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# Impacts and Implementation of the Basel Accords: Contrasting Argentina, Brazil, and Chile

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**CLAREMONT McKENNA COLLEGE**

**IMPACTS AND IMPLEMENTATION OF THE BASEL ACCORDS:  
CONTRASTING ARGENTINA, BRAZIL, AND CHILE**

SUBMITTED TO  
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FOR

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## **Abstract**

This thesis explores the impacts of implementing the Basel Accords on the stability of the banking sector and greater economy, and will particularly focus on Basel II. This study contrasts three Latin American governments that have implemented the Basel Accords. Because Chile's and Brazil's banking sectors have been more successful in implementing the Basel Accords, they will be used as model cases to provide the context to analyze Argentina's banking sector. The results of this thesis reveal that in order for Argentina to stabilize its banking sector and become a stronger international financial player, it must not only improve the implementation of the Basel Accords, but also simultaneously address discrepancies in political agendas and its banking structure.

## **Introduction**

Latin America has experienced twenty-eight systemic banking crises between 1970 and 2007 (Laeven and Valencia 2008, 54).<sup>1</sup> Crises result in increased non-performing loans, exhausted capital, reduced asset prices, slowdown of capital flows, and other factors that affect the stability of a country's economy. An increase in cross-border economic activity and the 2007/2008 Financial Crisis has displayed that economic globalization has surpassed the development of adequate global institutions to help manage globalization and advancing financial instruments (Stiglitz 2010, 151). With countries' economies becoming increasingly interdependent, banking systems of countries should adhere to a standard that limit the risks of financial transactions and stabilize the global banking sector, such as the Basel Accords. By improving banking regulations on an international and uniform framework, such as that defined by the Basel Accords, the financial sectors of individual countries and global markets can be stabilized and more conducive to safer international financial transactions. Argentina is a prime example of a country with the potential to stabilize its banking sector and become a stronger international financial player by improving their implementation of the Basel Accords, if it simultaneously addresses discrepancies in political agendas and its banking structure.

The effects of a banking crisis are contagious beyond a country's borders because economies have become increasingly globalized and interdependent, exemplified by the

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<sup>1</sup> The International Monetary Fund defines a systemic banking crisis as when a country's corporate and financial sector experience defaults and financial institutions have difficulty repaying contracts.

late 1980s and early 1990s when there were a substantial expansion of the global capital markets. The collapse of the Soviet Union and a general shift to more democratic and market-oriented policies increased the attractiveness of lending and investing in emerging market countries as well as the desire for their governments to attract foreign equity capital. Despite changes in how governments financed their debt and the expansion of global capital markets, Latin American countries underwent the crises of the 1990s due to a combination of unsustainable current account deficits, excessive short-term foreign debts, and weak domestic banking systems (Feldstein 2003, 2).

There have been three detrimental episodes of financial crises that have threatened the stability of the international financial sector – the Latin America debt crises of the 1980s; Mexican Peso crisis in 1994; and the economic crisis in Brazil in 1999. There were inadequacies in the regulations that had left the financial systems within the region vulnerable. Participation of developing countries is essential for the sound establishment of global and regional public goods, such as financial stability. Such agendas can only be realized if developing countries and emerging economies are involved in the global decision-making process (Stiglitz 2010, 132). An international and unified approach to regulation not only allows for more efficient interactions between financial conglomerates, but it also fosters competitive neutrality on the international level (Mohan, Nitsure, and Joseph 2005, 22).

The ability of a country to withstand financial and banking crises as well as simultaneously promote economic growth is in part founded in the banking sector stability, which in turn depends on sound banking regulations. In order for society to benefit from a stable banking sector, the banking structure needs to be set up so that there

are separate entities to promote checks and balances. A stable banking sector provides the foundation for safe savings, inflation stability and greater access to international markets, which are components of economic growth and improved standard of living. There is a significant positive correlation between the size of a financial system and the real gross domestic product per capita of a country. More so, there is evidence demonstrating that finance promotes growth (Mohan, Nitsure, and Joseph 2005, 34). Economic growth is thus unlikely to occur unless financial assets are protected in addition to a secure and internationally reputable banking sector. The Basel Accords, a set of proposed guidelines to stabilize the international banking industries, provides governments standardized banking measurements to not only become more competitive in international markets but also to stabilize their financial markets and promote economic growth.

The soundness of domestic financial systems plays a vital role not only for local depositors but for foreign creditors and investors as well. If depositors believe that there is an increase in bad loans and investments, the liabilities of the domestic banks will exceed the real value of their assets. As a result, depositors will withdraw funds and precipitate a banking crisis. Although the potential risk can be mediated by a government's deposit insurance, complete dependency on the deposit insurance can encourage riskier lending by banks (Feldstein 2003, 8). A systematic collapse can also potentially eclipse the capacity of the deposit insurance fund to cover all of the deposits. Crisis management policies as well as the formulation of policies regarding private-sector participation involve institutions such as the Bank for International Settlements and the central banks of the Group of Ten countries (G-10) – Belgium, Canada, France, Germany, Italy, Japan, Netherlands, newest member Sweden, Switzerland, the United

Kingdom, and the United States. These are the countries that led the Basel Accord formation.

The Argentine economy exemplifies the perverse impact that an undisciplined banking sector can have in undermining economic stability. Brazil and Chile are countries with higher domestic credit shares as a percentage of gross domestic products compared to other Latin American countries. Argentina, on the other hand presents domestic credit, provided by the banking sector, at levels lower than 40 percent of its GDP (BIS 16). In order for the Argentine government to provide the conditions conducive to economic growth, as exemplified by Brazil and Chile, there are factors outside the financial sector that need to fall into place. Argentina has been faced with consecutive crises as well as changes in political ideologies that slow the advancement of monetary policies and the Basel Accords. By looking at Basel Accord implementation strategies of the Chilean and Brazilian governments, Argentine policymakers can tackle factors that hinder the execution of the Basel Accords.

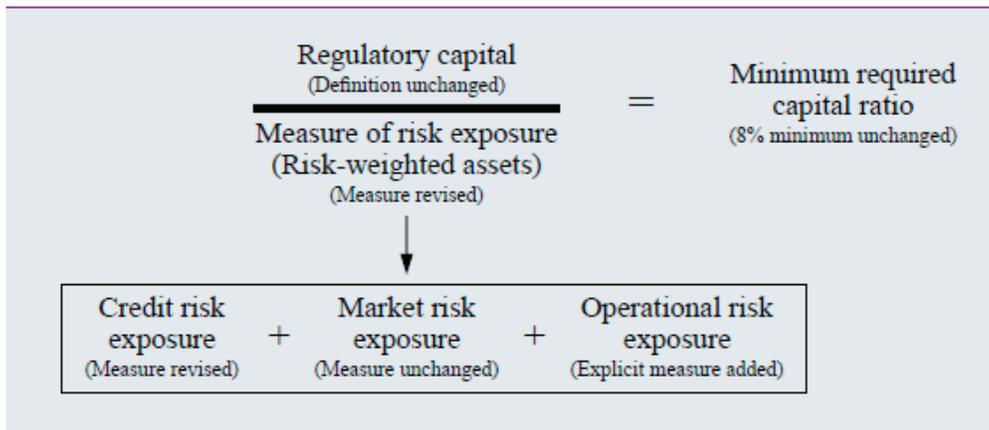
## **Basel Accords**

The Basel Capital Accords, reforms for improved crisis prevention, are a proposed set of guidelines to prevent financial institutions from taking on unsound risks in lending too much capital by establishing minimum reserve requirements. The “New Accord” uses the term “banking group” to encompass “groups that engage predominately in banking activities, and in some countries, a banking group may be registered as a bank” (BIS 5, 1). It features a capital measurement system to define a standard risk measurement determining the minimum capital standards intended to promote stability in the international banking system (BIS 9). By regulating risk and reserve requirements, the Basel Accords are enabling governments with the ability to participate in global financial transactions. The Basel Committee was originally comprised of the G-10 countries. There are currently twenty-seven members of the Basel Committee. Argentina, Brazil, Mexico are the only countries from Latin America. Other countries on the Basel Committee include countries such as Saudi Arabia, South Africa, Turkey, and other global players in addition to the original G10 countries (BIS 14).

Moral hazard within financial institutions occurs, in part, when banks use their equity capital in risky investments in an attempt to increase their return on equity. By regulating the minimum amount of capital a bank is required to hold, the potential for moral hazard and bank failures is reduced. The Basel Accords attempt to minimize this risk by addressing and redefining several banking mechanisms, including capital adequacy ratios. “Tier 1” capital only applies to disclosed cash reserves and capital accumulated by the sale of the bank’s equity or shareholders’ equity. “Tier 2” capital includes, but is not limited to, reserves of hybrid debt/equity holdings or gains from bank

stock sales (Balin 2008, 3). “Tier 3” capital, eventually abolished in Basel III, is subordinated debt that cannot be repaid before maturity, and with an original maturity of at least two years (Shearman & Sterling LLP 2011, 4). Under the Basel Accord, bank assets are grouped into categories based on their degree of risk, which are then used to calculate a bank’s risk-adjusted assets. A bank’s capital adequacy is calculated using its capital relative to its risk-adjusted assets. Capital adequacy is defined as the ratio of Tier 1 capital relative to its risk-adjusted assets plus the bank’s total capital (Tier 1 plus Tier 2) relative to risk-adjusted assets. The capital ratio would be Tier 1 capital relative to its risk-adjusted assets.

Proposed changes to elements of the capital ratio under Basel II



$$\text{Reserves} = .08 * \text{Risk Weighted Assets} + \text{operational risk reserves} + \text{market risk reserves}^3$$

The higher a bank’s capital ratio, the lower its leverage and the better it is able to withstand short-term losses. Although the Basel Accords do not directly dictate the multiple of risk-adjusted assets at which an institution can lend, the capital ratio

<sup>2</sup> Ferguson, “Capital Standards for Banks: The Evolving Basel Accord,” 397.

<sup>3</sup>Balin, “Basel I, Basel II, and Emerging Markets: A Nontechnical Analysis,” 11.

requirements limit the value of assets commercial banks can acquire relative to their capital. By implementing capital and risk requirements, banks with low capital ratios are forced to either close or to raise additional capital, increasing the stability of the commercial banking system (Hubbard and O'Brien 2012, 370).

## **Basel I**

*International Convergence of Capital Measurements and Capital Standards*, also known as Basel I, was initiated by the United States' apprehension that American financial entities were being displaced by Japanese competitors, which was partially attributed to their lack of capital adequacy regulation allowing them greater leverage (Vanoli 2007, 3). The high degree of leverage used in investments magnifies the size of any return, since the financial institutions or investors are using borrowed money in the investment (Hubbard and O'Brien 2012, 232). Internationally active banks were relocating to countries with weaker bank regulations allowing the international banking sector to be more susceptible to a crisis, as demonstrated by the banking crisis in the 1980s. As a result of the banking crisis, there was a desire among the large international banks and G-10 economies to formulate a common banking standard (Balin 2008, 2). In 1988, G-10 central banks came together to form the Basel Committee on Banking Supervision, via the Bank for International Settlements, to create the Basel Capital Accord, also known as Basel I. Therefore Basel I was intended to be implemented by developed markets, such as those in G-10 countries. The objectives of the Basel Capital Accords are to "promote the soundness and stability of the international banking system and to provide an equitable basis for international competition among banks" (Ferguson

2003, 396). The framework is intended to allow national supervisors the liberty of adopting the standards specific to their markets and institutions. The original framework assessed capital in relation to credit risk and addressed the other risks implicitly, placing all regulatory capital requirements on measures of capital risk.

The Basel I Accord is divided into four pillars. The first is the *Constituents of Capital*, which defines what types of on-hand capital constitute the bank's reserves and how much each type of reserve a bank should hold. In order to satisfy the Basel Accords, financial institutions had to hold the same quantity of Tier 1 and Tier 2 capital (Balin 2008, 3). The second pillar addresses risk weighting, dividing risk into five categories. The risk reserve ratio is applied to a weighted sum of assets, which take into account the degrees of risk for each type of asset. The five risk categories cover all assets on a bank's balance sheet. Risks are weighted as 0 percent, 10 percent, 20 percent, 50 percent, 100 percent, or within a variable category. Assets categorized as 0 percent, riskless, are defined as the cash held by the bank. The 50 percent moderate risk only included residential mortgages. The highest risk assets, 100 percent, include the bank's assets in the private sector, Eurobonds or dollar-dominated debt, and equity (Balin 2008, 3). The risk classification allows banks to take on the riskiest asset within each category. Just as financial institutions can manipulate the way they meet capital, they can also manipulate the risk so that they can maximize revenue within a given risk requirement ratio. Banks with the highest-yielding financial instruments and innovations are then given an advantage in their ability to continue pursuing risky assets (BIS 3, 3).

The third pillar, a target standard ratio, is a combination of the first and second pillars by setting a standard of "8% of a bank's risk-weighted assets must be covered by

Tier 1 and Tier 2 capital reserves” (Balin 2008, 3). The fourth pillar of Basel I loosely addresses implementation of the three other pillars. Each country is recommended to create a self-surveillance and enforcement mechanisms. All Basel Committee members were able to implement the Basel I Accords by 1992.

Basel I was criticized by some policymakers and analysts in both developed and emerging markets for being too simple. Basel I gives banks excessive leeway in the interpretation of the recommended regulations, as it specifies only five levels of risk in a banking sector that varies greatly in credit options. This allows for capital ratios to be “uninformative and provide misleading information about a bank’s capital adequacy relative to its risk” (Ferguson 2003, 396). For the developed economies, the simplified risk framework also allows for banks to easily “game” the system, avoiding capital requirements. Because the standards are not law, banks are able to pick which requirements they meet and in reality participate in riskier loans and assets.

The Basel Committee was accused of not taking into account that the creation of the international banking standards would have a strong influence on the emerging market economies. These critics also assert that Basel I’s implementation is misapplied because of the “high degree of regulatory leeway, view of domestic currency and debt as the most reliable and favorable of asset instruments, and perception of FDIC-style depositor insurance” (Balin 2008, 5). The relaxed regulation and the FDIC-style insurance expectation caused emerging markets to underestimate the credit default risks of a bank’s assets. As a result, many banks were taking on excessive risk and the central banks did not have sufficient capital to bail out the whole sector (Balin 2008, 5). Basel I also encouraged international investors to move from holding long-run emerging market

bank debt to holding short-run non-OECD bank debt; according to Basel I risk-weight measurements of bank debt, short-run debt is weighted at a lower riskiness. Therefore, the focus on short-term investments caused more volatile emerging market currency fluctuations. Furthermore, because emerging market sovereign debt was perceived as less risky than private debt, the private sector was removed from many lending portfolios. Since most of the debt was being held by the government, effects of recessions were exacerbated and the costs of potential sovereign default were amplified.

Over time, the Basel Accord eventually broadened its framework “to measure capital adequacy and a minimum standard to be achieved by international banks in adopting countries” (Ferguson 2003, 396). Rather than just regulate risk, which limits banking functions, the Basel Committee revised its framework to include how a bank calculates its capital.

## **Basel II**

Compared to 1988, the banking sectors around the world had experienced greater globalization and formation of new financial instruments since the creation of Basel I. As a result, the changes in the financial structure needed to be addressed by revised banking regulations. To reflect the changes in structures and practices of financial and banking markets over time, the Basel Committee on Banking Supervision drafted *A Revised Framework on International Convergence of Capital Measurement and Capital Standards*, informally known as Basel II, in 1999. The focus of Basel II has been to strengthen the regulatory capital framework for international banking organizations via capital requirements that reinforce incentives for strong risk management (Ferguson 2003, 397). The goal of Basel II is to provide new and more sensitive approaches to

measuring credit risk, thus the difference between Basel I and Basel II involve application of the risk assessment methodologies. The focus of the Basel II framework can be divided into three pillars.

Pillar I bears a lot of weight in defining risk and in addressing the minimum capital requirements regarding the measurement of financial institutions' assets, changing the definition of risk-weighted assets and the methods used to measure the risk (Ferguson 2003, 398). One of the main differences between Basel I and Basel II is the calculation of risk exposure, which is dependent on the bank's credit, market, and operational risks. The first pillar broadens the definition of risk to include assets of the holding company of an international bank; thus, the first pillar addresses the issue of banks transferring their assets to other subsidiaries to hide risk-taking. The two approaches in measuring credit risk are either the "Standardized Approach" or the "Internal Ratings Based Approach" (IRB). The "Standardized Approach" utilizes market-based rating institutions. It combines corporate debt with bank debt, further eliminating loopholes (Balin 2008, 8). Rather than contract an outside credit rating agency, the "Internal Ratings Based Approach" encourages banks to create their own self-surveillance systems and provides them with a sense of autonomy. The IRB approach uses banks' internal ratings to map default probabilities using a particular formula defined by the Basel Committee. Banks are then able to use this approach to determine capital requirements as a function of the default probability and other factors (Majnoni, Miller, and Powell 2004, 1).

The Basel Committee encourages the IRB approach by forcing banks to increase their risk-weighted reserves an additional 6% if they use the Standardized Approach. In other words, the IRB approach allows for lower reserve requirements, enticing the banks

to take a greater variety of customers as well as achieve higher profitability (Balin 2008, 8). The autonomy and tailoring of risk weights practiced using the IRB approach is intended to promote more capital flow into the private sector because the public debt is not necessarily the most trusted. The flow of capital into the private sector “increases the depth of the banking sector in a country’s economy, and in sum, encourages economic growth,” according to Bryan Balin of The Johns Hopkins University (Balin 2008, 8). Furthermore, meeting conditions set by the Basel Committee and determining their own risk probabilities, institutions can manipulate, and lower, the figure that goes into calculating their reserve requirement. Thus, by having lower risk-weighted asset calculations, they can hold fewer reserves. Although this may seem counter to the Basel Accord objective, the IRB approach caters to institutions that have already used the standardized approach and are equipped to use their own resources to independently assess risk. The fact that the banks can conduct their own assessment and management of risk independent of government aid is another intention of Basel.

The first pillar also reassesses operational risk, protecting against it either via the “Basic Indicator Approach,” “Standardized Approach,” or “Advanced Measurement Approach.” The “Basic Indicator Approach” recommends that banks hold “capital equal to fifteen percent of their average gross income earned in the past three years” (Balin 2008, 9). If using the “Basic Indicator Approach,” regulators have the ability to change the percentage according to their risk assessment of each bank. In both the “Standardized Approach” and “Advanced Measurement Approach,” regulators have the final approval for revisions of reserve calculations. With regulators deciding how much capital a bank

should hold, they have a substantial amount of authority in determining a bank's risk weights.

The reevaluation of market risk makes the distinction between fixed income and other financial products such as equity, commodity, and foreign exchange vehicles, which are all susceptible to inflation. The "Advanced Measurement Approach" enables banks to calculate their own reserves needed to protect against interest rate and volatility risk, factors that contribute to fixed income assets and market stability (Balin 2008, 9). For other types of market risk, the Basel II Accords use a variety of methodologies, from dividing assets by features, allocating risk weights based on the country's markets, or encouraging the bank to assess their market risk on a case-by-case basis (Balin 2008, 11).

Only consisting of forty pages of the three-hundred-fifty pages, the second and third pillars are not as thoroughly expanded upon compared to Pillar I (Balin 2008, 11). The second pillar concentrates on supervisory oversight, focusing on the bank-regulator relationship. The Basel II Accords authorize regulators to perform comprehensive assessments on whether banks have sufficient capital to support their own risk profile as well as provide constructive feedback to bank management on internal assessments (Ferguson 2003, 398). Principles established within Pillar II involve supervisors examining banks' strategies and expecting the banks to operate over the regulatory minimum capital (Vanoli 2007, 20). The institution's supervisors evaluate the internal capital adequacy, which involves confirming that target levels of capital are met, properly monitored, and appropriate for the institution's business (Basel Committee 2006, 210).

The third pillar addresses transparency by requiring banks to disclose information to market participants to assess an individual bank's risk profile (Ferguson 2003, 398).

The idea is that banks with lower risk profiles and transparent markets attract investors and promote financial stability. By recommending that banks provide quarterly releases of their risk-taking and risk-prevention actions, the Basel Accords attempt to enforce discipline on the banks by empowering the shareholders in risk processes (Balin 2008, 12).

### **Basel III**

Basel III was introduced in December 2010 to address weaknesses in Basel II, with implementation beginning in 2017 to allow banks a transition period. The framework calls for better-quality capital, more exhaustive risk coverage, and the introduction of a leverage ratio as the foundation of the risk-based requirement (BIS 11). The Basel Committee will be using the transition period to determine whether the revisions are appropriate for the full credit cycle and other business models (BIS 11). It includes a more restrictive definition of Tier 1 capital and “bottom of the cycle” standardization for Pillar I regulatory capital requirements. Revisions to Pillar I’s capital regulations include a clause that allows, with the approval of the country’s banking authority, the conversion of assets to common shares if the bank is non-viable. This increases the involvement of the private sector in the case of potential future crises, thus reducing moral hazard (BIS 11).

Two new main components are the Liquidity Coverage Ratio and the Net Stable Funding Ratio (NSFR). The Liquidity Coverage Ratio requires banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is determined by the financial institutions’ supervisors (BIS 11). The NSFR is a longer-term structural ratio to promote more medium and long-term funding of the institutions’ assets.

It covers the entire balance sheet and creates incentives for banks to use more stable sources of funding. NSFR is the amount of available stable funding to the amount of required stable funding; the ratio must be greater than 100 percent. Stable funding is the type of equity and liability financing that is expected to be reliable under periods of extended stress (BIS 11, 25). An example of stable funding includes a bank's total preferred stock with maturity greater than one year (BIS 11, 26). If banks are below the minimum ratios and requirements, they can lengthen the term of their funding or restructure their business models which are most vulnerable to liquidity risk.

### **Criticisms against Basel**

Although enhancing bank stability is one of the principal objectives of imposing the Basel Accords and its risk-based capital requirements, the evidence of the direct impact of the Basel Accords has been mixed. Looking at fifty countries, critics have found weak results that minimum capital requirements are positively related to the banking sector's stability. Furthermore, Latin America displays greater sensitivity of loan growth compared to other countries implementing Basel due to past losses in equity.<sup>5</sup> Critics argue there is a modest positive correlation between minimum capital requirements and stability – associated with lower probability of crisis (Barajas, Chami, and Cosimano 2005, 5). Critics speculate that despite increased sensitivity to capital ratios, banks are not necessarily becoming more sensitive to factors such as credit risk because it has only indirect impacts on the value of bank assets. On the other hand, there has also been evidence that loan growth in Latin America has become more sensitive to

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<sup>5</sup>Loan growth is the rate at which financial institutions provide borrowers with loans. A rapid loan growth could be due to the easy credit standards, whereas slow loan growth could be caused by an unstable market.

risk factors, as expected from risk reducing behaviors of banks subjected to increased regulatory scrutiny (Barajas, Chami, and Casimano 2005, 7). However, critics are concerned that the increased sensitivity to loan growth, which may inhibit lending, may counteract the intentions of the Accords of fostering a financial environment conducive to sound banking transactions. A negative effect of increased financial development is that banks can artificially reduce their risk-weighted assets due to advanced financial instruments available or take advantage of poor enforcement of regulations (Barajas, Chami, and Casimano 2005, 22). As a result, they may end up superficially increasing their loan portfolio in order to satisfy the Basel Accord regulations (Barajas, Chami, and Casimano 2005, 22).

Although banks may receive more favorable ratings from the international rating agencies when they comply with the Basel Accords, the credibility of credit ratings as indicators of bank risk has diminished. In fact, it has been proposed that stronger compliance with the principles relating to improved supervision is actually associated with riskier banks (Demirguc-Kunt&Detragiache 2010, 5). Joseph Stiglitz's criticisms of Basel go farther to include the potential discrimination against developing countries. Inadequate representation in the Basel Committee causes Basel's analysis and recommendations to appear incomplete and bias in various aspects. This causes a challenge for global acceptance of the recommended standards and in implementation by the non-inclusive countries, usually less financially advanced (Stiglitz 2010, 137). Stiglitz proposes that a more inclusive and appropriate representation in the Banks for International Settlements would allow for not only a fairer system but also in better-implemented regulation, and thus a more stable global financial system. The notion of the

banking system being self-regulated within each country is viewed as problematic. Stiglitz proposes that standard-setting activities should actually be reported to an international governmental body (Stiglitz 2010, 139).

Critics are concerned that Basel II may also cause credit to become more procyclical as loan supply becomes more sensitive to risk factors that fluctuate with business cycles (Barajas, Chami, and Casimano 2005, 22). Therefore, there may be poor assessment of Basel compliance since recorded laws and regulations may vary or not be reflective of the true state of the financial institutions of the country. Critics concluded that there has been no significant change in the sensitivity of loan growth to the nonperforming loan ratio. Additionally, it has been argued that the effect of Basel on Latin American countries does not depend on the individual country's financial development (Barajas, Chami, and Casimano 2005, 21).

**Counter argument:**

Addressing the greater sensitivity to loan growth, there have already been three generations of the Basel Accords and 88 of 107 non-G10 countries have implemented them (Marshall 2005, 4). So although we may not be able to currently quantify the effect of the Basel Accords on bank stability in the short run, the creation of Basel has brought international attention to the negative effects of different banking standards. The power of collective action brings legitimacy to the intended impacts of the Basel Accords.

The positive impacts of the Basel Accords can be indirect. By opening up the conversation to include non-G10 countries, the international banking sector forms a unified front to work towards a common set of standards. Financial institutions are likely to invest and conduct transactions where Basel Accords are being implemented since it is

assumed that investors can more easily circulate their capital. Furthermore, using a multi-country bank analysis, critics found that after implementing the Basel regulations, Latin American banks in fact increased their capital and size of loan portfolios. As a result, banks held a capital-asset ratio 4 percent more than the world average, and a loan ratio that was 1 percent over the world average (Barajas, Chami, and Casimano 2005, 21). Therefore, the credibility of the Basel Accords needs to be evaluated in the long term, and not on an annual or short-term basis.

Parallels have been made between the impacts of the Basel Accords and of the Washington Consensus. The Washington Consensus was criticized for too much contraction and applying general policies to countries where the policies may not be beneficial. The difference between the Washington Consensus and the Basel Accords lies in the legalities of implementation. The Basel Accords provide a variety of methods to calculate risk and capital. There have also been three generations of the Accords to address banking instrument advances and to further improve on the previous Accord.

### **Basel Accords in Latin America**

The Basel Committee cannot legally impose implementation of the banking standards. However, their implementation by all G-10 countries as well as 95 countries outside the G-10 places pressure on emerging markets to implement the regulations (Balin 2008, 13). The implementation of the Basel Accords is seen by investment banks as a reflection of regulatory strength and financial stability, thus the governments of emerging markets implement the regulations in attempts to attract investments and receive cheaper financing. On average, Latin America's bank capitalization and lending activities have increased after the implementation of Basel, having a positive effect on the

international markets (Barajas, Chami, and Cosimano 2005, 1). Emerging markets banks' ability to comply with Basel II also has significant implications not only for financial systems within the country, but also for the rest of the international community because of the increasing interconnectedness of the financial and banking sectors.

Latin American countries have a strong incentive to implement the Basel Accords. By 2015, approximately 77% of banking assets in non-G10 countries are expected to be subject to Basel II regulations (Marshall 2005, 6). Not only would it contribute to the banking and financial sector stability, but many international financial institutions used the adoption of Basel I as a condition for their assistance (Vanoli 2007, 4). With each new generation of the Basel Accords, discovered loopholes are addressed and regulations are improved.

### **Basel Accords in Developing Countries**

The Basel Committee, with input from non- G10 authorities, the IMF, and World Bank, published the *Core Principles for Effective Banking Supervision* in 1997 and a revised version in 2006. The *Core Principles for Effective Banking Supervision* is not only a methodology but also benchmarks for developing countries to assess the quality of their supervisory systems and identify areas that need improvements (BIS 8). With greater input than Basel I and Basel II, the *Core Principles for Effective Banking Supervision* was directed to non-G10 countries that require an additional framework to outline the minimum standards to effectively implement the Basel Accords. The *Core Principles* were addressing challenges that non-G10 countries, especially developing countries, faced that were distinct of their emerging markets and comparatively underdeveloped banking sectors.

Even before implementation of the twenty-five core principles, the Basel Committee describes preconditions in *The Core Principles* that must be established to solidify the foundation for the Basel Accords. The first external factor necessary for implementation of the principles and the Basel Accords is stable macroeconomic policies, which is beyond the banking supervisors' and regulators' jurisdiction. The second precondition mentioned is a "well developed public infrastructure" (BIS 8). The Basel Committee defines a well-developed "public infrastructure" as including a system of business laws addressing corporations, bankruptcies, contracts, and property laws. It also calls for well-defined accounting principles, an auditing system, and secure procedures settlements of financial transactions (BIS 8). "Market discipline" is another necessary precondition for the core principles and Basel Accords. Market discipline refers to various aspects of financial markets such as the following: the liquidity of markets; prevention of investor insulation from consequences of the markets; and bank action transparency (BIS 8). Regarding market discipline, governments should also not be able to override commercial decisions to pursue political objectives. When creating policies for an effective market, the regulators and supervisors must obtain legitimate power and have sufficient resources to implement risk management processes. The final precondition mentioned involves mechanisms for providing "systemic protection" determined by the government and the central bank, as it involves public funds; that is a public safety net such as deposit insurance. "Systemic protection" must be designed to limit moral hazard and contribute to public confidence in the banking system (BIS 8). Regulators should be involved since they are knowledgeable about the risk and

preventative actions taken by banks. For many countries, the systemic protection is in the form of deposit insurance (BIS 8).

The aforementioned core principles are intended to address weaknesses in the environment of banking systems that threaten not only the implementation of the Basel Accords but also financial stability both domestically and internationally. According to the Basel Committee, the twenty-five core principles are considered “universally applicable” and “are needed for a supervisory system to be effective” (BIS 8). They address elements such as transparency, powers of supervisors, and methods of banking supervision – domestically and internationally. A common theme found in the core principles is the need for supervisors and bank management to want to implement the Basel Accords and be able to exert their authority. Without the regulators and bank authorities willing to implement the principles and create the supervisory infrastructure, the Accords will not be effectively implemented. The regulators are the determinants of banks’ abilities for self-surveillance and ethical standards. The supervisors must also be provided “an adequate range of supervisory tools” to prevent financial services abuses and enforcement of risk management policies (BIS 8).

### **Basel II in Latin American Countries**

The Basel Accords raised the standard for banking regulations to strengthen global capital and liquidity regulations with the final goal of promoting a more resilient global banking sector (BIS 9). However, poor implementation of Basel I and Basel II could create a false sense of security in an emerging economy’s financial sector, which could promote banks to undergo new, but less obvious risk (Balin 2008, 2). The Basel Accords goal is for banks to provide adequate capital to guard against risk. Neither Basel

I nor Basel II mandate policies addressing the risks and challenges faced by Latin American countries, which are different than the challenges faced by developed countries. For example, Latin American markets are more susceptible to fluctuations in national currency, artificially manipulated interest rates, and changes in macroeconomic downturns (Balin 2008, 2). Latin American governments have had a different reaction to the Basel Accords than of developed countries since they confront different obstacles, have different economies and cultures. Recurrent problems in developing countries' implementation include, but are not limited to, credit risk under-estimation, under-estimation of capital requirements, accounting rules not aligned with international standards, and regulatory infrastructure (Marshall 2005, 11).

Although Basel II addressed the problems in Basel I, the detailed recommendations of banking regulations caused emerging markets to struggle with Basel implementation. For instance, in Pillar I's promotion of self-surveillance, the Basel Committee intended to decrease the cost of regulation for banks. However, emerging markets may not have the human capital or power to enforce regulations for self-surveillance. Developing countries have the challenge of implementing not only the infrastructure for self-surveillance but also the honesty of regulators. By giving banks and regulators the autonomy to define their own risk assessment and calculations of reserve requirements, the Basel recommendations are easier to implement in developed market economies than in emerging markets, which are often faced with political instability, corruption, and lack of human capital for the banking sector.

Supervisory independence, resources, and legitimacy are additional challenges for developing countries when implementing the Basel Accords. Basel II's comprehensive

approach to risk is easier for the bigger and developed banking institutions to implement because they are able to afford not only the costs of implementation but also the highly-skilled human capital. The regulators and supervisors need to be capable of implementing the regulations and developing the appropriate risk assessments and requirements. The lack of highly skilled employees to regulate risk actions, whether by government regulators or self-surveillance agencies, causes regulations to be more relaxed in developing countries. As a result, banks can be more likely to engage in riskier actions, which inhibit investors and capital inflow. Supervisors and regulators tend to have fewer resources than in developed countries in terms of human capital, information systems and technology infrastructure, as well as legal and real power (Majnoni2005, 128).

Another challenge for emerging market financial institutions to implement Basel II is their inability to hire internationally recognized rating agencies to assess their debt. Typically, only the larger firms can afford to hire outside rating agencies, such as Moody's, S&P, or Fitch. Firms in developing markets, on the other hand, would prefer to self-regulate to be more cost-effective. However, global banks may then be less likely to loan to emerging market banks because such loans would require larger capital reserve requirements to be held by the lender compared to loans made to larger, recognizably rated banks(Balin 2008, 14). Furthermore, if smaller banks cannot afford the services of the larger rating agencies, they are more likely to lose diversification of the types of loans issued because creditors will not want to lend to them. In addition to their inability to diversify their loan portfolio, small borrowers would also be more exposed to sectoral shocks (Balin 2008, 15). Compared with world averages, Latin American and Caribbean banks appear to have similar capitalization and profitability, but higher interest margins

and overhead costs. Therefore, they tend to concentrate most of their activities in lending, and thus less in liquid assets. This may cause Latin America to seemingly have a less competitive or less efficient banking system (Barajas, Chami and Cosimano 2005, 12).

### **Politics and Basel**

There are politics within every institution, whether within the political parties, the Central Bank, or financial institutions. However, policymakers set the foundation that either inhibits or prevents the financial institutions to implement effective policies. Political conflict can be expected regarding any policy initiative, including the Basel Accords whose committee is mostly comprised of developed countries. Emerging market governments implement the Accords not only for bank security but also because a functioning and efficient banking system attracts capital flow to all sectors of an economy. When banks are politically or legally limited from expanding their businesses, establishing new branches, or improving their products, the optimal distribution and allocation of capital is compromised (Sousa 2009, 493). For elected officials to preserve their popularity, economies must be stable as well as allow banks to yield returns and provide loans. Furthermore, the protection of consumers, both depositors and investors, stimulate the economy because people are more likely to participate in the trade and consumption, and thus, stimulate economic growth. The Basel Accords provide policymakers an opportunity to implement regulations that appeal to international banks and institutions, making their economy more enticing to foreign investments. Additionally, implementation of the Basel Accords can help governments prevent liquidity crises. If a liquidity crisis arises, it can cause a recession, and debt downgrades, reducing the global reputation of the country as a recipient of investment.

Despite the fact that government policymakers have incentives to discipline the banking sector, political volatility and corruption often hinder the implementation of the Basel Accords. Policymakers are often under pressure to provide short-term solutions, which may have worse consequences in the long term. Furthermore, there is often conflict among policymakers who have different terms. Those with shorter terms are more pressured to short-term solutions compared to long-term positions, such as the president of the central bank, whose position insulates him from risk of dismissal. There is also the concept that banks want to be able to lend abundantly and borrowers want to borrow abundantly, which is counter to the Basel objectives. The benefits of implementing Basel are long term and difficult to assess within the term of an elected policymaker.

## **Model Cases: Chile and Brazil**

### **Chile**

The only Latin American economy whose debt issues received an AA rating, Chile's financial sector complies with more than 80 percent of the Basel Committee's *Core Principles for Effective Banking Supervision*, which is greater than any other Latin American countries (SBIF 2005, 3).

Chile's advantage stems from the lessons learned during the collapse of its banking system in the 1980s. In response to the crisis, the Chilean government introduced banking legislation in 1986 that implemented strict regulatory and supervisory controls. Chilean reforms included implementation of a new risk-based supervisory model and convergence of domestic accounting rules with international standards (Marshall 2005, 26). Chile's policymakers were able to implement several relevant reforms including macroeconomic variables, such as fiscal deficit and inflation being kept under control. In addition, the government created incentives to substitute equity capital for debt capital. Regulatory frameworks for banks were also revised after the 1982 crisis to address weakness in the banking sector (Barandiaran 1999, 5). The 1986 reforms laid the foundation for Chile's well-capitalized banking system. After the government revised the financial sector, Chile's economy was able to avoid the effects of the financial turmoil during 1995 and 1997-1998 in other emerging market economies (Corbo 2005, 3). With technological and financial instrument advancements, Chile's banking regulations adapted to the evolving industry by allowing for greater flexibility. By 1997, Chile's policymakers also reformed its legal framework to correct the strictness in order to provide for new areas of business to both national and international banks. In 1999, the

Chilean Central Bank underwent an external evaluation of its implementation of Basel I and revealed a 76 percent level of compliance. By 2004, Chile's compliance increased to 83 percent (Marshall 2005, 27). In fact, bank regulators revised a Basel I rule to address weaknesses in capital charges for market risks. In 2005, the Chilean central bank replaced the market-risk rules, which were based on asset and liability mismatches, with regulations that would provide a more direct and clear assessment of market risk based on risk assessment and capital allocation (Marshall 2005, 10). By revising and editing the Basel I regulations to optimize the banking sector and assessment, Chile's banking sector was prepared to implement Basel II only two years after all G-10 countries implemented the Accords. The Chilean government implemented Basel II in 2008, whereas Argentina's government is expected to implement the Accords in 2013 (Balin 2008, 13).

Chile's multifaceted platform explains why Chile's banking sector was in a good position for Basel II. Chile's policymakers had prepared its financial institutions such that they were already aligned for the Basel II Accords. Independent of Basel implementation initiatives, Chile's bank regulators had introduced a new model of bank supervision that focuses on the quality of a bank's risk management policies, instead of monitoring risk levels. The Chilean model concentrated on credit risk, market risk, and operational risk, which is very similar to the second Basel II pillar. At the end of 2003, the Chilean government also launched an initiative that intended to align the banking industry's accounting practices with the internationally accepted principles. Similar to Basel II's third pillar, disclosure requirements of banks were increased, which improved market discipline and transparency (Latin Finance 2004, 4). In January 2004, Chile's policymakers also launched a new credit risk classification and provisioning system. The

revised system established ten categories for the classification of debtors, with different risk profiles. Although banks were able to have their own strategies for assigning borrowers to each category, using Basel II categories for risk was mandatory for all banks (Latin Finance 2004, 4).

Another of Chile's principal advantages in transitioning to the Basel framework was its practical approach to the capital adequacy requirements. For example, small banks with a capital base of less than \$20 million were required to fulfill a minimum capital ratio of 10 percent of risk-weighted assets. In Chile, having a 10 percent minimum has become the market standard for institutional investors due to the original requirement (Latin Finance 2004, 4). The gradual approach to revising its banking sector also reflected an understanding of the banking sector's need for transition time. By finding the optimal speed of execution, Chilean policymakers were able to maximize the benefits of implementing the Basel Accords while minimizing the costs. Since the Chilean economy did not have market pressure to rush its compliance with Basel II, implementing Basel II should actually reduce the cost of capital for mainly long-term transactions for which the regulatory restrictions can be binding (Latin Finance 2004, 4). Since the cost of capital is the risk and the economic and political implications associated with risk, Basel II reduces the cost of capital by minimizing risk. The gradual implementation of Basel further allows for lower cost of capital because banks are not only more stable, but are also prepared to implement subtle changes to abide by the regulations. Furthermore, if banks officials expect that the cost of capital will decrease, they will want to lend long term where they can obtain more secure and higher returns.

## **Basel Accord Implementation Strategies**

In addition, Chile's policymakers were able to systematically break down the transition to the Basel II Accords. They chose to use the "Standardized Approach" to credit-risk management since most of its banks target the domestic market. In the first stage, Chilean banks were exposed to and gained experience with the new modeling provisions, in order to prepare for future IRB approaches. Policymakers mainly focused on the transition to the standardized approaches to credit risks and operational risks, beginning in 2007. The financial sector had a two-year period for preparation between 2005 and 2007. The period allowed for institutions to anticipate the capital effects and undergo the necessary staff training (SBIF 1, 16). Regulators allowed smaller banks to adapt more slowly to the compliance principles because they are to be subject to higher capital adequacy requirements than the larger international banks. Chilean policymakers also focused on leveling the playing field among all banks, regardless of national or foreign ownership, since international banks in Chile account for 40 percent of the market (Latin Finance 2004, 4). Once the financial institutions had established the standardized approach, the second stage of the Basel II implementation was to transition onto the internal ratings approach for the assessment of credit and operational risks (SBIF 1, 3). Superintendencia de Bancos e Instituciones Financieras Chile (SBIF) supervise Basel II implementation. The SBIF obtained legal authority because its status and statutes are defined Title I of the General Law of Banks. The SBIF focus was amended in 1997 within the General Banking Law (LGB), stressing the consistency with the Basel

Committee objectives.<sup>6</sup> For instance, to promote self-regulation, each financial institution must analyze on an annual basis the development of its management according to the SBIF standards that are equivalent to the Basel recommendations (SBIF3).

In implementing the first pillar of the established minimum capital requirements and risk coverage, Chilean bank regulators turned to LGB for supervision and disclosure of information. Pillar I maintains the minimum eight percent capital ratio intended to cover potential losses of Chilean banks. LGB's definition of capital is comparable to Basel's division of capital into three tiers.<sup>7</sup> Core capital is equivalent to Tier I capital, and subordinate bonds are equivalent to Tier II. Chile's banking regulations do not define capital that would be applicable under Tier III. Expected losses are to be covered using provisions in contracts, and unexpected losses with capital available by the institution (SBIF 1, 3). Using the standardized approach to credit risk, provisions that can form Tier II capital is limited to 1.25 percent of credit risk-weighted assets. More so, bank assets are weighted as pre-determined asset risks based on external ratings by risk classification agencies (SBIF 1, 5).

Regarding credit risk weights, Chilean regulations differs from the basic Basel II framework on two accounts: the case of residential mortgage loans and residential leasing contracts, for which Basel II establishes a weight of 35 percent and Chilean regulations set at 60 percent (SBIF 1, 6). Addressing market risk using the standardized approach, interest rates and exchanges are estimated separately, and then added together to calculate

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<sup>6</sup>The General Banking Law establishes and provides the SBIF legal regulatory authority, including its responsibility for implementing the Basel Accords.

<sup>7</sup>See Basel I Section, page 9, for the definitions of tiers of capital.

overall market risk, excluding consideration of financial institutions' positions in shares and commodities under the LGB (SBIF 1, 10).

Pillar II addresses financial institutions' supervisory review process. According to the LGB, all banks operating in Chile must submit to the inspection and supervision powers of the SBIF endowed by the LGB. The LGB also looks over cases where banks must have a capital-risk ratio greater than eight percent. In Chile, banks with less than 800,000 Unidades de Fomento are required to have a minimum capital ratio of ten percent, which rises with the less effective capital held by the institution.<sup>8</sup> The SBIF also sets the framework to assess a bank's management and solvency, which includes credit-risk provisions, structure and allocation of capital, stress tests, internal organization, corporate governance, and financial transparency (SBIF 1, 14).

Chile's regulators implemented the third pillar that addresses transparency by taking into account the "information's materiality," whose omission could change or influence the assessment. A general guideline establishes that although each bank is responsible for defining its own policy in calculations, it must follow the SBIF requirements (SBIF 1, 15).

In converting from the standardized approach to the internal-ratings based approach, the following criteria would cease to apply: Basel I calculation of bank capital requirements; a capital ratio of at least 10 percent to qualify for an A solvency rating in terms of credit-risk weights; and the interpretation of capital limits (SBIF 1, 20). Each

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<sup>8</sup>Unidades de Fomento is a financial unit adjusted for inflation used to determine changes in price level of goods and services. For instance, it is used with bank loans, investments, and contracts. It is comparable to the Consumer Price Index (IndicadoresFinancieros 2012).

additional requirement is introduced within the LGB, giving the implementation of the revised banking regulations legal power. The Chilean government is reluctant to drop these now because the banks still need these aspects of supervision to meet the capital and risk requirements.

## **Brazil**

Brazilian government has made progress to improve corporate governance and promote financial deepening to help constrain the expansion of expenditure commitments and to sustain growth over the past few decades (De Mello 2011, 6). The Brazilian banking sector had experienced a low investment rate, which has taken its toll on public-sector investment. A low investment rate, both from foreign and domestic investors, lowers the capital flow. Therefore, a low investment rate not only inhibits a government's ability to expand infrastructure, but also indicates the risks and weaknesses of capital markets. Causes of the low investment rate included macroeconomic instability during the 1980s and 1990s and a lack of long term financing for private sector and fiscal consolidation. To address notorious hyperinflation, Brazil's policymakers adopted inflation targeting (IT) after the devaluation and floating of the real in 1999. IT policies improved transparency of monetary policymaking. By adopting price stability policies simultaneously with financial regulatory policies, Brazilian policymakers have been able to create the foundation for sustainable growth (BIS 1, 149).

The Real Plan in 1994 changed the way financial institutions operated, and made lending as the main way to generate revenue. The Real Plan emphasized the privatization of public enterprises, incentives to private foreign investment, and the freedom of movement of capital (Goncalves and Teizeira 2006, 1867). With banks unfamiliar and

lacking a credit culture, the Central Bank of Brazil (BCB) became involved in the evaluation of loan portfolios. Therefore during the late 1990s, the BCB changed its approach from a monitoring agenda to a regulatory approach for the banking sector. Their new supervisory process of Global Consolidated Inspection triggered an increase in demand for improved credit data.

The Credit Risk Center was launched in 1997 to help develop the emerging credit information system, focused on meeting the demands of bank supervisors who needed better data for bank lending. The Credit Risk Center provided the data for regulators to better quantify a borrower's credit risk and lending data. Launched in June 2004, the BCB created the Credit Information System (SCR) to replace its predecessor the Credit Risk Center. The updated Credit Information system's purpose was not only to disclose credit information and debt levels but also to further improve the financial institutions' ability to manage credit risk. The revised SCR program was able to incorporate new data as they arrived (Latin Finance 2004, 4). SCR's long term goal takes into consideration Basel's capital requirements insofar as the information is organized such that Basel indicators are easily obtained (Latin Finance 2004, 4). SCR functions as a central depository of all credit portfolios. The SCR process involves financial institutions sending their files on a monthly schedule to the Central Bank, where the data are validated and evaluated (Latin Finance 2004, 4).

Due to its reforms and size of its economy, Brazil has evolved as a regional leader and international player in the financial markets. The Brazilian economy was able to withstand the financial crises in 1994, 2002, and 2008, dissimilar to other countries. Furthermore, its banking system was also able to expand particularly between 2000 and

2005 (BIS 16, 22). Brazil's higher spread, between domestic credit provided and interest rates owed, implies it has a larger capital base and has set the precedent in Latin America.

### **Basel Accord Implementation Strategies**

Brazil is one of two Latin American countries on the Basel Committee, giving it an insider advantage over other countries in the region. As a member of the Basel Committee, Brazil's representatives not only can contribute to the formation of regulations it will eventually implement, but Brazilian policymakers can also model their current regulations based on the future Basel Accords. Because Brazil's economy has been experiencing rapid economic growth for over two decades, it can afford to spend the resources and time on implementing the Basel Accords. Policymakers imposed a 2012 deadline to implement Basel II, and it is expected to be finished in 2013 (Rumsey 2010). In order to stabilize Brazil's volatile markets, the BCB has established a minimum capital ratio of 11 percent, and other banks have capital ratios up to 20 percent. Regardless of ownership, the requirements for credit, market, and operational risk were applied uniformly across all financial institutions in Brazil (Central Bank of Brazil 2005).

Basel II implementation within the Central Bank of Brazil is coordinated by the Department of Financial System Regulation and the Department of On Site Supervision (Central Bank of Brazil 2005). The BCB focuses primarily on terms for implementing Pillar I of minimum capital requirements. However, steps to implement Pillar 2 and Pillar 3 were expected to occur simultaneously within the same timeframe for Pillar 1 compliance (Central Bank of Brazil 2005). Regarding credit risk assessment in Pillar I, the BCB was not using ratings assigned by external credit rating agencies to estimate capital requirements. Originally, financial institutions were required to adopt the

Simplified Standardized Approach to credit risk. Similar to Chile’s implementation framework, larger and internationally active financial institutions will have the opportunity to adopt the IRB approach (Central bank of Brazil 2005). “The Central Bank has granted to banks the discretion to implement risk management according to their risk sophistication,” says Marcus Manduca, partner at Pricewaterhouse Coopers in São Paulo (Rumsey 2010).

The Central Bank of Brazil also intended to use the adjustments to market risk as an opportunity to increase capital requirements, not explicitly included in the existing Brazilian standards. The BCB will comply with the 1996 Amendment to the 1988 Basel Accord. The 1996 Amendment allowed banks to use in-house models to measure market risks as an alternative to the standardized measurement framework (BIS 2). However, the models meet a different criteria established by the BCB (Central Bank of Brazil 2005).

**Schedule for Basel II Implementation in Brazil<sup>10</sup>**

*As outlined in Banco Central do Brasil Communiqué 12,746 of December 9, 2004*

<b>Date</b>	<b>Measures</b>
<b>End-2005</b>	<ul style="list-style-type: none"> <li>• Adoption of Simplified Standardized Approach for credit risk</li> <li>• Introduction of enhanced capital requirements for market risk</li> <li>• Development of impact studies for simpler approaches to operational risk</li> </ul>
<b>End-2007</b>	<ul style="list-style-type: none"> <li>• Establishment of eligibility criteria for adoption of internal market risk models and development of model validation plans for the supervisory authorities</li> <li>• Establishment of eligibility criteria for implementation of IRB approaches for credit risk</li> <li>• Establishment of capital requirement for operational risk (criteria and methodology, if Basic Indicator or Alternative Standardized Approach)</li> </ul>
<b>2008-2009</b>	<ul style="list-style-type: none"> <li>• Validation of internal market risk models</li> <li>• Establishment of schedule for, and commencement of, IRB model validation</li> <li>• Establishment of eligibility criteria for adoption of internal operational risk models</li> </ul>
<b>2009-2010</b>	<ul style="list-style-type: none"> <li>• Validation of IRB models for credit risk</li> <li>• Establishment of schedule for validation of internal operational risk models</li> </ul>
<b>2010-2011</b>	<ul style="list-style-type: none"> <li>• Validation of internal operational risk models</li> </ul>

<sup>10</sup> Central Bank of Brazil, “Focus Report: Basel II Implementation in Brazil,” 2005.

Brazil's larger banks created separate departments to validate their internal models. However, the challenge is to create a structure that prevents conflicts of interest and ensures segregation within the institution. "Some have chosen to have the risk area report to the internal audit committee or directly to the board and at others a chief risk officer has been designated," said Manduca. "In which case departments develop their own models" (Rumsey 2010). Smaller sized banks have been forming validation departments within the internal audit area. Banks are then challenged with finding the human capital. According to Manduca, "Many banks are having to change the professional profiles as existing staff don't have the necessary quantitative and statistical background to manage data" (Rumsey 2010). Data collection is also a hindrance in implementation since Brazil's financial data infrastructure is dated. Although the larger and international banks have the resources to implement up-to-date data collection systems, this provides an unfair advantage to smaller banks. Smaller have to compensate and face additional expenses.

## **Argentina**

By the end of the 1980s, Argentina's financial system underwent high levels of inflation, one of the causes of capital outflow (Vanoli 2007, 4). The hyperinflationary explosion in 1989 caused the collapse of fiscal policies and of Argentine international reserves. With the Carlos Menem administration, the Argentine government followed some recommendations of the Washington Consensus to convert the economy into a market economy, especially using monetary policy. Public sector reform involved privatizing almost all public enterprises; public subsidies were reduced or eliminated and the enterprises' efficiencies improved (Pou 2000, 13).

The Argentine government also implemented two benchmark developments: the Convertibility Law of 1991 and the Central Bank Charter of 1992. The convertibility law fixed the exchange rate of one Argentine peso to the U.S. dollar and required the Banco Central de la Republica Argentina (BCRA) to back two-thirds of the monetary base with international reserves, limiting Argentina's ability to manipulate money supply and eliminating inflationary financing of the government's deficit. The Central Bank Charter made the BCRA independent of the executive and legislative branch in addition to allowing the BCRA to back the Argentine currency with up to one-third of dollar-denominated Argentine securities, evaluated at market prices (Pou 2000, 14).

After the Tequila Crisis in early 1995, the BCRA experienced an 18 percent decline in capital inflow, reducing the bank's liquidity. To protect investor confidence, the BCRA implemented a program of mandatory private deposit insurance in April 1995. It also opened contingent repurchase agreements with 13 international private banks, providing the Argentine economy an option for short-term access to capital (Pou 2000,

14). Since 1995, traditional reserve requirements have been replaced by liquidity requirements, which is dangerous since Argentine banks have experienced reduced liquidity. The minimum capital requirements have remained to be the sum of counterparty risk, interest rate risk, and market risk for the trading portfolio (Pou 2000, 14).

After the crisis of the 1970s and into the 1980s and 1990s, while most Latin American governments financed their budget deficits in their domestic capital markets, the Argentine government was an exception (Feldstein 2003, 2). Argentina's convertibility law pegged the peso to the dollar at a one-to-one exchange rate. Since the exchange rate was fixed too high, Argentina's economy was importing more than it was exporting. The trade imbalance made it impossible for Argentina to pay the interest of its foreign debt. Therefore, the BCRA had to borrow to meet the interest payments, causing the debt to increase even more. As a result of the overvalued fixed exchange rates and excessive foreign debt, unemployment rates were close to 15 percent, and tightened macroeconomic policies pushed the economy into a recession (Feldstein 2002, 8). In addition to the direct effects of the 2000 convertibility crisis, the International Monetary Fund provided a \$22 billion loan to the BCRA in January 2001 that exacerbated the effects. The IMF loan was based on the conclusion that the country was facing a liquidity crisis, and that any exchange rate problem or sustainability of debt could be addressed with increased fiscal restraints, structural reforms, and financial support (Villar 2005). The IMF loan further encouraged Argentine government to implement contractionary policies that led to three years of recession before the crisis. The IMF encouraged the continuation of ineffective policies by providing large loans (Feldstein 2003, 3). As a

result, BCRA borrowed heavily in dollars in the international markets to finance its government deficits (Feldstein 2003, 2). Most of the Argentine banks had shifted ownership to foreign banks, primarily from the United States and Spain with which there is an improved management (Feldstein 2003, 9). Despite bank regulatory reforms, the Argentine economy underwent a recession from 1999 - 2002.

### **Banking Structure & Politics**

The Argentine banking system is regulated by the relatively independent central bank BCRA. The Argentine banking system had a minimal system for potential bank failures in which troubled banks unable to comply with regulations would automatically have their license removed and undergo liquidation. The BCRA is the entity that conducts due diligence and establishes the conditions for banks' rehabilitation plans. The procedures are applied at the sole discretion of the BCRA (De La Torre 2000, 2). The basic system sought to minimize moral hazard, a reaction to the previous crises. By encouraging depositors to monitor banks' conditions and to impose discipline by asking for higher interest rates when there was increased risk, banks were expected to impose decisions reflective of the market. However, the Convertibility Regime and the Tequila Crisis further limited government authorities to avoid or delay a bank's liquidation (De La Torre 2000, 2).

Prior to the crisis, the Argentine banking system was considered relatively well capitalized, very liquid, and well managed with forty percent of the system's total assets in possession of highly rated international banks. However, despite these positive aspects of the banking system, it was vulnerable to three risks: government risk, credit risk denominated in foreign currency, and the weakening of key institutions such as the

BCRA (Gutierrez and Montes-Megret 2004, 1). The weakening of government financial institutions is displayed by the privatization of fifteen provincial banks in 1996 as well as the closing of Argentina's National Bank of Development.

The weakening of the government's fiscal position was accelerated by the resignation of two finance ministers in March 2001 as well as the resignation of BCRA's President in April 2001. As a result, depositors' run on banks caused a loss of bank deposits of US\$18 billion, approximately 20 percent of total bank deposits (Gutierrez and Montes-Megret 2004, 1). In addition to policymakers attempting to use their power to streamline their agendas, they also do not have the luxury of implementing policy that are good for the economy in the long run but would cause negative effects in the short term. Various causes of the 2001 crisis include, but are not limited to, changes of Presidents and their economic policy ideologies as well as poor implementation of Argentine bank regulations.<sup>11</sup> Neither the ruling Alianza nor Radical Party, nor their opposing Peronist Party, had the political will to assume the political costs of imposing the fiscal adjustments. It is also possible that the ruling parties were waiting for a time when there would be no other option but to discontinue the convertibility model (Villar 2005). Changes in political ideologies caused not only the financial and banking sector to be unstable but also the regulation objectives to be inconsistent, making investors hesitant to deposit their capital. The BCRA currency reserves were depleted, despite the instated reserve requirements.

More recently, the problem of top government official turnover persists. There was political dispute regarding policies the BCRA should pursue in January 2010.

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<sup>11</sup> Emma McConville, conversation, October 24, 2011.

Argentine President Christina Fernandez de Kirchner issued a decree to transfer \$6.6 billion of the reserves to a fund to address the growing public debt. However, technically the Central Bank is independent and any transfers of reserves need to be authorized by the Argentine Congress. As BCRA Governor Martín Redrado declined to support the plan without Congress, President Fernandez ordered Mr. Redrado to resign. At the time, Redrado's spokesperson fired by informing the media that Redrado would not sign from his post until the end of his term in September 2010 (Doberti 2010). Eventually President Fernandez sought Congress' approval and her order was signed. However, the process resulted in Mr. Redrado being seen as a martyr for policy by the public (Del Este 2010).

### **Basel Accord Implementation Strategies**

The adoption of Basel I in Argentina by the Banco Central de la República Argentina coincided with the Convertibility Regime – pegging the Argentinean peso to the American dollar. Argentina was distinct as a developing country implementing the Basel Accord because its adequacy standards were more demanding than the requirements suggested by the international standard. The Argentinean implementation of Basel I required a “strict regime of provisions for expected losses, and more demanding because the ratio capital/risk assets turned out to be superior to the 8 percent promoted by the BIS” (Vanoli 2007, 5). In fact, the capital to risk ratio for Argentina was set to a comparatively high level of 11.5 percent in addition to the additional net worth requirements (Vanoli 2007, 5). After 1993 and the Tequila Crisis, the BCRA adopted “Basel Plus” to further improve the financial system's adequacy and liquidity (Vanoli 2007, 5). Although the Convertibility Regime eased the implementation of Basel I, its adoption did not generate a strong enough financial system to withstand the crisis in the

early 2000s. In fact, if the Argentine economy remained on the dollarization, the discrepancy between reserves and capital with international exchange rates would have made the continued adoption of Basel I impossible. Domestic values of assets and liabilities were bound to fluctuate with changes in the exchange rate. Therefore, with assets changing value, most likely decreasing, but their reserves remaining pegged to the dollar, the imbalance prevented the reserve requirement to adequately reflect the risk in assets and liabilities.

According to the Bank of International Settlements, Argentina is now one of the most delayed Latin American countries in implementing the Basel Accords. In fact, the Financial Times reported in October 2011 that “Argentina had made no effort to implement the agreement [Basel II] at all” (Masters 2011). Announced in December 2006, the Argentine government had determined that banks were to complete Basel II implementation by 2010. This was the same year that Argentine Central Bank president declined to support a debt diminishing plan. Argentina’s economy is also ranked the lowest among other large economies in Latin America, such as Brazil, Chile, and Mexico, regarding adoption of implementation plans (Banco Central de la Republica Argentina 2007). Argentina needs to revamp its financial system. The government has struggled to implement the Basel II Accords due to its changing political parties in power, apathetic attitude, and constantly changing monetary policies.

The BCRA decided to adopt the simplified standardized approach, similar to Chile, thought to be in effect by January 2010. The BCRA kept in line with Basel II for determining market risk and interest rate risk. However, the BCRA sought alternatives beyond the recommendations by the Basel Committee for treating operational risk. The

Central Bank assumed beyond their reasonable capabilities that it would fully implement Pillar II and II before the minimum capital requirements of Pillar I went into effect.

Contrasting the published documents by the BCRA and the Central Bank of Chile, it is apparent that the Central Bank of Chile's twenty-seven page road map is more comprehensive compared to Argentina's three-page document. Published in 2007, Argentina's road map lists several thresholds, but they are neither detailed nor active. For example, the stages can be summarized as the following: publication of optimal practices for risk management, seminars, review of supervision processes, and analysis of calculation of capital (Banco Central de la Republica Argentina 2011). Although Argentina announced the adoption of the simplified standard approach in 2006, to be completely implemented in 2010, it had not yet announced how it would address operational risk in 2007 (Vanoli 2007, 26). The roadmap claimed that "given the chosen approach, there will not be major changes in the financial entities' global capital requirement nor in the way it is calculated. Conversely, the Central Bank considers it is convenient to continue the analysis of the alternatives available of operational risk, in order to find the most suitable for the local financial system" (Banco Central de la República Argentina 2007). The claim that they would implement Basel, but there would be no change displays the apathetic approach to abiding by the Basel Accord recommendations.

In 2009, Argentina planned to have the Basel capital requirements, in terms of credit risk, parallel with the enforced BCRA regulations. BCRA also allotted two years, 2007 to 2009, for Pillar II to be implemented (Vanoli 2007, 25). Furthermore, BCRA intended to have the capital requirements correspond to the simplified standardized

approach. However, Argentina's capital ratio requirements fluctuated approximately two percent, which is a considerably high dispersion. Therefore, there was a significant disparity among the different banks (Vanoli 2007, 24).

### **Challenges**

Compared to the Chilean banking industry, the Argentine banking sector was not as prepared to implement the Basel Accords. Immediately after the collapse of the banking system in the 1980s, Chilean policymakers implemented strict regulatory and supervisory controls. Argentine policymakers, on the other hand, followed the recommendations of the Washington Consensus during the late 1980s and converted to a market economy. The rapid initiative to privatize almost all public enterprises weakened the direct control previously held by the Argentine government. Argentina's government took the conversion to a market economy a step further by implementing the Convertibility Law in part to ease economic transactions as well as finance their budget deficits.

The BCRA believes it is more acceptable to take its time implementing the Basel Accords because the Argentine banking system is still in a primitive state (Doll 2011). Distinguishing its banking sector from those in Brazil and the United States, Argentine local banks were consulted by Argentine newspaper *El Conista* believe that the delay in implementation is not worrisome since it has a less developed banking system (Doll 2011). However, risk vulnerability and bank primitiveness are two different characteristics. Economics professor from the University of Buenos Aires Miguel Kiguel said that "while the cost of not applying this regulation still isn't very big, today one notes a certain lack of appetite at the Central Bank" in adopting the Basel Accords (Doll

2011). Their relaxed approach to implementing Basel in addition to the most recent crises has provided Argentina's policymakers the excuses for their delayed implementation of Basel.

### **Prescriptions for Argentina**

Prior to addressing banking conditions or macroeconomic stability, the Argentine government needs to be stable. The changing of the political parties and the ideologies seen in legislation is natural, especially since Argentina is a constitutional republic and representative democracy. However, rather than have the conflicting parties resulting in the "best outcome," the radical swings in ideologies in office have weakened the government's fiscal position. Politicians must remain cognizant that they should focus on long-term benefits.

Argentina also needs to be able to withstand the impacts of macroeconomic instability, some of the causes of which are beyond the government's control, without weakening its own economy. The Argentine government has previously addressed the negative effects of economic instability by imposing the Convertibility Regime, which proved to be unsuccessful. Brazil's economy had also faced high inflation and macroeconomic instability during the late 1980s through the early 2000s. However, rather than turn to the international markets to satisfy its budget deficit, the Brazilian government adopted policies to stabilize commodity prices simultaneously with financial regulatory policies. The Argentine government, on the other hand, seems to have focused solely on its convertibility policies and other monetary policies.

## **Re: Banking Sector**

International banks in Argentina are susceptible to crisis because of their limited-liability feature, in which they face crisis as stand-alone entities. As a result, depositors in emerging markets may not reap the full benefits of an international bank. However, limited liability also protects the international banks from the Argentine government. In the absence of limited-liability, the Argentine government would have an increased incentive to expropriate the assets of international banks, which control 53 percent of assets in the country. According to data collected by Salomon Smith Barney, an international bank controls a domestic bank if its stake in the domestic bank is at least 40 percent (Del Negro and Kay 2002, 2). International banks also control 40 to 50 percent of total loans in Argentina. By strengthening the protection and presence of international banks, Argentina can bring their clients to the country and access a larger pool of foreign investors. Therefore, Argentina would attract capital inflow.

The large presence of international banks is partially caused by enhanced efficiency compared to domestic banks, since foreign banks have higher competitive advantage. In the Latin American market, the United States and European banks have high profit opportunities. The presence of American and European banks in Latin America also allows their clients, both from abroad and within the country, to expand in the region. Foreign banks are also less affected by shocks that are typical in Argentina. Although increased foreign banks presence does increase exposure to external shocks, international banks' increased portfolio diversification makes the domestic financial system less susceptible to domestic shocks. Furthermore, the presence of international banks implies that interest rates on loans for domestic firms are lower. The lower cost of

capital for domestic firms is due to the international banks' diversified risk; thus, they are able to offer lower returns (Del Negro and Kay 2002, 8). Foreign banks tend to have more aggressive loan provisioning and higher loan recovery rates than domestically owned banks, due to their access to greater resources. Therefore, it can be implied that the promotion of foreign banks' entry into Argentina can lead to a more stable banking system (Del Negro and Kay 2002, 9). However, domestic banks have the advantage of access to markets in more rural areas where the financial markets are less developed. Although some domestic banks may be wiped out due to the increasing presence of international banks in the market, domestic banks are able to offer higher returns since it undergoes riskier loans. The BCRA does require banks to contribute monthly to a state run deposit insurance and bank liquidity fund (Rindebro 2004).<sup>12</sup> Therefore, both domestic and international banks offer the investor and borrower different products, satisfying the demand for both types of banks.

### **Re: Basel**

Unlike Chile, Argentina faced significant market pressure to comply with Basel. Argentina had been experiencing a series of consecutive crises between the 1980s and 2000s. The causes of Argentina's inability to withstand the regional and global crises range from both its own policy ineptness as well as global conditions. However, by properly implementing the Basel Accords, the Argentine government could have minimized the effects on its economy, and still can.

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<sup>12</sup> The fund is administered by a government entity called SEDESA. SEDESA and the fund bank up deposits up to 30,000 pesos (US\$10,000).

Immediately after the crisis in the 1980s, Banco Central de la Republica Argentina fixed its exchange rate to the U.S. dollar, backed its monetary base with international reserves, and eventually borrowed to meet its interest payments. These unwise monetary policies stalled the formation of conditions necessary for the implementation of Basel to be effective and well-timed. Chile's policymakers, on the other hand, had tightened its banking regulations. Adapting to the modernization in the industry throughout the decade and into the early 2000s, the Chilean government first established clear guidelines, but then gave banks room to meet those guidelines. The restructuring of the bank regulations, independent of satisfying Basel, prepared the financial institutions by putting them in a good position to meet both Basel I and Basel II frameworks. Both public and private financial institutions were already familiar with the notions of capital adequacy and risk requirements. In addition to the changes in monetary policy that created a transition among the different kinds of monetary policy, Chilean policymakers also explicitly set a two-year transition period for banks to adapt the standardized approaches and for employees to undergo updated training. Argentina also allotted two years for Pillar II to be implemented. However, one of the differences between Chile and Argentina lay with Argentina's capital ratio requirements inconsistency among banks, which fluctuated approximately two percent.

In Chile, the Superintendencia de Bancos e Instituciones Financieras, a separate entity from the central bank, is authorized to supervise banking businesses and other financial institutions as well as safeguard depositors and the public interest (SBIF 2011). Brazilian policymakers also have implementation of the Basel Accords coordinated with the Department of Financial System Regulation and the Department of On Site

Supervision. Yet, Argentina's central bank is the institution that is supposed to supervise the implementation of the Basel Accords. It is beneficial to have separate agencies for formulating and another for implementing the policy because it allows for checks and balances. If there is only one agency authorized to administer and supervise all aspects of the policy, there are conflicting interests that can prevent efficient distribution of the agency's resources. If Argentina's central bank is to remain responsible for the implementation of the Basel Accords, then it should make the recommendations become requirements. Looking at the roadmap for Basel II, there is no mentioning of the urgency of Basel implementation other than "it is expected that the process of adoption of Basel II be gradual until its full implementation as from 2010" (Banco Central de la Republica Argentina 2007).

Aside from the limited three-page roadmap for executing Basel, the Argentine government did not extensively provide banks or regulators sufficient guidelines as to what revisions would be applied. Although it is commendable that policymakers included consistent involvement of supervisors of financial entities in the market via bilateral meetings and surveys, their involvement could equally slow the process rather than streamline its execution.

Mirroring the Chilean government's approach to implementing Basel and following the methodologies outlined by the Basel Committee, Argentine policymakers should simplify the process for financial institutions by having core capital equivalent to Tier I capital, and subordinate bonds equivalent to Tier II. All three countries' governments have initiated the process by having the financial institutions implement the standardized approach. However, the Brazilian and Chilean implementation outline noted

that larger and foreign financial institutions would eventually have the opportunity to adopt the advanced IRB approach. Argentina's implementation outline does not mention the IRB approach at all. In order to make implementation of the Basel Accords appealing, Argentina's BCRA should accommodate the different conditions within its diverse banking sector. The BCRA can appeal to the larger and international institutions by proposing that they can implement an approach consistent with the Basel framework that would give them more freedom in defining reserve requirements, such as the internal ratings based approach. Regarding the Third Pillar of Basel II, the Argentine government could emulate the Brazilian government, which created the Credit Information System. By having a government-affiliated entity committed to disclosing credit information and debt levels, financial institutions have a consistent and controlled classification of credit portfolios and enhanced ability to manage their risk.

## **General Prescriptions Regarding Basel II**

With the benefits of implementing the Basel Accords for the financial sector, many non-G10 countries with international active banks pressured the implementation of the Basel Accords.

Regarding capital adequacy, although regulation may not be directly linked to a better quality of life, the Basel Accords reduce externalities and inequalities that contribute to the causes of banks' failures (Novembre 2009, 128). Since the Basel Accords are considered to be "soft law,"<sup>13</sup> what matters is not its content, but the degree to which the regulations are being implemented (Novembre 2009, 128).

The government must be committed to implementing the Basel Accords, and it should have an agency in charge of regulating the implementation and new Accords. By having a separate supervisory agency overlooking the implementation, the country's financial institutions would have stronger incentives and pressure to implement the Accords within the established timeline. Releasing a statement that the country's economic agencies, including central banks, want to implement Basel is not sufficient to implement.

### 1<sup>st</sup>. Detailed gap analysis

The objective of a detailed gap analysis is to provide an understanding of the risk management framework to identify actions necessary to comply with regulatory requirements. In particular, a government should figure out the appropriate pace to implement the different aspects of the Basel Accords. A government must also determine

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<sup>13</sup>“Soft law” is defined as recommendations which countries are not legally forced to implement the signed agreements.

to what extent the agency empowered with implementation must provide support and guidance. For instance, in more developed countries, the implementation agency may be able to only provide the new regulations. However, in emerging markets, the government agency may need to provide training. An analysis needs to examine the following components of a financial institution: governance; operational procedures; human capital; existing compliance; and data. Within each section of analysis, an exhaustive examination must be done of each component. For example, a governance analysis includes risk strategy as well as roles and responsibilities of bank supervisors (D 2).

## 2<sup>nd</sup>. Framework Development

Each financial institution implementing Basel II chooses its own approach to implement the risk assessment measures. Basel provides options, such as the standardized approach or the internal ratings based approach. The optimal approach chosen for the financial institution is determined by the supervisory government agency recommendations and institution's resources. However, the government agency in charge of implementing Basel should set an initial uniform approach to allow for uniform implementation among all financial institutions, regardless of size or resources. As Chile has demonstrated, the setting a standard approach places the financial institutions on a level playing field. The financial institutions need to have not only a government regulating agency supervising, but also have a government standard framework for implementing the Basel Accords.

Framework development also takes into account the existing procedures within the financial institution and the banking sector culture. For instance, the banking sector

culture would address existing procedures within and among the institutions. A framework also needs to address the existing risk profiles of organizations (D 3).

### 3<sup>rd</sup>. Framework implementation

Once the government supervisory agency has provided financial institutions a standard framework and timeline to implement, it is up to the financial institution to address deficiencies and different challenges for each institution. For instance, the level of organizational complexity and size will affect the institution's resources available in implementing new risk approaches within the established timeline. The general path for framework implementation appears to initiate the process with the "standardized approach" with an intended gradual transition to the IRB approach.

### 4<sup>th</sup>. IT tools selection

To meet Pillar I regulatory requirements of assessing risks, banks must have a good data collection system in place. Creating a data collection system would also allow banks to calculate value-at-risk (Valladares 2006, 15). Brazil sets a good example of creating a government agency, the Credit Risk Center, dedicated to provide financial institutions with credit data, hence promoting transparency.

### 5<sup>th</sup>. Pillar II/ Internal Capital Adequacy Assessment

Improving risk management by linking regulatory capital requirements to the firm's internal capital adequacy assessment process (ICAAP), financial institutions can improve their ability to review their risk management system as well as advances in Pillar II implementation of Basel II. The eventual independence of a financial institution from government aid is an original objective of the Basel Accords. The formation of a financial institution's ICAAP requires bank managers to understand the capital and risk

requirements and ratios. After necessary ongoing training, bank managers should conduct test stress models to prepare their institution for unforeseeable shocks (SBIF1, 13). Other factors such as revising internal organization, corporate governance and leadership, and financial transparency are all necessary for a financial institution to gain government approval and move onto the IRB approach. The gradual shift from the standardized approach to the IRB approach further advances the Basel Accord objective of having financial institutions not only be more stable, but also be independent of government aid in the case of a crisis.

## **Conclusion**

The discussion regarding stabilizing the increasingly dependent financial markets on an international level has been ongoing for decades, especially since the occurrences and effects of financial crises have become increasingly explosive. Affecting global markets and qualities of life, the 2007/2008 financial crisis displays how there is still room for improvement in implementing banking regulations with the potential to stabilize economies. The Basel Accords provide a solution to stabilize and uniform banking regulations that help banks be better prepared in future crises and manage their risk. The intended uniform management of risk also provides an environment for a variety of banks to become involved in both its domestic markets and international markets. The United States and the European Union set the tone for how other emerging market economies will implement Basel and the extent of urgency. If leading economies want greater banking stability, then they need to be able to fully adopt the Basel Accords to set an example for countries such as Argentina.

Some Latin American countries are prime examples of successful implementation of the Basel Accords, and consequently have been able to attract international capital. The implementation period of Basel I has passed, and Basel II is suppose to be fully implemented by the end of 2012 (BIS 9). Several Latin American governments have pointed out different strategies to implement the Basel Accords. Chile's and Brazil's governments have different approaches, which have strengthened their positions as financial leaders in the region. Despite the fact that both the Chilean and Brazilian economies experienced regional and international financial crises, both economies are considered stable and are experiencing economic growth, in part due to participation in

the international financial markets. Although the short-term benefits of Basel are debatable, Basel Accord's long-term benefits go beyond the improved financial institutions' stability and risk assessment but also to standardize the international markets.

Regarding implementation of the Basel Accords, looking specifically at Basel II, policymakers need to be cognizant that the implementation is not merely changing the capital and risk requirements. In order to successfully implement the Basel Accords, the political arena and other policy aspects need to be taken into account. The structure of the banking system, including the division of power and supervisory responsibility, must prevent conflict of interests. For instance, Chile's government has two separate agencies to manage monetary policy and supervisory responsibility. Brazil's government also contributes to the ease at which financial institutions can be transparent via its Credit Risk Center. Argentina, a country with the potential to successfully implement Basel II, is a clear example of political agendas inhibiting the implementation of the Basel Accords. With checks and balances preventing conflict of interest, the initiative to hasten the thorough implementation of Basel Accords, and long-term solutions, Argentina has the potential to become a more active player in the regional and global financial markets. The combination of political and economic policies, as well as banking system's structure must create the environment to successfully implement the Basel Accords.

## Glossary <sup>14</sup>

Assets, total: Include all nonfinancial and financial assets.

Capital: Assets equal to the sum of its liabilities and equity.

Capital adequacy ratio: The ratio of a bank's capital to its risk.

Capital, core: Consists of equity capital and declared reserves. Common stock, disclosed reserves, non-redeemable, noncumulative preferred stock; preferably common equity, a category that includes common shares and retained earnings.

Capital, regulatory: Includes several specified types of subordinated debt instruments that do not need to be repaid if the funds are required to maintain minimum capital levels (which comprise of tier 2 and tier 3).

Capitalization: In accounting, where costs to acquire an asset are included in the price of the asset; a company's outstanding shares multiplied by its share price.

Cash flow: The movement of money for the purpose of investment, trade, or business production. Occurs within corporations in the form of investment capital and capital spending on operations and research and development. A revenue or expense stream that changes a cash account over a given period. Cash inflows usually arise from one of three activities - financing, operations or investing - although this also occurs as a result of donations or gifts in the case of personal finance. Cash outflows result from expenses or investments. This holds true for both business and personal finance.

Competitive advantage: An advantage that a firm has over its competitors, allowing it to generate greater sales or margins and/or retains more customers than its competition.

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<sup>14</sup>Definitions taken from Investopedia.com/dictionary

There can be many types of competitive advantages including the firm's cost structure, product offerings, distribution network and customer support.

Credit risk: The risk of loss due to the failure of counterparty to meet its obligations.

Currency convertibility: Easy which a country's currency can be converted into gold or another currency. When a currency is inconvertible, poses a risk and barrier to trade.

Debt: Form of loans that must be repaid over time, usually with interest.

Debt, bank: Any debt that is owed to a bank, by any kind of consumer, organization or corporation. The debt may be anything from a bank loan to a credit card debt or an overdraft that has been used. Often secured by the assets of the bought-out firm, this is the most senior claim against the cash flows of the business. As such, bank debt is repaid first, with its interest and principal payments taking precedence over other, junior sources of debt financing.

Debt, corporate: A debt that arises from an underlying transaction between a company and an affiliated entity.

Debt, subordinated: A loan (or security) that ranks below other loans (or securities) with regard to claims on assets or earnings.

Equity: Form of money obtained from investors in exchange for an ownership share in business. I.e. stocks.

FDIC-style depositor insurance: Since the 1930s, "resolution" is what the FDIC (Federal Deposit Insurance Corporation) does when a bank it insures fails. FDIC bank supervisors determine that the bank's assets are worth less than its liabilities. The bank itself is shut down and its assets are transferred to a new entity controlled by the FDIC. This is a form of bankruptcy process managed by a government agency - with the responsibility to

manage an orderly liquidation and to avoid losses to insured retail depositors. The FDIC attempts to maximize the value of the assets it acquires, typically by selling them to another bank or banks. From the customers' standpoint, little changes during this period: the branches, ATM machines, web site and so on remain in operation during the transition, except that customer may not be able to withdraw amounts above the insurance limits. If the proceeds do not cover the bank's liabilities, the creditors lose out, but the FDIC makes sure that all the insured deposits are paid back. Note that going into conservatorship does not mean that the bank is consolidated onto the government balance sheet; the liabilities are not automatically guaranteed. The FDIC previously implemented resolution only for banks with insured retail deposits, but under the Dodd-Frank Act of 2010, the FDIC is empowered to use the same process for bank holding companies and other financial institutions. It remains to be seen how this will be implemented for very large cross-border banks, particularly as there is no cross-border counterpart of the FDIC's resolution approach.

Fiscal balance: The balance of a government's tax revenues, plus any proceeds from asset sales, minus government spending. If the balance is positive, then the government has a fiscal surplus, if negative a fiscal deficit.

Fixed income: Type of investing or budgeting style for which real return rates or periodic income is received at regular intervals at reasonably predictable levels. Fixed-income budgeters and investors are often one and the same - typically retired individuals who rely on their investments to provide a regular, stable income stream. This demographic tends to invest heavily in fixed-income investments because of the reliable returns they

offer. Face the risk that inflation will erode their spending power. Fixed-income investors receive set, regular payments that face the same inflation risk.

Inflation targeting: Central bank policy revolving around meeting preset, publicly displayed targets for annual rate of inflation; benchmark used is typically price index of basket of consumer goods.

Interest margin: Metric measuring how successful a firm's investment decisions compared to its debt situation;  $(\text{investment returns} - \text{investment expenses}) / \text{average earnings asset}$ .

Leverage: The use of borrowed money in the investment.

Liability, limited: A type of liability that does not exceed the initial amount a person invested into a partnership.

Liquidity: 1. the degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid assets. 2. The ability to convert an asset to cash quickly. Also known as "marketability".

Monetary base: The total amount of a currency that is either circulated in the hands of the public or in the commercial bank deposits held in the central bank's reserves. This measure of the money supply typically only includes the most liquid currencies.

Procyelic: Condition of positive correlation between the value of a good, a service, or an economic indicator and the overall state of the economy.

Provision: A legal clause or condition contained within a contract that requires or prevents either one or both parties to perform a particular requirement by some specified time. Created to protect the interests of one or both parties name in a contract.

Repurchase agreement: A form of short-term borrowing for dealers in government securities. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back the following day. For the party selling the security (and agreeing to repurchase it in the future) it is a repo; for the party on the other end of the transaction, (buying the security and agreeing to sell in the future) it is a reverse repurchase agreement. Used to raise short-term capital.

Requirements, reserve: Requirements regarding the amount of funds that banks must hold in reserve against deposits made by their customers. This money must be in the bank's vaults or at the Fed.

Risk weighted asset: In terms of the minimum amount of capital that is required within banks and other institutions, based on a percentage of the assets, weighted by risk. Based on the riskiness of a bank's assets.

Risk, counterparty: The risk to each party of a contract that the counterparty will not live up to its contractual obligations. Because A is counterparty to B and B is counterparty to A both are exposed to this risk. For example if Joe agrees to lend funds to Mike up to a certain amount, there is an expectation that Joe will provide the cash, and Mike will pay those funds back. There is still the counterparty risk assumed by them both. Mike might default on the loan and not pay Joe back or Joe might stop providing the agreed upon funds.

Risk, country: Risks associated with investing in a foreign country. Include political risk, exchange risk, economic risk, sovereign risk, and transfer risk, which is the risk of capital being locked up or frozen by government action.

Risk, interest rate: The risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship.

Risk, market: Potential for an investor to experience losses from fluctuations in securities prices.

Risk, market: Risk of loss due to movements in asset prices.

Risk, operational: Summarizes the risks a company or firm undertakes when it attempts to operate within a given field or industry; the risk that is NOT inherent in financial, systematic, or market-wide risk; the risk remaining after determining financing and systematic risk. Can be summarized as human risk, the risk of business operations failing due to human error.

Sovereign wealth fund: Pools of money derived from a country's reserves, which are set aside for investment purposes that will benefit the country's economy and citizens. The funding for a sovereign wealth fund (SWF) comes from central bank reserves that accumulate as a result of budget and trade surpluses, and even from revenue generated from the exports of natural resources. The types of acceptable investments included in each SWF vary from country to country; countries with liquidity concerns limit investments to only very liquid public debt instruments.

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