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Introduction

Melancholy as it may be to dwell on old splendors when the present is uninspiring, the task of examining the past for clues about recent difficulties is indispensable in the Argentine case.

— Carlos F. Díaz Alejandro

In a short span of a few golden years, with their peak from around 1900 to 1913, Argentines enjoyed a Belle Époque. A visitor to Buenos Aires then would have marveled at the splendors of the city and, beyond it, the economic vitality of its hinterland: the gleaming opera house, the graceful architecture, the expansive and efficient railway system, and a vibrant agricultural economy on the pampas linked to a sophisticated urban and industrial center. Today, the visitor sees the same elegant façades, but decadence has long set in after decades of stagnant economic performance; society struggles with an economy and an infrastructure that appear, in places at least, to have seen little renewal since the remarkable efflorescence of those distant glory days.

Knowing that their ancestors once lived in one of the richest countries in the world is, naturally, of little comfort to today's Argentines as they come to terms with their country's descent into the middle or lower echelons of the global economic rankings. Unable to hide from the past, confronted with reminders of the gilded age on every street corner, Argentines display a widespread curiosity about their own economic history and a near-obsession with that epic malaise may have contributed, in no small measure, to the popular angst that gives Buenos Aires its reputation as the therapy capital of the world.

Argentine economic history is, in short, the story of a decline unparalleled in modern times. The country was fortunate to have begun the twentieth century as one of the most prosperous countries in the world; to quote the legendary economic historian Díaz Alejandro again, "to have called Argentina 'underdeveloped' in the sense that word has today would have been considered laughable. Not only was per capita income high, but its growth rate was one of the highest in the world."[1]

1. Díaz Alejandro (1970, p. 1).

The basis for those high incomes was a fortuitous mix of now well-known ingredients: a relatively literate and skilled population of immigrant stock, a seamless integration of domestic and world economies in trade through rail and shipping connections on land and sea, eventual success in the adoption of the gold standard that brought stability and credibility, and, last but not least, an unbelievably high resource-per-worker ratio in the form of a vast expanse of fertile agricultural land on the thinly populated pampas. What could possibly derail that successful combination of institutions, endowments, and global economic conditions?

Well, for a start, what had prevented success from coming sooner? In fact, prosperity had not been a foregone conclusion. After the 1810 revolution brought independence from Spain, the former Viceroyalty of the River Plate, like the rest of Latin America, hoped for peace and progress. Instead, as elsewhere, decades were lost to war: first for independence, then over territory with newly created neighboring states, and even within the borders themselves. Internal conflicts simmered longest, as Buenos Aires argued with rival provinces over the political and economic contours of a slow-to-emerge federal compact. The ongoing belligerence put a brake on economic development, due to the fiscal costs of military action and the uncertainty that affected all long-term economic decisions in such a fissiparous political environment. Not until fifty years later was a unified national government firmly established under President Bartolomé Mitre (1862–68), who was succeeded in mostly orderly transitions by the elected administrations of Presidents Domingo Sarmiento (1868–74), Nicolás Avellaneda (1874–80), and Julio Roca (1880–86).[2]

All four presidents were modernizers. Their ability to serve full terms in a somewhat democratic system stood in stark contrast to the often tenuous and volatile shifts of power that had previously obtained under the rule of various factions and their strongmen, the *caudillos.* It was this old order of "barbarism" *(barbarie)* that Sarmiento, in particular, aspired to replace with "civilization" *(civilizacion)*—as explained in his passionate and trenchant critique of Argentine society and its institutions, *Civilizacion i barbarie,* commonly known as *Facundo.* By civilization, he meant a European type of society, one centered on learning, good government, institution building, and economic stability. Beyond just importing new habits, customs, dress, and sensibility, he knew that the possibilities for development depended most of all on economic integration with Europe and the wider world, on attracting foreign migrants and capital, and engaging the world in trade so as to exploit the comparative advantage of Argentina to the full. It was an ambitious program perhaps, but in retrospect one can only be impressed by what was accomplished in the years between

2. For the historical background of the period see Botana (1986), Rock (1987), and Gallo (1997). For a less detailed view see Luna (2000). A comprehensive treatment of economic and social ideas in the period is to be found in Halperín Donghi (1977) and Botana and Gallo (1997).

the Republic's fiftieth and one hundredth anniversaries. Albeit with some false starts, the modernizers' vision of the future did take shape in the late nineteenth century and the country rose to new heights of economic achievement.

A century later the optimism has long dissipated. Argentines wonder if they will ever unleash the economic potential that once seemed to promise them a bright future as one of the most advanced countries in the world. Will this remain a longing, a yearning, an unfulfilled hope? History can be our guide as we examine the crucial transition from growth to relative retardation in the early twentieth century, an era that sheds light on the origins of Argentina's mysterious slide into economic underdevelopment. In this book we do not claim to offer cures for melancholy and nostalgia, nor treatment for any forms of depression (at least of the noneconomic kind). Still—in economics as in therapy—the first step is to understand the source of the ailment, even if the remaining eleven steps are a matter for other professionals.

For those with a personal or historical interest in Argentina, our book will try to provide some answers to a question we often hear from people in various walks of life: "given its past success, how did Argentina end up like this today?" That is the puzzle. It is a simple question, without a simple answer, but it resonates all the way from our conversations with nonspecialists to controversies at the cutting edge of academic research. In recent years, theoretical and empirical work in the study of economic growth has focused heavily on concepts of long-run convergence in per capita income. Argentina offers a different lesson, an example *par excellence* of big-time divergence. Hence, for scholars, our study informs a continuing debate on growth, its essential economic sources and its institutional preconditions.

Before us we have a rare and curious specimen: a once relatively rich country that has become relatively poor, as we shall see next in a section that looks at the cross-country evidence. In accounting for this, we do not seek to offer a monocausal explanation or even a deterministic line. Much of what has happened to Argentina's economy properly falls under the rubric of politics, and unpredictable internal and external shocks have surely left their mark too. Our account seeks to be sensitive to political-economy forces and cognizant of the occasionally random and exogenous events that have disturbed the economy. But we do aim to expose the particularly important role of macroeconomic stability, and to that end we explore in a moment the record of price and exchange-rate volatility in Argentina, also in comparative perspective. These initial forays into the statistical evidence expose the central theme of the book while sketching the major, but possibly unfamiliar, contours of Argentine economic history.

The Long-run Context: Economic Growth in Two Centuries

The puzzle of Argentine economic growth in the long run can be neatly encapsulated by looking at its level of economic development around four benchmark dates: the year 1820, a date in the early nineteenth century shortly after independence; the year 1870, a date in the middle of the "long nineteenth century"; the year 1913, a date at the end of the "long nineteenth century" and at the zenith of the Belle Époque; and the present, where we can use the latest cross-country evidence available. Studies of historical income allow us to address a central question in world history: whether the income divergence between developing economies (the "periphery") and the developed world (the "core") is a "new" phenomenon, a legacy of the industrial and postindustrial twentieth century, or whether it dates back to 1800 or even earlier.

Around 1800, according to Coatsworth's pioneering attempt to put together comparative historical estimates of per capita incomes in Latin America, Argentina, or at least that part of it occupied by Europeans, had an income level well above that of its neighbors in the region, and similar to the levels seen in Europe or the United States at that time. More precisely, Coatsworth estimates Argentine per capita income at 102 percent of the U.S. level in 1800, compared to 66 percent for the region as a whole. For a broader comparison, Maddison places U.S. per capita income at $1,287 in 1820 (in 1992 international dollars, used henceforth in this section), compared to $1,228 in Western Europe, and $1,236 in the "Western Offshoots" (meaning Australia, Canada, New Zealand, and the United States). This would place Argentina at about $1,300 per capita if it were still at 102 percent of the U.S level in 1820, the region as a whole at roughly $900. Essentially, Argentina was then a relatively rich country, but others in the region were poor—or poorer, if 66 percent of the U.S. level cannot be called poor, as is the case today.[3]

Did Argentina maintain this superiority in incomes? Despite early evidence of "Argentine exceptionalism" a new trend emerged in the mid-nineteenth century. The core economies' growth accelerated as the industrial revolution spread; but Latin America, beset by wars and economic chaos, stood still, or even fell backward. By 1870 Western European incomes had risen to $1,986 per capita, and the offshoots to $2,748. But Argentine per capita income still stood at $1,300 per capita five decades later, and the region as a whole at about $800. Argentina was still richer than its neighbors, by roughly the same amount, but it had not kept up with the core. It was at around this time, of course, that the postindependence wars ended, and aspirations for economic development that

3. Maddison (1995), Coatsworth (1999). In 1800 Coatsworth found Cuba had a per capita income of 112 percent of the U.S. level, but we exclude this island economy, so dependent on slave-produced sugar, from the comparison of mainland countries. In 1820 Maddison found that the world leader was Britain, the first industrial nation, with an income of $1,756 per capita, with the Netherlands second at $1,561, and Australia third at $1,528.

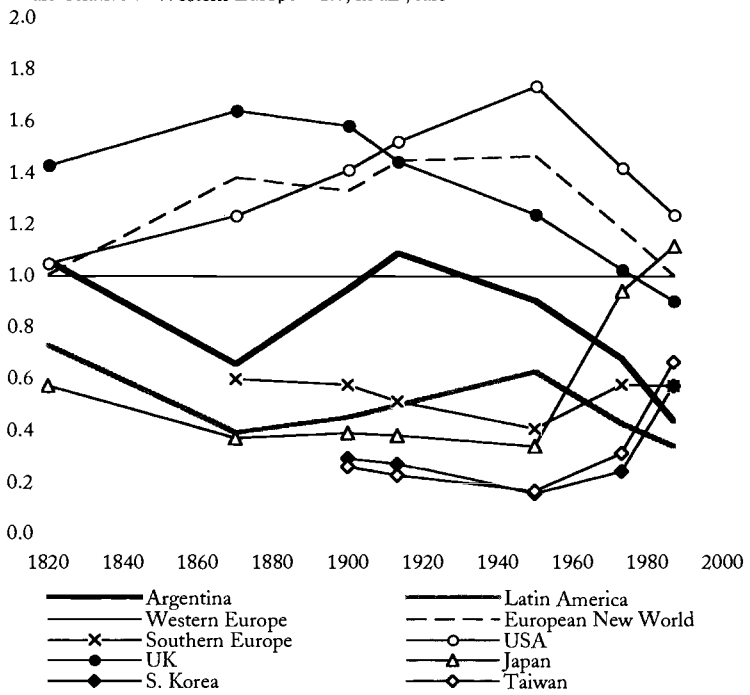
would close this gap took shape. Remarkably, the dreams started to come true: in several Latin American countries, including Mexico and Chile, but most noticeably in Argentina, there was an acceleration in economic growth rates after 1870 that implied a convergence on the core economies. For example, from the 1880s to 1913, Argentina had an average growth rate of 5 percent per annum in output, or about half that in per capita terms. This was a stunning performance by the standards of the time and sparked a flourishing of Argentine confidence at the height of its golden age. Maddison's data suggest that by 1900 Argentina's income per capita had risen from about 67 percent of developed-country levels in 1870, to 90 percent in 1900, and 100 percent in 1913. In Figure 1.1 we get a more complete picture by comparing Argentine performance to a wide sample of countries from 1820 to the present. By 1913 it must have seemed that the process of convergence was almost complete and Argentina had established a clear lead in income levels over the rest of the region.[4]

These trends surely fostered the idea that Argentina had become an "advanced" economy, differentiating herself from its "backward" neighbors. How advanced? Though historical data give some margin for error, there is little doubt that the 1913 income level was inferior to those of the richest "countries of recent settlement" such as the United States, Canada, and Australia, and also below that of the first industrializer, Great Britain. But the Argentine level of $3,797 in 1913 slightly surpassed the levels in many middle-income European economies at the time, such as France ($3,452), Germany ($3,134), and Netherlands ($3,533), and was eclipsed only by the United Kingdom ($5,032) and the four Western Offshoots, notably the United States ($5,307) and Australia ($5,505); and it was well above the levels in poorer Southern European countries such as Italy ($2,507) and Spain ($2,255)—as would be expected, since these were the very countries supplying Argentina with so many of its immigrants. All things considered, and given the vagaries of historical data, some scholars have placed Argentina's 1913 income level clearly in the world Top 10, even the Top 5. Whatever its exact status in 1913, for all practical purposes Argentina was an advanced country.[5]

The stage was then set for the *dénouement* and a dramatic reversal of fortune in the twentieth century. Economic growth in Latin America lagged behind the core OECD countries, and the performance of Argentina was worse still. A regression of disturbing proportions is clearly visible in Figure 1.1. Argentina's ratio of 80 percent of OECD income levels in 1913 accords this date great historical significance as the time when Argentina was as close as it ever came

4. In the text and in the figure we use a weighted average of Western Europe plus Western Offshoots plus Japan (a pseudo-OECD subset) as a measure of developed-country levels of income per capita.
5. Our modern-day perspective comes from the data of Maddison (1995), but those witness to events in this period were not unaware of Argentina's elevated status, as we know from sources such as Mulhall (1903).

Figure 1.1. Comparative Economic Development



	1820	1870	1900	1913	1950	1973	1992
Argentina	1,300*	1,311	2,756	3,797	4,987	7,970	7,616
Latin America (7)	900*	783	1,311	1,733	3,478	5,017	5,949
Western Europe (12)	1,228	1,986	2,899	3,482	5,513	11,694	17,412
Western Offshoots (4)	1,236	2,748	3,868	5,051	8,083	13,828	17,475
Southern Europe (5)	—	1,194	1,676	1,788	2,259	6,770	10,015
United States	1,287	2,457	4,096	5,307	9,573	16,607	21,558
United Kingdom	1,756	3,263	4,593	5,032	6,847	11,992	15,738
Japan	704	741	1,135	1,334	1,873	11,017	19,425
South Korea	—	—	850	948	876	2,840	10,010
Taiwan	—	—	759	794	922	3,669	11,590

Western Europe (12): Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom.
Southern Europe (5): Greece, Ireland, Portugal, Spain, Turkey.
European New World (4, called "Western Offshoots" by Maddison): Australia, Canada, New Zealand, United States.
Latin America (7): Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela.
Notes and sources: Data in the table from Maddison (1995) in 1992 PPP-adjusted international dollars, except for the 1820 entries for Argentina and Latin America from the estimates in the text. Figure shows incomes relative to a Western Europe arithmetic average equal to 1.0. *The figure shows relative rather than absolute economic performance.*

to joining the "club" of core economies. Ever since, the income trend has been down and away from the OECD level, with a reversion back toward the average of Latin America as a whole. Argentina's ratio to OECD income fell to 84 percent in 1950, 65 percent in 1973, and to a mere 43 percent in 1987, not so far above the regional average of 34 percent. By then, any old notions of Argentine exceptionalism had been thoroughly and painfully debunked, at least for those willing to confront this uncomfortable reality and examine the statistical record.

Argentina makes a fascinating subject for historical scrutiny precisely because it experienced such a unique and pronounced rise and fall in its long-run economic status. In this respect, it has little in common with the legions of less-developed countries that have always been relatively poor and never managed to make a transition to sustained modern economic growth, for no one denies that Argentina was a very rich economy in 1900–1913. It also has little in common here with that much smaller group of poor and peripheral economies that have made a transition to developed-country status and have not, as yet, relinquished that gain; by taking a long view, we may include here such once-peripheral European countries as Norway, Sweden, Italy, Spain, Portugal, and Ireland, and Asian examples such as the striking case of Japan, as well as more recent emerging market successes in South Korea and Taiwan, countries that have lately eclipsed Argentina in per capita income (Figure 1.1).

In sum, a visitor from Buenos Aires in the early- or mid-nineteenth century, transported to the present, might see nothing strange about Argentina's lowly economic position and its similarity to that of the region as a whole. Indeed, the time traveler might be astonished to hear from one of today's locals how close Argentina came to achieving economic success, if not "civilization," in the intervening period. This is not to say that the modern Argentine would enjoy telling the story: surely, more than being relatively poor, the acutest source of melancholy is the knowledge of how close you once were to having it made.

The Central Problem: Macroeconomic Stability in the Long Run

If we accept that Argentina made a fleeting jump toward a high level of development at the turn of the twentieth century, we must next ask what formed the springboard. As we have noted, there were many factors working together to promote Argentine success in this era, including an abundant resource endowments and a fortuitous position in a globalizing world. Yet, from a comparative standpoint, there is not much uniquely Argentine about these factors, and, in many cases, little that is specific to the period 1880–1913. Other economies, like the countries of recent settlement, also had great resources and could exploit their comparative advantage in global markets. But they fared better, sooner, and even when the world economy went into temporary convulsion, as in the

interwar period, it was still the case, in the long run, that they recovered and prospered more. Many comparison countries did not wait so long to grow rich in the late nineteenth century, and none has since seen its economy fizzle out.

Accordingly, we must seek some peculiarly Argentinean characteristics that mark the period 1880–1913 as particularly auspicious for economic growth, focusing on factors that have been conspicuously absent before or since. It is our thesis that such factors—explicitly, shifts in economic policies directly under the control of the authorities—set the stage for the fleeting years of success. A cursory look at the historical statistics of Argentina should, we argue, point a finger of suspicion at the record of macroeconomic instability as a crucial detriment to sustained economic growth and long-run convergence.

In the long run, a key macroeconomic challenge for a small open economy is the task of building institutions and commitments to support stable monetary and fiscal policies. If such actions are successful, an economy can gain price stability for the long run—in other words, a firm *nominal anchor*—and all of the benefits that go with it in terms of reputation and expectation effects that enhance efficiency in financial markets, contracting, and so forth. If such actions fail, an economy risks a volatile inflation rate, financial instability, and an increased exposure to banking and currency crises.

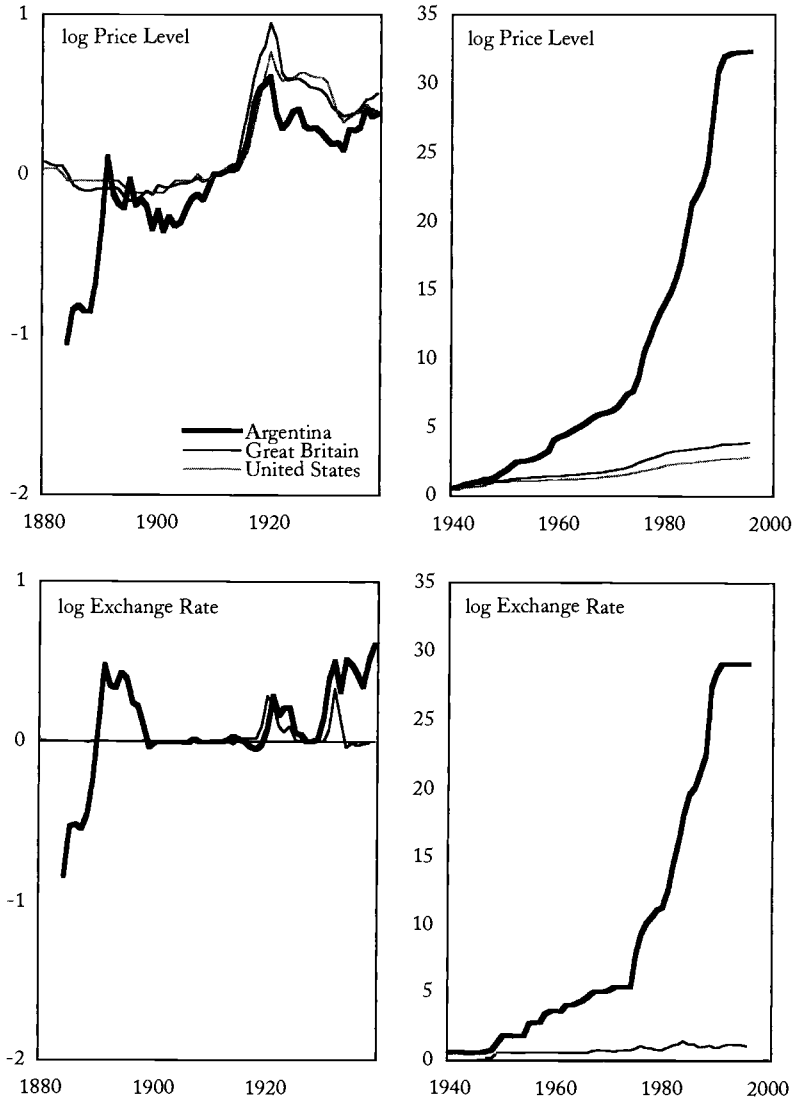
A goal of the book is to explore the causes of success and failure in this realm, but for initial motivation we discuss some of the problems encountered. It would be desirable here to examine detailed measures of the government's actions in fiscal and monetary affairs, looking at the record of budgets and money supplies and other key variables. For succinctness, and since few consistent data series exist for two centuries, we confine our introduction on this topic to two important statistical measures of stability that are relevant in a small open economy: the price level and the exchange rate.[6]

It is worth taking a moment first to reflect on the remarkable stability of the period 1880–1913 by looking at events in subsequent history, from 1914 to the present. We see from Figure 1.2 that Argentina's capacity to generate inflation has remained high in the twentieth century, as compared with selected OECD countries. The evolution of both the price level and the exchange rate tell the same story: after 1940, the end point of our study, the capacity of the economy to hold a stable level of any nominal variable—that is, to have a nominal anchor—was lost. The purpose of our book is to explain the origins of that state of macroeconomic drift by examining policy tensions in the years prior—at a time when the anchor was not yet lost, but was under considerable strain.

Some more detailed figures drive home the change of regime. Median inflation for 1940–97 in Argentina was 28 percent per annum with a maximum of

6. These two variables are potentially related, as in the purchasing-power parity (PPP) theory of exchange rates. We explore that topic for Argentina in Appendix 4.

Figure 1.2. Prices and Exchange Rates, 1880–1996



Notes: The natural log of the price level (CPI) and exchange rate (currency units per U.S. dollar) are shown, with a normalization such that 1913 log level equals zero.
Sources: Obstfeld and Taylor (2002).

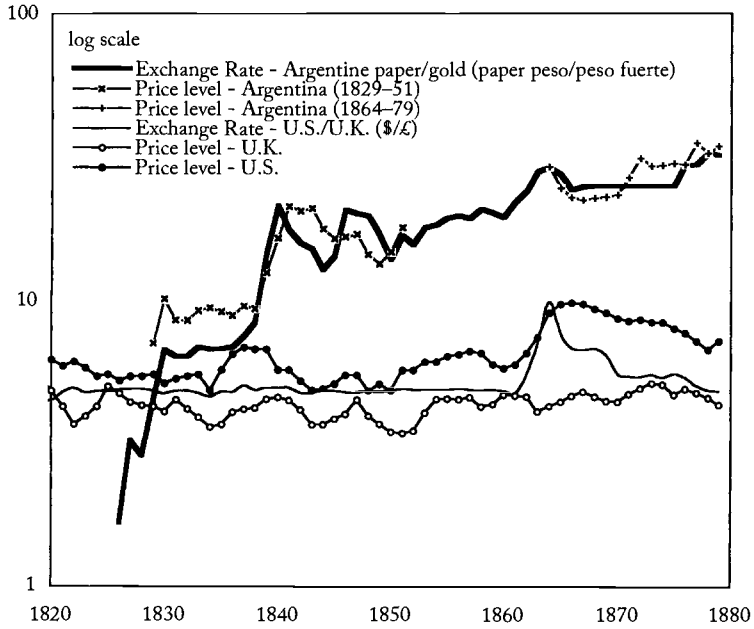
3,084 percent (during the 1989–90 hyperinflation). The exchange rate moved similarly. The same statistics are 3 and 14 percent, respectively, in the United States. But as is clear from the figure, from around 1900 until 1939, the Argentine economy moved very much in synchronization with leading core economies in terms of its price level and exchange rate stability. In the decade before the First World War prices were almost perfectly stable, with a mild inflation in all countries on the gold standard due to new gold discoveries injecting liquidity into the world economy at a faster rate than output growth. After the outbreak of war Argentina kept its exchange rate at least as steady as the other countries with respect to the U.S. dollar and experienced slightly better inflation performance than some: a 1.8 percent average 1914–39 versus 1.6 percent in the United States, and 2.2 percent in Britain (for further comparison, the figures were 1.3 percent in Australia, and 1.2 percent in Canada). Only after 1940 did the real trouble begin, and Argentina's postwar inflation problem endured, at least until the "convertibility plan" of the 1990s was implemented by Finance Minister Domingo Cavallo—and, as the figure shows, this event finally put a halt to the instability.

Initial Conditions: Postcolonial Economic Disarray

Argentine history from independence until the 1860s was punctuated by a series of wars between a barely unified set of provinces, and there is no way to speak of a coherent set of national economic policies in that era. The times were heavy with economic chaos, political uncertainty, and fiscal pressure. With weak government structures at all levels, and a well-functioning bureaucracy taking a back seat to a well-functioning army, all the authorities resorted to the simplest and most reliable form of revenue creation: money printing. Seigniorage, or the inflation tax, was their key fiscal tool in times of crisis and, worse still, each province had its own money. As a result, price and exchange rate stability could never be credibly established. We see evidence of this in Figure 1.3, which shows some data for the most important province, administration, monetary system, and economic unit: Buenos Aires. During major wars and blockades, the local currency regularly devalued by several multiples. A series of high inflation episodes left the paper currency seriously suspect as a store of value, a precursor of the twentieth century experience.

It is illustrative to compare this inflation record with the stability seen in other economies under different monetary arrangements. Take, for example, the United States and the United Kingdom. Both were committed to the gold standard throughout this period: the British resuming in 1821 shortly after the end of the Napoleonic Wars and remaining on the standard until the First World War began in 1914; the United States over roughly the same period absent one major break during the Civil War, when convertibility was

Figure 1.3. Prices and Exchange Rates, 1820–80



Notes and sources: Series for U.S. and U.K. price levels are taken from Global Financial Data http://www.globalfindata.com; the primary sources are Lindert-Williamson and Bowley for United Kingdom, and Warren-Pearson for United States; these are index numbers on an arbitrary scale. The series for the U.S.-U.K. exchange rate (dollars per pound) is from Officer (2001). The series for Argentine exchange rate (paper pesos per *pesos fuerte*) and price level (price index for hides 1829–51, implicit price of exports 1864–79) are from Diéguez (1972), Irigoin (2000a), and della Paolera (1983). The two disjoint Argentine price level series are *not* commensurate, and each is on an arbitrary scale.

suspended from 1861 to 1878.[7] In the United Kingdom the gold value of the currency never wavered from its legal mint value; in the United States, except for the years of suspension, the price level was stable and the dollar-pound exchange rate remained very close to par at $4.86 (Figure 1.3). The result in both countries was an extended period of price stability, excluding the U.S. Civil War, with low average levels of inflation, and low volatility. The contrast with the Argentine case is dramatic, and graphically illustrates the macroeconomic benefits of peace, political order, and institutional stability.

In the 1860s and 1870s, some stability came to Argentina in terms of the political solutions developed and also in terms of economic outcomes. Once the wars were at an end, the first three national administrations presided over years of low and stable inflation, as can be seen from Table 1.1. The later Mitre

7. See Officer (1996).

Table 1.1. *Argentine Inflation, 1820–1935*

Period	Events	Inflation Rate (percent per annum)
1820–30	war	20–22
1830–38		0
1838–42	war	25–45
1842–45		-11
1845–48	war	14
1848–61		4
1861–64	war	9
1864–67		-15
1867–75	gold standard	0
1875–78		9
1878–84	gold standard	-4
1884–89		8
1889–91		48
1891–99		6
1899–1913	gold standard	3
1914–18		13
1918–27		-3
1927–29	gold standard	-1
1929–34		0

Sources: Amaral (1988); Irigoin (1995); Bordo and Végh (1998); della Paolera (1988, 1994).

years, 1864–67, were even notable for a sharp *deflation*, when a credible effort to end inflation led to a boost in money demand even as the money supply remained more or less fixed—a textbook illustration of one of the pitfalls of stabilization. Efforts to attain a respectable and stable monetary regime in this period aimed at the single, preferred model that was sweeping the globe at the time, namely the gold standard. The Argentine authorities were enthusiastically aiming to embrace a particular set of policy choices that required discipline of a kind that had not been seen before, and central here were the commitments to fixed exchange rates and internationally open capital markets that were the *sine qua non* of the gold standard. They felt that it was only under this kind of commitment that price stability could be guaranteed over the long run.

Disappointingly, the first two attempts to set up a gold standard soon came a cropper, as can be seen from the table. We argue that, despite some success in keeping inflation low in the 1860s and 1870s, an agreement in theory on the ideal monetary arrangement could not produce lasting success until adequate reforms introduced more robustness and consistency in the underlying monetary, fiscal, and banking institutions. In boom times it proved easy to paper over the cracks, and such issues as nonexistent bank regulation or the absence of central control over money issues could be viewed in a relaxed way.

As our story opens, we spend some time discussing the ill omens of this period of ad hoc policies and the spectacular macroeconomic disaster that followed

from them. When the relatively stable price record of the 1860s and 1870s gave way to a resurgence of inflation and instability in the late 1880s, a major crisis unfolded whose aftereffects took many years to die down. It was a shock that threatened to put Argentina on a different track than the group of advanced economies, with a return to high inflation and questions over its ability to run a responsible gold-standard monetary policy (see Figure 1.2 and Table 1.1). When inflation peaked in 1890–91 at around 50 percent per annum a stable future looked in grave doubt.

Faced with a make-or-break scenario, the policy reaction to the 1890 crisis succeeded in averting a meltdown and provides a pivotal event for our narrative, a decisive step that changed the course of Argentine economic history, and still, through its influence on the design of Cavallo's convertibility plan, is making itself felt today. The shock precipitated a deep institutional reform, a debate over optimal monetary and fiscal policies, and raised serious questions as to the soundness of the economy's financial architecture. More than a century has passed without diminishing the relevance of these considerations in any developing-country environment, as recent calamities in the global economy can attest.

This book speaks directly to present-day debates on the merits of opening capital markets, managing exchange rate regimes, and coping with the tradeoffs and constraints that are the occupational hazards of any small open economy in a globalized world. In the late 1880s, Argentina made one kind of tradeoff: it faced a tough choice as external capital markets tightened and economic growth slowed. The authorities could not simultaneously finance the budget, meet convertibility requirements, and allow free capital movements without a severe monetary contraction and the likelihood of acute financial distress. They balked at that kind of discipline, their commitment slipped, the exchange rate floated, and a crisis ensued. Not just any kind of crisis, but one that looks eerily familiar from our contemporary perspective—the very first crisis ever seen of a new and particularly dangerous kind.

A Pivotal Event: The First Emerging Market Crisis?

The foundation for the crisis was deep. The fiscal use of money creation was the norm in postindependence Argentina from the 1820s to the 1880s, when crises and wars exhausted the limited tax take and domestic and foreign credit was unavailable. State and provincial banks acted as money printers to their respective governments, and in this period of "monetary anarchy" multiple banks of issue constantly wrestled with pressures to overissue notes.

To try to stabilize the price level, a convertibility commitment was made in 1881, but it proved short-lived because the government never decisively limited note issues. The government held back from regulating the banks and,

perhaps not coincidentally, did not escape from its own fiscal dependence on the banks' generous issues of credit. The banks of issue continued to print money to finance government deficits and engaged in falsification of balance sheets, loans to politicians, and other dubious practices. Gold reserve losses soon mounted. After 1884 a temporary "dirty float" of the paper-gold exchange rate was announced, but the gold drain continued because there had been no reforms in the underlying fiscal and monetary policy "fundamentals." Attempts to fix the banking laws were ineffective, even counterproductive, since without fundamental reform the practice of making loans based on political expediency would continue.

Contemporary parallels cannot be avoided here. Foreign investors were not unaware of the seamy side of Argentine finance, and what in Asia today has been dubbed "crony capitalism" was in the Argentina of yesteryear disparagingly referred to as "Gaucho banking" by the horrified Anglo-Saxon observers of that time:

> [The Argentine banks] were free banks in the freest sense of the term, for any Gaucho who had the political open sesame to them could ask for almost anything he pleased, and it would be given him so long as there was a piastre left in the till.[8]

Given such common underpinnings then and now we should not be surprised to see a common outcome, and the Argentine fiasco ended in a classic speculative attack with no gold left in the vaults whatsoever.

By 1890 an infamous macroeconomic and financial downturn, the so-called Baring Crisis, was underway. It involved some very familiar ingredients that we have seen so often in recent collapses: a fiscal gap, an unsustainable commitment to a fixed exchange rate peg, and poorly regulated banks that borrowed short abroad in gold and lent long domestically in pesos.[9] We now know that these ingredients form a dangerous mix: an incipient violation of the intertemporal budget constraint by the government triggers an inconsistency in the three-way compromise between a fixed exchange rate, capital mobility, and policy activism—the "trilemma," a topic we explore below. This was, in essence, the first modern emerging market crisis, and fits well with the textbook theoretical descriptions of such crises.

How did the public react to these events? External and internal credit markets virtually shut down. Furthermore, there was a dramatic internal shift away from holding the rapidly depreciating domestic paper money, and a shift to holding gold as currency. In the early 1880s currency in the hands of the public was almost 100 percent paper pesos; in the thick of the crisis it was about 80 percent gold. Such a phenomenon of currency substitution is now very familiar

8. These words from the English financial correspondent W. R. Lawson in his article "Gaucho banking" in the *Banker's Magazine* of 1891 (p. 38), quoted in Ford (1962, p. 100).
9. The principal foreign creditor was Baring Brothers, a major London bank, hence the name.

to macroeconomists working in Latin America, given the frequent postwar dollarization of the regions' economies during hyperinflation crises. The 1890 experience of Argentina stands out in history as one of the earliest and most dramatic of such episodes, one that was echoed again in Argentina's 1989–90 hyperinflationary crisis almost exactly a century later. As the flight to hard currency took place the banking sector was devastated by widespread failures, and inflation surged. The currency devalued rapidly and economic activity contracted sharply.

In both decades of the nineties, Argentina was emerging from long periods of macroeconomic instability. Monetary and fiscal policies had been brought into disrepute by years of inconsistency. The domestic currency had been devalued more times than anyone could remember. A rapidly globalizing world stood by, ready to offer the benefits of open goods and capital markets, but unsure of the trustworthiness of the local economic policy regime. Then and now, new order was imposed on the country by a radical restructuring of the money and banking system, and a preference for fiscal rectitude. The problem of inflationary monetary policy was solved by a rigid convertibility commitment, specifically via a currency board arrangement.

An Institution as an Anchor: The Currency Board

We have seen that the twentieth-century Argentine inflation record looks like a throwback to the worst moments of the nineteenth century—only much worse, with some severe spikes as in the hyperinflations of the 1980s and early 1990s that boost the averages. The eventual cure also came as a blast from the past: facing similar monetary problems, Cavallo's plan was explicitly modeled on the rigid and credible monetary institution that had been the foundation for the only episode of monetary stability in the history of Argentina: a currency board, or as it was called then, the *Caja de Conversión*, or Conversion Office, that operated from 1890 until 1935. The Conversion Office had a simple and easily monitored task: to exchange gold in its reserves for paper currency, and vice versa, at a fixed exchange rate, and to otherwise exercise no independent or autonomous monetary policy functions. Currency boards, particularly as the ratio of gold reserves to paper issues approaches 100 percent, become fail-safe methods to guarantee the convertibility of the paper currency in circulation (also known as the monetary base, high-powered money, or outside money).

It is this institution, the world's first full-fledged currency board in an independent country, that forms the centerpiece of our book.[10] Argentina stands

10. In the nineteenth century, currency boards were otherwise employed only in a few small and isolated island economies, all of them within the British Empire, namely Mauritius in 1849, Ceylon in 1884, the Straits Settlements in 1889, and the Falkland Islands *(Islas Malvinas)* in 1899. For a look at the fascinating early history of currency boards see Schwartz (1993).

as the leading historical exemplar of this particular form of monetary experiment, both in the past and in the present. In both eras, the new regime helped to solve reputational problems, both at home and abroad, to the extent that it "tied the hands" of the government. Given the current success of the Argentine economic plan since 1990, the country stands as a prototype for other would-be reformers around the world, especially those enamored of rules over discretion in monetary policy, for whom the currency board, or even complete dollarization, looks like an attractive regime choice.

The difficulty here is that the present Argentine currency board tells only one story, and an unfinished one at that. Questions are left unanswered: Will this institution endure? Can it fulfill all its promises? Have we seen it at its best or at its worst so far? Under what circumstances might it face difficulties or even collapse? These are vital questions, and, short of peering into a crystal ball, they can only be answered by peering into the murkier depths of the past to get a glimpse of how similar institutions have succeeded and failed. In the historical laboratory we can ask questions that inform our present situation: Was Argentina's search for macroeconomic stability successful in the late nineteenth and early twentieth century? How did changing domestic and international conditions affect the outcome? What political economy obstacles stood in the way and how were they surmounted, if at all? How do these events speak to the current challenges facing developing countries in a similar environment today? In this context, our book is not just about Argentina, not just about the period 1880 to 1935. It is concerned with one of the essential problems of economic development, and asks what history can teach us about how to solve that problem through particular economic policy choices.

The Major Themes: An Overview of the Book

The approach we adopt is that of a case study, blending empirical, historical, and theoretical styles in the tradition of quantitative economic and institutional history, to explore the macroeconomic history of Argentina from 1880 to 1935. These years marked the rise and fall of the country's first great convertibility experiment.[11] The outline that follows considers several factors that influenced this trajectory and introduces the major themes of the book.

11. The systematic study of Argentine monetary and financial history is a phenomenon of recent and growing interest. Among the most prominent new historical works are those by Fishlow (1985); Amaral (1988); Cortés Conde (1989); Regalsky (1994); della Paolera and Ortiz (1995); Bordo and Végh (1998); Irigoin (1999, 2000a, 2000b); and Nakamura and Zarazaga (1999). We might also add our own articles on which parts of the present book are based (della Paolera 1988, 1994; della Paolera and Taylor 1999a, 1999b, 1999c). These studies, in their more formal examination of the behavior of monetary and financial institutions in an open peripheral economy, build on the earlier classic works by Williams (1920), Prebisch (1922), and Ford (1962).

Political Economy Dynamics

An overarching aim of our study is to understand the key economic and political actors, their objectives and constraints. We will focus on several types of agent in the economy and their interaction: the government authorities, both fiscal and monetary, and the potential conflicts between the two; the banks, both public and private; the general public; and the external sector, the rest of the world, especially the international capital market. What conditioned the behavior of these various parties? Here we have a second aim, to map the contours of the institutional landscape. But this landscape, as we shall see, was constantly changing.

The government, in some sense, was the first to move by setting the "rules of the game"—that is, the monetary regime and its objective, banking regulations, and the more general institutional framework in the economy. However, the government also faced constraints on these choices, notably the intertemporal, or long-run, government budget constraint. Fiscal strength or weakness can interact with the monetary regime via the need for seigniorage, that is, the inflation tax. This was an important feature of postindependence Argentina and derived from poor tax capabilities and the inability to issue debt domestically to the public, or globally to the world capital market. The choice of monetary regime determined the path of exchange rates and prices via the constraints (or lack thereof) on monetary policy. This in turn shaped banking behavior, and, along with bank regulations (or lack thereof) determined when credit would be easy or tight, how boom and bust cycles would evolve.

Given the actions of the state, how did other agents react? The public plays a key role through their willingness to hold money, both currency ("outside money") and bank deposits ("inside money"). Too much bad credit from banks would lead the public to substitute cash for banking deposits and, in an extreme case, set off a run on banks. Too much inflation would encourage currency substitution—the public would substitute gold or other "hard" assets for paper money and, in an extreme case, set off a run on the currency. There was clearly feedback on the fiscal position here: a run from paper money dented seigniorage revenue, and bank weaknesses would impinge on fiscal expenditure if Lender-of-Last-Resort responsibilities were, implicitly or explicitly, a part of the "rules of the game."

Finally, while all of these forces could operate within a closed economy, an external sector provided additional sources of feedback. Banks (when extending credit) and the government (when bridging a fiscal gap) might also have access to foreign capital—but equally might not if a general economic and financial crisis were perceived, setting the stage for a typical emerging market type of crisis. Foreign lenders, sensing a default risk, or country risk, both in the banks and government balance sheets, could refuse to roll over credit, leaving both

institutions scrambling for funds. Besides adding directly to fiscal problems, this would further raise the probability of bank runs and failures and thus indirectly worsen the fiscal tension. The positive feedback allows expectations of such crises to be self-fulfilling. Seen as a structural feature of the monetary regime, the possibility of such events could be built into world capital markets' expectations ex ante, limiting the country's access to credit. In addition to this feedback from endogenous variables, the external sector frequently imposed very severe shocks on this small open economy of an entirely exogenous character, shocks that were to be especially large and adverse after 1914, adding another layer to the story.

This is not quite the whole picture. Given the above reactions by agents within and beyond the domestic economy, one can then explore how the state, in turn, reacts and searches for improvements to the institutional structure. How do state objectives change and what are the political economy forces at work? Is inertia such as to allow a functional but inefficient institutional structure to persist? When an institutional structure fails, when a regime crumbles or is severely tested by a crisis, what gives? This sets up a kind of "institutional search" process that can roam far and wide, and our book is about exactly this kind of search in Argentina from the 1880s to the 1930s. We will see how episodes of bold experiment with new institutions can transform the landscape for better or worse; how conservative adherence to old structures can assure stability or pose problems as economic conditions change. Sticking to the right path is an enduring challenge, as we know from the similar and recurrent problems faced by so many developing countries today.

The Budget Constraint and the Trilemma

Our discussion of the Baring Crisis sets the scene for our study by putting the spotlight on one of the major historical events of the period and drawing attention to the significance of macroeconomic policy and outcomes. How will we approach the task of fitting this and other events into an analytical framework? Our methodological approach builds on several major strands of open-economy macroeconomic theory that deal with intertemporal policy choices, budget constraints, and consistency.

One major element in our study is public debt theory.[12] The theory shows that if a government wants a good reputation in its two major liabilities, money and bonds, then the solvency of the government should never be in doubt. In detail, the monetary and fiscal authorities have an intertemporal budget constraint that needs to be respected. Attempts to violate this constraint, even in the short run, imply an inconsistency between monetary and fiscal policies and, hence, that

12. Sargent (1986); Calvo (1988).

at some point the government will have to default—either to money holders (by printing more money), or to bond holders (by reneging on debts), or both. This offers an easy route to bad macroeconomic outcomes, such as inflation, exchange-rate crises, default on public debts, loss of credit-worthiness, and even financial crashes. Since these symptoms are so widely seen in the annals of Argentine history, this theory is highly relevant.

Another major element in our book is the choice of a monetary regime as a nominal anchor. Since money is a government liability and a source of revenues, the public debt problem is obviously closely related to price and exchange-rate stability. But the precise form of anchoring matters a great deal for what policymakers can and cannot do: the policy may target a price or an exchange rate and the commitment might be via a rigid rule or may allow considerable discretion. The exact form of the policy will determine whether there is any exchange-rate flexibility and whether the country has any independent monetary policy at all. The macroeconomic policy trilemma summarizes the main tradeoffs in this sphere. Policymakers can only choose two out of three objectives from the list of fixed exchange rates, capital mobility, and activist monetary policy.[13] Clearly, as Argentina struggled with its nominal anchor choice and its commitment to the gold standard during our period of study, these tradeoffs were of central concern.

Still, history shows that, despite all of the external volatility of the period, by and large Argentina remained committed to open markets before the 1930s. If openness is assumed, the trilemma reduces to a dilemma: a choice between fixed exchange rates and activist monetary policy. Both were tried at various times, despite the existence of the Conversion Office, a currency board with a seemingly very hard rule. The tensions were at their highest during times of financial stress for the simple reason that the dilemma then took on a particularly threatening form. Argentina had a fractional-reserve banking system, but, given the currency board rules, no Lender of Last Resort. The monetary (and fiscal) flexibility required to provide liquidity to banks in distress simply did not exist as a result of this institutional design.

The dilemma was thus all about the conflict between goals of "internal convertibility" (of bank deposits into currency) and "external convertibility" (of currency into gold at a fixed par). In a floating rate system, the tension can be solved since the monetary authority can use discretion to inject money as a way to stave off an incipient banking crisis. Adjustment comes via the price of outside money, via the external value of the currency, or the exchange rate; note that—as is usually, but not necessarily, the case—there was no scope for pricing inside money, the bank deposits. But in a fixed rate system, there is no easy way out since there is no such discretion available.

13. On the trilemma, and its historical manifestations, see Obstfeld and Taylor (1998).

This set of contradictions, we argue, eventually compromised the whole system. But, as we will discuss in our concluding chapter, the experience is more than just a historical curiosity. The challenges faced by Argentina raise questions about the choice of monetary standards and the institutional design of traditional banking systems. They throw light on contemporary debates such as the benefits of currency boards and dollarization, and may prompt careful consideration of neglected alternatives such as the narrow banking model. All of the same technical problems challenge monetary and financial stability around the global economy today.

The Search for a Monetary Authority and the Global Context

A monetary standard can be defined as a set of transparent monetary rules designed to govern the evolution of key nominal variables such as price levels, nominal exchange rates, and nominal interest rates. Rules can then be chosen to govern monetary expansions and provide a credible framework which guarantees a minimum of inflation. Early Argentine monetary history reveals considerable instability in the type of monetary regime adopted. A search was under way for a credible monetary regime, with several attempts to adopt the gold standard, as we saw in Table 1.1. Here, Table 1.2 sets out in more detail the major institutional developments during our period of study.

It is important to see the Argentine record in comparative perspective. Prior to the First World War, most core countries, and an increasing number of countries at the periphery, adopted the gold standard—a monetary rule that, if credible, offered some promise of committing monetary authorities to a price-stability objective.[14] The gold standard required three basic policies to function adequately: a fixed value for the domestic currency in terms of gold set by the monetary authority; the free mobility of convertible foreign exchange or specie; and the establishment of rules relating the quantity of money in circulation with the stock of specie.

The ramifications of nominal exchange-rate stability for domestic price stability depended on the operation of the forces of purchasing power parity and price stability in the rest of the world, and on the real and monetary adjustment mechanisms that mediated these forces at home. For a small country, open to the movement of goods and capital as Argentina was at the time, a fixed exchange rate anchored the domestic price level of internationally tradable goods to world levels.[15]

The alternative to such a convertible regime is an inconvertible regime. Under an inconvertible monetary standard, the bills and coins issued by the monetary

14. On the adoption of the gold standard in this period see Eichengreen (1996, ch. 1).
15. On the workings of purchasing power parity (PPP) in the gold standard era see McCloskey and Zecher (1976). On PPP in a longer run context see Taylor (2001).

Table 1.2. *Monetary Policy Chronology*

Period Before Our Study	
1810–67	Floating exchange rate. Period of "monetary anarchy" after independence. Rival provinces fail to unify; a single federal structure is postponed. Each province issues its own money through state banks, no central authority. Frequent foreign and civil wars lead to seigniorage abuse, chronic inflation.
1862-67	First national administration of Bartolomé Mitre. Stable monetary policy causes deflation, with aim of gold convertibility.
1867–75	Fixed exchange rate. Convertibility under the auspices of an Exchange Office within the Banco de la Provinicia de Buenos Aires, but other banks maintain independence. System fails after adverse external shock in 1873 leads to gold drain and exposes contradictions in the system.
1875–83	Floating exchange rate.
Period Covered in Our Study	
ca. 1880	Government begins discussion of monetary reform.
1881	Law 1130 proposes a metallic regime to end the "monetary anarchy" that had occurred under the auspices of multiple banks issuing paper money.
1883	Law 1130 implemented, gold standard established.
1883–85	Gold standard; par is 1 gold peso = 1 paper peso.
1886–91	Baring Crisis; fiscal use of money; inflation; collapse of convertibility; exchange rate begins to float and depreciates markedly.
1890	Law 2741 creates Conversion Office (Caja de Conversión), with a monopoly over the emission of a new currency.
1891–99	Inconvertible paper currency. Floating exchange rate of paper to gold pesos. Macroeconomic reforms bring about stability and currency appreciation.
1899	Law 3871 (Convertibility Law) orders the Conversion Office to act as a currency board, and exchange gold pesos for paper pesos at a new par (2.27) for all transactions. Though initially having zero gold backing for the currency in its vaults, Conversion Office accumulates gold rapidly after 1902.
1899–1914	Gold standard; 1 gold peso = 2.27 paper pesos.
1914–27	Inconvertible paper currency. Floating exchange rate of paper to gold pesos. Gold flows at the Conversion Office limited to occasional government uses. Conversion Office continues to exchange gold pesos for paper pesos at new par (2.27) for these transactions. Laws 9479 and 9577 are passed in 1914, granting the Conversion Office and the Banco de la Nación permission to employ rediscounts for reasons of wartime emergency. Suspension occurs. Briefly, in 1925, the rediscounting facility is employed by the Conversion Office. The Banco de la Nación makes extensive use of this facility.
1927–29	Gold standard resumes; 1 gold peso = 2.27 paper pesos.
1929–31	Inconvertible paper currency. Floating exchange rate of paper to gold pesos. Gold flows at the Conversion Office limited to fiscal uses (payment of government foreign debt). Conversion Office continues to exchange gold pesos for paper pesos at new par (2.27) for these transactions.
1931	Conversion Office deviates from its previous mechanical money creation rule and starts to rediscount commercial paper. An independent Argentine monetary policy resumes.
1935	Creation of the Central Bank (Banco Central). Takes over all assets and liabilities of the Conversion Office. Revalues gold stock according to prevailing market rate of exchange (new par is 4.96 versus 2.27). Uses proceeds to increase backing of money base, and to bail out financial system.
Period After Our Study	
1935–90	Discretionary monetary policy managed by Central Bank. Return of chronic inflation, with hyperinflations in 1980s.
1991–2000	Return of currency board system: Cavallo's convertibility plan. Price and exchange rate stability achieved.

authority have no intrinsic value, nor are they backed or guaranteed by any external real object. They are, however, legal tender and must be accepted by the public in economic transactions.[16] Under inconvertibility, the monetary authority has total discretionary powers over the nominal amount of money, and thus, in principle, over the price or exchange rate at which this money would be exchanged for gold, for foreign currencies, and for domestic goods.

Inconvertible regimes (that is, noncommodity monies) are now the norm. Almost all countries issue fiduciary money, with the world divided into countries that have a fixed exchange rate relative to some base currency and countries that have a flexible or floating rate of exchange. In contrast, from around 1880 until the Second World War, the use of an inconvertible regime was a matter of some disrepute. Though floating was often useful as an emergency measure, convertibility was prized as a policymaking goal and the gold standard was its accepted and preferred form. In just a moment, when we examine the reputational benefits of a credible convertible regime, we will see why.

First, we pause to note how even supposedly unrestrained discretionary monetary policy can limit its own effectiveness in times of abuse, providing another motive for the embrace of a rule-based policy. Though couched in terms of a specific historical choice for Argentina, the same decision faces many developing countries today as they weigh up the pros and cons of fixing their exchange rates or, going further, adopting a currency board or joining a currency union.

Currency Substitution as a Policy Restraint

Without a rule-based monetary regime there are, nonetheless, some market-based limits to the discretion of policymakers and the extent to which they can abuse fiscal and monetary policy. Still, these limits appear only when the economy labors under very stressful conditions, and when the reaction of the public is such as to preclude further abuse. The Argentine government was to discover these limits in the crisis of 1890, a time when policy inconsistencies brought the use of paper money almost to a standstill and one of the world's earliest episodes of capital flight taught an important lesson.

The crisis had its origin in an ill-conceived domestic monetary and fiscal experiment: the Law of National Guaranteed Banks. In 1887, the federal government launched a new banking law in which any banking organization with a minimum required capital could issue paper notes backed by government gold bonds. The majority of these banks were national and mixed provincial-private banks, and to take part in the plan they floated foreign loans in Europe to purchase the national bonds with gold. The scheme was thus a leveraged

16. These standards were named by the Latin word *fiat*, which means "let it be done"—referring to the fact that such inconvertible monies are created by government command or decree.

arbitrage operation by which foreign investors were implicitly partners in the business of issuing government guaranteed paper-money.

Like so many schemes of that ilk, it appeared workable so long as foreign creditors were happy to go along—and, critically, so long as all the supplementary note issues were backed with 100 percent marginal bullion reserves. But in the late 1880s capital inflows began to reverse and, as conditions tightened in early 1889, the government broke the rules of the game and decided to pay off in paper money part of the internal debt denominated in gold. The decision was tantamount to a partial default, and both foreign and domestic investors became reluctant to absorb more Argentine government debt.

In Buenos Aires the public started to attack the paper peso. The government decided to intervene with gold to support the paper peso so as to calm the expectations of devaluation, but it soon proved to be a futile defense and by 1889 the government had lost almost 90 percent of its specie stock. The lack of coordination in monetary and fiscal policies resulted in an almost complete reallocation of specie from the banking system to the public and ultimately provoked the Baring Crisis. In this historical instance, the currency substitution phenomenon could be defined, in modern terminology, as capital flight—not in the sense that specie fled the country, but in the sense that the specie pocketed by the public was financed with government external debt.

Having tested the limits of seigniorage and discretionary monetary policy and found them wanting, the government absorbed an important lesson. Ironically, once all the gold reserves had been spent, the currency question was definitively settled with the creation in 1890 of the Conversion Office, a currency board, as the sole monetary authority of Argentina, and the search for a centralized monetary authority ended, one might say, by default.[17]

Monetary Credibility and the Capital Market

We have seen that periods of convertibility were successful in bringing down inflation (Table 1.1). Later on, we will present typical tests of purchasing power parity and confirm that during periods of convertibility Argentina was firmly anchored to the world price level. But the adherence of Argentina to an internationally approved monetary regime like the Gold Standard was also

17. The Conversion Office was created by Law 2741 of October 7, 1890, which took the note issue privileges away from the banks and effected the gradual conversion and amortization of the legal tender currency. This law was promulgated by the Executive and later approved by Congress (in November 1891). However, there was no convertibility of notes into gold in 1890, that is, external convertibility; though this was announced as the ultimate goal, it was not formally established until the Law of Convertibility, Law 3871 of October 31, 1899. The differences between the two laws should be kept in mind: the first law established the Conversion Office with its note issue prerogatives; the second was a law about how to conduct monetary and exchange policy within the already existing Conversion Office. See Table 1.2.

a more subtle political-economy decision that had implications beyond just tethering domestic prices.[18]

For a borrower country such as Argentina, a very important aspect of an efficient monetary standard is its ability to facilitate the integration of the local economy into world capital markets. In this way a capital-scarce domestic economy can take advantage of capital inflows, and foreign savings can contribute to long-run accumulation and economic growth. A transparent set of monetary rules designed to insure macroeconomic stability can limit the future discretion of the authorities to deviate from their precommitted policy.

The credibility so generated should be reflected in the reduction of so-called country risk. This is the interest-rate premium charged by foreign borrowers, expanding the choice set of the domestic economy through lower costs of finance and, via a reduction of credit rationing, through higher debt ceilings. In that sense too, the adoption of a metallic regime can be a welfare-improving strategy. One might ask if such welfare gains were realized.

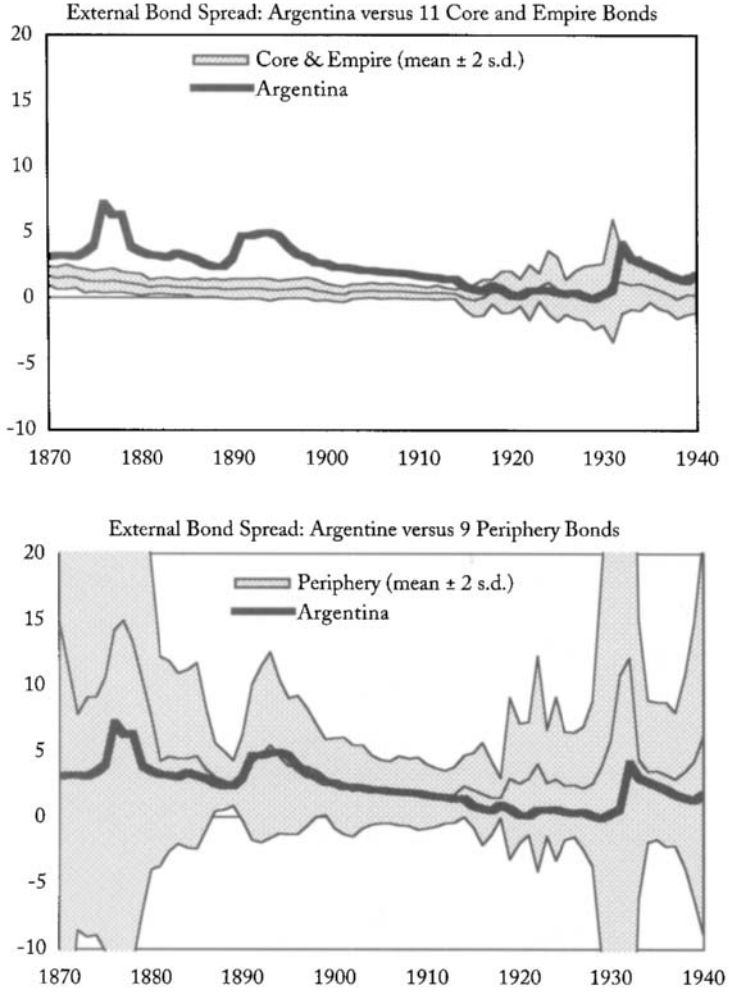
Contemporary emerging market analysts use bond spreads as a critical measure of country risk, and we apply the same yardstick. We would like to know where Argentina's spread stood in relation to the range seen in other markets, so we use the standard statistical method of the confidence interval, the mean plus or minus 2 standard deviations. Figure 1.4 suggests that a sound reputation did pay off in terms of reduced country risk in global capital markets.

The figure is based on the spread between a long-term external government bond yield and the yield on the international benchmark bond of that era, the British consol, using data for those countries that had continuous quotations in London noted in *The Economist* newspaper. The "core and empire" group consists of putatively safe bonds from eleven countries: Australia, Canada, France, Germany, India, Netherlands, New Zealand, Norway, South Africa, Sweden, and the United States. The "periphery" group (on the same scale) consists of bonds issued by potentially more risky borrowers: Chile, Greece, Hungary, Italy, Japan, Mexico, Portugal, Spain, and Uruguay. In the 1860s and 1870s, the modernizing Argentina aspired to be treated like the borrowers in the first group, not like the emerging markets in the second group, and sought to reform policies to that end. Did this plan succeed?[19]

The two figures show that Argentina was treated like a member of the core during periods of convertibility, or around such periods when the exchange rate

18. This section on reputational effects, and the gold standard as a commitment device, draws on della Paolera (1994), Bordo and Kydland (1995), and Bordo and Rockoff (1996).
19. Note that core and periphery status was not necessarily clear cut, and there were shifting boundaries between these two groups. We chose a fixed set of countries, for simplicity, but even these groups present a moving target. The core saw its spreads narrow as the gold standard coalesced after 1880 and ushered in the globalization of the capital market centered on London. The periphery saw convergence, but volatility too. Its bond spreads waxed and waned, growing large during global downturns, notably in the market tightenings of 1873 and 1890.

Figure 1.4. Country Risk in Argentina, Core, and Periphery, 1870–1940



Units: percentage point spread over U.K. consol yield.
Notation: Heavy line = Argentina; Solid line with shaded area = mean plus or minus two standard deviations for comparison group of bonds; Core and Empire = Australia, Canada, France, Germany, India, Netherlands, New Zealand, Norway, South Africa, Sweden, and the United States. Periphery = Chile , Greece, Hungary, Italy, Japan, Mexico, Portugal, Spain, and Uruguay.
Notes and sources: Country risk is spread between a government external long bond yield and yield on British consols. Yields are based on the sterling coupon to price ratio in London. From Global Financial Data <http://www.globalfindata.com>, except Argentina 1884–1913 from Appendix 1 (unlike the Global Financial Data we include here only federal bonds not in default). Primary data from *The Economist*. It is to be understood that bonds exhibiting a discount of 50 percent or more, roughly corresponding to yield spreads in excess of 10 percentage points, were almost always in default.

was close enough to parity to indicate credibility (1868–75, 1880–89, 1900–1931); but when its commitments were in doubt it faced much higher bond spreads, like many other members of the periphery (1876–79, 1890–99, post-1932). When the convertibility experiment collapsed in 1875 Argentina's bond spread roughly doubled, from about 4 percent to 8 percent. The spread narrowed again in the 1880s when a new convertibility plan was announced, but when the spectacular Baring Crisis erupted all those efforts went up in smoke as the bond spread doubled again. Moreover, this is not to say that foreign loans were available at that rate after 1890—there were no new loans for many years–but it reveals the secondary market's perception of the country's solvency problems.

It can be seen in the lower figure that in 1890 Argentina was starting to look like an extreme point even by the standards of the periphery, rising more than 2 standard deviations above the mean bond spread in this reference group. This was just the kind of shameful position that the modernizers explicitly wanted to avoid. Those left to clean up the mess after the Baring Crisis, particularly the interim President Carlos Pellegrini (1890–92), had the repair of this sullied reputation at the top of their list of priorities. They had a long and arduous task ahead of them. Even by 1899, with the economy stable and the resumption of convertibility at hand, foreign observers remained skeptical that just by dint of some new monetary regime Argentina could rise above the bad habits of nineteenth-century Latin America, a world where political and economic instability seemed to go hand in hand:

> [South Americans] are always in trouble about their currency. Either it is too good for home use, or, as frequently happens, it is too bad for foreign exchange. Generally they have too much of it, but their own idea is that they never have enough...the Argentines alter their currency almost as frequently as they change their presidents.... No people in the world take a keener interest in currency experiments than the Argentines.[20]

As the upper part of Figure 1.4 shows, regaining the trust of world capital markets was a slow business of rebuilding confidence. After 1890 the bond spread slowly converged down and into the 90 percent confidence interval (the mean plus 2 standard deviations) for the core and empire group. Finally, in 1913, a date that here takes on yet more historical significance, Argentina was a member of the club, a core economy, as measured on the risk dimension.

The interwar period also offers an interesting picture, since here the core itself started to become a riskier place, as a result of war, uncertainty, and economic fluctuations before and especially during the Great Depression. By then Argentina was looking like a very good risk indeed—a somewhat Pyrrhic triumph, we would say, since global capital markets had imploded and credit rationing obstructed new bond issues in almost every year after 1913, except for a few

20. This quote comes from the English correspondent W. R. Lawson again, in the *Banker's Magazine* of 1899 (p. 691), quoted in Ford (1962, p. 90).

successful forays into the New York market in the late 1920s and late 1930s. It is also striking that all bond spreads widened as the Great Depression rolled in during the early 1930s. For Argentina the major shock was a big jump in the bond spread after 1931, a date to keep in mind since it was the occasion of another major change in macroeconomic policy, the effective demise of the currency board system, a pivotal event at the conclusion of our study.

Overall, it is fair to say that the adoption of a credible monetary regime represented a positive institutional innovation as measured by country risk, at least so long as global capital markets functioned smoothly. This was the case at least before 1913. At the cost of building up of a huge stock of international reserves to foster the credibility of the regime, Argentina obtained cheaper and better access to world capital markets, easing the constraints on investment and growth. But when capital markets seized up after 1913, this particular cost-benefit calculation changed markedly: a low bond spread was of little use if no new bonds could be issued.

Public Debt Credibility and the Capital Market

Of course, monetary regime credibility could only obtain if the underlying fiscal position was also credible. In order to maintain fiscal credibility, the government had to back all of its liabilities *and not just the country's money* with a combination of specie *and a solvent fiscal position.* Thus, for present-day market watchers monitoring a fixed exchange-rate regime, some of the key indicators to be watched are the evolution of the exchange rate, the backing in specie (or international reserves) of the monetary base, and measures of fiscal performance, ideally the evolution of deficits and the stock of public debt. Similarly, our understanding of the tensions of the Argentine fiscal-monetary nexus is not complete without some discussion of the overall policies relating to public debt management.

In the 1880s boom the term "debt management" would be, perhaps, too kind, given the way fiscal gaps caused public sector borrowing to spiral quickly out of control. From 1881 to 1889 the funded public debt of the provinces, mainly held by foreign investors, grew 746 percent in real terms.[21] Over the same period the federal funded public debt grew 95 percent, an indication in and of itself of the extremely expansionary fiscal policy adopted by the administration of President Miguel Juárez Celman (1886–90). It is hard to overemphasize the extent to which foreign investors began lending to all manner of new borrowers within this emerging market in a short space of time. The Province of Buenos Aires was the only province that, before the euphoria of the eighties, had had genuine access to international capital markets. It was in 1883 that the bandwagon

21. *Memorias de Hacienda* (Treasury Reports; 1892, 1893).

started to roll: ten other provinces and ten municipalities floated their first long-term bonds in the London market. By year's end, the consolidated provincial external amounted to 35 percent of consolidated federal debt. On the eve of the Baring Crisis in 1891, this proportion had climbed to 114 percent.

By 1891 almost all municipal and provincial foreign debts were technically in default. Only through the extraordinary leadership of Pellegrini did the national government avoid an across-the-board default on its foreign debt. To be fair, he was given some help in the form of a "bailout." In January 1891 the Bank of England acted in ways akin to the IMF's interventions in recent crises, advancing to the federal government a three-year bridge loan of £15 million to cover the service and amortization of external debt. This did give Argentina a breathing space in which to work out an orderly set of rescheduling arrangements with its creditors, a diverse array of banks and other private bondholders; but it did not help that much and no new external credit was available for years in the private or public sectors.

The costs were serious and illustrate the importance of public debt credibility. From 1891 to 1902 Argentina suffered stringent credit rationing and financial isolation. The sudden collapse of foreign capital flows required drastic adjustments in the structure of the domestic economy, as was well understood at the time.[22] Argentina had to endure austerity conditions so as to generate sizeable trade surpluses. But the impact went far beyond mere consumption effects: a decade of economic growth was effectively lost due to the sharp contraction of investment, a direct consequence of the withdrawal of foreign investment. The parallels with contemporary emerging market crises are striking: we are reminded that all aspects of domestic economic activity are compromised by such shocks. The standard of living may need to fall, and investment for the future may need to be halted too, all in order to solve this particular kind of "transfer problem."

Deflation, Expectations, and Investment

The trauma of the Baring Crisis was to leave its mark on the design of new macroeconomic policies in the remainder of the decade. The political-economy constraints of the moment produced an original, effective, but very costly economic phenomenon: deflation under a pure paper standard with a fixed money base.

22. José Terry, one of the government's leading financial experts, wrote shortly after the Baring Crisis that: "It is true that, after all, products must be settled with products; but it is also the case that a country can have a number of years in which it settles products with credit; the credit in that case represents the product to be exported in the future...here we can observe that, after any crisis in which the country loses external credit and capital, imports diminish considerably—because Say's law must then apply exactly, for in those moments there is neither money nor credit that could replace it." (Terry 1893, pp. 64–68, our translation).

In the Baring Crisis, the paper peso *(peso moneda nacional),* nominally equivalent to one gold dollar by virtue of the 1881 convertibility law, suffered a depreciation of 274 percent. Despite this very severe misalignment, in 1893—and in the middle of delicate negotiations with international creditors to resolve the default—Argentine monetary authorities assured investors that convertibility would be resumed at par. The Conversion Office had no backing to issue new money, so the stock of high-powered money was held fixed at its pre-crisis level for a decade. Once the inflation inertia of the crisis subsided a rapid deflation and appreciation ensued as money demand recovered.

The deleterious effects of the deflation were soon felt, a direct result of this extraordinarily restrictive monetary policy. In 1897 a political-economy debate began as to whether a return to a convertible monetary regime would be advisable or not. The debate centered on whether the paper peso should be restored to convertibility at the original par or else at the then-prevailing market exchange rate, thus accommodating the devaluation. Predictable divisions arose. Urban sectors and commercial interests favored a convertibility plan fixed at par while politically powerful rural interests were keen to see an end to the deflation and appreciation that squeezed their profits on exported agricultural and pastoral goods.[23]

Yet, if we can put distributional conflict aside, the most important arguments for devaluation centered on the damaging *economy-wide* effects of deflation for investment and economic growth. These concerns originated from the now-obscure Argentine political economist Silvio Gesell (1862–1930), whose works anticipated Fisher's ideas on tight money, interest rates, and the problem of the debt-deflation trap, and even the ideas of later scholars such as Mundell and Sargent on the importance of regime changes, expectations, and the impact of monetary policy via the real interest rate. Real interest rates were quite high in Argentina, averaging 10.4 percent in the 1892–99 period. In this sense, a looser monetary policy that accommodated the devaluation seemed, in principle, the appropriate course of action. At the resumption in 1899, this was in fact the final outcome.

Given the rigid monetary policy implemented in the early 1890s, we might ask what the tradeoffs were for policymakers. Here a comparative perspective can be informative, and in one thread running through the book we are careful to examine choices and outcomes in the 1890s crisis relative to later slumps in 1913–19 and 1929–33. For example, when we analyze how Argentina overcame the Great Depression, we emphasize a change in macroeconomic regime in 1931 that destroyed prevailing deflationary expectations—but also destroyed the nominal anchor and the years of investment in monetary regime credibility.

23. Ford (1962). Such intersectoral conflicts were common in all countries already on, or attempting to join, the gold standard. The political divisions in the 1890s United States offer a well-known, but not the only, example. See Eichengreen (1992a; 1992b) and Frieden (1988; 1997).

Convertibility and the Financial System: Walking a Tightrope?

The loss of financial intermediation in the 1890s imposed serious real costs on the Argentine economy in the short run. The poorly designed banking system was left in tatters following the abortive boom and bust of the 1880s. In the longer run, however, we need to know what institutional and economic impediments hindered the growth of a resilient financial system that could rekindle and sustain the process of domestically financed capital formation.

The postcrisis reconstruction was not smooth. In spite of a diversified branch-banking system, and even when macroeconomic policy seemed under control, financial crises were still recurrent in Argentina. To explore this problem, we invoke the idea of the intertwined monetary and financial macroeconomic "twin risk" that confronts a small open economy under a fixed exchange-rate standard.

Until 1935 the Argentine monetary and financial regime operated without a central bank. The modern conception of a central bank envisages an official bank with the monopoly right to issue money and the capacity to rediscount the financial system's portfolio of commercial obligations in order to act as the system's Lender of Last Resort. Thus, a possible cause of a suboptimal financial structure was the existence of a less powerful (that is, less discretionary) monetary authority. The Conversion Office, as a currency board, had a single, exclusive macroeconomic responsibility of guaranteeing the external value of the domestic currency. Certainly, it had no mandate to guarantee the internal convertibility of banking deposits into cash in the event of general bank runs. Simply put, the Conversion Office could not act as a Lender of Last Resort by providing unbacked currency to the financial system—at least, not without breaking its own rules.

A common characteristic of real financial crises is that a fall in bank money (or in the ratio of inside to outside money, due to a persistent run on bank deposits) coincides with a severe loss of output. The story for 1913–14 is compelling and exposes the weakness of the "one size fits all" monetary policy that the currency board had introduced. Unlike the 1890–91 crisis, on this occasion Argentina did not need protection from its own economic policy mistakes; instead it was volatility in external markets that disrupted local conditions, as war and uncertainty gripped the core. But the nature of the adverse shock, the reason for a reversal of capital flows, was not a contingency that the monetary rule took into consideration. The authorities had tied their hands, and watched from the sidelines as a massive gold drain imposed a large monetary contraction on the economy. True, a major devaluation of the currency was avoided, as had happened during the Baring Crisis, but the price was very high. The banking industry, which had by now got back on its feet, was again devastated. Bank stock prices fell by 38 percent in one year, and there was a severe capital crunch felt by all banks.

The dilemma is clear. If such an external shock were to hit the economy, a financial crisis could start if economic agents began to panic and, doubting internal convertibility, tried to convert all their deposits into currency. If the Conversion Office were to act as a Lender of Last Resort to stave off the liquidity problem, this could feed a new run on bank deposits, but this time under doubts about external convertibility, with the public now rushing to convert peso deposits into specie. Thus, under this kind of "twin risk" scenario, the institutional design was quite unforgiving and (deliberately) inflexible.[24] Without a safety net, the Argentine monetary authorities were walking a most dangerous tightrope given the prevailing monetary and financial architecture. Would the currency board stand on the sidelines in any banking collapse of any magnitude? The 1913–14 crisis seemed to indicate they had the will to do exactly that. History soon presented a tougher test of their nerve when the world economy offered up its biggest external shock to date in the crisis of the 1930s.

Toward Central Banking: Evolutionary Enhancements or Malign Mutations?

Historically, many central banks around the world have emerged organically from large banks—bankers' banks—or from specially privileged banks established by states as their fiscal agents with some monopoly rights in their charter.[25] Certainly, the Argentine landscape had some potential in this regard, given the early establishment of state banks in the nineteenth century. But these banks were provincial, not national, in their scope, and their capability to operate as prudent financial institutions was repeatedly compromised by the provinces' desire to use them as agents for levying seigniorage. No truly national bank was chartered until after a federal system came into being.

In our period of study the only state bank of any consequence was the Banco de la Nación Argentina, which began life as the Banco Nacional in 1872. It was the major state bank and the fiscal agent of the federal government. After playing a key role in the abortive banking experiment of the late 1880s, it was liquidated during the Baring Crisis and refounded as the Banco de la Nación in 1891. It remained the government's principal fiscal agent and, having been cleaned up after the Baring Crisis, it emerged as Argentina's most important commercial bank in the 1890s, a time when the financial crash had put almost every other bank was in dire straits.

24. This is not to say that having a central bank can prevent all financial crises, as recent experience shows, and as the United States experience showed in the Great Depression. The central bank must have a clear mission to assist banks in distress and it must discharge its responsibilities in that area, conditions that the 1930s Federal Reserve failed to satisfy, plunging the U.S. banking system into collapse. A Central Bank is not a sufficient condition for the prevention of banking crises. But absent an alternative fiscal source of banking insurance resources or a reliable private-sector insurance system—both being elusive solutions in reality—it is certainly a necessary condition.

25. For more on the evolution of central banks, see Goodhart (1988).

After the crisis, the government took great care and instituted strict policies to restrain the Banco de la Nación by governing its level of reserves and limiting its rediscounting capacity with the government itself. Moreover, the Banco de la Nación and the Conversion Office were kept at arm's length in an attempt to isolate two important functions. The responsibilities for note issues and their eventual convertibility—that is, outside money and the problem of external convertibility—were assigned to the Conversion Office. The state and commercial banking activities—that is, inside money and the problem of internal convertibility—were to be the domain of the Banco de la Nación. It was hoped that this separation of powers would constitute a more robust regime by keeping banking activity out of the purview of the institution that was ultimately responsible for the currency, with the goal of creating sufficient credibility to rejoin the gold standard.

The clean separation was essentially maintained until the crisis of 1913–14 when an emergency rediscount law was enacted, admitting much more flexibility into the system. The Banco de la Nación was authorized to rediscount the commercial obligations of other private banks, which at the same time could be rediscounted at the Conversion Office for cash. In other words, the state bank now had the ability to act as Lender of Last Resort to the financial system, and the monetary authority had the power to finance such activity with money printing unbacked by gold. In practice, what happened? The Banco de la Nación immediately began putting its new powers to use and started to extend rediscounts to other banks. But the Conversion Office shunned its new prerogative and kept money and gold synchronized on the margin for a long time. In fact, as we shall see, the Conversion Office only put the rediscount provision into practice in the 1931 crisis to offset a severe gold drain.[26]

This institutional path could not be described as the coherent evolution of a money and banking system toward a mature design built around a central bank. In Argentina the idea of a central bank, and the concept of regulating and supervising the financial system, were foreign to the thinking of monetary authorities, as well as the banking community itself, at least until after the First World War.[27] Yet from these conditions a central bank did emerge. In April 1931 the critical mutation of the monetary system occurred. The provisional

26. At the provincial level, the Banco de la Provincia de Buenos Aires had had certain currency board features in earlier years, from 1867 to 1876, with the operation of its own internal Exchange Office (Oficina de Cambios). Note that this was a matter of provincial, not federal, money and banking policy at the time, and no national money then existed. See our discussion in the next chapter.

27. For example, until 1935 there was no official policy regarding the level of reserves—the relationship between cash and deposits—that should be maintained by the private banks in the financial system. No institution acted as a Comptroller of the Currency, as in the United States, to supervise banking institutions. Transparency and the dissemination of economic information were rare: before 1900, the *Memorias de Hacienda* did not systematically include any consolidated monetary and banking statistics showing the condition of the banking system.

government started to use the rediscount mechanism at the Conversion Office, allowing the currency board to finance the Banco de la Nación's Lender-of-Last-Resort activities by rediscounting commercial paper. The administration eventually convinced Congress to pass a law that gave the government the power to place state bonds—an issue called the "Patriotic Loan"—directly at the Conversion Office in exchange for cash.

Beyond the Belle Époque

While a tacit spirit of laissez faire had guided the financial system for many years, the rise of central banking elsewhere in the world only added fuel to animated debates that soon sprang up over the best monetary policy regime for the country. The Conversion Office did not survive the Great Depression: its functions were reorganized within a central bank proper in 1935 and along the way a massive bank bailout was engineered using the vast seigniorage receipts. The printing press, long quiescent, was humming again.

After the fateful event of April 1931, the genie was out of the bottle. With the ink barely dry on the freshly printed notes as they left the monetary authority on their way to the state bank, and later the finance ministry, discretion had decisively replaced rules in monetary policy. The pretense of maintaining a metallic regime was over, credibility was soon spent, and a fiduciary regime had crept back in place. While perhaps understandable at the time, this reaction to a crisis had disastrous ramifications for subsequent Argentine economic history.

What lessons does history have for us as we look back with the benefit of hindsight and what implications for present-day concerns? The importance of consistent macroeconomic policies cannot be overstated. Fundamental economic contradictions appeared in the Argentine system and were allowed to grow by a curious financial architecture which looked sound on the surface but was in poor shape at deeper levels. Here, the importance of institutional design is clear. Macroeconomic policy and bank behavior do not happen in a vacuum.

One institutional contrast stands out at the center of our study. The Conversion Office succeeded in its mission for a very long time, thanks to an elegant and robust design. The Banco de la Nación, on the other hand, was subject to weak oversight, and was repeatedly modifying its objectives and expanding its scope until it had bailed out almost the entire financial system and reduced its own balance sheet to a shambles. To save the bank, in the end, the convertibility plan had to be sacrificed. It was a case, we might say, of bad institutions driving out good. Or, as is often asserted but rarely demonstrated in practice, it really does matter how your complete financial architecture is designed, from top to bottom: getting one element right, like the currency board, is no guarantee that flaws elsewhere will not bring the whole structure down sooner or later. Given

the institutions it built, and their inability to withstand certain kinds of shocks, Argentina was eventually due for some kind of serious macroeconomic setback.

In this case it took a while, but slow declines sometimes offer more drama than instant collapses: a process of gradual decay is seen for a while, only to be punctuated by a loud crash when a massive piece of the edifice cracks and falls apart. Such a process invites the thicker descriptions and layers of analysis that the tools of modern economic history put at our disposal, and so our study employs formal econometrics and economic theory, exploits new quantitative data, evinces a sensitivity to institutional context, and explores a range of narrative sources.

It is only with attention to the relationship between institutional structure, policy choices, and economic conditions that we can begin to offer an explanation of Argentina's puzzling decline after the golden years at the turn of the twentieth century. It was then one of the richest countries in the world, but its potential went to waste in the long run as a growing incoherence in policies emerged. It is a sad but valuable story, a cautionary tale with much to say about today's challenges for economic reform in developing countries. Argentine economic history demonstrates that prosperity in incomes and prosperity in institutions are two very different things. A failure in the second can be the undoing of the first.