GAO Report to the Subcommittee on Financial Institutions and Consumer Credit, Committee on Financial Services, House of Representatives

September 2008

RISK-BASED CAPITAL

New Basel II Rules Reduced Certain Competitive Concerns, but Bank Regulators Should Address Remaining Uncertainties
Why GAO Did This Study

Basel II, the new risk-based capital framework based on an international accord, is being adopted by individual countries. It includes standardized and advanced approaches to estimating capital requirements. In the United States, bank regulators have finalized an advanced approaches rule that will be required for some of the largest, most internationally active banks (core banks) and proposed an optional standardized approach rule for non-core banks that will also have the option to remain on existing capital rules. In light of possible competitive effects of the capital rules, GAO was asked to examine (1) the markets in which banks compete, (2) how new capital rules address U.S. banks’ competitive concerns, and (3) actions regulators are taking to address competitive and other potential negative effects during implementation. Among other things, GAO analyzed data on bank products and services and the final and proposed capital rules; interviewed U.S. and foreign bank regulators, officials from U.S. and foreign banks; and computed capital requirements under varying capital rules.

What GAO Found

Large and internationally active U.S.-based banks (core banks) that will adopt the Basel II advanced approaches compete among themselves and in some markets with U.S.-based non-core banks, investment firms, and foreign-based banks. Non-core banks compete with core banks in retail markets, but in wholesale markets core banks often compete with investment firms and foreign-based banks. Because holding capital is costly for banks, differences in regulatory capital requirements could influence costs, prices, and profitability for banks competing under different capital requirements.

The new U.S. capital rules addressed some earlier competitive concerns of banks; however, other concerns remain. By better aligning the advanced approaches rule with the international accord and proposing an optional standardized approach rule, U.S. regulators reduced some competitive concerns for both core and non-core banks. For example, the U.S. wholesale definition of default for the advanced approaches is now similar to the accord’s. Core banks continue to be concerned about the leverage requirement (a simple capital to assets calculation), which they believe places them at a competitive disadvantage relative to firms not subject to a similar requirement. Foreign regulators have been working with U.S. regulators to coordinate Basel II implementation for U.S. banks with foreign operations. The proposed standardized approach addresses some concerns non-core banks raised by providing a more risk sensitive approach to calculating regulatory requirements. But other factors likely will reduce differences in capital for banks competing in the United States; for example, the leverage requirement establishes a floor that may exceed the capital required under the advanced and standardized approaches.

Many factors have affected the pace of Basel II implementation in the United States and, while the gradual implementation is allowing regulators to consider changes in the rules and reassess banks’ risk-management systems, regulators have not yet taken action to address areas of uncertainty that could have competitive implications. For example, the final rule provides regulators with considerable flexibility and leaves open questions such as which banks may be exempted from the advanced approaches. Although the rule provides that core banks can apply for exemptions and regulators should consider these in light of some broad categories, such as asset size or portfolio mix, the rule does not further define the criteria for exemptions. Some industry participants we spoke with said that uncertainties about the implementation of the advanced approaches have been a problem for them. Moreover, regulators have not fully developed plans for a required study of the impacts of Basel II before full implementation. Lack of specificity in criteria, scope, methodology, and timing will affect the quality and extent of information that regulators will have to help assess competitive and other impacts, determine whether there are any material deficiencies requiring future changes in the rules, and determine whether to permit core banks to fully implement Basel II.

What GAO Recommends

GAO recommends that the U.S. bank regulators (1) clarify how they will use regulatory flexibility built into the rules and (2) fully develop plans, on a joint basis, for the required study of the impacts of Basel II. The bank regulators generally agreed with our recommendations in a joint response to this report.

To view the full product, including the scope and methodology, click on GAO-08-953. For more information, contact Orice M. Williams at (202) 512-8678 or williamso@gao.gov.
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<td>A-IRB</td>
<td>advanced internal ratings-based approach</td>
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<td>AMA</td>
<td>advanced measurement approaches</td>
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<td>CSE</td>
<td>consolidated supervised entity</td>
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<td>EAD</td>
<td>exposure at default</td>
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<td>FDIC</td>
<td>Federal Deposit Insurance Corporation</td>
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<td>FFIEC</td>
<td>Federal Financial Institutions Examination Council</td>
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<td>LTV</td>
<td>loan-to-value</td>
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<td>LGD</td>
<td>loss given default</td>
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<td>M</td>
<td>maturity of the exposure</td>
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<td>MRA</td>
<td>market risk amendment</td>
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<td>NPR</td>
<td>Notice of Proposed Rulemaking</td>
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<tr>
<td>OCC</td>
<td>Office of the Comptroller of the Currency</td>
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<td>OMB</td>
<td>Office of Management and Budget</td>
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<tr>
<td>OTS</td>
<td>Office of Thrift Supervision</td>
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<tr>
<td>PCA</td>
<td>prompt corrective action</td>
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<tr>
<td>PD</td>
<td>probability of default</td>
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<tr>
<td>QIS-4</td>
<td>fourth quantitative impact study</td>
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<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
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<td>SME</td>
<td>small- and medium-sized enterprise</td>
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September 12, 2008

The Honorable Carolyn B. Maloney
Chair
The Honorable Judy Biggert
Ranking Member
Subcommittee on Financial Institutions
   and Consumer Credit
Committee on Financial Services
House of Representatives

Ensuring that banks maintain adequate capital is essential to the safety and soundness of the banking system.\(^1\) Basel II, the newly revised risk-based capital framework, aims to better align minimum capital requirements with enhanced risk-measurement techniques and to encourage banks to develop a more disciplined approach to risk management. Basel II rests on an international accord (the New Basel Accord) adopted by the Basel Committee on Banking Supervision (Basel Committee) in June 2004.\(^2\) The New Basel Accord includes a standardized approach and advanced approaches, more complex approaches that large, internationally active banks are encouraged to use. U.S. federal banking regulators have been working to finalize capital rules based on this accord. Since our February 2007 report on Basel II, U.S. federal banking regulators have finalized the advanced approaches rules that are required for some of the largest and most internationally active banking organizations (core banks), which account for about half of U.S. banking assets.\(^3\) Some other banks may choose to comply with the advanced approaches rule as well. These rules lay out a phased implementation schedule, which generally requires core banks to have Basel II implementation plans approved by their boards of directors by October 1, 2008. In addition, in July 2008, U.S.

\(^1\)In this report, the term bank generally refers to depository institutions (commercial banks and thrifts) as well as bank holding companies. Where the distinction is significant, we refer to bank holding companies as the depository institution’s ultimate U.S. holding company. Since thrift holding companies are not subject to Basel capital requirements, they are not included in the term bank in this report.


banking regulators published for comment a proposed rule on the standardized approach, a simpler version of the new regulatory capital framework that could be adopted by banks that were not required to adopt the advanced approaches (non-core banks).

Though the goal of Basel II was to improve the safety and soundness of the banking system through better risk management and create a level playing field for internationally active banks, the development of Basel II has generated concerns among banks, banking regulators, and other interested parties that potentially different capital requirements and implementation costs for various categories of U.S. and foreign banks could have competitive effects. These concerns arose, in part, because U.S. banks that all have been operating under the same risk-based capital rules—known as Basel I—may be operating under different capital rules in the future—Basel II advanced approaches, Basel II standardized approach, or Basel I. In addition, because the New Basel Accord identified certain areas for national discretion, the capital regimes being adopted in various countries differ from that being implemented in the United States.

The risk-management systems for financial institutions and the information systems on which they rest have been called into question by the failure of some of these systems during the market turbulence that began with subprime mortgages in 2007. While this turmoil is not the focus of this report, it is an important factor that is leading banking organizations and their regulators to reassess capital requirements and other aspects of bank regulation and supervision. These assessments could lead to changes in the Basel II rules or could influence the implementation of those rules in the United States. In addition, as a result of concerns about the ability of U.S. financial institutions to compete with institutions based in foreign countries, the U.S. Department of the Treasury has proposed a restructuring of the complex U.S. regulatory system. Various congressional committees have held hearings that

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4In this report, we discuss competitive concerns that could arise from the differential impact of capital rules or their implementation on firms providing similar products or services.


addressed this issue and in the past, we have recommended that the U.S. regulatory system be restructured.\(^7\)

In light of concerns about possible competitive effects, you requested that we review the competitive implications of Basel II for non-core U.S. banks in comparison to core banks adopting the advanced approaches and how differences in the implementation of Basel II in foreign countries might affect the competitiveness of internationally active banks operating in the United States. Specifically, this report examines (1) the nature of the competitive environment in which U.S. banking organizations operate, (2) the extent to which the new capital rules address competitive concerns of U.S. banking organizations internationally and domestically, and (3) actions regulators are taking to address competitive and other potential negative effects of the new capital rules during implementation.

To meet our objectives, we reviewed the New Basel Accord, the U.S. proposed rules on the advanced approaches and standardized approach, the U.S. final advanced approaches rule, supervisory guidance, and related materials. In addition, we reviewed research related to the impact of Basel II in the United States and the European Union. We interviewed officials at the federal bank regulatory agencies responsible for implementing Basel II, including examination and policy staff. We also interviewed officials from all of the core banks and other domestic and foreign banks with operations in the United States. In addition, we interviewed officials from several foreign bank regulatory agencies; domestic and foreign trade associations; credit rating agencies; and several academics and consultants with banking expertise. To describe the competitive environment in which U.S. banking organizations operate, we analyzed various data sources on the products and services that U.S. and foreign banking organizations offer domestically and internationally. To assess the competitive impact of the different capital rules on U.S. banks, we computed capital requirements for certain products under the varying rules and reviewed academic and other studies of the impact of regulatory capital on bank behavior.

We conducted this performance audit from May 2007 to September 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient,

appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Appendix I discusses our scope and methodology in further detail.

Results in Brief

Core banks—large and internationally active U.S. banks that will be required to adopt the advanced approaches for Basel II—compete with other core banks and in some markets with non-core U.S.-based banks, other financial institutions, and foreign-based banks. Core banks that will adopt the advanced approaches have varying business models such that some focus on domestic retail banking activities such as residential mortgages, some focus on wholesale activities such as lending to large corporate clients domestically and abroad, and others are engaged in the full range of these activities. In retail markets such as those for residential mortgages, core banks often compete with smaller non-core banks that are not likely to adopt the advanced approaches. In wholesale markets, core banks often compete with investment firms. Core banks compete globally with investment firms and also with foreign-based banks. In addition, banks that are subsidiaries or branches of foreign-based banks are active in U.S. markets at both the retail and wholesale levels. While Basel II likely will apply to foreign–based banks in their home countries, the specifics of the rules and their implementation in other countries will differ from those in the United States, in part, because the New Basel Accord identified a number of areas for national discretion. Because holding capital is costly for banks, differences in regulatory capital requirements could influence costs, prices, and profitability for banks competing under different capital requirements.

U.S. regulators addressed some of the banking industry’s competitive concerns with the advanced approaches rule for core banks and the proposal of an optional standardized approach rule for other banks. However, some of the industry’s competitive concerns about the U.S. capital framework remain. In developing the rules, regulators analyzed some competitive issues raised by banks. By adopting a final advanced approaches rule that is closer to the New Basel Accord, U.S. regulators reduced the differences between the U.S. rule as originally proposed and the New Basel Accord that had the potential to lead to greater implementation costs. For example, in the final advanced approaches rule banks will use a single wholesale definition of default for both their U.S. and foreign operations, thus reducing the cost of operating in multiple countries. Nonetheless, core banks are concerned about continuing to be subject to the leverage requirement, which they believe could place them
at a competitive disadvantage relative to certain foreign-based banks and investment firms, which do not have a similar requirement. In efforts to mitigate other differences, U.S. regulators have been working with foreign regulators, bilaterally and as members of international bodies, to coordinate Basel II implementation for U.S.-based internationally active banks. The proposed standardized approach rule issued by U.S. regulators in July 2008 addresses some concerns raised by non-core banks—those banks not required to adopt the advanced approaches. These banks were concerned that core banks would have a competitive advantage because they would be able to hold less capital for some assets. The proposed standardized approach would allow for additional risk-sensitivity over Basel I with respect to the capital treatment for certain assets, including residential mortgages. Among other factors, the leverage requirement may reduce differences in capital among banks competing in the United States because it establishes a floor that may exceed capital required under the advanced or standardized approaches for certain low-risk assets.

Since we last reported on Basel II in February 2007, the regulators have made significant progress by jointly issuing the advanced approaches rule and a proposed rule for an optional standardized approach. However, while the gradual implementation is allowing regulators to consider changes in the rules and reassess banks’ risk management systems, regulators have not taken action to address some areas of uncertainty that could have competitive implications or other negative effects. For example, the regulatory flexibility that the advanced approaches rule provides will help regulators deal with the rule’s unforeseen consequences, but leaves uncertainties such as which banks will ultimately be exempted from using the advanced approaches. While the regulators have stated that they may exempt some core banks from using the advanced approaches, they have only provided broad categories such as asset size and portfolio mix rather than specific criteria for making these decisions. And, in the proposed standardized approach rule, regulators have asked for comments on the question of whether large and internationally active core banks should be able to use the proposed standardized approach. These uncertainties may continue to reflect the difficulties that resulted from the differing perspectives the regulators brought to negotiations during the development of Basel II. In addition, some industry participants we spoke with said that uncertainty about the implementation of the advanced approaches rule has been a problem for them. Finally, regulators have undertaken some planning for a study of the impact of the advanced approaches, but plans are not fully developed. The advanced approaches rule called for a study of the rule’s impact to determine whether major changes in the rule needed to be made before banks would be permitted to fully implement the new rule. However, the
regulators have not developed criteria by which to assess Basel II, have not specified whether the scope of the study will go beyond core banks to consider, for example, investment firms, or developed a methodology to analyze opportunities for regulatory arbitrage. Lack of development or specificity in criteria, scope, methodologies, and timing will affect the quality and extent of information that regulators will use to help assess competitive and other impacts, determine whether there are any material deficiencies that require changes in the rules, and determine whether core banks should fully implement Basel II.

To further limit any potential negative effects and to reduce the uncertainty about Basel II implementation, we are making two recommendations to the heads of the Federal Deposit Insurance Corporation (FDIC), Board of Governors of the Federal Reserve System (Federal Reserve), Office of the Comptroller of the Currency (OCC), and Office of Thrift Supervision (OTS). Specifically, where possible, these regulators should reduce the uncertainty built into the Basel II rules by better clarifying the use of certain regulatory flexibilities, particularly with regard to how they will exercise exemptions from the advanced approaches requirements and the extent to which core banks will be allowed to adopt the standardized approach. In addition, to improve understanding of potential competitive effects, we recommend that the regulators fully develop plans, on a joint basis, for the required study of the impacts of Basel II.

We requested comment on a draft of this report from the heads of the Federal Reserve, FDIC, OCC, OTS, Securities and Exchange Commission (SEC), and Department of the Treasury. We received written comments from the Federal Reserve, FDIC, OCC, and OTS, who provided a joint letter, which is reprinted in appendix IV. In their joint letter, the banking regulators said that they were in general agreement with our recommendations. Specifically, the regulators said that they will work together to resolve, at the earliest possible time, the question posed for comment in the proposed standardized approach rule regarding whether and to what extent core banks should be able to use the standardized approach. With regard to clarifying certain regulatory flexibilities, the regulators said they will continue to make decisions concerning the exemption of core banks from the advanced approaches based on the specifics of a bank's request; they have already commenced discussions to ensure a clear and consistent interpretation of these provisions is conveyed to U.S. banks. In addition, regarding the need to jointly plan the required study, the regulators said that they will begin to prepare more formal plans for the study once they have a firmer picture of banks implementation plans. The banking regulators also provided technical
comments, which we incorporated in the report where appropriate. We did not receive comments from SEC or the Department of the Treasury.

Background

Basel II rests on the New Basel Accord, which established a more risk-sensitive regulatory framework that was intended to be sufficiently consistent internationally but that also took into account individual countries’ existing regulatory and accounting systems. The U.S. bank regulators have been adapting the New Basel Accord for use by U.S. banks.

The New Basel Accord

The New Basel Accord sets forth minimum requirements, which regulators may complement with additional capital requirements, such as a leverage ratio. The New Basel Accord also identifies a number of areas for national discretion, thus requiring regulators from different countries to work together to understand how each country is implementing the New Basel Accord and to ensure broad consistency in the application of the regulatory framework across jurisdictions. The New Basel Accord consists of three pillars: (1) minimum capital requirements, (2) supervisory review of an institution’s internal assessment process and capital adequacy, and (3) effective use of disclosure to strengthen market discipline as a complement to supervisory efforts. The advanced approach for credit risk (also known as the advanced internal ratings-based approach) uses risk parameters determined by a bank’s internal systems as inputs into a formula developed by supervisors for calculating minimum regulatory capital. In addition, banks with significant trading assets—assets banks use to hedge risks or to speculate on price changes in markets for themselves or their customers—must calculate capital requirements for market risk under Pillar 1. Pillar 2 explicitly recognizes the role of

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8 For more detailed description of Basel II and its history, see our earlier report GAO-07-253.

9 Credit risk is the potential for loss resulting from the failure of a borrower or counterparty to perform on an obligation. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events.

10 Market risk is the potential for loss resulting from movements in market prices, including interest rates, commodity prices, stock prices, and foreign exchange rates. Regulators have allowed certain banks to use their internal models to determine required capital for market risk since 1996 (known as the market risk amendment or MRA). Generally, under the MRA, a bank’s internal models are used to estimate the 99th percentile of the bank’s market risk loss distribution over a 10-business-day horizon, in other words a solvency standard designed to exceed trading losses for 99 out of 100 10-business-day intervals.
supervisory review, which includes assessments of capital adequacy relative to a bank’s overall risk profile and early supervisory intervention that are already part of U.S. regulatory practices. Pillar 3 establishes disclosure requirements that aim to inform market participants about banks’ capital adequacy in a consistent framework that enhances comparability. See appendix II for more information on the three pillars of the advanced approaches.

Figure 1: The Three Pillars of Basel II

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<tr>
<th>Pillar 1</th>
<th>Pillar 2</th>
<th>Pillar 3</th>
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<tr>
<td><strong>Minimum capital requirements</strong></td>
<td><strong>Supervisory review</strong></td>
<td><strong>Market discipline (via disclosure)</strong></td>
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<tr>
<td>Credit risk</td>
<td>Operational risk</td>
<td>Market risk</td>
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<tr>
<td>Standardized approach</td>
<td>Basic indicator approach</td>
<td>Advanced measurement approaches (AMA)</td>
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<tr>
<td>Foundation internal ratings-based approach</td>
<td>Standardized approach</td>
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<tr>
<td>Advanced internal ratings-based approach (A-IRB)</td>
<td>Advanced measurement approaches (AMA)</td>
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<tr>
<td>Risk measurement approaches</td>
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<tr>
<td>Currently proposed in the U.S. standardized approach as an option for non-core banks</td>
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<tr>
<td>Other approaches available in the international accord</td>
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<td>Required in the U.S. final rule for core banks</td>
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Source: GAO.

After extensive discussions and consultation that included issuing an advanced notice of proposed rulemaking in 2003 and a Notice of Proposed Rulemaking (NPR) in 2006, the U.S. banking regulators issued a final rule on the advanced approaches that became effective on April 1, 2008.\(^\text{[11]}\)

Under the rule, only certain banks—core banks—will be required to adopt

the advanced approaches for credit and operational risk. Core banks are those with consolidated total assets (excluding assets held by an insurance underwriting subsidiary of a bank holding company) of $250 billion or more or with consolidated total on-balance sheet foreign exposure of $10 billion or more. Publicly available information shows that, as of July 2008, 12 banks met the rule’s basic criteria for being a core bank. A depository institution also is a core bank if it is a subsidiary of another bank that uses the advanced approaches. Under the rule, a core bank’s primary federal regulator may determine that application of the advanced approaches is not appropriate in light of a core bank’s asset size, level of complexity, risk profile, or scope of operations. In addition, banks that are not required to adopt the advanced approaches, but meet certain qualifications, may voluntarily choose to comply with the advanced approaches. Generally, core banks had or will have from April 2008 until April 2010 to begin the four phases that lead to the full implementation of Basel II. As a result, core banks could be ready for full implementation between April 2012 and April 2014. By January 1, 2008, banks in the European Union, Canada, and Japan had moved off of Basel I and begun implementing some version of the New Basel Accord’s advanced approaches or standardized approach for all of their banks. Banks located in the European Union, Canada, and Japan expect to have fully implemented Basel II sometime in 2010.

Non-core banks—those that do not meet the definition of a core bank—will have the option of adopting the advanced approaches, a standardized approach when finalized, or remaining on Basel I. The proposed standardized approach rule, published in July 2008, provides for a more risk-sensitive approach than Basel I by classifying banks’ assets into more risk categories and assessing different capital requirements according to

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12 The four phases are (1) the parallel run—four consecutive quarters in which a bank meets the qualification requirements and is subject to the Basel I rules but simultaneously calculates its risk-based capital ratios under the advanced approaches; (2) the first transitional period—a period of at least four consecutive quarters in which the bank computes its risk-based capital ratios under the advanced approaches rule, and required risk-based capital must be at least 95 percent of the Basel I requirement; (3) the second transitional period—a period of at least four consecutive quarters in which the bank computes its risk-based capital ratios using the Basel I rule and the advanced approaches rule, and required risk-based capital must be at least 90 percent of the Basel I requirement; and (4) the third transitional period—a period of at least four consecutive quarters in which the bank computes its risk-based capital ratios using the Basel I rule and the advanced approaches rule, and required risk-based capital must be at least 85 percent of the Basel I requirement.
the riskiness of the category. While Basel I has 5 risk categories, the proposed standardized approach rule includes 16 categories. In contrast to the advanced approaches, the standardized approach relies more on external risk assessments—conducted by rating agencies—than on a bank's own assessments of a certain product’s or borrower’s risk. The proposed U.S. standardized approach generally is consistent with the standardized approach outlined in the New Basel Accord, but diverges from the New Basel Accord to incorporate more risk sensitive treatment, most notably in the approaches for residential mortgages and equities held by banks.

The U.S. regulatory capital framework also includes minimum leverage capital requirements. Banks, thrifts, and bank holding companies are subject to minimum leverage standards, measured as a ratio of Tier 1 capital to total assets. The minimum leverage requirement is either 3 or 4 percent, depending on the type of institution and a regulatory assessment of the strength of its management and controls. Leverage ratios are a commonly used financial measure of risk. Greater financial leverage, as measured by lower proportions of capital relative to assets, increases the riskiness of a firm, all other things being equal. If the leverage capital requirement is greater than the risk-based level required then the leverage requirement would be the binding overall minimum requirement on an institution. Depository institutions also are subject to the Federal Deposit Insurance Corporation Improvement Act of 1991, which created a new

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13Banks must hold total capital equal to at least 8 percent of the total value of their risk-weighted assets and Tier 1 capital of at least 4 percent. Tier 1 capital is considered most stable and readily available for supporting a bank’s operations. It covers core capital elements, such as common stockholder’s equity and noncumulative perpetual preferred stock. All assets are assigned a risk weight according to the credit risk of the obligor or the nature of the exposure and the nature of any qualifying collateral or guarantee, where relevant. Off-balance sheet items, such as credit derivatives and loan commitments, are converted into credit equivalent amounts and also assigned risk weights. The risk weight categories are broadly intended to assign higher-risk weights to—and require banks to hold more capital for—higher-risk assets, and vice versa. See 12 C.F.R. Part 3 (OCC); 12 C.F.R Part 208 and Part 225, App. A & B (Federal Reserve); 12 C.F.R. Part 325 (FDIC); and 12 C.F.R. Part 567 (OTS).

14Banks and thrifts holding the highest supervisory rating have a minimum leverage ratio of 3 percent; all other banks must meet a leverage ratio of at least 4 percent. See 12 C.F.R. §§ 3.6 (OCC), 208 & App. B (FRB), 325.3 (FDIC), and 567.8 (OTS). Bank holding companies that have adopted the MRA or hold the highest supervisory rating are subject to a 3 percent minimum leverage ratio; all other bank holding companies must meet a 4 percent minimum leverage ratio. 12 C.F.R. Part 225, App. D. Thrift holding companies are not subject to specific risk-based or leverage ratios, but are instead required by OTS to hold adequate capital at the holding company level.
supervisory framework known as prompt corrective action (PCA) that links supervisory actions closely to these banks’ capital ratios. PCA, which applies only to depository institutions and not bank holding companies, requires regulators to take increasingly stringent forms of corrective action against banks as their leverage and risk-based capital ratios decline.15 Under this rule, regulators also can require banks to hold more than minimum levels of capital to engage in certain activities. In addition, under the Bank Holding Company Act, the Federal Reserve can require that bank holding companies hold additional capital to engage in certain activities.

### U.S. Regulators Responsible for Implementing Basel II

In the United States, the four federal bank regulators oversee the implementation of Basel II for banks and SEC oversees the implementation of Basel capital rules for investment firms. The financial institutions that will be involved in the implementation of Basel II are organized as bank holding companies, thrift holding companies, or consolidated supervised entities (CSE). At a consolidated level the Federal Reserve supervises bank holding companies that are subject to Basel capital requirements, OTS supervises thrift holding companies that are not subject to Basel capital requirements, and SEC supervises CSEs that voluntarily choose to be subject to consolidated oversight including Basel capital reporting requirements.16 Each of these types of holding companies has subsidiaries that are depository institutions that could be required to adopt Basel II. Each of these banking institutions is regulated by a primary federal regulator according to the rules under which it is chartered.

- FDIC serves as the primary federal regulator of state chartered banks that are not members of the Federal Reserve System (state nonmember banks). It is also the deposit insurer for all banks and thrifts and has backup supervisory authority for all banks it insures.

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16Three of the four CSEs are also thrift holding companies. See GAO, Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration, GAO-07-154 (Washington, D.C.: Mar. 15, 2007) on the overlapping responsibilities of OTS and SEC with regard to these firms.
The Federal Reserve serves as the primary federal regulator for state chartered banks that are members of the Federal Reserve System (state member banks).

OCC serves as the primary federal regulator for national (i.e., federally chartered) banks. Many of the nation’s largest banks are federally chartered.

OTS serves as the primary federal regulator for all federally insured thrifts. Under the dual federal and state banking system, state chartered banks are supervised by state regulatory agencies in addition to a primary federal regulator.

In 2004, SEC established a voluntary, alternative net capital rule for broker-dealers whose ultimate holding company consents to groupwide supervision by SEC as a CSE. This alternative net capital rule permits the use of statistical models for regulatory capital purposes. At the holding company level, CSEs are required to compute and report to SEC capital adequacy measures consistent with the standards in the Basel Accord, and SEC expects them to maintain certain capital ratios, though they are not required to do so. According to SEC, all CSEs have implemented Basel II. Primary U.S. broker-dealers affiliated with CSEs are required to comply with a capital requirement that SEC says is not identical to the Basel standards but makes use of statistical models in its computation. Depository institutions within the CSEs are subject to the same requirements as other banks of similar sizes and exposures including risk-based capital requirements, the leverage ratio, and PCA; however, there is no leverage requirement at the consolidated level for CSEs.

Core banks face a range of competitors including non-core U.S. banks, other financial institutions, and foreign-based banks. Core banks that have varying business models—some focus on domestic retail banking activities, some on wholesale activities, and others are engaged in the full range of these activities—are overseen by a number of different bank regulators. Banks of different sizes that are likely to be under different capital regimes are more likely to compete with each other in retail markets, where they offer products such as residential mortgages to the same customers, than in wholesale markets. In certain wholesale markets, core banks often compete with U.S. investment firms. U.S.-based core banks also compete with foreign-based banks in foreign markets and in U.S. markets where foreign-based banks are very active. Since core banks compete with other financial institutions across various product and geographic markets, differences in capital rules or the
implementation of those rules may have competitive effects by influencing such things as the amount of capital institutions hold, how banks price loans, and the cost of implementing capital regulations.

Core Banks Compete with Other Core and Non-core Banks

Core banking organizations—those that meet the requirements in terms of asset size and foreign exposure for mandatory adoption of the Basel II advanced approaches—have adopted a variety of business models, but all compete with some other core banks. Some of the core banks are active in retail markets, some in wholesale markets, and some in the full range of banking activities. As illustrated in table 1, which is based on publicly available information, five core banking organizations—including one that is foreign-based—have at least 25 percent of their assets in retail markets and one of these, the only thrift that is a core banking organization (Washington Mutual Bank), has more than 60 percent of its assets in retail markets, while a few institutions have almost no activity in these markets. In addition, two core banks that appear less active in retail markets—with about 15 percent of their assets in these markets—may still have a major presence there because of their overall size. In wholesale markets, table 1 shows that some banks are active in making commercial and industrial loans while others hold a larger percentage of their assets as trading assets—assets held to hedge risks or speculate on price changes for the bank or its customers. However, the thrift institution has very little activity in these markets. The three smaller U.S.-based core banks, which are classified as core banks because they have large foreign exposures, engage primarily in custodial activities where they manage the funds of their clients. In this area they compete with the largest U.S. banks that are also engaged in these activities.
Table 1: Percentage of Selected Assets of Core Banks in Certain Retail and Wholesale Markets, December 31, 2007

<table>
<thead>
<tr>
<th>Institution</th>
<th>Total assets</th>
<th>Mortgages</th>
<th>Credit cards</th>
<th>Trading assets</th>
<th>Commercial &amp; industrial loans</th>
<th>Commercial real estate</th>
<th>Securities available for sale or held to maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top level parent based in the United States</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citigroup Inc.</td>
<td>$2,187,631</td>
<td>11.1%</td>
<td>4.0%</td>
<td>24.6%</td>
<td>9.4%</td>
<td>1.0%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Bank of America Corp.</td>
<td>1,720,688</td>
<td>23.0%</td>
<td>4.7%</td>
<td>11.7%</td>
<td>10.3%</td>
<td>6.0%</td>
<td>13.9%</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; Co.</td>
<td>1,562,147</td>
<td>11.0%</td>
<td>4.9%</td>
<td>29.3%</td>
<td>9.0%</td>
<td>1.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Wachovia Corp.</td>
<td>782,896</td>
<td>30.0%</td>
<td>0.3%</td>
<td>7.1%</td>
<td>10.5%</td>
<td>9.9%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Wells Fargo &amp; Co.</td>
<td>575,442</td>
<td>30.1%</td>
<td>3.4%</td>
<td>1.3%</td>
<td>13.8%</td>
<td>9.7%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Washington Mutual Bank*</td>
<td>325,809</td>
<td>59.5%</td>
<td>3.0%</td>
<td>0.8%</td>
<td>1.0%</td>
<td>13.5%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Bank of New York Mellon Corp.</td>
<td>197,839</td>
<td>2.3%</td>
<td>0%</td>
<td>3.3%</td>
<td>3.4%</td>
<td>1.3%</td>
<td>24.5%</td>
</tr>
<tr>
<td>State Street Corp.</td>
<td>142,937</td>
<td>0%</td>
<td>0%</td>
<td>3.5%</td>
<td>0.1%</td>
<td>0%</td>
<td>52.2%</td>
</tr>
<tr>
<td>Northern Trust Corp.</td>
<td>67,611</td>
<td>13.6%</td>
<td>0%</td>
<td>1.3%</td>
<td>9.6%</td>
<td>3.4%</td>
<td>12.6%</td>
</tr>
<tr>
<td><strong>Top level parent based in a foreign country</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taunus Corp. (Germany)</td>
<td>668,199</td>
<td>3.2%</td>
<td>0.4%</td>
<td>30.1%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>0.5%</td>
</tr>
<tr>
<td>HSBC North America Holding Inc. (United Kingdom)</td>
<td>487,755</td>
<td>24.6%</td>
<td>10.5%</td>
<td>11.7%</td>
<td>8.2%</td>
<td>1.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Barclays Group US (United Kingdom)</td>
<td>343,736</td>
<td>3.9%</td>
<td>1.9%</td>
<td>15.1%</td>
<td>0%</td>
<td>3.3%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Source: GAO analysis of publicly available Federal Reserve and OTS data.

aData are for the federal savings bank rather than the consolidated entity. The federal savings bank comprises 99.4 percent of the consolidated entity’s total assets.

bSecurities available for sale or held to maturity include mortgage-backed securities, asset-backed securities, and others.

Core banks are in some ways similar to non-core banks. For example, banks of all sizes continue to participate in some activities historically associated with banking, such as taking deposits and making loans. As table 2 shows, bank holding companies of different sizes hold similar proportions of certain loans such as residential mortgages and commercial and industrial loans.
Table 2: Percentage of Total Assets in Selected Classes, by Bank Holding Company Size, December 31, 2007

(Dollars in millions)

<table>
<thead>
<tr>
<th>Size category by assets</th>
<th>Number of bank holding companies</th>
<th>Total assets</th>
<th>Mortgages</th>
<th>Credit cards</th>
<th>Certain retail products as percent of assets</th>
<th>Certain wholesale products as percent of assets</th>
<th>Securities held for sale or until maturity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core bank holding companies</td>
<td>11</td>
<td>$8,736,881</td>
<td>15.9%</td>
<td>3.7%</td>
<td>18.1%</td>
<td>8.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Non-core bank holding companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolidated assets between $100 billion and $250 billion</td>
<td>9</td>
<td>1,402,048</td>
<td>23.1%</td>
<td>2.4%</td>
<td>1.5%</td>
<td>14.1%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Consolidated assets between $10 billion and $100 billion</td>
<td>48</td>
<td>1,431,394</td>
<td>15.6%</td>
<td>0.5%</td>
<td>0.9%</td>
<td>15.0%</td>
<td>25.3%</td>
</tr>
<tr>
<td>Consolidated assets between $3 billion and $10 billion</td>
<td>100</td>
<td>558,077</td>
<td>16.7%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>11.9%</td>
<td>29.9%</td>
</tr>
<tr>
<td>Consolidated assets between $1 billion and $3 billion</td>
<td>283</td>
<td>468,831</td>
<td>15.5%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>10.5%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Consolidated assets between $500 million and $1 billion</td>
<td>465</td>
<td>325,611</td>
<td>17.2%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>10.4%</td>
<td>39.0%</td>
</tr>
<tr>
<td>Consolidated assets less than $500 million</td>
<td>4,148</td>
<td>649,948</td>
<td>17.4%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>2.9%</td>
<td>32.4%</td>
</tr>
</tbody>
</table>

Source: GAO analysis of publicly available Federal Reserve data.

Note: Metropolitan Life Insurance Company is excluded from the table because, while it is large enough to be a core bank, it is involved primarily in insurance activities. For 4,103 of the smaller bank holding companies, consolidated data is not reported to the Federal Reserve. For those bank holding companies we grouped the banks in the holding company and reported that data instead. Bank holding companies that do not have to report asset distributions at the holding company level generally do not engage in activities outside of their banks. This table also does not include thrifts or thrift holding companies that are active in banking markets especially in retail areas.

*Securities available for sale or held to maturity include mortgage-backed securities, asset-backed securities, and others.
According to research conducted by Federal Reserve staff and other experts, banks of different sizes compete with each other for retail products such as residential mortgages. As illustrated in table 2, bank holding companies in all size ranges hold a relatively large percentage of their assets—from 15.5 to 23.1 percent—in residential mortgages. Customers can obtain mortgages from banks across the United States and generally can obtain pricing information from brokers or directly through the Internet or financial publications. For small thrifts, which make up a portion of the small non-core banking institutions in the United States but are not included in table 2, the proportion of mortgages is much higher. Unlike residential mortgages, only a few banks, including several core banks, are active in the credit card market, but some non-core banks are active in this market as well; and all credit card issuers generally compete for the same customers.

For wholesale products, the competitive landscape is more complex. As table 2 illustrates, in some areas core banks differ substantially from non-core banks and are thus not likely to compete with them in those markets. For example, non-core banks hold a very small percentage of their assets as trading assets, an area where some core banks are very active, and core banks hold a relatively small proportion of their assets in commercial real estate, an area where non-core banks are very active. While table 2 shows that core and non-core banks are both active in the commercial and industrial loan markets, the market for loans from large banks may be

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18Consolidated data for thrift holding companies that would be comparable to the information in table 2 is not readily available from OTS. By looking at those thrifts that make up a high percentage of the assets of the holding company, we see that thrifts and thus their holding companies hold a higher percentage of their assets in retail markets especially mortgage markets. They have only a small percentage of their assets in wholesale markets and these are concentrated in commercial real estate. Those thrift holding companies where the thrift is not a large part of the holding company are often in a wide range of businesses outside of banking including insurance, retail sales, and manufacturing. As a result only a few of these such as GE Capital Company and Ameriprise Financial Inc. would be competing with bank holding companies.

quite different from those for smaller banks. According to a bank official and other experts, larger banks do not price commercial and industrial loans individually; instead, these loans generally are part of a package of products and services offered to major corporate clients. Financial market experts told us that often these loans are discounted to establish a relationship with the customer. Because smaller banks do not offer a full range of products and services, they likely are not competing for the same customers as larger banks. In addition, we and others have shown that smaller banks tend to serve the needs of smaller businesses with which they can establish a personal relationship.\footnote{See, GAO Small Business Administration: Additional Measures Needed to Assess 7(a) Loan Program’s Performance, GAO-07-769 (Washington, D.C.: July 13, 2007).} Because obtaining credit information on small businesses is difficult, community banks often have an advantage with these customers in that they may have better information about small businesses in their local market than do large national or internationally active banks. As a result, the largest banks are unlikely to be competing with community banks in these markets. At the same time, research conducted by Federal Reserve staff has shown that large non-core banks may compete with core banks for corporate customers.\footnote{See Allen N. Berger, “Potential Competitive Effects of Basel II on Banks in SME Credit Markets in the United States,” Journal of Financial Services Research, 29:1 (2006), pp. 5-36.}

In Some Markets, Core Banks Compete with Other U.S. Financial Institutions

Core banks are much more likely than smaller or regional non-core banks to participate in activities often associated with investment banking. For example, core banks are much more likely to hold trading assets that typically are used to hedge risks or speculate on certain market changes either for the banking organization or its customers (see table 2).

In addition, core banks are involved in international activities where they often provide investment banking products and services in the major capital markets around the world. In the United States and abroad, U.S.-based core banks, especially Citigroup and JPMorgan Chase, compete with the four major U.S. investment firms—Goldman Sachs, Merrill Lynch, Morgan Stanley, and Lehman Brothers. The core banks also are involved in custodial and asset management activities domestically and internationally. In this capacity, core U.S.-based banks compete with foreign-based banks, with investment firms, and with asset management
firms that do not own depository institutions and are not subject to regulatory capital requirements.

U.S.-Based Banks Compete with Foreign-Based Banks in Foreign and U.S. Markets

Basel capital requirements were established, in large part, to limit competitive advantages or disadvantages due to differences in capital requirements across countries; however, the New Basel Accord allows for certain areas of national discretion and this could create competitive advantages or disadvantages for banks competing in various countries. In addition, because a major part of Basel II involves direct supervision of the risk management processes of individual banks, further opportunities exist for differences across countries to develop as the new rules are implemented.

While all but one of the core banks have some foreign exposure, some of the nine U.S.-based core banks have foreign exposures that are large relative to the size of the institution (see fig. 2). As noted above, most of these banks are engaged in asset management and investment banking activities globally. In addition, one of the banks is heavily engaged in retail banking activities in a wide range of countries where each country likely comprises a separate market. To the extent that U.S.-based banking institutions that have subsidiaries in foreign countries face more stringent capital requirements for the parent institution at home, U.S.-based banks could be disadvantaged in foreign markets.
Figure 2: Foreign Exposures of U.S.-based Core Banks, as of December 31, 2007

<table>
<thead>
<tr>
<th>Core institutions</th>
<th>Foreign exposure (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citigroup Inc.</td>
<td>$971.4</td>
</tr>
<tr>
<td>JP Morgan Chase &amp; Co.</td>
<td>486.4</td>
</tr>
<tr>
<td>Bank of America Corp.</td>
<td>125.2</td>
</tr>
<tr>
<td>Wachovia Corp.</td>
<td>72.3</td>
</tr>
<tr>
<td>Bank of New York Mellon Corp.</td>
<td>61.7</td>
</tr>
<tr>
<td>Northern Trust Corp.</td>
<td>27.5</td>
</tr>
<tr>
<td>State Street Corp.</td>
<td>19.8</td>
</tr>
<tr>
<td>Wells Fargo &amp; Co.</td>
<td>9.4</td>
</tr>
<tr>
<td>Washington Mutual Bank</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Sources: GAO analysis of SEC Form 10-Ks and information from Mergent Online; Map Resources (map).

Much of the competition between U.S.- and foreign-based banks takes place in the United States, where foreign based-banks are very active through their subsidiaries, branches, and offices. Foreign-based banks account for about $2.8 trillion of the approximately $15 trillion of U.S. banking assets and subsidiaries of those banks account for 11 of the 50 largest U.S. bank holding companies. Further, as noted in table 1, three of the core banks in the United States are subsidiaries of foreign-based banks. Two of these operate primarily in wholesale markets, while the third, HSBC, is active in both retail and wholesale banking markets in the United States. In addition, some large U.S. non-core banks that are...
subsidiaries of foreign-based banks are likely to adopt the advanced approaches in the United States.

The extent to which differences in capital requirements will affect competition in the United States between U.S.-based and foreign-based banks will depend, in part, on how the U.S. activities of the foreign-based banks are organized. For capital purposes, although foreign-based banks with U.S. subsidiaries will likely follow the Basel II rules in their home countries, the U.S. subsidiaries are regulated as U.S. banks within the United States and will follow U.S. rules. However, branches of foreign banks are not required to meet the U.S. rules. As a result, some foreign-based banks that have substantial U.S. operations, but conduct their banking activities in the United States through branches, will be following the Basel II rules in their home country rather than in the United States.

Differences in Capital Requirements Have the Potential to Create Competitive Disparities

Because holding capital is costly for banks, differences in regulatory capital requirements could influence costs, prices, and profitability for banks competing under different capital frameworks. If regulatory capital requirements increase the amount of capital banks hold relative to what they would hold in the absence of regulation, then the requirements would increase banks’ costs and reduce their profitability. Depending on the structure of markets, these higher costs could be passed on to bank customers in the form of higher prices—interest rates on loans or fees for services—or absorbed as reduced lending and profits. For example, higher capital costs driven by higher capital requirements could result in a competitive disadvantage for banks that compete for similar customers with banks subject to different capital rules. Conversely, lower capital requirements that allow banks to reduce the capital they hold for a particular asset could allow them to price those assets more aggressively, thereby increasing market share or earning higher returns at existing prices.

Bank officials with whom we spoke and some empirical evidence we reviewed suggested that regulatory capital requirements are one of several key factors banks consider in deciding how much capital to hold. Other factors include management views on the amount of capital the firm needs.

22Holding capital involves balancing the needs of creditors and equity investors. More capital reassures creditors that banks will be able to repay loans, which reduces the cost of borrowing. But more capital also means that banks retain more shareholder equity, which reduces return on equity, an important benchmark for investors.
internally and market expectations. These multiple and overlapping motivations for holding capital make it difficult to isolate the impact of regulatory capital on the amount of capital banks hold. Nevertheless, there is some evidence that banks hold more than the minimum required capital—a buffer—in part to reduce the risk of breaching that minimum requirement. For example, one study of United Kingdom banks found that an increase in required capital was followed by an increase in actual capital, although the increase was only about half the size of the increase in required capital. Thus, changes in minimum required capital could cause banks to change the amount of capital they hold to maintain a similar buffer of capital, consistent with the other goals of the bank. The study also found that banks with small buffers reacted more to a given change in individual capital requirements—and banks with larger buffers reacted little, if at all—supporting the view that the capital buffer is a form of insurance against falling below regulatory minimums.

Differences in the implementation costs of capital requirements also could have competitive effects. In principle, higher implementation costs could lead to a one-time increase in costs or ongoing costs associated with compliance. One-time costs would influence profitability directly, while ongoing costs also could influence the cost of lending for banks in the same way that higher capital costs could influence pricing and profitability. Significant implementation costs are likely to be easier to

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23 In previous work, officials at several banks told us that they weigh a number of factors when deciding how much capital to hold, including regulatory requirements, internal economic capital models, strategic needs, and market expectations, which are often exemplified by assessments from credit rating agencies such as Moody's and Standard and Poor's. Officials at one of these rating agencies agreed that banks manage capital to meet these demands.

24 In particular, there is very little “exogenous variation” (variation caused by regulation and not by banks themselves) in minimum capital requirements across banks, making it extremely difficult to estimate the impact of changes or differences in minimum capital requirements.

25 A decrease in required capital was met with a reduction in actual capital of only 20 percent of the size of the decrease in required capital. However, it is not clear that these quantitative estimates would apply to banks competing in the United States. Because small banks tend to hold a relatively large buffer of capital over minimum requirements, changes in those requirements may result in relatively little change in the amount of capital these banks hold. Isaac Alfon, Isabel Argimón and Patricia Bascuñana-Ambrós, “How do individual capital requirements affect capital at UK banks and building societies.” Documentos de Trabajo No. 0515, Banco De España, 2005.
bear the larger the institution—the costs of implementing regulation are on average higher (as measured by cost per employee) for smaller firms.\textsuperscript{26}

The possible effects of differences in regulatory capital requirements on implementation and capital costs also could influence incentives for consolidation by making acquisitions more or less advantageous for banks operating under different capital rules. Such advantages would imply that those banks under a given capital regime might be able to use the capital resources of banks under a different regime more effectively, making it profitable for the former banks to acquire the latter ones. Conversely, if implementation costs for a capital regime imposed on larger banks were high, this might discourage some banks from merging because they would become large enough to be required to adopt a capital regime with high implementation costs.

New U.S. Capital Rules Have Reduced Some Competitive Concerns about Basel II

The new U.S. capital rules address some competitive concerns of banks; however, other concerns remain. Regulators analyzed some competitive issues raised by banks during the development of the Basel II rules in the United States. In the final rule for the advanced approaches, the regulators addressed concerns about differences between the NPR and the New Basel Accord that could have led to greater implementation costs. For example, in the final rule they harmonized the definition of wholesale loan default with the accord, thus responding to banks’ concerns that differences in the definition of wholesale loan default between the NPR and the accord could have led to increased costs of operating in multiple countries. However, core banks remain concerned that the leverage requirement will affect their ability to compete with both foreign- and some U.S.-based competitors. The coordination between U.S. and foreign regulators on implementation issues for core banks may address some competitive concerns of internationally active core banks. For non-core banks, the proposed standardized approach rule may address some concerns—for example, that core banks could hold less capital for similar assets. The proposed rule is more risk sensitive than Basel I, providing non-core banks with the possibility of lower regulatory capital minimums for certain assets or activities. Other factors, such as the leverage requirement, may reduce differences in capital for banks competing in the United States.

\textsuperscript{26}W. Mark Crain, \textit{The Impact of Regulatory Costs on Small Firms}, for the Small Business Administration Office of Advocacy, September 2005. This study does not necessarily represent the views of the Office of Advocacy or the Small Business Administration.
U.S. Regulators Recognized Some Competitive Concerns during the Development of the Rules

As a result of the potential for large banks to hold less capital under Basel II, at least for certain assets, researchers, primarily at the Federal Reserve, conducted studies of the potential impact of Basel II on specific markets and on aspects of the rule, including the impact on residential mortgages, credit cards, operational risk, and mergers and acquisitions. These studies were limited by the availability of data and by a lack of information on the impact regulatory capital has on bank behavior. Nonetheless, the studies identified that there could be competitive impacts in the residential mortgage market and helped to lead to the development of alternatives to Basel I for non-core banks.

OCC and OTS provided the Office of Management and Budget (OMB) with regulatory impact analyses that included examination of the impact of the rules on domestic competition.\textsuperscript{27} In addressing competitive issues in this analysis, OCC relied primarily on the studies conducted at the Federal Reserve. In its regulatory impact analysis, OTS incorporated OCC’s analysis adding appropriate material specifically related to the thrift industry. For example, OTS noted that because thrifts have high concentrations of assets in residential mortgages, the leverage requirement would be more likely to impose greater capital requirements on these firms than would the Basel II requirements and, as a result, would have a negative impact on the ability of thrifts to compete with other banking organizations. OTS also pointed out that interest rate risk for those mortgage-related assets that a bank is planning to hold rather than trade is particularly important to thrifts. However, the adequacy of capital held for these risks is being assessed in Pillar 2 rather than in Pillar 1, where the risks associated with changes in interest rates on mortgage related assets that are being actively traded are assessed. Since there is more regulatory flexibility in Pillar 2 than in Pillar 1, OTS expressed concern that thrifts could be disadvantaged if different regulatory agencies did not implement Pillar 2 consistently.

The regulators did less analysis regarding the international competitive impact of the new rules. At the time that the capital rules were being developed, OMB provided little guidance on analyzing the international impact of U.S. rules and the agencies did not discuss international competition issues in their analyses. Alternatively, European Union guidance for regulatory impact analyses includes a more detailed

\textsuperscript{27}As part of the Department of the Treasury, OCC and OTS are subject to Executive Order 12866, as amended, which requires executive agencies to submit to OMB a regulatory impact analysis when issuing rules or regulations that will likely exceed annual costs of $100 million or more to government entities or the private sector.

U.S. Final Rule on the Advanced Approaches Addresses Some Competitive Concerns Raised by Banks, but the Leverage Ratio Continues to Be a Concern

Although regulators have harmonized some aspects of the advanced approaches final rule with the New Basel Accord, concerns remain about remaining differences in the final rule and other issues such as the leverage requirement that could have competitive effects. The final rule removed an important technical difference in the definition of default for wholesale products that existed between the U.S. NPR and the New Basel Accord. However, other differences were retained, such as the U.S. implementation schedule and the amount by which regulatory capital could decrease during a bank’s transition to the final rule. Core banks are specifically concerned that the leverage requirement will have negative effects on their ability to compete with CSEs and foreign-based banks.

Final Rule Eliminated Some Technical Differences That Raised Concerns about Competitive Effects, but Other Differences Remain

U.S. banking regulators harmonized certain aspects of the U.S. final rule on the advanced approaches with the New Basel Accord, reducing some concerns of core banks. For example, one of the major concerns of U.S. core banks was that the proposed rule included a different definition of default for wholesale products, which could lead to increased implementation costs through the need to maintain separate systems for data in the United States and in those foreign countries where U.S. core banks were required to adopt Basel II. The definition of default for wholesale products in the final rule now closely resembles the New Basel Accord’s definitions for these types of products, thus limiting the potential for higher implementation costs for core banks. Other technical differences that have been diminished for core banks include how core banks have to estimate their losses after a borrower has defaulted on a loan. Table 3 outlines several key technical differences between the earlier proposed U.S. rules and the New Basel Accord and highlights where U.S. regulators diminished or retained differences in the final rule.
Table 3: Significant Technical Differences between the U.S. NPR on Advanced Approaches and the New Basel Accord, and the Treatment of These Differences in the U.S. Final Rule on Advanced Approaches

<table>
<thead>
<tr>
<th>Significant technical differences</th>
<th>U.S. NPR on the Advanced Approaches</th>
<th>New Basel Accord</th>
<th>U.S. Final Rule on Advanced Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale definition of default</td>
<td>Based on whether:</td>
<td>Based on whether:</td>
<td>Based on whether:</td>
</tr>
<tr>
<td></td>
<td>• the bank places any exposure</td>
<td>• the bank considers a borrower unlikely to pay in full without</td>
<td>• the bank considers that the borrower is unlikely to pay its credit obligations to the bank in full,</td>
</tr>
<tr>
<td></td>
<td>to the borrower on non-accrual</td>
<td>recourse to bank actions, or</td>
<td>without recourse by the bank to actions such as realizing collateral (if held), or</td>
</tr>
<tr>
<td></td>
<td>status,</td>
<td>• a borrower’s payment on principal or interest is more than 90 days</td>
<td>• the borrower is past due more than</td>
</tr>
<tr>
<td></td>
<td>• the bank incurs full or partial</td>
<td>past due.</td>
<td>90 days on any material credit obligation to the bank.</td>
</tr>
<tr>
<td></td>
<td>charge offs on any exposure to the</td>
<td>• Includes non-accrual status and material credit-related loss on sale as elements indicating unlikeliness to pay. However, the accord does not specify the threshold of 5 percent for credit-related losses upon sale or transfer, and other countries’ definitions do not generally include non-accrual status.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>borrower, or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• the bank incurs a credit-related</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>loss of 5 percent or more on the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sale of any exposure to the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>borrower or transfer of any</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>exposure to the borrower to the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>held-for-sale, available-for-sale,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>trading account, or other</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>reporting category.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail definition of default</td>
<td>Occurs when an exposure reaches</td>
<td>Occurs when an exposure reaches a past due threshold between 90 and 180 days, set by the national supervisor, or when the bank considers a borrower unlikely to pay in full without recourse to bank actions.</td>
<td>Occurs when an exposure reaches 120 or 180 days past due, depending on exposure type, or when the bank incurs a full or partial charge-off or write-down on principal for credit-related reasons.</td>
</tr>
<tr>
<td></td>
<td>120 or 180 days past due, depending</td>
<td></td>
<td>BANKS CAN ADOPT THE DEFINITION OF DEFAULT OF HOST COUNTRIES FOR FOREIGN SUBSIDIARIES SUBJECT TO PRIOR APPROVAL OF THEIR PRIMARY FEDERAL SUPERVISOR</td>
</tr>
<tr>
<td></td>
<td>on exposure type, or when the bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>incurs a full or partial charge-off</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>or write-down on principal for</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>credit-related reasons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small- and medium-sized enterprise (SME) lending</td>
<td>Does not include an adjustment that would result in a lower capital requirement for loans to SMEs compared to other business loans under the framework.</td>
<td>Includes such an adjustment.</td>
<td>Does not include an adjustment that would result in a lower capital requirement or loans to SMEs compared to other business loans.</td>
</tr>
</tbody>
</table>
## Significant technical differences

<table>
<thead>
<tr>
<th>Loss given default (LGD)</th>
<th>U.S. NPR on the Advanced Approaches</th>
<th>New Basel Accord</th>
<th>U.S. Final Rule on Advanced Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A bank may use its own LGD estimates upon obtaining supervisory approval, which is based in part on whether the estimates are reliable and sufficiently reflective of economic downturn conditions.</td>
<td>Requires banks to estimate losses from default that would occur during economic downturn conditions, which may result in higher regulatory required capital for some exposures under the framework.</td>
<td>Bank’s LGD estimate must be reliable and sufficiently reflective of economic downturn data and should have rigorous and well-documented policies and procedures for (1) identifying economic downturn conditions for each exposure subcategory, (2) identifying changes in material adverse relationships between the relevant drivers of default rates and loss rates given default, and (3) incorporating identified relationships into LGD estimates.</td>
</tr>
<tr>
<td></td>
<td>A bank that does not qualify to use its own internal LGD estimates must instead compute LGD using a supervisory formula that some bank officials have described as overly conservative.</td>
<td>Does not identify an explicit supervisory formula for estimating LGD when a bank’s internal LGD estimates do not meet minimum requirements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instead, if a bank is unable to estimate LGD for any material portfolio, it would not qualify for the A-IRB approach.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: GAO.

One technical difference that remains between the U.S. final rule on advanced approaches and the New Basel Accord is the treatment of SME loans. U.S. regulators believe that an adjustment to lower the capital charge for such business loans is not substantiated by sufficient empirical evidence. In other words, this suggests that, all other things equal, SME loans have risks comparable to those posed by larger corporate loans. U.S. regulators also noted that the SME treatment in the Accord might give rise to a domestic competitive inequity between core banks and banks subject to other regulatory capital rules, such as Basel I. Officials at one rating agency with whom we spoke said that a lower capital requirement for SME loans in the New Basel Accord was not reflective of the risk for these exposures, and the rating agency did not treat these loans differently from other business loans in their own assessments of capital adequacy. In addition, several experts with whom we spoke noted that this difference in capital requirements for SME loans would likely not have any immediate or major impact on competition between U.S. and foreign banks.

In addition to the technical differences discussed above, the final rule addressed one concern related to a prudential safeguard U.S. regulators introduced in the 2006 NPR, but some core banks remain concerned about the implementation schedule. The NPR contained a benchmark—a 10 percent reduction in aggregate minimum capital among core banks—that would have been viewed as a material reduction in capital requirements that warranted modification in the rule. Core banks had commented that this safeguard could affect them negatively because of the uncertainty surrounding its application. In the final rule, U.S. regulators eliminated the
benchmark. However, retention of the implementation schedule proposed in the 2006 NPR continues to raise concerns for some core banks because it will lead to a longer transition period in the United States than in other countries and delay any possible capital reductions. European banks and most Canadian banks on the advanced approaches most likely will exit their transitional periods by January 2010. In contrast, U.S. core banks cannot exit their transitional periods before April 2012 and could do so in 2014 or later. Furthermore, European banks will be able to reduce capital to 90 percent of Basel I requirements in 2008 and to 80 percent of Basel I requirements in 2009 while Canadian banks will be able to apply for approval to reduce their capital by similar amounts under the same timeframes. Under the final rule, U.S. core banks will have three distinct transitional periods during which required risk-based capital may be reduced to only 95 percent, 90 percent, and 85 percent of Basel I requirements respectively.\(^{29}\) The different implementation schedules and maximum capital reductions may provide foreign competitors of U.S. core banks an earlier opportunity to make use of any decreases in capital costs associated with lower required capital for certain assets or activities. Therefore, by making the transition to Basel II lengthier for U.S. core banks, foreign competitors may be able to take better advantage of strategic opportunities, such as mergers or acquisitions. Though several core bank officials with whom we spoke remained concerned about the time difference, officials at one core bank explained that the current market environment may limit the competitive implications of that difference.

Several core bank officials with whom we spoke mentioned that they would have wanted to have the option to select the standardized approach with some officials suggesting that the lack of a choice may lead to higher implementation costs. In the United States, the final rule requires all core banks to adopt the advanced approaches for both credit and operational risk, but affords opportunities for the primary federal supervisor to exercise some flexibility when applying the final rule to core banks. The advanced approaches rule specifically allows for the exemption of subsidiary depository institutions from implementing the advanced approaches, and, under the reservation of authority, the primary federal regulator can require a different risk weighted asset amount for one or more credit risk exposures, or for operational risk, if the regulators determine that the requirement under the advanced approaches is not commensurate with risk. However, some U.S. regulatory officials with

\(^{29}\)See appendix III for a timeline of Basel II implementation in the United States.
whom we spoke noted the potential risk of a piecemeal approach and emphasized that they do not want banks to apply the advanced approach for credit risk to their least risky portfolios and to apply Basel I or the proposed standardized approach for their riskier portfolios.

In contrast, some foreign banks have not been explicitly required to adopt the advanced approaches for credit and operational risk. For example, Canadian regulators told us that they have an expectation for their domestic banks with significant global operations to move to the advanced approach for credit risk and that there is no such expectation for domestic banks to use the advanced approach for operational risk. Furthermore, all other banks in Canada can decide to adopt the advanced approaches with the condition that the bank must adopt the advanced approach for credit risk before adopting the advanced approach for operational risk. In addition, regulatory officials from the United Kingdom told us that all banks were required to adopt the standardized approach in 2007, but some banks applied for a waiver to allow them to adopt the advanced approaches for determining capital requirements for credit risk or for operational risk. Moreover, officials from one European bank told us that they entered their first transitional year in their country with approximately three-quarters of their portfolios on the advanced approach for credit risk.

Officials from some of the core banks with whom we spoke expressed concerns that they may be at a competitive disadvantage due to the retention of the U.S. leverage requirement, which applies to all depository institutions and U.S.-based bank holding companies. Foreign banks based in other industrialized countries are generally not subject to a leverage requirement. Some U.S.-based core banks are concerned about the impact of the leverage requirement for bank holding companies on their operations abroad. That is, in meeting the leverage requirement, a U.S. bank holding company must include the assets of its foreign operations, potentially increasing the amount of required regulatory capital in comparison with the regulatory capital requirements for foreign-based bank holding companies. For example, the additional capital needed to meet the leverage requirement may exceed the additional capital required under the advanced approaches for certain corporate loans that are

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30 Of the foreign countries we visited, only Canada has a leverage requirement that is similar in some ways to the one in the United States. The Swiss National Bank is also considering the introduction of a leverage requirement. Some Basel Committee member countries have other supplementary capital measures, akin to the well-capitalized designation for U.S. depository institutions, which are generally based on risk and assessed in Pillar 1 or Pillar 2.
estimated by banks to be relatively low-risk, as demonstrated in figure 3. Most core bank officials with whom we spoke also said that by maintaining the leverage requirement, U.S. regulators were preserving a regulatory capital requirement that was not aligned with the improved risk-management practices promulgated by the final rule on the advanced approaches. Officials from one trade association said that because the leverage requirement does not require additional capital as risk increases, banks may have an incentive to increase their return on equity by holding assets with higher risk and return, but no additional capital required by the leverage requirement. In contrast, regulatory officials have stated that risk-based and leverage requirements serve complementary functions in which the leverage requirement can be seen as offsetting potential weaknesses or supplementing the risk-based capital requirements.
Figure 3: Required Capital for Short-term Corporate Loans under the Advanced Approach and Bank Holding Company Leverage Requirement, by Probability of Default

Required capital (percentage)

| Annual probability of default | 0.05% | 0.15% | 0.25% | 0.35% | 0.45% | 0.55% | 0.65% | 0.75% | 0.85% | 0.95% | 1.05% | 1.15% | 1.25% | 1.35% | 1.45% | 1.55% | 1.65% | 1.75% | 1.85% | 1.95% | 2.05% |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Leverage requirement (bank holding companies) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Advanced approach |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Higher requirement |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

Sources: GAO analysis of the advanced approaches rule, Federal Reserve regulation, and data from the QIS-4 summary.

Note: Estimates of the capital required under the advanced approaches in the figure assume an LGD of 35.8 percent (adjusted for downturn conditions using the supervisory formula from the advanced approaches NPR, based on mean LGD for corporate, bank, and sovereign exposures from the fourth quantitative impact study (QIS-4) of 30.2 percent), and a maturity of 1 year. The leverage requirement of 3 percent for bank holding companies subject to the market risk amendment is measured in tier 1 capital, while the Basel II credit risk requirement is measured in total capital. The estimates of required capital under the advanced approach do not include any increase in the operational risk capital requirement that could come from holding additional assets.

In terms of potential competitive effects domestically, some core bank officials with whom we spoke expressed concerns that certain financial firms, primarily the CSEs, offer similar wholesale products but lack similar regulatory capital requirements, while other core bank officials were no longer concerned. As noted previously, CSEs are required to compute and report to SEC capital adequacy measures consistent with the standards in the New Basel Accord, and SEC expects them to maintain certain capital ratios, though they are not required to do so. SEC has said that it will make modifications in light of the final rule adopted by U.S. bank regulators and subsequent interpretations. In addition, bank holding companies are subject to a leverage requirement, but CSEs do not have a similar
requirement. For example, in December 2007, the leverage ratio for core bank holding companies ranged from about 4.0 percent to about 6.8 percent and for CSEs ranged from about 3 percent to 3.8 percent.

**International Coordination among Regulators Has Contributed to Reducing Competitive Concerns for Core Banks**

U.S. regulators and their foreign counterparts are coordinating in ways that contribute to reducing the potential for adverse competitive effects on U.S. banks operating abroad. These efforts aim to resolve some issues that develop between regulators in a bank’s home country and those in other countries where the bank operates, usually referred to as home-host issues. Handling home-host issues is an essential element of the New Basel Accord framework because it allows for national discretion in a number of areas.\(^3\) Several foreign regulators with whom we spoke discussed how well U.S. regulators have been able to collaborate with their foreign counterparts on a variety of supervisory issues. Specific to Basel II implementation, U.S. regulators have been able to provide needed information to foreign bank supervisors that could limit the compliance costs of subsidiaries of U.S. banks operating abroad. For example, OCC examiners explained to us how they assisted a foreign regulator in better understanding some of the information a core bank was using in estimating credit risk for a certain loan portfolio. In another instance of collaboration, foreign regulators explained to us that they waived the requirement for a core bank to adopt the advanced approaches for its foreign-owned subsidiary until the core bank adopted the advanced approaches in the United States.

Over the years, the U.S. regulators have entered into various information-sharing agreements that facilitate cooperation with their foreign counterparts. These agreements are intended to expedite the meeting of requests posed by foreign regulators for supervisory information from U.S. regulators. As of July 2008, OCC and Federal Reserve officials explained that they had some form of an information-sharing agreement with 25 and 16 foreign jurisdictions respectively. Likewise, FDIC and OTS officials both described good working relationships with their foreign counterparts as they related to U.S. banks with international operations that they supervise.

U.S. regulators have been and continue to be active members in the Basel Committee and its various subcommittees, including the Accord

\(^3\)The Basel Committee has issued general principles for information sharing between home and host countries. See Basel Committee, *Home-host Information Sharing for Effective Basel II Implementation* (Basel, Switzerland: June 2006).
Implementation Group. In addition, U.S. regulators participate in colleges of supervisors and other international bodies, such as the Joint Forum.\footnote{Established in 1996 under the aegis of the Basel Committee, the International Organization of Securities Commissions, and the International Association of Insurance Supervisors, the Joint Forum on Financial Conglomerates (Joint Forum) deals with issues common to the banking, securities, and insurance sectors, including the regulation of financial conglomerates.} Participation in such entities further provides U.S. regulators information on how U.S. banks may be treated by foreign regulators, thus allowing for more dialogue among regulators to preemptively address any home-host issues. The Accord Implementation Group’s purpose is to exchange views on approaches to implementation of Basel II, and thereby to promote consistency in the application of the New Basel Accord. Colleges of supervisors are meetings at which regulators from various countries discuss supervisory matters that relate to a specific bank that has global operations. Officials from the Federal Reserve stated that the colleges are more often better for sharing information among regulators than for addressing a specific regulatory issue. Though regulators from various countries are sharing information, several core banks expressed concerns to us that their foreign regulators have been implementing Basel II differently.

Proposed Standardized Approach May Reduce Competitive Concerns of Non-core Banks, as May Other Factors

As discussed earlier, because non-core banks compete with core banks in some markets, non-core banks were concerned that core banks would be able to hold less capital than non-core banks were holding under Basel I for the same assets. Part of this concern came from the April 2005 results of the fourth quantitative impact study (QIS-4), which estimated that Basel II could result in material reductions in aggregate minimum required risk-based capital among potential core banks.\footnote{A number of factors could have caused QIS-4 to either underestimate or overestimate minimum required capital. In addition, the sensitivity of the advanced approaches to economic conditions and the good economic environment during QIS-4 were important factors in explaining lower estimates of required capital. There are some limitations associated with the data from QIS-4. At the time, the regulators emphasized that the QIS-4 was conducted on a “best efforts” basis with limited data and without the benefit of fully articulated final rules for U.S. implementation.} By holding less capital for certain products, such as residential mortgages, core banks might charge less for these products than non-core banks. Two studies of the potential impact of Basel II on the market for residential mortgages have disagreed as to the magnitude of any competitive impact—one suggested a potentially significant shift in income from mortgages toward banks on the advanced approaches, while the other argued that any competitive impact...
was unlikely.\textsuperscript{34} In addition, U.S. regulators have recognized that some banks were concerned about core banks being required to hold less capital overall, thus making it advantageous to acquire non-core banks. The proposed standardized approach rule should address some of the competitive concerns non-core banks expressed in the early 2000s, while several other factors, including the leverage requirement, also may reduce differences in capital between core and non-core banks.

U.S. regulators have proposed the standardized approach in part to mitigate potential competitive differences between core and non-core banks.\textsuperscript{35} The U.S. version of the standardized approach features more risk-sensitive capital requirements than Basel I. In particular, it adds risk sensitivity for mortgages based on their loan-to-value (LTV) ratios and has lower capital requirements than Basel I for some lower-risk (lower LTV) mortgages (see fig. 4).

Proposed Standardized Approach Provides a More Risk-sensitive Option for Non-core Banks


\textsuperscript{35}The proposed standardized rule incorporates many features that U.S. regulators proposed in Basel IA, which also was proposed to limit potential competitive advantages core banks may have had over non-core banks. For example, Basel IA included the increased risk-sensitivity in residential mortgages that is also in the proposed standardized approach.
Figure 4: Risk Sensitivity of Proposed Standardized Approach vs. Prudently Underwritten Residential Mortgages under Basel I, by LTV

Required capital (percentage)

<table>
<thead>
<tr>
<th>LTV ratio</th>
<th>Basel I</th>
<th>Proposed U.S. standardized approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTV &lt;60</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>60 &lt; LTV &lt;80</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>80 &lt; LTV &lt;85</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>85 &lt; LTV &lt;90</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>90 &lt; LTV &lt;95</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>LTV &gt;95</td>
<td>12%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: GAO analysis of the standardized proposal.

Note: Estimates of required capital under the standardized approach in the figure do not include any increase in the operational risk capital requirement that could come from holding additional assets. Mortgage loans that are not prudently underwritten would receive a 100 percent risk weight under Basel I. Banks must demonstrate that mortgage loans with a LTV that exceeds 90 percent are prudently underwritten to receive the 50 percent Basel I risk weight.

The proposed standardized approach rule is also similar to the standardized approach under the New Basel Accord in that, like the accord, it features increased risk sensitivity for some externally rated exposures, including corporate loans. This is in contrast to the single risk weight for corporate credits and most mortgages in Basel I. Figure 5 demonstrates that the minimum required capital under the standardized approach for the credit risk associated with externally-rated corporate loans will be much more similar to that required under the advanced approaches than that required under Basel I. In addition, the standardized approach expands incentives for better risk management in that it allows banks to reduce capital in light of certain additional practices that could reduce risk, such as the use of collateral or third-party guarantees, and explicitly requires banks to set aside capital for operational risk. The added risk sensitivity of the standardized approach proposal should
reduce some differences in risk-based capital requirements, as compared with the advanced approaches, for adopting banks.

Figure 5: Required Capital for Externally Rated Corporate Loans under Basel I, Proposed Standardized Approach, and Advanced Approach, by Rating

<table>
<thead>
<tr>
<th>Moody's rating</th>
<th>Basel I</th>
<th>Standardized approach</th>
<th>Advanced approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Baa</td>
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<td></td>
<td></td>
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<tr>
<td>Ba</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: GAO analysis of the advanced approaches rule, standardized proposal, and data from Moody’s Investors Service and the QIS-4 summary.

Note: Estimates required capital under the advanced approaches in the figure assume LGDs of 28.0 percent, 35.8 percent, and 44.2 percent for low, medium, and high estimates, respectively (adjusted for downturn conditions using the supervisory formula from the advanced approaches NPR, based on 25th percentile, median, and 75th percentile LGDs for corporate, bank, and sovereign exposures from QIS-4 of 21.7 percent, 30.2 percent and 39.4 percent, respectively), and a maturity of 3 years. Default probabilities, from Moody’s, are 0.03 percent for AAA, Aa, and A (the lower bound in the advanced approaches rule), 0.18 percent for Baa, 1.21 percent for Ba, 5.24 percent for B, and 19.48 percent for C. We include a range of estimates for the advanced approach for credit risk because it allows for greater granularity of risk assessments than the standardized approach and because banks may use a variety of methodologies and different underlying data for estimating risk parameters. The estimates of required capital under the advanced and standardized approaches do not include any increase in the operational risk capital requirement that could come from holding additional assets.

Once the standardized approach rule becomes final, non-core banks will have the option of choosing it or the advanced approaches, or remaining on Basel I. Presumably, non-core banks will take into consideration a wide range of issues when deciding what regulatory capital framework to adopt,
including potential competitive effects. For example, a growing non-core regional bank that competes principally with core banks in wholesale and retail lending may find it beneficial to adopt the advanced approaches in order to model and receive lower risk-based capital requirements for certain lower-risk credits. Similarly, a smaller non-core bank that found itself increasingly competing with regional banks might opt for the additional risk-sensitivity of the standardized approach. However, one trade association representing some of the smallest non-core banks with whom we spoke said the standardized approach may not fully address the competitive concerns of these banks because the capital relief associated with holding some lower risk assets might be offset by additional capital required for operational risk. Officials at one large non-core bank told us that the bank was considering all of its options carefully and noted that there were a large number of factors to consider in deciding which risk-based capital rule to adopt.

While the leverage requirement, particularly for bank holding companies, remains a competitive concern for core banks, the leverage requirements that all depository institutions must meet may limit competitive differences resulting from banks in the United States operating under multiple risk-based capital rules. Because these banking institutions must meet both risk-based and leverage requirements, the leverage requirement may be the effective or binding requirement for lower-risk assets held on the balance sheet, or more generally for banks with a relatively low-risk portfolio. The additional capital needed to meet the leverage requirement likely will exceed both the additional advanced and standardized approaches risk-based capital requirements for certain lower-risk assets held on balance sheets, such as low LTV mortgages and highly rated corporate credits. Figure 6 compares the capital required by the advanced approaches with the capital required by the leverage requirement for certain externally rated corporate loans.

Alternatively, banks could eliminate the leverage requirement and receive the lower, risk-based capital requirement by converting the asset to an off-balance sheet activity, such as by selling a guarantee on that asset in the event of default. To the extent risk-based capital requirements decrease for some assets under the advanced approaches, the incentive for core banks to do so may increase.
Figure 6: Required Capital for Externally-rated Corporate Loans under the Advanced Approach and Depository Institution Leverage Requirement, by Rating

Required capital (percentage)

Note: Estimates of required capital under the advanced approaches in figure 6 assume a LGD of 35.8 percent (adjusted for downturn conditions using the supervisory formula from the advanced approaches NPR, based on median LGD for corporate, bank, and sovereign exposures from QIS-4 of 30.2 percent), and a maturity of 3 years. Default probabilities, from Moody's, are 0.03 percent for AAA, Aa, and A (the lower bound in the advanced approaches rule); 0.18 percent for Baa; 1.21 percent for Ba; 5.24 percent for B; and 19.48 percent for C. The leverage requirement of 4 percent for depository institutions is measured in tier 1 capital, while the Basel II credit risk requirement is measured in total capital. The estimates of required capital under the advanced approach do not include any increase in the operational risk capital requirement that could come from holding additional assets.

Because U.S. banks hold capital for a number of reasons and are generally expected to hold more than the minimum amount of capital required, banks under different risk-based capital rules may nevertheless hold similar capital for similar assets and activities—and therefore have similar capital costs—despite differences in minimum required capital. As already discussed, banks hold capital based on management views on the amount of capital the bank needs internally and market expectations, in addition to regulatory requirements. Furthermore, regulators generally expect banks to hold capital above these minimum requirements, commensurate
with their risk exposure. For example, as part of Pillar 2, banks and regulators will assess risks not covered or not adequately quantified by Pillar 1 minimum requirements.

Another factor that may reduce competitive effects resulting from differences in risk-based capital requirements is the ability of banks to originate loans and subsequently securitize and sell them to other entities. Differences in required capital for credit risk across multiple risk-based regimes would likely have a competitive impact only to the extent that banks retain the credits they originate on their balance sheets or retain a significant portion of the credit risk off their balance sheets. Banks may securitize residential mortgages and other types of loans into other marketable investments in order to raise further funds to originate additional loans. This is also known as an originate-to-distribute model where revenues are derived from the sale of assets rather than an ongoing stream of interest payments. However, the recent turmoil in the credit markets has reduced the volume of some securitizations and highlighted weaknesses in underwriting standards associated with the originate-to-distribute model. As a result, incentives for securitization could be influenced by changes in capital requirements and the market environment.

The potential impact of the new regulatory capital rules on incentives for mergers and acquisitions remains uncertain because it is not clear how much capital requirements and other regulatory costs will change under the new capital rules. As noted earlier, differences in regulatory capital requirements could influence incentives for consolidation by making acquisitions more or less advantageous for banks operating under different capital rules, such as the multiple risk-based capital rules being introduced in the United States. However, several industry participants with whom we spoke said that mergers and acquisitions generally were driven by strategic concerns such as gaining access to a new market rather than capital concerns. In addition to the new capital rules, changes in credit markets may be affecting the benefits and costs of certain mergers. For example, one regional bank told us that the costs of implementing the advanced approaches is high especially for smaller banks and that the benefits of the advanced approaches were less certain in the current financial climate where credit quality has deteriorated. As a result, some industry participants said that regional banks may be forgoing mergers with each other to avoid being classified as core banks that would have to adopt the advanced approaches.

Potential Impact of New Rules on Mergers and Acquisitions Is Uncertain
Many factors have affected the pace of Basel II implementation in the United States, and while the gradual implementation is allowing regulators to consider changes in the rules and reassess banks’ risk-management systems, regulators have not yet addressed some areas of uncertainty that could have competitive implications. The final rule provides regulators with considerable flexibility and leaves open questions about which banks will be exempted from the advanced approaches. Without such clarification, core banks may expend greater resources to prepare for implementation than otherwise would be necessary. In addition, opportunities for regulatory arbitrage exist if regulators use different standards for exemptions. Regulators also have not fully developed plans for a required study of the impacts of Basel II implementation. Lack of development or specificity in criteria, scope, methodology, and timing will affect the quality and extent of information that regulators would use to help address competitive and other effects and make future changes in the rules.

The financial market turmoil that began in the subprime housing market in 2007 accounts, in part, for banks’ delaying implementation of the Basel II advanced approaches. In part, because the economy had been experiencing benign conditions, in 2005, U.S. regulators had estimated in QIS-4—a study of the potential impact of Basel II as then proposed—that minimum capital requirements for credit risk would fall once Basel II was fully implemented. And, according to the head of one of the regulatory agencies, many were impatient with a gradual approach to implementing Basel II at that time. Now that credit markets are experiencing turmoil, some bank officials and regulators told us that banks will implement Basel II more slowly.

As a result of the current financial turmoil, regulators have been considering modifications in the advanced approaches to Basel II and are assessing banks’ risk management systems. The Basel Committee has been reviewing certain aspects of the capital framework including the treatment of securitizations, greater specification of scenario testing in Pillar 2, and the treatment of credit risk charges for trading assets. The Basel Committee is also considering principles for sound risk management and supervision related to liquidity risk and issued a consultative document on

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U.S. regulators have noted that the gradual implementation of Basel II in the United States is allowing them to better understand how the rules might need to be adapted or implemented in the changed financial climate. Regulators have also been speaking to bankers in a number of forums on the need to improve risk management practices in relation to Basel II.

Gradual implementation is also built into the advanced approaches. (See app. III for an illustration of the timeline for the development and implementation of the advanced approaches.) As noted earlier, the advanced approaches rule took effect on April 1, 2008. Core banks generally must adopt an implementation plan approved by the bank’s board of directors by October 1, 2008, but do not actually have to begin the four intermediate phases that lead to full implementation of Basel II until April 1, 2010. If banks begin then and each of the four intermediate phases takes a year, they would then be ready to fully adopt Basel II by April 1, 2014. At the time the rule took effect, banks could start their parallel run, the first of the four intermediate phases, at the beginning of any quarter ranging from the second quarter of 2008 to the second quarter of 2010.

The 2007 decision to offer non-core banks an option to adopt the standardized approach also has affected the pace of implementation in the United States. As a result of comments received on NPRs related to Basel II in 2006, U.S. regulators decided to offer non-core U.S. banking institutions the option of a standardized approach. Regulators issued the NPR in July 2008 but are uncertain as to when they will issue a final rule. In addition, the new NPR again asks the question of whether core banks should be permitted to adopt the standardized approach rather than advanced approaches creating uncertainties that will be discussed later.

Some Uncertainties about Basel II Implementation Remain to Be Addressed

A primary goal of federal bank regulators is to promote the safety and soundness of the banking institutions they oversee. To fulfill this obligation, bank regulators must have the authority and flexibility to take actions to achieve this objective. The Federal Reserve and OCC have taken a number of steps to help ensure that Basel II is implemented consistently across the banking organizations they supervise and regulators have issued some joint statements and guidance to address some of the remaining uncertainty for

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38Basel Committee, *Principles for Sound Liquidity Risk Management and Supervision* (Basel, Switzerland: June 2008). Liquidity risk is the risk that a bank will be unable to meet its obligations when they come due, because of an inability to liquidate assets or obtain adequate funding.
banks. Nonetheless, the flexibility afforded by the rule for the advanced approaches could lead to inconsistent application of the rules, which could, in turn, produce competitive differences among the banks or provide opportunities for regulatory arbitrage.

A certain amount of flexibility for primary bank supervisors and related uncertainty for banks is necessary for maintaining the safety and soundness of the banking system. Under the final rule for the advanced approaches, regulators can respond to new or unforeseen situations that pose risks to safety and soundness without having to first change the rule. The rule reserves the authority of primary federal bank regulators to require that banks hold an amount of capital greater than the minimums dictated by the rule. This authority is being maintained both in the application of Pillar 1, where regulators can require that a bank calculate required capital in ways that recognize the individual situation of that institution and in Pillar 2, which by its very nature promotes supervision that uniquely addresses the situations of specific banks, while following general principles. For example, under the advanced approaches, regulators can generally allow U.S.-based banks with foreign subsidiaries to use a different retail definition of default for subsidiaries in foreign countries unless the primary supervisor determines that the banking organization is using the differences in the definitions of default to engage in regulatory arbitrage.

Given the provisions for primary federal regulators to exercise their judgment during the implementation of Basel II, the Federal Reserve and OCC, which oversee all but one of the banks that meet the asset size and foreign exposure criteria for core banks, have taken a number of steps to help ensure that Basel II is implemented consistently within and across the banking organizations they supervise. As we have noted in a previous report, the Federal Reserve has been aware that its decentralized structure could lead to inconsistent supervisory treatment of large banks it oversees and had developed some procedures to limit these differences. These procedures include having a management group, which consists of officials from the Federal Reserve Board of Governors and Federal Reserve District Banks, provide additional review of supervisory plans and findings for large, complex banks. They have been relying on this process to help ensure consistency in the application of Basel II. OCC also has been taking actions to help ensure that examiners will implement Basel II in an equitable manner across the banks it supervises. Heretofore, the

See GAO-07-154.
OCC examination process permitted lead examiners to provide information to banks without obtaining specific input from headquarters staff; however, OCC has been requiring that information about Basel II be raised to higher levels and that some of the same personnel be involved in Basel-related examinations across banks. These two agencies also have taken a number of actions to ensure consistent application of Basel II across the agencies. For example, Federal Reserve and OCC examiners have conducted joint examinations to look at how banks are implementing some processes related to the advanced approaches.

The other two primary bank regulators—OTS and FDIC—which oversee fewer core banks, have also participated in activities related to ensuring consistency in the implementation of Basel II. OTS is the primary regulator for the only thrift that meets the definition of a core bank on its own and is thus interested in ensuring that its processes for that bank are consistent with those of the other regulators overseeing similar institutions. OTS and FDIC oversee a number of depository institutions that have been identified as core banks because they are subsidiaries of U.S.-based banks that meet the asset size and foreign exposure criteria for core banks, and FDIC also oversees subsidiaries of foreign-based banks that may adopt the advanced approaches. Officials at both agencies said that they are active in Basel Committee activities and that they played a role in the Federal Reserve and OCC’s joint examination of credit risk. In addition, according to some of the regulators, all four primary regulators have participated in joint examinations of operational risk across some of the core banks.

Regulators have taken actions to reduce uncertainty by jointly providing some clarifying information about certain aspects of the capital rules. For example, during the development of the advanced approaches rule the regulators issued proposed guidance and interagency statements that helped to clarify certain aspects of the rules and, beginning in July 2008, updated some of these to reflect the final rule. They updated the interagency statement on the qualification process that had first been issued in 2005, following the Basel Committee’s issuance of the New Basel Accord. They also issued updated supervisory guidance for Pillar 2 that had been proposed initially in February 2007 to provide banks with more detail on the NPR for the advanced approaches. Regulators and examiners at one agency said that, in their view, it is not necessary to update the guidance on Pillar 1 that had been issued under the NPR because of the time and care that went into crafting the extensive and detailed preamble that accompanied the advanced approaches rule. Nonetheless, officials at many of the core banks with whom we spoke said that the lack of additional or updated guidance, including the standards by which examiners will judge the banks’ compliance, had been a problem for them.
Regulators may provide additional joint information to banks and examiners based on the questions they have received from banks since the advanced approaches rule was issued. Regulators told us they are considering providing this information in a question and answer format on their Web sites. In addition, each of the regulators will be providing separate guidance for its examiners to determine whether the banks they oversee are complying with the rule.

Regulators said they do not intend to issue any joint guidance for the proposed standardized approach rule while it is out for comment or when a final rule is issued beyond information provided in a preamble. However, to ensure that non-core banks are not disadvantaged by core banks moving onto the advanced approaches, regulators have said they are planning to issue the standardized approach rule before core banks move into the first transitional period for the advanced approaches. Timely issuance of the final rule and any clarifying information will help to ensure that non-core banks have adequate information on which to base decisions about which capital regime—advanced approaches, standardized approach, or Basel I—will be best for them.

While some flexibility is necessary and regulators have taken some steps to ensure greater consistency in the implementation of the rules, there are actions the regulators could take to further reduce banks’ uncertainty about Basel II without necessarily jeopardizing the safety and soundness of the banking system. One area where uncertainty could be reduced is in clarifying which core banking institutions would be exempt from the application of the advanced approaches rule. The rule allows for exempting any core bank—a bank that meets the size or foreign exposure criteria for core banks or a depository institution that is a core bank because it is a subsidiary of a core bank that meets those criteria. Although the rule outlines a mechanism for certain banks to be exempted and provides some broad factors regulators will use in making these determinations (asset size, level of complexity, risk profile, or scope of operation), the regulators have not been specific in the current rule about whether they will grant these exemptions and under what circumstances. The regulators have said that they will not grant many exemptions and did not specify these exemptions because they believe it is important for them to retain supervisory flexibility as they move forward with implementation of the final rule. As such, they said each decision is to be made on a case-by-case basis.

Throughout the development of the rules, regulators had introduced uncertainty about the extent to which foreign-based banks with subsidiaries that are U.S. bank holding companies will be subject to the advanced rules in the United States and the current rule continues to
provide the Federal Reserve, the regulator of bank holding companies, considerable flexibility in making these decisions. The Federal Reserve has not answered the question of which specific bank holding companies that are subsidiaries of foreign-based banks and qualify as U.S. core banks—they have assets of $250 billion or greater—will be exempted from using the advanced approaches in the United States. When the advanced approaches NPR was issued in 2006, some foreign-based institutions with large bank holding companies in the United States but relatively small depository institutions were surprised to find that they would be treated as core banks in the United States. The final rule acknowledged the concerns of those institutions and noted that the Federal Reserve may exempt them, but it does not make it clear that they will be exempt. Because the Federal Reserve, the regulator of bank holding companies, has not issued more specific criteria or guidance for reviewing requests for exemptions, these banks (at least one bank has requested an exemption) may have to devote resources to complying with the U.S. final rule until they receive an answer on whether they will be exempted. On the other hand, while only one banking organization is affected, the rule specifically exempts bank holding companies with significant insurance underwriting operations that otherwise would meet the requirements to be a core bank.

Similarly, the rule states that regulators will consider the same factors—asset size, level of complexity, risk profile, and scope of operations—in making a determination as to whether depository institutions that are subsidiaries of U.S. core banks can be exempted. As a result, institutions have little guidance concerning the likelihood that some of their depository institutions will be exempt and will need to prepare for a full implementation of the advanced approaches in each entity until they receive a response from their regulator on whether they will be exempted. Moreover, because the factors are so broad, if different regulators use different specific criteria to exempt entities, they may set up the potential for regulatory arbitrage. For example, a U.S. banking organization could hold higher-risk assets in subsidiary banks that are exempt and remain on Basel I and could hold lower-risk assets in subsidiary banks that are not exempt from the advanced approaches. And banks that do not currently have a structure that would allow them to reduce capital in this way could change their structure accordingly by acquiring or changing bank charters. The overall result could be lower capital held in the bank or resources being devoted to reducing capital that do not properly align capital with risk. However, officials from the Federal Reserve noted that regardless of the structure of the bank, at the holding company level, all material bank assets would be consolidated and subject to the advanced approaches rule.
This continuing uncertainty could make it difficult for banking organizations to pursue the most cost-effective route to complying with Basel II and could create more risk for the banks at a time when risks are already high because of the turmoil in financial markets. For example, some industry participants told us that those parts of Basel II that do not improve risk management divert resources that banks otherwise would use to better manage risk. In addition, resources devoted to circumventing certain aspects of the rule through regulatory arbitrage will divert the attention of bank officials from improving banks’ risk-management systems.

Finally, the uncertainty over which banking institutions ultimately will have to adopt the advanced approaches continues because the advanced approaches rule says all core banks will be required to adopt detailed implementation plans for the complex advanced approaches by October 1, 2008, and the proposed standardized approach rule, which will not be finalized by that time, contains a question about whether and to what extent core banks should be allowed to use the simpler proposed standardized approach. The advanced approaches rule generally requires core banks to comply with the advanced approaches and adopt an implementation plan no later than October 1, 2008. Under this rule, the Federal Reserve can exempt bank holding companies from meeting the requirements of the final rule for the advanced approaches and primary federal regulators can exempt depository institutions that meet the definition of a core bank from the advanced approaches requirements. Given the authority of the primary federal regulator, once the standardized approach rule is finalized, those regulators would be able to require that exempt banking organizations adopt that approach. However, the proposed standardized approach rule, which will not be finalized by the time the core banks must adopt their implementation plans, asks whether core banks should be allowed to use the standardized approach instead of the advanced approaches.

In the press release accompanying the proposed standardized approach rule, the FDIC Chairman stated, “Given the turbulence in the credit markets, I take some comfort with the fixed risk weights established under the standardized approach as they provide supervisors with some control over unconstrained reductions in risk-based capital.” However, the interagency statement on U.S. implementation of the advanced approaches issued in July 2008, stressed the existing timelines for the advanced approaches. The continued discussion on whether core banks should be exempt from the advanced approaches and permitted to adopt the standardized approach indicates that the primary federal regulators continue to have questions about whether the advanced approaches are the best risk-based capital requirements for core banks. Thus, it is difficult to tell whether the regulators have found a solution to difficulties that resulted from the differing perspectives they brought to negotiations during the development of the advanced approaches. We recommended in
our February 2007 report on Basel II that regulators take actions to jointly specify the criteria they will use to judge the attainment of their goals for Basel II implementation and for determining its effectiveness for regulatory capital-setting purposes. We noted that without clarification on the criteria to evaluate or make changes in the Basel II rules, the implementation will continue to generate questions about the adequacy of the framework.

### Plans for Studying the Competitive Impacts of the Final Rules Have Not Been Fully Developed

The regulators have not fully developed plans for an interagency study that is to assess implementation and provide the information to form the basis for allowing banks to fully transition to Basel II. Partly in response to recommendations we made in 2007, the final rule says that the regulators will issue annual reports during the transitional period and conduct a study of the advanced approaches after the second transitional period. According to the rule, the annual reports are to provide timely and relevant information on the implementation of the advanced approaches. The interagency study is to be conducted to determine if there are material deficiencies in the advanced approaches and whether banks will be permitted to fully transition to Basel II. In its regulatory impact analysis, OCC said that the regulators will consider any egregious competitive effects associated with implementation of Basel II, whether domestic or international in context, to be a material deficiency.

Among the items the rule specifies that the study will cover, several are important first steps in studying the competitive effects of the rule. These include

- the level of minimum required regulatory capital under U.S. advanced approaches compared to the capital required by other international and domestic regulatory capital standards;
- comparisons among peer core banks of minimum regulatory capital requirements;
- the processes banks use to develop and assess risk parameters and advanced systems, and supervisory assessments of their accuracy and reliability; and
- changes in portfolio composition or business mix.\(^40\)

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\(^{40}\)Under the final rule, other issues that regulators will consider as part of the study are: the potential cyclical implications of the rule; comparison of regulatory capital requirements to market-based measures of capital adequacy, such as risk premiums on subordinated debt; examination of robustness of risk management processes related to capital adequacy; and analysis of interest rate and concentration risks.
Some of these steps are similar to the calculations the regulators performed as part of QIS-4. The advantage of the future study over QIS-4 is that it will be based on actual data provided by banks whose risk management and data systems have been reviewed by regulators as part of the approval process for banks to enter the first two transitional periods. In addition, one regulator noted that the study will also benefit from the stresses of the recent market turmoil. This study should allow the regulators to determine the extent to which total regulatory capital changes in the short run, the specific behavior in which banks engage to comply with some aspects of the rule, and how the rule affects the capital of different banks.

However, plans for the study do not address a number of factors including the establishment of shared overall goals and criteria for Basel II that will help delineate the study's scope, methodology, and timing. For example, while OCC in its impact study said that the evaluation of competitive impacts will be an important part of the study, the rule does not specify how this will be measured and the scope and methodology of the study are not clearly designed to achieve this objective. Because regulators design the study to evaluate Basel II in light of clearly specified overall objectives or criteria for Basel II, it will be difficult to jointly determine the extent to which the rules need to be modified or whether implementation of Basel II should proceed. If some regulators object to the full implementation of Basel II while others do not, the rule specifies that a regulator can permit the banking organizations for which it is the primary federal regulator to move forward with the advanced approaches if it first provides a public report explaining its reasoning. However, such an outcome would not provide confidence in the current regulatory system and could allow for regulatory arbitrage.

Further, the scope of the study has not been well defined. While the study contemplates calculations of capital using the standardized approach, Basel I, and other international rules as well as the actual data on the banks following the advanced approaches, regulators have not said that they plan to collect comparable data on financial entities not adopting these approaches—specifically, those banking institutions that will adopt the standardized approach or remain on Basel I. In addition, the regulators have not explicitly included the CSEs in the study. The effectiveness of the study will be limited if the CSEs are not included because information on a major segment of competitors of core banks that has had significant experience with some aspects of the advanced approaches will have been excluded. The agreement signed on July 7, 2008, between the Federal Reserve and SEC regarding coordination and information sharing in areas of common regulatory interest should facilitate the inclusion of the CSEs in any study of the advanced approaches. Finally, the regulators have
conducted little research on international differences that could have competitive effects in the past, and the study’s design does not explicitly include research on international differences that could have competitive effects. However, since U.S. regulators participate in the Capital Monitoring Group, Accord Implementation Group, and other similar groups, they will have some perspective on Basel II implementation in the other countries in that group including some European Union countries and Canada that they will be able to use for this purpose. OCC officials explained that the Capital Monitoring Group will collect and analyze information on the implementation of Basel II in other countries and suggested that this information will inform the U.S. study. In addition, some U.S. regulators noted that the study outlined in the rule will not preclude them from looking at a broad range of data.

The methodology the study will use to evaluate competitive impacts initially is not fully developed, although from a methodological perspective Basel II affords an opportunity to consider the impacts of regulatory capital on bank behaviors and among groups of banks adopting different requirements at different times. While the measurements and comparisons envisioned for the study are a necessary first step for evaluating competitive impacts among the core banks and between the core banks and other groups, they do not take full advantage of the opportunities to better understand the impact of regulatory capital on a range of bank behavior. Because banks in the United States and around the world are adopting a range of capital requirements at different times, Basel II affords a unique opportunity to consider whether event studies could contribute to a better understanding of the impact of regulatory capital on a variety of bank behaviors. While regulators at OCC noted that with banks on different capital regimes, academics and other researchers, including those at the regulatory agencies, will have data available to study the impact of regulatory capital on bank behavior, they said that they had not thoroughly considered the use of event studies as part of the study planned by the regulators. Because regulators have not clearly specified how they will evaluate the competitive impacts of Basel II, there is an increased likelihood that the kinds of data needed to complete an effective study will not be available.

In addition, the advanced approaches rule does not specify a methodology for the study to analyze the extent to which the new rules provide opportunities for regulatory arbitrage that could limit the effectiveness of the rules in promoting improved risk management throughout the banking system. Several industry participants noted that having multiple capital requirements with different levels of risk sensitivity provides incentives for core banks to hold less risky assets and leave more risky assets in banks using the standardized approach or
Basel I. Higher risk-based capital requirements for high-risk assets at core banks may increase their cost of holding these assets. Greater costs would reduce the supply of credit for these types of loans, and thus returns would increase. As a result, banks with less risk-sensitive capital requirements under Basel I or the standardized approach might find some higher risk credits more attractive at these higher rates of return. (As illustrated earlier in fig. 2, there may be different amounts of capital required for the same asset across the different risk-based rules.) Officials at one regulatory agency said that all of the regulators were aware of this potential outcome and planned to look at changes in the portfolios of core banks in the study. Further, for non-core banks, regulators at another agency said they would become aware of non-core banks increasing their holdings of high-risk assets through their normal oversight duties. However, the advanced approaches rule does not specify how the study would more fully explore this potentially important outcome of the new rules. If this arbitrage took place, the rules could require less capital overall in the banking system and would leave banks with the least well-developed risk management systems with the riskiest assets, thus exposing the U.S. banking system to greater systemic risk.

Finally, the timing of the study is unclear. The rule specifies that the study will be published after the second transitional period, but core banks could begin the four intermediate phases required for full implementation in 2008, 2009, or 2010 and different banks (as well as different types of banks) could enter the second transitional period in different years. The phased implementation produces uncertainty about timing and could throw into question how many banks will be included in the study, and whether the results of the study will provide relevant information for all of the banks. For example, if the banks in the second transitional period in 2011 are primarily retail banks, the results are not likely to be applicable for the custodial banks, or vice versa. As a result of this and other factors discussed, the use of the study for taking actions that would improve risk management or reduce competitive concerns may be limited.

Some regulators told us that they have not yet focused on plans for the study, in part, because it is early in the Basel II implementation process and they and the banks they supervise have been dealing with the financial turmoil. In addition, some regulators said that the language and factors laid out in the final rule should be viewed as a starting point, and officials at one regulatory agency said that the study will benefit from the data that will be available from the financial turmoil in the world’s credit markets.

Conclusions

A global effort is underway to implement the New Basel Accord, which aims to improve the risk-management practices of banks, in part, by
aligning the capital banks hold more closely with the risks they face. Capital’s role becomes more important in periods of economic uncertainty because banks rely on capital to weather unexpected losses. Although the impact of regulatory capital on a bank’s ability to compete is not always obvious because banks often hold more than their minimum required capital, regulatory capital is one of many factors that affects competition. And, the adoption of Basel II in the United States has raised concerns about competitive effects it could have on banks of varying sizes and in various locations. In addition, regulators have made clear that in light of the current market turmoil further revisions will be made in Basel II.

Uncertainty about how to implement Basel II, to whom the rules will apply, and the effects the rules will have may lead banks to devote resources to information gathering and implementation that could otherwise be dedicated to improving risk management or other purposes. In our 2007 report, we noted that the rulemaking process for Basel II could benefit from increased transparency to respond to broader questions and concerns about transitioning to Basel II in the United States. The regulators referred to the recommendation in the advanced approaches rule and, with that rule and the proposed standardized approach rule, they have provided greater clarity about some aspects of Basel II. We recognize that the time table for Basel II implementation in the United States has slowed since we issued our earlier report and that both the regulators and the banks have been dealing with the market turmoil that began in mid-2007. This gradual implementation is allowing bank regulators to reassess banks’ risk-management systems and consider changes in the rules before any banks begin their Basel II implementation. As part of this preparation period, regulators have taken and are planning some actions to reduce uncertainty, but could take further actions to address remaining uncertainties about the implementation of the rules and facilitate banks’ planning and preparation for their implementation of a new capital regime.

Regulators have taken actions to reduce some of the uncertainty surrounding implementation of Basel II by providing information to aid examiners and banks in interpreting the rules. Regulators have updated some publicly available information on the process they will use to qualify banks for the advanced approaches and examine them under Pillar 2. Regulators have also engaged in discussions among themselves concerning posting additional information in a question and answer format on their Web sites. The timely issuance of additional information on the advanced approaches and a final standardized approach rule, which is in process, will enable banks to best prepare to meet the new risk-based capital requirements and will help to ensure regulatory consistency across the banks. As a result, we encourage the regulators to continue providing
joint information in a timely manner on both the advanced and standardized approaches.

We recognize that regulators have taken steps to reduce some uncertainties related to Basel II; however, the regulators could take additional steps to address uncertainties that are not related to their need for flexibility to respond to innovation in the industry and to unintended consequences that the rules may have. For example, in the final rule, the regulators did not specify which banks technically met the definition of core banks. Although, the rule specifically says that certain banks may be exempted by their primary regulator from the advanced approaches requirements, it does not provide well-defined criteria for evaluating requests for exemptions. Because this clarity has not been provided and specific criteria have not been laid out, regulators may not provide exemptions in a consistent manner. The issuance of more specific guidance on which banks will be exempt from applying the advanced approaches would provide clarity and enable banks to plan accordingly. Also, the question in the NPR for the standardized approach about whether core banks should be able to use the proposed standardized approach indicates that the primary federal regulators continue to have questions about whether the advanced approaches are the best risk-based capital requirements for core banks. Regulatory differences on these issues can lead to increased costs for the banks, inefficiencies for their regulators, and may weaken the overall effectiveness of the regulatory system by creating opportunities for banks to engage in regulatory arbitrage.

In our 2007 report, we recommended that regulators issue public reports on the progress and results of implementation efforts and that this reporting should include an articulation of the criteria by which they would assess the success of Basel II. While the regulators have proposed a study of the core banks after the second transitional year of the implementation of the advanced approaches, they have not yet developed the criteria on which to base the study’s design and objectives. These are needed for a determination of whether Basel II is effective for regulatory capital-setting purposes and whether to ultimately allow banks to move past the third transitional period to full Basel II implementation. As delineated in the advanced approaches rule, the study will measure the changes in capital and portfolios held by the core banks and will look at the differences in required capital for these banks if they were under the standardized approach rule or Basel I—necessary steps for evaluating the competitive impact of Basel II—but it does not explicitly describe components needed to determine if there are material deficiencies in the rule or for regulators to reach agreement on whether banks should be permitted to fully implement the advanced approaches. However,
the gradual implementation of the advanced approaches in the United States affords regulators time to jointly establish criteria for evaluating Basel II and to fully develop a study that flows from those criteria—including (1) a broad enough scope— inclusion of non-core banks, CSEs, and foreign-based banks—to capture competitive effects; (2) consideration of a number of methodologies; and (3) the resolution of the timing issue. Such actions would help the regulators make better-informed decisions on an interagency basis about whether changes to the rules were necessary and whether to permit banks to fully implement Basel II. Without these criteria, it will be difficult for regulators to make these judgments and provide consistent guidance for banks.

Recommendations for Executive Action We are making two recommendations to the heads of the FDIC, Federal Reserve, OCC, and OTS:

To further limit any potential negative effects, where possible, regulators should move to minimize the uncertainty surrounding certain aspects of Basel II. Specifically, regulators should clarify how they will use certain regulatory flexibility under the advanced approaches rule, particularly with regard to how they will exercise exemptions for core banks from the advanced approaches requirement and the extent to which core banks will be allowed to adopt the standardized approach.

To improve the understanding of potential competitive effects of the new capital framework, the regulators should take steps jointly to plan for the study to determine if major changes need to be made to the advanced approaches or whether banks will be able to fully implement the current rule. In their planning, they should consider such issues as the objectives, scope, methodology, and timing needs for the future evaluation of Basel II. The plan should include how the regulators will evaluate competitive differences between core and non-core banks in the United States, between core banks and CSEs, and between U.S.-based banks and banks based in other countries.

Agency Comments and Our Evaluation We provided the heads of the Federal Reserve, FDIC, OCC, OTS, SEC, and Department of the Treasury with a draft of this report for their review and comment. We received written comments from the banking regulators in a joint letter. These comments are summarized below and reprinted in appendix IV. The banking regulators also provided technical comments that we incorporated in the report where appropriate. We did not receive comments from SEC or the Department of the Treasury.
In their letter, the banking regulators strongly endorsed our opening statement that ensuring that banks maintain adequate capital is essential to the safety and soundness of the banking system and said that it is this overarching objective that will guide their efforts and has led them to include additional prudential safeguards in their implementation of the Basel II rules. In a somewhat related matter, the regulators said that the report emphasizes the cost to banks of holding capital but did not discuss how a bank’s strong capital base confers competitive strength and create strategic opportunities. While we describe some of the costs to banks of holding additional capital because this is an important channel through which the new capital rules could affect the competitiveness of U.S. banking organizations, we also note that more capital reassures creditors and reduces the cost of borrowing. In addition, as noted in the draft, banks hold capital for this and other reasons including the ability to take advantage of strategic opportunities such as acquiring other banking institutions.

As we detailed in the draft, the banking regulators highlighted the actions they have taken to address many of the concerns that bankers and others have raised about the potential competitive equity effects of the implementation of Basel II and said that they are in general agreement with our recommendations. Specifically, they said that they will work together to resolve, at the earliest possible time, the question posed for comment in the proposed standardized approach rule regarding whether and to what extent core banks should be able to use the standardized approach. With regard to clarifying how they will decide whether to grant requests from core banks to be exempt from the requirement to adopt the advanced approaches, the regulators said they will assess each exemption request in light of the specific facts and circumstances applicable to the institution seeking the exemption and that they have already commenced discussions to ensure a clear and consistent interpretation of these provisions is conveyed to U.S. banks.

Regarding the need to jointly plan the required study, the regulators commented that they will work together to develop “plans for the required study of the impact of the advanced approaches of Basel II.” Specifically, they said that they will begin to develop more formal plans for the study once they had “a firmer picture of banks’ implementation plans” but noted the difficulties concerning drawing definitive conclusions about the effects of changes in regulatory capital rules. They also said that they would consider including in their analysis the potential competitive effects with CSEs and foreign banks as we recommended. While we are encouraged by the regulators’ recognition of the need for more formal plans and consideration of the scope of the study to include CSEs and foreign banks, we noted a number of additional factors that also should be considered, such as developing
criteria that will help them determine whether there are material deficiencies that can be attributed to the new rules and what changes, if any, could address those deficiencies. Finally, because Basel II affords an opportunity to consider the impacts of regulatory capital on bank behaviors and among groups of banks adopting different requirements at different times, we noted in the draft that it is important that regulators consider a number of methodologies for evaluating the new capital rules and potential competitive effects to determine which are the most appropriate.

As agreed with your offices, unless you publicly release its contents earlier, we plan no further distribution of this report until 30 days from its date of issue. At that time we will send copies of this report to interested congressional committees, the Chairman of the Board of Governors of the Federal Reserve System, Chairman of the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Director of the Office of Thrift Supervision, the Chairman of the Securities and Exchange Commission, and the Secretary of the Treasury. We will also make copies available to others on request. In addition, the report will be available at no charge on GAO’s Web site at http://www.gao.gov.

If you or your staff have any questions regarding this report, please contact me at (202) 512-8678 or williamso@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix V.

Orice M. Williams
Director, Financial Markets
and Community Investment
Appendix I: Objectives, Scope, and Methodology

Our objectives in this report were to discuss (1) the nature of the competitive environment in which U.S. banking organizations compete, (2) the extent to which different capital requirements may have competitive impacts on U.S. banking organizations internationally and domestically, and (3) actions regulators could take to address competitive effects and other potential negative effects of the new capital rules during implementation.

For all our objectives, we reviewed a variety of documents, including regulators’ statements; the international Basel II framework (entitled “International Convergence of Capital Measurement and Capital Standards: A Revised Framework”) and other documents from the Basel Committee, such as the 1988 Basel Capital Accord (Basel I); the Basel II, Basel 1A, and Standardized Approach Notices of Proposed Rulemaking (NPR) and the final rule on the advanced approaches; supervisory guidance; academic articles, and our previous reports on banking regulation. We interviewed senior supervisory officials at the Board of Governors of the Federal Reserve System and Federal Reserve Banks of Boston, New York, and Richmond (Federal Reserve), Office of Management and Budget, Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), Office of Thrift Supervision (OTS), Securities and Exchange Commission, and Department of the Treasury. We also interviewed officials from the Accord Implementation Group, several foreign banking regulatory agencies, domestic, international, and foreign trade associations, credit rating agencies, and several academics and consultants with banking expertise. In addition, we interviewed officials from all of the core banks and other banks, both foreign and domestic, with operations in the United States. Finally, we attended several conferences held by regulators and trade associations that included discussions related to Basel II.

To describe the competitive environment in which U.S. banks operate, we collected data from several sources to illustrate which types and sizes of banks are active in which kinds of products. We used data from the Federal Reserve’s Structure and Share Data for U.S. Banking Offices of Foreign Entities, and Consolidated Financial Statements for Bank Holding Companies (i.e., FR Y-9C). These data include the amount of assets in particular products that bank holding companies hold on and off of their balance sheets. For banks and thrifts that do not report assets in particular

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products at the consolidated level to their regulator, we used data on banks and thrifts in the Federal Financial Institutions Examination Council’s (FFIEC) Consolidated Reports of Condition and Income (FFIEC 031 or Call Report) and OTS’s Thrift Financial Reports, respectively. We also used data from FFIEC’s Country Exposure Lending Survey.

To compare activities across banks of different sizes, we used data at the consolidated level because banks generally compete on an enterprisewide basis. For bank holding companies, we used data provided by the Federal Reserve. Almost all bank holding companies that have assets greater than $500 million report assets in particular product categories on a consolidated basis to the Federal Reserve using the Y-9C form; however, a large proportion of those with assets under $500 million about 80 percent of the bank holding companies and a few larger bank holding companies do not report consolidated assets on a product basis to the Federal Reserve. We included these bank holding companies that have few assets outside their chartered commercial banks in our analysis, by having staff at the Federal Reserve group the commercial banks by bank holding company and sum the assets reported in the Call Reports accordingly.

Thrift holding companies do not report data on assets by product category to OTS on a consolidated basis. Because thrift holding companies are often engaged in a wide variety of activities outside of banking, we could not rely on the thrift financial report data on individual thrifts to approximate the holding company for some thrifts as we did in the case of some bank holding companies. However, we were able to have OTS staff provide thrift financial report data that we used to approximate the thrift holding companies for those thrift companies primarily in banking. We did this by having OTS staff group the thrifts by holding company for those where thrifts make up 95 percent of the assets of the holding company and where they make up 75 percent of the assets of the holding company. The allocation of assets across product lines was substantially the same for these two categories, which allowed us to conclude that the data gave us a good approximation of differences between thrift holding companies that are primarily in the business of banking and bank holding companies. We concluded that they do differ in that thrifts that are engaged primarily in the business of banking hold a much larger percentage of their assets in residential mortgages than do bank holding companies across all size categories. To assess the reliability of these data, we talked with knowledgeable agency officials about the data and tested the data to identify obvious problems with completeness or accuracy. We determined the data were sufficiently reliable for the purposes of this report.
To determine the extent to which different capital requirements may impact how various U.S. banking organizations compete, we reviewed the available academic literature on the role capital plays in bank competition. We also estimated minimum required capital for some assets under the advanced and standardized approaches for credit risk, Basel I, and leverage requirements, based on available information and data from the U.S. federal banking regulators' fourth quantitative impact study (QIS-4) and Moody's Investors Service. There are some limitations associated with the data from QIS-4. At the time, the regulators emphasized that QIS-4 was conducted on a “best efforts” basis without the benefit of either a definitive set of proposals or meaningful supervisory review of the institutions’ systems. We assessed the reliability of the data we used and found that, despite limitations, they were sufficiently reliable for our purposes.

We conducted this performance audit from May 2007 to September 2008 in Amsterdam, The Netherlands; Brussels, Belgium; Boston, Massachusetts; Chicago, Illinois; and Charlotte, North Carolina; London, United Kingdom; New York, New York; Toronto, Canada; and Washington, D.C., in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
# Appendix II: Three Pillars of the Advanced Approaches

## Pillar 1: Minimum Capital Requirements

Pillar 1 of the advanced approaches rule features explicit minimum capital requirements, designed to ensure bank solvency by providing a prudent level of capital against unexpected losses for credit, operational, and market risk. The advanced approaches, which are the only measurement approaches available to and required for core banks in the United States, will make capital requirements depend in part on a bank’s own assessment, based on historical data, of the risks to which it is exposed.

### Credit Risk

Under the advanced internal ratings-based (A-IRB) approach, banks must establish risk rating and segmentation systems to distinguish risk levels of their wholesale (most exposures to companies and governments) and retail (most exposures to individuals and small businesses) exposures, respectively. Banks use the results of these rating systems to estimate several risk parameters that are inputs to supervisory formulas. Figure 7 illustrates how credit risk will be calculated under the Basel II A-IRB. Banks must first classify their assets into exposure categories and subcategories defined by regulators: for wholesale exposures those subcategories are high-volatility commercial real estate and other wholesale; for retail exposures those subcategories are residential mortgages, qualifying revolving exposures (e.g., credit cards), and other retail. Banks then estimate the following risk parameters, or inputs: the probability a credit exposure will default (probability of default or PD), the expected size of the exposure at the time of default (exposure at default or EAD), economic losses in the event of default (loss given default or LGD) in “downturn” (recession) conditions, and, for wholesale exposures, the maturity of the exposure (M). In order to estimate these inputs, banks must have systems for classifying and rating their exposures as well as a data management and maintenance system. The conceptual foundation of this process is that a statistical approach, based on historical data, will provide a more appropriate measure of risk and capital than a simple categorization of asset types, which does not differentiate precisely between risks. Regulators provide a formula for each exposure category that determines the required capital on the basis of these inputs. If all the assumptions in the supervisory formula were correct, the resulting capital requirement would exceed a bank’s credit losses in a given year with 99.9 percent probability. That is, credit losses at the bank would exceed the capital requirement with a 1 in 1,000 chance in a given year, which could result in insolvency if the bank only held capital equal to the minimum requirement.
Appendix II: Three Pillars of the Advanced Approaches

Figure 7: Computation of Wholesale and Retail Capital Requirements under the Advanced Internal Ratings-based Approach for Credit Risk

Wholesale exposures
- High volatility commercial real estate
- Other wholesale

Retail exposures
- Residential mortgage
- Qualifying revolving (e.g., credit card)
- Other retail

Wholesale capital formula
Retail capital formula

1.06 (scaling factor) = Wholesale and retail capital requirements

Risk inputs:
- PD = Probability of default
- LGD = Loss given default
- EAD = Exposure at default
- M = Maturity of exposure
- R = Correlation factor

Notes: This figure focuses on wholesale and retail nondefaulted exposures, an important component of the total credit risk calculation. The total credit risk capital requirement also covers defaulted wholesale and retail exposures, as well as risk from securitizations and equity exposures. A bank’s qualifying capital is also adjusted, depending on whether its eligible credit reserves exceed or fall below its expected credit losses.

Banks may incorporate some credit risk mitigation, including guarantees, collateral, or derivatives, into their estimates of PD or LGD to reflect their efforts to hedge against unexpected losses.

Operational Risk

To determine minimum required capital for operational risk, banks will use their own quantitative models of operational risk that incorporate elements required in the advanced approaches rule. To qualify to use the advanced measurement approaches (AMA) for operational risk, a bank must have operational risk management processes, data and assessment.
Appendix II: Three Pillars of the Advanced Approaches

systems, and quantification systems. The elements that banks must incorporate into their operational risk data and assessment system are internal operational loss event data, external operational loss event data, results of scenario analysis, and assessments of the bank’s business environment and internal controls. Banks meeting the AMA qualifying criteria would use their internal operational risk quantification system to calculate the risk-based capital requirement for operational risk, subject to a solvency standard specified by regulators, to produce a capital buffer for operational risk designed to be exceeded only once in a thousand years.

Market Risk

Regulators have allowed certain banks to use their internal models to determine required capital for market risk since 1996 (known as the market risk amendment or MRA). Under the MRA, a bank’s internal models are used to estimate the 99th percentile of the bank’s market risk loss distribution over a 10-business-day horizon, in other words a solvency standard designed to exceed trading losses for 99 out of 100 10-business-day intervals. The bank’s market risk capital requirement is based on this estimate, generally multiplied by a factor of three. The agencies implemented this multiplication factor to provide a prudential buffer for market volatility and modeling error. The OCC, Federal Reserve, and FDIC are proposing to incorporate their existing market risk rules and are proposing modifications to the market risk rules, to include modifications to the MRA developed by the Basel Committee, in a separate NPR issued concurrently with the proposal for credit and operational risk. OTS is proposing its own market risk rule, including the proposed modifications, as a part of that separate NPR.

In previous work, regulatory officials generally said that changes to the rules for determining capital adequacy for market risk were relatively modest and not a significant overhaul. The regulators have described the objectives of the new market risk rule as including enhancing the sensitivity of required capital to risks not adequately captured in the current methodologies of the rule and enhancing the modeling requirements consistent with advances in risk management since the implementation of the MRA. In particular, the rule contains an incremental default risk capital requirement to reflect the growth in traded credit products, such as credit default swaps, that carry some default risk as well as market risk.

Pillar 2: Supervisory Review

The Pillar 2 framework for supervisory review is intended to ensure that banks have adequate capital to support all risks, including those not addressed in Pillar 1, and to encourage banks to develop and use better risk management practices. Banks adopting Basel II must have a rigorous
process of assessing capital adequacy that includes strong board and senior management oversight, comprehensive assessment of risks, rigorous stress testing and validation programs, and independent review and oversight. In addition, Pillar 2 requires supervisors to review and evaluate banks’ internal capital adequacy assessments and monitor compliance with regulatory capital requirements. Under Pillar 2, supervisors must conduct initial and ongoing qualification of banks for compliance with minimum capital calculations and disclosure requirements. Regulators must evaluate banks against established criteria for their (1) risk rating and segmentation system, (2) quantification process, (3) ongoing validation, (4) data management and maintenance, and (5) oversight and control mechanisms. Regulators are to assess a bank’s implementation plan, planning and governance process, and parallel run performance. Under Pillar 2, regulators should also assess and address risks not captured by Pillar 1 such as credit concentration risk, interest rate risk, and liquidity risk.

Pillar 3 is designed to encourage market discipline by requiring banks to disclose additional information and allowing market participants to more fully evaluate the institutions’ risk profiles and capital adequacy. Such disclosure is particularly appropriate given that Pillar I allows banks more discretion in determining capital requirements through greater reliance on internal methodologies. Banks would be required to publicly disclose both quantitative and qualitative information on a quarterly and annual basis, respectively. For example, such information would include a bank’s risk-based capital ratios and their capital components, aggregated information underlying the calculation of their risk-weighted assets, and the bank’s risk assessment processes. In addition, federal regulators will collect, on a confidential basis, more detailed data supporting the capital calculations. Federal regulators would use this additional data, among other purposes, to assess the reasonableness and accuracy of a bank’s minimum capital requirements and to understand the causes behind changes in a bank’s risk-based capital requirements. Federal regulators have developed detailed reporting schedules to collect both public and confidential disclosure information.

Pillar 3: Market Discipline in the Form of Increased Disclosure
Appendix III: Basel II Timeline

<table>
<thead>
<tr>
<th>International transition to Basel II</th>
<th>U.S. transition to Basel II</th>
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<tr>
<td><strong>July:</strong> Basel Committee issues Basel Capital Accord (Basel I), international risk-based capital requirements for banks in G10 countries, to be fully implemented by 1992.</td>
<td><strong>1988</strong></td>
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<td><strong>1990</strong></td>
<td>Regulators fully phase in Basel I as part of broader changes to capital regulation. The prompt corrective action provisions of FDICIA require adequately capitalized and well-capitalized institutions to meet or exceed Basel I risk-based capital requirements as well as a leverage requirement.</td>
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<td><strong>1991</strong></td>
<td><strong>September:</strong> OCC, Federal Reserve, and FDIC issue final rule implementing the Market Risk Amendment, requiring institutions with significant trading activity to use internal models to measure and hold capital in support of market risk exposure.</td>
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<td><strong>1992</strong></td>
<td><strong>August:</strong> Regulators release advance NPR on Basel II for comment. The proposed rule requires the advanced approaches for credit and operational risk to be applied by only the large and/or internationally active banks and holding companies. Existing capital rules would be retained for all other banks.</td>
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<tr>
<td><strong>1993</strong></td>
<td><strong>June:</strong> SEC releases alternative net capital rule that permits certain broker-dealers to use internal mathematical models to calculate market and derivatives-related credit risk. To apply the rule, a broker-dealer's ultimate holding company must consent to groupwide supervision and report capital adequacy measures consistent with Basel standards.</td>
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<td><strong>1994</strong></td>
<td><strong>January:</strong> Regulators issue interagency statement on qualification process for advanced approaches based on New Basel Accord.</td>
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<td><strong>1995</strong></td>
<td><strong>April:</strong> Regulators announce delay in Basel II rulemaking process, after results of a quantitative impact study (QIS-4) estimated material reductions in aggregate capital requirements and significant variations in results across institutions and portfolios. Regulators later state that such results would be unacceptable in an actual capital regime.</td>
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<tr>
<td><strong>1996</strong></td>
<td><strong>September:</strong> Regulators announce 1-year delay in implementation and additional safeguards to prevent unacceptable declines in required capital as estimated in QIS-4. The agencies retain the leverage requirement, add a transition year, and establish stricter transition period limits on capital reductions for individual institutions.</td>
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<td><strong>1997</strong></td>
<td><strong>October:</strong> Regulators issue Basel IA advance NPR. It revises Basel I to address competitive inequities between large and small institutions by providing a more risk-sensitive framework similar to the standardized approach under the Basel II international accord.</td>
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**January:** Basel Committee amends Basel I to incorporate market risks. The Market Risk Amendment introduces the use of institutions' internal models of risk to determine regulatory capital requirements.

**June:** Basel Committee proposes for comment incremental revisions to Basel I for credit risk (standardized approach), plans to develop an alternative internal ratings-based (IRB) approach, and the proposed capital charges for other major risks, including operational risk.

**January:** Basel Committee releases revised proposal based on consultation with industry and supervisors. The Committee aims to encourage improved risk management practices in part through capital incentives for banks to move to the more risk-sensitive IRB approach.

**April-May:** Basel Committee releases results of a global quantitative impact study (QIS-3) and issues third consecutive paper for comment.

**June:** Basel Committee issues final revised framework for Basel II (New Basel Accord). It reiterates objectives of broadly maintaining the level of aggregate required capital while also providing incentives to adopt the more advanced approaches. The framework includes changes such as a 1.06 scaling factor by which capital requirements for credit risk would be multiplied in order to maintain capital neutrality with previously estimated results.
International transition to Basel II

June: Basel Committee releases results of a global quantitative impact study (QIS-5) of estimated changes in minimum required capital under Basel II.


U.S. transition to Basel II

March: Federal Reserve releases draft Basel II NPR to allow industry time to comment and prepare. In addition to previously announced safeguards, it states that agencies would view a 10 percent or greater decline in aggregate risk-based capital requirements (compared to Basel I) as a material drop warranting changes to the Basel II framework.

September: Regulators release for comment official NPRs for Basel II and for market risk. The Basel II NPR requests comment on whether and how the standardized approach should be provided to banks as an option in addition to the advanced approach for credit risk.

December: Regulators release NPR for Basel IA.

February: Regulators issue proposed guidance for advanced approaches and supervisory review.

March: Comment periods for Basel II and Basel IA NPRs close.

July: Regulators agree to issue advanced approaches rule more consistent with New Basel Accord and to issue an NPR for an optional standardized approach.

December: Regulators issue advanced approaches rule.

July: Regulators issue NPR for optional standardized approach containing question on whether core banks should be able to choose this approach. Regulators issue updated guidance for supervisory review.

October: Last date for core banks to adopt implementation plan signed by board of directors.

Core banks must begin 4 quarters for parallel run (2008-2010 April)

Core banks will enter first transitional floor period (95% floor) (2009-2011)

Core banks will enter second transitional floor period (90% floor) and study to assess material deficiencies will be conducted (2010-2012).

Core banks will enter third transitional floor period (85% floor) (2011-2013)

Core banks will be ready to implement advanced approaches (2012-2014 April)

Floor applies to individual institution’s capital reduction.

Appendix III: Basel II Timeline

Source: GAO.
Appendix IV: Comments from Federal Banking Regulators

Office of the Comptroller of the Currency
Board of Governors of the Federal Reserve System
Federal Deposit Insurance Corporation
Office of Thrift Supervision

September 3, 2008

Ms. Orice M. Williams
Director, Financial Markets and Community Investment
United States Government Accountability Office
Washington, D.C. 20548

Dear Ms. Williams:

The Federal Reserve Board (FRB), Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), and the Office of Thrift Supervision (OTS) (collectively, the “Agencies”) have received and reviewed your draft report titled, “New Basel II Rules Reduced Certain Competitive Concerns, but Bank Regulators Should Address Remaining Uncertainties.” This joint response summarizes the Agencies’ overall reaction to the draft report. Additional technical comments have been provided separately by staff of each of the Agencies.

In the draft report, the GAO concluded that the Agencies have addressed some of the earlier competitive concerns of banks. The report also describes bankers’ concerns about regulatory constraints on their ability to reduce their capital requirements, and their concerns about lingering uncertainty regarding key aspects of the rule. The report recommends that U.S. bank regulators (1) clarify how they will use the flexibility built into the rules, and (2) fully develop plans, on a joint basis, for the study of the impacts of Basel II the Agencies have committed to undertake.

The first sentence of the report states, “Ensuring that banks maintain adequate capital is essential to the safety-and-soundness of the banking system.” The Agencies strongly endorse this statement. The ultimate objective of our capital rules is to promote the overall safety and soundness of U.S. banking institutions. It is this overarching objective that will guide our efforts and has led us to include additional prudential safeguards in our implementation of the Basel II rules.

While the report emphasizes the cost to banks of holding capital, an important issue that is not discussed is how a bank’s strong capital base confers competitive strength. For example, by defusing concerns about a bank’s ability to absorb losses, strong capital can help preserve a bank’s access to funding on competitive terms. And as we have seen during this period of economic adversity, strongly capitalized institutions are more likely to have the financial flexibility to expand lending when other institutions falter.
We are pleased that the GAO acknowledges actions that the Agencies have taken to address many of the concerns that bankers and others have raised about the potential competitive equity effects of the implementation of Basel II. Specifically, as acknowledged by the report, the Agencies have:

- Eliminated many of the prior differences between the U.S. advanced approaches rule and the Basel II mid-year text. These changes will help reduce compliance costs and competitive concerns for internationally active institutions.
- Proposed a standardized approach that is more consistent with the international Basel II Framework than was the Agencies’ earlier “Basel IIA” proposal.
- Actively worked together and with regulators across the world to coordinate our reviews of banks’ implementation plans and risk models and share information. As core banks reported to the GAO, these actions have been helpful in addressing potential negative impacts for U.S. firms and “limited the compliance costs of subsidiaries of U.S. banks operating abroad.”
- Established processes to coordinate implementation of the new rules across charter types.
- Developed joint guidance, issued in July 2008, on the qualification process the Agencies will use for advanced approaches institutions.

The Agencies are in general agreement with the recommendations contained in the report. The Agencies will work together to attempt to resolve, at the earliest possible time, the question posed for comment in the proposed rule on the standardized approach, on whether or to what extent core banks should be able to use the standardized approach. Of course, any potential change to current requirements for core banks in this regard would require revisions to the advanced approaches rule. Under existing requirements, core banks are expected to comply with the advanced approaches rule.

With regard to clarifying how the Agencies will decide whether to grant requests from core banks to be exempt from the requirement to adopt the advanced approaches, the rule lists the factors the Agencies will consider. The Agencies will assess each exemption request in light of the specific facts and circumstances applicable to the institution seeking the exemption. The Agencies have already commenced discussions to ensure a clear and consistent interpretation of these provisions is conveyed to U.S. banks.

The Agencies also will work together to develop plans for the required study of the impact of the advanced approaches of Basel II. As the report correctly notes, our regulatory capital priorities to date have been to: a) take actions to reduce/mitigate potential competitive effects of our Basel I-related proposals; b) respond to current market disruptions, including making enhancements to the advanced approaches framework; c) provide guidance and discuss implementation plans and issues with core banks; and d) finalize the standardized approach rule. We will begin to formulate more formal plans for the study after we have a firmer picture of banks’ implementation plans. In formulating our plans, we will consider the GAO’s recommendations to include in our analysis the potential competitive effects with Consolidated Supervised Entities and foreign banks. We would caution that the fundamental shifts occurring across the
financial industry in light of the recent market disruptions – both in terms of individual firm and aggregate industry risk profiles – will accentuate the difficulties the GAO has noted in drawing definitive conclusions about the effects of changes in regulatory capital rules.

We appreciate the professionalism of the GAO review team that prepared the report. Thank you for the opportunity to comment on the draft.

Sincerely,

John C. Dugan
Comptroller
Office of the Comptroller of the Currency

Randall K. Kogut
Governor
Board of Governors of the Federal Reserve System

Sheila C. Bair
Chairman
Federal Deposit Insurance Corporation

John M. Reich
Director
Office of Thrift Supervision
## Appendix V: GAO Contact and Staff Acknowledgments

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<tr>
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<tbody>
<tr>
<td>Staff Acknowledgments</td>
<td>In addition to the contact named above, Barbara I. Keller (Assistant Director), Nancy Barry, Emily Chalmers, Michael Hoffman, Joe Hunter, Robert Lee, Marc Molino, Carl Ramirez, Barbara Roesmann, Paul Thompson, and Mijo Vodopic made key contributions to this report.</td>
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