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FINANCIAL RISK MANAGEMENT

Capital Management Services

Gain strategic value from regulatory reform

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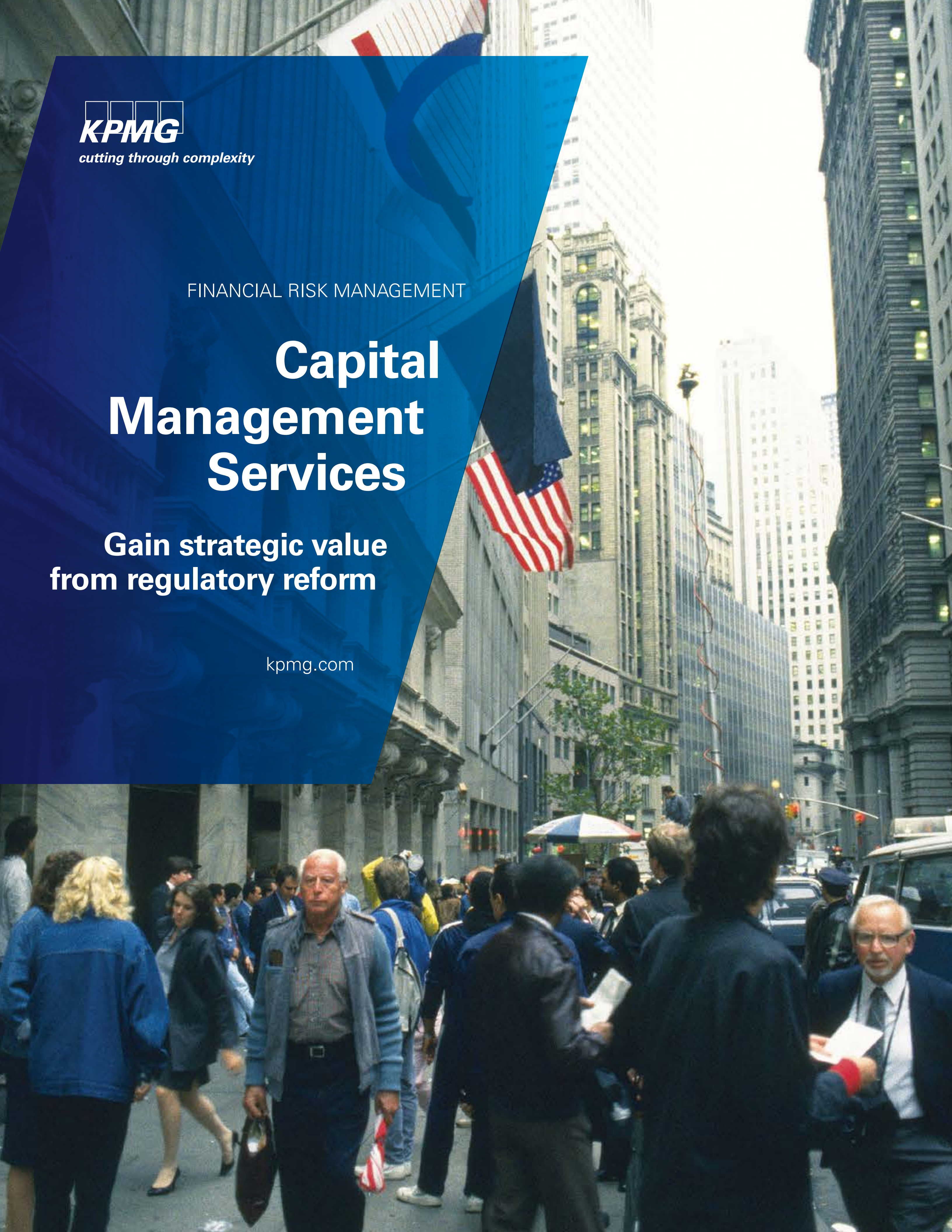


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Capital Management
REGULATORY AND ECONOMIC CAPITAL
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DODD-FRANK ACT STRESS TESTING
COMPREHENSIVE CAPITAL ANALYSIS AND REVIEW
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MODELING & ANALYTICS
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A Strategic Approach to Accommodating Regulatory Change

Capital Management Is Central

Over the past five years, the financial services industry has witnessed dramatic shifts in the regulatory landscape. As a result of economic crises around the globe, financial institutions are subject to new and highly complex regulatory mandates. While recent regulatory reforms address a host of supervisory issues, a closer look reveals that capital management is at the heart of most of these initiatives. For example, new mandates that directly impact capital include: stress testing requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act[1] (the Dodd-Frank Act); Comprehensive Capital Analysis and Review (CCAR) exercises conducted by the Federal Reserve Board (Federal Reserve); and international revision and implementation of Basel II and Basel III regulatory capital frameworks[2], as directed by the Basel Committee on Banking Supervision (Basel Committee). Other regulatory efforts, such as the recovery and resolution planning (RRP) requirements under the Dodd-Frank Act and Basel Committee guidance, and the Federal Reserve's proposed supervisory framework for foreign banking organizations (FBOs), which includes the RRP and enhanced prudential standards, would be incomplete without capital considerations.

From Compliance Mandate to Strategic Imperative

The new capital requirements will have a dramatic impact on traditional banking organizations (banks, thrifts, bank holding companies (BHCs), savings and loan holding companies (SLHCs), and FBOs operating in the United States—hereinafter Banks) and non-Bank financial services companies determined to be systemically important financial institutions (SIFIs) by the Financial Stability Oversight Council (Council).[3] (Throughout this document, Banks and SIFIs in the United States will be collectively referred to as Banks or Banking Organizations.) While the primary objectives of capital regulation have not changed—enhance risk measurement practices, improve capital transparency, and protect global economies from extreme market conditions—the capital charge and methods to calculate regulatory capital ratios have been significantly redesigned. Because capital management is first and foremost a business process, and therefore inextricably linked to core functions (operations, planning, and strategy), capital reform will ultimately create a paradigm shift for many Banking Organizations as they reevaluate business models, core product and service offerings, and revenue sources. Banking Organizations most likely to succeed will embrace capital reform as a strategic imperative, rather than a compliance exercise. Additionally, successful Banking Organizations will find ways to adapt business models to deliver revenues in a rapidly changing and increasingly risk-averse environment.

A Daunting Task

Capital reform is significant for most Banking Organizations. The effort typically requires months to conceptualize and years to fully implement, necessitating substantive changes to business models, operations, and governance. These changes often subject organizations to significant human capital and change management concerns. Capital reform has far-reaching implications throughout an organization, requiring cross-functional collaboration and involving significant commitment from business lines, corporate functions, risk management, the board of directors, and impacted employees.

For many large internationally active U.S. Banking Organizations, the effort to implement capital reform is further complicated by the fact the Basel capital frameworks (Basel I, II, and III) are adopted by the Basel Committee, an international standards setting body, to be separately adopted and implemented in its member jurisdictions. These members are permitted to make adjustments to the frameworks for consistency with their national laws, potentially creating the need for U.S. Banking Organizations operating in multiple international jurisdictions to be required to comply, to some degree, with a variety of separate capital requirements independent of the U.S. rules. The differences in the national rules can have significant business impact, influencing an organization's relative competitiveness and its strategic initiatives affecting product mix, and debt and equity offerings.

Partnering with a Trusted Advisor

While each Bank is unique, many firms take a similar approach to addressing capital reform and deploying third-party resources. Typically, Banking Organizations establish a project management office (PMO) to drive program objectives, monitor progress, and support business unit and work stream efforts. Internal and external teams are tasked with tracking and deciphering the myriad of new, proposed, and evolving capital rules. Cross-functional teams are created to evaluate the impact of such rules on liquidity, business lines, product lines, infrastructure, and strategies. And once management has set a course of action, organizations engage specialized resources to implement business processes (data, analytics, and infrastructure), reporting requirements, and governance practices. Leading organizations also leverage external resources to suggest proactive industry practices to support a sustainable, coordinated, and value-added regulatory response. Finally, a recent trend suggests organizations turn to trusted advisors to provide low cost delivery models, including on- and off-shore resource models linked to mid- and year-end regulatory report processing and data governance activities.

Trust in KPMG

KPMG LLP, the U.S. member firm of KPMG International Cooperative ("KPMG International"), is an industry-recognized, global audit, tax, and consulting firm. The financial services industry is one of the core industry segments we serve; and KPMG supports many of the world's largest Banks and non-Bank financial services companies, including investment banks, broker-dealers, hedge funds, investment advisers, insurance companies, and non-Bank providers of consumer financial products and services.

KPMG's national Capital Management practice is comprised of professionals with deep knowledge in regulatory, technical, and tax issues, supported by global centers of excellence. Our network of professionals understand the enormous pressures faced by our clients and are well positioned to assist throughout the complete capital management life cycle, including requirements definition, capital impact analyses, business model and infrastructure implementations, and strategic studies. We offer practical solutions, customized to the needs of banks of all sizes including large money-center banks, regional banks, community banks, and FBOs operating in the United States, as well as the various non-Bank financial services companies, including SIFIs.

KPMG's goals are closely aligned with those of our clients. We consistently strive for cost and operational efficiencies, sustainability through technology-based solutions, and a balanced, real-world approach that considers both regulatory mandates and individual client business models. At KPMG, we understand that capital management is far more than a regulatory exercise; it is fundamental to core operations and business strategies, and paramount to Bank financial performance. Our deeply passionate, qualified, and large-scale teams are ready to help.

A Wide-Ranging Suite of Services

KPMG offers a full complement of services to meet broad and complex regulatory capital management needs. KPMG recognizes that capital is a powerful measure for a range of stakeholders—including management, regulators, investors, and other interested external parties—and, as such, our capital management solutions are flexible and can accommodate diverse capital objectives and constituencies.

Full-Circle Capital Management Support

KPMG's Capital Management practice assists clients across a wide range of initiatives. Core capital management services include:

- Regulatory and Economic Capital
- Liquidity
- Dodd-Frank Act Stress Testing (DFAST)
- Comprehensive Capital Analysis and Review (CCAR)
- Capital Optimization
- Modeling and Analytics

KPMG recognizes each core capital management service is inextricably linked to data, systems and infrastructure, governance, and tax considerations. Based on each client's need, KPMG delivers these and other supporting services as a comprehensive capital management solution or stand-alone components.

Source: Capital Management Services, KPMG LLP (U.S.), 2013

Regulatory Capital

Over the past decade, significant steps have been made to improve the stability of our global financial system. To that end, we have seen a plethora of regulatory reform initiatives including the 2007–2009 updates by the Basel Committee to its Basel II Capital Framework[4], the stress testing and early remediation requirements under Titles I and II of the 2010 Dodd-Frank Act[5], the 2010 finalization of the Basel Committee's Basel III Capital Framework,[6] and the 2012 proposed restructuring of the supervisory framework for FBOs operating in the United States.

At the core of these efforts by governments, regulators, and external constituencies is a desire to strengthen financial systems through minimum capital requirements, improved risk transparency, and additional protections against unexpected, yet plausible, adverse credit and economic conditions. While each new capital reform adds protections, these protections often come at the expense of financial performance and flexibility, and require yet more capital to implement and help ensure compliance. It is clear that both regulators and Banking Organizations are committed to fundamental risk management and risk transparency objectives. The challenge, however, is determining how to implement the proposed standards and the implementation time line given the highly unique business models, risk profiles, and varying asset bases to absorb the costs of compliance.

Basel II

In 2007, the United States adopted Basel II, which served as an enhancement to the largely credit risk focused, asset-based, risk weighting system prescribed in the 1998 Basel I accord. Basel II expanded minimum capital guidance to include a risk-based program, provided additional direction on operational risks, and reaffirmed the approach for Market Risk as described in the U.S. bank regulators' 1996 Market Risk Rule.[7] The U.S. Basel II final rule required Banks to satisfactorily complete a four-quarter "parallel run" period (i.e., calculating minimum capital ratios under both the Basel I and Basel II capital frameworks) before operating under the Basel II framework. And, at the time of this writing, no U.S. Bank has yet to successfully exit "parallel run."

The Basel II framework is comprised of three pillars—Minimum Capital Requirements (Pillar 1), Supervisory Review (Pillar 2), and Market Discipline (Pillar 3). Pillar 1 guides regulated banks to calculate credit and operational risks using one of three prescribed options and reaffirms value-at-risk for market risk measurement. Pillar 2, also known as ICAAP (Internal Capital Adequacy Assessment Process), empowers regulators and Banks with guidance and tools to manage risk and allocate capital for assets that cannot be quantified under Pillar 1. Pillar 3 requires improved transparency through board-approved risk and capital disclosures.

Issues and Implications

Key issues faced by Banking Organizations pursuing Basel II compliance include:

- **Collaboration and sustainability.** Banking Organizations are under tremendous pressure to implement a wide range of regulatory guidelines, typically involving multiple and disparate business units. As companies progress towards Basel II and other capital reform compliance, the challenge transitions from tactical implementation to program sustainability. To that end, firms are looking for progressive and asset-based solutions to help ensure ongoing regulatory compliance and measures to improve coordination between overlapping regulatory responses and accountability functions.
- **Improved modeling and analytic capabilities**. While there are many contributing factors, industry stakeholders believe models and the lack of supporting analytics are at the heart of why no U.S. Bank has yet successfully exited parallel run. In particular, organizations must work to improve their models and modeling capabilities to perform under severe events, similar to those experienced during the 2007–2008 global financial crises.
- **Satisfying "The Use Test."** Under ICAAP, management must demonstrate that risk management practices described under Basel II are institutionalized and embedded in a Bank's operational fabric. To this end, organization's are aggressively moving from a tactical, rule-based implementation program to a steady-state approach wherein the complete credit cycle—including methods, policies, tools, and controls—is verifiable and sustainable.
- **Ongoing validation**. Under Section 22 (j) of the Basel II Final Rule[8], the Bank's board of directors must review and approve the effectiveness of advanced systems at least annually. Additionally, advanced systems must be periodically validated and stressed. As organizations work towards compliance, many struggle with selecting the appropriate Basel II processes to be included in the annual validation process, ensuring advanced system independence, and continuing advanced system practices beyond parallel run.
- **Combining CCAR and ICAAP**. Leading organizations are pursuing measures to rationalize common requirements prescribed in CCAR (the Comprehensive Capital Analysis and Review, under Federal Reserve requirements) and ICAAP (under Basel II requirements). In this spirit, they are reviewing opportunities to clearly define organizational requirements related to CCAR and ICAAP, transition requirements to one or more departments, and, where feasible, consolidate capital accountabilities for these and other regulatory mandates.

Basel III

Basel III was initiated by the Basel Committee between 2008 and 2009 to address weaknesses and gaps in the Basel II capital framework that were highlighted on an international scale during the 2007–2008 global financial crises. It was finalized in 2010, building on Basel I and II tenets and representing a continued, international, effort by bank regulators to improve Bank and financial system resilience. It serves to supplement, and in some cases replace, Basel II standards. In short, Basel III at the international level expands Tier 1 capital charges, introduces a new supplementary leverage ratio for Banks operating under the advanced approaches, introduces two liquidity ratios, and modifies qualifying Tier 1 inputs and calculations.

In June of 2012, the U.S. bank regulators (the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency (OCC), and the Federal Deposit Insurance Corporation (FDIC)) jointly issued a final Market Risk Rule[9], which requires Banking Organizations with significant trading activities to adjust their capital requirements to account for the market risks of those activities. This final rule implements certain revisions made by the Basel Committee to its Basel II market risk framework, but consistent with requirements of the Dodd-Frank Act, does not include provisions of the Basel Committee's market risk framework that rely on external credit ratings.

Also in June 2012, the U.S. bank regulators issued three Notices of Proposed Rulemaking (NPRs) that together would apply Basel III to U.S.-regulated Banks[10], with some exceptions, including accommodations for provisions in the Dodd-Frank Act. As proposed, the rules would expand the qualifying bank definition to include, generally, all Banking Organizations under the supervision of the agencies, including all insured depository institutions, BHCs with total consolidated assets of US$500 million or more, and SLHCs of all sizes. Additional qualifying thresholds were proposed for application of the advanced approaches and market risk rules.

In July 2013, the three U.S. bank regulators approved a final rule that combines, with revisions, the three NPRs issued in June 2012. In final form, the rule is substantially similar to the proposals, except for revisions that are generally intended to ease the compliance burden of most smaller and community banking organizations.[11] In addition, SLHCs that are "substantially engaged" in insurance underwriting or commercial activities have been excluded from the requirements of the rule, though the Federal Reserve expects to issue separate rulemakings specific to these entities. The U.S. Basel III rules will require all qualifying Banking Organizations to meet, subject to a phased-in schedule, new capital requirements that are generally consistent with the Basel III capital framework and include:

- A higher minimum common equity Tier 1 (CET 1) capital ratio (4.5 percent of common equity, up from 3 percent in Basel II);
- A higher minimum Tier 1 capital ratio (6 percent of Risk-Weighted Assets (RWAs), up from 4 percent in Basel II);
- A leverage ratio (Tier 1 capital to average consolidated net assets) of 4 percent;
- A mandatory capital conservation buffer whereby CET 1 capital must exceed RWA by 2.5 percent. Failure to exceed the buffer will subject an entity to limitations on capital distributions and certain discretionary bonus payments; and
- Stricter definitions of capital.

Banking Organizations that meet a consolidated total assets threshold of at least US$250 billion or have consolidated total on-balance sheet foreign exposures of at least US$10 billion will be subject to additional requirements under the advanced approaches of the Basel III rule, including:

- A discretionary 0-2.5 percent countercyclical capital buffer to supplement the capital conservation buffer, and initially for U.S.-based assets the buffer will be zero, whereas overseas-based assets will be determined based on the countercyclical buffer adjustments by foreign regulators; and
- A minimum supplementary leverage ratio of 3 percent, which incorporates certain off-balance sheet exposures in the denominator and is consistent with the international Basel III requirement.

Provisions of the final rule that address the compliance burden for smaller institutions include:

- Retention of the current treatment for residential mortgages under the risk-based capital rules,
  - 50 percent risk weight for first-lien residential mortgage exposures (unchanged[12]);
  - 100 percent risk weight for other residential mortgage exposures (unchanged).;
- A one-time election not to include most elements of accumulated other comprehensive income (AOCI) in regulatory capital (in favor of the existing treatment);
- Delayed implementation of one year.

Features of the final rule that are specific to and implement the Dodd-Frank Act requirements include:

- Permanent grandfathering of nonqualifying capital instruments (such as Trust Preferred Securities (TruPS) and cumulative perpetual preferred stock issued prior to May 19, 2010) in the Tier 1 category for depository institution holding companies with total consolidated assets of less than US$15 billion as of December 31, 2009 and Banking Organizations that were mutual holding companies as of May 19, 2010.
- Alternatives to credit ratings as required by the Dodd-Frank Act, including new ways of assessing the RWA of securitization exposure through the Supervisory Formula Approach (SFA) and the Simplified Supervisory Formula Approach (SSFA) as a ratings-based and internal assessment approach replacements.
- Enhanced disclosure requirements, including public notifications related to regulatory capital instruments applying to Banking Organizations domiciled in the United States with US$50 billion or more in total assets.

Significantly, the U.S. banking agencies also proposed to enhance the supplementary leverage ratio under the final Basel III rule for the largest, most systemically important Banking Organizations (proposed to be BHCs with more than US$700 billion in consolidated total assets or US$10 trillion in assets under custody—Covered BHCs) that would require them to maintain a Tier 1 capital leverage buffer of at least two percent above the minimum supplementary leverage ratio requirement of three percent, for a total of five percent.[13] The two percent leverage buffer would function much like the capital conservation buffer for the risk-based capital ratios such that a Covered BHC that maintains a leverage buffer of Tier 1 capital in an amount that is greater than two percent of its total leverage exposure would not be subject to limitations on its discretionary bonus payments and capital distributions. In addition, the proposed rule would require insured depository institution subsidiaries of Covered BHCs to meet a six percent supplementary leverage ratio to be considered "well capitalized" for prompt corrective action purposes. The proposed rule would become effective January 1, 2018.

Issues and Implications

Basel III presents a variety of issues for Banking Organizations, the most urgent of which include:

- **Potential pressure on profitability and returns on equity (ROE)**. Banks expect continued pressure on returns as a result of the proposed regulatory requirements. Regulatory reform is expected to further increase minimum capital requirements, limit qualifying capital elements, expand liquidity thresholds, and require significant investment of resources to achieve desired analytics, processes, governance, and infrastructure.
- **Change in balance sheet composition due to proposed liquidity ratios**. Banks will be required to carefully scrutinize the stability of their deposit base under stressed conditions and enhance their funding profile to consider a potentially greater mix of term funding with maturities greater than one year. Additionally, Banks will be required to hold a greater percentage of their asset base in more liquid instruments—with potential impacts on margins, given the lower-risk nature of the assets.
- **Leverage ratio requirements could raise the floor on minimal capital requirements for many institutions**. This proposed rule change may cause Banking Organizations to reconsider business models, legal entity structures, and booking/funding models—particularly around consolidated broker-dealers.
- **Complicated transition period for Banks in attracting and retaining third-party investor interest**. Bank income sources and financial results may be dramatically altered as a result of regulatory reform. The new banking paradigm, coupled with potentially lower margins, may lead certain investors to turn to alternative interests and industries—ultimately making Bank fundraising more difficult, less liquid, and more expensive.
- **Strategic evaluation of business is underway**. When combined with broader financial reforms, the new capital framework will alter business economics in such a way as to require Banking Organizations to review customers, markets, and products and to rebalance their businesses (see Capital Optimization section on page 14).
- **Continued period of elevated compliance costs driving transformation in the marketplace**. The cost of compliance continues to drive transformation in the marketplace, in particular for the community banking sector where regulatory compliance costs represent approximately 35 percent of bank revenues. Regardless of size, Banks are continually looking for solutions to implement regulatory reform in a cost-effective manner and to utilize asset-based approaches to reduce manual efforts and promote a sustainable future state solution. Where strategic solutions are not available, Banks are increasingly moving to low-cost resource models (e.g., off-shore or low-cost on-shore) as a means to provide cost-efficient labor and peak processing.

Liquidity

The global financial crisis of 2007–2008 highlighted the fact that even well-capitalized Banks can fail. This finding prompted a new focus on Bank liquidity, and resulted in both international and domestic efforts to introduce a new liquidity framework, including measures and disclosures.

In September 2012, the Basel Committee reported there was a €1.8 trillion difference between the amount of high quality liquid assets held by banks that did not meet its proposed Liquidity Coverage Ratio and the 30 day net cash outflows of these banks (discussed below).[14] According to a March 2013 study, the Committee also noted a €2.4 trillion difference between available stable funding and the amount that would be required under full implementation of its proposed long term liquidity risk measure, the Net Stable Funding Ratio[15].

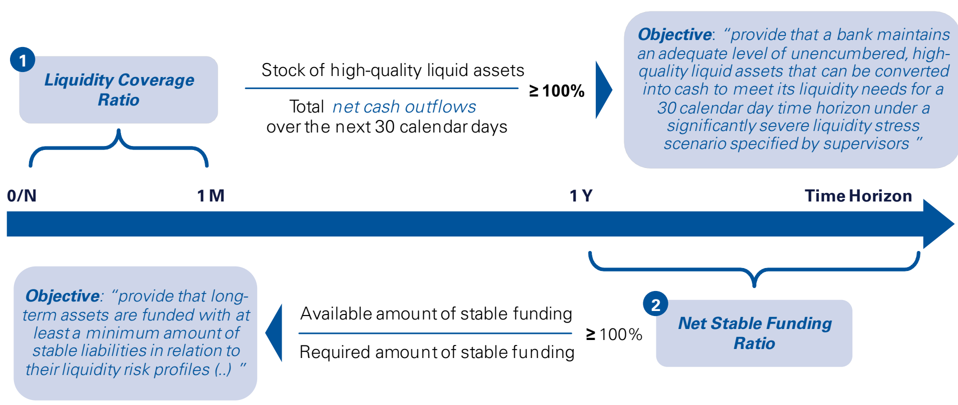
Because banks and nonbank financial services companies around the globe are being drawn into similar types of regulatory oversight, a broad range of entities will be attempting to take similar actions at the same time to improve their liquidity positions. These organizations have already begun implementing relatively easy fixes, starting with rebalancing portfolios and raising new capital. Borrowers have also begun pursuing alternatives to existing short-term funding programs that rely on back-up liquidity.

These Banking Organizations should also be reexamining their funding structures and may need to consider slowing the growth of assets to reduce the pressure on funding. To move beyond compliance, impacted organizations must expand their efforts in four key areas: business models (including product offerings and pricing); governance; IT framework; and measuring, monitoring, and transfer pricing tools and methodologies.

Basel III

The Basel Committee's Basel III capital framework introduced the first global quantitative framework and minimum standard for liquidity. In particular, Basel III introduced two minimum liquidity ratio standards designed to promote separate but complementary objectives:

- A Liquidity Coverage Ratio (LCR that will address short-term liquidity concerns and require banks to hold unencumbered high-quality liquid assets (HQLA) that can be quickly converted to cash to enable a Bank to survive a prescribed significant stress scenario lasting for 30 days. The ratio is calculated as the "stock of HQLA" divided by "total net cash outflows over the next 30 calendar days," which must be at least 100 percent (when fully phased-in).
- A Net Stable Funding Ratio (NSFR) that will address a longer horizon and will be used to promote sustainable medium- and long-term maturity structures for assets and liabilities. The ratio is calculated as the "available amount of stable funding" divided by the "required amount of stable funding," which must be at least 100 percent (when fully phased-in). It is intended to supplement the LCR.



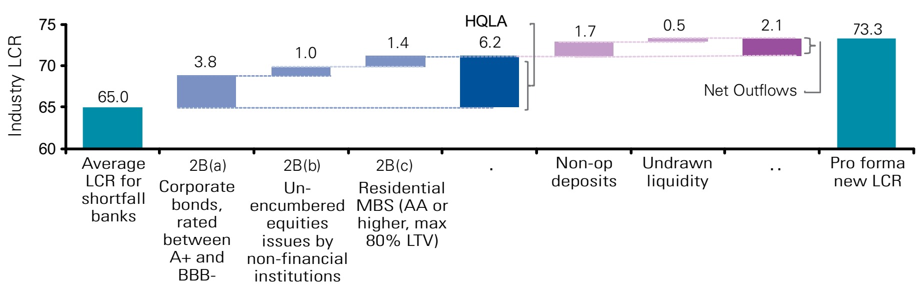
Source: "Basel III: International framework for liquidity risk measurement, standards and monitoring", Dec. 2010.

The Basel Committee also developed an additional set of monitoring tools to be used by supervisors in the ongoing monitoring of liquidity risk exposures of banks. These tools include:

- Contractual maturity mismatch
- Concentration of funding
- LCR by significant currency
- Market-related monitoring tools
- Available unencumbered assets.

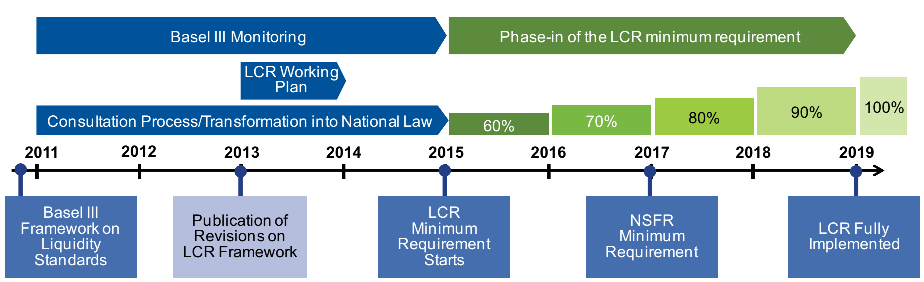
In January 2013, the Basel Committee revised certain aspects of the LCR calculation that had been embedded in the original Basel III capital framework release.[16] The revisions included amendments to the definition of the LCR that reflect relaxation of the criteria for HLQA-eligible assets and adjustments to net outflow assumptions. According to an analysis conducted by KPMG[17], the changes to HQLA criteria and net outflows may have increased bank's pro forma LCRs by 2–10 points leaving a significant shortfall.

Impact of changes in outflow rates and HQLA on LCR



Source: Bank for International Settlements (BIS), KPMG Research, 2013.

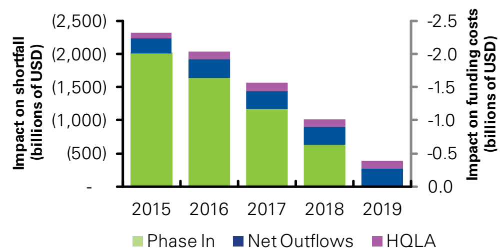
The revisions also modified the implementation schedule by introducing a four-year, phase-in schedule that begins on January 1, 2015 with a minimum LCR requirement of 60 percent. The requirement would gradually increase to a 100 percent minimum by January 1, 2019.



Source: *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

As the chart below illustrates, the impact of the four-year phase in is significantly greater than the technical adjustments made to the calculation in January 2013.

Impact of January 2013 changes in LCR Rules



Source: Bank for International Settlements (BIS), KPMG Research, 2013.

The Basel Committee has separately stated that it is "reviewing the NSFR, which continues to be subject to an observation period and remains subject to review to address any unintended consequences. It remains the [Basel] Committee's intention that the NSFR, including any revisions, will become a minimum standard by January 1, 2018."[18] The January 2013 revisions did not impact the NSFR.

The current Basel III schedule provides that neither of the ratios will be implemented immediately. However, like the capital adequacy standards under the Basel III framework, individual jurisdictions may make modifications to the liquidity requirements, such as requiring higher levels of minimum liquidity or introducing features to better reflect the liquidity risks affecting banks under their national authorities. Accordingly, some prudential supervisors have elected to adopt implementation schedules that require an earlier compliance date, at least for the LCR. Similarly, some jurisdictions have commenced regulatory reporting requirements for the LCR and NSFR, and some banks are providing public disclosure of the LCR metric.

Liquidity Measures in the United States

The federal banking regulators' proposal to adopt Basel III in the United States did not address how the LCR and NSFR liquidity measures will be implemented[19]. In 2011, the Federal Reserve issued proposed rules to implement the enhanced prudential standards provisions of the Dodd-Frank Act, which include liquidity requirements. To that end, the Federal Reserve proposed to require large U.S. BHCs with total consolidated assets of US$50 billion or more and SIFIs (together, covered companies) to implement certain liquidity standards in two phases:

- First, they would be required to take a number of steps to manage liquidity risk, including meeting specified corporate governance requirements around liquidity risk management, projecting cash flow needs over various time horizons, establishing internal limits on certain liquidity metrics, and maintaining a contingency funding plan that identifies potential sources of liquidity strain and alternative sources of funding when usual sources of liquidity are unavailable. This phase would include a liquidity buffer, composed of highly liquid assets, sufficient to cover 30-day stressed net cash outflows under internal stress scenarios.
- Second, the Federal Reserve would require covered companies to satisfy specific quantitative liquidity requirements derived from or consistent with the Basel III liquidity rules. The Federal Reserve has indicated that it is considering, in conjunction with the other federal banking regulators, to implement the Basel III liquidity standards in the United States through one or more separate rulemakings. The Federal Reserve adds that it "anticipates" the Basel III liquidity rules would then become a central component of the enhanced liquidity requirements for the covered companies, or a subset of covered companies, under Section 165 of the Dodd-Frank Act.[20]

Issues and Implications

Given the magnitude of the challenges, Banks (including SIFIs) must prepare to respond to the new liquidity framework well before the full scope and impact of regulations are known. Many organizations in the United States have made early preparations, though to varying degrees and levels of sophistication. Example measures that affected Banks may want to consider include:

- **Contingent obligations and wholesale funding**. The liquidity environment will be evolving in response to implementation of the new framework internationally, creating benefits for ongoing reviews of structures and pricing, including margin requirements, the potential for draws on extended lines of credit, and wholesale funding terms.
- **Liabilities**. In anticipation of the LCR and "liquidity buffer" in the United States, Banking Organizations might wish to extend the maturity of liabilities, where possible, and to shift the balance of deposits towards "more stable" retail deposits and longer-term wholesale funding through bond issuances and other structures.
- **Assets**. Impacted entities may need to increase holdings of assets that meet the HQLA definition, including giving consideration to: replacing less liquid securities and other assets with government bonds and other instruments that qualify as HLQA; entering into liquidity swaps to exchange less liquid assets for HLQA; and reducing the maturity of some lending to less than the one-year measure that is critical to longer-term liquidity requirements, such as Basel III's NSFR.
- **Related actions**. Additional actions, such as raising new capital, selling long-term assets, and issuing medium-term unsecured wholesale funding that could be "bailed in" as part of the resolution of a failing organization, might prove to have a beneficial impact on liquidity positions.
- **Other considerations**.
  - **Transfer pricing**. Funds transfer pricing structures should ideally reflect the cost of the hedge to offset liquidity risk exposures, be arbitrage-free, and market-based within the context of new regulatory regimes. If liquidity costs and benefits are reflected in the product design and customer pricing process to align incentives with the current liquidity landscape, it will help align incentives given the new liquidity framework.
  - **Single source of truth**. The data required to meet regulatory objectives is currently being gathered through tactical metric-specific approaches though the required elements are similar to those needed for comprehensive asset/liability management, credit risk management, operational risk management, and business planning applications. By taking a holistic view, the information can be used to gain a better understanding of the relationships between risks.
  - **Understanding the business by legal entity and business line**. The new liquidity framework can drive competition for more stable sources of funding and possibly reduce the availability of wholesale funding, forcing Banking Organizations to develop efficient, accurate, and realistic funding plans and to build or strengthen relationships with funding sources. Tightening liquidity regulations are likely to reduce cross-subsidization of different business lines—so each should be better prepared to stand alone.

Dodd-Frank Act Stress Test

In November of 2011, the Federal Reserve, OCC, and FDIC each released final rules implementing the Dodd-Frank Act requirements for Banking Organizations to conduct company-run stress tests. The final rules are applicable to entities under the supervision of the agencies with total consolidated assets in excess of US$10 billion. The agencies coordinated on the release of their final rules and will also coordinate on the annual release of the stress-testing scenarios. Implementation for Banking Organizations with total consolidated assets of US$50 billion or more generally began in 2012, while SLHCs of all sizes and entities with total consolidated assets between US$10 billion and US$50 billion as of December 31, 2012 begin compliance in 2013.

In summary, DFAST requires an entity to correlate its historic performance with key macroeconomic factors (such as the Housing Price Index, Consumer Price Index, and Unemployment Rate) and, based on the results of that analysis, to forecast their expected future balances for nine quarters. The agencies will then utilize the results to assess bank capital levels under certain "stressed" scenarios and recommend or restrict certain activities.

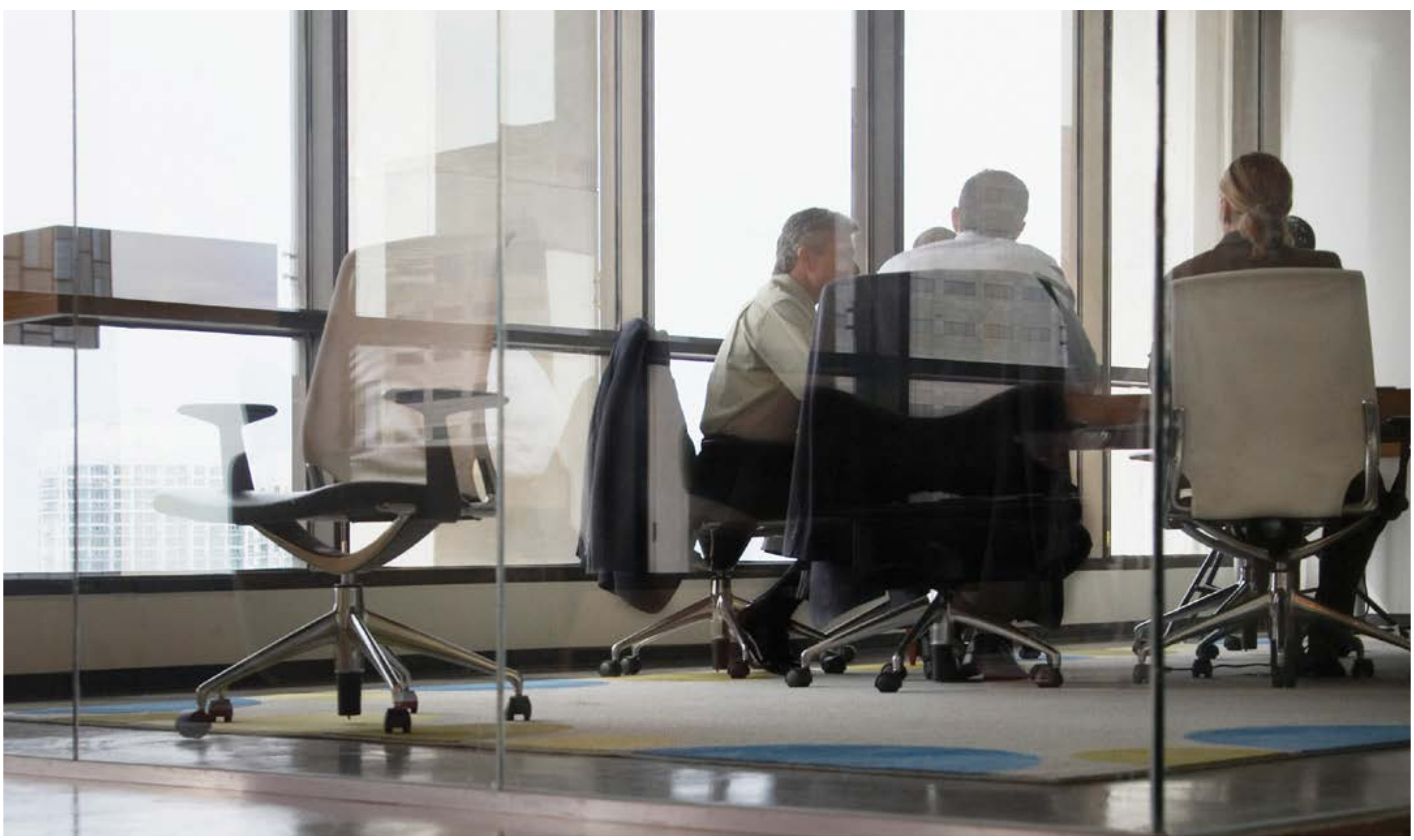
The Federal Reserve released a separate rule that requires BHCs with total assets of US$50 billion or more (and SIFIs under Federal Reserve supervision) to conduct company-run stress testing (DFAST) as well as supervisory stress testing beginning in 2012 for certain entities previously subject to the CCAR and in 2013 for the remainder (discussed more fully under the CCAR section on page 12). The DFAST and CCAR sets of stressed scenarios are expected to be identical, but there will be more focus on the inclusion of capital actions for CCAR, where the balance sheet is modeled dynamically.

In December 2012, the Federal Reserve subsequently released a separate proposed rule that would introduce new regulatory requirements for certain FBOs operating in the United States. The proposal would implement, pursuant to Section 165 and 166 of the Dodd-Frank Act, enhanced prudential standards for these entities, including requirements for: risk-based capital and leverage, liquidity, stress testing, and early remediation. As proposed, FBOs with total consolidated assets of US$50 billion or more and U.S. assets of US$10 billion or more (excluding U.S. branch and agency assets) would also be required to form a U.S. intermediate holding company (IHC) that would generally serve as a U.S. top-tier holding company for the U.S. subsidiaries of the company. The IHC would be subject directly to the enhanced prudential standards, including capital and liquidity requirements, in a manner that is consistent with the application of the enhanced prudential standards to U.S. BHCs (such as DFAST and CCAR, as appropriate).

Issues and Implications

Complying with DFAST regulations is proving difficult for many Banks. Issues stem from a general discomfort with the data and analytics required to meet required regulatory reports and analysis. This point is supported through early regulatory feedback citing broad concerns regarding inconsistencies between forecast scenarios and historic performance and the need for improved analysis or justification. Key issues have surfaced in the following areas:

- **A framework and process for data capture**. As previously stated, data is likely the single biggest challenge facing most community banks and larger institutions. The issue is exacerbated by a recent period of low infrastructure investment, disparate systems, and largely manual data input and data quality assurance methods.
- **Robust data analytics**. Banks are expending significant effort to enhance data analytics supporting stress test correlations—in particular between risk types, industries, and concentrations. Further, Banks are investing in infrastructure, processes, and asset-based solutions to help ensure a repeatable, controlled, and sustained framework.
- **Appropriate human capital and training**. Banks are enhancing or augmenting staff to help ensure requisite skill sets and monitoring capabilities. Staffing considerations extend beyond management activities to include technical proficiencies in oversight committees, monitoring functions, and the board of directors. In addition to staffing, Banks are improving training programs to increase regulatory awareness and to promote a sustainable and capable workforce.
- **Adequate documentation**. As Banking Organizations implement complex operations in response to regulatory reform, internal documentation generally becomes stale. The level of effort required to update committee charters, policies, procedures, delegations of authorities, process flows, controls, and model documentation can be time consuming and labor intensive. As such, Banks are refreshing documentation and seeking technologies, including work flow management tools, to facilitate expected future change.



Comprehensive Capital Analysis and Review

The Federal Reserve published final CCAR rules in November of 2011, that are applicable to BHCs with average total consolidated assets of US$50 billion or more and the nonbank SIFIs it supervises. The final rules implement portions of Section 165 of the Dodd-Frank Act that require entities to conduct annual company-run stress tests (DFAST) and supervisory stress tests, which under the final rules are satisfied by the CCAR. The 19 BHCs that participated in the Federal Reserve's 2009 Supervisory Capital Assessment Program (SCAP) and the subsequent CCAR (Comprehensive Capital Analysis and Review) in 2010 were required to begin compliance with the final rules on November 15, 2012. Results of the stress tests were publicly disclosed in March 2013. All other BHCs meeting the asset threshold and SIFIs supervised by the Federal Reserve are required to begin compliance in October 2013. Banks subject to CCAR requirements must produce the following information beginning early January in each year they qualify:

- Projected annual Income Statement, Balance Sheet, and Capital ratios over nine quarters (14A Schedules (annual))
- Four stress test scenarios—two Federal Reserve-defined baseline and stress scenarios and two Bank-defined baseline and stress scenarios. BHCs with large trading operations are also required to provide an additional global market shock scenario
- Forecasts for business growth, interest income, fee revenue, losses, etc.
- A comprehensive capital plan, including projected capital actions such as share and debt issuances/repurchases or dividends
- Quarterly and monthly asset data (14Q and 14M Schedules, respectively) with historical data.

Issues and Implications

The effort required to satisfy CCAR requirements is data intensive and requires close coordination between multiple business units and systems. Common CCAR implementation issues include:

- **Repeatable and sustainable process**. Companies strive to create repeatable and sustainable processes to perform required CCAR reports, actively forecast and assess capital implications, and rationalize assumptions and outcomes.
- **Cost reduction**. The CCAR implementation experience has been difficult and costly for early and current participants. Primary costs include infrastructure, data and analytics, system connectively solutions, and human capital. In each category, organizations have pursued creative solutions including single-instance data solutions, low cost peak resourcing strategies (e.g., off-shoring), enhanced modeling capabilities, and organizational regulatory realignment solutions (e.g., consolidated regulatory center).
- **CCAR efficiencies**. In the absence of a single third-party solution, Banks are exploring process and technology improvements to achieve faster processing times, increased data and analytical capabilities, and improved ability to reconcile historical/actual data and projections. As previously stated, however, improved efficiency objectives must be rationalized with competing cost-efficiency goals.
- **Designating roles and responsibilities**. CCAR is a cross-functional effort requiring input from multiple constituents. Banking Organizations are moving to formal documentation of accountabilities—specifically data owners, source systems, and organizational activities—and to specification of data and assumption interdependencies. This process is difficult for several reasons, not the least of which are the significant public policy concerns that arise when roles and responsibilities within an organization are reconsidered or redefined.
- **Adequate modeling**. While many Banking Organizations have established models and processes to forecast credit losses, others are facing challenges to develop models that forecast –pre-provision net revenue (PPNR) at the required granularity.
- **CCAR transformation**. Leading organizations are pursuing progressive models to combine CCAR and other regulatory activities (e.g., ICAAP) to achieve improved data, process, and risk management efficiencies. This evolution involves a fresh look at the traditional siloed method to manage dispirit regulatory activities and considers new concepts, including a regulatory center. While the level of effort is high and the concept forces a sensitive discussion regarding business activity ownership and accountabilities, the rewards are typically great.

Capital Optimization

The primary objective of regulatory reform is to increase Bank capital holdings and improve financial system stability. The practical effect for many Banks is a general reduction in available capital and a need to either increase funding or critically evaluate the activities and operational practices that are driving higher capital needs.

Despite the compliance requirements, regulatory reform has had a positive impact on many Banks as they more aggressively seek new methods to improve capital positioning and in doing so improve modeling accuracy and rationalize product offerings. For example, Banks have tested modeling accuracy by reviewing the potential impacts from incomplete or inaccurate data (e.g., potential adverse effect to RWAs) as well as from simplified management assumptions (e.g., potential effect from data extrapolation measures and the use of proxy data). Similarly, Banks have sought to strategically evaluate the capital consumed with existing and proposed products. Under Basel III risk-based capital rules, Banks are required to hold more capital for products deemed higher risk. In many cases, the higher risk products, including interest-only mortgages and highly volatile commercial real estate, comprise a material portion of the Bank's portfolio and have a significant capital impact. In light of these analyses, Banks typically undergo a thorough process to reevaluate their high risk business activities, giving consideration to the degree to which the Bank will continue to support such activities, and the broader impact that any modifications might have on the Bank's strategies, customers, liquidity, and core operations.

Without a focused effort on RWAs operational practices and product mix, Banks can quickly find themselves with a costly capital raising and funding program or at a competitive disadvantage.

Issues and Implications

Capital optimization requires inputs from, and impacts analysis by, multiple constituencies within an organization. Key considerations for organizations as they embark on capital optimization include:

- **Data strategy, infrastructure, and analytics**. Under Basel II, insufficient data results in adverse capital treatment. As such, Banks should review current and historical data tables for applicability and completeness. Where data is deemed insufficient or not sufficiently correlated, Banks should evaluate the impact to capital and assess alternative approaches (e.g., data build vs. buy decisions). Additionally, Banks should review data quality and supporting analytics to produce favorable capital requirements.
- **Focused efforts on identifying and resolving interpretive issues**. Financial institutions should work with their regulators to understand, clarify, and confirm expectations. Specific attention should be given to interpretive issues where the balance between regulatory scrutiny and implementation costs are paramount. This process may be challenging given vast and complex changes, an aggressive implementation time line, and significant demands placed on regulatory and business team leaders.
- **360° analysis of proposed solutions**. Banking Organizations should implement a formal evaluation process to address the complete regulatory capital life cycle. This effort extends beyond the upfront impact analysis to include mid-stream and post-implementation assessments. The recommended process typically includes clear upfront regulatory and business objectives, key evaluation metrics, and a post mortem analysis. These results, including suggested assessment and improved evaluation methods, are included in forthcoming impact assessments. The complete 360° effort is deemed helpful as companies pursue continuous and sustainable regulatory capital initiatives.

- **Refined business strategy**. Banks are encouraged to evaluate customers, products, markets, and structuring practices in a post-Basel III/Dodd-Frank environment. This may entail exiting markets or relationships, rethinking go-to-market strategies, emphasizing new or legacy (but not previously emphasized) capabilities that require comparatively less capital, and considering new hedging strategies to reduce deployed capital. Further, new regulatory mandates may necessitate alternative transaction structures, capital structures, and accounting and tax treatment.
- **Reassessed legal entity strategy**. Financial institutions are increasingly reviewing their legal entity structure considering liquidity and capital constraints as well as the cost of legal entity compliance. The legal entity discussion is increasingly important and relevant to supporting regulatory issues including, but not limited to, RRP (recovery and resolution plans) and the proposed IHC rules affecting FBOs operating in the United States.

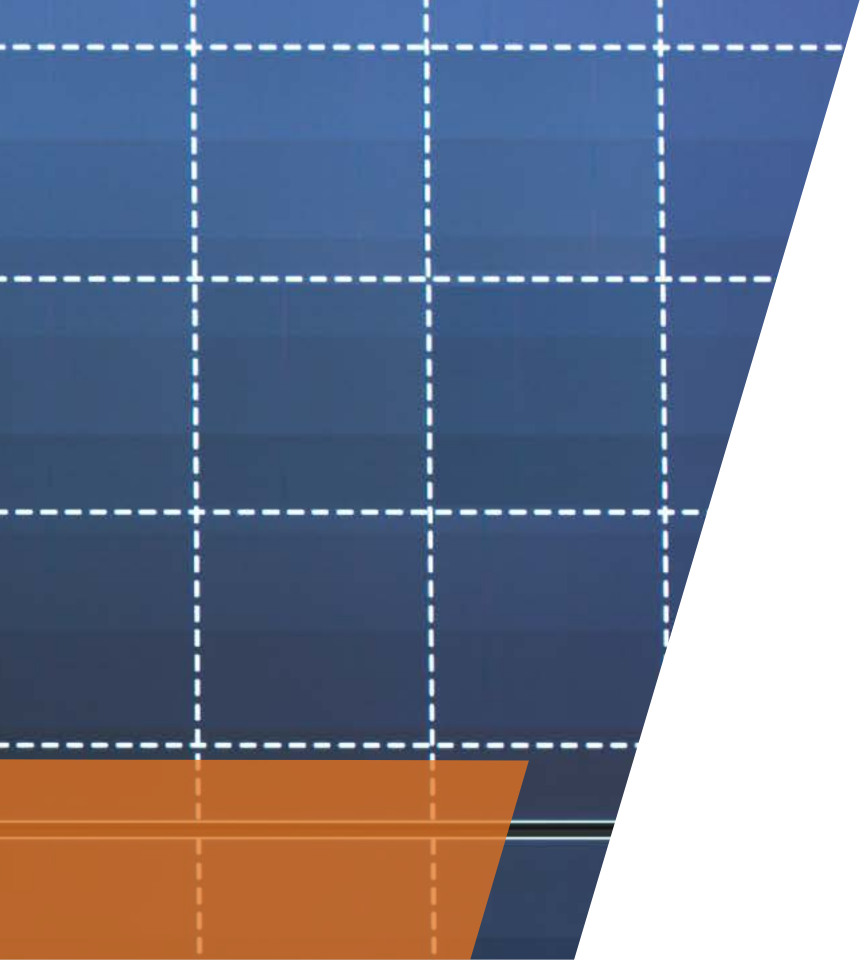
Modeling and Analytics

A key theme across all capital regulation is the need to perform complex historical data analysis and forecasting. For example, the Capital Plan Review (CapPR), CCAR, and DFAST rules require Banks to accurately capture data correlations between the underlying business value drivers and the stated macro-economic variables that comprise the stress-testing scenarios. Data correlations require not only a vast amount of historical data, but also a model, or framework of models. These models must be sufficiently powerful to handle the necessary volume as well as sufficiently sophisticated to handle the subtleties of the varying stress scenarios. Based on regulatory feedback, these data and analytical issues have posed implementation challenges for both small and large Banking Organizations and non-Bank financial services companies, and are expected to continue to do so in the foreseeable future.

In April of 2011, the Federal Reserve and OCC issued joint guidance, revising OCC 2000-16 model validation guidance, to include a more holistic view of model governance. The new guidance, Federal Reserve SR 11-7/OCC 2011-12 builds on the fundamental tenets of sound model validation and further elaborates on model risk topics, including governance through the model life cycle, model documentation, and first line of defense expectations.

Regulators have taken an expanded interest in model inventories and the inclusion of models associated with new capital reforms such as CCAR and stress testing and the interdependencies between these models, supporting analytics, and underlying data. Additionally, new regulations require Banks to modify capital calculations related to certain "high risk" asset classes, such as SSFA calculations for securitizations. These methodological changes require Banks to update models, collect and retain new data elements, and massage data elements to conform to new rules.

As a result of these changes, Banking Organizations are revisiting their model validation processes, updating model inventories and risk rankings to include more expansive definitions and testing platforms, and are aggressively working to address difficult data and model governance issues.



Issues and Implications

The new CCAR and DFAST rules necessitate new efforts around modeling, data analytics, and model and data governance.

- **Improved analytics**. Regulatory feedback suggests a general discomfort with legacy analytics and in particular inadequate historic data correlations and the associated impact to required and internal scenarios. As such, Banks will be required to upgrade or make wholesale changes to analytics and human capital capabilities.
- **Development of internal stress models**. Successful CCAR and DFAST implementation assumes Banks are able to develop and maintain stand-alone models and analytics. While many external technology solutions exist, Banks will likely develop or purchase a component-based solution. This approach assumes Banks expand model development, system selection, and model governance practices. Finally, this approach assumes Banks are staffed with resources sufficiently qualified to use and monitor enhanced modeling solutions.
- **More rigorous model governance and validation**. As Banks expand models and analytics to support CCAR and DFAST, management must equally expand model governance and oversight procedures. Expanded capabilities may include highly unique tests and methods to verify CCAR and DFAST modeling assumptions, enhanced procedures to address specific regulatory guidance, and improved visibility regarding CCAR and DFAST model input and output and implications to other critical tools.
- **Change management**. CCAR and DFAST require significant coordination among functional business units, data and model owners, and shared-service functions to produce a common set of schedules and supporting assumptions. The effort required to help ensure an accurate, timely, and efficient enterprise product typically involves tone at the top and a strong corporate culture supporting consensus and collaboration. While this is arguably the most difficult aspect of regulatory reform implementation, Banks must consider change management and organizational issues as a core implementation objective.
- **Reassessment of human capital**. Model Control departments may be required to rebalance resources and skill sets to address CCAR and DFAST models, key inputs and assumptions, elaborate system interdependencies, and testing methodologies.
- **Result rationalization**. Early CCAR adopters were met with significant regulatory feedback, not the least of which was directed towards an inability to rationalize results. As a result, Banks have implemented new procedures, enhanced infrastructure solutions (e.g., staging warehouses), and improved technology integration solutions to promote improved straight-through assumption processing, impact analysis, and results rationalization.

Data, Systems, and Infrastructure

As global capital standards are adopted, data has emerged as a critical path for successful implementations and program sustainability. Regulatory reform requires organizations to generate new information, modify or consolidate existing information, and compile elements from disparate and generally nonintegrated source systems. At the heart of the data issue is a general acknowledgement that bank systems and infrastructures do not efficiently support broad regulatory mandates and the effort to enhance them is immense.

Data issues typically fall into three broad categories—data completeness, data relevancy, and data quality. Data completeness is particularly important to organizations subject to regulatory reform as data deficiencies can directly impact required capital levels. Data relevancy is an important consideration as organizations attempt to align assumptions with business activities and asset classes and demonstrate correlations. Additionally, data relevancy is important as Banks build or obtain new data sets in response to regulatory demands. Data quality is paramount to regulatory reform as any quality issue has direct and downstream implications. Data quality is uniquely important given the largely manual nature of today's banking processes and the manual detection and remediation programs.

Issues and implications

To implement a robust capital management framework that supports business profitability, significant data quality issues must be addressed. Common issues include:

- **Data-intensive capital standards**. Unlike previous regimes, the currently proposed capital framework (Basel III) is highly data intensive. Although some of this information is retained in central and controlled data environments, much of it is shared or housed in disparate systems. Given the potentially sizable web of information, data management and quality become a paramount concern.
- **Data quality and efficient utilization of capital**. Most capital management environments were developed quickly and under intense implementation time lines. Data quality problems were initially addressed through short-term solutions, such as missing value defaults or management estimates—both of which result in increased capital needs. Further, most environments were built to support legal entity reporting to their regulator rather than robust, management-driven reporting. To reoptimize on a Basel III basis, such reporting will be essential—but also will require investment to implement.
- **The cost of managing data**. The high cost of managing data is a constant concern for managements, especially those in the financial services industry that operate in a regulatory environment that is increasingly complex and placing downward pressure on operating margins. Data cost concerns extend beyond the basic build versus buy decision to include data storage, manipulation, maintenance, and monitoring activities.
- **Regulatory scrutiny**. Data quality issues can attract the unwanted attention of regulators with heightened expectations. The Basel Committee released a paper defining for the first time standards around data management, data quality, and data aggregation issues.[21] Concurrently, the OCC and Federal Reserve engaged in both formal and informal discussions around heightened data expectations, sighting many of the same issues described by the Basel Committee. When combined, these papers, along with industry insights, draw a compelling case for financial institutions to proactively address data management, data integration, and data sustainability practices.

Governance

Regulatory reform has had a significant impact on corporate governance structures, accountabilities, and cross-border practices. At its heart, regulatory reform promotes the fundamental risk management tenets pursued by management since the inception of the financial services industry. These tenets include the ability to reasonably identify, measure, manage, and oversee relevant risks, especially those associated with critical business activities, products, and processes. In response to the 2007–2008 global financial crisis, international and domestic regulatory bodies quickly enacted tactical solutions to increase capital reserves and buffers and to focus on improving oversight practices, with particular regard to the linkages between risk and operational practices. In this context, U.S. regulators required formal risk appetite statements, increased board and management accountabilities, formalized arrangements between FBOs operating in the United States and parent oversight structures, and heightened efforts associated with management-led assessment programs, including ICAAP and the Use Test. Recent capital regulations reaffirmed the need for strong and independent first, second, and third lines of defense while emphasizing the need for improved monitoring function coordination.

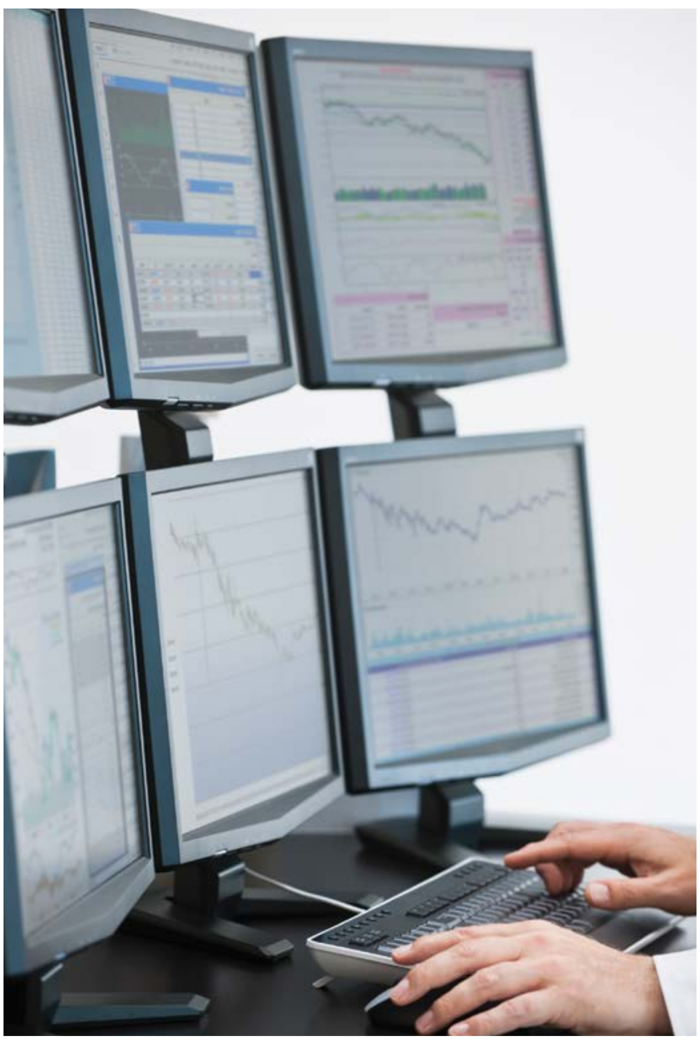
The broad impact of governance issues

Source: Capital Management Services, KPMG LLP (U.S.), 2013.

Issues and implications

Among the most urgent issues and implications for governance are:

- **Risk appetite rationalization**. Organizations must reconsider their approach to risk management as a result of capital regulatory reform. For example, trends toward increased minimum capital and liquidity levels will subject management to new discussions regarding risk appetite and the relationship between risk and business owners. Additionally, regulatory reform will drive greater regulatory oversight, improved risk transparency,and higher prioritization for ICAAP and other "use test" programs.
- **Cross-border governance**. Recent IHC proposed rules would require U.S. FBOs to comply with prudential standards and, in doing so, establish a stand-alone risk committee. In addition to structure, the independent risk committee must be sufficiently armed with resources and authorities to govern on a stand-alone and independent basis.



- **Evaluation of model framework**. Organizations must evaluate model inventories and adequacy as a result of regulatory reform. For example, new regulations—in particular those requiring the stress tests—may require Banks to expand their critical model inventory to include core and supporting analytics not currently included. Additionally, Banks should review their model framework and resources to help ensure these methods and capabilities are appropriate given the new data, analytic, and oversight demands.
- **Clear visibility and accountability**. Organizations must be able to clearly identify key data, systems, and model locations. Similarly, they must establish and codify the chain of command with responsibilities for key data elements, processes, technologies, and business units assigned to regulatory tasks.
- **Appropriate organizational structure**. Organizations must demonstrate that risk management is sufficiently aligned with appropriate risk committees and that committee members have the requisite experience to oversee new and evolving risks. This issue will become increasingly important to U.S. FBOs as they move toward compliance with the IHC rules and cross-border governance issues.
- **Data capabilities and integrity**. Regulatory changes demand new and more advanced data capabilities. Organizations must objectively review current capabilities in light of new requirements, assess short- and longer-term critical needs, and take appropriate actions. Additionally, organizations should have visibility into key data sources, data flow and interdependencies, and governance accountabilities.
- **Evolving regulation and human capital**. Regulatory reform requires significant changes to business models, processes, and technologies. These changes imply Bank resources are sufficiently equipped and trained to delivery against operational and oversight demands.
- **Heightened regulatory expectations**. In addition to the concepts above, the OCC's "Get to Strong" focus will continue to place significant compliance pressure on banks. These requirements suggest banks will pursue higher levels of expectations—placing additional infrastructure and demands on the organization.

Tax

Although regulatory reform was not aimed directly at the taxation of Banking Organizations, the indirect impact on existing tax positions, structures, and strategies is significant. Disruption or imposition of legal entity structures, reforms to tax-sensitive capital instruments, extra-territorial approaches, and significant shifts in deferred-tax-impacts on capital all play a role in bringing tax issues into the fray. The complex constellation of changes being implemented to meet regulatory demand is already operationally challenging. This makes it much more difficult to focus on, capture, and manage attendant tax issues in real time during this period of intensive change. However, institutions that have successfully managed the tax issues from the outset will save themselves unexpected consequences down the road, which can be costly from both a compliance and tax cost perspective.

Issues and Implications

Tax implications cut across the entire landscape of regulatory change.

- **Deferred tax assets**. Significant expected changes to deferred-tax-related adjustments to regulatory capital will require both changes in regulatory compliance models and tax planning considerations where deferred taxes are implicated. Capital optimization may, in many cases, specifically require optimization of deferred tax assets.
- **Stress test and CCAR**. These new requirements already demand changes in regulatory compliance and forecasting models, and as Basel III becomes the standard, tax assumptions within this modeling will also require revision. The deferred tax considerations noted above will multiply with the various stress scenarios, with both compliance capability and strategic tax implications.
- **Tax-sensitive capital instruments**. As regulatory capital proposals are refined with regard to use of contingent capital instruments and, perhaps, mandated long-term-debt capital structures, the tax characterization of these instruments will impact pricing. The same is true for expected tax consequences of any conversion into "new equity" in an orderly liquidation scenario. Hence any planning of their utilization should take tax consequences into account.
- **IHC Proposals for FBOs**. A mandated holding company structure will change existing U.S. FBO subsidiary tax structures and impact tax positions and attributes of such operations. This will impact both tax compliance functions and strategic tax planning for these U.S. operations, with potential ancillary tax effects on the U.S. branch network of the same FBOs. In many cases, transfer pricing may be implicated.
- **Resolution planning**. Resolution planning has potentially significant indirect tax consequences. Similarly, an enhanced focus on legal entities has brought a corresponding desire for greater rigor with respect to separate company tax attributes and tax accounting. In some cases, both international and state tax transfer pricing will be implicated along with indirect taxes. Swap registration and the Volcker Rule (under the Dodd-Frank Act) are causing similar transfer pricing issues to surface as well.

KPMG Can Help

Approaching the high-stakes complexities of effective capital management can be daunting. KPMG is exceptionally equipped to respond, with our coordinated approach, deep subject matter knowledge and experience, and broad service offerings.

We can assist clients with the following services across the core capital management areas, recognizing their integral relationship with data, systems and infrastructure, governance, and tax considerations. For more information about each of the KPMG services noted in the services grid, please see the subsequent Services Detail.

Subject Area		KPMG Services	
Regulatory & Economic Capital	**Basel II**	• RWA Advancements • Program Validation • Project Management Office • Compliance and Workflow Management	• Implementation Support • Governance • ICAAP Support
Regulatory & Economic Capital	**Basel III**	• Capital Impact Analysis • Model Design • Data and Analytics • Documentation Support	• Systems Selection and Implementation • Project Management • Governance and Training • Regulatory Assessments and Support
Liquidity		• Liquidity Risk Management • Liquidity Optimization • Liquidity Stress Testing and Contingency Funding Plan	• Liquidity Transfer Pricing • Liquidity-based Product Strategy • Liquidity Reporting and Analysis • ALM Tool Selection and Implementation
Dodd-Frank Act Stress Testing (DFAST)		• Gap Assessment • Model Governance • Data Management	• Model Design • Implementation Support • Project Management Office
Comprehensive Capital Analysis and Review (CCAR)		• Gap Assessment • Target State Design • Implementation Support • Process Improvement and Reengineering	• Y14 Reporting Assistance • Project Management Office • Risk Appetite Development and Enhancement
Capital Optimization		• Capital Impact Analysis • Model Design and Governance • Gap Assessment • Target State Design	• Process Improvement and Reengineering • Governance • Implementation Support
Modeling and Analytics		• Model Design and Governance • Data Management	• Model Validation • Compliance and Workflow Management
Data, Systems, and Infrastructure		• Data Management: - Audit - Integration - Governance - Mapping	- Warehouse and Model Design - Extraction - Warehousing - Business and Functional Requirements
Governance		• Training and Education • Governance • Data Management	• Risk Appetite Development and Enhancement • Model Design and Governance • Internal Audit Cosourcing
Tax		• DTA Modeling and Planning • Compliance and Workflow Management • Transfer Pricing	• Implementation Planning Subsequent to Merger or Acquisition • Tax-savvy Compliance Systems

Services Detail

As identified in the services grid on the preceding page, KPMG can assist clients with the following services across the multiple core capital management areas recognizing their integral relationship with data, systems and infrastructure, governance, and tax considerations.

- **ALM tool selection and implementation**. Assist clients with selection and implementation of treasury systems that meet liquidity objectives within the context of a broader ALM framework.
- **Capital impact analysis**. Calculate pro forma capital ratios using client information and Basel III guidance. Additionally, compare pro forma results to current Basel I or II ratios to identify increased capital charge sources, new capital charges, highest capital consuming products, eliminated capital sources, and other significant changes such as deductions.
- **Compliance and workflow management**. Assist clients to deploy automated tools to track and sustain regulatory activities, accountabilities, and compliance efforts.
- **Data and model scoping**. Assess data currently being collected and historical data in storage to develop a strategy to meet the significant data and modeling requirements of new regulations.
- **Data management**. Develop data acquisition and data management solutions that leverage existing data investments, remediate upstream data problems, prioritize investments to focus on high impact areas first, and reduce organizational data management costs:
  - **Data audit**. Identify missing, incomplete, or insufficient data elements and evaluate buy versus build alternatives. Where the build alternative is preferred, develop data needs, such as securitization tranche data, in compliance with regulatory requirements and compile required portfolio justifications and analysis, such as correlation matrices.
  - **Data integration**. Integrate reporting across multiple functional and data silos to bring together risk, performance, and capital information to enable management to make more informed decisions.
  - **Data governance**. Define and coordinate a broad approach to data governance with the object of improving data quality, transparency, and sustainability. Areas of focus include: clarifying roles around data; developing consistent data management protocols with clear authorities and accountabilities; and evaluating methods to help ensure data integrity using efficient and automated verification solutions, where feasible.
  - **Data mapping**. Map regulatory requirements to data elements, source systems, financial records, and Basel III capital/rule tables.
  - **Data warehouse and model design**. Develop staging warehouses or models to manipulate existing data or perform certain capital calculations, such as securitizations.
  - **Data extraction**. Develop manual or electronic data maps and EQL mechanisms reflecting source data fields, general ledger items, and Basel III capital/rules tables.
  - **Data warehousing**. Develop data warehouses and repository solutions for improved operations, management, and regulatory reporting. Similarly, assist clients in developing ETL and data/system integration solutions.
  - **Business and functional requirements**. Define business, technical, and functional requirements supporting infrastructure selection and implementation efforts.
- **DTA modeling and planning (Tax)**. Model various alternatives with respect to applying the proposed rules separating carry-forwards from other temporary differences and the impact of choices with respect to netting deferred taxes against other regulatory items. Having modeled an optimal approach, KPMG can then assist in any tax planning necessary to reach the desired end state.
- **Gap assessment**. Objectively evaluate a company's readiness to perform capital management activities and/or achieve a target operating model. KPMG's readiness assessment addresses regulatory compliance, industry practices, and management's unique capital objectives.
- **Governance**. Establish operational controls, program due diligence and challenge procedures, committee review and approval mandates, and escalation procedures governing individuals, processes, and systems involved with capital activities. KPMG can assist in documenting the process, qualitative assumptions, and financial modeling involved throughout capital management activities.
- **ICAAP support**. Embed Basel II models, supporting processes, governance, and the complete credit cycle—including methods, policies, tools and controls—into core operations.
- **Implementation planning subsequent to an acquisition or merger**. Prepare and deliver against a single implementation plan as required.
- **Implementation support**. Implement sustainable capital management initiatives, assisting with training and hand-off.
- **Internal audit cosourcing**. Provide subject matter professionals with regulatory or capital management experience to support targeted internal audit and risk management reviews or more broadly, peak resource demand needs.
- **Liquidity-based product strategy**. Identify opportunities in product design to enhance liquidity profile at the lowest possible cost.

- **Liquidity optimization**. Assess the risk appetite for liquidity and develop a framework to optimize the liquidity profile versus cost structure of the bank.
- **Liquidity risk management**. Develop analytics and tools to provide improved visibility of potential emerging liquidity threats (both organization-specific and systemic liquidity threats) and provide the information needed to actively manage liquidity.
- **Liquidity reporting and analysis**. Provide a framework for the aggregation of liquidity data for reporting across regulatory regimes using a single source of truth and compare liquidity reporting requirements and analytics to industry practices. Provide and help implement the tools/systems to facilitate the liquidity reporting.
- **Liquidity stress testing and contingency funding planning**. Assist clients with the definition, assessment, and execution of stress tests for purposes of the contingency funding plan.
- **Liquidity transfer pricing**. Develop a liquidity transfer pricing framework that embeds appropriate costs and benefits into products that use and provide liquidity, by creating the right incentives for the business and customers to optimize liquidity.
- **Living Wills (recovery and resolution planning)**. Assist clients in the preparation of resolution plans (living wills) as required under both section 165(d) of the Dodd-Frank Act and FDIC rule. We also help clients think through the impact of the resolution plan on resolvability as it relates to capital, liquidity and operating model.
- **Model design and governance**. Develop models and analytic tools in support of regulatory requirements such as historic data correlations to macro variables, to perform and assess stress testing results. Update model documentation, evaluate and register critical models, and develop test procedures supporting CCAR and input models.
- **Model Validation**. Review organizations' model usage relative to management's defined objectives and compare methodologies to industry-leading practices. This includes validating the model's assumptions, underlying theory, and data, as well as processing, output and reporting consistent with OCC 2011-12 / Fed SR 11-7 regulatory guidance.
- **Process improvement and reengineering**. Assess how current processes could be improved and work with the client to improve processes, outputs, and processing times, as well as increase efficiency and lower costs.
- **Program validation**. Validate Advanced Systems, annually, as required by the Final Rule. Includes quantitative models/ scorecards used in determining RWAs as well as nonquantitative initiatives, including Basel I/II/III governance.
- **Project management office**. Design PMO protocols, structures, and tools to enhance program efficiency, performance, risk transparency, accountabilities, and measurement. Provide specialized resources for change management and work stream process and content.
- **Requirement checklist and work flow management tool**. Address regulatory requirements using a proprietary work flow management tool. The tool provides a user-friendly method to track and update requirements, assign accountabilities, promote repeatable and consistent activities, and upload and audit documents, supporting assumptions, and report progress.
- **Risk appetite development and enhancement**. Develop or enhance a risk program and supporting documentation. KPMG's assistance includes risk appetite statement development, risk appetite program and governance design, and process and framework design intended to provide operational risk appetite guidance and demonstrate management "use."
- **Roles and responsibilities**. Identify key activities, processes, and data accountabilities between controllers, finance, treasury, risk, and other key constituents. Identify Bank oversight and governance requirements.
- **RWA advancements**. Analyze and implement solutions to reduce RWA values and associated required capital.
- **Target state design**. Develop a vision for the organization's future state which reflects the organization's strengths and weaknesses, businesses, risks, strategic goals, and regulatory feedback.
- **Tax-savvy compliance systems**. Assist with mergers and acquisitions, international tax, state tax, and indirect tax planning. Assist with tax issues which may be raised by the restructuring of entities and assets caused by capital allocation considerations, IHC formation and structuring, RRP, and related swap registration or Volcker Rule impacts. With respect to both actual regulatory capital calculations in annual and quarterly submissions, as well as CCAR and stress test forecasts, KPMG can assist in the design of the tax component of client models either separately or as part of an overall design and implementation.
- **Training and education**. Educate broad constituents regarding complex new rules, industry practices, and insights covering processes, systems, governance, and strategies.
- **Transfer pricing**. Assist with transfer pricing planning (including tax valuations) raised by the restructuring of entities and assets caused by capital allocation considerations, IHC formation and structuring, resolution planning, and related swap registration or Volcker Rule impacts.
- **Y14 reporting assistance**. Build and improve the FRY14 reporting process, including the monthly and quarterly production of "actual" schedules (FRY14M and FRY 14Q) and the annual production of "forecast" schedules (FRY14A).

The KPMG Advantage

Local and global experience. KPMG serves many of the world's largest Banking Organizations and non-Bank financial services companies, and our teams are connected through regional and global delivery networks. KPMG is closely connected to emerging regulatory issues and thought leadership through our global Centers of Excellence and our global network of lead partners representing the largest global banks and leading financial services companies.

Deep knowledge of the financial services sector. KPMG has extensive experience with top-tier financial institutions. This experience allows KPMG to support board-level, management and operational objectives associated with target operating model design, industry benchmarking, and practical implementation experiences.

In-depth regulatory experience. KPMG's dedicated and national Regulatory practice has deep connections and experiences with critical regulatory bodies through previous work experience as regulatory leaders and tactical client engagements. Our practice actively monitors regulatory activities and the regulatory pulse so as to provide our clients with visibility and sufficient runway to proactively manage complex and evolving requirements. The Regulatory practice translates their experiences into practical education, impact analysis, planning, and implementation.

Executable strategies. Based on deep experience, KPMG provides executable strategies that cut through complexity to help financial institutions achieve regulatory, compliance, and sustainable business objectives.

Diverse skills to get the job done. KPMG employs highly talented, multidisciplinary teams—including some of the foremost advisors in the area of capital planning and optimization, data and analytics, governance, tax, and liquidity management. Our teams pride themselves on our ability to think strategically, perform tactically, and a culture built on clear accountability and communication.

About KPMG's Regulatory and Capital Management Practices

KPMG's regulatory and capital management services are housed within our global Financial Risk Management (FRM) practice. The FRM practice has approximately 2,800 individuals with deep experience in a number of strategic and tactical issues facing U.S. and global financial services companies. The FRM practice is internally organized according to a matrix design to best meet client demands. It includes horizontal "networks" organized according to risk types, such as regulatory, credit, market, and operations, and a set of vertical, market-driven strategic issues, such as capital management. Combined, this structure allows KPMG to respond to highly customized risk management needs and address broader strategic issues with highly specialized, cross-functional teams. The Financial Service Regulatory Risk practice offers individuals with both policy and technical experience gleaned through KPMG's experiences or previous employment at the OCC, the Federal Reserve Board of Governors, the FDIC, and other regulatory bodies.

The Capital Management practice includes a team of highly specialized, credentialed, and cross-functional individuals with specific experiences as regulators and practitioners across a variety of regulatory topics, including capital management practices, modeling and analytics, RRP, liquidity management, and securitizations. KPMG supplements engagements with individuals from our international Tax and Audit practices and KPMG's global network of member firms to provide additional insights and industry practices information.

End Notes

[1] Pub.L. 111-203. Signed July 21, 2010.

[2] *Basel II, International Convergence of Capital Measurement and Capital Standards: A Revised Framework* (available at: http://www.bis.org/publ/bcbsca.htm); *Basel III, A Global Regulatory for More Resilient Banks and Banking System, and revisions* (available at: http://www.bis.org/publ/bcbs189.htm) (links as of June 13, 2013).

[3] Section 113 of the Dodd-Frank Act, authorizes the Financial Stability Oversight Council to determine that a nonbank financial company's material financial distress—or the nature, scope, size, scale, concentration, interconnectedness, or mix of its activities—could pose a threat to U.S. financial stability. Such companies will be subject to consolidated supervision by the Federal Reserve and enhanced prudential standards, including stress testing and early resolution plans, among other things. SIFIs, which could include financial services companies such as hedge funds, broker-dealers, and insurance companies, among others, generally have not been subject to bank capital requirements.

[4] 72 FR 62988. *Risk-Based Capital Standards: Advanced Capital Adequacy Framework – Basel II*. Final Rule in U.S. by Federal Reserve, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation and Office of Thrift Supervision (http://www.gpo.gov/fdsys/pkg/FR-2007-12-07/pdf/07-5729.pdf, as of May 20, 2013).

[5] Pub.L. 111-203. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

[6] http://www.bis.org/publ/bcbs189_dec2010.pdf *Basel III: A global regulatory framework for more resilient banks and banking systems*. Basel Committee on Banking Supervision, December 2010 (as of May 20, 2013).

[7] 61 FR 47357

[8] *Basel II, International Convergence of Capital Measurement and Capital Standards: A Comprehensive Framework* (available at: http://www.bis.org/publ/bcbs128.pdf, as of June 13, 2013).

[9] 77 FR 53059. https://www.federalregister.gov/articles/2012/08/30/2012-16759/risk-based-capital-guidelines-market-risk

[10] 77 FR 52791, 77 FR 52887, 77 FR 52977

[11] Federal Reserve Board final rule approved July 2, 2013, available at http://www.federalreserve.gov/bcreg20130702a.pdf as of July 9, 2013; Office of the Comptroller of the Currency final rule approved July 9, 2013, available at http://www.occ.gov/news-issuances/news-releases/2013/2013-110a.pdf as of July 09, 2013; and Federal Deposit Insurance Corporation interim final rule approved July 9, 2013, available at http://www.fdic.gov/news/board/2013/2013-07-09_notice_dis_a_res.pdf as of July 0, 2013.

[12] Unchanged from the general risk-based capital rules.

[13] Interagency Proposed Rule, Enhanced Supplementary Leverage Ratio, approved July 9, 2013, available at http://www.federalreserve.gov/newsevents/press/bcreg/20130709a.htm as of July 9, 2013.

[14] Basel Committee on Banking Supervision, Results of the Basel III monitoring exercise as of December 31, 2011.

[15] Basel Committee on Banking Supervision, Results of the Basel III monitoring exercise as of June 30, 2012.

[16] *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013. http://www.bis.org/publ/bcbs238.pdf

[17] Source of information: The Clearing House, Federal Reserve, Basel Committee on Banking Supervision.

[18] Ibid.

[19] Federal Reserve System, Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action.

[20] 77 FR 595, Enhanced Prudential Standards and Early Remediation Requirements for Covered Companies: Proposed Rule.

[21] *Principles for effective risk data aggregation and risk reporting*. Basel Committee on Banking Supervision, January 2013. http://www.bis.org/publ/bcbs239.pdf

Contact Us

In a global marketplace distinguished by unprecedented regulatory change, uncertainty, and competition, financial services organizations must overcome a host of ongoing challenges to succeed. At KPMG, we are proud to service the financial services industry and are anxious to continue or create valued business relationships. Said simply, we value our clients and the opportunity to serve.

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