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The Embedded-Agency Approach to Bank Regulation: The Case of Latin America

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Abstract

This working paper examines how and why four Latin American democracies—Argentina, Brazil, Chile, and Mexico—have regulated commercial banks in the past three decades. The objective is to explain variation across countries and time in the regulatory regimes of the commercial bank sector, meaning government’s decisions about the levels of restrictions imposed on both the structure and the risk-management behavior of banks. It finds that traditional approaches to regulation—based on interests, ideology, and institutions—are insufficient to elucidate the political economy of banking regulation in Latin America. In offering a new typological—the embedded-agency—approach to regulation, I argue that variation in bank regulatory regimes depends on the nature of the principal-agent (P-A) relationship among regulators and its interaction with what I call “conjunctural” determinants (i.e., systemic banking crises, international pressures, and technological advances).

Resumen

El presente documento de trabajo examina el cómo y porqué cuatro democracias en América Latina—Argentina, Brasil, Chile y México—han regulado los bancos comerciales en las últimas tres décadas. El objetivo es explicar la variación entre países y a través del tiempo en los regímenes regulatorios del sector comercial bancario; es decir, las decisiones del gobierno sobre los niveles de restricción de impuestos tanto en la estructura del sistema financiero como en la gestión de riesgos por parte de los bancos. El documento demuestra que los enfoques tradicionales para examinar la regulación—basados en intereses, ideologías e instituciones—son insuficientes para explicar la economía política de la regulación bancaria en América Latina. Al ofrecer un nuevo enfoque—titulado “agencia imbuida”—se argumenta que la variación en regímenes regulatorios depende de la naturaleza de la relación de principal-agente entre los reguladores y su interacción con lo que llamo determinantes “conjunturales” (ej. crisis bancarias sistémicas, presiones internacionales y avances tecnológicos).
Introduction

How do countries regulate their commercial banks? Why do regulators choose the financial regulatory schemes they do? Even though most of the attention academics have traditionally given to the regulation and supervision of banks has been restricted to the discussions of their technical and/or normative aspects, the 2007-09 international financial crisis reminded us how political the banking regulatory process really is. By acting as an intermediary between savers and borrowers, banks create money and allocate resources. They decide when and where credit will be available, picking winners and losers in the course of economic development. When banks fail, organized pressure groups attempt to shift the burden of financial recovery onto taxpayers. The regulation of banks entails decisions about policy goals and instruments, which have re-distributive implications. The study of the determinants of financial governance thus constitutes a fertile field of research not only for economists, but also for political scientists.

The primary motivation of this article is to uncover the politic-institutional determinants of banking regulation by examining how and why four Latin American democracies—Argentina, Brazil, Chile and Mexico—have regulated commercial banks in the past three decades. The objective is to explain variation across countries and time in the regulatory regimes of the commercial bank sector, meaning government’s decisions about the levels of restrictions imposed on both the structure and the risk-management behavior of banks. I find that traditional approaches to regulation—based on interests, ideology and institutions—are insufficient to elucidate the political economy of banking regulation in Latin America. In offering a new typological—the embedded-agency approach to regulation, I argue that variation in bank regulatory regimes depends on the nature of the principal-agent (P-A) relationship among regulators and its interaction with what I call “conjunctural” determinants (i.e., systemic banking crises, international pressures and technological advances). Given that the regulation of commercial banks affects the level of performance of countries’ financial systems and the performance of financial systems in turn affects economic development (Levine, 1997; Barth et al., 2006), the consequences of deficient financial governance are too grave to be disregarded.

To be sure, despite some undisputable benefits (such as lower prices of financial services), the increasing liberalization and integration of international financial markets poses challenges for domestic governments around the world, especially in Latin America. Liberalization allows banks to

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1 The system of fractional-reserve banking (i.e., the practice of banks making loans for a total of resources that is greater than what they actually hold as reserves) is what allows banks to “create” money.
2 Commercial banks are here defined as financial institutions that accept deposits and make loans.
take on greater risks, which may jeopardize countries’ financial stability. Since the early 1980s and the beginning of the process of neoliberal reforms, many (if not most) Latin American countries have suffered from overt banking crises (i.e., those involving a run on banks or the country’s currency), systemic bank insolvencies and/or some kind of persistent financial imbalances on the part of individual banks. Table 1 shows selected experiences of banking crises in various countries from 1980 to 2000. The costs of these crises have been enormous and comparatively higher in Latin America than in the rest of the world, which make the region an interesting case to be studied. 3 Poor bank management and failures of regulation and supervision have often been at the root of these financial disturbances (Demirguc-Kunt and Detragiache, 1999; Mehrez and Kaufmann, 1999; Glick and Hutchison, 2001; Arteta and Eichengreen, 2002; Mishkin, 2002; Noy, 2004). This article is then also motivated by the fact that the study of the political economy of banking policies can help authorities avoid the high costs of banking crises by providing insights on the policy tradeoffs inherent in the design of safer and less crisis-prone regulatory frameworks.

3 Possible explanations for the higher costs of banking crises in Latin America include: (1) many banking crises in the region were accompanied by currency crises (generating the so-called “twin crises”); (2) less robust banking regulatory systems, with lower provisioning and capital adequacy requirements; and (3) greater reliance on bank intermediation in Latin America when compared to other parts of the world.
The article proceeds as follows. In Section I, I address the question of how countries regulate their commercial banks by presenting a typology of bank regulatory regimes and an empirical measure of these regimes. A bank
regulatory regime index is used to identify variation in bank regulatory regimes not only across countries but also overtime. Section II presents an original framework to understand cross-country and diachronic variation in bank regulatory regimes: the embedded-agency approach. While Section III applies such a framework to the case of Mexico, the final section concludes with a summary of findings and suggestions for further research.

1. How Do Bank Regulatory Regimes Vary?

Bank Regulation and Bank Regulatory Regimes

Because the regulation of banks is a complex phenomenon, which involves multiple dimensions, it is useful to differentiate the concepts of bank regulation and bank regulatory regimes. In this article, I consider bank regulation to mean the process in which regulation-makers enact a set of rules, reflecting their choice of instruments and level of restrictions to be imposed on banks and accompanied by some mechanism for monitoring and promoting compliance with these rules. Bank regulatory regimes (BRRs) constitute the outcome of such a process. The entire process is unobservable in real-life. As a result, we need to work backwards and look at bank regulatory regimes in order to infer the politico-institutional determinants of bank regulation. The article’s dependent variable is thus bank regulatory regimes.

If we accept that regulation is indeed a process, two main implications follow. On the one hand, the range of actors who can participate in the process of bank regulation is wide. During the initiation phase, for example, various institutions (e.g., the executive branch, Congress and the Central Bank) and numerous individuals within each institution are involved in the design and enactment of primary and secondary legislation. To achieve parsimony, this study focuses solely on the role of the “most significant” actors on the supply-side of regulation. On the other hand, bank regulatory regimes are constantly changing and evolving. These changes range from small

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4 This process is dynamic, being characterized by at least two stages. First, the regulation-maker defines the boundaries of a regulatory regime by enacting a set of primary and secondary legislation, constituting the initiation phase of the regulatory process. Then, during the implementation stage, bank supervisors are responsible for making sure that the requirements stipulated by the enacted norms and laws are followed. In this article, I chose to analyze the initiation phase, leaving the implementation stage for a subsequent study.

5 By “most significant” actors, I refer to those who have the regulatory capacity and the resources to directly influence (at least in theory) the content of regulatory policies. On the supply-side of regulation, I consider the executive branch (embodied in the figure of the Finance Minister), National Congress (represented by the leaders of the main parties in the Legislative branch), and the public agency responsible for supervising financial institutions (personified by the administrative board of either the country’s Central Bank and/or other specialized agency). Unlike the suppliers of regulation, the actors on the demand-side of regulation (e.g., bankers) do not have the capacity to initiate regulation by enacting new laws and rules. Rather, their influence on the regulatory process is indirect, being exercised through the pressure they exert on regulation-makers.
“fine-tunings” in the legislation to major financial reforms revamping various elements of a BRR. When studying specific cases of BRRs, I will take various regulatory snapshots delimited in time by major legislative reforms.

Within these snapshots, one can operationalize a bank regulatory regime as comprising two continuous dimensions concerning the restrictions on the banking industry’s structure and its behavior. The intersection of these two dimensions determines four main ideal types — (1) cost-padding, (2) laissez-faire, (3) prudential and (4) over-protective— as shown in Table 2. Each of these ideal types represents not only a specific form of regulatory framework but also a different objective of bank regulation. Depending on the levels of government restrictions imposed on both dimensions of bank regulatory regimes, countries can be placed into one of these four ideal types.

**TABLE 2: TYPOLOGY OF BANK REGULATORY REGIMES**

<table>
<thead>
<tr>
<th>RESTRICTIONS ON THE RISK-MANAGEMENT BEHAVIOR OF BANKS</th>
<th>RESTRICTIONS ON THE STRUCTURE OF THE BANKING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>HIGH</td>
</tr>
<tr>
<td>&quot;PRUDENTIAL&quot; (QUADRANT III)</td>
<td>&quot;OVER-PROTECTIVE&quot; (QUADRANT IV)</td>
</tr>
<tr>
<td>&quot;LAISSEZ-Faire&quot; (QUADRANT II)</td>
<td>&quot;COST-PADDING&quot; (QUADRANT I)</td>
</tr>
</tbody>
</table>

The horizontal continuum relates to the limitations directed at organizing the structure of the banking industry. It ranges from a minimal to a maximum degree of state restrictions it affects the level of competition existent within a given banking system. During the period of Import Substitution Industrialization, most Latin American countries adopted regulatory schemes that inhibited high levels of competition in the banking industry. Not only did the state impose ceilings on interest rates, but it also prohibited foreign participation and the existence of universal banks (i.e., banks that can engage in securities, insurance and real estate activities). More recently, within a context of neoliberal economic reforms and technological advances, a process of “deregulation” has taken place and most of the barriers to entry into banking, bank ownership and banking activities have been removed. In general, higher levels of restrictions and state intervention on the structure of the banking system are associated with lower levels of competition within the industry (Bank of International Settlements, 2001; Claessens and Laeven, 2004). Modern theory of banking offers examples of indicators that can be used for measuring the level of state intervention on the structure of the banking industry (Freixas and Rochet, 1997): (1) the level of regulatory restrictiveness for bank participation in securities, insurance and real estate activities; (2) the level of regulatory restrictiveness for commercial banks' ownership of non-bank and non-financial firms and vice-versa; (3) the level of
restrictiveness on foreign bank entry; and (4) the level of restrictiveness on interest rates for deposits and loans.

The vertical continuum includes governments’ choices regarding restrictions constraining bankers’ tendencies to engage in risky behavior. Without state intervention to reduce the asymmetric information problems between bankers and their clients as well as between governments and bankers, the building of safe and sound banking systems is impaired. Some governments have been rather successful in establishing minimum capital requirements (weighted by the risk incurred by banks), external auditing schemes, explicit liquidity and diversification guidelines, formal provisioning requirements, as well as important accounting/information disclosure standards. Other countries have struggled to put in place regulations that can reduce moral hazard, adverse selection and free-rider problems. According to modern theory of banking, these various regulatory indicators fall under the rubric of regulation on the risky-management behavior of banks and it ranges from a minimum to a maximum level of restrictions. On the one hand, a high level of regulatory stringency imposes the costs of system stability onto bankers as they have less capital available for their riskier and more profitable investments. On the other hand, a lax type of behavioral regulation forces taxpayers and bank clients to bear the burden of financial stability by making them pay for banks’ bailouts.

Interesting to note is the inherent trade-off between these two dimensions. As governments deregulate the structure of the banking industry allowing for higher levels of competition, the more pressing it will be for these governments to enact regulation geared towards curbing the risky behavior of banks. To understand why this is the case we need to remember that the main objective of a bank’s portfolio management is to strike a balance between liquidity and income (i.e., profitability). Because the rate of return on assets tends to vary inversely with their degree of liquidity, bankers must decide on the distribution of their assets, which will provide both liquidity and income. In highly competitive environments, where markets set interest rates, profits tend to be smaller, creating a perverse incentive for bankers to sacrifice higher levels of liquidity for assets that can yield higher returns and profits. As a result, to the extent that the government deregulates the structure of the banking industry in favor of higher levels of market competition, one can expect more pervasive risk-taking behavior on the part of bankers. To avoid systemic liquidity problems, the government is, thus, compelled to intervene and manage such risky behavior.

It is worth highlighting, however, that governments’ decisions regarding the regulations on the structure and the behavior of banks are not always taken with the objective of maintaining the stability of the financial system.

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6 Costs also increase because of their overhead costs of complying with all of the bureaucratic requirements of more stringent regulation.
Bank regulation oftentimes serves other purposes, yielding different bank regulatory regimes. For instance, Quadrant I in Table 2 represents cost-padding regulatory regimes. By limiting competition among financial institutions, governments decrease the costs of financial intermediation incurred by existing bankers and, as a result, their profits tend to be higher in this type of regime. By paying more for loans and receiving less for deposits, banks’ clients pay higher prices for financial intermediation. If any bank fails, it is the taxpayers’ money that will provide for bail-outs. These regulatory schemes are not necessarily unstable because the very existence of high profits can inhibit bankers’ excessive risky-behavior (Hellman et al., 2000; Rosenbluth and Schaap, 2003). The main goal of this type of BRR is to achieve *broader social objectives* such as directing credit to certain sectors of the economy and the provision of fiscal resources to national governments.

Quadrant II constitutes a laissez-faire type of regulation because we do not observe high levels of restrictions on the structure or on the behavior of banks. High levels of competition create perverse incentives for bankers to take on more risks but without the counterbalancing forces of stringent risk-management regulations, this type of regulatory regime is especially susceptible to banking crises. Without restrictions on the risky behavior of banks, the moral hazard problem is intense, and not surprisingly, this is the regulatory arrangement that is the least likely to guarantee the health and stability of the financial system. Rather, the implementation of this type of BRR is often rationalized on the basis of promoting the *efficiency* of the financial system.

In a prudential type of regulation (Quadrant III), governments have displaced the restrictions on entry into banking, ownership, activities and interest rates offered by banks, and as a result, high levels of competition are observed. Concurrently, regulations restricting the ability of bankers to conduct transactions with high probabilities of default have been enacted. The moral hazard and adverse selection problems have been mitigated, and as a result, banks’ clients and taxpayers do not have to bear the burden of maintaining financial stability. The main objective of this type of BRR is to *protect consumers of financial services*, especially small depositors.

Finally, Quadrant IV—the over-protective regulatory regime— is one in which although the government has not liberalized the structure of the banking system, it has put in place stringent safeguards against bankers’ excessive risk-taking behavior. This is a case of over-protection and excessive government intervention because the low levels of competition do not justify the high levels of restrictions on banks’ risky behavior, which make bankers bear the costs of high capital, external auditing and provisioning

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7 The specific sectors are determined by each government depending on what is considered to be the “strategic sectors” for growth at the time.
requirements. Within this BRR, primacy is given to maintaining the financial systems’ stability (i.e., the protection against systemic risks or the security of the payments system).8

These four bank regulatory regimes are equally likely to emerge. Regulators’ decisions about the level of restrictions to be imposed on the structure of the banking system are independent from those regarding the behavior of banks. Consequently, it is not possible to affirm a priori that a certain regulation on the structure of the banking system determines the level of restrictions imposed on the behavior of banks.

Cross-country and Diachronic Variation in Bank Regulatory Regimes in Latin America

Using the Barth et al., (2006)9 survey dataset10 and categorical principal component analysis, I construct an empirical index of bank regulatory regimes and categorize 151 countries according to such an index.11 Table 3 shows the cross-country variation in BRRs in 2003. Thirty-two countries are categorized as having a cost-padding bank regulatory regime, of which six are Latin American countries. Forty countries fall under the laissez-faire type of regulation, including seven countries from Latin America. While the least number of countries present a prudential type of BRR (thirty-one countries in total, and only Argentina is the Latin American representative), the most popular regulatory regime is the over-protective, with forty-eight countries in total, and eleven countries from Latin America.

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8 This type of bank regulatory regime is what financial experts call “macro-prudential” regulation.
9 Such a dataset has three waves conducted in 2001, 2003, and 2007. Here, I used the 2003 version.
10 For the data on the restrictions imposed on interest rates, I used the World Economic Freedom Report (2003).
11 In order to construct the index of bank regulatory regimes, I took four main steps. First, I recoded some of the survey answers so that higher numbers reflect higher restrictions on each of the two dimensions of bank regulatory regimes. Second, I chose the questions from the Barth et al., (2006) survey that best represented the indicators of each dimension of BRRs. Appendix A lists such questions. Third, I used nonlinear principal component analysis to combine the large number of indicators into two dimensions. Finally, I extracted the “object scores” and constructed the bank regulatory regime index.
Among all of the Latin American countries, Argentina, Brazil, Chile and Mexico have experienced the biggest move towards larger banking institutions, more extensive presence, and restructuring of banking regulatory schemes (Inter-American Development Bank, 1996). Moreover, because their financial health has profound effects on the rest of the region, Argentina, Brazil, Chile and Mexico constitute the most interesting cases to evaluate within-country variation in bank regulatory regimes. Using the same typology and empirical index of BRR employed to identify cross-country variation I then mapped the evolutionary trajectory of regulatory regimes in these four Latin American countries in the course of the last three decades (see Table 4).

### Table 3: List of Countries by Bank Regulatory Regimes

<table>
<thead>
<tr>
<th>Bank Regulatory Regimes</th>
<th>Cost-Padding (Quadrant I)</th>
<th>Laissez-Faire (Quadrant II)</th>
<th>Prudential (Quadrant III)</th>
<th>Over-Protective (Quadrant IV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania, Azerbaijan, Belarus, Belize, Bolivia, Botswana, Burundi, Colombia, Costa Rica, Egypt, Gambia, India, Italy, Kazakhstan, Kyrgyzstan, Republic of Macedonia, Malaysia, Malta, Mauritius, <strong>Mexico</strong>, Nigeria, Pakistan, Papua New Guinea, Philippines, Qatar, Russia, South Korea, Suriname, Swaziland, Tunisia, Ukraine, Zimbabwe</td>
<td>Anguilla, Antigua And Barbuda, Armenia, Aruba, Bahrain, Benin, <strong>Brazil</strong>, British Virgin Islands, Burkina Faso, Cambodia, Cameroon, Central African Republic, Chad, Common Wealth Of Dominica, Congo, Cote D’IVOIRE, Equatorial Guinea, Gabon, Grenada, Guernsey, Guinea, Bissau, Guyana, Jordan, Kuwait, Macau (China), Madagascar, Mali, Montserrat, Niger, Panama, Rwanda, Saint Kitts And Nevis, Saint Lucia, Saint Vincent And The Grenadines, Seychelles, South Africa, Tonga, Turkmenistan, United Arab Emirates, Uruguay</td>
<td>Argentina, Australia, Belgium, Estonia, France, Germany, Gibraltar, Greece, Hong Kong (China), Ireland, Isle Of Man, Israel, Jersey, Latvia, Luxembourg, Namibia, Netherlands, New Zealand, Portugal, Romania, Saudi Arabia, Senegal, Singapore, Slovakia, Sri Lanka, Sweden, Switzerland, Togo, Turks And Caicos Islands, United Kingdom, Vanuatu</td>
<td>Algeria, Austria, Bhutan, Bosnia And Herzegovina, Bulgaria, Canada, <strong>Chile</strong>, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, El Salvador, Fiji, Finland, Ghana, Guatemala, Guinea, Honduras, Hungary, Iceland, Japan, Kenya, Lebanon, Lesotho, Liechtenstein, Lithuania, Republic Of Moldova, Morocco, Nicaragua, Norway, Oman, Paraguay, Peru, Poland, Puerto Rico, Samoa (Western), Serbia &amp; Montenegro, Slovenia, Spain, Sudan, Taiwan, Tajikistan, Thailand, Trinidad And Tobago, Turkey, United States, Venezuela</td>
<td></td>
</tr>
</tbody>
</table>
# Table 4: Variation of Bank Regulatory Regimes in Four Latin American Countries (1977–Present)

<table>
<thead>
<tr>
<th>Country</th>
<th>Bank Regulatory Regime</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>COST-PADDING</td>
<td>1982-1988</td>
</tr>
<tr>
<td></td>
<td>LAISSEZ-FAIRE</td>
<td>1989-1994</td>
</tr>
<tr>
<td></td>
<td>TOWARDS OVER-PROTECTIVE</td>
<td>1995-1998</td>
</tr>
<tr>
<td></td>
<td>BORDER OF COST-PADDING AND OVER-PROTECTIVE</td>
<td>1999-2004</td>
</tr>
<tr>
<td></td>
<td>TOWARDS PRUDENTIAL</td>
<td>2005-PRESENT</td>
</tr>
<tr>
<td>Argentina</td>
<td>BORDER OF LAISSEZ-FAIRE AND PRUDENTIAL</td>
<td>1989-1994</td>
</tr>
<tr>
<td></td>
<td>LAISSEZ-FAIRE</td>
<td>1977-1981</td>
</tr>
<tr>
<td></td>
<td>COST-PADDING</td>
<td>1982-1988</td>
</tr>
<tr>
<td></td>
<td>PRUDENTIAL</td>
<td>1995-2001</td>
</tr>
<tr>
<td></td>
<td>PRUDENTIAL</td>
<td>2002-PRESENT</td>
</tr>
<tr>
<td>Chile</td>
<td>LAISSEZ-FAIRE</td>
<td>1973-1985</td>
</tr>
<tr>
<td></td>
<td>OVER-PROTECTIVE</td>
<td>1986-1996</td>
</tr>
<tr>
<td></td>
<td>TOWARDS PRUDENTIAL</td>
<td>1997-PRESENT</td>
</tr>
<tr>
<td>Brazil</td>
<td>COST-PADDING</td>
<td>1964-1987</td>
</tr>
<tr>
<td></td>
<td>BORDER OF COST-PADDING AND LAISSEZ-FAIRE</td>
<td>1988-1993</td>
</tr>
<tr>
<td></td>
<td>TOWARDS PRUDENTIAL</td>
<td>1994-PRESENT</td>
</tr>
</tbody>
</table>

Mexico and Brazil depart from a cost-padding regulatory regime; Argentina and Chile start from a laissez-faire regime. While Mexico and Chile head towards an over-protective regulatory regime after the financial crises of 1995 and 1983 respectively, Argentina goes from a laissez-faire type of regime to a cost-padding BRR in the early 1980s and then to a prudential type in the mid-1990s. Brazil lags behind in regulatory reforms, and during the entire period under study, it moves from a cost-padding to a laissez-faire type of regime, and more recently, towards a prudential BRR. Unlike what some financial experts argue (Kapstein, 1992; Singer, 2004), neoliberalism and globalization has not paved the way for complete convergence and harmonization in regulatory schemes. As shown in Table 4, Argentina, Brazil, Chile and Mexico have not adopted a “one size fits all” regulatory structure for their national financial systems. At most, these countries have experienced movements of de-regulation and re-regulation of the banking system, albeit at different pace.
2. Why Do Bank Regulatory Regimes Vary?

The Embedded-Agency Approach

In an attempt to understand why bank regulatory regimes have varied across and within countries, I propose an analytical framework called the “embedded-agency approach” that focuses on the supply-side of regulation, characterizing the interplay between various regulators as a principal-agent relationship. A P-A relationship originates when an actor—the principal—wanting to accomplish certain goals but lacking the necessary skills, capacities or resources to do so, finds another actor—the agent—and obtains her services in return for remuneration (Coleman, 1990: 146). Because the regulation and supervision of commercial banks entail rather technical issues, the executive and legislative branches (i.e., the principals) oftentimes prefer to delegate these functions to central banks and/or specialized institutions (i.e., the agents). The problem is that these P-A relationships have important characteristics that may create conflict of interests and prevent principals from achieving their regulatory goals. Depending on the economic, technological and international context in which they are embedded, not all actors involved in the regulatory process will agree on the form and the function of bank regulation. A consensus around a regulatory objective and instrument is thus necessary to enact and sustain certain bank regulatory regime.

The proposed framework suggests that variation in BRRs depends on the nature of the P-A relationship among regulation-makers and its interaction with what I call “conjunctural” determinants (i.e., banking crises, international pressures and technological advances). While the first allows us to answer the question of who matters in determining the level of restrictions on the structure and the behavior of banks and how a consensus among the various actors involved in the regulatory process can be achieved, the latter gives insights into which regulatory objective principals give priority. The interaction between the nature of the P-A relationship and the conjunctural determinants yields testable hypotheses regarding the likelihood of each type of bank regulatory regime. A schematic illustration of the framework is presented in Figure 1.
FIGURE 1: THE ELEMENTS OF THE EMBEDDED-AGENCY APPROACH TO BANK REGULATION

- Level of Regulatory Resources
- Nature of the Principal-Agent Relationship among Regulators
- Conjointural Determinants

Who matters in the rule-making process?

- Principals; Agents; Principals & Agents

How a consensus among regulators around the context of policies can be achieved?

- Negotiation or Consultation

Which regulatory objective is assigned priority?

- Stability; Efficiency; Consumers' Protection; Broader Socio-Political Goals

BANK REGULATORY REGIMES
Unlike traditional principal-agent models used in political science, the proposed framework does not assume that agents always possess more regulatory resources than their principals. Rather, it considers the asymmetry of regulatory capacity between the principals and their agents as a variable (Waterman and Meier, 1998). Four scenarios are possible: (1) both principals and agents possess low regulatory capacity (Lp, La); (2) principals have more regulatory resources than agents (Hp, La); (3) both principals and agents present high levels of regulatory capacity (Hp, Ha); and (4) agents possess more resources than their principals (Lp, Ha). In general, changes in the levels of regulatory resources have the potential to move the nature of the principal-agent relationship from one scenario to another.

How can we measure regulatory resources to identify the nature of the P-A relationship among suppliers of regulation? Here, I propose looking at five different dimensions, namely regulators’ authority/legitimacy powers, their levels of internal coordination, financial resources, information, and regulators’ transparency.

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12 The choice of these dimensions was guided by interviews with financial experts.
13 Regulators strive to enhance their authority and legitimacy to enact new banking rules and laws by guaranteeing their policymaking powers, their legal and operational independence, as well as their transparency. Policymaking powers – i.e., regulators’ powers to initiate, veto, and amend new or existing rules – can be safeguarded by hardwiring their power in primary legislation and/or the Constitution, maintaining good relationships with other regulators and ensuring a mutual respect for the rule of law. Agents can guarantee legal/operational independence from principals’ encroachment by gaining formal autonomy from their principals, establishing fixed terms of office, appointment procedures, specific requirements for promotion and removal from office, and predetermined salaries.
14 If we do not assume that regulators are individuals, but rather composed of an agglomerate of loosely allied organizations/departments, regulators’ choices reflect the extent to which there is coordination and synchronization among these organizations. The degree of coordination, in turn, depends on individual members’ compliance with standard operating procedures and the existence of a sense of common purpose/objective across the organizations composing the executive branch, the legislature, and the Financial Supervisory Agency. For instance, for the Financial Supervisory Agency to be able to elaborate any piece of legislation, it must submit the initiative to the appreciation of its various departments. There are standard operating procedures guiding this process. If it is the case that any of these procedures is not followed, the entire regulation-making process will be impaired and the regulatory outcome will be compromised. Similarly, if there is not a sense of common purpose/objective among the various members of the Agency, tensions will arise, and again, the regulatory outcome will be compromised. Thus, to the extent that there is compliance with standard operating procedures and a sense of common purpose among the organizations composing principals and agents, the higher will be the levels of regulators’ internal coordination and regulatory capacity.
15 Given that principals are responsible for the management of public funds, the availability of their financial resources is subject to the macroeconomic state of the country as a whole. Conversely, agents’ financial resources depend on the transfer of funds from national budgets; whether the Financial Supervisory Agency has budgetary autonomy; and whether there is a complement of funds with Agency’s own sources of funds. While economic growth is associated with higher levels of financial resources for principals, agents’ budgetary autonomy allows them to have stronger and more reliable sources of funds to conduct their job.
16 The information relevant for bank regulators to conduct their job is varied and it includes issues like commercial banks’ risk-management practices, the liquidity levels of individual banks and the entire financial system, and the quality of financial institutions’ credit portfolio among others. Based on this information, regulators are able to not only evaluate the effectiveness of existing rules but they can also gauge the prospects of financial market stability. Moreover, regulation-makers can use this information to prevent market manipulation, ensure public awareness of banks’ financial health, and guarantee healthy competition within the banking system. Thus, the more information a regulator possesses about the operations of the regulated entities the higher is her regulatory capacity. Low levels
expertise.\footnote{Depending on regulators’ educational/professional background and training, regulators will have different levels of expertise in issues related to bank regulation. Such an expertise can be home-grown or imported from abroad when regulators attend workshops abroad. In general, the more expertise a regulator possesses the higher her regulatory capacity.} While the first two dimensions measure regulators’ capacity to overcome potential political opposition to their own policy preferences, the last three dimensions gauge regulators’ technical capacity to understand financial problems, identify the regulatory challenges they face, and design feasible solutions to address these financial problems and regulatory challenges. These five dimensions are assigned equal weight when assessing regulation-makers’ levels of regulatory resources. The exception occurs when the authority powers of a military dictatorship trumps every other dimension; in this case, the nature of the principal-agent relationship among regulators is distorted in favor of the executive branch. Appendix A lists the questions I used to gauge regulation-makers’ regulatory resources.

The level of each of these dimensions can be coded as either “high” or “low” depending on certain characteristics observed at a given point in time. Taken together, the levels of these five dimensions will determine a final “total score” of regulatory capacity/resources for each regulator. If a regulator (either a principal or an agent) receives high (low) scores in at least three of the five dimensions, the level of her total regulatory resources will be high (low).

Differences in regulatory capacity between principals and agents determine the relative roles of principals and agents in the regulatory process and which political actors are most able to influence regulatory policy. If principals and agents possess low regulatory capacity or principals have more regulatory resources than their agents, principals dictate the form of bank regulation. If agents possess more resources than their principals, it is the agents who determine the level of restrictions to be imposed on both the structure and the behavior of banks. When both principals and agents present high levels of regulatory capacity, then all suppliers of regulation play a prominent role in initiating the regulatory process.

Identifying the protagonists of the regulatory process is essential but not enough to understand differences in regulatory schemes. It is also crucial to recognize the relative weights of the various objectives of banking policy. Regulators may have diverging preferences for banking policy. While agents in general prefer to impose higher restrictions on the risk-management behavior of information are observed when the quality and/or the quantity of information is lacking. Insufficiencies in the quality of information occur either because the information-gathering tools are inefficient or because the information channels between banks and regulators are somehow obstructed. Such is the case of deficiencies with the on-site and off-site bank examination processes. The quantity of information a regulator possesses diminishes when the information-gathering process is decentralized. In a centralized system, one single regulator receives all of the primary information coming from the banking industry. In a decentralized system, regulators share information and no single regulator possesses all of the information.
of banks (i.e., consumer protection and stability of the financial system), principals’ preferences usually oscillate between ensuring the stability of the financial system, its efficiency, consumer protection, and using bank regulation as a tool to achieve broader socio-political goals. Then how can we know to which banking policy objective principals assign priority? This is where the so-called “conjunctural” determinants come into play. They include three main variables: systemic banking crises, international pressures, and technological advances. When a systemic banking crisis occurs, chances are that regulation-makers will assign priority to the stability of the system, which would be reflected in a preference to increase restrictions not only on the risk-management behavior of banks but also on their structure. Alternatively, when important technological advances and (liberalizing) international pressures are observed, the domestic banking system cannot be easily isolated from international competition and capital flows. In this case, the likelihood that regulators will assign priority to promoting the efficiency of domestic banks increases. In all cases, it is the ‘conjuncture’ (i.e., the temporary macroeconomic, technological and international context) that determines the weight regulators assign to each policy objective.

18 The only way to protect consumers of financial services and maintain the systemic stability of the financial system is to ensure the solvency of individual financial institutions and the workings of the payments system. If agents fail to accomplish these tasks, they risk losing their jobs.

19 To measure systemic banking crises, I combined quantitative data with some already existing financial crises’ datasets. I looked at yearly quantitative measures (whenever possible) of bank defaults, non-performing loans, banking system capital, interest rates, and capital flows. If there were evidence that there was a financial distress of not just individual banks but also of the entire banking system, I marked those years as presenting a systemic banking crisis. Personal interviews with regulators and financial experts in Argentina, Brazil, Chile, and Mexico also helped me to identify the years and the severity of financial crises.

20 Apart from the level of capital flows coming into a country, it was more difficult to find quantitative measures of international pressures. Instead, I reviewed a number of documents and conducted several interviews to evaluate the international conjuncture in which regulators were embedded. In particular, I looked for “conditionality” clauses in the letters of intent signed by each Latin American country with the International Monetary Fund. I also examined the commercial treaties signed by each of the countries during the period under analysis in search of any type of requirements regarding banking policies. In reading historical books and the memoirs of former presidents, ministers of finance, and central bankers, I was able to discover the timing, frequency, and sometimes, the content of the meetings between high-level representatives of other countries, international financial institutions, and international financial markets with domestic regulators. The more frequent these international representatives met with domestic regulators right before the enactment of a banking policy, I consider this to be evidence of higher international pressures. Most importantly, I reviewed national newspapers and conducted personal interviews with the regulators themselves in order to find evidence of policy diffusion, direct pressures from IFIs or indirect pressures from financial markets.

21 Financial technological innovations constituted the most challenging concept to be measured. Undoubtedly, financial products, services, and processes have changed at an incredible pace in the past three decades due to the various technological advances in telecommunications and data-processing. However, these technological advances only became relevant for the purposes of this study if they posed a “significant” threat to consumers of financial services. Since it was impossible to find quantitative measures for the significance of these technological threats, I examined the records of consumer complaints against financial services and institutions as well as national newspapers to assess the nature of the technological threats. The more frequent the complaints and the debates were surrounding a particular kind of financial innovation, the more significant I considered their threat to be.
After we identify who matters and what policy objective is given priority, we need to know how a consensus among the various actors involved in the regulatory process can be achieved. A consensus is an explicit agreement over the content of regulatory policy among the suppliers of regulation who have the resources necessary to affect policy outcome. Without such an agreement, new regulations cannot be enacted and BRRs cannot be sustained. Furthermore, the process of consensus-building involves deliberate efforts to engage other actors in the demand-side of regulation affected by policy. Although these demand-side players do not make the final judgment on the content of the rule, regulators oftentimes hear their preferences, deciding whether to accommodate them in the elaboration of rules and norms. Because authoritative power is not enough to guarantee the solidity of BRRs, collaboration among interested parties is necessary.

Indeed, various scholars have identified different ways collaboration is made possible in the policymaking process (Coglianese, 1997 and 2001; Funk, 1997; Golden, 1998; Calcott, 2008). In facilitating repetitive face-to-face interactions among actors, negotiated rule-making, for example, promotes the sharing of information, which can better elucidate facts, issues, concerns, and positions among opposing perspectives. These regular meetings can also allow the parties to explore their shared interests and differences in opinion in order to come up with new solutions to lingering problems, thus widening the range of possible regulatory outcomes. By requiring collective input before the enactment of a new rule and a consensus among stakeholders, negotiated regulation-making can reduce the number of conflicts and contestations after the promulgation of the norm, producing this way more durable regulatory regimes. Proponents of negotiated rule-making claim that regulatory outcomes possess superior technical quality.

In a consultative or “notice and comment” rule-making process, participants as well as the general public are invited to comment on the merits of individual policy initiatives. Once the most relevant regulation-maker has elaborated a regulatory initiative, she asks for the opinions of actors on both the supply and the demand-sides of regulation. Yet, this regulator has the ultimate word on regulatory decisions, choosing whether or not to incorporate the comments into the initiative. Unlike negotiated rule-making, the achievement of a consensus is not required for the enactment of new rules.

Both negotiated and consultative processes are observed in the specific case of bank regulation. Depending on the nature of the principal-agent relationship among regulators, four different types of rule-making can be identified. Let us first consider a situation where principals have more regulatory resources than their agents (i.e., Hp, La). In this case, the Executive and/or Congress dominate the relationship with the Financial Supervisory Agency(s). Since the latter possess relatively less legitimacy,
technical expertise, and financial resources than the former, agents have no influence in the rule-making process, basically acting as personal staff for their principals. Once the most relevant principal has elaborated a regulatory reform proposal, she invites comments from other principals and her constituency. A consensus is not required because the asymmetry of regulatory resources in principals’ favor grants them the authoritative power to be the ultimate decision-maker in bank regulation. The most powerful principal thus chooses who she will consult. Given principals’ need to cater to their constituency and the highly technical nature of the issues, they will most likely welcome comments from the regulated industry (especially, commercial banks). As a result, opportunities arise for the so-called “iron-triangles” (i.e., cordial relationships between principals, agents and the regulated industry) to enact regulation that is beneficial to all of them. That explains why I call this type of rule-making “captured consultation”.

Alternatively, when agents possess relatively more regulatory resources than their principals (i.e., Lp, Ha), the former constitute the ultimate decision-makers in bank regulation. Having more technical expertise, legitimacy, and (sometimes) financial resources, agents become technocrats and are allowed to dominate the rule-making process until something goes wrong. Again, a consensus is not required because agents do not share authoritative power. The only constraint is that no disaster occurs, because otherwise principals will intervene in the rule-making process. In order to avoid such disasters, it is important that agents continuously consult various experts in financial regulation and ask for their perspectives and comments. Such experts usually come from other Financial Supervisory Agencies around the world and International Financial Institutions (such as the Bank of International Settlements). A sort of international expert network can thus be formed, when agents lead a consultative process. Not surprisingly, I call this type of rule-making “network consultation”.

If principals and agents lack regulatory capacity, both discount the value of expertise in the rule-making process. In this case, bank regulation is not the result of informed policy analysis, but rather, the product of policy entrepreneurship. When a certain financial problem becomes salient, principals adopt whatever argument that is floating around to gather support to enact new policies. This permits the principal to take credit for addressing the problem. Meanwhile, agents will take on a passive role, being solely responsible for carrying out principals’ policies. Because there is competition among principals for policy praise, a consensus among them is necessary for the enactment of new rules and laws. Negotiation and an agreement on the content of policies will be based on ideology, rather than on technical ideas. Consequently, I name this type of rule-making “ideological negotiation”.

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22 This is what Waterman and Meier (1998) have called “bumper-sticker” politics.
Finally, in a situation where both principals and agents possess high levels of regulatory resources, there is no single protagonist in the regulatory process. Principals and agents are co-equal participants, and the adoption of new rules necessarily requires a consensus among them. The negotiation process will resemble advocacy coalitions with principals and agents aligned together on either side of a given issue. The sharing of information and technical ideas constitute the basis for negotiation, and the relationships between principals and agents require repeated interactions over long periods of time. The result is a type of rule-making characterized by “technical negotiation”.

What implication do these different types of rule-making process have for our understanding of bank regulatory regimes? The different types of rule-making process determine the extent to which the various actors of bank regulation can transform their preferences into policies. For instance, in a captured consultation situation (Hp, La), agents are not protagonists in the regulatory process; their preferences are not impressed into policies. What counts are the preferences of principals since they presumably have more authority/legitimacy powers, internal coordination, financial resources, information and expertise than their agents. Policy outcomes may not necessarily be a perfect reflection of principals’ preferences, however. That is because in a captured consultation rule-making process, bankers are often consulted by principals. If regulators decide to adopt bankers’ suggestions, then the ultimate form of bank regulatory regimes will also be the result of financial institutions’ preferences. The same occurs in a network consultation type of rule-making process (Lp, Ha). Agents’ preferences should prevail vis-à-vis those of principals. However, these preferences may be modified by agents’ adherence to the suggestions made by the network of financial experts they consulted. A bank regulatory regime would thus be the result of agents’ preferences altered by certain financial experts. In both cases, the preferences of the most relevant regulators do not automatically translate into policy outcomes, because the rule-making process aggregates and transforms these preferences in different ways.

The Hypotheses Derived from the Embedded-Agency Approach

The embedded-agency approach draws attention to two main sets of independent variables. On the one hand, the nature of the principal-agent relationship among regulation-makers tell us not only who chooses the levels of restrictions to be imposed on both the structure and the behavior of banks but also how political support for a certain bank regulatory regime can be forged. On the other hand, conjunctural determinants indicate the direction of regulatory policy to the extent that they shape principals’ preferences regarding the priority of regulatory goals. Ultimately, the interaction between
these two sets of variables yields interesting testable theoretical hypotheses about when each of the bank regulatory regimes is more likely to occur.

Let us first consider a (Hp, La) situation, where principals have the advantage of possessing more regulatory resources than their agents. Because they have relatively more information, expertise, legitimacy and financial resources, principals - i.e., the Executive and/or Congress - are the critical decision-makers. Depending on the context in which they are embedded, principals will assign priority to different goals of bank regulation. More specifically, if principals find themselves in a conjuncture characterized by the absence of systemic banking crises, technological innovations and international pressures, they are free to use the banking system as a tool to achieve broader socio-political goals. Without the disturbances of financial crises, the political and economic benefits of implementing more restrictions on banks’ risk-management activities decrease. Similarly, the lack of technological advances and international pressures allows domestic banks to be comfortably isolated from competitive pressures. In this case, it is easy for principals to see commercial banks as an alternative source of financial resources for the government or certain chosen economic sectors.

For a principal to be able to use banks for her benefit, financial institutions must be compensated. One way for principals to compensate bankers is through the enactment of banking policies that are favorable to financial intermediaries. In this case, there is an incentive for principals to consult bankers during the initiation phase of bank regulation. This consultation process will then tilt policy outcomes in the direction of incumbent bankers’ ideal preferences: lower restrictions on the risk-management behavior of banks and higher restrictions on the structure of the banking system. The combination of principals’ preferences to use the banking system as a tool to achieve broader socio-political goals (i.e., absence of conjunctural determinants) and a rule-making process that allows regulators to consult with bankers (i.e., an asymmetric nature of P-A relationship in favor of principals) thus increases the probability of a cost-padding bank regulatory regime, *ceteris paribus*.

Now suppose that we observe a (Lp, La) situation. Even though principals and agents lack regulatory capacity, principals are still the protagonists of the regulatory process. If they are embedded in a context of strong liberalizing international forces,23 principals’ preferences regarding the priority of regulatory objectives inevitably converge towards promoting the efficiency of the domestic banking system. That is because international liberalization increases competitive pressures on domestic banks. With the burden of government restrictions on the activities, ownership, capital requirements

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23 These could be pressures exerted from IFIs, international financial markets, the signing of a liberalizing treaty, and policy diffusion of liberalizing policies adopted by the country’s peers, among others.
and other regulatory instruments, domestic banks cannot expand their businesses and face international competitors.

Once the relevant regulation-makers and their preferences are identified, the question then becomes whether or not a situation of \((L_p, L_a)\) is the most propitious for transforming these preferences towards liberalization of both the structure and the behavior of banks into policy. The answer is yes based on three main considerations. First, given that agents are not active participants in the regulatory process, their preferences towards more restrictions on the behavior of banks do not influence policy outcomes. Similarly, the fact that principals do not possess high technical regulatory capacity makes it rather unlikely that they will try to impose high restrictions on the behavior of banks. The only barrier standing in the way of liberalization is the existence of recalcitrant individual legislators and/or staff members of the executive branch, who believe that restrictions should be imposed on the banking system. In order to convince these individuals, a process of negotiation ensues. Any decision on the form of regulatory regimes is thus the result of negotiations between the Executive and Congress. Given that regulation-makers lack information, expertise and other regulatory resources, this negotiation is largely based on ideology rather than technical arguments. Principals adopt whatever argument that is floating around to gather support to enact new policies. If there are liberalizing international pressures, the arguments floating around at the time support the lifting of restrictions on both the structure and the behavior of banks. Consequently, the interaction between regulators’ preferences towards efficiency and a situation of \((L_p, L_a)\) increases the chances of a laissez-faire bank regulatory regime being established, holding everything else constant.

When agents have the advantage of possessing more regulatory resources – i.e., a \((L_p, H_a)\) situation – they become the central actors of the regulatory process. To the extent that principals delegate the various functions of bank regulation to their agents and they are allowed to freely conduct their chores, the protection of consumers of financial services typically becomes the most important goal of bank regulation. By protecting depositors and investors from banks’ risky activities, agents can avoid the insolvency of individual banks and systemic financial crises. In ensuring the solvency of the banking system, agents can keep their jobs and their independence from principals’ interference. In addition, if the conjuncture is one in which technological innovations are observed, the protection of consumers of financial services is reinforced as a primary goal of bank regulation.

That is not to say that agents always agree on the details of regulatory policy. Although they might agree on the ultimate objective of bank regulation, agents might have conflicting perspectives on how to best achieve such a goal. If that is the case, agents tend to engage in a process of consultation. By consulting various groups and networks of experts, they can
understand better the problems and reach an agreement to formulate regulations. Since financial experts are generally primarily concerned with the maintaining the solvency of individual banks, their policy advice usually calls for lower restrictions on the structure of the banking system and higher limits on the risk-management behavior of banks. Not surprisingly, the synergies of an asymmetric nature of P-A relationships in favor of agents and a conjuncture of important technological advances increase the probability of a prudential bank regulatory regime, *ceteris paribus*.

Finally, all regulators can possess high levels of regulatory resources. If the distribution of regulatory capacity is symmetric - i.e., (Hp, Ha) - both principals and agents play a crucial rule in the elaboration and enactment of new banking rules and laws. Given the larger number of participants in the policymaking process, a consensus among them is required for the establishment new rules and the maintenance of regulatory regimes. A negotiation process then takes place between the various principals and agents until a compromise is reached.

Unlike an ideological negotiation rule-making process, such a compromise is based on technical arguments rather than ideology, since both principals and agents possess high levels of information, expertise, legitimacy and financial resources. Moreover, a consensus between principals and agents largely depends on the heterogeneity of their preferences. The more homogenous their preferences are the easier an agreement will be. We already know agents’ policy preferences: to increase restrictions in the risk-management behavior of banks in order to not be blamed for banking crisis. Principals’ preferences, however, depends on the conjuncture in which they find themselves. If they are embedded in a context of systemic banking crisis, their tendency is to assign priority to the stability of the financial system. In this case, the homogeneity of agents’ and principals’ preferences combined with a rule-making process that leaves room for technical negotiations increase the odds of an over-protective bank regulatory regime, holding everything else constant.

A summary of the four main theoretical hypotheses described above is shown in Table 5. These are empirically the most interesting hypotheses because they occur more frequently in the cases included in this study.25

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24 These financial experts usually come from Financial Supervisory Agencies from around the world as well as from international financial institutions such as the Bank of International Settlements (BIS).

25 Although there are twelve other possible combinations between the nature of the P-A relationship among regulators and the conjunctural determinants, they are not reviewed in this article.
TABLE 5. FOUR MAIN HYPOTHESES DERIVED FROM THE EMBEDDED-AGENCY APPROACH

<table>
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<tr>
<th>NATURE OF P-A RELATIONSHIP</th>
<th>WHO CHOOSES LEVEL OF RESTRICTIONS TO BE IMPOSED ON BOTH THE STRUCTURE &amp; BEHAVIOR OF BANKS?</th>
<th>WHAT ARE THE MAIN &quot;CONJUNCTURAL&quot; DETERMINANTS?</th>
<th>WHICH BANK REGULATORY OBJECTIVE IS GIVEN PRIORITY?</th>
<th>HOW IS A CONSENSUS AMONG REGULATION-MAKERS ACHIEVED?</th>
<th>EXPECTED BRR</th>
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<tr>
<td>(HP, LA)</td>
<td>PRINCIPALS</td>
<td>ABSENCE OF SYSTEMIC BANKING CRISSES, TECHNOLOGICAL INNOVATIONS, &amp; INTERNATIONAL PRESSURES</td>
<td>BROADER SOCIO-POLITICAL GOALS</td>
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<td>(LP, LA)</td>
<td>PRINCIPALS</td>
<td>LIBERALIZING INTERNATIONAL PRESSURES</td>
<td>EFFICIENCY OF FINANCIAL SYSTEM</td>
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<td>LAISSEZ-FAIRE</td>
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<td>(LP, HA)</td>
<td>AGENTS</td>
<td>TECHNOLOGICAL INNOVATIONS</td>
<td>PROTECTION OF CONSUMERS OF FINANCIAL SERVICES</td>
<td>NETWORK CONSULTATION</td>
<td>PRUDENTIAL</td>
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<td>(HP, HA)</td>
<td>PRINCIPALS &amp; AGENTS</td>
<td>SYSTEMIC BANKING CRISSES</td>
<td>STABILITY OF FINANCIAL SYSTEM</td>
<td>TECHNICAL NEGOTIATION</td>
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3. Application of the Embedded-Agency Approach to the Mexican Case

If the embedded-agency approach to regulation is a good explanation for the variation in bank regulatory regimes we should find a causal relationship between the nature of the principal-agent relationship among regulators and conjunctural determinants and the types of BRRs we observe in all four Latin American countries. In this section, I empirically test the theoretical hypotheses derived in Section III through process-tracing of the evolution of regulatory regimes in Mexico. I chose Mexico as the case to be analyzed in-depth because it presented the largest degree of variation in both the dependent and independent variables. All of the empirical information was collected independently via archival research and, whenever possible,

26 Among the advantages of using process-tracing as a method of testing the hypotheses, two are worth mentioning. First, it forced me to take equifinality into account. Since alternative combinations of the nature of the P-A relationship and conjunctural determinants lead to the same type of bank regulatory regime, I had to assess which of the hypothesized causal mechanisms was the most adequate explanations for all of the cases examined. A second advantage of using process-tracing is that it allowed me to generate multiple observations within each country.
complemented by interviews conducted with the various actors involved in the regulatory process from 2005 to 2007.

The evolution of bank regulatory regimes in Mexico can be divided into five main periods. While the 1980s are characterized by a cost-padding BRR (1982-1988),\(^{27}\) in the early 1990s we observe a laissez-faire type of regime (1989-1994). Although from 1995 to 1998, the regime can still be classified as laissez-faire, there is a significant movement towards an over-protective BRR, with the imposition of restrictions on both the structure and the behavior of banks. During the 2000-2004 period, Mexico is located on the border of an over-protective and a cost-padding regime, and since 2005, the country is arguably moving towards a prudential bank regulatory regime. Each of these periods is delimited by a major reform in primary legislation, revamping various indicators of bank regulation. Table 6 shows the main primary and secondary pieces of legislation thoroughly reviewed in order to track the evolution of bank regulatory regimes in Mexico.\(^{28}\)

\(^{27}\) I chose 1982 as the departing point for the analysis of this study because the nationalization of private commercial banks in that year marks the beginning of the most prolific period of bank regulation in Mexico’s recent history.

\(^{28}\) I have reviewed the entire body of the banking rules and laws enacted during each of the bank regulatory regimes. I chose the ones listed in Table 6 based on the interviews I conducted with financial experts during my field research and the indicators included in each dimension of bank regulatory regimes.


**TABLE 6: MAIN PRIMARY AND SECONDARY FINANCIAL LEGISLATION IN MEXICO**

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<td>ELIMINATION OF INTEREST RATES CONTROLS (1989)</td>
<td>VARIOUS MEASURES TO RESCUE THE BANKING SYSTEM (1995-1998)</td>
<td><strong>CNBV</strong> (2000); <strong>CAPITAL REQUIREMENTS</strong></td>
<td><strong>SHCP</strong> (2005); <strong>CAPITAL REQUIREMENTS ACCORDING TO BASEL II</strong></td>
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<td>ELIMINATION OF SELECTIVE CREDIT MECHANISMS SPONSORED BY THE GOVERNMENT (1989)</td>
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<td>ELIMINATION OF TRADITIONAL RESERVE REQUIREMENTS ON PRIVATE DEPOSITS (1991)</td>
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<td><strong>CNBV</strong> (2003); <strong>DIVERSIFICATION OF CREDIT RISK</strong></td>
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In the specific case of Mexico, the principals —i.e., those who delegate some of the functions of banking regulation and supervision to specialized institutions— are the Ministry of Finance (“Secretaría de Hacienda y Crédito Público,” SHCP) and Congress (represented by the House of Representatives). The agents —i.e., the specialized institutions— include the Mexican Central Bank (“Banco de México,” Banxico) and the National Banking and Securities Commission (“Comisión Nacional Bancaria y de Valores, CNBV”). There are other institutions that have helped shape some aspects of the evolution of Mexico’s BRRs in recent years. Two examples are the National Commission for the Defense of the Consumers of Financial Services (“Comisión para la Protección y Defensa de los Usuarios de Servicios Financieros,” Condusef) and the Deposit Insurance Institution (“Instituto para la Protección al Ahorro Bancario,” IPAB). For the purposes of this study, however, they are not considered either principals or agents of bank regulation since their regulatory capacity is minimal (and delimited in time) when compared to that of the SHCP, Congress, Banxico and the CNBV. Table 7 summarizes the evolution of the nature of P-A relationship among Mexican regulators since 1982.

29 Prior to 1995, the National Banking and Securities Commission was not responsible for regulating and supervising stock brokerage firms. As a result, before this year, it was called the National Banking Commission (“Comisión Nacional Bancaria,” CNB). In this chapter, however, I will refer to the Banking Commission as the CNBV for the entire period under study.
### TABLE 7. DISTRIBUTION OF REGULATORY RESOURCES AMONG MEXICAN REGULATORS (1982-PRESENT)

<table>
<thead>
<tr>
<th></th>
<th>INFORMATION</th>
<th>EXPERTISE</th>
<th>FINANCIAL RESOURCES</th>
<th>AUTHORITY/LEGITIMACY</th>
<th>INTERNAL COORDINATION</th>
<th>REGULATORY RESOURCES</th>
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<tbody>
<tr>
<td><strong>PRINCIPALS</strong></td>
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<tr>
<td>SHCP</td>
<td>HIGH</td>
<td>LOW</td>
<td>LOW</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
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<tr>
<td>HOUSE OF REPRESENTATIVES</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
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<tr>
<td><strong>AGENTS</strong></td>
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<tr>
<td>CNBV</td>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
</tr>
<tr>
<td>BANXICO</td>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
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<tr>
<td><strong>1982-1988</strong></td>
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<td><strong>1989-1993</strong></td>
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<td><strong>1994-1998</strong></td>
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<td><strong>1999-2003</strong></td>
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<td><strong>2004-PRESENT (EXPECTED)</strong></td>
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The cost-padding BRR of the 1980s can be explained by a combination of an asymmetry of regulatory capacity in favor of principals (Hp, La) and an absence of conjunctural determinants. Indeed, President Miguel de la Madrid\(^\text{30}\) and his Finance Minister Jesús Silva-Herzog undertook three important measures that granted the executive branch the necessary resources to dominate the financial rule-making process after the nationalization of the Mexican commercial banks declared by his predecessor José Lopez Portillo on September 1, 1982.

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\(^{30}\) President Miguel de la Madrid took office on December 1, 1982, right after the nationalization of Mexican commercial banks declared by his predecessor José Lopez Portillo on September 1, 1982.
Mexican banking system in 1982. First, the Ministry of Finance (SHCP) designed a plan for the financial compensation of the expropriated bankers at the same time that it chose the new directors for the nationalized banks. The SHCP negotiated the plan directly with the expropriated bankers and did not solicit the opinions of the newly appointed bank directors, Congress, or the Banking Commission (CNBV). Second, the SHCP stimulated and even sponsored the creation of stock brokerage financial institutions (casas de bolsa) and the development of capital markets that were supposed to complement the banking system by negotiating corporate securities as well as the federal government’s bonds (CETES). Finally, the Ministry of Finance elaborated a document entitled “Conceptual Foundations for the Mexican Financial System,” which laid the foundation for the growth of the banking system in the following years. Taken together, these measures not only augmented the authority/legitimacy powers of the executive branch vis-à-vis traditional powerful bankers, but they also served to promote internal coordination within the SHCP.

In addition, the level of information regarding issues such as the balance sheets and risk-management activities of commercial banks, the liquidity levels of individual banks and the entire financial system, and the quality of the credit portfolios of financial institutions also improved after the nationalization of banks. This is so mainly because the channels along which information flowed between banks and regulators were strengthened. Not only were the directors of commercial banks appointed by the regulator (the Finance Minister) himself, but the information-gathering process was also highly centralized, with the SHCP receiving all of the primary information coming from the banking industry. The SHCP introduced the so-called “hand tables” (tableros de manos), which constituted a uniform spreadsheet with a set of financial indicators that had to be filled out by the banks. This way the Finance Ministry was able to compare and supervise the performance of the various financial institutions on a periodic basis in a more transparent

31 See Sales (1992) for the details of the process of financial compensation for expropriated bankers.
32 Before the nationalization of the banks, the SHCP could not enact a piece of regulation without the consent of a number of powerful bankers. After these measures were undertaken, the government not only had an alternative source of financing (the securities markets rather than banks) but it also had an exclusive control over the administration of commercial banks guaranteed in the Mexican Constitution. Basically, the government became less dependent on banks and, as a consequence, gained authority to enact restrictions on both the structure and the behavior of banks, even if these restrictions were against the preferences of traditional bankers.
33 Unlike what had happened during the administration of Lopez Portillo, there were no significant conflicts across the various departments of the SHCP over economic policies during the de la Madrid administration. To the contrary, there was a high degree of coordination between the Under-Secretary of Finance Francisco Suárez Dávila and the Under-Secretary of Banking Carlos Sales; these two often worked together to elaborate the norms for the banking system based on the “Conceptual Foundations of the Mexican Financial System” (Del Ángel-Mobarak et al, 2005).
34 These more direct channels of information were arguably more efficient than the previous one based on the contacts with the Mexican Bankers’ Association.
35 This is what is called today “benchmarking”.

manner. Moreover, the “new” financiers (i.e., the owners of the stock brokerage financial institutions) often offered updated information about the sentiments of the “financial market” given that the government of De la Madrid and the SHCP had sponsored their development (Minushkin, 2002).

That is not to say that the Finance Ministry scored high on all dimensions of regulatory capacity during the 1980s. In particular, the SHCP suffered from limited expertise and financial resources to perform their regulatory job well. The fact that the majority of commercial banks’ shares had to be owned by the government largely restricted the entrance of new banks, hindering the levels of competition within the industry. Without the pressures of fierce competition, banks did not have the incentives to innovate and create new financial instruments to attract customers. As a result, the Mexican banking system did not modernize itself during the decade and the level of expertise of bank regulators was diminished. If the banking system was not dynamic, regulators did not feel the need to improve their regulatory skills or enact new regulations. In addition, many of the financially savvy individuals that used to work in the SHCP before the nationalization of banks left the public sector in search of better remuneration in the growing private sector of the “casas de bolsa.” The 1980s then characterized a process of “brain drain” from the SHCP.37

Despite these shortcomings of low levels of expertise and financial resources, it is important to emphasize that the Finance Ministry possessed relatively more regulatory capacity than the other principal of bank regulation during the 1980s. The House of Representatives scored lower on every single dimension of regulatory capacity than the Finance Ministry except for internal coordination. The authority/legitimacy of Congress to be involved in the process of bank regulation was limited by Article 73 of the Mexican Constitution. According to that article, the executive branch was not obliged to submit the government’s general principles and initiatives of economic policy to Congress for consideration. At the time, the approval of the annual budget law was the best opportunity for Congress to express its opinions regarding financial policy.

The levels of expertise and information possessed by legislators were also rather restricted. Legislators could not be re-elected, which hindered the process of “learning by doing.” There were no mechanisms (such as periodic reports) that ensured that information about the banking system flowed from banks or the Ministry of Finance to Congress.

Similarly, the agents of bank regulation—the Banking Commission (CNBV) and the Mexican Central Bank (Banxico)—ranked low on every aspect of regulatory capacity except for internal coordination and expertise in the case

36 The levels of investment in technology were rather low during the decade.
37 A similar process occurred with the appointment of banks’ directors. Because many financial experts left the nationalized banking system, government was left with few options for the appointment of new bank directors.
of Banxico. Their role in the rule-making process during the 1980s was secondary when compared to that of the executive branch. The function of the CNBV was restricted to hearing the complaints of consumers (more like the role of the Condusef nowadays) while Banxico supervised the foreign exchange market and monetary policy. In neither case did the nationalization of banks grant operational independence or more resources for agents to undertake wider regulatory functions regarding the banking system. At most, agents could identify some issues as priority for the SHCP to consider and debate whether or not it should regulate.

Beyond an asymmetry of regulatory capacity in favor of principals, the lack of conjunctural determinants in the 1980s also allowed the executive branch to establish a cost-padding BRR. The nationalization of the banks impeded a systemic banking crisis because, by definition, national banks cannot fail. There were important technological advances in the financial industry such as the introduction of checking accounts (cuentas maestras), mutual funds, and bank-issued IOUs, but none of these new products determined the insertion of the Mexican banking system into globalized financial markets. Although Mexico signed letters of intent with the International Monetary Fund (IMF) from 1983 to 1988, the IMF’s conditionalities did not include any clauses regarding the regulation of banks. There were no important international standards concerning financial regulation, and even the United States—which whose commercial banks had suffered with the Mexican debt moratorium of 1982—remained aloof with respect to banking policy per se. The lack of systemic banking crises, technological advances and international pressures then created a conjuncture in which the SHCP was free to use bank regulation at its will as an instrument of fiscal and/or industrial policy.

If the 1980s were characterized by an asymmetry of regulatory capacity in favor of principals, especially the SHCP, the early 1990s saw a decrease in the regulatory resources of the Finance Ministry and a leveling of regulatory capacity between principals and agents (Lp, La). Moreover, the conjuncture changed with the increase of international pressures towards the liberalization of the structure of financial systems. Taken together, the symmetric nature of the P-A relationship and the conjuncture of liberalizing international pressures drove Mexican regulators to intervene less in the financial system and impose lower levels of restrictions on both the structure and the behavior of financial institutions. That explains why we observe a laissez-faire type of regulatory regime from 1989 to 1994.

38 The Basel I Accords were not signed by the 10 most industrialized nations in the world until 1988.
39 Not surprisingly, the justification for the introduction of the main financial laws enacted between 1982 and 1988 called for a banking system that was responsible not only for financial intermediation but also for the channeling of resources towards certain economic sectors and government programs at the federal, state, or municipal levels. For an example, see Article 3 of the Ley Reglamentaria del Servicio Público de Banca y Crédito (1984).
The authority/legitimacy of the SHCP to monopolize the banking regulatory and supervisory process was largely undermined with the re-privatization of commercial banks in 1990-1992. The SHCP no longer had the power to appoint banks’ directors and now the CNBV was the authority responsible for approving the names of new banks’ directors. This agent also took some of the regulatory capacity away from the SHCP when the Presidential decrees reforming the *Ley Reglamentaria del Servicio Público de Banca y Crédito* (19/01/88 and 27/12/89) eliminated the obligation of the CNBV to submit all of its resolutions to the SHCP for approval. From then on, the CNBV would have executive powers,\(^40\) which would give it the capacity to elaborate more dynamic regulatory answers to any situation that might have negative consequences for the development of Mexico’s financial system.

The level of expertise of the members of the SHCP also decreased as a direct consequence of the nationalization of banks. Because bank directors as well as regulators were politically appointed, their jobs depended less on the economic performance of the banking system than on their political loyalties. As a result, neither bankers nor regulators had the incentives to promote a “credit culture” in which these actors were true experts in the evaluation of credit portfolios. Not surprisingly, the re-privatization of banks posed a new challenge for regulators: to learn how to supervise and regulate the banking system in a context of increased competition where the standard of comparison was economic performance.

Furthermore, the privatization of banks caused a visible deterioration in the quantity and quality of information received by the SHCP. One of the main channels of flow of information between banks and the SHCP was closed when the Ministry of Finance lost its power to directly appoint banks’ directors. The rise of the so-called financial groups (with the enactment of the *Ley para Regular las Agrupaciones Financieras*, July 1990) and the rapidly changing ownership structure of banks made it more difficult for the SHCP (and the CNBV) to receive and analyze banks’ consolidated balance sheets. As a result, the information gathered by the SHCP was deficient, impairing the financial rule-making process.\(^41\)

Even the financial resources coming from the privatization of commercial banks were not sufficient to improve the regulatory capacity of the SHCP. The $39 billion pesos (equivalent to almost $13 billions of dollars), raised from the auction of eighteen national banks went into a fund to pay for the country’s internal debt (Salinas de Gortari, 2000). Not one peso was invested in the modernization of regulatory capabilities of the Ministry of Finance.\(^40\)

\(^{40}\) These executive powers did not mean legal independence from the SHCP.

\(^{41}\) In addition, there were a lot of cases of deliberate corruption. The new bankers’ owners were eager to expand their credit portfolio (in order to recuperate the money they had paid for the banks), often approving risky loans, which would require higher levels of provisioning. In order to avoid such a regulation, there was a perverse incentive to misreport their credit portfolio, making it more difficult the execution of regulators’ job.
corrosion in the authority, expertise, information and financial resources of the SHCP decreased its power over the regulatory process. Consequently, from the re-privatization of commercial banks to the financial crisis of 1994, the Ministry of Finance had to negotiate a consensus with Congress in order to enact new financial legislation.

Indeed, in the early 1990s, Congress gained more authoritative powers and the legislative branch played an enhanced role in the financial rule-making process. There were more opportunities for legislators to express their opinions and discuss the merits of various financial initiatives both in the legislative committees and the floor of Congress. In particular, two changes in the *modus-operandi* of Congress allowed for more discussions and divergent perspectives to arise from oppositional parties and even from within factions of the president’s party (the PRI). First, it became a habit to form committees and sub-committees with legislators from both chambers of Congress; all of their discussions and agreements were recorded and made public. Even if a legislator was not a member of a committee, she could express her point of view through the so-called “conference sessions” (*sesión de conferencia*). Furthermore, a tradition began of the “appearance” (*comparecencia*) of members of the SHCP in Congressional meetings—at the request of legislators—to explain the details of executive branch’s initiatives presented during this time. At least in terms of authority/legitimacy, the principals (i.e., the SHCP and Congress) of bank regulation began to stand on more equal grounds during the early 1990s.

That is not to say that Congress scored high on all dimensions of regulatory capacity. The legislature still lacked expertise in financial matters because legislators could not be immediately re-elected and did not have a professional staff of financial assistants/consultants. Financial resources were scarce because the money coming from the re-privatization of banks did not go into the modernization of the regulatory resources of the legislators (but rather into a fund to pay for the country’s internal debt). With the rise of opposition parties in Congress, its internal coordination was also compromised.

The results of a situation in which both principals and agents lacked regulatory capacity (Lp, La) and a consensus among principals was a necessary condition for policy enactment were two-fold. On the hand, both principals and agents discounted the value of expertise in the rule-making process because. Bank regulation was then not the result of informed policy analysis, but rather, the product of policy entrepreneurship. On the other hand, the negotiation on the content of policies among these regulators was based on ideology rather than on technical ideas. A kind of “ideological negotiation” thus took place.

The review of the initiative to reform articles 28 and 123 of the Mexican Constitution to allow for the re-privatization of commercial banks
corroborates these theoretical claims. The constitutional reform initiative was elaborated by a very small group of financial experts from the SHCP (the Finance Minister, Pedro Aspe and his under-secretary, Guillermo Ortiz) with the help of a few members of the Central Bank including its director (Miguel Mancera Aguayo) and another of its employees (Francisco Borja Martinez). After the first draft was presented to the President’s economic council and the President himself, Carlos Salinas suggested that Juan Rebolledo –the coordinator of his advisers– join the select group. Unlike what had happened in the elaboration of the financial reforms of the 1980s, the private financial sector –commercial bankers and casabolseros– did not interfere in the rule-making process. The project was kept secret for several months and even the president of the Mexican Bankers’ Association was not aware of a re-privatization project until the plan was well-developed.

Three months before the initiative was introduced in Congress in May 1990, negotiations between the executive and the legislative branches began. Because it was a constitutional reform, an absolute majority of votes in both the House of Representatives and the Senate was required. The president’s party (the PRI) had 52% of the votes, but to pass the initiative, more than 60% of the total votes were needed and the support of another major party was necessary. Carlos Salinas himself recalls in his memoirs that he invited almost 300 legislators to his office for individual (or small groups) meetings to present and discuss the executive’s initiative (Salinas de Gortari, 2000). At the request of legislators, the Minister of Finance appeared in Congress on May 4 (1990) to explain the details of the project and answer any question congressmen might have.

The executive branch’s main case for persuading legislators was that the government needed the money from the re-privatization of banks to pay the country’s internal debt and to finance social programs. In Carlos Salinas’ own words: “…we sell [the banks] not for ideological reasons, but because these assets can mitigate our social problems” (Salinas de Gotari, 2000: 432). However, in practice, the negotiation process was based on ideological arguments rather than on technical debates of optimal governmental budget. For instance, the Socialist Popular Party (PPS) expressed its disagreement with the executive’s initiative and stated: “[the re-privatization of banks] would not be a democratic measure but clearly antidemocratic since it would hand over a strategic area to a rich, greedy, unpatriotic minority rather than keep these resources in the hands of all

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42 Carlos Salinas also met with representatives of the workers’ union and the former President López Portillo, who had nationalized the banks in 1982. Salinas asked all of his staff members to be committed to selling the initiative and convincing influential members of society.

43 As Guillermo Ortiz –the Under-Secretary of Finance during Salinas’ administration– notes in his assessment of the privatization reform: “…the reasons were not convincing enough. It was necessary to negotiate, harmonize, persuade…” (Ortiz, 1994: 86).
Mexicans…” (Record of Congressional Debates, May 11, 1990). Conversely, Deputy Abel Vicencio Tovar, from the National Action Party (PAN), argued that even though he could not understand the 180-degrees shift in the PRI’s ideas and commitments from those of 1982, he welcomed such a change: “...it is good for the nation that the members of the governing class are finally recognizing their mistakes and are slowly rectifying them…” (Record of Congressional Debates, May 11, 1990). The choice of words in both arguments has an ideological tint. The left-wing party (PPS) criticized the executive branch’s initiative for its lack of “patriotism” and its “anti-democratic values”, while the right-wing party (PAN) considered it to be a “good” measure that could mitigate the “mistakes” of former administrations. The initiative’s final voting results also presented a distinct ideological cleavage: PRI and PAN formed a coalition in favor of the SHCP’s program (266 votes) against the PRD, the PPS and the Independent Group (61 votes).

Beyond ideological arguments, the international conjuncture also helped principals achieve policy consensus. In the early 1990s, an international consensus that the “de-regulation” or “liberalization” of financial markets was beneficial was emerging. The so-called “Washington Consensus” exemplified this trend. By arguing that state intervention in the economy was excessive and prohibitive of market competition, the international community provided Latin American governments (including Mexico) with a coherent set of policy prescriptions, which included fiscal/monetary discipline, trade liberalization and privatization, among others. Applied to the financial sector, these ideas made regulators privilege policies that promoted the efficiency of banking systems over all other objectives of financial regulation.

Another source of international pressure shaping principals’ preferences was the signing of the North American Free Trade Agreement (NAFTA) on December 8, 1993, by Mexico, Canada and the United States. Among its main dispositions, it required Mexico to liberalize the structure of its banking system to allow foreign direct investment within ten years. Although Mexican regulators’ ultimate decision to welcome foreign financial institutions was not constrained by NAFTA’s ten-year requirement, it did shape regulation-makers’ preferences in that direction.

The laissez-faire type of bank regulatory regime culminated in the financial crisis of 1994-1995. The adverse economic conjuncture that originated with the crisis, coupled with the increase in principals’ and agents’ regulatory capacity, drove regulators to assign primacy to the stability of the financial system rather than its efficiency. Not surprisingly, we observe a move towards the over-protective regulatory regime during the 1995-1998 period.

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44 There were also four abstentions.
Among the agents, the Mexican Central Bank started to increase its regulatory resources a few months before the beginning of the crisis. On April 1, 1994, Banxico gained its formal legal independence from the SHCP; the Law of the Central Bank (Ley del Banco de México) and the Constitutional Reform of August 18, 1993, increased the authority/legitimacy of the Central Bank in the financial rule-making process. From then on, the Central Bank’s decisions no longer needed the approval of the Ministry of Finance. The agent could enact the (secondary) legislation it deemed necessary to maintain inflation under control, to promote the healthy development of the financial system, and to ensure the well-functioning of the payments system, without any interference of the Ministry of Finance.

As was true of the Mexican Central Bank, the other agent of bank regulation—the Banking Commission—also increased its regulatory capacity after the financial crisis of 1994-1995. The defining moment was the publication of the Banking Commission Law (Ley de la Comisión Nacional de Bancaria y de Valores, LCNBV) on April 28, 1995. Although this law did not grant full institutional independence to the CNBV (as the law of the Central Bank had to Banxico), it did recognize the Banking Commission as a “de-concentrated” agency of the SHCP, responsible for carrying out the supervisory, remedial, and regulatory functions regarding the operation of all financial intermediaries. This meant not only that the executive branch was delegating some of its regulatory functions to the Banking Commission but also that the CNBV would now possess technical autonomy and executive powers to enact its decisions without being subject to the Ministry of Finance’s approval.

In particular, three aspects of the CNBV’s Law gave this agent more authority/legitimacy in the financial rule-making process. First, it granted the CNBV the freedom to stipulate and manage its own budget. Second, it gave the institution the power to appoint and remove its own vice-presidents and general-directors. Third, it conferred on the CNBV the authority to establish secondary legislation regarding capital requirements, provisioning, the quality of banks’ credit portfolio, and accountability standards. Without these measures, it would have been difficult for the CNBV to participate more actively in the regulation of banks.

45 The new law changed the legal status of the bank from a public and decentralized agency to an agency subject to public law but autonomous. Banxico’s legal independence included various dimensions that the literature on Central Banks considers important such as: (1) Banxico would have a constitutional mandate to preserve price stability; (2) the Central Bank could not be forced to lend or to buy securities beyond what its governing body deemed appropriate; (3) the members of the governing body could not be removed before their term expired and such terms would not coincide with that of elected officials; and (4) there would be a mechanism to solve disputes between the government and the Central Bank regarding economic policy (Volcker et al., 1991; Cukierman et al., 1992; Maxfield, 1997).

46 Although the CNBV still depended on financial resources coming from the SHCP, it could manage its annual budget and obtain contributions directly from financial institutions.
Under the supervisory authority granted by the LCNBV, the Banking Commission also became responsible for examining the liquidity and solvency of the financial institutions both on-site and off-site. The main objective of these examinations is to discover and mitigate possible risks to which financial institutions are subject through the analysis of their management activities, capital adequacy, the quality of their assets, as well as their profitability. The result is that the CNBV has been able to amass impressive databases and information about the workings and the performance of the Mexican financial system. Not surprisingly, the level of information of this agent has increased significantly since the publication of the LCNBV.

Agents were not the only ones who improved their regulatory resources. After the Tequila crisis, the principals of bank regulation also increased their regulatory capacity. In particular, the level of information they possessed about the banking system rose almost out of necessity. In order to participate in the various rescue programs enacted after the crisis, financial institutions had to provide detailed information about their balance sheets, their capital and their credit portfolio to the principals of bank regulation, especially the SHCP. Congress increased the level of their information about the financial system after the enactment of the Depositor’s Insurance Law (LPAB) in 1998, which required a thorough auditing process of commercial banks before the legislative branch could approve the conversion of Fobaparoa’s debt into public debt.\footnote{Fobaparoa (Fondo Bancario de Protección al Ahorro) was a contingencies fund created in 1990 to resolve banks’ liquidity problems when they aroused. It was applied in 1995 to protect all Mexican banks from going bankrupt.}

If both principals and agents increased the levels of their regulatory resources simultaneously, then we can claim there was no single protagonist in the regulatory process during the 1995-1998 period. Principals and agents were co-equal participants, and the adoption of new rules necessarily required negotiation among them.\footnote{Just to reiterate, consultation is only possible if there is an asymmetry in regulatory resources between principals and agents.} Such a negotiation process resembled advocacy coalitions with principals and agents aligned together on either side of a given issue. The sharing of information and technical ideas constituted the basis for negotiation, and the relationships between principals and agents required repeated interactions over long periods of time. The result was a type of rule-making characterized by technical negotiation.

The Congressional records of the debates over the SHCP’s proposal for the Sixth reform to the Credit Institutions Law (LIC) provide empirical evidence of technical negotiation in the rule-making process during the 1995-1998 period. In January 1995, the external debt of the entire Mexican banking system was estimated to be US$ 23 billion; the initiative suggested a decrease in the limitations on foreign direct investment in banking as a way to mitigate this debt. The rationale was that the entrance of fresh foreign capital would help...
re-capitalized Mexican banks. The opposition parties questioned whether the entrance of foreign institutions was the best way to re-capitalized domestic banks and all of the discussions had a technical rather than an ideological tone. Even the final voting was not ideological: left- (PRD) and right-leaning (PAN) parties came together to vote against the PRI’s proposal.

It is important to note that the financial crisis of 1994-1995 and a conjuncture of systemic instability in the financial system also changed principals’ preferences regarding bank regulation. Rather than efficiency, principals now justified regulatory reforms based on increased stability of the financial system. Such a change in preferences, combined with technical negotiations among financial regulators, allowed Mexico’s bank regulatory regime to move towards over-protection.

The fact that principals’ and agents’ regulatory resources improved after the Tequila crisis does not mean that this was an enhancement to its full extent. Congress, for instance, gained a stronger voice in bank regulation, but legislators—for the most part—still lack the expertise necessary to ensure the effectiveness and efficacy of financial policies. Legislators are barred from immediate re-election and do not have the advantage of a group of professional financial advisers hired through public examinations. Unless a legislator happens to have had strong training in financial matters, it becomes difficult for her to develop the necessary skills to influence bank regulatory policy during the time she is in office.

Similarly, the Banking Commission has not gained full legal and institutional independence from the Ministry of Finance. Though an initiative in this direction was proposed in 1998, it was not approved, and to this day, the SHCP maintains hierarchical supremacy over the CNBV in three main aspects. First, the Ministry of Finance controls an important part of the Banking Commission’s financial resources through annual apportionments of the Federal Budget to the institution. Second, the Minister of Finance chooses and appoints the president of the CNBV. Third, the SHCP may modify or even reject the Commission’s resolution to suspend or completely remove the directors or any staff member of financial institutions. To the extent that the CNBV continues to depend on the SHCP, its authority/legitimacy in the regulatory process will remain compromised.

Furthermore, the barriers to supervising financial institutions have hindered the feedback of information regarding the effectiveness of existing laws and the process of initiating new laws. More specifically, the lack of

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49 The justification for the Sixth Reform to the LIC is illustrative: “Given the current economic situation, we consider that it is very important to boost the capitalization of our financial system with the goals of increasing the solidity of financial intermediaries and offer better insurance for the public’s savings. To guarantee the solvency of financial intermediaries and to protect depositors, the legislation requires institutions to maintain a minimum capital that should not be inferior to the amount of their credit portfolio and other risky operations.” (Record of Congressional Debates, January 26, 1995, emphasis added).
cutting-edge computer technology and deficient human capital have repeatedly been identified as fundamental obstacles in the development of agents’ regulatory capacity.\textsuperscript{50} Without modern hardware and financial software it becomes difficult for regulators to regulate the use of new financial instruments that banks create. Without highly trained personnel, regulators cannot understand the nature of modern financial systems, much less control them. If financial resources are not invested in information and technology systems and in personnel training, agents’ regulatory capacity will continue to be deficient.

Taken together, these deficiencies do not allow us to classify the nature of the P-A relationship as (Hp, Ha) during the 1999-2003 period. Rather, they highlight the most recent challenges for regulators—especially agents—to improve their regulatory capacity. Among others, issues regarding the distribution of regulatory functions, coordination and regulatory and supervisory gaps remain.

Notwithstanding the challenges in achieving full regulatory capacity, the late 1990s and early 2000s were characterized by a conjuncture that shaped regulators’ preferences in two distinct ways. On the one hand, the participation of Mexico in multilateral financial organizations/committees, such as the Basel Committee, the IOSCO and the ASBA,\textsuperscript{51} stimulated regulators to privilege the stability of the financial system over all other objectives of bank regulation. On the other hand, a context of monetary stability and lack of systemic banking crises allowed principals to think of bank regulation as a tool to achieve their broader socio-political objectives. In the former case, the CNBV became more active in enacting secondary legislation regarding capital requirements, diversification of credit risk, financial information disclosure, credit rating methodologies, and prompt corrective action (see Table 6). In the latter case, legislators started to propose reforms in primary financial legislation in order to stimulate credit to consumers and housing. The combination of improved regulatory resources since the Tequila crisis and mixed conjunctural determinants thus led regulators to establish a bank regulatory regime during the 1999-2004 period that straddled over-protection and cost-padding.

The question of whether the challenges to improve regulators’ capacity in Mexico will be addressed in the short-run remains unanswered. Yet, the answer to the question of how conjunctural determinants have shaped regulators’ preferences most recently is clear. Rapid technological advances in the financial sector are pressing regulators to enact norms that protect the consumers of financial services. Not surprisingly, a move towards a prudential type of bank regulatory regime has arguably been under way since 2004.

\begin{itemize}
  \item \textsuperscript{50} This is a constant complaint in the interviews that I conducted with Mexican regulators in 2005.
  \item \textsuperscript{51} IOSCO stands for International Organization of Securities Commission and ASBA is the Banking Supervisors Association of the Americas.
\end{itemize}
Let us take the example of electronic finance. E-finance has commonly been defined as the electronic activities and transactions associated with financial services, such as cash management, payments, foreign exchange operations, investments, brokerage and information delivery, among others. Whether delivered online or through remote mechanisms, this technological breakthrough has spread quickly not only in industrial countries but also in emerging markets. In Mexico, e-finance started in 1972 with Banamex’s introduction of the first Automated Teller Machine (ATM). Banamex also introduced the first DOS-based e-banking solution in 1984. In 1991, electronic funds transfer (TEF) was first introduced as a way to meet the demand for a more effective payments tool, and by 1996, banks started offering primitive versions of windows-based e-banking. The bulk of the technological advances in e-finance then came in the late 1990s and early 2000s. In 1995, the largest banks established their first Internet portals and in February 1998, Banamex launched its flagship internet banking services BancaNet, which was soon followed by other financial institutions. Today, the number of internet users in the country reaches 22 million people (about 22% of the total Mexican population), and many everyday banking services are now provided electronically.

The rapid advance of this original technology suggests that e-finance was very appealing to consumers of financial services. Not only did it allow customers to have access to banking services without having to go physically to a bank’s branch but it also permitted financial services to be delivered in Mexico from offshore (or vice-versa), providing the additional benefits of international banking. Mols (1998) argues that users of e-banking are more satisfied, less price sensitive, and more loyal to their banks. In addition, financial institutions discovered a novel form of income by charging commissions and fees on the use of these electronic services. Just to give us an idea, from 2004 to 2007, the amount of banks’ revenues in Mexico coming from all fees and commissions (not just those charged on e-banking services) increased by 158.41%. 52 For both consumers and providers of financial services, e-finance thus appeared to be good business.

The problem is that over time Mexican financial institutions charged notoriously high commissions and fees. From 2004 to 2007, banking fees represented about 107% of net banking revenues in Mexico, whereas the international average is around the 60%. In this period, banks’ net revenue went from $25,378 million pesos to $69,102 million pesos. A similar trend was observed in the years before 2004, and not surprisingly, many people started to call for governmental regulations on what was considered “abusive” practices on the part of financial institutions.

52 Calculation based on the data provided by the CNBV.
As a response to these demands, Mexican regulators enacted the Law of Transparency of Financial Services (Ley para la Transparencia y el Ordenamiento de los Servicios Financieros, LTOSF) on January 26, 2004, which made mandatory for banks to publish their fees without establishing explicit limits.\textsuperscript{53} The LTOSF was justified on the basis of protection of consumers of financial services\textsuperscript{54} and the rationale was that the transparency of banking fees would stimulate competition within the financial system to the extent that consumers would choose banks with lower fees. A technological innovation (the advent of e-finance) then changed the conjuncture shaping regulators preferences (towards the protection of consumers of financial services).

Alternative Explanations

Can alternative explanations do a better job at explaining variation in bank regulatory regimes than the embedded-agency approach? In what follows I briefly discuss the explanatory power of four alternative approaches to bank regulation. The first alternative explanation is called the “public-interest theory” or the \textit{positive economic} approach, which contends that government intervention serves to correct market failures and maximize the general public’s welfare (Musgrave, 1959; Mishan, 1969). Applied to the banking case, this theory poses two main questions that compromise its explanatory power. What type of market failures should bank regulators address? Should it be recurring banking crises, the existence of monopolies, fraudulent accounting, or inequalities in accessing banking services? These are all examples of “market failures” whose mitigation requires different regulatory instruments and different levels of regulatory restrictions. In fact, in the case of Mexico financial regulators addressed each of these market failures at different points in time. Without an explanation for when regulators choose to prioritize one kind of market failure over another,\textsuperscript{55} it becomes impossible for the public-interest approach to explain changes in regulatory regimes overtime.

Similarly, the public-interest approach calls for a definition of what constitutes the "general public’s welfare.” Another question arises: who is the general public? Is it the consumers of financial services, depositors, or civil society in general? As shown in the case of a cost-padding regime, bank

\textsuperscript{53} That is, more restrictions on dimension 2 (i.e., behavior) of BRRs without any limitations imposed on dimension 1 (i.e., the structure) of regulatory regimes.

\textsuperscript{54} The law’s first article describes its objectives, including that of protecting the interests of consumers of financial services: “...[la ley] tiene por objeto regular las Comisiones y Cuotas de Intercambio así como otros aspectos relacionados con los servicios financieros y el otorgamiento de créditos de cualquier naturaleza que realicen las Entidades, con el fin de garantizar la transparencia, la eficiencia del sistema de pagos y proteger los intereses del público” (emphasis added).

\textsuperscript{55} I try to address this question in my framework by incorporating the conjunctural determinants.
regulation has often served as a tool to enhance government’s gains rather than maximize the “general public’s” welfare. The lack of conceptual precision hinders the explanatory power of the positive economic approach to regulation.

The second alternative explanation —the so-called “private-interest theory” or rent-seeking approach to regulation— has focused on the organization and political strength of interest groups (Stigler, 1971; Peltzman, 1976; Becker, 1983). According to this theory, well-organized and resourceful groups within society are better able to persuade regulation-makers to enact policies favorable to their interests. Variation in bank regulatory regimes would thus be a function of bankers’ interests and political influence.

The difficulty with the application of the private-interest approach in the cases of Latin America is two-fold. First, it is often difficult to identify the interests of bankers as a unified group. The bankers’ coalition can be composed by small and big banks, public and private depositary institutions, as well as members of non-bank financial institutions. Their interests over a piece of regulation may not always coincide. In addition, bankers’ political influence does not always ensure a type of regulation that is favorable to them. The nationalization of Mexican banks is a case in point. Despite the fact that bankers had influenced regulatory policy outcomes since the 1930s (Maxfield, 1990), financiers’ power could not impede the President’s ultimate decision to expropriate private commercial banks in 1982. If we can neither identify bankers’ interests a priori nor guarantee that political influence will be translated into favorable policies, the private-interest theory to regulation loses both its explanatory power.

The third set of alternative explanations for patterns of regulation underscores the importance of institutions (McCubbins, Noll and Weingast, 1987; Irving and Kroszner, 1999). This approach examines how different institutional arrangements aggregate preferences and affect policy outcome. In the specific case of banking, Rosenbluth and Schaap (2003) argue that, ceteris paribus, countries with single-member districts are more likely to have higher levels of prudential regulation than nations presenting various types of proportional representation. The problem is that Argentina, Brazil, Chile and Mexico did not change their electoral rules during the period under analysis; thus, the institutional approach is not adequate to explain overtime variance within a country.

Finally, the last alternative approach to regulation has to do with the role of ideology (Appel, 2000; Murillo, 2002). According to this perspective, policy outcomes are the product of a set of ideas and beliefs adopted by government agents (individual legislators, parties, or factions). Although a possibility, it was rather difficult (if not impossible) to measure the independent effects of ideas and beliefs. More feasible was to check whether or not there were important cleavages concerning regulatory reforms along ideological lines.
Except for regulations enacted during the 1989-1994 period in Mexico, I found scarce evidence of such ideological cleavages.
Conclusions

This article asked how and why four Latin American countries—Argentina, Brazil, Chile and Mexico—have regulated commercial banks in the past three decades. To answer the first question, it offered a new typology of bank regulatory regimes and a unique bank regulatory regime index to categorize several countries within the proposed typology. To answer the second question, the article applied the embedded-agency approach to the specific case of bank regulation in the four Latin American countries. Although this is an arcane topic for most political scientists, banking is a fertile sector to examine the political motivational forces of regulation. My research found that existing theories of regulation are insufficient to elucidate the variation in bank regulatory regimes across countries and time in Latin America. The embedded-agency approach is the best explanation for regulators’ decisions about the levels of restrictions imposed on both the structure and the risk-management behavior of banks.

My intention in identifying the ideal types of bank regulatory regimes was not to issue any judgment about which regulatory regime is “best” or “most desirable” for a country but rather to describe the distinct forms bank regulation could take. There is no optimum regulatory regime. Although international financial institutions often suggest certain regulatory standards such as the (I and II) Basel Accords as the minimum requirements to be followed by various economies, the most adequate regulatory regime to promote the efficiency, the stability and the development of banking systems depends on the peculiarities of each country. The mix of restrictions imposed on both the structure and the behavior of banks is ultimately the decision of national regulators.

With that said, regulators should recognize the weaknesses of each type of bank regulatory regime and the tradeoffs they face when deciding which BRR to establish. The most vulnerable bank regulatory regime to financial crisis is the laissez-faire BRR.56 In imposing few restrictions on the structure of the banking system, this type of BRR promotes high levels of competition among financial institutions. Fierce competition in turn creates perverse incentives for bankers to take on more risks. Without the counterbalancing forces of stringent risk-management regulations, this type of regulatory regime is especially susceptible to moral hazard on the part of bankers and banking crises. Out of the four typical examples of a laissez-faire regime, three ended with systemic banking crises: Mexico (1989-1994), Argentina (1977-1981) and

56 This finding corroborates other studies, which claim that there is negative relationship between competition and stability in banking. See Marcus (1984), Keeley (1990), Demsetz et al. (1996), Hellmann et al (2000), Carletti and Hartmann (2003), Jiménez et al., (2007) and Berger et al., (2009).
Chile (1973-1985). The only exception was Brazil (1988-1993) because regulators introduced two stimulus packages for the capitalization of failing banks before the actual outbreak of a systemic crisis.\(^5\)

That is not to say that other bank regulatory regimes are not subject to financial crises. As illustrated by the case of Argentina, prudential and cost-padding regulatory regimes can also experience financial calamities. The point is that financial crises can have several causes; fragilities inherent to the bank regulatory regime constitute just one. A laissez-faire regime is the BRR that is most susceptible to allowing these fragilities to explode into a full-fledged crisis.

Indeed, international financial institutions (such as the Bank of International Settlements) have recommended regulators around the world to increase the restrictions on the risk-management behavior of banks in order to mitigate the vulnerabilities of a laissez-faire bank regulatory regime. However, a prudential BRR is not a panacea for systemic banking crises either. The problem is that the main objective of a prudential regime is to ensure consumers (depositor or investor) protection. In this sense, this type of regime falls within what financial experts have called the “micro-prudential” approach to regulation: regulators impose restrictions on the behavior of banks in order to minimize the risks of financial distress at individual institutions, regardless of their impact on the overall economy. If regulators are completely focused on the maintenance of individual banks’ solvency, they neglect the differentiated risk each financial institution poses to the entire economy. When various banks have liquidity problems at the same time and regulators’ resources to help them are limited, the government has to pick and choose which banks to assist first. Without a “macro-prudential” view of regulation to guide their choices,\(^5\) regulators are then likely to overlook the systemic threats of the financial system. Just to reiterate, a prudential regime is not the safest and most sound bank regulatory regime.

If laissez-faire and prudential are not the answer to systemic banking crises, the two remaining alternative regimes are then the over-protective and the cost-padding bank regulatory regimes. Both tend to be less vulnerable to crises either because regulators impose strict limits on the risky behavior of banks or because the low levels of competition do not create perverse problems.\(^5\)

\(^5\) Brazil (1994-present) is also inserted into a laissez-faire bank regulatory regime. The difference with the other examples of a laissez-faire BRR is that Brazilian regulators have introduced a series of restrictions on the risk-management behavior of banks since 1994. These restrictions have mitigated the vulnerabilities inherent to this type of regulatory regime.

\(^5\) These capitalization packages were: (1) the Stimulus Program for the Restructuring and the Strengthening of the National Financial System (Programa de Estímulo à Reestruturação e ao Fortalecimento do Sistema Financeiro Nacional, PROER) and (2) the Program for the Reduction of the State Public Sector in Banking Activities (Programa de Incentivo à Redução do Setor Público Estadual na Atividade Bancária, PROES).

\(^5\) The objective of a macro-prudential approach is to mitigate the risks of financial distress with significant losses for the economy as a whole. See Borio (2003) for a thorough discussion of differences between the micro- and macro-prudential approaches.
incentives for banks to take on more risks. However, in both regulatory regimes the problems of efficiency are severe. In the case of over-protection, the commercial banking sector is basically paralyzed by the extraordinary costs of several restrictions. When banks are legally prohibited from expanding their businesses, establishing new branches, introducing new services, or improving the quality of their products, the optimal allocation of resources is compromised. Similarly, in the case of a cost-padding regime, the efficient intermediation of resources from savers to borrowers is hindered by the diversion of funds to certain politically-determined projects. Since the cost-padding regime is the most susceptible to “regulatory capture,” this type of BRR is not efficient albeit stable.

The main tradeoffs facing regulators could then be summarized as follows (see Figure 2). The point of equilibrium (i.e., where regulation promotes the most efficient and stable banking system, with the lowest costs for both bankers and consumers of financial services) is the zero point. To the right of the equilibrium point, regulation promotes a more stable banking system (to the detriment of its efficiency). To the left of the equilibrium point, regulation sponsors a more efficient banking system (as opposed to its stability). If either a prudential or an over-protective BRR is established, the costs of upholding stability or efficiency will lie on bankers. Conversely, a laissez-faire and a cost-padding regime shifts the burden of maintaining efficient and stable banking systems to the consumers of financial services. Ultimately, the choice of a bank regulatory regime entails answering the following two questions:

1) Which policy goal to prioritize: the efficiency or the stability of the banking system?
2) Who should pay for the costs of promoting the efficiency of the stability of the banking system: bankers or the consumers of financial services?
The fact that bank regulatory regimes vary across cases even when regulators are subject to the same sort of external shocks suggests that conjunctural determinants cannot completely explain variation in BRRs. Similarly, the nature of the P-A relationship among regulators is not enough to understand regulators’ decisions to enact restrictions on the structure and the behavior of banks; policy outcomes depend not only on regulators’ regulatory capacity but also on their interests at a given point in time. In this sense, the nature of the principal-agent relationship among regulators and the conjunctural determinants are necessary but not sufficient causes of bank regulation. The nature of the P-A relationship reflects the (technical and political) capacity of actors to implement their own policy preferences (in the form of BRRs). What the nature of the P-A relationship does not tell us is what these preferences are. Although agents’ preferences are assumed to be fixed, principals’ preferences change depending on the economic, political and technological context in which they live. Conjunctural determinants are then essential to allow us to identify principals’ preferences at any given moment. Ultimately,
bank regulatory regimes are the outcome of the interaction of two variables: one reflecting a type of political institutions (the nature of the P-A relationship) and the other shaping principals’ preferences (conjunctural determinants).

The contributions of this article can be summarized at two main levels. At the descriptive level, this study presented a typology that allowed us not only to conceptualize bank regulation but also track the cross-national and diachronic variation in bank regulatory regimes in four important Latin American countries. Such a descriptive exercise provides empirical evidence against the claims of a world-wide regulatory convergence. At least in Latin America, bank regulatory regimes have followed significantly different evolutionary paths. At the theoretical level, the article offered a new approach to regulation based on the nature of the principal-agent relationship among regulators and the so-called conjunctural determinants. This approach not only allows us to identify the various actors involved in the regulatory process but it also gives us insights into how they forge a consensus around a certain regulatory outcome. To the extent that it lets the level of regulatory capacity to vary, the proposed approach demystifies previous principal-agent models in which agents always possess more information and technical capacity than their principals. Ultimately, the embedded-agency approach to regulation is a more complex framework in the sense that it incorporates some contextual variables that had not been taken into consideration by any previous theory of regulation.

As a means of conclusion, I offer a few suggestions to complement this study. First and foremost, the explanatory power of the embedded-agency approach should be tested in other industries beyond banking. Second, the question of how much regulatory capacity should be allocated to principals and agents still remains. The nature of the P-A relationship based on levels of regulatory capacity can be thought of as a continuum composed of two extremes. On the one side, agents can be assigned all of the regulatory resources, leaving principals without any political or technical power to participate in the regulatory process. On the other side, principals can possess all of the means necessary to dominate the regulatory process, assigning agents an irrelevant role. Regardless of the advantages of each extreme, policymakers need to be aware of the problems they entail. In the first scenario, problems of accountability may arise. Since agents are not directly chosen by popular vote, how can the general public maintain these regulators accountable? In the second scenario, time-inconsistency problems may occur, since politicians are usually short-sighted. The optimal allocation of regulatory resources among principals and agents for banking policy outcomes is yet to be determined.
Appendix

Appendix A. Questions Used for Bank Regulatory Regime Index

1) Are foreign entities prohibited from entering through acquisition, subsidiary or branch?
   a. (1) No prohibitions
   b. (2) Prohibitions are imposed in only one type of entrance (acquisition, subsidiary, or branch)
   c. (3) Prohibitions are imposed in two types of entrance
   d. (4) Prohibitions are imposed in all three types of entrance

2) What is the level of regulatory restrictiveness for bank participation in securities activities (the ability of banks to engage in the business of securities underwriting, brokering, dealing and all aspects of the mutual fund industry)?
   e. (1) Unrestricted: a full range of activities in securities can be conducted directly in the bank
   f. (2) Permitted: a full range of securities activities can be conducted, but all or some must be conducted in subsidiaries
   g. (3) Restricted: less than a full range of securities activities can be conducted in the bank or subsidiaries
   h. (4) Prohibited: securities activities cannot be conducted in either the bank or subsidiaries.

3) What is the level of regulatory restrictiveness for the non-financial firms’ ownership of commercial banks?
   i. (1) Unrestricted: non-financial firms may own 100 percent of the equity in a bank or vice-versa
   j. (2) Permitted: unrestricted with prior authorization or approval
   k. (3) Restricted: limits are place on ownership, such as a maximum percentage of a bank’s capital or shares
   l. (4) Prohibited: no equity investment in a bank.

4) Prompt Corrective Action: whether the Law establishes pre-determined levels of bank solvency deterioration which forces automatic enforcement actions such as intervention.
   m. Does the Law establish pre-determined levels of solvency deterioration which forces automatic actions (like intervention)? (Yes=2; No=1)

5) Are interest rate controls on bank deposits and/or loans freely determined by the market?
n. (1) First quartile with minimum restrictions
o. (2) Second quartile
p. (3) Third quartile
q. (4) Fourth quartile with maximum restrictions

6) Does the minimum capital ratio vary as a function of an individual bank’s credit risk? (Yes=2; No=1)

7) Provisioning Stringency. Is there a legal definition of a “non-performing” loan? (Yes=2; No=1)

8) External Auditing Requirements. Are specific requirements for the extent or nature of the audit spelled out? (Yes=2; No=1)

9) Sources of Deposit Insurance Funds: Is the deposit insurance scheme funded by:
r. (1) not funded?
s. (2) the government?
t. (3) government and banks?
u. (4) solely by banks?

Appendix B. Measuring the Five Dimensions of Regulatory Capacity

Dimension 1: Authority/Legitimacy Powers:

1. Principals and Agents: Are the functions regarding bank regulation exercised by each actor explicitly written in laws or in the Constitution? (Yes=1; No=0)

2. Principals and Agents: Was any law enacted during the period granting extraordinary powers over economic/financial policy to certain actor(s)? Example: Argentina’s Economic Emergency Law granting extraordinary powers to Economic Minister (Yes=1; No=0)

3. Principals and Agents: Is there empirical evidence that each of the relevant actors is using their institutional powers? (Yes=1; No=0)

4. Principals and Agents: Did any event happen during the period that increased actor’s legitimacy and transparency vis-à-vis the general public? Example: transition to democracy after a long period of military dictatorship; banking crisis that drive the general public to blame bankers; government has had some success fighting big economic problems such as inflation. (Yes=1; No=0)

5. Principals and Agents: Are there circumstances that allow regulators to become less dependent on the regulated industry (bankers)? Example: the
creation of securities markets as an alternative source of government funding. (Yes=1; No=0)

6. **Principals:** Is the Finance Ministry considered to have more powers compared to other ministries either because of the existence of formal rules, the personality of the Finance Minister, or because the President decided to delegate more powers to the Finance Minister as opposed to other ministers? (Yes=1; No=0)

7. **Principals:** Can Congress pose a political barrier to the interests of the executive branch either because of its partisan composition or institutional powers (i.e., power to amend or veto executive branch’s initiative, oversight powers, etc.)? (Yes=1; No=0)

8. **Principals:** Do the actors use military force to impose its authority powers? (Yes=1; No=0)

9. **Principals:** Are there deliberate efforts to decrease the influence of possible oppositional forces (such as intervening in labor unions)? (Yes=1; No=0)

10. **Agents:** Are agents formally independent from their principals? (Yes=1; No=0)

11. **Agents:** Are agents operationally independent from their principals? That is, do they have fixed terms, transparent procedures for appointment and removal, pre-determined salaries? (Yes=1; No)

## Dimension 2: Internal Coordination

12. **Principals and Agents:** Is there an explicit law/document that guarantees that members of a regulatory institution share a sense of common purpose/objective regarding the banking system and bank regulation? Example: a law can explicitly establish the objectives of the Central Bank. (Yes=1; No=0)

13. **Principals and Agents:** Is there an issue on which various members of a regulatory institution focus their attention, facilitating the coordination among them? Example: how to compensate banks for their losses when their dollar-denominated assets and liabilities were converted into pesos after the 2001 crisis in Argentina. (Yes=1; No=0)

14. **Principals and Agents:** Is there no evidence of recurring conflicts about financial policies across the various departments within regulatory institutions? (Yes=1; No=0)

15. **Principals and Agents:** Is there evidence that all departments follow standard operating procedures? (Yes=1; No=0)

16. **Principals and Agents:** Do methods of recruitment guarantee the hiring of individuals with similar points of view about bank regulation? (Yes=1; No=0)
17. **Principals and Agents:** Is there any evidence of a process of socialization shaping regulators’ normative views in the same direction? (Yes=1; No=0)

18. **Principals and Agents:** Are instruments used to increase internal coordination such as the removal of critics within the regulatory institution? Example: Martínez de Hoz removed many critics from the Economics Ministry in Argentina. (Yes=1; No=0)

19. **Principals:** Is there partisan cohesion within Congress? (Yes=1; No=0)

**Dimension 3: Financial Resources**

20. **Principals and Agents:** Is the economy growing (as opposed to a recession)? (Yes=1; No=0)

21. **Principals and Agents:** Is a significant part of the budget dedicated to investments in infrastructure or training of personnel related to bank supervision? (Yes=1; No=0)

22. **Principals and Agents:** Is a significant part of the budget dedicated to hiring advisers or consultants to help regulators? (Yes=1; No=0)

23. **Principals:** Are there low levels of public fiscal deficit? (Yes=1; No=0)

24. **Agents:** Do agents depend on transfer of financial resources from their principals? (No=1; Yes=0)

25. **Agents:** Do agents have complementary sources of funds beyond the transfers from national budgets? (Yes=1; No=0)

26. **Agents:** Are agents autonomous from principals to decide how to spend their budget? (Yes=1; No=0)

**Dimension 4: Information**

27. **Principals and Agents:** Is the information-gathering process centralized? (Yes=1; No=0)

28. **Principals and Agents:** Are information-gathering tools considered to be efficient by the participants of the regulatory process? (Yes=1; No=0)

29. **Principals and Agents:** Do banks have to turn in periodic reports about their balance sheets and risk-management activities to regulators? (Yes=1; No=0)

30. **Principals and Agents:** Are agents obliged to publish periodic reports about the banking system for principals?

31. **Principals and Agents:** Did any event occur during the period that enhanced the channels of information between regulators and the regulated (banks)? Example: the implementation of a new software program for the management of financial data. (Yes=1; No=0)

32. **Principals and Agents:** Do regulators welcome periodic meetings with representatives of the financial community?
33. **Principals and Agents:** Do the media do a good job of making the policy-making process more transparent?

34. **Agents:** Is there periodic on-site supervision of financial institutions? (Yes=1; No=0)

35. **Agents:** Does off-site supervision produce updated information about the situation of individual banks and the financial system as a whole? (Yes=1; No=0)

36. **Agents:** Are there uniform spreadsheets with a set of financial indicators to be filled by banks? This facilitates comparison of performance among various financial institutions. (Yes=1; No=0)

**Dimension 5: Expertise**

37. **Principals and Agents:** Did any event occur during the period that hindered the expertise of regulators? Example: nationalization of banks in Mexico compromised regulators’ expertise of credit-risk assessment. (No=1; Yes=0)

38. **Principals and Agents:** Is the educational/professional background of key actors (such as Finance Minister) related to finance/economics? (Yes=1; No=0)

39. **Principals and Agents:** Are regulators appointed because of their technical expertise (rather than political alliances)? (Yes=1; No=0)

40. **Principals:** Can legislators be re-elected so the process of “learn by doing” can be enhanced? Is the turnover rate low? (Yes=1; No=0)

41. **Principals:** Do legislators have professional staff as their aides? (Yes=1; No=0)

42. **Agents:** Do bank supervisors receive appropriate training for bank regulation and supervision? (Yes=1; No=0)

43. **Agents:** Do regulators’ remuneration depend on periodic performance evaluation? (Yes=1; No=0)
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The Embedded-Agency Approach to Bank Regulation


The Embedded-Agency Approach to Bank Regulation

Novedades

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