Dissecting Basel III by Geography
While Basel III regulations apply worldwide, the challenges of implementation vary across economies.

Executive Summary
Basel III, also known as The Third Basel Accord, was created as an addendum to Basel II regulations following the financial crisis of 2008. While Basel III standards are intended to apply globally, compliance will understandably require a different approach by each region and/or economy.

We believe that the impact of Basel III will vary widely by geography – from potentially slowing down the economies in emerging nations, to safeguarding the European Union from financial collapse, to increasing capital adequacy and comprehensive risk management.

In this paper, we will examine the implications of Basel III for emerging markets, Europe and the U.S. We will also outline an approach that each region/economy can adopt to comply with these norms. And finally, we will lay out some of the challenges involved in implementing the mechanisms and propose solutions to help overcome the challenges associated with Basel III.

Triggers for Basel III
The financial crisis of 2008-2009 exposed the inadequacies of the Basel II framework – prompting the banking community to draft new mechanisms to avert future crises (see Figure 1, next page). The result, Basel III, was designed to supplement Basel II, rather than supplant it.

Basel III enhancements cover four broad domains:

- The quality and quantity of capital.
- Liquidity standards and stable funding.
- Checks on leverage and counterparty risk management.
- More comprehensive and transparent disclosures.

Some of the major features of Basel III focus on:

- **Capital quality.** Basel III introduced a much stricter definition of capital – mandating that banks hold higher-quality capital to absorb more loss and cushion themselves during periods of financial stress.

- **Capital conservation buffer.** Banks are now required to hold a capital conservation buffer of 2.5%. This buffer is intended to ensure that these institutions maintain a reserve that can be drawn down during periods of financial and economic uncertainty.

- **Countercyclical buffer.** The countercyclical buffer was established to increase capital requirements in good times and lower them in bad times. The buffer is meant to slow banking activity when it overheats and encourage lending during periods of slow economic growth. The buffer will range from 0% to 2.5%, and consist of common equity or other fully loss-absorbing capital.
The Evolution of Basel III

- **Capital requirements.** The minimum requirement for common equity, the highest-quality capital, has been raised from 2% to 4.5% of total risk-weighted assets. The overall Tier-1 capital requirement, which comprises common equity as well as other qualifying financial instruments, will also increase from the current minimum of 4% to 6%. Although the minimum total capital requirement will remain at the current 8%, when it is combined with the conservation buffer the total capital required will increase to 10.5%.

- **Leverage ratio.** During the financial crisis of 2008, the value of many assets fell faster than had been expected, based on history. The Basel III norms include a leverage ratio to serve as a safety net. A leverage ratio is the relative amount of capital to total assets (not risk-weighted). The leverage ratio is intended to cap inflammation of leverage in the global banking sector. A 3% leverage ratio of Tier 1 will be tested before a mandatory leverage ratio is introduced in January 2018.

- **Liquidity ratios.** Basel III incorporates a framework for liquidity risk management, consisting of Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), to be introduced in 2015 and 2018, respectively, as shown in Figure 2.

- **Systemically Important Financial Institutions (SIFI).** Systemically important banks will be subject to a 1%-2.5% capital surcharge above the minimum capital level, capital conservation and countercyclical buffer requirements introduced under Basel III.

**Implications and Challenges Across Geographies**

**Emerging Nations**

**Economic Environment**

Although emerging nations have different economic environments, they can be grouped together, given their volatile financial markets; stronger credit growth; higher inflation; fairly small-sized bond markets; lower credit ratings; comparatively higher fiscal deficit burden; and other macro factors. Figures 3 and 4 on the following page depict the GDP growth rate and inflation rate of the BRIC nations (Brazil, Russia, India and China).

In these countries, the state has a majority stake in the banking sector. All the BRIC nations rely heavily on public sector banks, which comprise about 75% of the banks in India, 69% or more in China, 45% in Brazil, and 60% in Russia. Therefore, in these countries the government will have to shoulder the burden of conforming to the new policies.

**Impact on the Economy**

Basel III’s introduction of the leverage ratio will induce global banks to limit their lending in certain regions and reduce exposure to specific risky asset classes. This could adversely affect the economy if financial conditions are tightened. Although the banks in emerging nations already have high Tier-1 capital ratios (their capital structure usually comprises equity and reserve), stringent policies on certain financial instruments might discourage foreign investments. The introduction of capital buffers should not pose a significant challenge, given the already high capital adequacy maintained by these banks.
Banks will be incentivized to adopt internal ratings-based methods to measure credit risk, rather than using a standardized approach to allocate risk weights more prudently. However, this will require redesigning IT and risk-management systems. The emphasis on high-quality liquid assets will eventually reduce private-sector lending and compel governments to issue more debt. Using central counterparties (CCPs) for trading in OTC derivatives may be unfavorable for countries where the transaction volume is not high. This could potentially shift business from small countries to countries where there are CCPs.

Cost to the Economy
The implementation of Basel III and the higher capital requirements might slow these countries’ rapidly expanding economies; implementing the

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>PILLAR 1: Capital and Risk Coverage</th>
<th>PILLAR 2: Risk Management and Supervision</th>
<th>PILLAR 3: Market Discipline</th>
</tr>
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<tbody>
<tr>
<td>Credit Risk</td>
<td>CAPITAL 1) Revision of Quality of Capital Tier 1 &amp; Tier 2 2) Raised minimum Capital Requirement to 4.5% of RWA RISK COVERAGE 1) Counterparty credit risk 2) Bank exposures to central counterparties (CCPs)</td>
<td>1) Economic capital modeling 2) Enhanced firm-wide stress testing</td>
<td>1) Enhanced disclosure of capital 2) Business and economic portal</td>
</tr>
<tr>
<td>Market Risk</td>
<td>CAPITAL 1) Introduction of Capital Conservation Buffer, i.e. 2.5% of RWA 2) Introduction of Counter Cyclical Buffer (0-2.5%) of RWA RISK COVERAGE 1) Significantly higher capital for trading and derivatives activities. 2) Introduction of a stressed value-at-risk framework to help mitigate pro-cyclicality.</td>
<td>1) Capturing the risk of off-balance sheet exposures and securitization activities 2) Managing risk concentrations 3) Stress testing and simulations 4) Portfolio management, limits management 5) Large exposures/concentration risk 6) Interest rate risk in the banking book</td>
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<tr>
<td>Liquidity Risk</td>
<td>LIQUIDITY COVERAGE RATIO The liquidity coverage ratio (LCR) will require banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors. NET STABLE FUNDING RATIO The net stable funding ratio (NSFR) is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.</td>
<td>1) Principles for sound liquidity risk management and supervision 2) Supervisory monitoring metric definition</td>
<td>1) The requirements introduced relate to securitization exposures and sponsorship of off-balance-sheet vehicles.</td>
</tr>
<tr>
<td>Operational Risk</td>
<td>RISK COVERAGE Securitizations: Strengthens the capital treatment for certain complex securitizations. Requires banks to conduct more rigorous credit analyses of externally rated securitization exposures. CONTAINING LEVERAGE Leverage ratio: A non-risk-based leverage ratio that includes on/off-balance sheet exposures will serve as a backstop to the risk-based capital requirement. Also helps contain system-wide buildup of leverage.</td>
<td>1) Providing incentives for banks to better manage risk and returns over the long term; sound compensation practices; valuation practices; stress-testing; accounting standards for financial instruments; corporate governance; supervisory colleges. 2) Contingency Planning and Legal Risk</td>
<td>1) Disclosure on securitization 2) A comprehensive explanation of how a bank calculates its regulatory capital ratios</td>
</tr>
</tbody>
</table>

Figure 2
new and sophisticated stress-testing processes for risk management will pose significant technical challenges. The introduction of the capital conservation buffer will also bring more pressure when it comes to maintaining core capital adequacy. The state will be required to increase its borrowing per year, which will increase the fiscal deficit of the country. The emphasis on keeping more funds in liquid assets – mostly cash, central bank reserves and marketable securities representing claims on or claims guaranteed by sovereigns, central banks and public sector enterprises – may drive out private sector investments, thereby negatively impacting the country’s GDP growth. A longer implementation timeline and relaxed liquidity requirements will go a long way in easing the costs that emerging nations will have to incur.

**European Union**

**Economic Environment**

The banking sector in the EU nations plays a significant role in providing financial intermediation and credit to the economy. Unlike in the U.S., the banking sector is pivotal to the EU economy, and marked by its large asset holdings when compared to the size of the respective GDPs. For example, bank assets in Ireland and Switzerland are around seven to five times their respective GDPs. The drive to harmonize payments within the entire EU through SEPA End Date regulations and other similar directives has resulted in increasing cross-border payments and lending within the EU region. As such, the impact of Basel III regulations will be felt throughout that region and thus must be tackled homogenously by all member states.

**Bank Assets as Percentage of GDP in EU**

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**Annual GDP Growth Rate of BRIC Nations**


Figure 3

**Annual Inflation Rate of BRIC Nations**


Figure 4
Impact on the Economy

The EU plans to implement Basel III through two legislative acts – the Capital Requirements Regulation (“CRR”) and the Capital Requirements Directive (“CRD”), known together as CRD IV. In order to restrict regulatory arbitrage, The European Banking Authority will be the ombudsman for uniform implementation across the EU region. Almost all financial institutions – from deposit-taking banks to building societies and investment firms – are subject to Basel III regulations. They have the independence to select their own methodology (Standardized, Internal Ratings-Based Foundation or Internal Ratings-Based Advanced) to model their credit risk. The regulation incentivizes financial institutions to improve their credit risk assessment models and reduce over-reliance on external credit ratings to optimize the capital charge allocation. The EU region has to act in unison to strengthen the financial stability of the whole region, since its nations are closely integrated economically. It thus requires integrated regulatory frameworks, risk management and financial monitoring.

Cost to the Economy

Considering the size and importance of its banking sector, the EU region stands to benefit the most from the new Basel III regulations. At the same time, the variance in sovereign credit risk among the member states and the large public debt accumulated by some states present a challenge to the uniform implementation of the regulatory framework. The decline in investor confidence and rising sovereign credit risk will escalate the cost of credit for banks and other economic participants. The increase in funding costs will adversely affect the real economy and destabilize the financial system through banks’ increasing credit loss. Therefore, it becomes imperative for individual nations to improve their national balance sheets. Finally, the diverse economic environments in the member states have the potential to create imbalance in the region. As such, a coordinated and integrated approach is required for policy implementation.

United States

Economic Environment

Traditionally, the U.S. has been a market-based economy; its banking sector was determined to be one of the sources of the 2008 financial crisis. The U.S. had the largest system of non-bank financial intermediation at the end of 2012, with assets of US$26 trillion. The U.S. share of total non-bank financial intermediation for 20 jurisdictions (see Figure 6) and the Euro area increased from 35% to 37% at the end of 2012.3

Considering the contribution of non-banking institutions in the U.S., it is important to formulate more resilient risk-management standards for this sector, which has so far been loosely regulated. There is concern that implementing Basel III (which is primarily applicable to the banking sector) might result in a lot of risky activities being shifted from banking to non-banking institutions – thus defeating the purpose of achieving financial stability.

Share of Assets of Non-Banking Financial Intermediaries

Source: http://info.publicintelligence.net/FSB-ShadowBanking-2013.pdf
Figure 6
Impact on the Economy
The U.S. economy faces the unique challenge of protecting its smaller banks from over-regulation while bringing the entire financial sector – both banking and non-banking – under regulatory scrutiny. In July of 2013, the Board of Governors of the Federal Reserve System (the Federal Reserve) and other bank regulatory agencies approved the “Final Rule,” which implements many aspects of the Basel III framework agreed upon by the Basel committee and also incorporates changes required by the Dodd-Frank Act. However, there are a few differences in some of the requirements imposed by the U.S. Basel III when compared to the international norms. Notable among these are:

- Different eligibility criteria for additional Tier 1 capital.
- Introduction of permanent Collins Amendment capital floor.
- Prohibits referring to external credit ratings.

Cost to the Economy
The U.S. Basel III final rule applies to the entire U.S. banking sector – from community banks and regional banks, to the largest and most global U.S. banking organizations, to U.S. bank subsidiaries and U.S. bank holding companies. Community banks will face significant costs under Basel III, since the high capital requirements will raise their funding costs. The capital buffers may create additional capital-raising burdens for smaller banks.

The large banks wield influence over the supervisory agencies – allowing for nuanced interpretation and a creative approach to implementing the regulations. This could lead to banks conforming to the policy only in letter, and not in spirit. Responsible and transparent decision making by national regulators is therefore crucial for implementing the policy framework.

Cost/Benefit Analysis of Basel III
The regulatory reforms under Basel III mandate that banks hold significantly higher levels of capital and liquidity while reducing the amount of eligible capital. Consequently, the redefinition of eligible capital and risk-weighted assets has significantly lowered the capital ratios. The new framework has increased pressure on banks’ return on equity (ROE); many banks may report negative ROE in the short term. Whereas large institutions may have the wherewithal to conform to the new regulation, there are concerns that smaller banks might be crowded out. Moreover, the macroeconomic environment varies widely by geography – impacting the implementation of Basel III norms. A "one size fits all" approach will therefore not work.

The macro-prudential capital and liquidity buffers – along with increased risk management and more transparent and comprehensive disclosure – are expected to enhance banks’ capacity to withstand shocks, thus reducing the risk of a systemic banking crisis. Nonetheless, to meet the new norms, most banks, especially smaller institutions, will have to raise capital from the markets, which will result in higher interest rates, increased cost of capital and reduced ROE. There is also the risk of a decline in banking activity, at least in the short term, which could lead to unfavorable lending conditions. Moreover, the implementation of the new rules will depend on the interpretation of a bank’s supervisors, which could vary across institutions. In addition, if different jurisdictions apply different yardsticks for implementing the Basel III guidelines, this could lead to international regulatory arbitrage, as witnessed under Basel I and Basel II.

Basel III’s complexity and the uncertainty of the benefits it promises have generated debate. There is contention surrounding the effectiveness of the new requirements, such as the countercyclical buffer and the conservation buffer, which will incur significant costs. Basel III also allows national regulators to treat their sovereign bonds as riskless, even though nations’ credit risks vary widely. The complexity of the rules raises doubts about its effective implementation and the achievement of its objective of financial stability.

A Roadmap for Implementation
Given the framework and timeline for implementing Basel III, the onus is on national regulators to translate the international guidelines into national policies in a way that suits and stabilizes the economic environment and sustains their national economic growth. In countries where the market-based economy has a dominant role in providing credit, the application of banking regulations alone will not be sufficient to bring about financial stability, since lending activities will move to the less regulated financial markets. Those economies that have large banking systems compared to the national GDP need more robust policies and regulation to avert any financial crisis, as the cost of a crisis would be far greater for them.
The cost of adopting the new regulation will depend largely on the difference between existing ratios and those mandated by Basel III. Banks will have to exercise discretion when raising their capital ratios. Each of the three broad ways of boosting capital ratios—increasing retained earnings, reducing risk-weighted assets and issuing new equity—have their pros and cons (see Figure 7, next page). Reducing risk-weighted assets by downsizing the loan portfolio will create a shortfall in credit lending, which in turn will make it difficult for small and medium-sized enterprises to obtain loans. Issuing new equity may also lead to a drop in lending activities, since banks will have to raise lending rates to maintain the same level of returns on equity for shareholders. The best scenario for a bank is to increase retained earnings by achieving greater operational efficiency and higher income.
Banks will need to take cohesive action across all of their departments – business, operations, risk management, IT, Finance, Treasury, etc. – in order to mitigate the impact of the regulations. Some tactical measures that banks can adopt include:

- **Portfolio optimization.** Banks should consider exiting positions that are capital-intensive and non-core. Restructuring of securitized instruments can be carried out in order to get a more beneficial treatment, such as rebooking certain security portfolios in banking books rather than in trading books to avoid stressed VAR charges. Moreover, optimizing hedging strategies and choosing counterparties with strong collateral and netting agreements will help reduce counterparty risk and credit-value adjustment charges.

- **Adoption of scientific risk-measurement techniques.** The classification of products and the application of the correct model to each category can help reduce charges significantly. The new ratios and charges introduced to take stock of market and counterparty risk, such as stressed value at risk (VaR), incremental risk charge (IRC) and credit value adjustment (CVA) among others, can be improved by optimizing the calculation models and ensuring the availability and timeliness of data.

- **Financial management.** Banks must manage capital efficiently in order to improve capital quality and minimize charges. Measures such as reclassifying financial instruments from current value to fair value and buying out minority stakes can reduce certain regulatory charges. Liquid assets can be efficiently used by monitoring liquidity risk across the bank, centralizing liquidity management and ensuring better access to the market. Eligible funding can be employed effectively by quickly reacting to changes and opportunities for optimizing costs, closely monitoring funding plans and centralizing funding plans.

- **Operational efficiency.** IT and operations require a holistic and sustained organizational focus from CXOs in order to remain steadfast and efficient in implementing the core business. The systems’ design should be scalable and flexible to align with new business models in less time and at less cost. The use of intelligent systems to assist in optimizing resources with minimal human intervention will support improved operational risk management.

**Conclusion**

The tactical measures outlined in this paper depend on the business model, operational policies and level of preparedness of the institution. For different geographies, the framework will have to be customized to accommodate domestic conditions.

Our study of three different geographies points to variances in economic environments – raising questions about the effectiveness of the complex rules of the Basel III framework. Clearly, the success of Basel III will depend on transparency, simple unambiguous policies and a recognition of regional environments in applying limits and adequacy ratios.

**References**

• http://www.tradingeconomics.com/united-states/indicators.

Footnotes
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