolio and establish methods to insure against those risks. For example, if an automobile insurance company insures only drivers with accident-free driving records, the prices—or premiums—the company charges to insure against expected losses should be lower than if the company insures motorists without accident-free driving records. The underwriting guidelines in this case would address the driving records of those who potentially could be insured.

Underwriting is the process of (1) identifying potential risks of loss associated with financial instruments, such as insurance policies, and (2) either assessing the expected costs of covering those risks or providing the essential information that would allow others to make such a

[1]This appendix was developed from information contained in section 1 of our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

determination. Underwriting is an integral part of business and financial transactions that occur daily throughout the private and public sectors of the economy and involve the transfer and pricing of risk. The underwriting process is used when a business sells many types of financial instruments, including insurance policies, stocks, bonds, and loans.

Banks use the underwriting process and underwriting standards to make individual loans that they may hold in their portfolio or later sell in a secondary market. These standards address factors, such as past credit history, current and projected income, and expenses, that reflect on the potential borrower's willingness and ability to pay. This information is used to make a lending decision. When a bank decides to make a loan, it sets loan terms, including an interest rate, collateral values, and other conditions consistent with the risks involved in the loan. An individual with a good credit rating and sufficient collateral is likely to receive more favorable terms—including a lower interest rate—than a borrower with a delinquent payment history or limited financial resources. Some risks, such as the credit risk and character of borrower, can be controlled through use of underwriting standards; other risks, such as the changing economic environment, cannot be controlled by underwriting standards and are handled through pricing and use of credit enhancements like insurance, reserves, or guarantees.

Underwriting in the Secondary Mortgage Markets

In secondary markets for residential and commercial mortgages, competent underwriting helps protect those who are taking the risks involved in guaranteeing payments of mortgage-backed securities. In these markets, lenders can convert their long-term assets—which in this situation would be long-term mortgages—into short-term assets by selling the loans to secondary market organizations. These organizations buy loans that meet their criteria, which usually ensure that the loans are readily saleable. The secondary market organizations package the loans or pool them together with other loans, using established underwriting standards, and in turn transfer or spread their risks by issuing securities backed by the underlying loans to the investing public. As a result, investors can invest their funds in securities that can be easily converted into cash—having liquidity—and are marketable, without incurring the costs of evaluating the risk associated with individual loans. To encourage investors to purchase such securities and to increase their confidence in the securities, poolers can guarantee or insure timely principal and interest payments, for a price, through the use of private insurers. Governmental guarantors also, at times, bear the risks of loss associated with the securities.

Underwriting standards in current government-sponsored secondary markets are found in legislation and in the organizations' implementing guidelines. Standards that are found in legislation may be stated in broad or specific terms. Standards found in implementing guidelines interpret, clarify, and expand upon legislated standards or are developed by the responsible organization to address areas where legislation is silent and where there is a need for guidelines. Legislation that provides specific standards limits the flexibility an organization has in carrying out certain provisions of the legislation but gives the Congress more control over the operation of the market.

Underwriting standards address both pools of loans that are used to back securities and individual loans that make up the pools. Some standards affect both pools and individual loans; others affect one or the other. For example, the size limitations of a pool would affect only the pool while the size limitations of individual loans could affect both the pool and the individual loan. In addition, standards applying to property appraisals generally affect only individual loans.

How Are Risks Borne in a Secondary Market?

Existing secondary markets for residential mortgages, commercial loans, and certain agricultural loans are structured to manage risk by transferring risks to certain market participants. Risk bearers involved in secondary mortgage market transactions include (1) originators of loans (lenders), (2) poolers who purchase loans from the lenders and issue securities, (3) insurers of loans that are ultimately included in a pool, (4) guarantors of loan-backed securities issued by poolers, and (5) investors in the securities. Risks fall into two broad categories—risks related to changes in the general economy, which affect all securities, and risks that are unique or specific to individual securities.

Who Are the Risk Bearers?

All of the risk bearers—loan originators, poolers, insurers, guarantors, and investors—differ in the role they play in the secondary market for residential loans; but all make it possible for the existence of a large, active investment market for such loans. Most of the largest secondary mortgage markets are sponsored by the federal government. Organizations most often associated with the secondary residential mortgage market are Ginnie Mae, Fannie Mae, and Freddie Mac. All three serve as guarantors; Fannie Mae and Freddie Mac also serve as poolers and investors in loans that have not been pooled. These organizations share a common characteristic of encouraging investors to buy mortgages or securities representing a pool of mortgages by assuming risks that

would otherwise be borne by the original lender or the investor. This is done by providing a guarantee to investors that the principal and interest derived from the underlying mortgage payments will be paid in case of borrower default. Other organizations, such as large banks, mortgage bankers, and state and local governments, can serve alternately as all types of risk bearers—loan originators, poolers, insurers, guarantors, and investors—in a secondary mortgage market.

What Are the Risks?

Potential risks in existing secondary markets include the general market risks of interest rate changes and inflation and the cash-flow risks inherent in defaults, prepayments, reinvestments, refinancing, and liquidity—the ability to quickly convert securities into cash. Some of these risks are less manageable than others, but existing secondary markets have used risk management to shift risk from their portfolios to other market participants. Market participants must use available information to identify and analyze these risks through market mechanisms and arrive at a price on securities that will compensate them for their perceived risk. Generally referred to as risk pricing, this process is used by participants to decide what types of securities would be better to meet the risk and investment return preferences of investors. In addition to risk pricing, the cost of conducting the buying and selling transactions must be included in determining security types.

To quantify and compare these risks and potential returns on alternative investments available in the market place, participants must have access to adequate market information. Investors form expectations about risks and returns on the basis of the information that is available at the time investment decisions are made. Market information addresses such factors as the history of loan defaults (when a borrower fails to repay the loan), delinquencies (when a borrower fails to make loan payments on time in accordance with established repayment schedules but does not default), bankruptcies, interest rate changes, market conditions, and early loan payments.

The greater the amount of relevant and reliable information available to investors at the time they form their risk and return expectations, the better the market is in discovering, pricing, and dealing with risks. For example, forecasts of market performance can be wrong, especially where little information exists, so the risk taker needs to analyze available information for developing different scenarios and evaluating possible default rates, interest rate changes, and other factors. The risk taker uses these scenarios to determine how to handle these risks, realizing

that risks are not the same across the nation even for the same market or for similar markets and that methods for managing risks, such as portfolio diversification, do not necessarily eliminate risks but strive to make overall risks less volatile.

Certain risk factors affect the amount, timing, and uncertainty of cash flows received by investors but are difficult to measure. In agricultural loans, for example, federal farm subsidy payments are subject to change, thus altering cash flow and affecting returns on agricultural investments. Further, federal farm credit programs that provide loan guarantees and interest rate subsidies can change, affecting the amount of the guarantees or subsidies and exposing investors to additional risks. Weather conditions, such as the 1988 drought, can also have adverse impacts on agriculture and change the cash-flow position of farmers in various regions of the country.

For most existing secondary market securities backed by pools of loans, information needed to evaluate risk for specific securities is available to some degree. Risk can be divided into general market risk and cash-flow risk. General market risk, of interest rate changes and inflation, affects returns to investors, is related to the overall movements in the general economy, and is usually more difficult to manage than cash-flow risk. Cash-flow risk stems from repayments of loan principal by borrowers. Cash-flow risk is specific or unique to a particular security issue and is caused by actions of the lender, borrower, pooler, or others, altering the cash flow to the investor.

General Market Risks

Major risks facing secondary market poolers and investors are changing market interest rates, which increase or decrease the market price of their securities, and inflation, which affects all securities by reducing the purchasing power of the income returns and invested dollars. Measuring these potential risks and the effects they could have on market participants' behavior is difficult because of the uncertainty in making, analyzing, and interpreting forecasts of future interest rates and inflation.

Interest rate risk can have a tremendous effect on the market value of securities. For example, when market interest rates increase, the value of lower-interest-rate securities held by investors, decreases. Because potential investors have the option to buy the new higher-interest-rate securities, all other things being equal, they would purchase the older

securities from the current holders only if the market price of the securities were discounted to provide the same yield as the new securities. If, for some reason, investors holding the lower-interest-rate securities decided to sell in a higher-interest-rate environment, they would experience a loss on their investments.

Interest rate risks are sometimes managed by using a defense against financial loss called "hedging." Hedging makes it possible to reduce risks of volatile rates to security holders by negotiating set prices for the future regardless of whether the market rates increase, stay constant, or decrease. Security holders, for instance, might enter into a contract to sell their securities at a later date for a set price. Whether the interest rate increases or decreases, they receive the same price at the time of the sale. The security holders have hedged against fluctuating interest rates and price declines.

Inflation risk is highly dependent on changes in the macroeconomic environment and other financial factors. Inflation refers to a rising level of prices as measured by a general price index. Inflation reduces the purchasing power of the dollar, and as a result, lenders tend to demand higher interest rates to compensate them for the reduction. For a particular security, risks of inflation, as well as changes in interest rates, can be managed through the use of innovative financial instruments, such as adjustable interest rate loans.

Cash-Flow Risks

Cash-flow risks for an investor or a pooler in a secondary mortgage market involve the availability of funds for poolers to make payments to investors when due and for poolers and investors to obtain funds by liquidating the security when cash is needed. Availability depends primarily on whether (1) borrowers default or become delinquent on payments or pay the loans off early, (2) poolers reinvest excess cash flow wisely or are able to refinance when a shortfall occurs, and (3) the securities are liquid enough to be converted into cash. To help manage all these risks, a pooler would issue securities whereby mortgage payments are passed through to investors. However, investors might want different types of securities to avoid the same risks or may demand to be compensated for these risks by requiring a higher interest rate.

Default risk occurs when, and if, issuers of secondary market asset-backed securities fail to collect from loan originators enough mortgage payments to pay investors the periodic interest payments or to repay investors the principal amount at the time specified in the contract

because borrowers default or become delinquent on the underlying mortgages. For example, borrowers with adjustable interest rate mortgages may not be able to make payments when interest rates increase. To protect the investors, some securities, such as bonds, contain provisions that place strict obligations on the issuer who generally holds the mortgages. Government-sponsored secondary market organizations have additional provisions that preclude a loan originator who defaults because of fraud from continued participation in the market.

In existing secondary markets, certain mechanisms—called credit enhancements—have been developed for transferring risks to other parties to help guard against the default risk being passed on to investors. Issuers of securities can reduce or eliminate investors' exposure to these risks by using various methods of guaranteeing or insuring the timely payment of principal and interest, such as government guarantees, private insurance, or special reserves that can be drawn on to make such payments. For example, as far as investors are concerned, default and delinquency risk does not exist for U.S. Treasury securities. Securities of U.S. government-sponsored organizations, e.g., Fannie Mae, Freddie Mac, and Ginnie Mae, are generally considered to have virtually no default or delinquency risk largely because of actual or implied government guarantees to pay security holders and because investors believe that the government would act to prevent these organizations from defaulting.

Prepayment risk is manifested when borrowers make early principal payments on mortgages or pay the entire principal amount before loan maturity. For example, as interest rates decrease, a borrower with a fixed interest rate is more likely to pay off the mortgage—thereby removing it from the pool of loans—more quickly so it can be refinanced at a lower rate. Conversely, when interest rates increase, a borrower who has an adjustable-rate loan and expects that interest rates will continue to rise over an extended period may pay off the loan and obtain a fixed-rate loan to lock in an interest rate. Under these scenarios, all principal is repaid but future interest payments are forfeited. This creates reinvestment decisions on how to obtain the best returns in a "down" interest rate market. (See the discussion under "Reinvestment risk" below.)

Prepayments expose investors in some types of secondary mortgage market securities to the risk that they will receive less return on their investment than anticipated. These prepayments mean that the principal amount of a loan is invested for a shorter period than investors expected and, as a result, can expose investors to the possibility that

they may not be able to reinvest funds received as prepayments to receive the same or greater return.

Investors can avoid prepayment risk by buying securities, such as bonds, that do not permit prepayments and that promise to pay specified amounts of principal and interest periodically over the life of the security. Where permissible, institutions may charge fees or higher interest rates for loans that are prepaid or subject to prepayment conditions to cover the added risks involved. For example, some commercial real estate mortgages include terms that allow lenders to impose a penalty charge on borrowers who pay off their loans during the first few years of the mortgage. In addition, some lenders charge higher interest rates on loans that allow prepayments, as a pricing mechanism to recognize the risk involved in that kind of loan.

Reinvestment risk is caused by poolers having idle funds resulting from a difference in amount and/or timing of (1) income received by the pooler from mortgage payments and (2) amounts paid to investors. For example, a pooler receives annual payments from borrowers and splits these into quarterly payments to investors; the pooler invests all funds received that are not paid to investors. Both poolers and investors in loan-backed securities are subject to the risk of poolers having to invest cash receipts (interest income and principal payments, including prepayments) at lower than anticipated interest rates because of a general decline in market rates. As a result, the actual return on the investment could be less than the expected return. Investors can reduce potential reinvestment risks by purchasing bonds that pay a fixed amount at maturity.

Refinancing risk occurs when a pooler has a shortage of funds because of a timing difference between cash inflows from loans and cash outflows to investors in securities backed by the loans. This timing difference may cause the pooler to borrow funds to avoid a shortfall in making scheduled payments to investors. For example, defaults on underlying loans for a bond issue may cause a shortfall in cash flows going into the pool. It may take some time before foreclosure and recovery can be accomplished. In the interim, the pooler may have to obtain additional carryover financing—or refinance—to make up cash deficiencies in meeting semiannual interest payments on the outstanding securities until maturity. Investors do not experience refinancing risk in secondary markets, and poolers can minimize risk by using security design structures that pass payments directly to investors.

Liquidity risk in a secondary market relates to the ability to convert the asset-backed securities into cash quickly. It is a risk investors take that they will not be able to readily dispose of their investments through the subsequent sale of the security at a price that will let them recoup their original investment at any time they choose. In general, the more uncertainty that exists, the thinner the market and the greater the liquidity risk. For example, a U.S. government security has little or no liquidity risk because such securities are widely traded, partly because of the investors' faith that the government will stand behind it, whereas the stock of a small company traded on the open market may have substantial liquidity risk. Liquidity risk can be lessened by purchasing low-risk securities, such as Treasury securities, that are actively traded in a secondary market characterized by a large number of buyers and sellers.

What Risk Implications Exist in Current Secondary Market Securities?

The success of the various secondary markets in attracting a wide range of investors was made possible in part by their ability to offer a variety of asset-backed securities—including pass-through securities, mortgage-backed bonds, mortgage pay-through bonds, collateralized mortgage obligations (CMO), and real estate mortgage investment conduits (REMIC)—designed to provide the risk protection and returns sought by investors. These securities, described more fully below, have different risk implications for the market participants, ranging from almost no risks to high risks. The residential mortgage secondary markets have led the way in the area of security design. Other secondary markets offer securities modeled after those originally introduced by Ginnie Mae, Fannie Mae, and Freddie Mac. Investors in securities backed by mortgages include commercial banks; savings and loan associations; mutual savings banks; state and local government agencies; pension funds; and private citizens, either individually or through mutual funds. These securities allow investors to invest in mortgage assets without having to become involved in the costly administrative details.

Pass-Through Securities

With a pass-through security, the borrowers' mortgage payments of interest and principal, minus fees for servicing and other charges, are passed through to the holders who have ownership interests in the security's underlying mortgages.

Since the security holders own the mortgages, they are subject to risks of interest rate and inflation, default, prepayment, reinvestment, and liquidity. However, the major risk associated with residential mortgage-backed pass-through securities is prepayment caused when borrowers

refinance mortgages as market interest rates decline. This often can result in a reduction in total return to the security holders. Frequently, poolers bear the risk of default by guaranteeing or insuring, for a fee, the timely payment of principal and interest to investors. The most common pass-through security has been the Ginnie Mae, which is issued by private entities and backed by residential mortgages insured by FHA and VA. Ginnie Mae offers, through the full faith and credit of the federal government, guarantees for the timely payment of scheduled monthly principal and interest to investors.

Mortgage pass-through securities are also issued directly by private originators or poolers. These pass-throughs are not insured or guaranteed by any government agency but are supported only by the quality of the underlying loans and any credit enhancement mechanism used to transfer the risk of the pool to another party. Two types of credit enhancements traditionally have been used to manage pass-through risks, namely mortgage pool insurance, or guarantees provided by private insurance companies, and letters of credit provided by commercial banks.

In 1986, private sector entities began issuing a third type of credit enhancement, senior/subordinated pass-through securities. In such securities, payments of principal and interest are passed through to investors on a prioritized basis: servicing and trustee fees are paid first; senior security holders are paid second; a reserve fund is established and maintained at a certain balance third; and finally, subordinated security holders are paid from any remaining funds. The size of the subordinated class of securities is established according to how much protection against loss the investor or issuer desires. For example, the more protection desired, the larger the subordinated class may be.

The senior pass-throughs are usually sold to investors after being rated by a nationally recognized agency, such as Standard and Poor's Corporation or Moody's Investors Service. The rating on the senior security is supported by the subordinated security in that payments are not made to the subordinated security holders until after the senior security holders have received their regularly scheduled payments. These subordinated securities may be designed to meet the needs of the participants and may be sold to investors or retained by the issuer. In some cases, the subordinated securities have been sold to investors at a substantially higher yield compared to the senior class of securities because of the higher risk associated with their expected cash flows. A July 1988 study by Goldman, Sachs and Company indicates that, through June 1988,

about 60 percent of conventional pass-throughs had this type of credit enhancement.

Mortgage-Backed Bonds

Mortgage-backed bonds are secured, or collateralized, by home mortgage loans owned by the bond issuer who is usually a private-sector mortgage originator, such as a savings and loan association, a savings bank, or a mortgage banker. These securities have a maturity date and a stated principal and rate of interest. They promise to pay investors interest semiannually and to repay the principal amount at maturity.

Prepayment, reinvestment, and refinancing risks are borne by the issuer of mortgage-backed bonds since the bond contract provides for the issuer to make scheduled interest and principal payments without regard to the timing or amount of payments the issuer receives from the pooled mortgages. Default risk for mortgage-backed bonds is minimized since such bonds are usually over-collateralized, meaning that the collateral must continue to have a market value exceeding the face value of the outstanding bonds.

Mortgage Pay-Through Bonds

Mortgage pay-through bonds are collateralized by home mortgage loans owned by the bond issuer who is usually the mortgage originator, such as a savings and loan association, a savings bank, or a mortgage banker. These bonds are like pass-through securities in that they link the cash flow from the collateral to the cash flow on the bonds. Payment frequencies of the borrower on the mortgage and the issuer on the bonds may differ; however, the issuer assumes the risk of making up any shortfall. Principal payments on the bonds fluctuate depending on prepayments, defaults, and delinquent payments.

The issuer assumes any reinvestment risks due to prepayments. However, in the event of default, who assumes the risk depends on the liquidation value of the collateral and the types of guarantees and insurance provided in the contract between the issuer and the bond holder.

Collateralized Mortgage Obligations

CMOs are bonds created from the cash flow of underlying pools of conventional mortgages. The principal and interest receipts from the mortgages have no direct relationship to payments to the bond holders. Each pool of mortgages that backs the bonds is divided into a series of bonds, commonly referred to as "tranches," that have their own maturity dates and fixed interest rates. Cash flow from the mortgages is used by the

issuer to make payments to holders of the various tranches. These payments are prioritized: first, interest payments are made to all tranches, and then principal payments are made to the tranche that has the earliest maturity date, to the tranche with the next earliest maturity date, and so on. After interest payments have been made, all available cash goes to repay principal on the "fastest-pay" tranche. Following retirement of the first tranche, the next tranche in the sequence becomes the exclusive recipient of principal payments until this tranche is retired. This sequential process continues until the last tranche of bonds is retired. The most common type of CMO has been a four-tranche CMO, although CMOs have been structured with over a dozen tranches. The average life of individual tranches may overlap or there may be gaps of time between the tranches. The average maturity of a four-tranche CMO might be as follows: first-tranche bonds, 1 to 3 years; second-tranche bonds, 3 to 7 years; third-tranche bonds, 5 to 10 years; and fourth-tranche bonds, 15 to 20 years.

The earlier tranches have short or intermediate final maturities and attract investors seeking low exposure to interest rate risk. Since the shorter tranches must be retired before the longer tranches receive principal payments, the longer tranches have a limited amount of prepayment and reinvestment risk although they are exposed to risks of default, inflation, and liquidity. Investors who desire less prepayment risk and less reinvestment risk prefer the longer tranche of a CMO over a pass-through security that has no prepayment risk protection.

Real Estate Mortgage Investment Conduits

The Tax Reform Act of 1986 permitted a new tax-free entity called a REMIC that can hold mortgages secured by any type of real estate and issue multiple classes of mortgage-backed securities to investors. (Securities, issued by these entities, also have come to be known as REMICS.) Among other things, the law grants flexibility to entities who issue mortgage-backed securities and elect to be treated as a REMIC for tax purposes by allowing them to use all the above mortgage-backed security designs that are tailored to meet specific investor needs without being taxed as a separate taxable entity.[2]

Generally, an entity qualifies as a REMIC if substantially all of its assets consist of qualified mortgages. A REMIC offers advantages to issuers of mortgage-backed securities: (1) a REMIC is treated as a partnership for

[2]For a discussion of REMICs and their operations, see our report entitled Housing Finance: Agency Issuance of Real Estate Mortgage Investment Conduits (GAO/GGD-88-111, Sept. 2, 1988).

tax purposes, meaning that it is not subject to federal income tax provided it meets all the requirements of the law, and (2) REMICs can structure mortgage-backed securities to allow the pooler to consider the issuance either as a pass-through or as a CMO. Since a REMIC is capable of issuing multiple-classes of mortgage-backed securities that resemble CMOs, risks of interest rate, inflation, default, prepayment, reinvestment, and liquidity apply much the same as with CMOs, depending on the length of maturities of the various classes.

In secondary mortgage markets, tax considerations are important because decisions about the type of mortgage-backed securities sold to investors is affected by the economic consequences of existing tax laws. Securities issued by REMICs are one of the newest forms of mortgage-backed securities in secondary mortgage markets, and the annual issuance of these securities reached almost $98 billion in 1989. Government-sponsored residential mortgage secondary markets—Fannie Mae and Freddie Mac—have issued most of the REMICs to date.

Underwriting Standards Used in Existing Secondary Markets

Major categories of underwriting standards used in existing secondary markets:[1]

- Loan pool composition determines the characteristics of pools and individual loans eligible for pooling.
- Pooling covenants provide legal rights and obligations of all parties involved and ensure that certain matters are addressed similarly or uniformly from loan to loan within a pool.
- Credit enhancements provide assurances that, in the event borrowers do not make loan payments as scheduled, security holders will receive scheduled payments. These assurances take the form of government and government-chartered organizations' guarantees, government and third-party private sector insurance, self-insurance by lenders and poolers in the form of cash reserves and promises to pay from future income, government lines-of-credit, and overcollateralization.
- Securities registration and disclosure is designed to protect the investing public by ensuring that full and fair disclosure of information is provided to prospective investors.
- Pooler eligibility ensures that poolers are qualified and certified by a governmental or private entity before buying and pooling loans or selling securities to investors.
- Security design determines the structure of and facilitates marketability of securities backed by a pool of loans.
- Documentation determines the form and content of documents supporting individual loans and packages of loans that form pools.
- Servicing pertains to maintaining contact with borrowers, providing accounting records and reports, collecting payments, and managing all activities connected with the loans.
- Monitoring provides for review of lender and pooler performance as well as market operations.
- Property appraisal provides criteria for determining or evaluating the fair market value of the underlying loan collateral.

Underwriting Standards and Identified Categories

Generally, underwriting standards are used in forming pools of loans and making individual loans with some of the standards overlapping and encompassing both pools and loans. Pooling standards dictate, in large part, what will be contained in individual loan standards since the loan-making process must meet the requirements of the pool. Pooling

[1]This appendix was developed from information contained in section 2 of our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

standards must be flexible enough to evolve over time, accommodating change in economic factors, risk management techniques, and other factors that affect the secondary markets. However, they must be constant in their ability to ensure that only loans that meet acceptable risk parameters are included in a pool.

Underwriting standards for residential secondary mortgage markets developed gradually over time and were shaped by authorizing legislation and by subsequent guidelines for implementing the legislation. In some instances, the Congress required broad underwriting standards and left it to the government-sponsored organizations or the lenders to establish the more detailed standards in their implementing guidelines. For example, the legislation creating Freddie Mac in 1970 required Freddie Mac to purchase and sell conventional residential mortgages meeting general underwriting standards. Subsequent legislation created exceptions from these standards or added new standards. In implementing these legislative standards and addressing areas where standards were needed but legislation was silent, Freddie Mac developed more detailed standards and modified them over time in response to changed economic and risk factors. In addition, individual lenders who sell loans to Freddie Mac have developed loan standards that amplify Freddie Mac's and that are also used in loan-making decisions.

Depending on the purpose of the market and risks that the organization creating the secondary market is willing to accept, different strategies may be followed in establishing standards. Legislation may (1) set explicit standards when creating the market, (2) delegate responsibility for setting the standards to the secondary market organization established—if any—to carry out the market functions, or (3) allow lenders or poolers to establish their own standards.

We identified 10 major categories of underwriting standards used by existing residential mortgage and other secondary markets. These standards are based on characteristics of loans and securities that are required of those markets. To obtain a better understanding of the importance and implications of these standards to a secondary market, we discussed each category with officials of existing residential secondary markets—Ginnie Mae, Fannie Mae, and Freddie Mac—and with underwriters that are involved in secondary markets.

Outside of the residential markets, we found little documentation of underwriting standards; however, we reviewed manuals and other documentation, where possible, to identify specific standards, procedures,

and practices used. We reviewed private loan underwriting guidelines for residential mortgages, banking manuals on real estate underwriting, commercial loan guidelines, and loan policies and procedures of various western and midwestern banks. We also reviewed draft agricultural real estate standards developed by a task force composed of officials from the FCS, the Independent Bankers Association of America, the American Bankers Association, and the American Council of Life Insurance.

Loan Pool Composition

Loan pool composition standards, our first category, relate to the characteristics of pools and individual loans that make up the pools for a given secondary market. These standards set the parameters of loan pools and usually define eligible borrowers, pool size, origin of loans, and loan criteria.

Borrower Eligibility

Borrower eligibility requirements specify which borrowers may participate in the program and often play a part in determining the amount of risk in a loan pool. Generally, these requirements are set to explicitly limit risk or, in the case of government- sponsored markets, require the markets to meet some public policy goal, such as affordable housing or farm ownership, that often increases risk. Borrower eligibility requirements are imposed to ensure that (1) certain borrowers are not discriminated against, (2) other borrowers cannot be considered for a particular market, and (3) only certain types of loans will be included in a particular market. For example, U.S. government-sponsored secondary markets are made up of pools of loans from borrowers that, among other characteristics, are generally individuals, not corporations, partnerships, or trusts. The Small Business Administration (SBA) includes loans in its secondary market only if they are for small businesses organized to generate profits for their owners, are independently owned, and are not dominant in their fields. Borrower eligibility is usually specified in legislation with more explicit instructions provided in implementing guidelines.

Pool Size

In government-sponsored secondary markets, legislation (1) prescribes underwriting standards defining the total value of loans that can or should be included in a pool or (2) instructs the organization to develop such standards to include in their implementing guidelines.

Ginnie Mae, for example, requires a minimum pool value of $1 million for pools consisting of single family mortgages to accommodate its

poolers who are usually smaller financial institutions. Fannie Mae and Freddie Mac have two basic mortgage-backed security programs—swap program and standard program—with differing objectives and therefore differing pool size limitations. In addition, pool size is based on such factors as Fannie Mae's minimum pool size limitations of $500,000 for all adjustable rate mortgages and $1 million for fixed-rate mortgages. Size limitations have changed over time as markets have expanded and the costs of homes have increased. Pool size for all markets is often determined by investor appetites, economic factors, and administrative cost implications.

None of the commercial or agricultural standards we reviewed and few of the residential secondary markets require a minimum or maximum number of loans in a pool.

Origin of Loans

Residential markets define who can originate loans by listing specific organizations or types of organizations. For example, Freddie Mac buys conventional mortgage loans from members of the Federal Home Loan Bank system, the Federal Deposit Insurance Corporation, the National Credit Union Administration, financial institutions whose deposits are insured by an agency of a state or the United States, and authorized public utilities. Fannie Mae's customer base is substantially similar to Freddie Mac's; however, 2 percent of its business is FHA/VA loans, 98 percent is conventional mortgage loans. Ginnie Mae deals primarily with loans insured by FHA and VA. Each of the loan-making organizations must meet the purchasing organization's standards but, in addition, may have its own more specific standards that usually relate to the ability and willingness of the borrower to repay the loan.

We found no underwriting standards that address geographical limitations of loans within a pool. However, experts told us that securities backed by pools of loans are generally rated for less risk if the loans are spread over a wider geographical area from a variety of lenders and that private markets require more geographical diversity than government-backed markets. One way to spread risks in a secondary market is to ensure that a pool has enough geographical diversity in it so that problems in one particular region cannot cause the failure of the pool. Pools made entirely of loans from areas experiencing financial difficulties would be negatively affected; however, a pool that had only a few of these loans would be affected much less because the risk would be spread over a wider variety of more stable loans and economic conditions. For example, residential housing markets in the Southwest have

experienced economic recessions in recent years. This has led to higher default rates and cash-flow problems for poolers who did not significantly diversify their pools outside their regions.

Legislation typically sets standards on who can originate loans for a particular market, and the administering organization—such as Fannie Mae or Freddie Mac—issues clarifying guidelines when necessary.

Loan Criteria

Factors considered in determining whether a loan is eligible for a pool vary from individual loan characteristics to borrower characteristics. Standards are written so that these factors are sufficiently defined to allow poolers to determine whether a loan meets enough requirements to qualify for a pool. These standards provide the basis to price the risks inherent in the securities backed by these loan pools.

Types of loan eligibility criteria described below include loan size and type; interest rates; loan maturity; borrower's financial ratios, which set limits on risks; and credit check tests. These requirements are described in a minimum/maximum manner or in a specific quantity/quality manner. Loan criteria are sometimes set in general terms in legislation and are more specific in implementing guidelines.

Loan Size

Underwriting standards usually set the dollar amount of a loan eligible to be included in a pool. Maximum-size standards are established to prevent one or a few loans from monopolizing a pool, thereby causing more risk if a loan prepays or defaults. Minimum-size loan standards are established to permit including in a pool small loans that may be more costly—in relation to dollar value—to process than large loans.

Loan size limitations exist in most secondary markets and are usually contingent upon such factors as the number of residential units covered, the geographic location, and the ratio of the amount of the loan to the market value of the collateral—the loan-to-value ratio. Depending on such factors, Fannie Mae's and Freddie Mac's maximum loan amounts currently range from $187,450 to $360,150 (effective as of Jan. 1, 1990). They are based on a legislatively established formula. Ginnie Mae's maximum for VA mortgages is $144,000, while its maximum for FHA loans for fiscal year 1990 is $124,875. Standards for other markets range from $120,000 to $600,000 depending on such factors as loan-to-value ratios and whether the loan rates are fixed or adjustable.

Loan Types

Types of loans eligible to be included in a pool may take several forms. A residential mortgage market may restrict loans to single family houses, multifamily complexes, condominiums, or any combination of these; commercial mortgage markets may include only one type of business or any number of businesses; and agricultural mortgage markets may include loans for purchasing real estate or loans for developing certain types of agricultural real estate, such as vineyards or orchards that require years before income is realized from those crops. A residential secondary market pool that includes condominiums may have a higher risk than a pool of single family houses because, historically, single family markets have performed better; and a pool of agricultural development loans made to develop existing agricultural land may have a higher risk than a pool of loans for purchasing agricultural real estate.

Existing secondary markets include a variety of loan types. Freddie Mac and Fannie Mae purchase a variety of loan types including conventional mortgages and FHA/VA single family, 2-to-4 family, multifamily (more than 4 families) mortgages, and second-home mortgages. Some markets, such as Ginnie Mae and SBA, limit their loans to those guaranteed by the U.S. government. Loans for the Farmers Home Administration's (FmHA) secondary market include long-term real estate mortgage loans in rural areas and farm ownership loans.

Loan-type standards are usually specifically set in legislation with amplifying language in implementing guidelines.

Interest Rate Structures

Underwriting standards set, in general, the structure of interest rates, such as fixed or adjustable rates and maximum/minimum interest rate limits, for loans eligible to be included in a pool. Standards periodically define risk factors and market conditions, which determine interest rates. Generally pools do not demand all loans to have exactly the same interest rate to qualify for a pool. For example, interest rates on mortgages pooled by Freddie Mac may vary from 0.5 to 2.5 percent above the rate at which payments are passed through to investors--if the interest on a mortgage-backed security is 10 percent, then the interest rate on underlying mortgages must be between 10.5 and 12.5 percent. According to Standard and Poor's officials, the more narrow a range of rates in a pool, the more efficient the pool.

Pools of fixed-rate loans are usually considered lower risk than pools of adjustable-rate loans because with a fixed rate, a borrower can budget payments more easily than with an adjustable rate where payments may increase. However, in the past few years, some secondary markets

have pooled and sold more adjustable-rate loans than previously. For example, Freddie Mac began issuing adjustable-rate mortgage-backed securities in 1986 and is developing new adjustable-rate products. About 5 to 8 percent of outstanding Freddie Mac securities are backed by adjustable-rate mortgages, and Freddie Mac has been increasing its purchases of these mortgages—about 16 percent of total purchases in 1988.

Interest rate structures are sometimes referred to in legislation, and specific standards usually are set in implementing guidelines.

Loan Maturity

Loan maturity refers to both the maturity date, which is the date a loan is due to be paid off, and the remaining term, which is the length of time until the maturity date. Loans eligible to be included in a pool are almost always required by pooling standards to meet loan maturity provisions. Historically, secondary market poolers have preferred pooling loans of similar maturities so the pool is more homogeneous to make securities more saleable.

Maturity provisions allow various loan lengths for different pools. With some exceptions, Freddie Mac and Fannie Mae provide that the original term of a mortgage may not exceed 30 years while SBA requires that the shortest remaining term to maturity of any loan in a pool must be at least 70 percent of the longest remaining term to maturity of any loan in a pool. In practice, loan pools have been composed of loans of about the same length.

Secondary market entity implementing guidelines usually dictate maturity provisions.

Financial Ratios and Tests

For loans to be eligible for inclusion in a secondary market, the loans and the borrowers are usually required to meet certain qualifying financial ratios to set limits on the risks involved and to withstand credit history tests. Generally, underwriting standards may establish maximum or minimum ratio percentages and require the application of these ratios on a loan-to-loan basis. A loan pool usually consists of loans that have financial ratios that fall within the limits established for the pool; however, ratios used in the various secondary markets and from pool to pool may differ. Financial ratios focus on (1) borrower's income and ability to repay the loan, (2) amount of the loan compared to the value of the collateral, (3) excess of borrower's assets over liabilities, and (4) the borrower's willingness to pay.

Borrower's ability to pay is dependent on cash flow and is usually the "bottom line" in determining loan quality and risk. In general, ability to pay is determined from a review of the borrower's financial statements, which, at times, may have to conform to generally accepted accounting principles. Fannie Mae does not require financial statements when underwriting the typical single family borrower; however, if the borrower is self-employed, tax returns and financial information on the business are required. Any one or a combination of several financial ratios can be used to determine ability to pay.

The existing housing secondary markets use two overall ratios to qualify conventional-loan home buyers: (1) total housing expense-to-income ratio and (2) total debt payment-to-income ratio. For example, Fannie Mae and Freddie Mac use a monthly housing expense-to-income ratio with a standard of 28 percent. Housing expense includes principal and interest payments, insurance, and taxes. Income includes all stable income. Both also use a monthly debt payment-to-income ratio standard of 36 percent. Debt payment includes the above housing expenses plus other debt payments such as installment and revolving payments. Both use these standards, but they may be exceeded providing compensating factors exist.

In government-sponsored markets, legislation usually states that borrowers must demonstrate an ability to repay a loan; standards relating specifically to defining the borrower's ability to pay are usually provided for in implementing guidelines.

Loan-to-value ratios are commonly used in almost all residential mortgage secondary markets to measure the borrower's equity in the property backing the mortgage. This ratio helps to determine loan quality and is used as security for a loan. Higher loan-to-value ratios are more likely to result in loss in the event of a foreclosure because the lender is holding less security on the loan. Legislation for some secondary markets establishes maximum loan-to-value ratios; however, more stringent ratios may be required by poolers or lenders. Pools usually consist of loans with similar loan-to-value ratios; however, some pools consist of loans with a range of ratios to achieve comparable risk parameters for loans with different types of collateral.

Required loan-to-value ratios differ on the basis of the type of property involved, interest rate used, borrower, and loan. For example, Fannie Mae and Freddie Mac use loan-to-value ratio limitations from 80 to 95

percent depending, for example, on whether the house is a 2-to-4 family or single family residence.

According to bankers in the West and Midwest, agricultural real estate loan-to-value ratios should currently not exceed 65 percent because of the risks involved in agricultural real estate and the uncertainty of market value of the collateral backing loans. This ratio is down significantly from the 1970s when 80-90 percent ratios were common and were based on inflated real estate values.

Although loan-to-value ratios may be mentioned in secondary market legislation, specific standards for such ratios are usually provided for in implementing guidelines.

Net worth represents the difference between a borrower's assets and liabilities. When the market value of the borrower's assets are greater than liabilities, the net worth indicates that the borrower has general assets a creditor might have recourse to in case the collateral on the specific loan is not adequate to cover default losses. For example, even if the assets are sold for less than market value, a borrower's net worth may be sufficient to cover the amount of liabilities owed to the creditors. Most commercial secondary markets have standards specifying the minimum amount of net worth as a percentage of a borrower's total assets.

Standards for net worth are usually provided for in implementing guidelines.

Willingness to pay is a test that borrowers must pass to provide reasonable assurance that they will repay the loans. Such tests do not necessarily involve financial ratios but usually consist of checking the borrower's credit payment history and reviewing public records to disclose any previous judgments, foreclosures, tax liens, or bankruptcies. Verifying a borrower's credit usually requires the lender or an independent credit reporting agency to obtain (1) information on the borrower's employment, income, and credit history for at least the previous 2 years and (2) a list of all legal information—such as suits, judgments, foreclosures, garnishments, and bankruptcies—for the past several years.

Credit check standards are usually provided in implementing guidelines.

Covenants

Several basic mortgage loan provisions address the legal rights and obligations of the involved parties. Known as covenants, these provisions—

because they may affect loan prepayment patterns and credit risk—must be considered when evaluating the pool payment characteristics. Covenants generally deal with matters that require clarification to avoid legal conflicts between the parties. Covenants are also established to manage certain risk characteristics in loan portfolios for either borrowers or lenders. Fannie Mae and Freddie Mac list covenants in two groupings—20 uniform covenants that are the same in all states and up to 9 nonuniform covenants that conform to the laws of various states where the property is located. Matters—such as provisions for loan assumptions, prepayments, borrower's rights, lender's rights, and pooler's rights—are addressed in a consistent manner so that all parties are aware of what the covenants provide for in these areas.

Covenants are provided for, at times, in legislation either specifically or by inference; implementing guidelines usually provide more specifics on how to define and manage them.

Loan Assumption Provisions

When property is sold and the buyer takes over payments on the existing mortgage, the loan is considered as assumed by the buyer. In the residential housing secondary markets, loan assumptions are occasionally permitted. For example, Fannie Mae and Freddie Mac do not often allow assumption of fixed-rate mortgages but do allow adjustable-rate mortgages to be assumed provided that the organization's uniform mortgage instruments and procedures are used by lenders. However, when a conventional loan is assumable, the lender may charge an assumption fee or, in some cases, increase the mortgage interest rate and require the party assuming the mortgage to have a credit check. Ginnie Mae pools only government-guaranteed mortgages, and those mortgages are generally assumable.

Assumable loans facilitate the transfer of property, affect interest rates, and increase the volume of activity, thus affecting secondary markets. Loan assumptions tend to reduce prepayment risks by allowing the life of the mortgage to be uninterrupted.

Prepayments

Loan prepayment occurs when the borrower pays all or part of a loan prior to the scheduled payoff date. Prepayment is a major risk of a secondary market investor because it results in a return of principal earlier than the anticipated maturity date, thus reducing investors' expected yields on that specific investment. It also creates reinvestment risks for poolers or trustees who must hold and reinvest prepayments when they

cannot pass them immediately through to security holders because, in such cases, payments to the holders are set and are not tied to mortgage receipts.

One method of reducing prepayments is to impose prepayment penalties. Although various states have restrictions against such penalties, the federal government can, in some cases, override them where government guarantees are involved. Illinois allows penalties on mortgages for which the interest rate is below 8 percent, while Ginnie Mae and SBA do not allow prepayment penalties. Freddie Mac does not allow penalties for 1-to-4 family units but does for multifamily (over 4 families) units. Fannie Mae allows prepayment with no penalty in most cases. In general, penalties are not allowed because they tend to limit the borrower's ability to refinance or repay loans.

Borrower's Rights

Secondary market covenants address certain rights that protect the borrower from actions on the part of lenders. In general, these rights reduce the lender's rights to collect on loans and, as a result, may increase the lender's operating cost, which may then be passed to other borrowers or may decrease the lender's and investor's returns. These provisions include the right of each borrower to have (1) no-recourse provisions that limit the borrower's loan liability only to the amount of the collateral backing the loan, rather than to the borrower's total assets, (2) mandatory mediation to delay foreclosure or repossession, and (3) loans restructured as an alternative to foreclosure.

Generally, legislation that creates borrower's rights will dictate pooling standards. For example, a provision was included in the 1988 Housing and Community Development Act that mandated a lifetime cap on all adjustable-rate mortgages. This law was then incorporated into the pooling standards for all adjustable-rate mortgages pooled by Fannie Mae and Freddie Mac

Lender's Rights

Secondary market covenants also address rights of lenders to monitor and review borrowers' property and pertinent documentation, to require escrow accounts, and to act when contract provisions are violated by the borrower. Lender's rights can play a large role in defining the amount of risk a lender will take in making a loan.

To protect the integrity of a loan pool and encourage the saleability of pool-backed securities, underwriting standards usually prescribe

recourse actions necessary for a loan to be included in a pool. Without such a standard, a pool is considered a higher risk. However, these standards vary. For example, at the discretion of the seller of the loans, Freddie Mac and Fannie Mae can buy mortgages (1) with recourse, meaning that the seller bears a certain amount of risk and cost of borrower default, or (2) without recourse, meaning that Freddie Mac and Fannie Mae bear risks with certain limitations.

Pooler's Rights

Secondary market covenants usually do not address the rights of poolers as a separate provision; however, they may incorporate certain actions that poolers may take to ensure pool quality and protect the financial interests of investors. Pooler's rights generally deal with the recourse a pooler has on a lender for loans included in a pool.

For example, Freddie Mac and Fannie Mae are required to purchase a certain quality of loans from sellers and are authorized to require, at their option, sellers to buy back and/or replace loans when the seller has violated its contract. In addition, lenders servicing mortgages purchased by or in which Fannie Mae or Freddie Mac has a participation interest are required to warrant that they will diligently perform all duties necessary or incident to the proper servicing of the mortgage. Fannie Mae reserves the right to terminate the servicing contract whenever the lender breaches or fails to fulfill its responsibilities.

Credit Enhancement

Through use of various mechanisms, credit enhancement transfers risks of a loan or loan pool to other parties, thereby reducing the overall risk to one party. It is an assumption of risk to ensure principal and/or interest payments to holders of securities backed by pools of loans. Credit enhancements often result in better ratings for securities, thereby making the securities more saleable. Credit enhancements include risk-based fees, insurance, cash reserves, subordinated participation interests, guarantees, and overcollateralization. The mechanisms, formulas, and allowances for implementing credit enhancement are usually specified within broad parameters in legislation and in more detail in implementing regulations.

Risk-Based Fees

In government-sponsored markets, either the loan originator or the pooler pays a fee to the secondary market organization involved to help cover expected losses for loans sold into the market. If the fee is not adequate to cover potential losses, losses could result from borrower

delinquencies, defaults, and foreclosures. The fee is usually based on a percentage of the total amount of principal in a loan portfolio. Generally a minimum percent is used to establish a reserve fund for credit enhancement; a maximum percent limiting the amount that can be collected from any pool is usually not used in current secondary markets. This fee is to be actuarially based to reflect the amount, probability, and timing of expected losses. A fee that is too low can place unnecessary burdens on the parties involved or on other credit enhancements that may be used in conjunction with such a fee. A fee that is too high can result in an excessive reserve fund and increase the cost of credit to borrowers.

Risk-based fee amounts are usually derived from legislation that may specify amounts or provide authority for implementing guidelines to specify amounts.

Insurance

Mortgage insurance is another credit enhancement that can be used singularly or in conjunction with other enhancements to transfer risks in case of defaults. Generally it is provided through private mortgage insurance companies, is paid by the borrower, and is required by investors on certain nongovernment-insured loans and by Fannie Mae and Freddie Mac on certain nongovernment-insured or guaranteed loans to protect them from financial loss due to borrower default. For example, conventional single or 2-to-4 family mortgages purchased by Fannie Mae and Freddie Mac having a loan-to-value ratio greater than 80 percent are required to be covered by private mortgage insurance; coverage is required on the amount that is more than 75 percent of the value of the property securing the mortgage. However, there are two conditions under which they can buy loans with ratios above 80 percent without mortgage insurance: (1) the seller, who may be the original lender or another certified seller, retains at least a 10-percent participation in the loan and (2) the seller sells Freddie Mac or Fannie Mae a loan with full recourse to the seller, meaning that if the loan goes into default, the seller is required to buy it back.

Other types of insurance are also generally required in a mortgage market to ensure that the property is adequately protected. Title insurance protects ownership rights and hazard insurance insures financial protection to the owner against property damage and personal liabilities. In the case of agricultural real estate loans, crop insurance can be used to provide additional protection against loss of cash flow due to failed or poor crops.

Insurance provisions are usually found in implementing guidelines.

Cash Reserves

Cash reserves are established by the pooler arranging to provide cash through its own sources or through lenders participating in a pool. This cash is usually invested in U.S. Treasury notes or the equivalent thereof. Cash reserves provide a reliable credit enhancement against loss. Such an enhancement is preferred by investors. However, poolers and lenders do not necessarily prefer this type of credit enhancement because it reduces their financial flexibility by tying up cash that cannot be reinvested except in lower-paying Treasury notes. Government-sponsored residential mortgage markets do not require a cash reserve. Cash reserves are currently used by private sector issuers of securities backed by conventional, residential, and commercial mortgages. The size of the cash reserve depends on several factors including size of pool, availability of other credit enhancements, quality of loans, and expected default rates.

Cash reserve amounts in secondary markets are usually set by the pooler or other entity that may issue the securities.

Subordinated Participation Interests

Subordinated participation interests are created when a pooler and/or lender retains a portion of a mortgage pool and the holders of the retained portion do not receive principal and interest payments (subordinated payments) until after all other investors have received their payments (senior payments). Some subordinated participation interest structures require that a certain percentage of current cash flows to subordinate holders be escrowed into a fund—called a liquidity reserve—to ensure readily available funds for payments to senior security holders. Subordinated payments and liquidity reserves act as credit enhancements for senior security holders. In case of default or other nonpayment of principal and interest, subordinated payments and liquidity reserves are used to make up payment shortfalls to holders of senior class securities. In some cases, these subordinated participation interests are packaged and sold as separate high-risk/high-yield securities.

One example of a subordinated participation is the FmHA rural housing program. FmHA has issued securities backed by mortgages that consist of class A and B bonds and residual bonds retained by FmHA. Class A bonds are enhanced by subordinated class B bonds and a contingency reserve

fund. Payments of principal and interest for class B bonds are subordinated by payments to the class A bond holders.

Subordinated participation interests are usually set by the pooler or other entity that may issue the securities although a rating agency may require a higher subordination percentage depending on the risk factor—the quality of the underlying loans and expected losses.

Guarantees

A guarantee is a promise of a third party to pay security holders when the issuer of the security fails to do so. Guarantees for existing secondary markets are provided by the government in the case of Ginnie Mae and SBA, while Freddie Mac and Fannie Mae back their own guarantees. These guarantees are the most preferred credit enhancements available in the markets today because the government promises to stand behind Ginnie Mae and SBA securities in case of default on underlying mortgages and because investors perceive that the government also stands behind Freddie Mac and Fannie Mae in case of defaults. In addition, guarantees by the government and government-chartered organizations usually result in a lower cost of funds to the respective secondary markets because of their actual and perceived government backing.

The nature of government-sponsored organization guarantees differs. For example, Ginnie Mae and SBA are explicitly backed by the full faith and credit[2] of the U.S. government for timely payment of both principal and interest. On the other hand, Freddie Mac provides a guarantee of timely payment of interest and eventual payment of principal for securities backed by pools of mortgages, and Fannie Mae provides a guarantee of timely payment of both principal and interest. Both are required to use their resources to stand behind their guarantees and have a federal line of credit—at the Treasury's discretion—when their resources are depleted. Legislation limits the amount of the line of credit.

Government-sponsored organization guarantees are established by legislation.

Overcollateralization

Overcollateralization in secondary markets means that the lender or investor may require an individual loan or security to be backed by collateral that exceeds the market value of the loan or security to minimize

[2]By pledging its "full faith and credit," the United States acknowledges that, in the event the borrower defaults, the U.S. government will be legally liable and will make payment.

the risk of loss due to default. For example, mortgage-backed bonds issued by some private entities may be collateralized by a pool of mortgage loans or mortgage-backed securities that, at times, range between 125 and 240 percent of the bond's total face value. Overcollateralization is attributable to several investor concerns about (1) repayment of principal between dates when market value of the collateral is calculated, (2) possible impairment of the value of the collateral due to changes in the economy, and (3) receiving protection against defaults of the mortgages.

Standards for overcollateralization are usually set in implementing guidelines.

Securities Registration and Disclosure

Under federal securities laws, most private securities sold to the public are required to be registered with the Securities and Exchange Commission (SEC), which is responsible for protecting the investing public by ensuring that full and fair disclosure of information is provided to prospective investors. Registration statements filed with the SEC contain information required by the Securities Act of 1933, including financial statements prepared in accordance with generally accepted accounting principles. However, prior to creating Farmer Mac, the Congress exempted government-sponsored organizations' mortgage-backed securities from registration and disclosure provisions. Nevertheless, Freddie Mac and Fannie Mae make available to prospective investors documents that disclose information about loan pools, and issuers of Ginnie Mae pass-through securities are required to prepare a prospectus for each prospective purchaser. Freddie Mac disclosure includes such characteristics as loan sizes, loan-to-value ratios, and type of loans. SBA is required to have the seller disclose information, such as assumed prepayment date, maturity date, and selling price of the loan.

This standard is usually specified in legislation.

Pooler Eligibility

For an entity to become a pooler in existing secondary markets, it must be certified by a sponsoring governmental or private agency. Criteria for certification are contained, in large part, in law with certain aspects specified in implementing guidelines by each market regulator before a pooler can buy and pool loans or sell securities to investors. These requirements may be applicable not only to poolers but also to lenders.

The requirements related to loan pool underwriting standards vary because of differences in loan characteristics and risk factors of the various markets. For example, a pooler for SBA must provide an application to SBA and be approved before purchasing guaranteed portions of loans and pooling them. Freddie Mac and Fannie Mae act as poolers and therefore do not certify poolers; however, using set criteria, they approve lenders to be eligible to sell them loans. Ginnie Mae, on the other hand, does not act as a pooler but approves poolers to pool loans and issue Ginnie Mae-guaranteed securities.

Security Design

Security design in a secondary market refers to the characteristics of a security used to sell pools of loans to investors. Generally, security design characteristics encompass the cash flows from the underlying mortgages, investor preferences for certain cash-flow characteristics, rate-of-return implications by restructuring cash flows to meet investor needs, and in some cases tax consequences of certain security structures. Security design decisions are usually established in implementing guidelines; however, security design characteristics often evolve as market environments change.

One of the most recent innovations in security design is the REMIC. A REMIC is a tax-free entity that can hold mortgages secured by real estate and can issue multiple-class (i.e., a pool with "tranches" having their own maturity dates and interest rates) mortgage-backed securities to investors. Its primary benefit is that it can be used to manage irregular cash flows from mortgages and pass them through to investors on the basis of the investors' investment objectives. For example, some REMICS are structured so that the securities are paid on a quarterly basis to investors, and therefore the monthly mortgage payments must be reinvested pending quarterly distribution. A REMIC also could contain mortgages with annual, quarterly, and monthly mortgage payment loans and structure payments to investors on a quarterly basis only. REMICS were created in the 1986 Tax Reform Act and became viable as a result of tax changes that made escrowing irregular cash flows for later payment a tax-neutral transaction, thereby increasing the yields of REMICS to investors while offering them a more "plain vanilla" (less complicated) investment vehicle in terms of cash flows that appear to be more routine.

Documentation

As a category of underwriting standards, documentation requirements apply to individual loans and pools of loans in a secondary market. In

general these requirements are used for verifying the quality of loans and pools. Two different levels of documentation are usually included in this standard for secondary markets.

- Documentation of packages of loans generally includes a listing of loans in the pool, each original mortgage note, documents transferring the mortgage to the pooler, and any other specific documentation from individual loan portfolios the pooler considers necessary.
- Documentation of individual loans usually includes loan application, credit report, verification of employment and income, appraisal report, photographs of property, sworn statements or affidavits (if any), mortgage insurance certificate, mortgage payment history, hazard and title insurance policies, and verification of water rights and other legal documentation.

Documentation criteria may also include management controls to be used in data processing for individual loans and pools. Documentation criteria are similar for most national secondary markets. Documentation standards are usually developed in implementing guidelines.

Servicing

Generally lenders who sell loans to poolers continue to service those individual loans; however, servicing may also be performed by the pooler or its designee. Servicing includes maintaining borrower contact, collecting payments, and managing all activities connected with the loans. Fannie Mae and Freddie Mac require their lenders/servicers to warrant the diligent performance of all duties that are necessary or incidental to the servicing of the individual loans. Fannie Mae reserves the right to terminate the servicing contract whenever the lender breaches or fails to fulfill its responsibilities. To ensure that mortgage loans are properly serviced and to facilitate transfer of servicing from one lender to another when necessary, Fannie Mae has established a minimum servicing fee. Quality servicing is essential to protecting the interests of the investors and those that provided credit enhancements. For example, servicers must have an efficient collection system to minimize delinquencies and defaults to ensure timely payments to investors. Generally, a servicer's contract may be terminated and transferred to a new servicer if Fannie Mae determines that servicing is inadequate on the basis of its servicing standards.

Most secondary markets have their own standards for servicing. For example, Freddie Mac requires the servicer to service mortgages in accordance with its Sellers' and Servicers' Guide. For SBA, the lender is

responsible for servicing loans in the manner set forth in SBA's Loan Guaranty Agreement and other rules and regulations. Our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989) provides further information on servicing provisions of existing secondary markets.

Servicing standards are usually set forth in implementing guidelines.

Monitoring

Monitoring requirements include a continuous or periodic review of lender and pooler performance as well as market operations and management controls—such as data information systems. Lender performance is usually monitored by poolers; and pooler performance, market operations, and management controls are monitored by the regulating agency. Monitoring standards are usually set by implementing guidelines. They are critical because they ensure quality performance of the lenders, poolers, and servicers and help maintain market stability.

Each party in a secondary market has some monitoring responsibilities. For example, Freddie Mac may at any time conduct an audit of mortgages for the purpose of verifying the servicer's compliance with the terms and conditions of the purchase contract. The servicer, in turn, must monitor individual mortgages. Likewise, Ginnie Mae or a designated agent can audit all records of any entity that has any dealings with its guaranty. Fannie Mae has a program of monitoring activities of lenders and document custodians. Lender monitoring includes a review of lender eligibility, loan origination practices, loan-servicing practices, and the handling and remittance of mortgage payments.

Property Appraisals

When evaluating individual mortgages in a pool, a pooler verifies the appraised value of the property used as loan collateral. An appraisal is an estimate of real property value, as of a specific date, supported by an appraiser's analysis of data. Appraisals generally involve valuing the property on a cost or income basis and obtaining a site analysis, site location map, survey site plan, neighborhood analysis, land value analysis, and comparable site sales maps. Appraisals are necessary to help quantify various risks associated with individual loans. Our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989) provides a detailed discussion of appraisal standards.

Secondary markets have general appraisal requirements that incorporate various commonly approved approaches to appraisal. Ginnie Mae and SBA requirements both contain standards similar to Fannie Mae's and Freddie Mac's. For example, both review appraisal reports to determine if estimated market value and related risks are supported. They review appraisal and market value estimates for completeness, accuracy, and appraising logic. They do not approve specific appraisers but can refuse appraisals done by specific appraisers. Their lenders approve and select appraisers who must be qualified and experienced in appraising properties similar to the type being appraised.

Appraisal standards are generally set in implementing guidelines.

Key Issues Concerning the Development of a Secondary Market for Agricultural Real Estate Loans

Questions for further consideration in the secondary market debate:[1]

- Is federal government involvement needed to develop a large national-scope secondary market for farm real estate loans?
- What impact would a large national-scope secondary market for farm real estate loans have on the Farm Credit System (FCS) and other lenders?
- Should FCS be given powers to operate as the secondary market for all lenders?
- Could a new secondary market entity coexist with the FCS?
- What loans should be eligible to be sold in the secondary market?

On the basis of our examination of nine legislative proposals to establish a secondary market for agricultural real estate loans introduced in the 100th Congress and our discussions with individuals and officials from both the private sector and government, in July 1987 we raised several issues that merited additional consideration in the secondary market debate.[2] Our observations on the following questions should help highlight the issues involved at the time of our July 1987 report.

Is Federal Government Involvement Needed to Develop a Large National-Scope Secondary Market for Farm Real Estate Loans?

Given the historical experience with farm real estate lending, it is unlikely that a large national-scope secondary market for farm real estate loans can be established without federal government involvement. Historically, the federal government has encouraged FCS' role in providing farm real estate loans on reasonable terms because it had determined that such credit was not adequately provided through other lenders. FCS historically has been able to obtain a stable source of funds from the capital markets to make long-term farm real estate loans. Wall Street investment house representatives told us that a large secondary market for farm real estate loans could not exist without some degree of government involvement. Given the current financial stress in the farm sector—combined with the economic, weather, geographic, and political environments normally facing the sector—potential risks faced by investors are great.

[1]This appendix was developed from information contained in section 3 of our report entitled Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987).

[2]Our report entitled Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987) contains legislative profiles on each of the nine proposals.

The private sector has not, of its own accord, developed a large national-scope farm real estate secondary market. The legislative proposals all provide some degree of government involvement to, at a minimum, get such a market off the ground. The major consideration in this area is to what extent federal backing is needed to stimulate or sustain secondary market development. Will the federal government have to be involved in the short or long term to ensure the long-term existence of such a secondary market? Will the federal government have to provide some level of credit enhancement, such as a guarantee or insurance, or would a federal charter be adequate?

Direct federal involvement in the secondary market for home mortgages was critical to the development of that market and still plays a major role today. In the early years federal insurance and guarantees of mortgages and mortgage-backed securities helped accelerate secondary market development. Today, a significant amount of the home secondary market activity is supported by a federally owned organization—Ginnie Mae—and two other federally chartered organizations—Fannie Mae and Freddie Mac. The federal government does not guarantee or insure Fannie Mae's or Freddie Mac's securities, but like the FCS, investors assume the government stands behind their securities. The three organizations accounted for about 69 percent of all mortgage-backed securities issued in 1988. Fannie Mae and Freddie Mac accounted for about 47 percent.

Like the home mortgage market, a federally chartered organization (the FCS) supports the majority of farm real estate lending today. If the home mortgage secondary market offers any answers as to the need for government involvement to establish a large secondary market for agricultural real estate loans, the answer is probably yes.

What Impact Would a Large National-Scope Secondary Market for Farm Real Estate Loans Have on FCS and Other Lenders?

The Congress is currently concerned about the health of FCS because it has lost billions of dollars in the last few years and is expected to need federal assistance in the future. The Congress is also concerned about the health of commercial banks that serve agriculture because they have been failing at unusually high rates during the same period. We believe that a secondary market is not a short-term solution to the current financial stress in the agricultural sector, but it does have major long-term implications.

Development of a national secondary market for agricultural real estate loans could strengthen, weaken, or leave unchanged the fates of FCS and

other lenders to agriculture. However, the current legislative proposals do not provide enough information to allow a complete understanding of how farmers, lenders, or the government would be potentially affected.

Because of its access to a stable source of credit through the capital markets that other lenders could not match, FCS has dominated farm mortgage lending. Commercial banks, generally, have obtained competitively priced, short-term funds from customer deposits, which has allowed them to maintain a substantial market share for short-term agricultural loans. However, because these funds are short-term deposits, large percentages of them cannot be prudently committed to long-term fixed-rate loans. Commercial banks and other lenders see the ability to convert long-term mortgage loans to short-term assets (through mortgage loan sales) as positive.

If commercial banks could, without restriction, access the same source of funds at the same cost as FCS, they could potentially increase their market share of total farm lending. Conversely, FCS could potentially lose market share and, all other things being equal, lose a proportionate amount of interest income.

However, the potential impact of a secondary market on FCS and other lenders could be better understood if we knew what organization would operate the market, what fees would be charged, what loan volume might be expected, and what restrictions would be placed on participation. If total farm lending increased substantially and FCS operated a secondary market that all lenders could access without restriction and for which it charged fees to lenders, including the FCS, to provide credit enhancement, it might improve its financial position, even if it lost market share as a primary lender.

On the other hand, if a secondary market for farm real estate loans were to be controlled by any particular lender group, that group could use its control to improve its fee income or market share at the expense of other lenders. In addition, entry to the market could be restricted by qualifying lender and loan criteria. For example, if only lenders with an asset size of $40 million or more would be able to participate, most "agricultural banks," as defined by the Federal Reserve Board, would be precluded from participating. As of September 30, 1989, the average asset size of agricultural banks was about $31 million.

Some commercial agricultural lenders are already concerned about FCS' market share because of the recent changes FCS made in response to the

need to be more efficient and minimize operating losses, coupled with its favored access to the capital markets. Prior to the early 1980s, FCS' organizational structure was decentralized down to the local level, with separate locations and management for production credit and real estate credit activities. The commercial banking sector's concern about losing market share flows from reorganizations of FCS at the local level that have taken place since the early 1980s. For example, FCS production lending and real estate lending facilities have consolidated in some areas and colocated in others. The commercial banking sector sees the convenience of "one-stop banking" at FCS, for both production and real estate loans, as a catalyst that could eventually shift market share of short-term loans from commercial banks to FCS.

Should FCS Be Given Powers to Operate as the Secondary Market for All Lenders?

Arguments for making FCS the secondary market for farm real estate loans are that FCS already performs some secondary market functions, operates in all states, and needs an infusion of capital. It provides liquidity and attracts a wide range of investors; insulates its borrowers against the effects of cyclical flows of funds; enhances regional flows of funds to farmers; and reduces regional differences in interest rates by allowing money to flow to areas of higher interest rates, thereby exerting downward pressure on those rates. FCS has been able to perform these functions largely because investors perceive that the government stands behind its securities. This perception has traditionally enabled it to access the capital markets routinely for funds. In addition, its charter has permitted it to operate as a national lending organization enabling it to perform the cross-region functions normally attributed to secondary markets.

On the other hand, arguments can be made against FCS being the secondary market. With the changing face of agricultural lending, if the market is not structured in such a way as to allow agricultural lenders, other than FCS, equal access to the capital markets for farm real estate lending, the agricultural credit delivery network as a whole may become too vulnerable to financial stress. Commercial "agricultural banks" may become less able to compete with FCS.

Furthermore, the implications for managing the government's risk exposure to the national agricultural credit portfolio may be unacceptable if one lender—FCS—increases its market share of farm lending. A GAO report entitled Financial Condition of American Agriculture (GAO/RCED-86-09, Oct. 10, 1985) pointed out that farm lenders with loan portfolios more concentrated in agricultural lending were more vulnerable to

financial stress in the sector. One solution to this problem may be to develop short-range and long-range plans for agricultural lending that would encourage as many lenders as possible to compete for farm lending, spreading the risk of lending to one sector, as much as possible, throughout the lender and investor community. This strategy could possibly incorporate a plan for FCS to operate the secondary market, thereby deriving more of its future income from secondary market activities rather than from primary lending.

Could a New Secondary Market Entity Coexist With the FCS?

FCS' favored status in the capital markets raises questions as to whether a new secondary market entity could also compete as well for funds. The issue most related to this question is whether the new entity could attract funds at an interest rate that would allow lenders to make loans at competitive rates.

A related question is how well the investment community would accept another agricultural lending entity, especially when the agricultural sector is still experiencing financial stress and FCS is losing billions of dollars. Wall Street brokerage house representatives told us that if a new secondary market were to be established, it would require at least the same level of government backing perceived by investors for FCS and possibly more to initially establish the market.

What Loans Should Be Eligible to Be Sold in the Secondary Market?

Probably the most important issue to determining the potential impacts of a secondary market on farmers, lenders, and the government is underwriting criteria that embody specific loan criteria. This single element can determine such factors as market volume; expected loss experience; likely costs to risk bearers, such as investors and credit enhancers; and social benefits to the farm community. For example, underwriting criteria that allowed virtually all farm loans to be sold in the secondary market would result in a high expected loss experience and high risk to investors and others who have provided credit enhancements.

Another component of this eligibility question is whether land-based agricultural loans can be adequately standardized to be included in a national-scope secondary market. While it is possible to develop a standardized loan application that will go a long way to understanding risks associated with the farm sector and individual farm operations, it will likely be more difficult to develop large pools of loans with substantially homogeneous characteristics. For example, Midwest grain farms have

much different cash-flow characteristics than West coast ranches with tree crops and vineyards.

Key Issues Concerning the Development of Underwriting Standards for Farmer Mac

Questions for further consideration in the secondary market underwriting standards debate include the following:[1]

- What are the implications of the geographical diversity requirements in the act?
- What are the implications of the agricultural commodity diversity requirements in the act?
- Can state-of-the-art real estate appraisals provide enough assurance in verifying cash-flow potential and agricultural real estate values to enable prudent loan-making decisions?
- How would the use of lender or pooler subordinated participation interests versus cash reserves affect the federal government's financial risk on securities guaranteed by Farmer Mac?
- Will the prescribed risk-based fees be adequate for Farmer Mac?
- What implications do SEC registration and disclosure requirements have for Farmer Mac-guaranteed securities?
- What effect will the loan-to-value ratio in the act have on government risk?
- What effect will rural housing provisions have on Farmer Mac-guaranteed securities and how will such loans be packaged?

On the basis of our review of underwriting standards provisions for Farmer Mac in the Agricultural Credit Act of 1987, underwriting standards and practices used in various existing secondary markets, and our discussions with individuals and officials from both the private sector and the government, in our May 1989 report we raised the following key issues relating to overall risk management that merited consideration during the legislative review process for Farmer Mac underwriting standards.

[1] This appendix was developed from information contained in section 4 of our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

What Are the Implications of the Geographical Diversity Requirements in the Act?

The act requires each loan pool to consist of loans that are secured by agricultural real estate that is widely distributed geographically. The act does not define what is meant by "widely distributed geographically"; however, this concept could have a major effect on market operation and performance.

Defining geographic diversity will require determining levels of risk Farmer Mac should accept in providing guarantees for pools of loans from different areas of the country. For example, pools of loans concentrated in one area or region whose economy is not diversified are more likely to fluctuate with that area's economic conditions, thereby making the pool more risky. Some areas of the United States have a higher degree of risk than others because of such factors as less crop diversity, more unpredictable weather conditions, poorer soil, fewer transportation networks, and the area's reliance on export versus domestic markets. Secondary markets, in general, have the ability to reduce overall risk by spreading risks of individual loans over a pool of loans. One way to spread those risks is to include in the pool loans from various parts of the United States so that the pool does not consist of loans only from the same area/region. Areas, such as the West Coast—with diverse agricultural commodities and a high degree of domestic and export commodity mix—could conceivably be packaged into pools that would have less overall risk than a pool of loans from the Midwest—with a reliance on export markets that may rise as they did in the 1970s or slump as they did in the early 1980s. Thus, packaging Midwest and West Coast loans into one pool may improve the risk performance of a purely midwestern pool of loans.

Defining what is meant by loans that are secured by agricultural real estate that is widely distributed geographically may also require determining the size that financial institutions should be to be poolers of Farmer Mac-guaranteed loans. A definition of "widely distributed" may stipulate any of several pool constructions: a national portfolio consisting of loans from all regions of the United States; a regional portfolio of loans from one region (such as the Southwest, Midwest, or West Coast); a portfolio from one or two states; or any combination of these or other interpretations. The wider the area encompassed in this definition, the more difficult it will be for smaller financial entities to be primary poolers since they would need to have access to a regional or nationwide network to purchase loans outside their areas. However, under this scenario, smaller organizations could conceivably become subpoolers or regional poolers that package loans to be sold to the major pooler and included in large pools receiving a Farmer Mac guarantee.

The demographic characteristics of stockholders that purchased Farmer Mac stock indicate that the market structure may be able to accommodate a national diversification strategy and, at the same time, meet legislative requirements that smaller institutions be included in the market so that liquidity in the loan market can be achieved at these institutions. Preliminary analysis indicates that both small and large institutions—including those with assets of $25 million or less and those with over $160 billion—operating in all states have purchased Farmer Mac stock and that they are predominantly from the Midwest. In addition, most of those that have purchased enough stock to be poolers are generally large enough to be regional or national poolers.

In December 1988, the Farmer Mac Interim Board completed its sale of common stock for capitalization purposes and for purposes of determining which stockholders would qualify to be poolers and which ones could be only loan originators. The stock was divided into two classes—A and B—with the same par value per share. Class A stock was to be held only by non-FCS entities that are insurance companies, banks, or other financial institutions. Class B stock was to be held only by FCS institutions. All potential stockholders were required to purchase at least 250 shares of stock to participate in the market. Potential class A stock purchasers had to purchase designated amounts of stock based on their asset size while potential class B stock purchasers had to purchase only 250 shares regardless of size. Potential class A stockholders were required to purchase stock based on the following schedule: 250 shares for institutions with less than $50 million in assets; 500 shares for institutions with between $50 million and $100 million in assets; 1,250 shares for institutions with between $100 million to $500 million in assets; and 5,000 shares for institutions with over $500 million in assets. Additionally, both class A and class B stock purchasers who desired to become poolers had to purchase at least 12,500 shares.

Preliminary analysis of class A stock purchase transactions indicates that 1,614 institutions purchased stock. Information on class B stock was not available for analysis. Of those that purchased class A stock, 22 purchased enough to qualify, contingent on meeting Farmer Mac certification standards, as poolers—10 of which are commercial banking institutions, 3 are investment banks, 6 are insurance companies, 2 are trust companies, and 1 is a commodity firm.

According to an analysis performed by the Independent Bankers Association of America, of the 1,614 institutions that purchased class A stock, 1,496 are commercial banking institutions. Current analysis indicates

only that the other 118 were not commercial banks. About 74 percent, or 1,100 of the commercial banking institutions have assets of less than $50 million—574 with assets of $25 million or less, 326 with assets from $25 million to $37.5 million, and 203 with assets from $37.5 million to $50 million. In addition, about 26 percent, or 393 banking institutions with assets over $50 million bought shares: 284 with assets from $50 million to $100 million; 93 with assets from $100 million to $500 million; and 16 with assets over $500 million. Involving the smaller banking institutions in Farmer Mac appears to be consistent with the act's requirement of not discriminating against small lenders and its purpose of providing greater liquidity so that agricultural borrowers might benefit from the new market.

At the time the shares were offered, all 12 Farm Credit Banks and the Central Bank for Cooperatives indicated that they would purchase class B shares. As a result of the Agricultural Credit Act of 1987, the FCS is undergoing reorganization including a mandatory merger of various banks comprising the system. Although FCS officials had made no decisions on who would be poolers or originators, they told us that they are currently developing an FCS-wide certified pooler with all FCS institutions as potential originators of loans.

What Are the Implications of Agricultural Commodity Diversity Requirements in the Act?

The act states that a pool must consist of agricultural real estate loans representing a wide range of agricultural commodities. The term "wide range" is not defined in the act, yet such a definition could have a major impact on the operation of the market. This issue is closely related to geographical diversity.

Secondary markets can use loan diversity within a pool to help spread risks; however, most residential secondary markets have loan pools that are homogeneous in terms of loan types, for example, 1-to-4 family homes. In the case of Farmer Mac, it may be possible to reduce risk of default of any one pool when a pool includes loans covering a diversity of commodities. If a pool consists of loans backed by agricultural real estate used to produce a diversity of commodities (such as wheat, grapes, cattle, corn, vegetables, and fruit), poor economic performance by any one commodity would tend to have less effect on the overall portfolio than a pool that consisted of only one commodity type and that commodity was performing poorly.

Individual banks and holding companies located in a region that produces primarily one or two types of commodities may find it easier to

become poolers of agricultural real estate loans if a "wide range" of commodity diversity is defined to mean commodity diversity within a given region. However, that definition may translate to smaller rather than a larger number of commodities and more potential risks for poolers. On the other hand, national poolers may have less risk—as explained above—and regional poolers would probably be able to buy loans outside their regions to become national poolers.

Can State-Of-The-Art Real Estate Appraisals Provide Enough Assurance in Verifying Cash-Flow Potential and Agricultural Real Estate Values to Enable Prudent Loan-Making Decisions?

An agricultural real estate loan by nature is more difficult to appraise because of its complexity. It tends to be more similar to a commercial real estate loan—rather than a residential loan—relying on income generated through commodity production to repay the loan. In contrast, residential real estate, even rental property, relies on the current resident's income that can come from diverse sources reflecting a wide variety of professions.

An appraisal of agricultural real estate depends, to a large extent, on cash flow as a key factor in making a reliable estimate of both annual operating income and the fair market value of any commercial enterprise or farm. Income and fair market value estimates are used to determine the debt-carrying ability of the enterprise, thereby providing information to evaluate against certain qualifying financial ratios. The fair market value estimate, which represents the appraised value of the enterprise, is also used in setting maximum loan size by multiplying fair market value by the loan-to-value ratio.

State-of-the-art appraisals are based primarily on residential rather than commercial business appraisal methods and techniques. Differences between housing and agricultural markets bring into question whether these methods and techniques will provide a reliable verification of agricultural real estate values and related cash-flow patterns for loan-making and underwriting purposes. (Our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989) provides further information on appraisals.) Some important distinctions between agriculture and housing credit markets exist:

- Off-farm income can provide an additional income stream to evaluate in making loans. However, loans for agricultural real estate are based on the expected cash flow generated by commodities the borrower can produce and sell, realizing that production and sales rely heavily on factors—such as changing federal farm subsidies, world market demand,

weather conditions, and interest rates—that are largely uncontrollable by the farmer.

- A residence generally has a relatively stable collateral value that some business enterprises may lack.
- Farm properties are much less homogeneous than residences, have higher unit prices, are harder to appraise, and may be more difficult to liquidate if the loan defaults.
- In agriculture, the capacity of the operator, in terms of both financial and business/management skills, has an important determining effect on the value of the collateral.

In recent years, various government reports have questioned the ability of the appraisal industry and financial institutions involved in loan making to ensure that appraisal practices provide a basis for adequate loan-making decisions. According to a 1988 report from the House Committee on Government Operations, faulty and fraudulent appraisals have been associated with a number of failed banks and savings and loan institutions. According to the report, these abusive appraisals are recognized as a serious national problem whose harmful effects are widespread and costly. Additionally, a 1986 report from the House Committee on Government Operations states that standardization in appraiser qualifications is lacking—only 33 percent of the nation's real estate appraisers belong to any highly regarded professional trade association; and these organizations have been unable to successfully discipline their members. Further, in testimony before the House Committee on Banking, Finance and Urban Affairs on January 13, 1989,[2] GAO reported that, of the 26 failed savings and loan institutions reviewed, 88 percent had violated federal regulations requiring them to obtain appraisals of loans. Some did not obtain appraisals or obtained appraisals after the loan had been made.

The Congress has recently passed the Financial Institutions Reform, Recovery, and Enforcement Act of 1989. The act requires appraisal standards at the federal level to ensure that loans or transactions requiring appraisals have appraisals performed in accordance with standards to be developed under the purview of the Federal Financial Institutions Examination Council—an organization that coordinates the activities of agencies that regulate depository institutions, such as commercial banks, credit unions, and savings and loan institutions. The goal of the act is to reduce appraisal fraud, abuse, and inconsistency and to

[2] Failed Financial Institutions: Reasons, Costs, Remedies and Unsolved Issues (GAO/T-AFMD-89-1, Jan. 13, 1989).

raise the standards of the real estate appraisal. However, it appears that loans made by insurance companies and FCS institutions—potential major participants in the new market—will not come under the appraisal provisions of the 1989 act. According to officials of the American Society of Farm Managers and Rural Appraisers, mortgages sold in the new agricultural real estate secondary market should be included in the appraisal guidelines in this proposed legislation. They said that appraisers of agricultural real estate should be certified with additional accreditation and education documenting their abilities as rural real estate appraisers.

Given the billions of dollars of government-sponsored secondary mortgage market securities outstanding and the current savings and loan problems—many directly related to appraisals—the potential liability to the government, as a result, is becoming an increasingly important concern for secondary markets in general.[3] Because Farmer Mac's legislative history indicates that the Congress did not want the government to assume major risks in this market, the "lessons learned" from the savings and loan appraisal problems may help formulate appraisal policy for Farmer Mac.

How Would the Use of Lender or Pooler Subordinated Participation Interests Versus Cash Reserves Affect the Federal Government's Financial Risk on Securities Guaranteed by Farmer Mac?

The act provides that a pooler must establish either a cash reserve or subordinated participation interests of at least 10 percent of the outstanding principal of a pool of loans. In the event of a pooler's inability to make principal and interest payments to investors, these funding sources are to be used first to make such payments. The act does not provide a clear definition of subordinated participation interest. In addition, it does not explain how poolers' and lenders' cash reserves are to be structured.

The Senate report on the bill, which became the Farmer Mac legislation, states that the subordinated participation interest provision ensures that FCS banks and associations in a weakened financial condition will not be precluded from participating in this market because of an inability to establish a cash reserve. The conference report accompanying the

[3] In September 1989, the Subcommittee on Oversight, House Committee on Ways and Means, held hearings on the capital adequacy of government-sponsored enterprises, including Farmer Mac. Our testimonies, Government-Sponsored Enterprises (GAO/T-AFMD-89-16, Sept. 28, 1989) and Issues Surrounding Underwriting Standards Developed by the Federal Agricultural Mortgage Corporation (GAO/T-RCED-89-71, Sept. 27, 1989), were presented at those hearings. In addition, our report, Federal Credit Insurance: Programs May Require Increased Federal Assistance in the Future (GAO/AFMD-90-11, Nov. 16, 1989), also raises concerns about the growing potential government liability from government-sponsored enterprises (GSEs).

act states that it was the intent of the conferees to provide poolers with flexibility in the design of subordinated participation interests. Although the act specifies a cash reserve of at least 10 percent of the outstanding principal of the pool is to be established, it does not specify that it must be "maintained" at the same level.

The legislative history does not indicate whether the Congress intended to accept more risk by using either a subordinated participation or a cash reserve credit enhancement but does indicate that the Congress did not want to assume major risk exposure from Farmer Mac. The amount of potential government risk that is ultimately realized depends on how the cash reserves and subordinated participation interests are structured.

Current Usage of Cash Reserves

An entity that issues securities may establish and maintain a pure cash reserve by depositing a predetermined amount of cash into a separate account at the time securities are sold to investors. Interest income earned on the reserve may be added to the reserve balance or withdrawn, depending on the terms of the contract.

Although existing government-sponsored residential mortgage markets do not require cash reserves, private issuers of conventional mortgage-backed securities, at times, establish cash reserves in conjunction with other credit enhancements. In the event of payment delays, the issuer draws down the reserve as necessary to provide payments to investors. The initial size of such a reserve and the amount maintained—as a percentage of the outstanding principal of the pool—vary according to the risk of the underlying loans and the rating of the security sought by the issuer. The size of a cash reserve also depends on what other credit enhancements have been set up for the security.

Current Usage of Subordinated Participation Interests

The subordinated participation is a relatively new credit enhancement technique that has taken several forms initially and through evolution. Essentially, a subordinated participation is that portion of a loan that a lender does not sell when selling loans in a secondary market transaction. When the lender retains ownership in a portion of the loan, that lender also has the right to receive principal and interest payments on that portion of the loan. In the event of a cash-flow shortage caused by borrower nonpayment on the underlying loans, the lender agrees to subordinate or forego the principal and interest payments that it would receive during a payment period so those funds can be used to make

payments to investors holding senior securities—those that receive payments first—during that same period. This security design reduces or eliminates reliance on guarantors other than lenders and poolers. In existing secondary markets, the subordinated portion is retained by the lender or pooler or is sold to investors as a separate class of securities. To make the subordinate security more attractive to investors, in practice, it has been supplemented by other forms of credit enhancements, such as insurance or cash reserves dedicated to protect subordinate security investors.

Some private poolers of conventional residential and commercial real estate mortgages use a security design by which principal and interest payments, when received, are paid first to senior security holders with any excess cash being disbursed to subordinated security holders. One characteristic of this type of security design is that unless specified otherwise, only the current payment—whether it is monthly, quarterly, or annually—to the subordinate holder can be used to pay cash-flow shortages to senior security holders; no past or future payments to subordinate holders can be used. Having no recourse beyond the current payment period could limit risk to the lender and shift that risk to secondary market guarantors in periods where large cash-flow shortfalls occur in a short time rather than over a period of time.

To guard against this risk and provide additional credit enhancement to the investors, poolers and lenders holding subordinated participations sometimes establish a small cash reserve—referred to as a liquidity reserve—for disbursing cash to investors who hold senior securities. The liquidity reserve has been established by lenders or poolers depositing a certain amount in the reserve when the loan is pooled or by escrowing into the reserve a certain percentage—generally less than 1 percent in housing markets—of each month's cash flow to the subordinate security holder. The amount of the liquidity reserve, at times, is determined by rating agencies who set formulas based on other credit enhancements and the ratings desired for a given security.

Unclear What Effects the Use of Subordinated Participation Interests Versus Cash Reserves Will Have on Government Risk

The legislative history indicates that the government did not want to be exposed to major risk through Farmer Mac. One method of reducing government risk was to allow poolers to establish cash reserves or subordinated participation interests to ensure payments to investors. When borrowers make payments of principal and interest on loans backing up a pool, these payments are used to pay investors who hold the securities backed by the pool. The cash reserves and subordinated participations

are provided for this market so that, in the event that borrowers do not make payments as scheduled, funds are available from poolers and lenders rather than from the government to pay investors to make up shortfalls. However, even with a cash reserve or subordinated-participation-interest level of at least 10 percent—the level required by the implementing legislation—Farmer Mac and the government may be exposed to risk.

The act states that a pooler must take full recourse against reserves and subordinated participations; but because the act does not specify the mechanics of either, it is not clear exactly what full recourse entails. In the case of a cash reserve, full recourse would probably apply to all cash in the reserve. With a subordinated participation, full recourse would be according to the specific terms set out in the subordinated participation agreement. Since subordinated participation is not yet sufficiently defined to determine what full recourse entails, the financial and risk implications of full recourse to the subordinated participation cannot be determined. Until it is determined how the subordinated participation or cash reserve will be structured, the comparative risk implications to the government when using either of these for Farmer Mac-guaranteed securities cannot be determined. However, to the degree that limitations are put on the ability of poolers to collect cash-flow shortages—resulting from nonpayment by borrowers—from a subordinated participation or cash reserve, Farmer Mac and potentially the government will be expected to make up the difference.

The most critical concern in structuring a subordinated participation or a cash reserve focuses on how likely it will be that cash-flow shortages from borrower nonpayment will exceed cash reserves or the amount of shortages that can be obtained from subordinated holders to pay to investors. If it is likely that payment shortages will exceed the cash reserves or the amount that may be obtained through recourse to the subordinate security holders, then the question focuses on who will provide the guaranteed payments to investors. Unless Farmer Mac is able to make up that shortfall through other mechanisms, such as liquidity reserves and risk-based fees, it may have to activate its $1.5 billion line of credit from the Treasury. If that were to become inadequate, the government's implied backing of the organization would be tested.

The ultimate potential loss to the government under this scenario would be reduced by the amounts—minus collection costs—that could eventually be collected from those nonpaying borrowers through normal collection procedures including extreme measures, such as foreclosures and liquidation of borrower assets.

Options to Be Considered

Cash reserves maintained at a certain percent of the outstanding balance of a pool—at least 10 percent in Farmer Mac's case—will provide greater protection to the government than cash reserves that can be drawn down; however, cash reserves that are maintained at a certain level could be more costly to lenders and poolers. Subordinated participation interests provide varying levels of protection to the government depending on the mechanics of the full recourse the government has to subordinated participation interest holders. Costs to these holders can also vary depending on the amount of recourse.

In the short run, cash reserves are likely to be more costly credit enhancements for lenders and poolers than a subordinated participation interest as used in practice today (see discussion above) because more cash—at least 10 percent—must be provided up front when using the Farmer Mac-specified cash reserve. In the long run, the cost for lenders and poolers would depend on the actual mechanics of the cash reserve and subordinated participation. As indicated previously, subordinated participation and cash reserves are not yet sufficiently defined and their comparative risk implications to the government cannot be determined. However, a cash reserve may be a less risky method for the government in both the long and short run because it provides assurances that the agreed-upon cash amount will be available at all times, versus relying on future collections of cash-flow shortages from subordinated security holders. The competing congressional concerns about (1) minimizing up-front cash-flow needs by lenders or poolers and (2) containing government risk exposure could be addressed through various cash reserve and subordinated participation structures or other credit enhancements. Many options are certainly available to address these concerns. Some options presented below could be used singularly or in combination to achieve the most desirable credit enhancement package.

- Subordinated participation interests could be adjusted above 10 percent to better ensure that defaults over 10 percent will be covered by the subordinated securities'current cash flows—the higher the subordinated participation interest, the more cash flow is available to cover nonpayments.

- A combination of cash reserves and subordinated participation interests could be used.
- A liquidity reserve escrowed from current cash flows or initially deposited by the pooler/lender could be established to provide some back-up cash to pay current cash-flow shortages that are beyond the current cash flow from the subordinated security.
- A subordinated participation could be used to allow total and immediate recourse to the pooler or lender in the amount of the cash reserve that the lender and pooler could have elected to contribute to as an alternative to subordinated participation interests.
- A subordinated participation could be used to allow recourse on each payment period's cash flow to the lender or pooler up to the amount of the cash reserve they could have elected as an alternative to subordinated participation interests.
- Private mortgage insurance could be required on loans sold into the pool or on the subordinated portion only.
- Crop insurance on all or part of a loan could be required to help ensure cash flow in the event of failed or poor crops.
- Geographical and/or commodity diversity could be broad to try to minimize risk in the portfolio.
- Risk-based fees on individual pools could be raised.

These modifications could result in a profit-margin squeeze for participating lenders and poolers because of potential added costs. Depending on the competitiveness of the market, this could also result in higher costs of credit to the borrower.

Some Farmer Mac representatives we talked to indicated that strong certification standards for poolers may reduce the need for monetary credit enhancements. They said that strict requirements for poolers to monitor loan originators, especially appraisal practices, could reduce the potential risk in the market. In addition, the offering circular for Farmer Mac stock states that the interim board recommended that the permanent board establish a minimum capital requirement of $2 million for certified poolers, which Farmer Mac representatives said would help to ensure the financial integrity of the market. These measures could help ensure that risk parameters set out by Farmer Mac are met but still do not resolve the questions concerning timing and amount of recourse to subordinated participation interest holders for loan pool losses.

Will the Prescribed Risk-Based Fees Be Adequate for Farmer Mac?

A pooler is to pay to Farmer Mac an amount not to exceed 0.5 percent of the amount of the initial principal of the pool plus up to 0.5 percent of the outstanding balance of the pool each year to be used as Farmer Mac's risk-based fee. In the event of borrower's nonpayment of loans backing securities guaranteed by Farmer Mac and after all other cash reserves or subordinated participation interests are exhausted, these fees are used as a last resort to pay security holders before Farmer Mac draws on its own resources or its line of credit to the Treasury to make good on its guarantee. If Farmer Mac cannot maintain timely payment of principal and interest on the loan pool, then it may need to draw on the Treasury.

Since historical information on default rates for agricultural real estate loans is limited, it is difficult at this time to determine whether a risk-based fee of 0.5 percent initially and per year will be adequate. In residential markets where such data exist, a minimum, rather than a maximum rate is set. It is not normal practice to set a maximum rate for such a fee in a secondary market because the fee then could cease to be based on risk. Instead it could become more of a management decision reflecting political or economical factors not necessarily risk-related. Setting risk-based fees requires reliable historical information on default and foreclosure rates that currently does not exist for agriculture.

The risk-based fee does not necessarily operate independently of other credit enhancement mechanisms. For example, adjustments in the amount of cash reserves or subordinated participation interests can be made in conjunction with the risk-based fee rates to cover these expected losses. Such an approach, however, requires the need for a great deal of flexibility on Farmer Mac's part.

An additional consideration is presented in the offering circular for Farmer Mac stocks—that the primary source of funding for Farmer Mac operations will be the risk-based fee. Even though a portion of the fee is to be set aside by Farmer Mac in a segregated account as a reserve against losses from guarantee activities, there may be a constant draw-down of this fee for daily operations of Farmer Mac. Neither the act nor the offering circular defines what portion will be set aside.

What Implications Do SEC Registration and Disclosure Requirements Have for Farmer Mac-Guaranteed Securities?

The act requires that securities offered to the public and backed by a Farmer Mac guarantee must be registered with the SEC. The Securities Act of 1933 requires issuers to file with the SEC a registration statement and a prospectus before offering the securities to the public. The purpose of registration is to ensure full and fair disclosure of information about the company, its management, and the intended use of the proceeds from the issue. These disclosures are meant to help potential investors make investment decisions on an informed basis, not to make investment recommendations to them about the registered securities. The disclosures include (1) financial information, such as audited financial statements, (2) underwriting standards, and (3) nonfinancial information, such as management capability, character of borrower, and potential risk factors associated with the industry and the issuer's business.

Costs of Registering With SEC

An issue that has been raised by potential poolers of and investors in Farmer Mac-guaranteed securities is whether the additional cost of registering these securities with SEC would adversely affect the volume of loans originated and sold in the secondary market and increase the cost of credit to borrowers. Some are concerned that these additional costs could reduce poolers' profits and/or increase costs to borrowers. SEC regulations require issuers to disclose estimated costs of issuing and distributing the registered securities. Issuers generally itemize these costs into several categories including (1) SEC registration fees, (2) rating agency fees, (3) printing and engraving fees, (4) legal fees, (5) accounting fees, (6) trustee services fees, (7) state fees, and (8) miscellaneous fees.

Information was not available on these eight cost categories for other government-sponsored secondary market organizations' securities because they are not required to register their securities with the SEC. Therefore, we talked with SEC officials to determine how we might obtain information on these costs. They suggested we review all initial public offerings of mortgage-backed securities registered with the SEC in 1988, which had complete information on these categories. We found 21 such securities, none of which were directly guaranteed by the government or a government-sponsored organization although they included other kinds of credit enhancements. The amount of securities offered ranged from $10 million to $1.4 billion, and the issuers' estimated costs—based on the eight categories—of issuing and distributing securities ranged from $250,000 to $4,915,000. A summary of these 8 cost categories for the 21 registration statements we examined is shown in table V.1. The range in dollars represents the highest and lowest costs of

each category for all the registration statements, and the range in percent of amount offered represents the highest and lowest percentages for each category for all the registration statements.

Table V.1: Cost of Registering Securities With the SEC

Cost categories	Range in dollars Low	Range in dollars High	Range as percent of amount offered Low	Range as percent of amount offered High
SEC registration fees	$2,000	$290,000	.025	0.025
Rating agency fees	14,000	500,000	.005	0.450
Printing and engraving fees	15,000	550,000	.010	1.000
Legal fees	75,000	2,500,000	.020	2.000
Accounting fees	5,000	350,000	.003	0.350
Trustee fees	7,000	1,003,000	.004	0.250
State fees	4,750	72,000	.001	0.012
Miscellaneous fees	5,000	200,000	.001	0.067

The wide range in costs for these eight categories makes it difficult to use these data for drawing conclusions on the expected cost of SEC registration of government-sponsored organization securities, such as those that would be guaranteed by Farmer Mac. However, we determined that (1) two cost categories—SEC and rating agency fees—were incurred as a direct result of SEC registration and the absence of being considered a government-sponsored organization, (2) while SEC fees would likely be incurred by Farmer Mac, rating agency fees would be incurred only if Farmer Mac is rated, (3) costs from the other categories would likely be incurred to some extent by government-sponsored organizations—such as Fannie Mae and Freddie Mac—that disclose information on pools of loans backing securities along with other pertinent information, and (4) these other costs may be higher with SEC registration than without because SEC's regulations call for the disclosure of more detailed information and would likely require more legal work.

The amount of the SEC registration fee is calculated according to SEC's regulation—currently $0.025 per $100 of amount of securities offered. The other cost categories vary according to a combination of factors, such as type of expenses involved, amount offered, and complexity of the security structure.

Because of these potential added costs, a profit-margin squeeze for participating lenders and poolers could result. Depending on the competitiveness of the market, this could also result in higher costs of credit to the borrower.

The conference report that accompanies the act states that the conferees were presented with conflicting information concerning spreads in interest rates—that would be caused by SEC registration—between government securities and AAA-rated corporate securities. As a result, the conference report requires the Secretary of the Treasury, in consultation with the SEC and the Board of Governors of the Federal Reserve System, to prepare a report for the Senate Committee on Agriculture, Nutrition, and Forestry and the House Committee on Energy and Commerce within 180 days of the first sale of securities guaranteed by Farmer Mac. The report is to include (1) an analysis of spreads in percentages, including whether the spread between such securities and other securities issued or guaranteed by government-sponsored organizations exceeds 0.25 percent, and (2) an analysis of the impact of not treating Farmer Mac-guaranteed securities as government securities relative to other government securities.

What Effect Will the Loan-To-Value Ratio in the Act Have on Government Risk?

The act requires that no agricultural mortgage loan will have a loan-to-value ratio greater than 80 percent to qualify for a Farmer Mac pool.[4] Many western and midwestern bankers told us that they do not make agricultural real estate loans with loan-to-value ratios of more than 65-70 percent because of the uncertainty of the market value of the collateral backing the loans. The loan-to-value ratio can be an important factor in how likely it is that in case of a loan default, the pooler will recover the outstanding loan amount. To the extent that this is not possible, Farmer Mac's guarantee may be activated. If Farmer Mac is unable to continue principal and interest payments to the investor from its resources, then the Treasury line of credit may be needed.

To better manage the risk in loan pools, loans in the Farmer Mac pools may have to meet varying loan-to-value ratios because of the legislatively mandated requirement that loans in a pool must be diversified by commodity. Loan-to-value ratios for these loans may vary depending on the collateral backing the loan and the type of commodity produced. For example, a midwestern company that developed standards for making

[4]The Farmer Mac standards allow a loan-to-value ratio of 75 percent but allow for exceptions to be made to provide for a higher percentage in certain situations.

agricultural production loans that it intended to sell recognized that there are differing risks associated with the various commodities produced. Therefore, it varied its loan-to-value ratios from 50 percent for poultry loans to 70 percent for seasonal crops, such as wheat and corn, and to 75 percent for hog and cattle production loans. This raises questions on whether or not real estate loans—that depend on various types of commodity production for repayment and that are eligible to be sold into the Farmer Mac secondary market—should require various loan-to-value ratios to ensure comparable and more manageable risks for loans in the pool.

What Effect Will Rural Housing Provisions Have on Farmer Mac-Guaranteed Securities and How Will Such Loans Be Packaged?

One of the stated purposes of the act is to enhance the ability of individuals in small rural communities—defined as having a population of not more than 2,500—to obtain financing for moderate-priced homes. The loans cannot exceed $100,000 as adjusted for inflation; the act does not specify a formula for inflation adjustments. The act is silent on whether rural housing loans may be included in pools with agricultural real estate or whether they must form pools consisting solely of such loans. However, the conference report that accompanies the act states that pools composed solely of rural housing loans should include loans that are widely distributed geographically and vary widely in the amount of principal. The conference report also states that, to qualify for a pool, rural housing loans will require specific underwriting standards based on FCS loans to rural residents and on other residential secondary markets. It is unclear whether these standards will be incorporated into the overall Farmer Mac standards or applied and monitored separately from the agricultural real estate portion of the market.

Including rural housing loans with agricultural real estate loans in Farmer Mac pools could complicate the pool formation and risk-pricing since pools could include loans backed by both agricultural real estate and residences. Potential poolers told us that they are concerned that, with residences, pools could be less homogeneous, thus restricting the spreading of risk and the efficiency of the market and increasing costs of administering and operating the pool. Trade-offs will necessarily have to be made between pooling efficiency for rural housing alone and for agricultural real estate and rural housing together.

Profile of the Agricultural Credit Act of 1987 Provisions Creating Farmer Mac

Date Signed by the President[1]

January 6, 1988

Date to Be Established

January 6, 1988

Purpose

One purpose of title VII of the Agricultural Credit Act of 1987 is to establish Farmer Mac as a federally chartered instrumentality of the United States, within the FCS. The corporation will (1) certify agricultural mortgage marketing facilities, (2) provide for a secondary marketing arrangement for agricultural real estate mortgages that meet the corporation's underwriting standards in order to increase the availability of long-term agricultural credit at a stable interest rate; provide greater liquidity and lending capacity to lenders for agricultural real estate; and provide for new lending to facilitate capital market investments in long-term agricultural funding, including funds at fixed interest rates, and (3) enhance the ability of individuals in small rural communities to obtain financing for moderate-priced homes.

Organizational Structure/Market Operation

Corporation and Market Structure

The primary functions of the corporation are to (1) provide guarantees for the timely payment of principal and interest to holders of securities backed by pools of agricultural real estate loans that would be issued either by private entities or by FCS institutions or their affiliates, created for that purpose, to make those securities more marketable, (2) certify private entities and FCS institutions as eligible to receive guarantees from the corporation on pools of agricultural real estate loans, and (3) develop uniform underwriting, security appraisal, and repayment standards for qualified loans, in consultation with originators.

[1] This appendix was developed from information contained in appendix I of our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

Within 90 days of enactment (or by April 6, 1988), the President was required to appoint an interim board of directors. The interim board's primary duty was to arrange for an initial offering of the corporation's voting common stock to raise $20 million and to initiate actions to make the corporation operable until a permanent board is formed. The interim board would have nine members with one designated by the President as chairperson. Three of the nine members would be representatives of banks, other financial institutions, and insurance companies; three would be representatives of FCS institutions; two would be representatives of farmers or ranchers; and one would be a representative of the general public. The representatives of the farmers or ranchers and of the general public could not have served as directors or officers of any financial institution. Not more than five members could be from the same political party.

After $20 million of initially offered voting common stock was purchased and fully paid, the corporation was to arrange for the election and appointment of a 15-member permanent board of directors. Five members were to be appointed by the President, with the advice and consent of the Senate; five members elected by holders of common stock that were insurance companies, banks, or other financial institutions; and five members elected by holders of common stock that were FCS institutions. The five presidential appointees were to be representatives of the general public and must not be, nor have been, officers or directors of any financial institution; no more than three may be of the same political party; and at least two must have experience in farming or ranching. The President is required to appoint members to the permanent board not later than the date that at least $20 million of common stock has been subscribed and paid for or 270 days after enactment. The President is to designate one of his appointees as chairperson of the board and the presidentially appointed directors will serve at the pleasure of the President. The other directors will be elected for terms ending on the date of the next annual stockholders' meeting; if not reelected, a director may serve until his successor takes office.

The duties of the board are to (1) determine the general policies that shall govern the operations of the corporation, (2) select, appoint, and determine the compensation of qualified persons to fill such offices as may be provided for in the bylaws of the corporation, and (3) assign to such persons such executive functions, powers, and duties as may be prescribed by the bylaws of the corporation or by the board. The members elected or appointed to the board shall be executive officers of the

corporation and shall discharge the executive functions, powers, and duties of the corporation.

Two classes of voting common stock were to be created and offered, with the same par value per share, one (class A) only to non-FCS institutions (banks, other financial institutions, and insurance companies) and the other (class B) only to FCS institutions that are entitled to vote. Once the permanent board had met, stock in either class could be issued only to agricultural mortgage loan originators and agricultural mortgage marketing facilities certified by the board to pool loans in the secondary market. No stockholder, other than a holder of class B stock, may own, directly or indirectly, more than 33 percent of the outstanding shares of such class of the voting common stock. Unless the board imposed restrictions, each class of stock would be transferable among institutions of the kind eligible to buy that class of stock. (In July 1988, the Federal Reserve System Board of Governors ruled that state banks are allowed to purchase stock in Farmer Mac, and in May 1988 the Comptroller of the Currency ruled that national banks are allowed to purchase stock in Farmer Mac.) Nonvoting common and preferred stock, freely transferable, could also be issued.

Stockholders could be paid dividends. However, the dividends could not be declared or paid on the corporation's common stock while any corporation debt was outstanding to the Treasury and unless the board determined that adequate provision had been made for a reserve against losses. This reserve is to be funded by fees for credit enhancement collected from the issuers of the pool securities. Holders of nonvoting preferred stock are entitled to dividends before holders of common stock.

Mortgage Marketing Facilities' Certification

Not later than 120 days after the first meeting, with a quorum present, of the permanent board, the corporation is required to issue standards for certification of agricultural mortgage marketing facilities, which purchase agricultural real estate loans from loan originators, create securities or obligations backed by the loans, and market the securities or obligations. The standards would not be permitted to discriminate between or against FCS and non-FCS applicants desiring to become certified agricultural mortgage marketing facilities. Any FCS institution (other than the corporation), acting singly or in combination with other FCS institutions, could create affiliates that could apply for certification.

A certified agricultural mortgage marketing facility must meet the following minimum requirements: (1) be an institution of the FCS or a corporation, association, or trust under federal or state law, (2) meet or exceed capital standards established by the board, (3) have as one of its purposes the sale or resale of securities representing interests in or obligations backed by pools of qualified agricultural mortgage loans that had been provided guarantees by the corporation, (4) demonstrate managerial ability that was acceptable to the corporation with respect to agricultural mortgage loan underwriting, servicing, and marketing, (5) adopt appropriate agricultural mortgage loan underwriting, appraisal, and servicing standards that met or exceeded uniform standards established by the board, (6) permit the corporation to examine its books, records, and loan files pertaining to the pooling and credit enhancement operations, and (7) adopt appropriate minimum standards and procedures relating to loan administration and disclosure to borrowers concerning the terms and rights applicable to loans for which a guarantee is provided, in conformity with uniform standards established by the corporation.

Not later than 60 days after receiving an application, the corporation must certify a facility that meets these and whatever other standards the corporation has established. Certification is for a period of not more than 5 years and may be revoked, after notice and an opportunity for hearing, for failure to continue to meet certification standards. Revocation does not affect the pool guarantee already extended to the facility.

FCS institutions are permitted to enter into agreements with any certified facility (including those established as affiliates of FCS institutions) to sell the institutions' loans exclusively to or through the facility.

Credit Enhancement

Upon application by certified agricultural mortgage marketing facilities, the corporation is authorized to provide credit enhancement—a guarantee of timely payment of principal and interest—on the facilities' securities or obligations representing interests in pools of qualified agricultural mortgage loans held by the facilities. At the time the corporation issues commitments to provide credit enhancement, the corporation imposes a fee on the certified agricultural mortgage marketing facility, on the basis of the amount of risk incurred by the corporation. The corporation's provision of credit enhancement is subject to standards developed by the permanent board of directors. With respect to any issue of guaranteed securities, in the event of default and pursuant otherwise to the terms of the contract, the mortgages that constitute

such a pool become the absolute property of the corporation, subject only to any unsatisfied rights of holders of securities backed by the pool.

At a minimum, the standards for issuance of credit enhancement must include the following diversification requirements: (1) loans in the pool must be secured by agricultural real estate that would be widely distributed geographically, (2) provisions must be made for wide variation in principal amounts of loans in the pool in such a way as to encourage inclusion of loans for small farms and family farmers, (3) a loan pool must be diversified to include loans backed by real estate used to produce a wide range of agricultural commodities, (4) the amount of any single loan may not exceed 3.5 percent of the total principal amount of the pool, (5) inclusion in a pool of 2 or more loans to related borrowers would be prohibited, and (6) each pool must consist of not less than 50 loans. These standards and other underwriting standards do not go into effect until 30 legislative days or 90 calendar days—whichever is longer—after they have been submitted to the Congress.

The following responsibilities of and limitations on certified facilities apply to the corporation's credit enhancement: (1) the originator of any loan in the pool is permitted to retain the right to service that loan, (2) the facility will ensure opportunities for minority-owned or -controlled investment banking firms, underwriters, and bond counsels to participate to a significant degree in any public offerings of securities, (3) the facility may not refuse to purchase qualified agricultural mortgage loans originating in states with borrower's rights laws, (4) the facility will act in accordance with the standards of a prudent institutional lender to resolve defaults on loans in the pool, (5) the proceeds of any collateral, judgments, settlements, or guarantees received by the facility with respect to any loan in the pool are applied, less cost of collection, first to reimburse the Secretary of the Treasury for any funds that the corporation had borrowed from the Treasury for credit enhancement payments on the pool and second to reimburse the corporation for any such payments made by it, (6) the loans are sold to the facility without recourse to the originators, except to the extent the originators chose either to participate in a cash contribution reserve established in connection with such loans or to accept a subordinated participation interest in such loans, and (7) the facilities, with optional participation by the originators, must establish a cash contribution reserve or subordinated participation interest of at least 10 percent of the principal amount of each loan included in each such pool to be applied against losses due to loan default.

A cash contribution reserve is to be established and held by the facility, but the act does not specify whether the established amount—in dollars or percentage of outstanding principal—is to be maintained. All cash reserves would be in the form of U.S. Treasury securities or other securities issued, guaranteed, or insured by an agency or instrumentality of the U.S. government. Contributions to the reserve, but not earnings on the contributions, must be maintained as a segregated account. The facility and any loan originators that exercised their option to contribute to the reserve must be paid at least semiannually any earnings on the reserve in proportion to their contributions. However, the distribution of earnings may not be permitted to cause the reserve to fall below 10 percent of the total principal amount of loans in the pool. When drawing on the reserve to meet losses due to a loan default, the losses are charged first to any contribution to the reserve by the originator of the defaulted loan before charging the contributions, if any, of other originators.

A loan originator becomes liable for a subordinated participation interest by agreeing to retain ownership of a portion of a loan that it sold to a facility for inclusion in a pool and agreeing further not to receive its share of principal or interest on any of those loans until full and timely payments of principal and interest have been made to all other holders of securities representing interests in the pool. Subordinated participation interests established by facilities, including optional participation by loan originators, may not be less than 10 percent of the principal amount of each loan in such pool.

Before credit enhancement commitment is activated, the certified agricultural mortgage marketing facilities must take full recourse against the cash contribution reserve or subordinated participation interest. Once these are exhausted, the portion of risk-based fees paid by facilities for credit enhancement and set aside by the corporation as a reserve against losses would be available to pay principal and interest to holders of securities. When a guarantee is issued by the corporation, the corporation will assess the pooler a fee of not more than 0.5 percent of the initial amount of the pool and an annual fee of not more than 0.5 percent of the principal amounts of loans in the pool.

If the facilities' cash contribution reserve or the subordinated participation interests are insufficient to make required payments and the corporation's risk-based fee fund is exhausted, the corporation would certify to the Secretary of the Treasury that these sources had been exhausted and that supplementary funds were required for credit enhancement.

The corporation would then be authorized to issue, and the Secretary of the Treasury to purchase, obligations in an amount sufficient to meet the corporation's credit enhancement liabilities. The Secretary could not hold more than $1.5 billion of obligations issued by the corporation at any one time. The Secretary would set the interest rate on the obligations, taking into consideration the average interest rate on outstanding U.S. obligations, and would require that the corporation repurchase its obligations within a reasonable time.

The permanent board is to adopt standards regarding characteristics of loans in a pool, registration requirements—if any—and transfer requirements. During the first year after the date of enactment, the corporation was not to provide guarantees for securities representing interests in, or obligations backed by, loans (1) in an aggregate principal amount in excess of 2 percent of the total agricultural real estate debt outstanding at the close of the prior calendar year less all FmHA agricultural real estate debt, (2) in an additional principal amount in excess of 4 percent, the second year, (3) in an additional principal amount in excess of 8 percent, the third year, and (4) without regard to the principal amount thereafter. Restructuring and borrower's rights provisions for pooled loans state that loan-servicing standards shall be patterned after similar standards adopted by other federally sponsored secondary markets, and borrowers have the option of not having their loans pooled.

Funding of the Market

In addition to the initial $20 million of common stock sold, the corporation is authorized to require each agricultural mortgage loan originator and each certified agricultural mortgage marketing facility to make nonrefundable capital contributions, in exchange for stock, that are reasonable and necessary to meet the administrative expenses of the corporation. The corporation could issue additional common stock but only to agricultural mortgage loan originators or certified agricultural mortgage marketing facilities. The corporation is authorized to issue nonvoting common and preferred stock, which, in general, is freely transferable.

The corporation is to set aside in a segregated account as much of the risk-based fee that it would charge agricultural mortgage marketing facilities for guaranteeing loan pools as it deemed necessary for a reserve against losses. The offering circular for Farmer Mac common stock states that Farmer Mac's operations will be financed primarily through risk-based fees. Farmer Mac could also charge fees to cover administrative costs.

Cost to Establish

An initial capitalization of $20 million would be provided from the purchase of voting common stock by banks, other financial institutions, insurance companies, and FCS institutions.

Cost to Operate

The law does not estimate or limit operating cost.

Eligibility Criteria for Participating Lenders

The law defines an agricultural mortgage loan originator to be any FCS institution, bank, insurance company, business and industrial development company, savings and loan association, agricultural cooperative, commercial finance company, trust company, credit union, association of agricultural producers, or other entity that originates and services agricultural mortgage loans. The corporation may not discriminate against small agricultural mortgage loan originators.

Lending Criteria/ Underwriting Standards

Not later than 120 days after the Board first meets with a quorum present, the Corporation, in consultation with originators, shall establish uniform underwriting, security appraisal, and repayment standards for qualified loans. The standards could not go into effect until 30 legislative days or 90 calendar days (whichever is longer) after they had been submitted to the Congress.

The law defines agricultural real estate to mean (1) a parcel or parcels of land used for the production of one or more agricultural commodities or products and consisting of a minimum acreage or producing minimum annual receipts as determined by the corporation or (2) a principal residence that is a single-family, moderate-price residential dwelling located in a rural area, excluding any community having a population in excess of 2,500 inhabitants, and any dwelling with a purchase price exceeding $100,000 (as adjusted for inflation). A qualified agricultural mortgage loan would be an obligation (1) secured by a fee simple or leasehold mortgage with status as a first lien on agricultural real estate located in the United States not subject to any legal or equitable claims, (2) of a citizen or national of the United States or an alien lawfully admitted for permanent residence in the United States, or a private corporation or partnership whose members, stockholders, or partners hold a majority interest in the corporation or partnership and are individuals described above, (3) of a person, corporation, or partnership that has training or farming experience that, under criteria established by the corporation, is sufficient to ensure a reasonable likelihood that the loan will be

repaid, (4) approved by a certified agricultural mortgage marketing facility as meeting the uniform underwriting and other standards established by the corporation in consultation with agricultural mortgage loan originators, and (5) meeting the underwriting and other standards established by the corporation.

At a minimum, the standards would require the following conditions be met: (1) the loan may not exceed $2.5 million (adjusted for inflation) unless secured by not more than 1,000 acres of agricultural real estate, (2) a loan-to-value ratio of 80 percent or less is required, (3) in establishing the value of agricultural real estate, the purpose for which the real estate is taxed would be considered, (4) adequate standards are developed to protect the integrity of the appraisal process, (5) a borrower must demonstrate sufficient cash flow to adequately service the loan, (6) sufficient documentation is required, (7) adequate standards have been developed to ensure that the borrower is or will be actively engaged in agricultural production and require the borrower to certify to the originator that the borrower intends to continue agricultural production on the site involved, and (8) speculation in agricultural real estate for nonagricultural purposes is minimized. The law also requires that the standards established by the corporation would not be used to discriminate against small agricultural mortgage loan originators or small agricultural mortgage loans of at least $50,000.

Volume of Activity

The law does not estimate what the expected volume of activity will be for Farmer Mac; however, limitations on volume are provided. During the first year after the date of enactment, the corporation is not to provide guarantees for securities representing interests in, or obligations backed by, loans (1) in an aggregate principal amount in excess of 2 percent of the total agricultural real estate debt outstanding at the close of the prior calendar year less all FmHA agricultural real estate debt, (2) in an additional principal amount in excess of 4 percent, the second year, (3) in an additional principal amount in excess of 8 percent, the third year, and (4) without regard to the principal amount thereafter. Although the act does not state whether these percentages are cumulative or are totals for each year, the Senate report on the bill leading to the law states that they are to be applied cumulatively.

Regulatory Oversight Body and Cost

The corporation is an institution of FCS and subject to the regulatory authority of FCA as to the safe and sound performance of the powers, functions, and duties vested in the corporation. (See Sections 2241-2259

of Title 12, U.S. Code.) In exercising its supervisory authority, FCA is to consider the purposes of the corporation, the practices appropriate to secondary markets in agricultural loans, and the reduced levels of risk in appropriately structured secondary market transactions.

The corporation is required to publish both an annual report containing financial statements prepared in accordance with generally accepted accounting principles and audited by an independent public accountant and any other information prescribed by the FCA. The corporation is subject to the following audits by GAO: (1) an annual audit of the actuarial soundness and reasonableness of fees charged by the corporation, (2) a financial audit of the corporation on whatever basis the Comptroller General determines to be necessary, and (3) three other specific reviews due to the Congress within 2 years of enactment date, including reviews of (a) the implementation of Farmer Mac and the effect of the corporation's operations on producers, the FCS, other lenders, and the capital markets, (b) the feasibility and appropriateness of promoting a secondary market for securities backed by agricultural real estate loans that have not been guaranteed by Farmer Mac, and (c) the feasibility of expanding authority for the sale of securities based on a pool of loans to farm-related and rural small businesses.

The securities representing an interest in a pool of qualified agricultural mortgage loans for which credit enhancement had been provided by the corporation would be subject to the registration and other requirements of the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940.

Any security or obligation that has been guaranteed by the corporation would be exempt from any law of any state (with respect to, or requiring registration or qualification of, securities or real estate to the same extent as an obligation issued by, or guaranteed as to principal and interest by, the United States or any agency or instrumentality of the United States) except any state that, during an 8-year period beginning on the effective date of this title, may enact a law that specifically refers to this exemption and expressly provides that such exemption not apply.

The cost of regulation is not discussed in the law. The Farm Credit Administration (FCA) would assess the corporation for the cost of all of its regulatory activities.

Targeted Investors

Securities representing an interest in pools of qualified agricultural loans, for which the corporation had provided credit enhancement, would be designated as authorized investments under federal or state law for any person, trust, corporation, partnership, association, business trust, or business entity to the same extent as U.S.-issued or -guaranteed securities. Also for purposes of state laws that limit investments by private entities in obligations issued by the United States, these pool securities would be treated as such obligations. However, states have 8 years from the date of enactment to enact laws that could operate prospectively either to prohibit or limit investments in the securities issued under this law.

Risk Bearers

Securities are to carry a statement that they are not guaranteed by or are not an obligation of the United States, the FCA, or any other instrumentality of the United States except the corporation. In addition, no other FCS institution is liable for the corporation's credit enhancements. Once the facilities' subordinated participation interests or cash contribution reserves, the corporation's risk-based fee reserve, and any proceeds from the potential issue of $1.5 billion in debt obligations to the Treasury were exhausted, it appears that, barring any congressional or other mitigating actions, the investors that bought the corporation's loan-backed securities bear the remaining credit risk.

Market Duration

The law does not contain a termination provision.

Farmer Mac-Legislated Underwriting Standards

Key provisions of major categories of underwriting standards for Farmer Mac contained in the Agricultural Credit Act of 1987:[1]

- Loan pool composition includes some specific and general guidance on certain aspects of pool size, loan origination, borrower eligibility, and loan criteria, such as loan size, loan types, interest rate structures, loan-to-value ratios, and the borrower's ability to pay.
- Pooling covenants include borrower's rights, lender's rights, and pooler's rights.
- Credit enhancement includes provisions for an initial and annual risk-based fee, pooler- and/or lender-funded cash reserves or subordinated participation interests equal to at least 10 percent of the outstanding principal of loans in a pool, and a Farmer Mac guarantee of timely payment of principal and interest on securities backed by the pool.
- Securities registration and disclosure statements must be filed in accordance with SEC requirements.
- Pooler eligibility includes Farmer Mac's establishing minimum eligibility standards for entities that want to be certified as poolers. Certification includes being an institution of the FCS or a private entity recognized by law, meeting capital and managerial standards, and adopting standards and procedures established by Farmer Mac.
- Security design must be such that it represents interests in or obligations backed by any pool of qualified loans held by a pooler. Each security with a Farmer Mac guarantee must clearly indicate that the security does not have the full faith and credit of the United States.
- Documentation standards are required to be sufficient for qualified loans.
- Servicing standards for loans shall be patterned after similar standards adopted by other federally sponsored secondary market poolers.
- Monitoring includes the mandatory activities of the FCA in overseeing the conduct of Farmer Mac's and GAO's annual reviews of the actuarial soundness and reasonableness of fees established by Farmer Mac.
- Property appraisal standards are to be adequate to protect the integrity of the appraisal process with respect to any loans.

Farmer Mac Background

The Agricultural Credit Act of 1987 (P.L. 100-233), signed on January 6, 1988, established the Federal Agricultural Mortgage Corporation (Farmer Mac) as a federally chartered instrumentality of the United

[1] This appendix was developed from section 3 of our report entitled Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

States and an institution of the FCS. The purpose of Farmer Mac is to encourage capital market participation in agricultural real estate lending. This increased participation is intended to provide (1) lenders more lending capacity by allowing them to sell their farm real estate and rural housing loans through a secondary loan market and (2) farmers and ranchers more long-term credit at stable interest rates, including fixed rates.

Unlike Freddie Mac and Fannie Mae, Farmer Mac is not authorized by law to purchase or pool loans. Farmer Mac is authorized to guarantee the timely payment of principal and interest on securities backed by agricultural real estate and rural housing mortgages pooled by certified poolers. In the event Farmer Mac exhausts its required reserves and other credit enhancements to provide such principal and interest payments, the enabling legislation provides that, under certain conditions, Farmer Mac may borrow up to $1.5 billion from the U.S. Treasury. According to some secondary market experts, because of Farmer Mac's ability to borrow from the government, these securities will probably be actively traded at lower risk premiums, yet above rates on Treasury securities. However, they stated that a growing market built on perceived government backing could perpetuate the acceptance of risks greater than those covered in credit enhancements, potentially testing the government's willingness to allow a government-chartered organization to fail.

Farmer Mac is also authorized to provide certain regulatory functions, such as developing standards for underwriting and for certifying poolers who will purchase and pool loans. The underwriting standards ultimately implemented by Farmer Mac will be the primary determinant of risks that will be borne by the secondary market participants. These standards will necessarily differ to some degree from those of the residential secondary markets because of the nature of agricultural real estate loans.

Some basic distinctions exist between housing and agricultural credit markets that are likely to cause the operation of the secondary market for agricultural mortgages to differ from that of other markets. For example, (1) farms, unlike residences, are business enterprises that generally lack the collateral value stability of residences, (2) farm properties are much less homogeneous than residences and therefore are harder to appraise and more difficult to liquidate in the event of loan foreclosure, and (3) the financial and business skills of farm operators can affect the value of the collateral since their income comes largely

from the mortgaged property rather than from independent employment or investment income. Repayment of agricultural loans may depend on income from the property that acts as collateral for the loan, rather than on the borrower earning wages or a salary. In addition, appraisals for agricultural real estate loans may include many more undefined factors, such as land values, that may depend on irrigation, type of crop, and the borrower's farming expertise.

Farmer Mac's permanent board of directors is required to establish uniform underwriting, security appraisal, and repayment standards within 120 days after the 15-member permanent board's first meeting with a quorum present. (The board was established and first met with a quorum present on March 2, 1989, when the stockholders elected 10 members. The President had previously appointed the other five members. According to Farmer Mac representatives, the standards must be established by June 30, 1989.) The standards will not take effect before the later of 30 legislative or 90 calendar days beginning on the date the standards are submitted to the Congress.

Our review of housing, commercial, and other agricultural secondary market underwriting standards, as discussed in appendix III, indicates 10 key categories of underwriting standards, which also cover security appraisal and repayment standards. We have distilled from the act and included in this appendix the key aspects of each category of those standards for Farmer Mac. This appendix should therefore provide an understanding of the baseline as specified in Farmer Mac legislation from which more detailed standards will be developed either through additional legislative action or Farmer Mac regulations and guidelines. Where appropriate, we have indicated sections of the Agricultural Credit Act of 1987 that contain the specific standard; we have also noted where the act is silent on the 10 key categories. In appendix VI we also include a profile of Farmer Mac that follows the same format used in our earlier reports on secondary markets for agricultural real estate loans.

Loan Pool Composition

To reduce risks incurred by Farmer Mac in providing guarantees, Farmer Mac's permanent board of directors is required to establish standards governing the composition of each pool of qualified loans. The enabling legislation, however, provides some specific and general guidance on certain aspects of loan pool composition requirements including borrower eligibility, pool size, loan origin, and loan criteria.

Borrower Eligibility

Borrower eligibility standards developed by Farmer Mac must ensure that the borrower is or will be actively engaged in agricultural production and require that the borrower certify to the lender that the borrower intends to continue agricultural production on the site involved. Loans guaranteed by Farmer Mac are to be an obligation of (1) a citizen or national of the United States or an alien lawfully admitted for permanent residence in the United States or (2) a private corporation or partnership whose members, stockholders, or partners hold a majority interest in the corporation or partnership and are citizens or aliens as described above and (3) a person, corporation, or partnership that has training or farming experience that, under criteria established by Farmer Mac, is sufficient to ensure a reasonable likelihood that the loan will be repaid according to its terms. (Sec. 8.0 and 8.8.)

Pool Size

At a minimum, each pool must consist of not less than 50 loans. (Sec. 8.6.)

Origin of Loans

Loan originators, or those entities permitted by law to make loans that can be sold into the market, are FCS institutions, banks, insurance companies, business and industrial development companies, savings and loan associations, associations of agricultural producers, agricultural cooperatives, commercial finance companies, trust companies, credit unions, or other entities that originate and service agricultural mortgage loans. (Sec. 8.0.)

Each pool of loans must be secured by agricultural real estate that is widely distributed geographically and is used to produce a wide range of agricultural commodities. The act does not define the terms "widely distributed" or "wide range." (Sec. 8.6.)

Loan Criteria

The act provides criteria for loans to be eligible for pooling in this market including loan size and type, borrower's ability to pay, and loan-to-value ratios. Criteria for interest rate structures and loan maturity are not specifically given in the law. Borrower's net worth and willingness to pay are also not addressed.

Loan Size

In general, an individual loan may not qualify for Farmer Mac if the principal amount exceeds $2,500,000, adjusted for inflation. However, this limit does not apply if a loan is secured by agricultural real estate that comprises not more than 1,000 acres. The act also prohibits in a

pool (1) inclusion of any loan whose principal amount exceeds 3.5 percent of the aggregate amount of principal of all loans in the pool, (2) inclusion of two or more loans to related borrowers, and (3) discrimination against small lenders or small agricultural mortgage loans that are at least $50,000. The law requires Farmer Mac to encourage including loans for small farms and family farmers in pools. (Sec. 8.6 and 8.8.)

Loan Types

The types of loans eligible to be included in a pool are those that (1) are backed by first mortgages on agricultural real estate located in the United States and are not subject to any legal or equitable claims from a preceding mortgage and (2) cover agricultural real estate that is or will be actively engaged in agricultural production. (Sec. 8.0 and 8.8.)

Interest Rate Structures

The act does not set a minimum/maximum interest rate for individual loans eligible to be pooled. One of the purposes of the act, however, is to provide a new source of long-term fixed interest rate financing to assist farmers and ranchers in purchasing agricultural real estate. Adjustable interest rate loans and rate spreads are not mentioned in the act but would appear to be allowed. (Sec. 8.8.)

Loan Maturity

Maximum and minimum term to maturity of qualified loans is not specified in the act except that the market should provide long-term agricultural funding. The act states that Farmer Mac shall confine corporate operations, as far as is practicable, to mortgage loans that the board deems to meet the purchase standards imposed by private institutional mortgage investors. If such private markets, for example, restrict qualified loans to those with conventional fixed-rate 30-year mortgages, Farmer Mac could establish guidelines to confine its pools to such loans so far as practicable.

Financial Ratios and Tests

Eligible loans must meet certain conditions for the borrower's ability to pay and for loan-to-value ratios, but not for net worth or willingness to pay.

Borrower's ability-to-pay ratios are not specifically provided in the act; however, the act's standards for qualified loans require that each borrower must demonstrate sufficient cash flow to adequately service the mortgage. The act mandates that in establishing further standards for qualified loans, Farmer Mac require, as much as is practicable, quality agricultural mortgages that meet the purchase standards imposed by private institutional mortgage investors. The act defines a qualified loan as an obligation of a person, corporation, or partnership that has sufficient training or farming experience that, under criteria established by

Farmer Mac, will ensure a reasonable likelihood that the loan will be repaid according to its terms. (Sec. 8.8 and 8.0.)

Loan-to-value ratios of not more than 80 percent are required by the act for qualified agricultural mortgage loans. (Sec. 8.8.)

Net worth is not explicitly contained in the act.

Willingness to pay on the part of the borrower is not defined in the act. No provisions on evaluating a borrower's willingness to pay are given.

Covenants

Those covenants that are not addressed in the act include loan assumptions and prepayments; however, borrower's rights, lender's rights, and pooler's rights are addressed.

Loan Assumption Provisions

The act contains no covenants for loan assumptions.

Prepayments

The act contains no covenants for prepayments.

Borrower's Rights

The act mandates that a pooler may not refuse to purchase qualified loans originating in states that have established borrower's rights laws either by statute or under the constitution of such states. However, the pooler may require discounts or charge fees reasonably related to costs and expenses arising from such statutes or constitutional provisions. In addition, at the time of an application for a loan, lenders that are FCS institutions are required to give written notice to each borrower, informing the borrower, among other things, that he/she has the right not to have the loan pooled. Within 3 days from the time of commitment, a borrower has the right to refuse to allow the loan to be pooled. (Sec. 8.6 and 8.9.)

The act also provides that state usury laws that limit the rate or amount of interest, discount points, finance charges, or other charges that may be charged, taken, received, or reserved by agricultural lenders or certified poolers shall not apply to any agricultural loan in Farmer Mac. (Sec. 8.12.)

Lender's Rights

Lenders are to sell loans to poolers without recourse to the lender with the exception of any cash reserves or subordinated participation interests the lender establishes for the loans. For pools to which they have contributed loans, lenders may contribute a share of a minimum cash reserve and may agree to retain a subordinated participation interest in such loans. Lenders are to receive at least semiannually any earnings on their contributions to the reserve. The lender has the right to retain servicing of its loans included in a pool. (Sec. 8.6 and 8.7.)

Pooler's Rights

A pooler is to be certified within 60 days after Farmer Mac receives its application if it meets Farmer Mac's eligibility standards. Farmer Mac will determine how long its certification will be effective—a maximum of 5 years. The act is silent on recertification of a pooler. Farmer Mac may, after giving notice and an opportunity for a hearing, revoke its certification if the pooler fails to continue to meet the standards. Revocation of a pooler's certification is to have no effect on guarantees already issued by Farmer Mac. A pooler may demand payment under the Farmer Mac guarantee only after full recourse has been taken against reserves and subordinated participation interests. Although the pooler may not refuse to purchase qualified loans from states with borrower's rights laws, the pooler may require discounts or charge fees reasonably related to costs and expenses arising from such statutes or constitutional provisions. A pooler is required to establish a reserve or subordinated participation interest of at least 10 percent of the outstanding principal of the pool. In doing so, a pooler may contribute the minimum reserve required for a pool or retain a subordinated participation interest in each loan; ask lenders to contribute the minimum reserve or retain a subordinated participation interest; or, with the lenders, contribute a share of the minimum reserve or retain a share of the subordinated participation interest. The pooler has the right to demand each lender in the pool to absorb losses on loans originated up to the total amount the lender has contributed to the reserve before the losses are absorbed by the contributions of other lenders participating in the pool. (Sec. 8.5, 8.6, and 8.7.)

Credit Enhancement

The enabling legislation provides several mechanisms to absorb risk. This act requires that Farmer Mac establish risk-based fees, poolers establish either cash reserves or subordinated participation interests, and Farmer Mac provide a guarantee fee for each pool of loans. There are no provisions for mortgage insurance or overcollateralization.

Risk-Based Fees

At the time it issues a guarantee, Farmer Mac is to assess the pooler an initial risk-based fee of not more than 0.5 percent of the initial principal of each pool of qualified loans. Beginning at the end of the second year after a guarantee is issued, Farmer Mac may assess the pooler an annual fee of not more than 0.5 percent of the principal amount of the loans then constituting the pool. Farmer Mac shall establish such fees on the basis of the amount of risk of loss it incurs by providing the guarantees on which the fee is assessed. Fees shall be established on an actuarially sound basis, and GAO shall review them annually. Some portion of the fees assessed will be set aside in a segregated account as a reserve against losses. (The act does not define what that portion will be.) Farmer Mac may not issue obligations to the Secretary of the Treasury until this reserve is exhausted, and no dividends on Farmer Mac stock can be paid until such a reserve is established. This reserve cannot be used to make payments for any pool until the cash reserve or subordinated participation interest discussed below, whichever has been set aside for that pool, is exhausted. (Sec. 8.4, 8.6, and 8.10.)

Insurance

The act has no provisions for mortgage insurance for Farmer Mac loans or pools.

Cash Reserves

The act provides that a certified pooler can meet requirements for financial reserves for a pool of loans by establishing a cash reserve. Farmer Mac can provide a guarantee to pay principal and interest to investors if a cash reserve in an amount equal to at least 10 percent of the outstanding principal amount of the loans constituting the pool has been established by the pooler. The cash reserve is to be maintained by the pooler; however, the act does not specify whether the cash reserve must be "maintained" at the established amount or at the same percent of the outstanding principal of the pool. Whenever a pooler does not receive payments of principal and interest or cannot pay investors for any other reasons, the cash reserve is to be used to pay investors before any other source of funds is used. No other reserve or guarantee can be activated until this reserve is exhausted. Farmer Mac is to require poolers to take full recourse against the reserve before demanding any Farmer Mac-guarantee assistance. (Sec. 8.6 and 8.7.)

For each pool of loans in which a cash reserve is used, a pooler is responsible for establishing the reserve, but the pooler and the participating originators may each contribute a share of the reserve. The cash reserves required shall be held in the form of U.S. Treasury securities or

other securities issued, guaranteed, or insured by an agency or instrumentality of the United States. Cash reserves are to be maintained in a segregated account consisting of contributions, but not earnings accruing on contributions, to ensure the repayment of principal and payment of interest on securities representing an interest in, or obligations backed by, the pool of qualified loans. (Sec. 8.7.)

Additional requirements relating to reserves include (1) poolers shall distribute to lenders, at least semiannually, any earnings on the contributions of the lenders to the reserve, (2) no withdrawals to distribute earnings may be made that would decrease reserve levels below the reserve requirement, (3) poolers that maintain a reserve to which any lender has contributed shall maintain separate loan loss accounting for each loan for which a contribution was made by the lender, and (4) each lender in the pool shall absorb any losses on loans originated by that lender up to the total amount the lender has contributed to the reserve before losses are absorbed by the contributions of other lenders in the pool. Apparently contributions by the pooler are to be used in conjunction with the lenders' in case of losses; however, the law does not specify the manner in which this is to be done. (Sec. 8.7.)

The offering circular for Farmer Mac's common stock sale states that the interim board recommended to the permanent board that each pooler should be required to establish variable minimum levels (not less than 10 percent) for cash reserves as determined by Farmer Mac on a pool-to-pool basis in accordance with Farmer Mac's guidelines.

Subordinated Participation Interests

In general, instead of establishing a cash reserve, a pooler may meet the requirements of providing a reserve by retaining a subordinated participation interest in each loan in each pool in an amount not less than 10 percent of the principal amount of each loan. If a subordinated participation interest is used, Farmer Mac can provide a guarantee to pay principal and interest to investors only when such retained interest, in an amount equal to at least 10 percent of the outstanding principal amount of the loans constituting the pool, has been established. The subordinated participation interest is to be maintained by the pooler. Whenever a pooler does not receive payments of principal and interest or cannot pay investors for any other reasons, the subordinated participation is to be used to pay investors before any other source of funds is used. No other reserve or guarantee can be activated until this subordinated participation is exhausted. Farmer Mac is to require poolers to take full recourse against the subordinated participation before demanding any

Farmer Mac-guarantee assistance. However, the act does not define whether full recourse refers to the total amount of the subordinated participation or to the principal and interest payments due to holders of the subordinated participation. (Sec. 8.6 and 8.7.)

For each pool of loans, a certified pooler and the participating lender of loans sold to a pooler may each contribute a share of the minimum reserve. The lender may agree to retain a subordinated interest in any loan, and the amount retained shall be credited to the pooler for purposes of determining whether the requirements for a reserve have been met. Farmer Mac shall prescribe what will be the rights of holders of subordinated participation interests to receive distributions from a pool. This will be done in such a manner to enhance the likelihood that other holders of nonsubordinated interests in a pool will receive regular receipt of the full amount of scheduled principal and interest payments on the loans comprising the pool.

Although the act does not define subordinated participation interests, it authorizes the board to establish policies and procedures with respect to

- the establishment of reserves and the retention of subordinated participation interests and
- the manner in which reserves or interests shall be available to make payments of principal and interest on securities for which Farmer Mac has provided guarantees. (Sec. 8.6 and 8.7.)

The conference report that accompanies the Agricultural Credit Act of 1987 further states that poolers are to be provided with flexibility in the design of subordinated participation interests rather than restrict them to a particular design. The offering circular for Farmer Mac's common stock sale states that the interim board recommended to the permanent board that each pooler should be required to establish variable minimum levels (not less than 10 percent) for subordinated participation interests as determined by Farmer Mac on a pool-by-pool basis in accordance with Farmer Mac's guidelines.

Guarantees

The act provides for Farmer Mac to guarantee the timely payment of principal and interest in the event that a pooler is unable to make such payment. Farmer Mac shall make payments of principal or interest when due in cash; and Farmer Mac, rather than the pooler, shall be the recipient of all rights satisfied by these payments. Such guarantee applies to securities representing interests solely in, or obligations fully

backed by, pools of qualified loans. A guarantee can be made only if a reserve or retained subordinated participation interest of at least 10 percent of the outstanding principal of the loans in the pool has been established. The guarantee can be exercised only after full recourse has been taken against such reserves or retained participation interests. (Sec. 8.0 and 8.6.)

According to the conference report that accompanies the act, the act intends that Farmer Mac have flexibility to refuse guarantees where underwriting standards are not met or for other reasons where, in its judgment, an unreasonable risk exists.

Overcollateralization

The act contains no provisions for overcollateralization.

Securities Registration and Disclosure

Farmer Mac securities must be registered with the SEC. The Agricultural Credit Act of 1987 provides for applying certain laws regulating such securities:

- For purposes of the Securities Act of 1933, no security guaranteed by Farmer Mac shall be deemed as issued or guaranteed by a person who is controlled or supervised by, or is acting as an instrumentality of, the government of the United States.
- Farmer Mac-guaranteed securities shall not be deemed to be a "government security" for purposes of the Securities Exchange Act of 1934 or the Investment Company Act of 1940.

The act also provides that Farmer Mac-guaranteed securities will not be backed by the full faith and credit of the United States. Each security shall clearly indicate that it is an obligation of, and its guarantee of principal and interest is by, Farmer Mac, not the FCA, the United States, or other agency or instrumentality of the United States.

Farmer Mac securities are to be exempt from any state law with respect to registration or qualification of securities unless a state specifically passes, by January 6, 1996, a law overriding this provision. The exemption is to apply to the same extent as any obligation issued by, or guaranteed as to principal and interest by, the United States or any U.S. agency or instrumentality. State usury laws are superseded for all loans included in this market. (Sec. 8.12.)

Pooler Eligibility

The act establishes minimum eligibility standards for entities that want to be certified as poolers. Under these minimum standards, a pooler must (1) be an institution of the FCS or a corporation, association, or trust organized under the laws of the United States or any state, (2) meet or exceed capital standards established by the board, (3) have as one of its purposes the sale or resale of securities representing interests in, or obligations backed by, pools of qualified loans that have been provided guarantees by Farmer Mac, (4) demonstrate managerial ability with respect to agricultural mortgage loan underwriting, servicing, and marketing that is acceptable to Farmer Mac, (5) adopt appropriate agricultural mortgage loan underwriting, appraisal, and servicing standards and procedures that meet or exceed those established by the board, (6) agree to allow Farmer Mac officials and employees to have access to all books, accounts, financial records, reports, files, and all other papers or property of any type that are necessary to facilitate an examination of the operation of the pooler in connection with securities and the pools of qualified loans that back securities guaranteed by Farmer Mac, and (7) adopt appropriate minimum standards and procedures relating to loan administration and disclosure to borrowers concerning the terms and rights applicable to loans for which guarantees are provided, in conformance with standards established by Farmer Mac. Certification of poolers is effective for a period determined by Farmer Mac of not more than 5 years.

Other responsibilities of the pooler as a condition of obtaining a guarantee from Farmer Mac are that the pooler

- act in accordance with the standards of a prudent institutional lender to resolve loan defaults,
- use the receipts from any collateral, judgments, settlements, or guarantees received by the pooler with respect to any loan in the pool to, first, pay costs of collection, second, repay the Treasury any funds Farmer Mac has borrowed to make good on guarantees on securities, and third, reimburse Farmer Mac for any guarantee payments from its funds,
- permit the lender of the loan to retain the right to service the loan,
- buy loans without recourse to the lender except for the lender's interest in a reserve or subordinated participation,
- comply with Farmer Mac's pooling standards,
- ensure that minority-owned or -controlled investment banking firms, underwriters, and bond counsels throughout the United States have an opportunity to participate to a significant degree in any public offering of securities, and

- not refuse to purchase qualified loans originating in states that have established borrower's rights laws either by statute or under the constitution of the states, except that the pooler may require discounts or charge fees reasonably related to costs and expenses arising from state statutes or constitutional provisions. (Sec. 8.5 and 8.6.)

In addition, the offering circular for Farmer Mac common stock states that the interim board has recommended that the permanent board establish a minimum capital requirement of $2 million for certified poolers.

Security Design

The act does not specify security designs to be used for Farmer Mac securities. Securities guaranteed by Farmer Mac apparently may be designed in many ways to represent interests in or obligations backed by any pool of qualified loans—as defined in the act—held by a pooler. As stated in the registration and disclosure category, each Farmer Mac-guaranteed security is to clearly indicate that the security is not backed by the full faith and credit of the United States. (Sec. 8.12.)

Documentation

The board's underwriting standards must contain sufficient documentation standards for qualified loans. There are no specific requirements for how documentation is to be accomplished or what management controls will be used for data processing. (Sec. 8.8.)

Servicing

The lender of any loan in a pool shall be permitted to retain the right to service the loan. Loan-servicing standards established by Farmer Mac shall be patterned after similar standards adopted by other federally sponsored secondary market facilities. All poolers must adopt loan-servicing standards that meet or exceed Farmer Mac's standards; however, the act does not require Farmer Mac to submit servicing standards to the Congress for review. (Sec. 8.5, 8.6, and 8.9.)

Monitoring

The act provides that poolers will make available to Farmer Mac all books, accounts, financial records, reports, files, and other papers or property that belong to or will be used by Farmer Mac in reviewing pools and securities guaranteed by Farmer Mac. Other than this statement, monitoring of poolers and lenders is not specifically addressed in the act nor is monitoring of management controls, such as data information systems.

The FCA has regulatory authority with respect to examining Farmer Mac's condition and providing general supervision of safe and sound performance of the powers, functions, and duties vested in Farmer Mac. The FCA is authorized to use its enforcement powers in carrying out its duties. In exercising its authority, the FCA shall consider the purposes for which Farmer Mac was created, the practices appropriate to the conduct of secondary markets in agricultural loans, and the reduced levels of risk associated with appropriately structured secondary market transactions. The financial transactions of Farmer Mac will be examined by FCA examiners in accordance with the principles and procedures applicable to commercial corporate transactions under rules and regulations prescribed by FCA. These examinations shall occur not less than once per year. In addition, Farmer Mac is to prepare annual financial statements, in accordance with generally accepted accounting principles. These financial statements will be audited by an independent public accountant.

GAO is to perform an annual review of the actuarial soundness and reasonableness of the fees established by Farmer Mac. GAO is also to conduct a financial audit of Farmer Mac on whatever basis GAO determines necessary and, not later than 2 years after the date of enactment, three special studies of (1) the implementation of the act by Farmer Mac and the effect of the corporation's operations on producers, the FCS, other lenders, and the capital markets, (2) the feasibility and appropriateness of promoting a secondary market for securities backed by agricultural real estate loans that have not been guaranteed by Farmer Mac, and (3) the feasibility of expanding authority for the sale of securities based on a pool of loans to farm-related and rural small businesses. (Sec. 8.10, 8.11, 703, and 704.) Our report entitled Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990) provides the status of our actions and plans to complete the mandated work.

Property Appraisals

Farmer Mac, in consultation with lenders, is to establish uniform security appraisal standards for qualified loans. Loan quality is to meet, substantially and generally, the purchase standards imposed by private institutional mortgage investors. Underwriting standards are to be adequate to protect the integrity of the appraisal process with respect to any agricultural mortgage loans. (Sec. 8.8.)

Certified poolers are to adopt appropriate agricultural mortgage loan appraisal standards and procedures that meet or exceed the standards established by Farmer Mac. (Sec. 8.5.)

GAO Work Concerning Farmer Mac Mandated by the Agricultural Credit Act of 1987

The Agricultural Credit Act of 1987 requires us to perform five separate studies/reviews concerning Farmer Mac. Three are one-time studies that the enabling legislation required to be completed within 2 years—January 6, 1990—after enactment.[1] The other two are recurring actuarial and financial reviews. The one-time studies are to address the

- implementation of the act's provisions by Farmer Mac and the effect of Farmer Mac's operations on producers, the FCS, other lenders, and the capital markets,
- feasibility and appropriateness of establishing a secondary market for securities backed by agricultural real estate loans that do not have a Farmer Mac guarantee, and
- feasibility of expanding the authority granted by the act to authorize the sale of securities based on or backed by loans made to farm-related and rural small businesses—farm-related businesses are those that make 90 percent or more of their annual dollar volume of sales to agricultural producers.

The recurring reviews are to be

- annual reviews of the actuarial soundness and reasonableness of fees established by Farmer Mac[2] and
- financial audits of Farmer Mac "on whatever basis the Comptroller General determines to be necessary."[3]

Because the new market—to be administered by Farmer Mac—is not fully operational, we have not been able to complete the studies and other periodic reviews required by the act. However, we have worked closely with various congressional committees and testified before them concerning Farmer Mac's proposed underwriting and other standards designed to guide the new market's operation. We are staying abreast of Farmer Mac activities, are continuing planning efforts, and will initiate the major bodies of mandated work as pertinent data become available.

[1]This appendix was developed from information contained in our report entitled Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990).

[2]These fees are to be established by Farmer Mac and can be no more than one-half of 1 percent of the initial principal amount of each pool of qualifying loans. Beginning at the end of the second year after a guarantee is issued, Farmer Mac may assess an annual fee of not more than one-half of 1 percent of the principal amount of the loans then constituting the pool.

[3]The conference report that accompanies the act states that such financial audits shall be performed at least once every 3 years.

Farmer Mac officials have told us that the secondary market should be fully operational in 1990.

Key Issues Concerning Specific Farmer Mac-Developed Underwriting Standards

On the basis of our examination of the Farmer Mac provisions of the Agricultural Credit Act of 1987 and the Farmer Mac-developed standards[1] and discussions with individuals and officials from both the private sector and the federal government, we testified in September 1989 that several issues merited further consideration by the Congress during the legislative review period to ensure that the loan criteria, market structure, and risk parameters satisfy Congress' broad expectations. On December 28, 1989, Farmer Mac issued a Securities Guide to the Congress, which Farmer Mac officials indicated addresses many of the issues we and others had raised during the hearings. The following are areas of concerns that we raised in our September 1989 testimony:[2]

- Key terms and concepts.
- Exceptions to the standards.
- Consistency of financial information.
- Financial ratios.
- Standardized market operating agreement.
- Regulatory approaches.
- Pool diversification standards.
- Appraisal standards.
- Standards for rural housing.
- Farmer Mac standards' development and implementation.

[1]These standards are "Credit Underwriting, Loan Repayment and Security Appraisal Standards," June 30, 1989; "Eligibility Standards for Certified Facilities," June 30, 1989; and "Loan Diversification Standards," July 18, 1989.

[2]This appendix was developed from information contained in our testimony entitled Issues Surrounding Underwriting Standards Developed by the Federal Agricultural Mortgage Corporation (GAO/T-RCED-89-71, Sept. 27, 1989, and GAO/T-RCED-89-62, Sept. 12, 1989).In addition, our report entitled Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990) contains further information based on discussions with Farmer Mac officials concerning the rationale for standards development and planned implementation.

Objectives, Scope, and Methodology

As requested by the Chairman, Subcommittee on Consumer Affairs and Coinage, and the Chairman and the Ranking Minority Member of the Subcommittee on Policy Research and Insurance, House Committee on Banking, Finance and Urban Affairs, we have consolidated into this report information that we reported to the Congress during recent years on the development and implementation of a new secondary market for agricultural real estate and rural housing loans.

As agreed with the congressional requesters, this report provides information on (1) secondary markets, in general, including the purposes such markets have served in the past, (2) underwriting, in general, and risk management in other secondary markets, (3) major categories of underwriting standards used in other secondary markets, (4) key issues concerning the development of a secondary market for agricultural real estate loans, and (5) key issues concerning Farmer Mac underwriting standards.

To consolidate our work into one report, as requested, we have essentially reprinted—with appropriate updates—sections of previous reports and testimonies as stand-alone documents in this report. In doing so, we organized the report from primer information first to more detailed sections later.

During our studies of the development and implementation of a new secondary market for agricultural real estate loans, we interviewed private and government individuals and officials concerned with secondary markets in general and Farmer Mac in particular. We also reviewed the underwriting standards of the national residential secondary markets and researched manuals and other documentation from private entities, where possible, to identify specific standards, procedures, and practices. To validate the 10 categories of underwriting standards, we discussed them with national residential secondary market officials and members of the financial community participating in secondary market activities. In developing information for examining costs to register Farmer Mac securities, we obtained from SEC files readily available information for securities that were registered in 1988. We obtained from FCS, Farmer Mac, and the Independent Bankers Association of America information on numbers of lenders and poolers who have purchased enough Farmer Mac stock to participate in the market. We obtained statistics on real estate mortgage investment conduits (REMIC) from Inside Mortgage Capital Markets.

We interviewed agricultural economists, bankers, and representatives of investment houses and investment rating agencies familiar with secondary market and farm credit issues. We also interviewed officials of the American Institute of Certified Public Accountants, the Department of Agriculture, the Board of Governors of the Federal Reserve System, the Farm Credit Administration, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, FCS, the Department of the Treasury, the Small Business Administration, the Veterans Administration, the Federal Housing Administration, the SEC, Farmer Mac, the American Bankers Association, the Independent Bankers Association of America, the American Council of Life Insurance, the American Society of Farm Managers and Rural Appraisers, the National Association of Review Appraisers and Mortgage Underwriters, the Federal Financial Institutions Examination Council, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation. We also interviewed farmers, farm groups, ranchers, and bankers in the West and Midwest and reviewed research literature, legislation, and publications concerning underwriting in general.

Overall, the information presented in this report was developed through our individual studies and reviews conducted during periods ranging from July 1986 through January 1990. Specific sections of this report were developed from information contained in the following reports and testimonies that were issued from July 17, 1987, to January 5, 1990.

- Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990).
- Issues Surrounding Underwriting Standards Developed by the Federal Agricultural Mortgage Corporation (GAO/T-RCED-89-71, Sept. 27, 1989, and GAO/T-RCED-89-62, Sept. 12, 1989).
- Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).
- Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987).

We obtained informal comments from Farmer Mac representatives on reports and testimonies listed above that were issued since the Farmer Mac interim board of directors was established in May 1988 and incorporated their comments where appropriate in those products.

Major Contributors to This Report

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Related GAO Products

Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990).

Federal Credit and Insurance: Programs May Require Increased Federal Assistance in the Future (GAO/AFMD-90-11, Nov. 16, 1989).

Issues Surrounding Underwriting Standards Developed by the Federal Agricultural Mortgage Corporation (GAO/T-RCED-89-71, Sept. 27, 1989, and GAO/T-RCED-89-62, Sept. 12, 1989).

Federal Agricultural Mortgage Corporation: Underwriting Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 1989).

Farm Finance: Provisions for Secondary Markets for Farm Real Estate Loans in H.R. 3030 (GAO/RCED-88-55FS, Nov. 5, 1987).

Farm Finance: Secondary Markets for Agricultural Real Estate Loans (GAO/RCED-87-149BR, July 17, 1987).

Farm Finance: Legislative Proposals for Secondary Markets for Farm Real Estate Loans (GAO/RCED-87-172FS, July 2, 1987).

Issues Surrounding a Secondary Market for Agricultural Real Estate Loans (GAO/T-RCED-87-29, June 3, 1987).

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