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**DOLLARIZATION AS AN EFFECTIVE COMMITMENT
DEVICE: THE CASE OF ARGENTINA**

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Dollarization as an Effective Commitment Device:

The Case of Argentina

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Abstract

One of the main reasons to dollarize an emerging market economy is to eliminate high, persistent, and volatile inflation. To be effective, dollarization must generate sufficient credibility, which in turn depends critically on whether its expected probability of reversal is low. Argentina once again faces high, persistent, and volatile inflation. With a looming presidential election several options, including dollarization, are being discussed to stabilize prices and put the economy on a path of sustained growth. However, because of acute institutional anomie, which makes non-contingent rules under domestic jurisdiction easily reversible, even the best-intentioned policymakers cannot generate sufficient credibility. The country remains trapped in stop-go cycle of reforms that accelerates its economic decline. The root of the problem can be traced back to populism, which heightened time-inconsistency and then destroyed the formal and informal mechanisms that could have helped moderate it. With acute institutional anomie, an effective commitment device requires surrendering discretion in monetary affairs to a foreign jurisdiction. The paper explores whether dollarization can fulfill such role given Argentina's history of reform reversal and current circumstances. The evidence suggests that, in the long-run, the strongest insurance against reversal is the support of the electorate, but in the short-run, institutional design plays a critical role.

Keywords: Foreign Exchange Rate Regimes, Dollarization, Monetary Policy, Time Inconsistency, Institutional Anomie, Argentina.

JEL Codes: B2, B17, B3, B22, B27, F31, F32, O24.

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Dollarization as an Effective Commitment Device:

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Once credibility has been lost, economists don't know much about how to restore it.

Finn E. Kydland (2004)

Far from running away from the cause of the trouble— the feeling his men had that by destroying the ships he had cut off their retreat and left them to conquer or die—he dwelt on it. He told them how they would now have to fight not only for God and King as ever, but for dear life as well.

Salvador de Madariaga, Hernán Cortés (1925)

1. Introduction

Fifty years ago, in testimony to U.S. Congress, Milton Friedman argued that “the whole reason why it is an advantage for a developing country to tie to a major country is that, historically speaking, the internal policies of developing countries have been very bad. U.S. policy has been bad, but their policies have been far worse. There are no gyrations in American monetary policy which can hold a candle to the gyrations which have occurred in Argentinian domestic monetary policy. So, the whole reason why tying to a major currency would be an advantage to Argentina is that precisely that it would prevent them from following bad domestic monetary policies. They would have less of an adjustment problem simply because our policy will prove to be more stable than theirs (1973, p.127).”

In this regard, not much has changed in Argentina since. As the inflation cycle that started in 2002 accelerates and a presidential election looms, economists and policymakers are exploring

a variety of options to achieve lasting price stability.² One of them, at least by one of the leading presidential candidates, is official dollarization. This has prompted a renewed debate among academics about its advantages and disadvantages (see Nicolini, 2021 and 2022; Ocampo and Cachanosky, 2022; Uribe, 2022a and 2022b; and Sturzenegger, 2023).

The idea of adopting the dollar as legal tender is not new. In the late 19th century, one of its most enthusiastic proponents was W.S. Jevons (1875). At the beginning of the 20th century several countries in Central America adopted the dollar as legal tender and kept it until World War II (Helleiner, 2003, 2005). In the early 1970s Friedman (1972) recommended dollarization as the best way for a developing country to escape the curse of high and volatile inflation. However, it was not until the late 1990s that dollarization started to be seriously considered in policymaking and academic circles (see US Congress 1999a and 1999b).³ The debate about its cost and benefits was to a great extent prompted by the announcement of Argentina's President Carlos Menem in early 1999 that his government was considering adopting the dollar as legal tender (Hanke and Schuler, 1999).

The terms of this debate can be summarized as follows. On the cost side, dollarization entailed: 1) loss of seigniorage; 2) loss of lender-of-last-resort capabilities; 3) loss of exchange rate policy as a shock absorber; and (iv) inability to reduce the value of public debt in domestic currency via devaluation or inflation. In turn, the benefits included: 1) reduction in transaction costs, 2) convergence of domestic inflation towards world inflation; 3) elimination of currency risk, which reduces domestic interest rates; 4) potentially lower country risk premium and a more favorable environment for investment and growth due to lower and more stable inflation

² In Argentina the analysis of inflation as cyclical phenomenon offers important insights. Saboin-Garcia (2018) originally applied the idea to hyperinflation and Ocampo (2021a, 2023) extended the concept to link inflationary cycles, populist cycles, and commodity cycles.

³ An NGram Viewer of the word "dollarization" suggests research interest peaked between 2001 and 2009 and then gradually declined. A search of journal articles and working papers that have the word "dollarization" in their title, abstract or keywords in the IDEAS/RePEc database supports this conclusion.

and interest rates; 5) elimination of the currency mismatches in the country's balance sheet; and 6) a reduction of roll-over risks of public debt. A more detailed discussion of some of these issues can be found in Hanke and Schuler (1999), Velde and Veracierto (2000), Berg and Borensztein (2000), Alesina and Barro (2001), Calvo (2001), Calvo and Reinhart (2002), Chang and Velasco (2001), Eichengreen (2001), Antinolfi and Keister (2001), Grubben, Wynne and Zarazaga (2001), Karras (2002), Levy Yeyati and Sturzenegger (2002), Jacome and Lonnberg (2010), Lindenberg and Westermann (2012) and White (2014).

The relative magnitude of the costs and benefits of dollarization is related to two implementation issues that were also a subject of debate: 1) whether certain ideal pre-conditions were necessary for dollarization to be viable and successful, and 2) whether dollarization could serve as an effective commitment device (ECD), i.e., that it could credibly resolve the time-inconsistency problem of economic policy, as described by Kydland and Prescott (1977), Calvo (1978, 1994 and 2000) and Barro and Gordon (1983).

Regarding the need for pre-conditions, on one camp were those who argued that adopting the dollar as legal tender only made sense in the presence of fiscal equilibrium, trade openness, limited public indebtedness and flexible labor markets. On the other side were those who argued that dollarization did not require any ideal pre-conditions. In fact, one of the key reasons for a developing country to adopt the dollar as legal tender is a demonstrated inability to attain such pre-conditions. In other words, if ideal pre-conditions can be achieved, there is no need to dollarize. However, as Gruben, Wynne and Zarázaga (2001) warned, it would be a grave mistake to believe dollarization could provide “a painless substitute for other much needed but perhaps painful economic reforms” and therefore recommended implementing it “with all other complementary reforms” (pp.4,7). We now have more evidence to address this issue. Ecuador's government dollarized in January 2000 with a substantial budget deficit and during the Correa administration (2007-2017) followed an expansionary fiscal policy. However, during this period the annual inflation rate averaged 3.8%.

Sargent (2013) argued that high, volatile, and persistent inflation is “always and everywhere a fiscal phenomenon, in which the central bank is a monetary accomplice.” If we accept this premise, then it would seem logical to conclude that dollarization cannot be an ECD. According to this pessimistic view, dollarization cannot solve the time-inconsistency problem; it can only transfer or relocate it to the fiscal authority. It is worthwhile noting that the same argument can be made against central bank independence (Castellani and Debrun, 2005).

As Goldfajn and Olivares (2000) pointed out, if dollarization is an ECD, the debate about its advantages and disadvantages can be summarized as “a choice between flexibility and credibility.” Chang (2000) pointed out that it was very difficult to settle this debate, “partly because the word “credibility” has been employed in many different senses and partly because there has been virtually no success at quantifying the size of the potential credibility gains.”

What was absent in the debate was any discussion of the different ways in which dollarization could be designed and implemented to be more effective as a commitment device. In theory, there are N possible ways to dollarize an economy and not all of them have the same expected probability of being reversed or financially degraded. The “optimal” dollarization scheme would be the one that minimizes such probability (see Cachanosky, Ocampo and Salter, 2023). Since in modern economies bank deposits account for most of the total money supply, the banking system is the most obvious “Achilles heel” of any dollarization scheme. For example, in Argentina, checking and savings accounts represent approximately 72% of M2. Even if dollarized, any fractional reserve banking system with a high ratio of inside money to outside money and deteriorating asset quality would be unstable and prone to bank runs. For example, currently in Argentina, credit to the public sector (including the central bank) –which the bond market considers insolvent– represents approximately two thirds of aggregate credit (credit to the private sector is less than 8% of GDP). Even if the economy were to be dollarized, a bank run could lead to a massive financial crisis and, possibly, forced de-dollarization. Therefore, to be an ECD, dollarization must, among other things, be designed to minimize the degree of crowding out in the banking system and to prevent the political system from using bank reserves

to finance persistent budget deficits. As Romero and Sandoval (2019) pointed out in their review of the Ecuadorean experience under President Rafael Correa, under a dollarization scheme it is always convenient to eliminate “any tool of monetary policy” (p.8).

The relevance of all the above considerations depends on the rationale for adopting the dollar as legal tender (Alesina and Barro, 2001a, p.384). If a country’s decision to dollarize is driven by trade considerations, openness and factor mobility would be relevant pre-conditions, but, by definition, the effectiveness of dollarization as a commitment device would be less important (or irrelevant).⁴ On the other hand, if the key factor behind the decision to dollarize is achieving lasting price stability, which is the case in Argentina, the effectiveness of dollarization as a commitment device is of decisive importance. In fact, it would be a necessary condition to generate sufficient credibility to deliver its main benefit: to lower inflation on a long-term basis.

Twenty years ago, the costs of dollarization were by and large identifiable and quantifiable, while the benefits remained “to be demonstrated (Chang, 2000, p.11)”. The only economy in Latin America that had a sufficiently long track record using the dollar as legal tender was Panama, a small economy that for most of its history had been an economic dependency of the United States and therefore not a useful comparable.⁵ We now have a substantial, although far from complete, dataset to address many of the issues that were theoretically discussed two decades ago.⁶

⁴ In fact, in this case signing a trade-agreement with the USMCA bloc would probably be an equally effective commitment device.

⁵ The modern literature on dollarization has not fully explored the dollarization experience of many countries in Central America, which in the first five decades of the 20th century had the dollar as their own currency (See Helleiner, 2003 and 2005 and Schuler, 2005).

⁶ Since the nationalization of the canal in 1999, Panama regained its autonomy and has become a regional banking center. Therefore, its experience in the last two decades is relevant to address the issues discussed in this paper.

The objective of this paper is to revisit the early 21st century debate on dollarization, focusing particularly on whether it is an ECD, based on the available evidence and in the context of Argentina's history and the current macroeconomic and political environment.

2. The Twin Challenge of Time-Inconsistency Disease and Institutional Anomie

The focus of the analysis that follows is whether dollarization is a solution for countries with long history of high, persistent, and volatile inflation such as Argentina, Nigeria, Venezuela, or Zimbabwe. These countries also have a long history of failed stabilization plans and reform reversal (including reversal of dollarization in the case of Zimbabwe). In other words, there is a permanent feature of the political system that makes it very difficult to resolve the time inconsistency problem and leads to frequent policy reversals. The obvious question is whether dollarization can overcome this problem and under what conditions.

Of the three dollarization experiences of the 21st century, only in Ecuador (2000) and Zimbabwe (2009) the objective was to eliminate high, persistent, and volatile inflation. Therefore, their experience is more relevant to the discussion. In Ecuador, dollarization was accompanied by several structural reforms that were reversed under the presidency of Rafael Correa (2007-2017). However, dollarization survived despite several serious demand and supply shocks (and attempts by Correa to reverse or degrade it). The annual inflation rate since 2000 has averaged 4.8% and GDP per capita has grown at annual rate of 1.25%, which in a regional context, is an average performance. This compares to a 36% inflation rate with no growth from 1980 until 1999. Persistent popular support suggests that in Ecuador dollarization was successful not only economically but also politically. Zimbabwe, which in early 2019 reversed its decade old dollarization, provides a counter example. The country's economy has been in a slump for three years and its inflation rate is one of the highest in the world.

The experience of Ecuador, El Salvador and Zimbabwe suggests that different levels of democratic development –as measured, for example, by V-Dem Institute’s index of electoral democracy– might explain whether dollarization can serve as an ECD.

Although time inconsistency is universal, the regime reversals in Argentina in 2002 and Zimbabwe in 2019 also suggest that in certain countries its effects are more acute and/or no ECD is available.⁷ Kydland (2004) coined the term “time-inconsistency disease” to describe a country’s policymakers are persistently unable to resolve the time-inconsistency problem. His definition focused more on its consequences –lack of credibility– than its origin or the factors that could make it worse. Regarding the former, a potential cause for persistent time-inconsistency could be that a majority of voters exhibit hyperbolic discounting (Thaler, 1981; Laibson, 1997). If electoral democracy works relatively well, it is likely that politicians will act in accordance with the preferences of a majority of voters and that the political process will favor fiscal profligacy, particularly in the form of higher public consumption expenditures. It is also likely that politicians will adopt policies that promote private consumption expenditures at the expense of private investment (see Drometer, 2006; Bisin, Lizzeri and Yariv, 2015). In Latin America such policies have been traditionally associated with populism (Dornbusch and Edwards, 1991). A recent study confirms that European populism is also characterized “by short termism, the denial of intertemporal budget constraints, the failure to evaluate the pros and cons of different policy options as well as trade-offs between them (Andersen et al, 2017, p.53).” This suggests that by magnifying an economy’s structural imbalances (monetary, fiscal, relative prices, exchange rates, etc.), populism exacerbates the “time-inconsistency disease”. A high, volatile, and persistent inflation is one of the clearest symptoms of this sickness.⁸

⁷ It is important to note that there are several key dimensions to the time-inconsistency problem depending on how the policy “game” is framed and who its “players” are, e.g., government versus private agents, national government versus regional or provincial governments, governments versus foreign creditors (private bondholders and the IMF) and current government versus future government.

⁸ Recurrent sovereign debt defaults are another clear symptom of “time-inconsistency disease”.

As Kydland pointed out, time-inconsistency disease can be difficult to cure. Only a strong commitment device can restore the credibility of policymakers. But this is in some ways tautological. Chronic time-inconsistency disease can only exist if formal or informal commitment devices are not available under domestic jurisdiction. Under such circumstances, even the best-intentioned politicians pay the cost of past misdeeds, and their promises are not credible.

The inability of policymakers to commit to a policy rule is related to another condition prevalent in Argentina that has been rarely explored by economists: anomie. The term dates to ancient Greece but was popularized in the late 19th century by French sociologist Emile Durkheim. Etymologically, it is derived from the Greek word *anomos*, which means lawlessness. In sociology it is defined as a social condition defined by a breakdown of moral values, standards or rules required for constructive social interaction. Argentine jurist Carlos Nino expanded the concept of anomie and defined it as “massive recurrent illegality” or a situation in which a majority of the population lives “outside the law.” Nino distinguished between institutional and social anomie. The former concerned the Executive and government officials, while the latter the general population. According to Nino, “dumb” social anomie occurred when non-compliance with existing rules led to collective results that were inferior to those achievable with compliance.⁹ Waldmann (2004) argued that the anomic State was common throughout Latin America. In his view, there was no contradiction between anomie and State power.

State weakness has two complementary aspects: on the one hand, [in Latin America] the State has never been able to impose itself on central aspects of national sovereignty (monopoly of tax collection and force) against the groups of society and individuals that dispute those rights. On the other hand, it has

⁹ There is a subtle distinction exists between anomie and anarchy. The latter denotes the absence of governmental authority or laws; the former, persistent disregard for (or non-compliance with) established laws and norms of social interaction.

never been able to restrain or discipline its own members and organs, this being partly the consequence and partly the cause of the aforementioned. It's not just ordinary citizens who don't have much respect for the laws, but government officials themselves. States violate them [the laws] regularly (Waldmann, 2004, p.112).

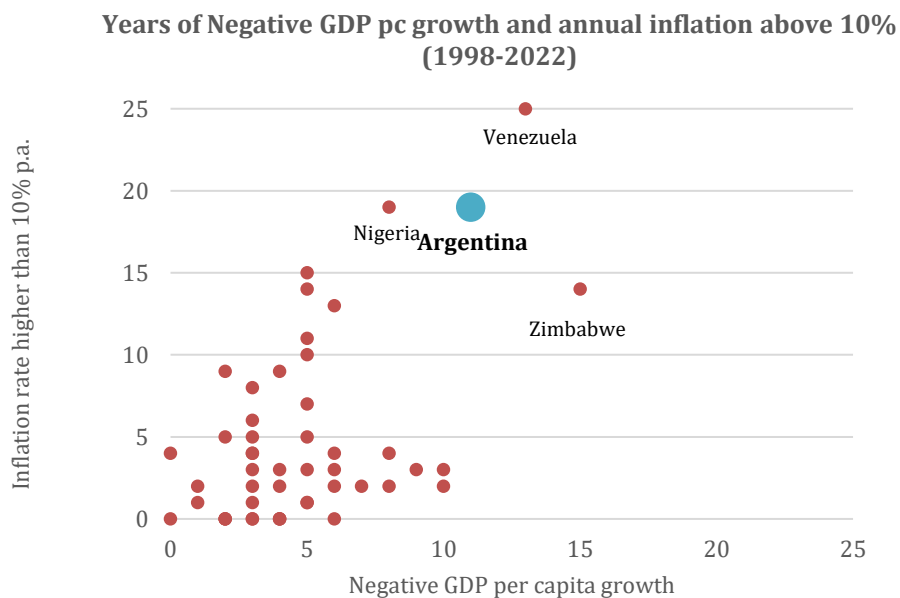
Institutional anomie is one of the many negative consequences of chronic populism, which, to be effective, requires eliminating the separation of powers.¹⁰ Institutional anomie is rarely engendered by occasional bouts of populism. Rather it tends to be a consequence of persistent populism (i.e., successful populism). Argentina is again the paradigmatic case. Since 1945, the years in which electoral democracy prevailed add to forty years and two thirds of the time under some form of populism (see Ocampo, 2015). Basically, with acute institutional anomie, the State (more specifically the Executive Branch) is not only a weak enforcer of the law, but also, the main lawbreaker. Basically, when existing laws constrain its behavior, the Executive Branch either ignores them with impunity or forces Congress to change them. This can only happen when *de jure* separation of powers is not operational.

Populism exacerbates time inconsistencies while at the same time destroys or degrades the institutional mechanism that could help to reduce it or eliminate it. In other words, it renders toothless any commitment device under domestic jurisdiction. Chronic and high time inconsistency and institutional anomie are two sides of the same coin, a legacy of persistent (successful) populism.

¹⁰ Institutional anomie is rarely engendered by occasional bouts of populism. Rather it tends to be a consequence of persistent populism (i.e., successful populism). Since 1945, in only 40 years Argentina's presidents were elected by a majority vote and two thirds of the time followed populist policies.

Argentina: A Paradigmatic Case

According to Kydland (2004) Argentina's poor growth track record in the post war era can be partly explained by "time-inconsistency disease," whose origins can be traced to "past hyperinflations, devaluations, deposit freezes and defaults on government obligations". In Kydland's view, the main consequence of this condition is lost credibility and a persistent inability to recover it. The results (or symptoms) of "time-inconsistency disease" can be visualized in the graph below, which shows, in the last quarter of a century, the aggregate number of years in which a country had negative GDP per capita growth and an annual inflation rate above 10%. The sample includes 49 emerging market countries and excludes OPEC's Middle Eastern members. Within this sample, in only 22% both criteria were met for an aggregate of ten years. Only eight countries had an annual inflation rate higher than 10% over an aggregate of fifteen years. The clear outliers are Argentina, Zimbabwe, Nigeria, and Venezuela.



Hyperbolic discounting might be one of the factors that explains time-inconsistency disease in Argentina. In a recent study of 61 advanced and developing countries, the country was an outlier in terms of impatience (Ruggeri et al., 2022). Plenty of past and present anecdotal

evidence as well as public opinion surveys suggest that short-termism is deeply rooted in Argentine history and culture (Shumway, 2005; Aguaysol, 2021).

With respect to social and institutional anomie, jurist Carlos Nino (1992) was the first to attempt an explanation for its prevalence in Argentina. According to Nino, the country suffered an “institutional imbalance” due to the gradual absorption by the Executive of Congress’ normative and legislative prerogatives (p.73). In his view, Argentina’s economic decline after 1945 was partly a consequence of this condition. With respect to social anomie, Nino also argued that in Argentina, it generally manifested itself as “dumb anomie”, as non-compliance of laws and rules of behavior led to results inferior to those achievable with compliance (ibid., pp.35-39). Waldmann (2004, 2005) agreed that in Argentina both forms of anomie were particularly strong. The *Latinobarómetro* (2020) survey summarized below confirms that Argentina has a relatively high degree of social anomie:¹¹

How much do your fellow countrymen abide by the law?

	Average 17 Latin America Countries	Average Southern Cone	Argentina
Very much	5.3%	3.8%	0.9%
Somewhat	10.0%	14.9%	10.0%
A little	62.9%	64.2%	64.1%
Not at all	21.9%	17.2%	25.0%

Source: *Latinobarómetro*.

Interestingly, *Latinobarómetro*’s survey also confirms that social anomie was less intense in the late nineties. Another question in this survey asks respondents to evaluate how conscious their countrymen are with respect to their obligations under the law. Argentina again exhibits the most extreme values: the lowest percentage of those who are conscious and the highest percentage of those who are not. With respect to institutional anomie, the results are not as clear when compared to regional averages. Interestingly, Argentina has the lowest percentage of

¹¹ Argentina in fact exhibits the most extreme values when it comes to compliance and non-compliance.

respondents who consider judges to be law abiding. In comparison, Uruguay, a country that has a similar GDP per capita, level of education and culture, the differences are significant. Rhodes and Streb (2014) provided further evidence on the judicial impunity with which government officials operate in Argentina.

From the following list could you tell me who do you think are the ones that abide by the law or do you think nobody abides by the law?

Category	Average 17 Latin American Countries	Average Southern Cone	Uruguay	Argentina
Civil servants	7.9%	7.6%	12.3%	6.9%
Legislators	5.6%	5.2%	9.9%	6.4%
Judges	8.8%	8.1%	12.9%	6.6%
Entrepreneurs	6.3%	5.6%	7.7%	6.4%
Politicians in general	5.1%	4.4%	7.9%	6.9%
Police	10.0%	8.9%	12.8%	7.8%
Military	10.7%	10.0%	11.6%	8.6%
Members of your family	17.9%	21.7%	17.5%	25.1%
Nobody	26.6%	26.2%	4.5%	17.3%
No response	2.8%	2.7%	3.0%	7.9%

Source: Latinobarómetro.

These findings are also confirmed by subjective indices of constraints on the Executive and the Legislature published by The V-Dem Institute shown in the table below. Such constraints are significantly lower in Argentina than in any of its neighbors. It is interesting to notice that during the 1900-29 period, the opposite was true, at least with respect to the Judiciary. They were also higher than current values, which suggest institutional anomie can be cured.

Period	Legislative Constraints on Executive				Judicial Constraints on Executive			
	Arg	Bra	Chi	Uru	Arg	Bra	Chi	Uru
1900-29	61%	16%	65%	66%	87%	52%	64%	84%
1930-42	62%	1%	67%	53%	81%	47%	65%	80%
1943-45	20%	0%	64%	84%	78%	46%	68%	82%
1946-55	35%	65%	66%	84%	41%	54%	66%	85%
1956-83	30%	29%	46%	51%	56%	44%	53%	59%
1984-99	68%	81%	80%	89%	66%	86%	85%	89%
2000-20	74%	85%	96%	90%	69%	90%	95%	93%

Source: V-Dem Institute.

In Argentina, social and institutional anomie have strong cultural roots that can be traced back to the colonial period. In the Southernmost part of the Spanish Empire, which had Buenos Aires as its political capital, the practice of “revering but not obeying the law” became institutionalized (see Fernandez and Monteserin, 2014). One factor may explain why anomie manifests more strongly than in other former Spanish colonies: Buenos Aires was the center of contraband in South America. Aca pioneering sociological study, this left an indelible mark on Argentine culture:

Society is brought up to disregard the law; an idea so dominant and ingrained that after a short walk it became a feeling, it became ingrained, perverting the intelligence and morality of the *porteño*.¹² The worst thing about it is that the historian cannot condemn it; a supreme necessity excuses and justifies everything; they [the *porteños*] were forced to foster a pernicious germ that will continue to weaken Argentine society. This explains why they have always preferred men to laws and leaders to ideas (García, 1900, p.208).¹³

During his visit to Argentina in 1833, Charles Darwin observed the anomic nature of the inhabitants of the country:

“Police and justice are quite inefficient... [Argentines] seem to think that the individual sins against the government, and not against the people... Nearly every public officer can be bribed. The headman in the post-office sold forged government franks. The governor and prime minister openly combined to plunder the state. Justice, where gold came into play, was hardly expected by anyone.” (1839, p.171).

¹² *Porteño* is a native of Buenos Aires.

¹³ Today this is a better description of the inhabitant of the greater Buenos Aires Area than of the city itself. However, in the 19th century such geographical distinction was not relevant. Particularly

Darwin also noted that these attitudes were also related to *caudillismo* (the cult of the strongman), another legacy of the Spanish conquistadors, which in turn is a key ingredient of populism (see Ocampo, 2018).¹⁴ In a populist regime, the will of the leader (who supposedly incarnates the “will of the people”) supersedes any written or unwritten norms or laws. In this sense, populism can be viewed as a regression to a more primitive form of political and social organization: the law of the strongest. During the second half of the 19th century, as Argentina developed institutionally it seemed as if it had successfully overcome this cultural legacy. However, Juan Bautista Alberdi, who drafted Argentina’s first constitution, warned that a century would be necessary to eradicate completely the colonial legacy (Alberdi, 1854, p.57). This process of institutional development culminated with the electoral reform of 1912, which extended the voting franchise. Tragically, the election of Hipólito Yrigoyen to the presidency in 1916 reinvigorated *caudillismo*. It is not only tragic but also ironic that Yrigoyen, who was a champion of electoral reform, was responsible for reintroducing a cultural trait that was inimical to liberal democracy. The military coup that ousted him in 1930 marked the end of a virtuous process that had transformed Argentina from a backward pastoral country into an economic powerhouse and strengthened the quality of its institutions. During the thirties the stage was set for the emergence of populism. World War II was the catalyst.

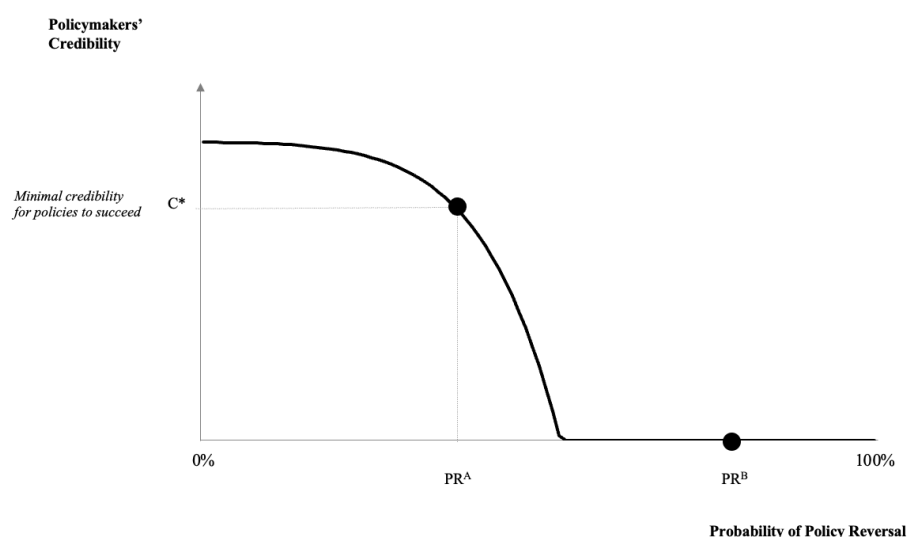
The ascendancy of Juan Perón to power through a military coup in June 1943 firmly established *caudillismo* as a permanent feature of Argentine political life. Thanks to the decisive influence of his wife Eva Duarte, Peronism also institutionalized nepotism, clientelism and patrimonialism, vices that were also prevalent during the colonial period. In essence, Perón reinstated many institutional features of the Spanish colonial system and reinforced and promoted the cultural values that sustained them (Ocampo, 2018). After 1945, as populism became endemic, anomie gradually coagulated into Argentine culture. A vicious cycle of

¹⁴ In societies ruled by *caudillismo* the only law that is complied with and enforced is the law of the strongest which does not necessarily coincide with established law.

economic stagnation, financial crises, social frustration, and institutional and cultural degradation followed. Entrenched interests and a weak political system with perverse incentives made populism path dependent. Argentina proves that persistent populism exacerbates the time-inconsistency problem.

3. Dollarization as an ECD: Theory and Evidence

With chronic time-inconsistency disease and acute institutional anomie, the macroeconomic cost of monetary sovereignty increases because no ECD exists under local jurisdiction. Under such circumstances, even the best-intentioned and best-designed stabilization plans –even if approved by a broad majority in Congress– cannot generate the minimum credibility necessary to succeed. The following graph in which policymaker credibility is shown as a negative function of the expected probability of policy reversal illustrates this point. For policies to be successful they must have a minimum credibility of C^* . Policymakers in developing countries suffering from “time-inconsistency disease” cannot generate this probability because the expected probability of policy reversal is such that credibility is unattainable.



Friedman (1972) made the case that, under such circumstances, dollarization and the elimination of the central bank were the best course of action available to policymakers in

developing countries to eliminate inflation. Anticipating the dollarization debate that would take place decades later, Fischer (1982) recognized that “a government that could not control itself might want the discipline of using a foreign money” (p.296). Although, there was “no absolutely guaranteed way of providing discipline for governments determined to avoid it”, the discipline imposed “by use of a foreign money is greater than that imposed by fixity of the exchange rate, which is greater than that imposed under a flexible-rate system. This is, therefore, a serious argument for use of a foreign money” (p.300).

Revisiting the Debate: Can Dollarization be an ECD?

These considerations would be at the forefront of the dollarization debate. Mundell implicitly argued that dollarization was an ECD, as it would give a country “a rudder for its monetary policy, a stable rate of inflation, and discipline for its fiscal policy (budget deficits are anathema to fixed exchange rates)” (Friedman and Mundell, 2000). Dornbusch viewed dollarization as a way of “outsourcing’ monetary policy and gaining credibility and stability automatically” (IMF, 2000, p.340).

In the context of Argentina’s circa end of 1999, Velde and Veracierto (2000) analyzed dollarization as a commitment device. With a simple model in which the time consistency problem was reduced to the timing of moves between the government (that sets an inflation target) and the private sector (that rationally sets its expectation of inflation given a chosen policy), they showed that by fixing the choice set for the government (zero inflation) dollarization could achieve the best outcome for society. Alesina and Barro (2001, 2002) and Alesina, Barro and Tenreyro (2002) were emphatic about the benefits of dollarization: “if an inflation-prone country adopts the currency of a credible anchor, it eliminates the inflation-bias problem of discretionary monetary policy” (2000, 2001). Calvo and Reinhart (2001) also came strongly in favor of dollarization. They argued that in emerging markets, where trade is generally invoiced in dollars, liability dollarization is high, and policymakers are not credible, exchange-rate movements are very costly. Floating regimes may be more of an “illusion” and

full dollarization “might emerge as a sensible choice for some countries, especially in Latin America.” Calvo (2001) emphasized that extensive liability dollarization enhanced the case in favor of dollarization. Calvo (2002) argued that any flexible exchange system would likely face serious “credibility problems” in countries that have not yet reached “a national accord on the size and nature of the public sector.” Under such circumstances, a non-credible policymaker may have “to tie himself firmly to the mast” to get any lasting results in terms of price stability.

Mendoza (2001) made the case that dollarization could generate potentially large benefits in developing countries with a long history of monetary and price instability. First, by eliminating price and wealth distortions induced by the lack of credibility. Second, by improving the efficiency of financial markets through weakening informational or institutional frictions that constrained credit to the private sector. Using a model calibrated to Mexican data, he estimated net welfare gains of between 6.4% and 9% of trend consumption through elimination policy uncertainty and 4.6% through weakening credit constraints. He concluded that:

“Dollarization, the internationalization of the financial system, the creation of strong-currency areas, and the strengthening of institutional and legal arrangements to counter the governments’ temptation to display time-inconsistency, could do away both with the risk of collapse of managed exchange rates and with the negative shocks caused by credit constraints that become acutely binding precisely when currencies collapse (Mendoza, 2001, p.37).”

The opposite argument was articulated by Schmitt-Grohe and Uribe (2001), who compared the welfare costs of business cycles in a dollarized economy to those of economies in which monetary policy took the form of inflation targeting, money growth rate pegs, or devaluation rate rules. They reached their conclusion using an optimizing model of a small open economy with sticky prices calibrated to the Mexican economy and driven by three external shocks:

terms of trade, world interest rate, and import-price inflation.¹⁵ Schmitt-Grohe and Uribe concluded that dollarization was the least successful of all the monetary policies considered. In their final remarks they raised several points that are relevant today:

“In the welfare comparisons presented in this paper, the government is assumed to be able to perfectly commit to the implementation of any of the monetary policies considered. Our results may therefore be regarded as naive. After all, the reason why many observers favor dollarization is its assumed ability to tie the hands of governments too weak to resist the temptation of the printing press. However, the question of commitment could also be turned around: Is it not naive to believe that a chronically undisciplined government would alter its behavior merely because of a change in currency? Would such a government not simply get rid of dollarization at the first strong desire to inflate? Alternatively, would a government that has solved its fundamental fiscal problems not be as prepared to stick to dollarization as to any other low-inflation monetary policy, particularly if the alternative policies yield higher welfare? (pp.27-28).”

In further support of their argument, Schmitt-Grohe and Uribe also raised the issue of conflicting fiscal policies at the national and provincial levels. Based on Argentina’s experience with provincial quasi-monies during the Convertibility Plan, they claimed that, even under dollarization, a government could “reintroduce domestic currencies almost effortlessly and clearly do not need to create a central bank first. The most likely scenario is that the Treasury department will simply print low-denomination government bonds and use them to pay for current government expenditures. Thus, all that is needed is a printing press and some

¹⁵ The model was calibrated for Mexico, which never dollarized, under the assumption that dollarization was equivalent to a hard peg. However, dollarization potentially entails a regime change, i.e., a change the parameters of the model (Lucas, 1976). It was impossible to estimate those parameters and therefore are not reflected in the results of the model.

government obligations.” As a result, they concluded that “the superiority of adopting a foreign currency over other conventional monetary arrangements as a commitment mechanism should not be taken for granted (p.29).”

These arguments seem compelling and are worth examining given the available evidence. The Ecuadorian experience provides some answers. Dollarization initially brought fiscal discipline but in the medium term it was not able to constrain populism and/or eliminate fiscal profligacy and sovereign defaults, which undoubtedly contributed to unimpressive rates of growth of GDP per capita. However, it did reduce the macroeconomic cost of populist policies.¹⁶ Ecuador’s annual inflation rate has averaged 3% (even lower than in the US in recent years) and, up until now at least, a large majority of the population supports maintaining the US dollar as legal tender. Correa tried to directly and indirectly circumvent the financial constraints imposed by dollarization. He temporarily achieved this objective by “appropriating” bank reserves and selling expensive forward oil contracts to China. However, he failed in his attempt to introduce a digital currency. His successor and erstwhile vice president, Lenin Moreno, who took office in 2017, had no option but fiscal austerity (see Cachanosky, Salter and Savanti, 2022).

With respect to the issuance of provincial quasi-monies, it has been a recurrent problem under both fixed and floating exchange rate regimes (see Theret, 2020). The important point is that the monetary impact under dollarization would be very different than an under a currency board. A dollar issued by the U.S. Federal Reserve Board will never have the same value of a dollar denominated short-term note issued by an Argentine provincial government that overspends (unless the note carries an interest rate that reflects default risk.) If the domestic banking system is fully liberalized and cannot be forced to accept provincial quasi-monies at face value, their

¹⁶ A back-of-the-envelope calculation suggests that in Ecuador, dollarization reduced the cost of populism in terms of the annual real GDP per capita growth by an amount equal to between 0.6% and 1%. A more precise calculation would require a properly calibrated model.

issuance would simply entail an automatic reduction of provincial government expenditures in dollar terms, which would obviously have serious political consequences.

Cooper and Kempf (2001) analyzed dollarization as a commitment device in the context of a protracted conflict between national and provincial fiscal authorities: “The central monetary authority in Argentina lacks commitment power relative to the regional governments. Consequently, the monetary authority must find a way to commit to not financing the regional fiscal deficits” (p.11). However, they concluded that dollarization could serve as “a commitment device and thus eliminate the inflation bias created by decentralized monetary policy.” In turn, Gale and Vives (2002) analyzed dollarization as a commitment device in the context of recurring banking crisis and moral hazard. They concluded that dollarization might be able to “alleviate the commitment problem faced by a central bank” when the costs of establishing a reputation for the central bank are and the risk of moral hazard is moderate or low.

Although generally not sympathetic to dollarization, Chang and Velasco (2002) raised a very important point that is sometimes overlooked in the debate. The theoretical potential losses of seignorage caused by dollarization are irrelevant except unless in the context of a realistic and viable set of options available to policymakers to stabilize the economy:

“The lesson is that the numerous calculations of the seigniorage that would be lost with dollarization are meaningful only in conjunction with some explicit or implicit assumption about the policymaking process and, in particular, of the credibility problem that may be affecting policy. Only in the absence of such credibility problems one can assert unambiguously that the loss of seigniorage would, in fact, be a loss. If there is a credibility problem, the interpretation is much more problematic and, as we have argued, the loss of seigniorage may in fact be beneficial in welfare terms (p.19).”

In Chang and Velasco's view, if credibility is absent and dollarization works as a commitment device, "the welfare impact of dollarization is ambiguous, and seigniorage measures and Mundellian criteria may be misleading indicators of the true cost of dollarization". The option to dollarize the economy may be valuable if a government is incapable of generating credibility. However, the question cannot be settled theoretically: "even if a government suffers from poor credibility, and even if dollarization would improve credibility, it is not necessarily the case that dollarization is desirable. Whether dollarization is preferable to flexible rates in such a situation has to be demonstrated empirically".

Based on Argentina's experience with the currency board regime, Grandes (2002) argued that dollarization was not the best policy "to improve fiscal discipline and push forward structural reforms". Therefore, one of its supposedly "most valuable" benefits –a reduction in country risk spreads– would fail to materialize. As will be explained below, a currency board regime is different in many material respects from a dollarization regime. Therefore, any conclusions about the latter drawn from the Argentine experience have limited value. We now have more evidence to test whether country risk spreads fall with dollarization, but a definitive answer is still elusive. Ecuador has shown that populism is viable under dollarization and populism tends to be associated with higher country risk spreads. It is not easy to disentangle the effects of each factor.¹⁷

Mazarski (2009) argued that dollarization not only served as a commitment device but also, and more importantly, as a signaling device that reduced macro uncertainty. In his model there are two types of government: good and bad. The former conducts optimal policy while the latter prefers to finance higher (than optimal) government expenditures by printing money; information is asymmetric, *ex ante* voters cannot discern the type of government they have, and

¹⁷ A recent study by Mari del Castro and Gomez Puig (2017) found that in Latin America country risk spreads, a) tend to be affected more by global than domestic factors, b) tend to have higher impact on economic activity in non-dollarized countries.

the policies of the bad government are sub-optimal. Uncertainty does not allow a good government to achieve the first-best outcome even if it implements an optimal monetary policy. By dollarizing, the good government eliminates uncertainty about the type of government it is (the bad government would never dollarize) and achieves the first best allocation. Basically, dollarization plays the role of a signaling device rather than a commitment device.

Cabral (2010) analyzed the impact of real shocks on a small open economy operating under two opposite corner solutions: a flexible exchange rate and official dollarization. Using an asymmetric two-country model, he demonstrated that although dollarization can generate credibility and achieve price stability, a small open economy might be better able to absorb shocks under a flexible regime. Although this is theoretically plausible, the argument falls into a Nirvana fallacy. First, it assumes not only that a flexible exchange rate regime is attainable, but also that an independent central bank exists and will adopt optimal rules of intervention. These are strong assumptions. First, in emerging markets “fear of floating” prevails, particularly in countries such as Argentina (see Calvo and Reinhart, 2002). Second, central bank competence and independence tend to be the exception rather than the rule (this has certainly been the case in Argentina).

Also, the evidence does not necessarily support the argument in favor of flexible exchange rate, particularly for countries suffering from time-inconsistency disease and institutional anomie. In the last twenty-two years, the Ecuadorean economy sustained several real shocks: the global financial crisis and a sovereign debt default in 2008, a reversal of the commodity cycle from mid-2012 until early 2017, an earthquake in 2016, a sovereign debt default in 2020, the covid-19 pandemic in 2020 and a political crisis in 2022. We can compare its performance in terms of inflation and growth to Peru, which during this period had a managed floating regime, and Argentina, which experimented with a variety of regimes and economic policies (see Garofalo

and Streb, 2022). Ecuador underperformed the former and outperformed the latter.¹⁸ However, given that Peru did not suffer the consequences of a decade of left-wing populism, the comparison with Argentina might be more relevant.

Based on a comparative analysis of populism in Argentina and Ecuador, Cachanosky, Salter and Savanti (2022) concluded that while one cannot universally assert dollarization “improves economic and political outcomes—institutional contingency rules out such a sweeping claim—it can perform a useful role in credibly constraining the state from populist policy excesses”. Cachanosky, Ocampo and Salter (2023) highlighted certain design features that would make dollarization more effective as a commitment device: 1) closing the central bank, and 2) liberalizing the banking sector, and 3) ensuring bank reserves cannot be used to finance recurrent fiscal deficits.

4. Dollarization as an ECD: Can it work in Argentina?

Under institutional anomie, the effectiveness of dollarization as a ECD is critically dependent on institutional design, at least in the short term. In the three countries that implemented dollarization in the 21st century, governments at some point attempted to reverse it directly or indirectly by degrading its financial integrity. The former strategy only proved successful in Zimbabwe, where in March-April 2019 the government implemented de-dollarization following Argentina’s 2002 playbook. However, it is important to emphasize that when the Zimbabwean government announced dollarization in 2009 it made it clear that it viewed it as a transitory measure, leaving the door open for the re-introduction of a domestic currency by as early as 2012 “if the macroeconomic situation allowed” (IMF, 2011, p.18). This announcement obviously rendered dollarization less effective as a commitment device. Not surprisingly, the

¹⁸ The volatility and lack of durability of foreign exchange regimes in Argentina is indicative of the magnitude of the underlying time-inconsistency and the absence of mechanisms to resolve it.

macroeconomic imbalances that led to the unsustainability of dollarization in Zimbabwe had a fiscal origin:

The resumption of large fiscal deficits financed by issuing quasi-currency instruments that were not convertible created substantial economic distortions, ultimately forcing the authorities to abandon the dollarized system and adopt a new domestic currency in early 2019. During 2016-18, off-budget quasi-fiscal activities, unbudgeted agricultural programs, and wage bill overruns proliferated, with budget outcomes significantly worse than approved budgets (IMF, 2020, p.5)

In the case of Ecuador, President Rafael Correa's attempts to de-dollarize the economy with the introduction of a central bank digital currency failed (see Arauz, Garrat and Ramos F., 2021). However, he successfully undermined the financial viability of dollarization by appropriating bank reserves to finance the growing fiscal deficits (see Romero and Sandoval, 2019 and Erráez and Reynaud, 2022). In the case of El Salvador, President Nayib Bukele's attempts to replace the dollar with bitcoin also failed (see Alvarez, Argente and Van Patten, 2022). These experiences strongly suggest that maintaining a non-independent central bank in operations after dollarization makes it easier to reverse it or degrade its financial integrity. Freezing bank deposits and appropriating bank reserves are the two most effective measures to achieve both objectives (see Cachanosky, Ocampo and Salter, 2022). The most important deterrent to the reversal of dollarization in Ecuador and El Salvador proved to be the public, which refused to adopt the new currencies pushed by the government.

Economists and policymakers are again debating the advantages and disadvantages of dollarization. Given the experience of 2002, one of the key issues being discussed is whether dollarization would be more effective as a commitment device than a currency board.

Nicolini (2021) recognized that dollarization can eliminate inflation "completely" but argued against it because it implied leaving fiscal policy as the only tool to achieve stabilization, which

would be a problem given that, in his opinion, fiscal policy has been “destroyed” in Argentina and policymakers have proven to be incapable of using it effectively. However, Nicolini (2022) admitted that Argentina has not had sound monetary policies “since the early 1960s, except during Convertibility”. It would be understandable, he added, “if someone came from abroad to tell us that what we should do is to dollarize because for 48 of the last 60 years we have used monetary policy in a perverse way. And the only decade where we used it in a non-perverse way was with convertibility, which is also a way to lose control of monetary policy.” It should logically follow from this statement, that if Argentina policymakers are incapable of using fiscal policy and monetary policy effectively, it makes sense to look for an alternative. History shows any policy rule would be better than arbitrary and ineffective discretion. However, in Nicolini’s view, the ideal way of reducing inflation “given the circumstances, is with explicit controls on the amount of money, with objectives of how much is going to be issued per year and that are gradual over time.” He did not explain how such policy could be credible given Argentina’s political dynamics and, more importantly, given that that it was implemented during the Macri administration with very poor results.

Uribe (2022a and 2022b) also voiced his opposition to dollarization. On the positive side he considers it as “an extreme way of achieving the independence of the BCRA”. To dollarize is to recognize “that we cannot give our Central Bank independence and to delegate monetary policy to a foreign Central Bank that designs its monetary policy without taking us into account.” According to this view dollarization could serve as an ECD but it would achieve stabilization at the expense of “high real volatility” and would entail a substantial loss in seignorage of between US\$1.5 and 3 billion (2022b).¹⁹ As an alternative to dollarization, Uribe proposes a plan centered around establishing central bank independence from “the first day of the next administration and without waiting for the Treasury to achieve fiscal sustainability first”

¹⁹ In relative terms the estimate is not high. It would represent approximately 0.5% of potential GDP, which is a relatively low cost to achieve price stability and establish firm conditions for sustained economic growth. Also, it assumes dollarization is forever.

(2022a). He recognizes however, that, historically in Argentina, the main enemy of central bank independence has been the Minister of Economy and a law would not be enough guarantee. Therefore, he proposes that the next president becomes the guarantor of “the independence of the BCRA, not Congress” (Uribe 2022a). This proposal seems too optimistic, given that the only period of central bank independence since 1943 ended with an arbitrary presidential decree issued by probably one of the most law-abiding presidents in history (Powell, 2002).²⁰ Also, to believe that any reputable economist will accept the position of Minister of Economy without having control of the central bank seems unlikely. Finally, it is hard to believe that given the realities of Argentina’s electoral calendar even a well-intentioned and determined president can be a more effective commitment device than a well-designed dollarization scheme.

According to Sturzenegger (2023) dollarization has three very important disadvantages. First, it requires financial resources to “buy transactional money”. According to his own estimates, this cost would exceed 10% of GDP. This estimate doesn’t make any economic sense. Under dollarization, the government would only have to exchange the monetary base for existing international reserves. The only loss would be the opportunity cost, i.e., seignorage revenues which under any reasonable assumptions would not exceed 0.5% of GDP annually. The caveats raised by Chang and Velasco (2002) would be applicable when estimating dollarization’s seignorage losses. Second, according to Sturzenegger the dollar supposedly moves in exactly the opposite direction of how the peso should optimally move “because when a global crisis occurs, the peso would appreciate instead of depreciating.” However, Ecuador’s experience since 2000, a period during which the world experienced two of the most serious crises since the 1930s, suggests that this concern is overblown. Sturzenegger’s argument falls into the

²⁰ Indices of central bank independence can be very misleading. For example, two recent studies by Garriga (2016) and Romelli (2022) suggest that in 2012, the Argentine Central Bank was more independent than the US Federal Reserve. These *de jure* indices do not factor in institutional anomie. Reality is very different from whatever the statute or charter of the central bank says. As Cukierman, Webb and Neypati (1992) explained in their seminal paper, “the actual independence of the Argentine central bank is substantially lower than the legal indicators imply” (1992, p.363). In other words, *de facto* independence is significantly lower than *de jure* independence.

“nirvana fallacy”, as he assumes that a realistic alternative to dollarization is an independent central bank that behaves optimally, something that has not happened in Argentina since June 1943. Finally, and most importantly, Sturzenegger believes dollarization can be easily reversed. “In Argentina anything can happen”, he concludes. “And, if it [dollarization] is reversible, then it would not generate the credibility improvement that we long for.”

While it is true that almost anything can happen in Argentina, a properly designed dollarization can significantly reduce the risk of reversal. The experience of 2002 suggests that in current circumstances a currency board regime would not last, i.e., would not be an ECD. However, it would be incorrect conclude dollarization would be easily “reversible” based solely on this experience. In fact, the 1899 monetary reform provides a counterexample: it imposed previously unattainable fiscal and monetary discipline for three decades. Argentina’s economic history supports two important conclusions that are very relevant to the current debate: 1) ironclad monetary rules approved by law delivered price stability for thirty years and neutralized fiscal dominance, 2) in the presence of institutional anomie any monetary regime in which the dollar co-exists with the peso will be inherently unstable and highly vulnerable to reversal.

The 1899 Monetary Reform

Argentina ended the 19th century with the world’s worst abuser of inflationary finance. During the first eight decades of Argentine monetary history, which formally started in 1822, there were only two brief periods of stability and several deep crises, most notably in 1874 and 1890. A depreciating and volatile currency was “almost part of the normal life of the Republic [of Argentina]” (Martinez and Lewandowski, 1911, p.330-32). At the end of the 19th century, time-inconsistency was high and institutional anomie prevailed. As a London based financial journalist explained:

“Argentina, on the other hand, is one of the most unfortunate victims of parliamenteering run wild. It is governed not by administrators, but by

professional politicians. Everything in its national life, whether industrial, commercial, or financial, begins and ends in politics... There is all the difference in the world between a well-considered policy carried out by capable single-minded administrators, and a parody of the same after it has been hacked and pulled about by politicians who have a score of other objects in view than the one professedly aimed at (Lawson, 1899).”

After the 1890 crisis, which brought down the venerable House of Barings, all hope of monetary stability in Argentina was lost. To many foreign observers, the Argentine government’s manifest inability to responsibly manage its fiscal and monetary affairs did not bode well for the future and threatened to derail the country’s extraordinary economic expansion. One foreign observer pessimistically warned “that so long as Argentines are allowed to retain the undivided control of the administration, that faith will not easily be restored... The Argentine is incapable of administering anything –financial affairs least of all.” The solution to this problem was to “let able and honest resident Europeans step forward and take in hand the control of affairs which are in jeopardy, so long as they are managed by men with whom governor is but a synonym for robber, and government but a system of organized rapine, political obfuscation, and terrorism” (Turner, 1890, p.344,345).

At the turn of the century, a scholar of Argentine monetary history pointed out that inconvertible paper money had “served the official finances of all times as a contribution required from the country in difficult circumstances of its political life” (Pillado, 1901, p.1). Juan B. Justo, the founding father of Argentine socialism, described the country’s monetary history as “regrettable”. In his view the inconvertible peso was “a curse for the people” and monetary instability a “calamity directly attributable to governments, which, with the unconsciousness of children, have played with the most elementary laws of currency, or have violated them with the conscience of villains” (Justo, [1921], pp. 30, 36-37).

Despite this poor track record, in November 1899, the Argentine Congress approved a monetary reform that tied the peso to gold through a currency board scheme. However, when it was announced, it was met by skepticism in London. An article in *Banker's Magazine* by the influential columnist W.H. Lawson –who for years had closely followed Argentine financial affairs– considered the reform as a “clumsy” copy of India’s convertibility scheme. He described it as the zenith of “a long line of quack remedies” and predicted with confidence its inevitable failure:

“[The reform] It is a new folly to be reckoned with in forecasting the future of Argentine finance. That it will be a fiasco, so far as the currency is concerned, requires no saying, but it may be powerful for mischief in other directions. It is all the more exasperating that such follies should be perpetrated in a period of unexampled prosperity, when there is less excuse for them than ever before... All who are interested in Argentine finance know that that is the indispensable virtue which it lacks, which it has never had except for very short intervals, and which may soon have to be given up in despair as an impossibility. The Argentines themselves appear to be utterly unable to comprehend the supreme importance of sound money in the commercial economy of nations... if the national treasury were managed with a tithe of the regularity and integrity which characterise the administration of the foreign-owned banks and railways, there would be very little trouble with the currency... It would seem as if the Argentines, before they hit on a true solution of the monetary problem, must exhaust all the possible fakes and fallacies (Lawson, 1899).”

Despite Lawson’s dire warnings, in a short period of time the 1899 monetary reform made the Argentine peso one of the strongest currencies of the world. Even the abandonment of the gold standard in 1914 was able to dent its credibility. As British historian H.S. Ferns observed:

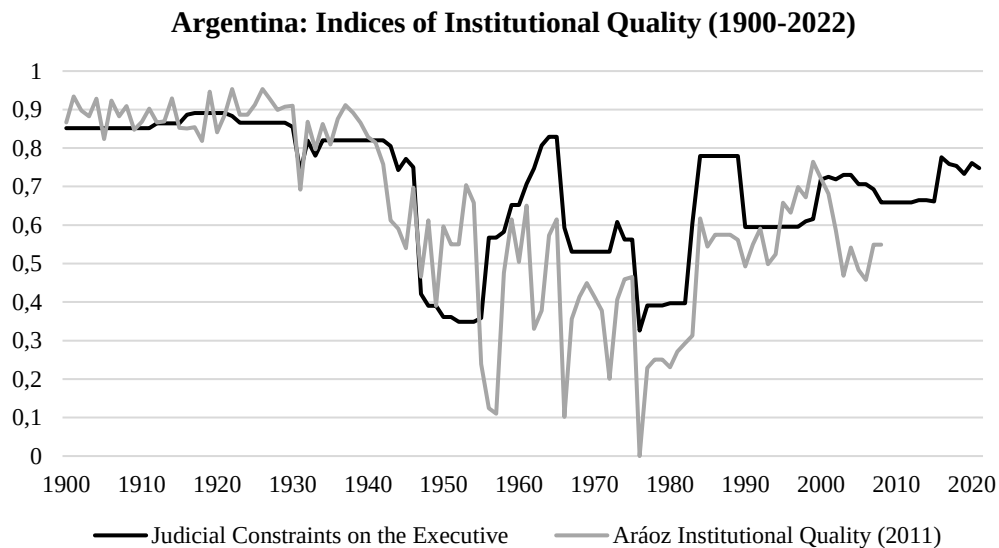
“As a measure of value and as a store of value the Argentine peso was comparable on the exchanges to the Swiss franc, the pound sterling and the United States dollar... By 1930 Argentina was one of the ten richest countries in the world, and one of the most socially stable and peaceful open societies anywhere (1992, p.272).”

Ferns’ comment is interesting because Argentina abandoned the gold standard in August 1914 and briefly rejoined it in 1927. However, there was “strict adherence to the [monetary] rule from 1914 to 1927 during a long suspension of convertibility” (Della Paolera and Taylor, 2001, p.197). In other words, even though the 1899 law had been repealed, Argentine policymakers remained a champion of fiscal and monetary orthodoxy. It can be argued that the “true” Argentine miracle started in November 1899, when Argentina managed to establish a stable currency on a solid footing for the first time.

Things started to change with the Great Depression and especially after 1935 with the creation of the Central Bank. However, until 1942, Argentina’s inflation rate did not diverge much from that of Australia, Canada, Great Britain, and the United States. The June 1943 military coup led by Juan D. Peron and a group of young military officers was a major turning point. Under Peron’s leadership, in a short period of time Argentina returned to her wayward ways. By 1946 Perón had completely abrogated the independence of the central bank and made the inflationary tax a recurrent source of deficit financing. Since then, the only lasting period of price stability was between March 1991 and December 2001.

The main reason the 1899 Law was an ECD is that during the period 1900-1929 the rule of law and the principle of separation of powers –particularly as it relates to the independence of the judiciary– carried more weight than now even though electoral democracy was weaker. Institutional degradation started with the 1930s coup, but it was only after Peron dismissed the judges of the Supreme Court in 1947 that institutional anomie reared its head and became a

chronic feature of Argentine life (see Alston and Gallo, 2010). Available indices of institutional quality lend support to this hypothesis (see graph below).



Source: Aráoz (2013) and V-Dem Institute.

The 1991 Convertibility Law

It is important to distinguish the factors that contributed to the crisis of 2001 from the factors that explain why the Convertibility Law was not an ECD. They are related but conceptually different. A crisis is what usually triggers demands for reversal but whether those demands are met depends on political and institutional factors. Regarding the origins of the crisis, economists have mostly focused on growing imbalances in provincial finances, deteriorating fiscal sustainability at the national level, appreciation of the real exchange rate, currency mismatches in the banking sector, vanishing credibility, impact of foreign shocks, etc. (see Fanelli, 2002, Mussa, 2002; Calvo, Izquierdo and Talvi, 2003; Della Paolera and Taylor (2003), Damill, Frenkel and Juvenal, 2003; De la Torre, Levy Yeyati and Schmukler, 2003, Galiani, Heymann and Tommasi, 2003, López Murphy, Artana and Navajas, 2003; Powell 2002; Schuler, 2003; Kiguel, 2011; Cavallo and Cavallo Runde, 2017 and Teijeiro, 2022). Except for Powell (2002) and Della Paolera and Taylor (2003) the decisive impact of domestic political factors tends to be absent from the analysis (or not given its full weight).

Della Paolera and Taylor emphasized how the political dimension of the fiscal problem contaminated the banking system and contributed to a lethal run on deposits. Another strand of research focused on the flawed design of Argentina's currency board. Hanke (2002a, 2002b and 2008) argued that Argentina's Convertibility was not an orthodox currency board. "Its deviations from currency board orthodoxy allowed it to behave more like a central bank than a true currency board in many important respects" (2002, p.2). In his view, the Argentine central bank sterilized inflows of foreign capital, i.e., engaged in discretionary monetary policy, which could not happen under an orthodox currency board. Therefore, Hanke argued that it would be a mistake to conclude "that currency boards are inherently dangerous and bound to end in Argentine-like upheavals" (2008, p.56). In my view, however significant were these deviations from orthodoxy, they don't explain why Convertibility was reversed in such a traumatic way.

Several factors made the reversal of the Convertibility Law politically viable in January 2002: 1) a president that had publicly opposed it and had not been elected by voters in a proper election, 2) a flawed institutional design that weakened the link between voters and legislators, 3) institutional anomie (an Executive that brazenly disregarded the rule of law), 4) lack of an independent central bank, 5) a high dollarization of bank deposits (almost 75% of total deposits), and 6) a high concentration of dollar deposits in a relatively small number of individual holders (less than 600.000 holders of deposits of more than US\$3,000). Institutional anomie also helps explains why Argentina ceased to have an independent central bank in March 2001. Had the independence of the BCRA been preserved, it is unlikely that the Executive would have been able to take the measures it took in January 2002.

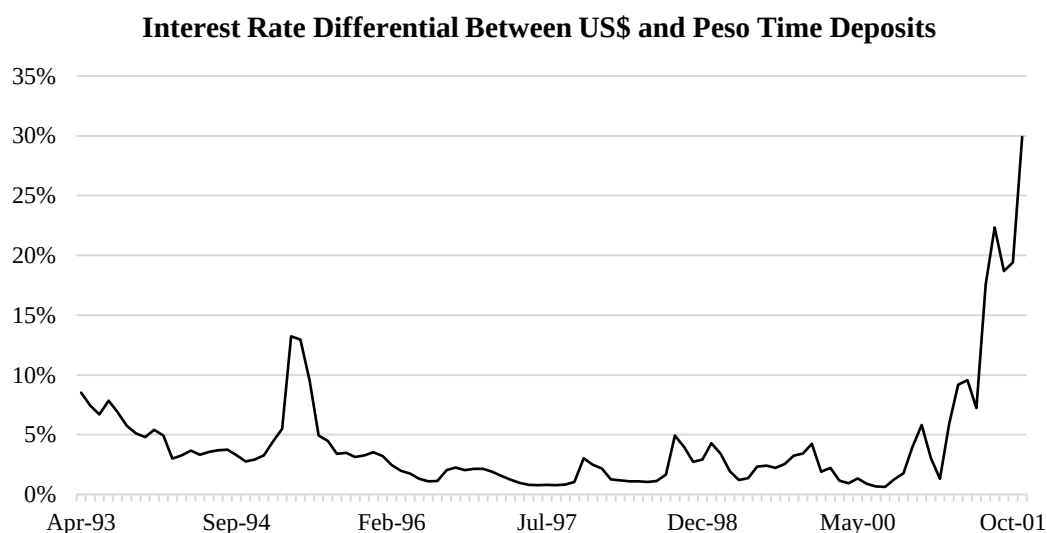
At the time Convertibility was launched, March 1991, the public believed that a law approved by Congress seemed like a sufficient guarantee against reversal by politicians. Having experienced democracy for only seven years, most Argentines still believed in the separation of powers established by the constitution. However, by design, the Argentine electoral system (particularly the so called *lista sámana* or closed party list ballot) ensured that legislators are not beholden to the electorate but to the governing party bureaucracy. Although the 1994

constitutional reform made improvements by limiting the ability of the Executive to appoint or remove Supreme Court justices, the prior enlargement of the Supreme Court to align to the interests of the Executive and the practice of politicizing the appointment of lower court, particularly federal, initiated by President Menem, became the norm. Weakening *de jure* and *de facto* legislative and judicial constraints opened the doors for the Executive to take arbitrary measures.

Despite these institutional developments, the Convertibility Plan successfully confronted its first existential test in early 1995 with the “Tequila Crisis.” However, despite this success doubts started to emerge about its long-term viability:

A currency board does not magically restore the credibility of a country’s economic policies, as some advocates claim. The reason is because currency boards can be abandoned. When investors fear a government is about to abandon its currency board, they take their capital out of the country, and financial panic typically ensues, as it recently did in Argentina. In such circumstances, the armor against devaluations that a currency board supposedly provides becomes a suffocating straitjacket society and their governments will be tempted to cast off (Zarázaga, 1995a, p.9).

This warning proved prescient six years later. A succession of foreign exchange crises in South-East Asia (1997), Russia (1998) and Brazil (1999) put a dent on capital inflows to emerging markets and aborted Argentina’s economic recovery. With a looming change of government, domestic politics, which challenged the sustainability of the currency regime, became an increasing source of uncertainty. Particularly damaging in this regard was strong opposition to Convertibility within Menem’s party led by Eduardo Duhalde, his most likely successor.



Source: Central Bank of Argentina.

Aware of the problem, in early 1999 Menem doubled down and announced official dollarization (his economic team had been working on the implementation of this option since 1997). He encouraged his ministers to accelerate the process by paying salaries to public employees in US dollars (La Nación, 1999). But the political dynamics generated by a looming election worked against him. Both presidential candidates reacted unfavorably to Menem's dollarization proposal. Without any political support, the dollarization project was abandoned.

Fernando de la Rúa won the election in 1999 partly because he publicly supported the Convertibility Law. In contrast, his opponent and eventual successor, Eduardo Duhalde, had openly voiced criticism of the currency regime. De la Rúa's governing coalition was divided. Former president Raul Alfonsín and its left-wing members strongly also opposed Convertibility. The catalyst that accelerated the demise of the currency board was the resignation of the Vice President in November 2000 in the midst of a political crisis. It was the beginning of a bank run that with varying degrees of intensity would not stop until December 2001. Ironically, the reappointment of Domingo Cavallo, the "father" of Convertibility, as Economy Minister in March 2001 undermined its credibility. Before his appointment, Cavallo had publicly stated that the Convertibility Law needed to be modified and that the peso should float. Not surprisingly, his appointment fueled expectations that the monetary regime would change. One

of his first measures was to put an end to central bank independence with dubious justifications (Powell, 2002). In April, after a month in office, the interest rate differential between dollar and peso deposits crossed the 5% threshold for the first time since the Tequila crisis. Two months later Cavallo confirmed investors' worst fears when he successfully pushed through Congress an amendment to the Convertibility Law that specified that changed the parity to an average of the dollar and the euro.²¹ It was clear after this change, that the currency board was not an ironclad foreign exchange regime as people had originally believed. To make matters worse, the restructuring of government debt increased the banking system's overall exposure to the public sector at a time investors had serious doubts about its solvency. By August 2001, the fate of the Convertibility Plan was sealed: interest rate differentials crossed the 12% threshold, the highest level since 1991.

The events of 2001 and 2002 confirmed that in Argentina the arbitrary discretion of a sitting president can prevail over any formal or informal constraints. A glaring example of the degree of institutional anomie was the fate of the so-called Law of the "Untouchability of Deposits", which was approved literally in 3 minutes by the Argentine Senate in August 2001 with an overwhelming majority. This law was meant to protect the rights of depositors against any attempt by the Government to change the terms they had agreed up with their bank and thus increase their confidence in the banking system. The objective was to prevent steady deposit withdrawals from turning into a full-fledged and lethal bank run. The law became effective on September 25, 2001, but lasted less than three months. It only served the purpose of fooling depositors to keep their savings in the Argentine banking system. On January 7, 2002, the Argentina government froze all deposits and then converted all dollar deposits into pesos at a

²¹ If Convertibility had survived, this change would have led to a stronger appreciation of the peso, which was what Cavallo was attempting to correct.

below market rate, which entailed a capital loss of at least 30%.²² Eventually, the Supreme Court ruled that the decision to freeze deposits and the forced conversion of dollar deposits into pesos were unconstitutional, but very few investors benefited from this decision (see Marval, O’Farrell y Mairal, 2004 and Clarin, 2017).

Years before the demise of Convertibility, Zarázaga (1995a) warned about the inherent limitations of currency boards as ECDs.

“The truth is that currency boards and similar institutions cannot enforce a government’s everlasting commitment to low inflation and pegged or fixed exchange rate policies any more than a wedding ring can ensure a spouse’s commitment to an everlasting marriage. This weakness is common to other institutions and written laws as well, and its source is the same: ironclad rules do not resolve the basic problem of time inconsistency. This problem lies at the heart of the lack of credibility that haunts policymakers in countries that have frequently broken their commitments in the past. This lack of credibility explains why currency boards are subject to speculative attacks that they can resist without devaluing only at the cost of very severe financial crises. Therefore, depictions of currency boards –or any other ironclad rule, for that matter– as powerful devices that will magically restore investors’ confidence and, therefore, prosperity almost overnight and without pain do not help. On the contrary, this optimistic assessment may have the perverse effect of providing policymakers with the incentive to abandon their commitments on the mistaken impression that later, simply by institutionalizing a rule such as a

²² The government basically converted dollar bank deposits into pesos (“pesified”) at an exchange rate that resulted in a confiscation. As it is usually the case in Argentina, the mechanism to repudiate the law was an emergency law approved by Congress.

currency board, they can quickly and painlessly restore lost credibility (Zarázaga, 1995b, p.21).”

Chang (2000) also presciently pointed out that the Argentine government “could end its currency board system virtually overnight if it wished to.” The only barrier to reversal was the immense popularity of Convertibility among voters. However, this factor was not such a strong deterrent. First, due to electoral design, legislators, particularly in the largest districts, have more allegiance to the party bureaucracy than to actual voters. Secondly, the unfortunate resignation of President De la Rúa, created a major political crisis and elevated Eduardo Duhalde to the presidency without any votes. The events of 2001 and 2002 confirmed that without radical changes in the institutional and electoral framework, in Argentina a currency board would be a suboptimal commitment device.

There is one aspect of currency boards that make them different from dollarization and particularly vulnerable to reversal. As implemented in Argentina, under the former peso bank denominated deposits coexist with dollar denominated deposits. With the passage of time the latter, and partly due to lack of credibility, financial dollarization increased. At the beginning of Convertibility, dollar denominated M3 was 33% of aggregate M3, but by November 2001, that percentage had doubled; deposits in US dollars represented 75% of total bank deposits.

As Della Paolera and Taylor (1997, 2001 and 2003) have repeatedly emphasized there is a potential lethal inconsistency between any fixed exchange rate regime such as a currency board, and a fractional reserve banking system with a high ratio of inside money to outside money and large currency mismatches. In other words, external convertibility is unsustainable if internal convertibility is in doubt due to the deteriorating quality of bank assets while internal convertibility is unsustainable if fears of devaluation increased. This inconsistency would be eliminated under dollarization because external convertibility disappears outside money is the US dollar. However, a banking system prone to originating assets of poor quality (aka *gaucho* banking) always poses a danger to financial stability. In Della Paolera and Taylor’s words,

“assuming one is living in a *Gaucha* Banking world, more serious consideration could be given to an alternative second-best monetary regime: dollarization, plus a more robust separation between outside money and inside money than was seen in either the 1920s or the 1990s—a policy, perhaps, of narrow banking” (2003, p.20).²³

The vulnerability of a currency board to reversal increases with lack of credibility, which inevitably leads to higher levels of dollarization in banking assets and liabilities. As bank deposits denominated in dollars grow as a percentage of the total, so does the political temptation to confiscate them, particularly if they are concentrated in a relatively small number of individuals. Simultaneously, with a growing currency mismatch on the credit side, doubts about the sustainability of the parity of the peso, would put into question the quality of banking assets. Over time this would also put pressure on the political system to bail out private creditors indebted in dollars (which is exactly what happened in 2001).

Reversal of Argentina’s currency board required not only a devaluation of the peso but also freezing and then forcibly converting dollar denominated deposits into peso denominated deposits at a below market exchange rate (essentially equivalent to imposing a capital levy).²⁴ So the magnitude of the political cost of reversal was directly related to how many voters held these deposits, which in December 2001 amounted to US\$42.3 billion. According to official figures, individual holders (i.e., excluding legal entities) dollar deposits accounted for 50% of the total bank deposits and were broken down as follows: 67,441 checking account holders; 3.5

²³ Narrow banking, or any other variant of the 100% reserve system, is not a viable option for Argentina, least of all in the context of dollarization and current circumstances. There are three major objections. First, it would increase its financial cost (it would be necessary to replace M1 as opposed to the monetary base). Second, it would lead to a significant credit contraction as banks would not be able to raise the necessary capital to sustain current levels. Third, it could lead to costly and lengthy litigation, which would generate doubts about reversal and thus undermine credibility.

²⁴ Measured in US dollars, the losses suffered by holders of peso denominated deposits were identical to those of dollar denominated deposits.

million savings accounts holders; and 1.1 million holders of time deposits.²⁵ The level of concentration of these deposits was high. The total number of depositors with a balance of US\$3,000 or more in their account were as follows: 14,320 in checking accounts; 549,800 in savings accounts; and 903,376 in time deposits. This group of depositors, within which there was some overlap, bore the brunt of the government's decision to suspend convertibility by forcefully converting financial assets into pesos at a confiscatory rate. The amounts effectively confiscated by the government with the repeal of the Convertibility Law can be estimated at US\$13 billion from holders of dollar deposits and US\$4.5 billion from holders of peso deposits. From an electoral standpoint, holders of bank deposits denominated in US dollars were relatively unimportant: they represented approximately 18% of Argentina's 18.9 million registered voters.²⁶ While it is true that individual holders of peso denominated deposits also suffered a loss in US dollars, 30% of such deposits were held by less than 100,000 individual holders. Given that the differential in interest rates on peso and dollar deposits widened considerably after July 2001, holders of the former could not hold any illusions about the future value of the peso.

The reversal of the Convertibility Law in 2002 suggests that in a relatively well functioning electoral democracy, strong voter support for a currency board regime will not be an effective deterrent against reversal if: a) strong institutional anomie prevails (i.e., no separation of powers, weak rule of law), b) dollar deposits in the banking system are significantly higher than local currency deposits and held by a relatively small percentage of voters, and, c) the central bank is not independent. Under these conditions, the electoral cost of reversal is high but not prohibitive.

²⁵ In contrast, the figures for peso denominated deposits as of December 2001, were as follows: 1,139,522 individual holders of checking accounts, 8,855,364 individual holders of savings accounts and 160,039 individual holders of time deposits.

²⁶ In the 2003 election, Ricardo López-Murphy, a right of center politician got slightly over 3 million votes. It is likely holders of dollar deposits were overrepresented among them.

The table below puts Argentina's two experiments with a currency board regime in an institutional context. Although the Index of Electoral Democracy was lower during the 1900-1929 period, judicial constraints on the Executive and compliance with the Supreme Court and Judicial decisions were higher (in other words, institutional anomie was weaker).

	1900-1929	1991-2001
<i>V-Dem Indices</i>		
Index of Electoral Democracy (0 to 1)	0.4	0.8
Constraints on the Executive (0 to 1)		
Judicial	0.9	0.6
Legislative	0.6	0.7
Compliance with (1 to 4)		
High Court	3.1	2.6
Judiciary	3.2	3.1
<i>Aráoz</i>		
Institutional Quality (0 to 1)	0.9	0.6
Independence of Judiciary (1 to 10)	10.0	6.2
Independence of Monetary Authorities (1 to 10)	8.6	7.6

Source: Aráoz (2011) and V-Dem Institute.

Dollarization as an ECD

According to Zarázaga, the track record of a country “seems far more important for policy credibility than the particular label (central bank or currency board) of the institutions that conduct policy (1995a, p.9).” This paragraph summarizes well the key issue Argentina faces today. Given that the country's dismal track record, if no ECD exists under local jurisdiction, there is little hope of ever reducing inflation, least of all with the traditional tools of economic policy. The notion that it is possible of gradually establishing a track record to gain credibility is an impossibility without an ECD.

If a currency board is not an ECD, the key question is whether Zarázaga's conclusion about a currency board is equally applicable to dollarization. Economists generally lump them together but there are important differences between them that are relevant in the context of reversal. First, as Mankiw (1998) pointed out, under a currency board regime the central bank can “abandon its commitment at any moment”, whereas in a dollarized economy “a crisis of

confidence in the central bank is impossible.” Chang (2000) argued that it would be “much more difficult” to reverse official dollarization than a currency board. De-dollarization also requires creating demand for a new domestic currency, a problem which proved insoluble to both Correa and Bukele.

In a relatively well functioning electoral democracy, the most important cost facing a politician intent on reversing dollarization is a negation reaction by voters in the next election.²⁷ However, in the case of Argentina at the end of 2001 this was not such an important consideration. As a result of the resignation of President De la Rúa in December of 2001, and the political crisis that ensued, the electoral system no longer worked—at least temporarily—as the mechanism to elect his successor. Eduardo Duhalde reached the presidency without having been elected by voters. Unlike De la Rúa, he did not believe in Convertibility and, more importantly, had the support of a majority of the Peronist Party (and the labor union leaders).

Besides, the full magnitude of the economic impact of reversing Convertibility was unknown in December 2001 (or not entirely clear). In fact, several domestic and foreign “experts” argued that a devaluation and an orderly sovereign default would have a stimulating effect on an economy that had stagnated for almost two years (Zarázaga, 2003). It is very likely that Alfonsín and Duhalde as well as other leading politicians underestimated the macroeconomic cost of reversing Convertibility. This cost turned out to be substantial: GDP per capita contracted a staggering 11.6% in 2002 (higher than in 1930) and poverty rates skyrocketed to over 50% setting historical highs. Argentine politicians were able to shift the blame for this outcome from their decision to reverse Convertibility and the chaotic way in which they implemented it to the regime itself. However, the Argentine economic debacle of 2002 was

²⁷ To the extent that reversal of dollarization entails violating property rights, the legal costs might not be insignificant. However, in the presence of institutional anomie they can be deemed irrelevant by politicians considering reversal. Even if the constitutional separation of powers and the rule of law are operational, court verdicts take time and the final cost is unlikely to be borne by the public officials that decided dollarization (in fact, taxpayers will end up paying the cost of adverse verdicts).

fresh in the mind of Lucio Gutierrez and Rafael Correa when they pondered whether to reverse Ecuador's dollarization (Correa, 2004; BBC, 2015). We can now add the cost Zimbabwe's de-dollarization in 2019: real GDP per capita contracted 7.8% in 2019 and 6.9% in 2020 while the annual inflation rate increased from an average of 4.5% during 2009-2018 to 521% in 2019 and 348% in 2020.²⁸

The second dimension of the political cost of reversal is easier to quantify since it relates to the number of voters who will lose part of the savings they hold in the financial system, i.e., the depositors who will pay the capital levy required by reversal. In theory, this cost would be zero if de-dollarization were to be done at a market exchange rate. But as the experiences of Argentina and Zimbabwe show, this rarely happens with fiscally profligate governments that face funding crises.²⁹ In both instances, the political system (incorrectly) viewed regime reversal as the optimal way out of an unsustainable financial imbalance that required imposing a capital levy on (or partial confiscation of) bank depositors and, in the case of Argentina, also pensioners and bondholders (via a sovereign default). The figures provided in the previous section, which were available at the time of reversal, suggested that for a politician such as Eduardo Duhalde such cost was not prohibitive since traditional voters of Peronism were under-represented among holders of dollar denominated deposits.

In contrast, reversal of dollarization entails forcibly converting not only bank deposits but the entire money supply into a new domestic currency. The entire population therefore will feel the full impact of de-dollarization. Basically, the government must not only confiscate deposits but

²⁸ As the experience of several Central American countries after WWII demonstrates, reversal of dollarization need not be traumatic (Helleiner, 2003). A fiscally responsible government can introduce a domestic currency without generating upheaval.

²⁹ De-dollarization doesn't necessarily need to be traumatic if done by a fiscally responsible government at non confiscatory foreign exchange rates. That was the case in most Central American countries after World War II. The case of Dominican Republic is quite interesting. In 1947 Dictator Rafael Trujillo reintroduced the Dominican peso after almost four decades of having the dollar as legal tender. In the following 10 years, the inflation rate in the Dominican Republic did not significantly diverge from that of the United States.

take the dollars out of people's pockets.³⁰ Politicians can estimate *ex ante* the electoral cost of doing so. As mentioned, in Ecuador two presidents did and deemed it too high.

A left-wing politician, Correa had opposed dollarization as a professional economist (Correa, 2004), as Minister of Economy (2005) and as a two-term President (2007-2017). He was the most popular president in country's history. He managed to change the constitution and get re-elected for a second term. However, he never openly attempted to reverse dollarization (although he tried indirectly). It wasn't because Ecuador's dollarization had been optimally designed but to a simple calculation: the dollar was even more popular than Correa (Calderon de Burgos, 2007). The same voters that re-elected him in 2013 wanted to continue earning their salaries in dollars. In early 2015, seven years into his presidency, opinion polls showed that 85% of the Ecuadorian population was in favor of maintaining the dollar as legal tender (BBC, 2015). On the other hand, the experience of Zimbabwe suggests that in a fledgling electoral democracy this is not an effective deterrent for any politician intent on reversal.

Which highlights another important point. Any regime in which a domestic (weak) currency survives, essentially undermines the electoral coalition that supports dollarization (i.e., price stability). In fact, in countries that suffer from institutional anomie and in which the political system has incentives to spend in excess and pro-cyclically, any monetary regime in which a domestic currency co-exists with the dollar will be inherently unstable and likely to be reversed.

While it is true that as Velde and Veracierto (2000) pointed out, in a sovereign nation "no commitment device is absolute", in anomic and fiscally profligate countries proper institutional design can make dollarization the most effective commitment device available to policymakers. It is impossible to reduce the expected probability of reversal to zero. However, there are certain design features that can significantly reduce this probability.

³⁰ No government can take the dollar bills that people have in their pockets, but after reversing dollarization salaries will no longer be paid in dollars.

To be most effective as a commitment device, dollarization must contemplate: 1) the elimination of the central bank, 2) the creation of an independent bank supervisory and regulatory agency to ensure financial stability, 3) the privatization and relocation of the central bank's custody of bank reserves to a safe jurisdiction to prevent their appropriation by the political system for deficit financing (as Correa did in Ecuador), 4) a full liberalization of banking activity and capital flows. Ocampo and Cachanosky (2022) provide a blueprint for such a dollarization scheme.

Although these institutional features can help reduce the probability of reversal, the experience of Panama, Greece, Ecuador, and El Salvador shows that in the medium and long-term, the best insurance against reversal in a working democracy is the electorate. In contrast, the experience of Zimbabwe also shows that in a fledgling electoral democracy such insurance does not exist, and that the presence of a functional and non-independent central bank facilitates de-dollarization. Available data on institutional quality seems to support this hypothesis. However, further research is needed to assess how decisive is this factor. Given the traumatic experiences of Argentina (2002) and Zimbabwe (2019), any politician would think twice before attempting to reverse a dollarization.

Country	Index of Electoral Democracy (2000-21)	Index of Judicial Constraints on the Executive (2000-21)	Index of Central Bank Independence (2000-12)	Index of Financial Integration (2000-2020)	Survived?
Zimbabwe	27.5	0.43	0.45	0.22	No
Ecuador	59.3	0.31	0.68	0.68	Yes
El Salvador	64.2	0.61	0.67	0.87	Yes
Panama	74.7	0.60	n.a.	1.00	Yes

Source: V-Dem Institute, Garriga (2016) and Chinn-Ito (2020). The IED is scaled from 1 to 100.

Conclusions

In two centuries of Argentine monetary history, price and currency stability have been the exception rather than the rule.³¹ There are a few valuable lessons we can draw from this history. First, Argentina only achieved long-lasting stability when it had a convertible currency and a) fixed its value to an international standard by law, or b) had an independent central bank. Second, since the creation of the central bank in 1935, we only had two consecutive periods of relative independence (May 1935-June 1943 and September 1992-April 2001). Third, the experience of 2002 shows that any monetary reform under Argentine jurisdiction is easily reversible and, therefore, unlikely to generate sufficient credibility. Fourth, thanks to institutional anomie –a legacy of enduring populism– Argentine policymakers face a scenario in which price stability with a national currency is unattainable. Fifth, the experience of 2002 proves that a currency board regime is not an ECD.

The dynamics of the electoral calendar and Argentine politics make it highly improbable that even a well-intentioned and determined president will be able to successfully implement a stabilization plan and all the necessary reforms need to put the economy on a path of sustainable growth. As long as central bank independence remains chimerical, with a national currency, the intersection of macroeconomically viable stabilization plans and politically viable stabilization plans will be an empty set. It would be naïve to assume that something will radically change Argentine politics any time soon without an external disciplining factor. The discipline imposed by dollarization will be greater than that of any other regime, including a currency board. Ideally it should be implemented together with other structural reforms such as baking liberalization and free trade agreements with major regional blocs. Dollarization is not as vulnerable to reversal as a currency board.

³¹ Lasting here is defined as a period of five or more consecutive years of single digit annual inflation rates.

In a relatively well functioning electoral democracy, in the medium and long-term the best insurance against reversal of dollarization is strong voter support. This was the case in Ecuador, where dollarization has lasted more than two decades despite not having an optimal design and suffered the impact of several supply shocks (including an earthquake in 2016 and the Covid-19 pandemic in 2020), sovereign debt defaults (in 2008 and 2020) and attempts by populist politicians to reverse it (Correa's digital currency experiment). In El Salvador, dollarization also resisted Bukele's attempts to escape from its constraints. Although neither country has reached a macroeconomic nirvana, it is hard to argue they would be better off if they had kept their own currency. Even with a decade of virulent populism, Ecuador has grown faster and with a significantly lower inflation rate than Argentina, which during this period experimented with populism and a variety of discretionary policies.

However, in the short-run, certain design features can strengthen the effectiveness of dollarization as a commitment device. By enhancing credibility these features can help deliver lower inflation and economic growth faster, which will in turn strengthen the medium and long-term political insurance against reversal. Over time, both elements virtuously reinforce each other to reduce the probability of reversal.

In emerging market economies with high, persistent, and volatile inflation, low growth, high levels of *de facto* dollarization (both financial and transactional) and low credibility due to persistent time-inconsistency and institutional anomie, a well-designed dollarization scheme offers the best, and possibly only, hope for lasting stability. The benefits of eradicating inflation are well known. In the case of Argentina, it is hard to imagine that any costs dollarization might entail could be higher than those imposed in recent decades by politicians and policymakers.

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