Development and Change
Published on behalf of the Institute of Social Studies, The Hague

Old Cycles and New Vulnerabilities: Financial Deregulation and the Argentine Crisis

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ABSTRACT

After returning to financial markets in 2016, Argentina asked for IMF financing in 2018 and defaulted on its peso-denominated short-term debt in 2019. This article describes this latest short-lived cycle of external indebtedness and default. The Macri administration that came into power in December 2015 embarked on a path of financial liberalization, external indebtedness, rising public utility tariffs and increased profitability in the agricultural sector, with the aim of lowering inflation, attracting foreign direct investment and promoting economic growth. Vulnerabilities arose because of the combination of financial deregulation, external indebtedness in foreign currency, inflows of volatile short-term financial capital, capital flight by domestic residents, and the government's flawed reaction to a currency crisis in 2018. The IMF programme failed to attack the causes of the crisis, while plunging the country into a severe recession and a debt default. Notwithstanding the successful renegotiation of external debt with private creditors in 2020, the new Argentinian administration still faces serious challenges if it is to lift the economy out of stagnation.

INTRODUCTION

Since the 1970s, Emerging Market Economies (EMEs), and particularly Latin American countries, have gone through several boom-and-bust cycles of external indebtedness and financial crises stimulated by financial and external deregulation. This article tells the story of the most recent of these cycles, the Argentinian crisis that exploded in 2018 and that led to a default in short-term debt in August 2019. This new cycle has some particular characteristics that differentiate it from other typical Latin American rounds of boom and bust, and make it a worthy subject for study. First, this was the first time that a balance of payments crisis forced the abandonment of

The authors would like to thank Yannis Dafermos, Daniela Gabor, Annina Kaltenbrunner, Servaas Storm and four anonymous referees for their comments and suggestions. The usual caveats apply.

Development and Change 52(3): 598–626. DOI: 10.1111/dech.12646
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an Inflation Targeting (IT) regime by an emerging economy. Second, this crisis was marked by the interplay between accelerated external borrowing, increasing share of international investors in short-term domestic debt markets, and accelerated capital flight by residents, expressing the vulnerabilities of international financial integration in domestic financial markets. Third, during the crisis Argentina experienced a default on short-term debt denominated in domestic currency. While external defaults and debt restructuring are common features of external overborrowing episodes, defaulting in domestic currency is much less common.[1]

These three features are important because of the general context of monetary policy and international financial integration in emerging economies, and in Latin America in particular. IT has been the favoured monetary policy in the region since Chile adopted such a regime in 1991. Brazil, Colombia, Mexico and Peru followed, and Argentina announced the adoption of IT in 2016, with a formal introduction in 2017. One year later, as the crisis erupted, the Argentinian government was the first to announce the abandonment of the IT regime.

Since the 2000s, the financial integration of emerging economies has been characterized by the presence of new actors in new markets (Bortz and Kaltenbrunner, 2018), leading to new and different vulnerabilities (Kaltenbrunner and Painceira, 2015, 2017). There has been an increasing share of international investors trading in new and varied instruments in EMEs. Derivatives markets and local currency debt markets have attracted new investors to EMEs, including pension and insurance funds, and asset managers (BIS, 2015; Bonizzi, 2017). Their involvement has exceeded traditional purchases of foreign-currency denominated bonds. Furthermore, since the 2008 Global Financial Crisis (GFC) international bodies such as the G8, the G20, the World Bank and the Financial Stability Board (FSB) have fostered the development of local currency bond markets, as a means to develop capital markets in EMEs (IMF, 2018c). However, instead of reducing the dependence on external finance, local currency bond markets have been penetrated by international investors (Gabor, 2018; IMF, 2018c). Debt denominated in domestic currency is certainly an improvement upon external debt, but greater involvement of external investors results in exchange rate volatility, increased sensitivity to external liquidity conditions and capital flight, depriving EMEs of hard currency in times of stress (Hofmann et al., 2020).

On top of these novel features, the latest debt crisis episode in Argentina reveals rapid external indebtedness amidst financial deregulation and abolition of capital controls; surges of capital inflows and abrupt sudden stops with capital flight; and an International Monetary Fund (IMF) programme

1. Fitch (2013) counts seven episodes between 1994 and 2013. Beers et al. (2020) report 32 cases since 1960, but most of these refer to ‘exchange of old currency for new in confiscatory terms’ (ibid.: 1). Beers et al. present a database of sovereign defaults.

with financial assistance that failed to stabilize the economy and resolve external pressures. This boom-and-bust episode was one of the most short-lived borrowing cycles.

The year 2016 marked the return of Argentina to international financial markets and the full payment to 'vulture' funds.[2] That year also saw the announcement of and preparation for an IT regime that was officially introduced in 2017. The government thus became the poster-boy for financial investors. There was a surge of gross capital inflows while the current account deficit sharply increased, but this was not seen as a concern by a government that relied on the exchange rate flexibility to 'absorb' external shocks and 'isolate' the domestic economy. The government had made the return to financial markets one of its credentials in terms of credibility.

The bust phase erupted in April and May 2018 with a run on a peso-denominated short-term liability of the central bank (known as Letras del Banco Central or LEBAC) towards the US dollar. The peso depreciated by 25 per cent in 16 days while reserves fell by US$ 9 billion in the same period (and kept on falling); the interest rate was increased from 27 per cent to over 40 per cent, marking the first step in an increasing trend. Argentina's access to global financial markets closed down, just two years after its return. In May 2018, the government called the IMF for financial assistance, in the expectation that it would help to restore the confidence of foreign investors and enable debt rollover. But this did not happen.

In June the IMF approved a Stand-By Agreement (SBA) with the typical requirements of an IMF programme. However, the programme failed to stabilize the economic situation and the external front. Several amendments (and hardening) of the programme did not avoid substantial capital flights by domestic and foreign residents, although the current account deficit shrank because of the severe depreciation and abrupt and steep recession. Precisely because of the depreciation, inflation accelerated from already high levels and poverty increased, leading Argentina to become the first country ever to abandon an IT regime.

In August 2019, the political landscape changed abruptly. The government was defeated in the primary presidential elections and lost the market confidence to reverse the situation. A month later, the government announced the postponement of the payment of peso- and dollar-denominated short-term bills (i.e. a default) until the next administration assumed power. The requiem for external deregulation came only a couple of days later with the re-imposition of capital controls, which are now even tighter than those prevailing during Kirchnerism (2003–15). Finally, Macri lost the presidential elections in October, and a new administration led by Alberto Fernández came to power on 10 December 2019.

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2. These were bondholders who 'held out' from the debt restructuring after the 2001 default on Argentinian sovereign debt. They obtained favourable rulings in New York courts in 2014, and effectively prevented Argentina from returning to international bond markets.

This article proceeds as follows. First, we present our theoretical framework, integrating the traditional studies of Kindleberger, Minsky and Palma with the currency hierarchy literature and recent studies of new forms of external vulnerabilities. We then summarize the state of the economy in late 2015, focusing on the last period of the Cristina Fernández de Kirchner (or CFK) administration. This is followed by a review of the external and monetary policies implemented by the Macri administration, and of the developments that led to the May 2018 foreign exchange run, ending in the request to the IMF for financial assistance. The subsequent sections then examine developments since the announcement of the SBA, including its successive amendments and the reasons for its eventual abandonment; the derailment of the programme with the IMF; and the closure of the cycle with the default in August 2019, the establishment of capital controls in September 2019 and the debt restructuring in 2020.

OLD CYCLES AND NEW VULNERABILITIES

Latin America in general, and Argentina in particular, has gone through cycles of overborrowing, balance of payments crisis and default since its fights for independence and consolidation of territory, in the 1820s. Almost all these cycles occurred in the context of surges of global liquidity, ease of access to international markets, increase in credit, and a subsequent deterioration in risk perceptions, sudden stops, capital flight and eventual default. Marichal (1989) tells the story of financial cycles and debt crises in Latin America since independence.[3] The theoretical reference for that study, as well as our own, is Kindleberger and Aliber (1978/2005), who also draw on the work of Minsky (1986).

Minskyan cycles are characterized at the outset by deleveraged agents, a facility for accessing credit with abundant liquidity, and self-reinforcing optimistic expectations about the future. In the international arena, as Kindleberger elaborated,[4] the provision of liquidity is usually matched with financial deregulation and economic liberalization. This liberalization allows new borrowers from developing countries to access abundant and cheaper credit, relative to rates prevailing domestically (Palma, 2001). When leverage is up and exposure is large, investors realize the state of 'financial distress' of the economy (Kindleberger and Aliber, 1978/2005: 31), and a search for liquidity begins. Assets are liquidated, credit facilities are cancelled, risk perceptions and risk premiums are tightened, and a sudden stop ensues. Agents and countries increase their external borrowing to the point that their debt

3. See also Kaminsky (2016); Medeiros (2008); Taylor (2006).
4. For a recent presentation of Kindleberger's contribution to the analysis of financial crises, see Pasotti and Vercelli (2015).

service requirements are no longer affordable through their revenues, and become devoid of lines of finance to rollover their commitments.

In these cycles of liquidity, lending and sudden stops, the global currency plays a key role. Up to the 1930s, it was gold and the British pound that drove the cycle. Since World War II, it has been the US dollar, particularly since the demise of Bretton Woods. This reflects the existence of an international currency hierarchy (ICH), with the US dollar at the top (Dow, 1999; de Paula et al., 2017). The US dollar participates in around 85 per cent of global transactions (Auboin, 2012; Gopinath, 2015). It is the safest currency to acquire in times of turmoil, and particularly after the 2008 GFC (Tooze, 2018). Its influence goes beyond the American financial system, as a significant portion of dollar-denominated cross-border lending is obtained outside the US (Aldasoro and Ehlers, 2018; Avdjiev et al., 2016; McCauley et al., 2015), acting as a funding currency (Kaltenbrunner and Lysandrou, 2017). It therefore tends to depreciate in boom times and to appreciate during crises, as it is the destiny of 'flight to quality' investment.

The role of developing countries' currencies is to act as short-term speculative investment vehicles, paying a liquidity premium over US interest rates, being abandoned as risk perceptions tighten and liquidity is reduced (Bonizzi, 2017; Kaltenbrunner, 2015). Foreign reserve accumulation during boom times becomes the reasonable strategy to pursue in order to mitigate exchange rate pressures and default risks (Zeolla and Bortz, 2020).

However, recent financial developments in EMEs have added to and modified traditional vulnerabilities (Kaltenbrunner and Painceira, 2015, 2017). First and foremost, many EMEs (including Argentina during the period under study) adopted IT monetary regimes. A detailed description of IT monetary regimes is beyond the scope of this article, but IT makes the control of inflation the primary — and, in many cases, the sole — mandate of the central bank, subordinating the whole institutional framework and macroeconomic policy to that objective (Mishkin, 2001). The main policy instrument under the control of the central bank is the short-term interest rate. In a closed-economy setting, this instrument is supposed to affect economic activity and therefore inflation, with the assistance of a credible inflation target that regulates inflationary expectations (Arestis and Sawyer, 2008; Howitt, 2012). These inflation expectations are important because the theoretical background of IT regimes features rational, forward-looking agents. The Phillips Curve, the intertemporal optimization process by which investment and savings decisions are taken, arises from forward-looking behaviour (McCallum, 2001; Woodford, 2003).

In an open economy, and particularly in EMEs, the exchange rate has a significant influence over the inflation rate (Carsten, 2019; Serrano and Summa, 2018), which means that the interest rate has another variable to control, namely, the exchange rate. Given the impact of the exchange rate on inflation (measured by the degree of pass-through), monetary authorities are usually more vigilant of substantial depreciations than appreciations

(Agenor and Pereira da Silva, 2019; Ebeke and Azangue, 2015; Ostry et al., 2012). One of the consequences of this asymmetry is the tendency to offer higher interest rates, as mentioned above (Kaltenbrunner and Painceira, 2017; Serrano and Summa, 2015). Furthermore, IT regimes go hand in hand with deregulations in the financial account of the balance of payments, particularly with regard to outflow controls, allowing greater flexibility for capital flows in either direction.

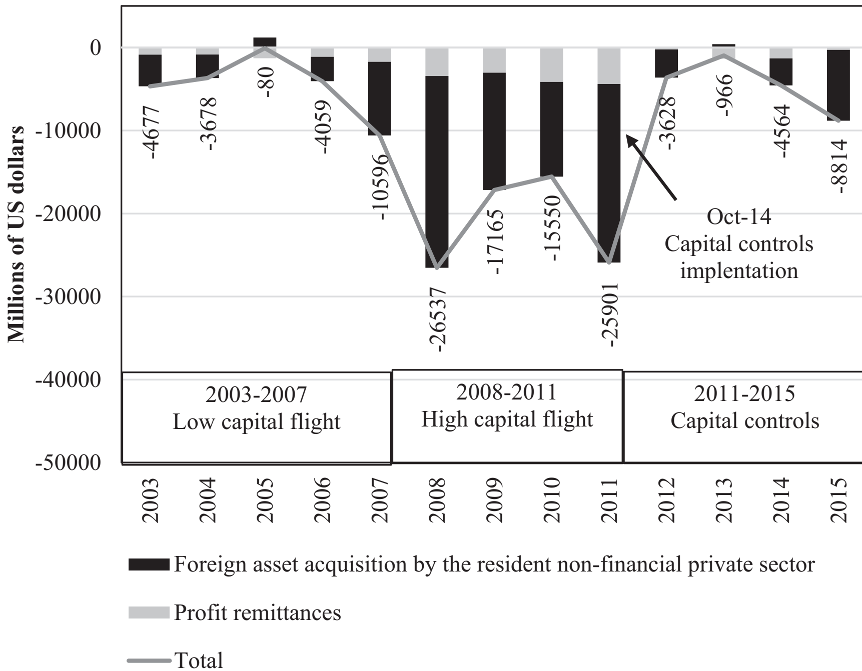
Latin American economies have observed several features of international financialization, including qualitative and quantitative developments (Bonizzi et al., 2020; Bortz and Kaltenbrunner, 2018). Especially relevant to the scope of this article is the involvement of new financial actors and institutions such as asset managers, pension and insurance funds, looking for short-term financial profits through carry-trade investment in EMEs. With that goal in mind, they have invested in previously unexplored financial markets such as local currency bond markets, derivatives and other short-term markets. This has helped EMEs to avoid 'original sin' debt problems and to convert their international debt structure to domestic-currency nominated liabilities. However, as Kaltenbrunner and Painceira (2015) and Gabor (2020) show, new vulnerabilities have developed. Exchange rate risk has not disappeared, but has shifted to the balance sheet of non-resident investors, leading to greater exposure to changes in the liquidity and confidence conditions in the international financial system. The financial cycle in EMEs is therefore tightly linked to the downturns in the global financial cycle (Aldasoro et al., 2020), given that speculative investments are not related to domestic fundamentals but to the global financial cycle.

As we will show below, Argentina's most recent experience combines conventional elements of boom-and-bust cycles (such as external indebtedness, a traditional IMF programme, and an equally traditional failure of such a programme) with characteristics of these 'new vulnerabilities' such as the destabilizing presence of foreign investors in domestic financial markets, asymmetric behaviour by resident and non-resident investors, and even a default in domestic-currency denominated short-term debt.

THE CONTEXT AT THE BEGINNING OF THE CYCLE

The beginning of the 2000s brought substantial changes in the balance of payments of Latin American economies. The two major developments were improved terms of trade due to a 'commodity supercycle' (a period of rising commodity prices) and lax international financial conditions (Moreno-Brid and Garry, 2016; Ocampo et al., 2017). Progressive governments in most of Latin America profited from this bonanza and improved social conditions, reducing poverty and inequality (ECLAC, 2017). Argentina was no exception. However, Argentinian growth rates in the 2010s were disappointing, below the average of the continent (excluding Venezuela), with talk of a

Figure 1. Capital Flight in Argentina, 2003–2015



Source: Authors' elaboration based on exchange market statistics of Central Bank of Argentina

'second lost decade' (ECLAC, 2020). While the second half of the 2010s corresponds to the Macri administration, the country's performance during the last term of the CFK government (2011–15) had already been affected by some factors that were not characteristic of the region, but were specific to Argentina.

The first local characteristic was the dollarization of economic surplus, not only by elites, but also by a large portion of the middle class. According to ECLAC data, between 2000 and 2017, Argentina averaged US$ 5 billion (or 0.8 per cent of GDP) of capital flight (portfolio outward investment and other investment assets, according to balance-of-payments accounts) — more than double the average of 0.3 per cent of GDP for Latin America, and second only to Venezuela. In those years, capital flight by Argentinian residents totalled almost US$ 90 billion, but with heterogeneous behaviour during the period. Figure 1 shows these dynamics during the period 2003–15. Capital flight intensified after the 2008 GFC, amounting to US$ 71.2 billion in the 2008–11 period. A foreign exchange run in December 2011, at the start of CFK's second term, led the government to adopt capital controls. Because of the legal dispute with the 'vulture funds', mentioned above, Argentina was cut out of the wave of capital inflows that entered other

countries and EMEs (Akyüz, 2014). At the same time, the current account deteriorated due to a substantial increase in energy imports and the stagnation of exports. Since the domestic price of energy was subsidized in order to protect the real income of working classes, the fiscal deficit increased with the widening of the current account deficit. Due to these capital controls, capital flight diminished, but since the supply of dollars also fell, a parallel market developed, with a gap which reached a peak at 60 per cent in 2015. Throughout the Kirchner government there was pressure on the exchange rate, with occasional jumps in the official exchange rate (as in January 2014), compounded by the steady drain of reserves and, after 2013, deterioration in the terms of trade and the worsening of the current account.

The influence of the US dollar is not limited to its role as a store of value for savings and its link with capital flight. House prices are denominated in dollars, as are other asset prices.[5] As the main export products of Argentina are agricultural commodities (mainly soybeans and wheat), movements in the exchange rate have an almost immediate impact on inflation rates (particularly food prices), the real wage and poverty. The structural theory of inflation affirms that as if trade unions fight back, a wage–price spiral may develop (Lavoie, 2014; Noyola Vázquez, 1956; Rowthorn, 1977).

A concomitant process in the first half of the 2010s was the sustained high level of inflation, averaging over 20 per cent since 2010. The origins of this can be traced back to the government's conflict with the agricultural sector in 2008 over export rights, amplified by the rise in commodity prices and by the devaluation in that same year linked to the GFC. Wage and price bargaining, and pressure on the exchange rate, created an inertial inflationary trend (Trajtenberg et al., 2015). It is worth mentioning that, in spite of high inflation, real wages remained relatively stable throughout the period, with the exception of 2014 and the depreciation in January of that year. It is difficult to pinpoint the exact inflation rate at the time, because of tampering with official statistics (Kaplan, 2013: 4), but there are unofficial estimates that agree with the description above. Furthermore, the stability of real wages and the maintenance of social expenditure programmes such as a universal child allowance helped to maintain poverty rates at around 27 per cent (official figures on this indicator are also unreliable; unofficial estimates claim that the poverty rate had halved since the 2001–02 crisis; see Zack et al., 2017). When the Macri administration came to power in December 2015, the inflation rate was around 25 per cent (down from 40 per cent in 2014, a year that featured a 30 per cent devaluation), there was a current account deficit of 3 per cent of GDP, an overall fiscal deficit of 3.8 per cent of GDP,

5. While the dollarization of house prices at the top of the real estate market is common throughout the region, most house prices in Latin America are denominated in domestic currencies, or in indexed units, such as in Chile or Colombia. That is not the case in Argentina.

tight exchange regulations, and a very low level of reserves. On the plus side, the economy was growing at 2.5 per cent, the (official) unemployment rate was 6 per cent (down from a peak of 25 per cent 12 years earlier), and public external debt stood at 38.2 per cent of GDP.

DEREGULATION, BORROWING SPREE AND INFLATION TARGETING

The Macri administration engineered one of the fastest and most short-lived episodes of capital account deregulation and foreign borrowing spree — and the quickest crash — in Argentina's history. The intentions were clear: opening the economy to foreign investors; lifting exchange and capital controls and letting the exchange rate float, in order to attract both foreign direct investment and financial speculative capital; rehabilitating private credit and easing access to household indebtedness; increasing the profitability of the agricultural sector; and raising public utility tariffs from the low level prevailing during the Kirchnerist period. The government pointed towards a 'rain of foreign investment' that was going to flood the country — another incarnation of the 'confidence fairy'.

On its sixth day in power, on 16 December 2015, the new government lifted all constraints for acquiring dollars, setting a cap of US$ 2 million per month per person for individuals (firms had no limit whatsoever). The cap was increased to US$ 5 million in May 2016 and completely abandoned in August 2016 (Zeolla and Rua, 2018: 20). These measures dismantled a regulatory framework that existed even before the CFK government. CFK had tightened access to the foreign exchange market, but previous administrations (including Nestor Kirchner's 2003–07 government) had implemented capital controls also on *inflows*, such as unremunerated requirements for short-term financial inflows. All these restrictions were lifted in the first week of Macri's administration. In the following months, he would eliminate the obligation for exporters to sell their hard currency in the foreign exchange market, granting them additional political power over the value of the exchange rate.

In order to fully return to capital markets, however, the government had to solve the lingering problem of vulture funds — 'holdouts' who owned bonds defaulted after the 2001 Argentinian sovereign debt crisis. These investors had won a judicial victory in New York.[6] The government chose to pay their claims in full, rather than negotiating for a lower amount, by issuing US$ 16.5 billion of bonds in April 2016. Table 1 shows the amounts issued in bonds (long-term debt) in foreign currency by the national government, subnational governments and the private sector. Numbers for 2018 include only the first quarter of that year, the period when the government

6. See Guzmán (2016) for a review of the default and resolution process, including the legal dispute with vulture funds.

Table 1. Bond Issuance in Foreign Currency by Institutional Sector (millions of US$)

	2016	**2017**	**2018***	**Total**
National Gov.	24,516	30,637	9,000	64,153
Subnational	7,192	5,182	90	12,464
Private Sector	5,879	6,015	1,020	12,914
Total	**39,603**	**43,851**	**12,128**	89,531
% GDP	7.10%	6.82%	2.34%	

Sources: International Debt Securities, BIS; ITE-Fundación Germán Abdala based on Bloomberg, World Development Indicators. *Numbers of 2018 up to March (prior to the agreement with the IMF).

was out of global financial markets. It should be noted that some firms continued to issue bonds, though the amounts and number of issuances fell sharply.[7]

External borrowing was not limited to issuing long-term bonds. As will be explained in the following section, the government also opened the gates to short-term investment for carry-trade purposes.[8] These venues offered a supply of hard currency, providing a pillar to finance resident capital outflows and the monetary and exchange regime implemented by the government: inflation targeting.

On 13 January 2016, the government announced the inflation targets for its whole administration. For 2016, it targeted an inflation rate of between 20 and 25 per cent per year; for 2017 the target was between 12 and 17 per cent; for 2018 the target was between 8 and 12 per cent; and for 2019 the target was between 3.5 and 7.5 per cent. But, as mentioned above, the government also set out to increase public utilities tariffs (from low levels). It also dismantled export rights on agricultural products, that helped to avoid (or attenuated) food price increments whenever there was a devaluation.

As we will see, the implementation of an IT regime did not succeed in bringing down inflation in Argentina. But the point is: with all these measures, the central bank could only stabilize inflation at the target rate if it succeeded in managing the nominal exchange rate and, especially, if it was able to prevent a nominal currency depreciation (and resulting inflation). The instrument to manage this was the interest rate, so as to attract capital inflows, short- and long-term, in the context of a deficit on the current account of the balance of payments. The next section looks at the effect of

7. There are only two issuances by firms worth mentioning: one by Transportadora de Gas del Sur (TGS, an energy company) in May 2018 of US$ 500 million; and one by Telecom (part of the largest media holding of the country) of US$ 400 million.
8. Carry-trade refers to the process of borrowing in a currency which is expected to depreciate (usually the US dollar) and investing in a currency expected to appreciate (and which usually pays higher interest rates), in order to profit both from interest rates and favourable exchange rate movements. There is also the expectation of materializing this profit just in time before a reversal of international liquidity conditions.

these policies, and how Argentina came to be applying for IMF finance in May 2018.

TRADITIONAL THREATS AND NEW VULNERABILITIES

The economic programme adopted by the Macri administration relied on foreign investment, agricultural production and financial development as the engines of growth. At the centre of the scheme was a monetary policy framework which consisted of an IT regime with a flexible exchange rate and a deregulated capital account that stimulated short-term inflows, while putting no barriers in the path of outflows. This section reviews the vulnerabilities associated with this monetary policy framework and how they contributed to the eventual failure of the programme.

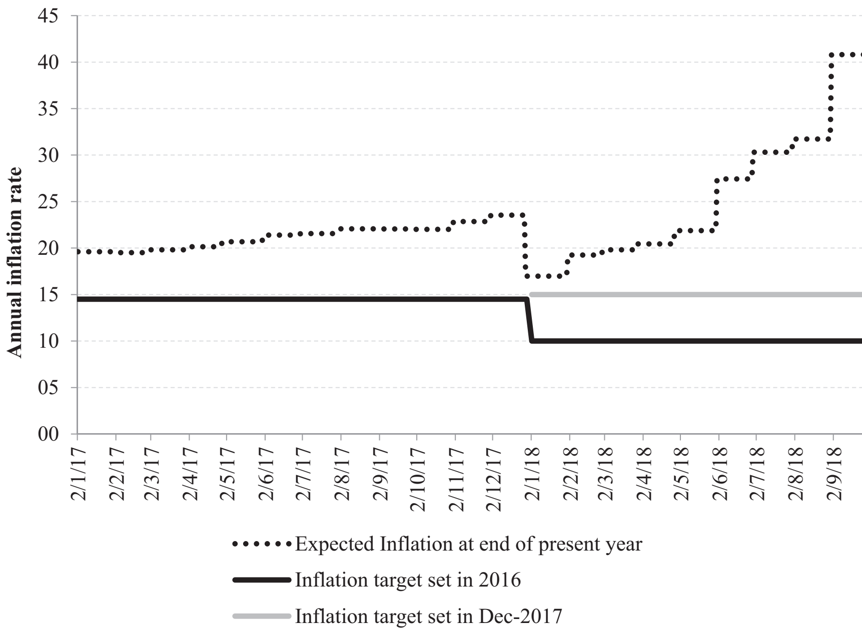
The first weakness relates to the deregulation of the foreign exchange market. As mentioned above, the government lifted all exchange and capital controls a week after coming into power. The official exchange rate immediately shifted to converge with the value of the 'parallel' market, jumping from 10 to 16 pesos (ARS) per US dollar, i.e. a 60 per cent devaluation. This drastic devaluation proved the inaccuracy of prior claims by economists close to the Macri government (e.g. Neumeyer, 2015) that the impact on the exchange rate of lifting capital controls would be limited, because prices already incorporated the value of the dollar on the parallel market. The government also eliminated export rights on most agricultural exports such as wheat (but not including soy) and raised public utility tariffs.[9] It is no wonder, therefore, that the government missed its inflation target of 20–25 per cent for 2016. The inflation rate that year reached 40.3 per cent.

The literature on IT regimes emphasizes that only a 'credible' central bank will be capable of 'anchoring inflationary expectations' and keeping actual inflation close to the target (Howitt, 2012; Mishkin, 2001). However, inflation expectations were persistently above the target set by the government even at the peak of the financial cycle in late 2016 and 2017, with a stable exchange rate, and with substantial financial inflows. Figure 2 shows inflation expectations for the end of the years in question (2017 and 2018) according to a survey conducted by the Central Bank of Argentina among think tanks and consultants (a survey that started in 2016).

Figure 2 shows that experts' inflation expectations were consistently higher than the central bank's inflation target (of 10–15 per cent). Up to February 2018, the expectation was that inflation would slowly rise (to almost 25 per cent), but after March 2018, experts predicted inflation

9. In a speech in March 2016, the then president of the Central Bank, Federico Sturzenegger, claimed that because of households' budget constraints, raising public utility tariffs would not have an impact on inflation 'by virtue of general equilibrium', since prices of other items would have to fall (Sturzenegger, 2016).

Figure 2. Inflation Expectations and Targets over the IT Regime



Source: Market Expectations Survey, Central Bank of Argentina

accelerating from around 20 per cent to more than 40 per cent in September 2018. Actual inflation rates never converged to the target figure. There are two major reasons for that. First, the government kept increasing public utilities tariffs throughout its term, up to the campaign period in 2019. Second, there was remarkable resistance by trade unions (in the private sector) to accept further deteriorations in their real wages. After falling in 2016, real wages recovered somewhat in 2017. Wage setting has a strong backward-looking bias, particularly in the context of moderate inflationary processes, because of the uncertainty surrounding future inflation rates. In 2018 and 2019, however, real wages fell by 20 per cent. Perhaps 'inflation targeting' regimes can more appropriately be called 'wage targeting' regimes. Their success in controlling inflation is noticeably greater when wage resistance is weaker (Cherkasky and Abeles, 2019). This may explain why one of the measures included in the agreement with the IMF in 2018 was a labour flexibilization law, which diminished the power of trade unions in the wage bargaining process, as discussed in the next section.

A second major weakness was the favourable institutional setting for carry-trade investment. The preferred instruments for conducting carry-trade operations were the Letters of the Central Bank, or LEBAC, for its initials in Spanish. These were short-term bills denominated in pesos issued

and owed by the central bank.[10] Since their introduction in February 2002, in the depths of the financial and external crisis, LEBAC were conceived as a form of interbank and central bank liquidity management. With a balance-of-payments surplus in the 2000s, the central bank chose to build up reserves, and sterilize the acquisition of dollars with the issuance of LEBAC, among other measures.[11] In most of that decade, the surplus of the balance of payments in Argentina followed the behaviour of the current account. When the current account slowly turned into deficit, the stock of LEBAC eventually stagnated.

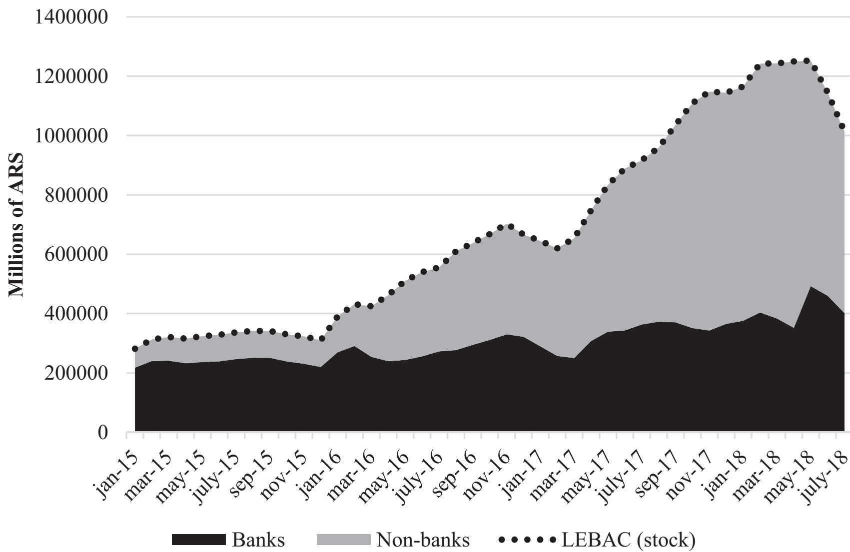
With the Macri administration, the stock of LEBAC increased substantially because of financial inflows. More importantly, the composition of holders changed, a reflection of the government's inclination towards financial investment. While banks held most of the stock of LEBAC in 2015, by 2018 their share had significantly diminished, while the inverse was true of non-bank investors. According to information from one of the main Argentine stock brokers, Allaria Ledesma & Cia (Lingua, 2019), in April 2018 (the month before the foreign exchange run) banks held a mere 28 per cent of the stock of LEBAC, while non-financial corporations and individuals accounted for 12 per cent, and non-resident investors held 9 per cent. Investment funds held 22 per cent and pension funds (including the public sector) owned 29 per cent. Figure 3 shows these developments. The run on LEBAC appears at the end of the graph.

There are several advantages to short-term liabilities in domestic currency: money can be printed to pay for them (though there are constraints, as explained in the next section); and their value diminishes with devaluations. The 'burden' of LEBAC as a liability for the central bank fell sharply as the peso depreciated, since these are peso-denominated bills. Furthermore, these short-term liabilities are usually the backbone of the liquidity management in the economy and the main (or only) safe asset in domestic currency.

In a context of deregulated capital flows, however, new vulnerabilities emerge. These instruments become an attractive vehicle for short-term gain and quick flight (Kaltenbrunner and Painceira, 2015). Moreover, the *threat*

10. During the first year of Macri's administration, the central bank issued LEBAC denominated in US dollars. It later abandoned that practice.
11. Sterilization is the practice of delinking the movement of the domestic money supply from changes in foreign reserves. For instance, when there is an inflow of foreign capital and the central bank wants to prevent an exchange rate appreciation, it intervenes in the foreign exchange market buying foreign currency and building up reserves. However, this acquisition of foreign currency implies an increase in domestic currency in the market, which may lower interest rates or affect other policy targets. Therefore, the central bank 'sterilizes' its purchase of foreign currency by selling bills and obtaining domestic currency. In Argentina, LEBAC were the instruments used to sterilize the build-up of reserves. It should be noted that sterilizing the effect of the balance of payments on domestic money supply is a requirement if the central bank wants to control the interest rate (Lavoie, 2014). This behaviour, which was observed even during the heyday of the gold standard in the late 1890s and early 1900s, runs against the specie-flow mechanism described by Hume.

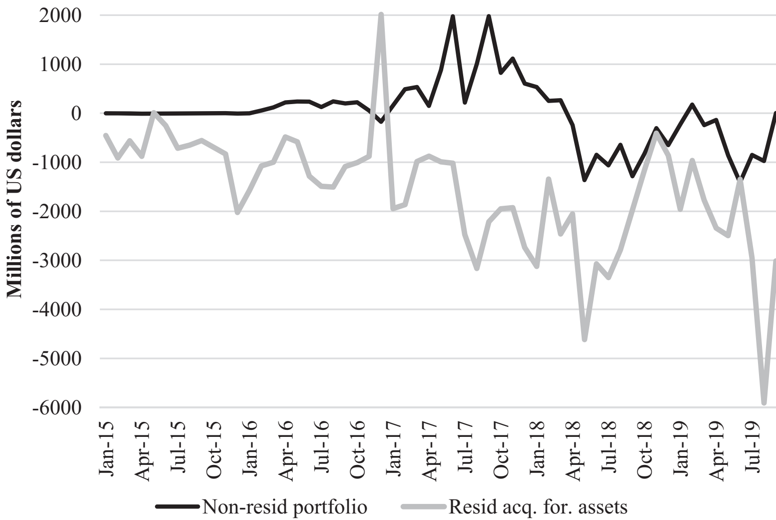
Figure 3. Stock of LEBAC and Holders
Source*: Central Bank of Argentina*



of a flight by agents outside the regulatory scope of the central bank constrains the policy space of monetary authorities, and the Argentinian case was no exception. Rather, it provides an example of the dangers identified in the literature of new vulnerabilities in EMEs (Kaltenbrunner and Painceira, 2015). Other countries in the region, such as Peru, recognized these vulnerabilities and prohibited non-residents from investment in central bank short-term liabilities used for monetary policy implementation (Aguirre and Alonso, 2020).

This leads us to the third and largest vulnerability of the deregulated financial regime of Macri's administration: the persistent dollarization of residents' savings, both elites and middle class. Just as LEBAC were seen as an attractive investment for foreign investors, residents continued to increase their *foreign* assets, as Figure 4 shows. When the government lifted all exchange and capital controls in December 2015, capital flight (acquisition of foreign assets by non-financial private sector residents) jumped, and by June 2016 it stood at US$ 900 million or more. The only dip in external assets held by residents occurred in December 2016 due to a tax amnesty; other than that, capital flight followed an upward trend. Foreign short-term investment picked up in the second half of 2017, with a monthly average of US$ 1.1 billion in that period (and peaks of US$ 2 billion). In the same period, capital flight by residents averaged US$ 2.2 billion per month (with peaks of US$ 3 billion). From 2018 onward, both flows have moved in the same direction.

Figure 4. Portfolio Investment of Non-residents and Foreign Asset Acquisition by the Resident Non-financial Private Sector



Source: Authors' elaboration based on Central Bank of Argentina

A major cause of the crisis according both to orthodox (Sturzenegger, 2019) and heterodox (De Lucchi, 2018) authors is that, in December 2017, the government slightly lowered the domestic interest rate at the same time that it announced a change in the inflation target for 2018. Instead of aiming for a range of 8–12 per cent, the target was now increased to a single point, 15 per cent, while the interest rate was lowered from 28.75 to 27.25 per cent. The argument goes that this was interpreted by investors as starting a policy of lower nominal and real interest rates, and therefore as a stimulation of a currency depreciation by the government. The ensuing outflows reflected the reaction of investors, spooked by falling interest rates, and eventually triggered the depreciation desired by exporting sectors.

The main problem with this argument is that, even in the heyday of financial short-term inflows by foreign investors, capital flight *by residents* accelerated. It seems perfectly reasonable to assume that non-resident investors were attracted (and eventually repelled) by positive (and later negative) interest rate differentials. But at exactly the same time that non-residents were increasing their short-term carry-trade investment in peso-denominated LEBAC, resident investors were choosing the opposite strategy, acquiring dollar assets. The same variable — interest rate differentials (including exchange rate expectations) — had an opposite impact on (at least) two types of investors. To blame interest rate differentials thus offers, at best, a limited explanation of these developments. Furthermore, interest rate differentials can also be affected by external developments. Early 2018

saw a tightening in global liquidity conditions, which led to an increase in the US 10-year treasury bonds yields.

The story behind the trigger of the foreign exchange run in late April must start by pointing out that reserves had picked up three months earlier with the last debt issuance in international markets of US$ 9 billion. Informally, the then Finance Minister Luis Caputo was told that the international market was closed to Argentina because of large borrowings and poor control of the current account deficit (Burgo, 2019). Some analysts (see for instance Barraud, 2018) claim that another discouraging factor for foreign investors was the 'lack of progress' regarding the reduction of the fiscal deficit. But the government had managed to pass through Congress a law that effectively reduced pensions, had squashed public investment (while turning to public–private–partnership funding for infrastructure), was cutting public utilities subsidies (and increasing tariffs), and was slowly reducing the deficit while it cut taxes such as export rights and wealth tax.

In our view, it is the context of capital account deregulation and external indebtedness that is most to blame for the crisis, as in previous episodes in Argentinian and Latin American history, but with characteristics associated with recent developments in the type of financial integration of the countries in the region. To the typical presence of large external borrowing in foreign currency and financial deregulation, one must add the constraints and risks posed by the presence of non-resident investors in domestic markets, something that was not the case in previous debt crisis episodes. Finally, the reaction of the government was also a compounding factor. The foreign exchange run was triggered by a decision by JP Morgan on 25 April to sell their holdings of LEBAC and buy dollars, amounting to US$ 1,471 million in a single trade. The usual response in such circumstances is to let the exchange rate devalue even a bit (as would correspond to a floating exchange rate regime) and/or to raise interest rates, in order to try to keep some of those dollars in the country. Allegedly at the bequest of the president, the central bank sold all those dollars, preventing JP Morgan from incurring in any loss. Figure 5 shows the daily developments in terms of reserve losses, exchange rates and the policy interest rate.

As Figure 5 demonstrates, in the early days of the run the central bank was haemorrhaging reserves; it increased interest rates by 3 per cent only on the third consecutive day of losing over a billion dollars per day.[12] The following week, it enjoyed one day of calm, on Thursday 3 May, after raising interest rates from 27 per cent to 33 per cent, six working days into the run. In those six days the central bank lost US$ 5 billion. The next day it raised interest rates to 40 per cent, never to fall from that level for the rest of the Macri administration.

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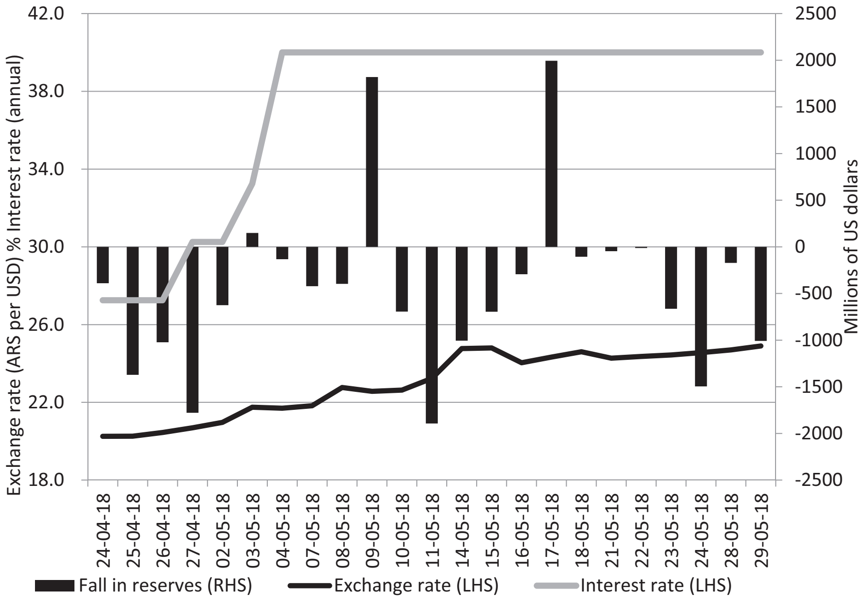
12. According to Burgo (2019), in the midst of the sudden stop, the government was hoping for an *appreciation* of the peso, supported by the predictions of a Dynamic Stochastic General Equilibrium (DSGE) model.

Figure 5. Reserve Movements, Exchange Rate and Interest Rate in Argentina



Source: Central Bank of Argentina

But even that was not enough. The exchange rate had gone from 20.3 pesos per dollar on 25 April to 22.8 on 8 May, when the central bank was forced to sell over US$ 400 million. That night, the government decided to call on the IMF for assistance. The central bank also reduced the maximum foreign exchange position of banks, forcing them to sell dollars and increasing the supply in the spot market.[13] The immediate effect was positive: the run stopped for a day, and the central bank was able to rebuild its reserves by US$ 1.8 billion. But as rumours about the type of agreement the government would get from the IMF started to emerge (more on that in the following section), the run began again, and in three working days the reserve fell by US$ 3.5 billion, while the exchange rate increased to 24.8 pesos per dollar. On 14 May came a change in the government strategy, designed by Caputo.

The central bank offered to sell every dollar demanded at a price of 25 pesos per dollar. For that task, it assigned a fund of US$ 5 billion from its reserves. It effectively showed a will to defend the peso at the level of its choosing, which involved a significant devaluation with respect to the start of the run. This measure was accompanied by an investment by certain investment funds (including BlackRock, Templeton, Alice Bernstein and others) of US$ 3 billion. These funds were invested in fixed-rate

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13. Central Bank Resolution 'Posicion Global neta', BCRA A6501.

peso-denominated bonds issued by the treasury called BOTES.[14] This adventurous investment was negotiated by Caputo, who was due to take over as President of the Central Bank when the agreement with the IMF was announced.

THE IMF PROGRAMME

The IMF offers several financial packages. The best in terms of lower conditionality, readiness of access and borrowing limits is the Flexible Credit Line (FCL): it involves no cap to amounts borrowed, and is a precautionary credit line (which means that the borrower can draw at will on the agreed amount). That was the facility requested by the Argentine government, but they were rebuffed. Instead, they were told by the IMF to negotiate a traditional Stand-By Agreement (SBA).

The loan was requested on 8 May and approved on 20 June. To quote from the agreement:

> The Executive Board of the International Monetary Fund (IMF) today approved a three-year Stand-By Arrangement (SBA) for Argentina amounting to US$50 billion (equivalent to SDR 35.379 billion, or about 1,110 percent of Argentina's quota in the IMF). The Board's decision allows the authorities to make an immediate purchase of US$15 billion (equivalent to SDR 10,614 billion, or 333 percent of Argentina's quota). One half of this amount (US$7.5 billion) will be used for budget support. The remaining amount of IMF financial support (US$35 billion) will be made available over the duration of the arrangement, subject to quarterly reviews by the Executive Board. The authorities have indicated that they intend to draw on the first tranche of the arrangement but subsequently treat the remainder of the arrangement as precautionary. (IMF, 2018a: 2)

The IMF remarked that a 'shift in market sentiment and an ill-fated confluence of factors' (ibid.) had put pressure on the Argentine balance of payments.

It is important to go back to December 2017, six months before the approval of the SBA. In its staff report on the Article IV Consultation (IMF, 2017), the IMF conducted an assessment of the Argentine economy, and praised the government for having 'unwound multiple distortions', putting the economy on the path to 'a solid recovery' and lowering inflation, 'albeit at a slower pace than targeted by the central bank' (ibid.: 2). The report highlighted downward risks to the economy: external financing needs (because of a small domestic financial system); inflation inertia (because of second-round effects of raising utilities tariffs, nominal wage growth and partial indexation mechanisms) and an overvaluation of the exchange rate of 10–25 per cent (precisely because of external borrowing and inflation inertia). It proposed several measures, mainly fiscal tightening (through lower

14. The English translation of BOTES is 'boats', which led to many comic reactions in this surrealist experience. 'Run to the boats' became a customary phrase around that time.

public wages and employment, and lower pensions) and a more accommodative monetary policy (enabled by lower fiscal requirements, in a crowding-out argument) but prohibiting financing of the fiscal deficit. It also recommended supply-side reforms (such as labour market flexibilization and deregulation, with lower taxes and tariffs) which would boost GDP by 1.5 per cent per year, according to IMF estimates. Many of these recommendations would feature in the programme linked to the SBA.

Writing in June 2018 (IMF, 2018a), the IMF blamed the onset of the crisis on the relaxation of monetary policy and the depreciation of the exchange rate between December 2017 and February 2018, amidst a slower-than-desired fiscal adjustment, which was in any case offset by rising interest payments and 70 per cent of public debt denominated in foreign currency. It is worth pointing out that the government had just passed a law through parliament that effectively reduced pension outlays. Furthermore, only six months earlier the IMF had said that the Argentinian exchange rate was overvalued by 10–25 per cent — a deviation corrected precisely because of the (mild) reduction in interest rates. The IMF staff also noticed tightened global financial conditions and an ill-timed drought that reduced agricultural exports. The depreciation led to the dismantling of the carry-trade process that foreign investors had developed around LEBAC. Mistaken exchange rate interventions (effectively setting a one-way bet for the exchange rate) transformed a dismantling carry-trade business into a run on all Argentinian assets and put pressure on the balance of payments.

The SBA included the familiar elements of IMF programmes: fiscal tightening (the primary deficit was projected to fall from 4.2 per cent of GDP to 1.3 per cent in two years due to both lower expenditure and higher revenues); monetary tightening (forbidding monetary financing of the fiscal deficit) and a reform of the charter of the central bank, enshrining its political independence and making the control of inflation its key mandate; and floating exchange rates.

With fiscal adjustments, the IMF forecast that growth would return in 2019 and accelerate in 2020, while the public debt to GDP ratio would stabilize and decrease. The programme was considered ‘optimistic’ but ‘robust’ to adverse scenarios, including debt rollover levels at 75 per cent (IMF, 2018a: 22, 23). One aim of the programme was to restore confidence, and for this it relied on renewed capital inflows in 2019 and beyond. The greatest danger for debt sustainability was a depreciation, because of the share of debt denominated in dollars and other currencies. However, the fiscal adjustment required was among the highest in all IMF programmes. The staff report concluded that ‘the federal debt is sustainable, but not with high probability’ (ibid.: 25). Just three months later, the programme was in need of a revamp.

As Figure 4 shows, rather than bringing confidence to the market, the SBA was seen by foreign investors as the means to finance their closure of positions in Argentina and withdraw their investments. Between April

and September 2018 outflows by non-residents amounted to nearly half of all the inflows by non-residents between January 2016 and March 2018. Adding to these, acquisitions of foreign assets (mainly dollars) by non-financial residents increased even further, to the tune of US$ 17.8 billion between April and September 2018. It was another example of fickle capitals (Bluedorn et al., 2013). Debt rollovers were below target. The reversal in the current account was slower than expected (IMF, 2018b: 5–8). The central bank was conducting piecemeal interventions in the foreign exchange market through advertised auctions, the only form of intervention authorized by the IMF. However, these implied a steady drain on reserves and a precarious stabilization of the exchange rate, which nonetheless increased from 25 to 30 pesos per dollar between the end of the previous run (in May) and mid-August.

A second run, which started with the Turkish lira contagion on 8 August, accelerated on 29 August. In the early morning, in a speech for national TV, Macri announced the request for a 'formal waiver' and a new agreement with the IMF that involved the early disbursement of the funds committed to the programme. The IMF denied a few hours later that such an agreement was even under negotiation, let alone achieved. That Wednesday the exchange rate edged upwards from 31 to 34 pesos per US dollar, and the next morning it shot up to 42 pesos, closing the day at 40 pesos per US dollar. The programme with the IMF had to be renegotiated, since many of the risks had materialized (depreciation, low rollover rates, etc.). The new measures, announced on 25 September, aimed at 'restoring confidence' and were framed within the monetary approach to the balance of payments (Johnson, 1977). The new policy, however, failed to address the central issues of exchange rate uncertainty and capital account vulnerability. The measures included an increase in the amount of the programme, from US$ 50 billion to US$ 56.3 billion, and a more frontloaded schedule for disbursements; further fiscal tightening (reaching a primary balance in 2019 and a surplus in 2020); the abandonment of the inflation targeting regime in favour of a strict control of the monetary base (with interest rates over 70 per cent); and a band system for the exchange rate with 20 per cent width, with limited interventions only outside the band.

Given these changes, the macroeconomic projections in the SBA were soon outdated. Table 2 shows the evolution of projections for different variables and the actual outcomes, based on information available up to the time of writing this article. It includes the projections at the time of the report on the Article IV consultations (in December 2017), those included in the SBA, and those in successive reviews up to June 2019.

Initially, capital flight by domestic residents fell abruptly. This can be attributed on the one hand to the high value of the exchange rate that was almost out of reach for many domestic investors, and on the other to the substantial disbursement of the IMF programme, that helped to provide confidence on the reserves available to counteract sudden runs. This confidence,

Table 2. Projections by IMF Staff

	Growth rate (%)			Inflation rate (%)			External debt (% GDP)			Primary fiscal balance % GDP (Overall fiscal balance)			Unemployment (%)			Current account balance (% GDP)		
	2018	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**	**2018**	**2019**	**2020**
Art IV Dec-17	2.5	2.8	3.1	16.3	11.8	10	38.8	39.9	42.4	−3.7(−6.0)	−2.5(−5.0)	−1.9(−4.5)	7.7	7.2	6.8	−4.4	−4.4	−4.5
Agreement June-18	0.4	1.5	2.5	27	17	13	51.3	52.6	52	−2.8(−5.1)	−1.3(−3.8)	0.2(−2.9)	8.5	8.6	8.4	−3.6	−3.2	−2.7
1st rev Sept-18	−2.8	−1.7	2.7	43.8	20.2	13	57.2	60.6	56.1	−2.5(−5.5)	0.1(−4.4)	1.2(−3.2)	9.8	10.9	9.9	−4.2	−1.6	−2.4
2nd rev Dec-18	−2.8	−1.7	2.7	47.4	20.2	13	54.7	56.9	51.5	−2.6(−5.5)	−0.1(−3.7)	1.0(−2.5)	9.8	10.9	10.8	−5.2	−1.5	−2.4
3rd rev Mar-19	−2.5	−1.2	2.2	47.6	30.5	21.2	55.8	59.8	55.7	−2.2(−5.2)	0.0(−2.7)	1.1(−1.5)	9.2	9.9	9.9	−5.4	−2	−2.5
4th rev June-19	−2.5	−1.3	1.1	47.6	40.2	32.1	52.2	58.7	52.3	−2.2(−5.2)	−0.4(−3.5)	1.4(−2.1)	9.2	10	10.1	−5.2	−1.8	−1.6
Actual	−2.5			47.6			52.2			−2.2(−5.2)			9.2			−5.2		

Source: Authors' elaboration based on article IV and IMF reviews under SBA

however, was short-lived, since capital flight jumped again in early 2019 to the tune of almost US$ 2 billion per month. The government remained opposed to the implementation of capital controls. However, when capital flight started picking up again in 2019, the IMF agreed to more forceful interventions in the foreign exchange market.

Meanwhile, the impact on economic activity was severe, with the economy plunging into a deep recession, reducing significantly the amount of savings to dollarize. Inflation rates spiked and reached a 27-year high of 47.6 per cent for the whole of 2018, with no signs of abating. Official statistics state that poverty rose to over 35 per cent in June 2019 (compared to 27 per cent one year earlier). The economy went through short-lived periods of exchange rate stability that lasted around two months, followed by depreciations (for instance, in March 2019) that once again fuelled inflation. The second quarter of the year is the time of the harvest and a seasonal inflow of dollars. The current account deficit was reversed in 2019 due to the severe compression in imports and the fiscal deficit was significantly reduced. However, the situation remained fragile, particularly in an election year, with no capital controls, with annual inflation rates over 50 per cent in 2019 (the highest since the hyperinflations in the late 1980s and early 1990s) and with interest rates persistently high. Every temptation to lower interest rates from levels above 60 per cent led to renewed pressure on the peso.

THE END OF THE CYCLE: DEFAULT AND DEBT RESTRUCTURING

The end of this short-lived boom-and-bust borrowing cycle was precipitated by events in August and September 2019. Prior to the primary presidential elections on 11 August (which are mandatory for the whole population), the general expectation was a narrow win for Alberto Fernández, although there were some, in the days before the election, who forecast a narrow victory for Macri. The results showed a landslide for Fernández, who beat Macri by 47 per cent to 32 per cent, a result that guaranteed a victory in the first round, confirmed in October. Investors who had taken positions on the rumour sold on the news, and the peso depreciated by a further 20 per cent in one day, from 45 to 60 pesos per US dollar. In an attempt to reverse the result of the election (or at least reduce the difference), the government announced a series of subsidies and policies which, however, left it unable to fulfil the fiscal surplus requirement in the SBA quantitative performance criteria. Because of this, the IMF refused to disburse the tranche of the loan due in September 2019. Unable to obtain more dollars, and unable to rollover short-term debt, by the end of August the Macri administration chose to default on its short-term peso-denominated debt, a very uncommon episode in global recent history (see footnote 1).

The government's argument was that all the pesos issued to pay that debt would immediately have been spent in buying dollars, leading to an even

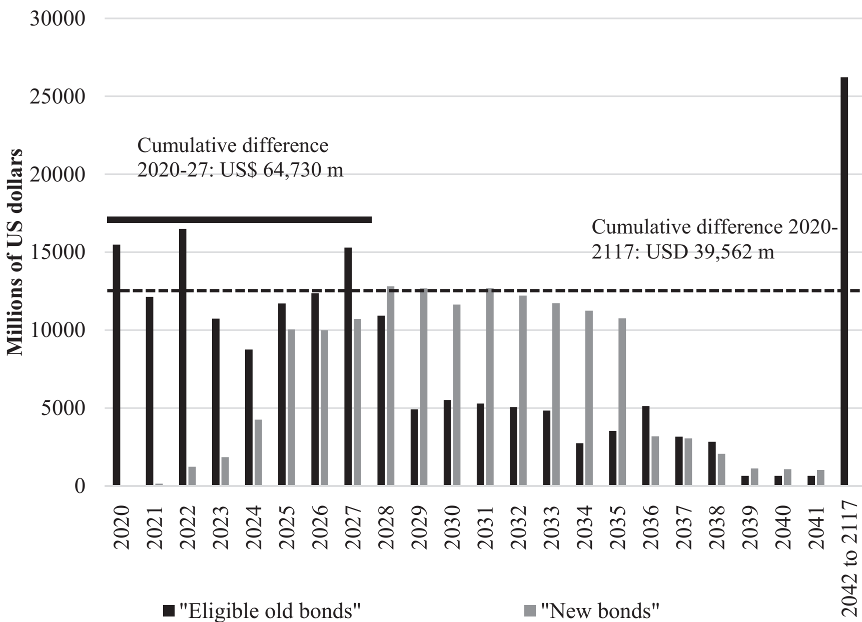
higher devaluation. One alternative was to implement capital and exchange controls, but that would harm Macri's electoral base and run counter to his political platform. One of the slogans in Macri's campaign was the return to 'normalcy', akin to other countries in the regions that do not have exchange controls. Defaulting on the debt would prevent that additional devaluation and subsequent hyperinflation. Interestingly, this argument had been presented in the 2005 doctorate thesis of Guido Sandleris, who in September 2018 had taken over as President of the Central Bank (Sandleris, 2005). However, in a monetary economy, one person's liability is another person's asset. The whole liquidity of the financial system was concentrated precisely on the treasury bills which defaulted. Provinces, firms, investment and hedge funds, all had invested in those bills in order to manage their liquidity and preserve some of its value against inflation. Given the rarity of defaults in domestic currency, and the widespread role of short-term public debt as liquidity store for all sorts of agents, the episode was totally unexpected. The default triggered a Minsky moment (Minsky, 1986), with a run on investment funds that transmitted to the money market, as investors tried to sell their assets and obtain some liquidity that quickly evaporated as interest rates shot up to 180 per cent (Martínez Gerber, 2020). The central bank had to step in and provide liquidity to everybody who demanded it, bank and non-bank actors alike. Eventually, it issued even more pesos than the amount due in debt repayments. As expected, capital flight accelerated, and eventually the government had to give up and implement capital controls, which were severely tightened after the election in October 2019.

The new authorities initiated a debt-restructuring process, and in August 2020 they reached an agreement with private creditors. The new government managed to significantly reduce the burden of interest payments for the next four years. The agreement was widely accepted, restructuring more than 99 per cent of all eligible bond stock. This was possible due to the Collective Action Clause (CAC), a legal statement included in debt issuance prospectuses that allows debtors to forcefully restructure bonds if the proposal is accepted by a qualified majority of bondholders. Unlike the previous debt restructuring process of 2005, the latest process did not generate any new vulture funds.

Considering both interest and principal payments, the government was able to reduce payments by US$ 39.6 billion, equivalent to 21 per cent of the arithmetic sum of all eligible bond payments (without exit yield discount rate).[15] The larger savings are registered for the period 2020–27 with an accumulated difference between eligible bonds and new bonds of US$ 64.73

15. The proper calculation to evaluate the debt release should include a discount rate for future payments. The discount rate is not independent of the debt-restructuring process itself. If payments were discounted with an exit yield of 13 per cent, the haircut would be 56 per cent; if the discount rate is 10 per cent, then the haircut is 48 per cent.

Figure 6. Principal and Interest Payments on Eligible 'Old Bonds and 'New' Restructured Bonds



Source: Authors' elaboration based on Ministry of Economy and Bureau of Public Credit

billion. Figure 6 shows the payment profile of 'old', eligible bonds and 'new' restructured bonds.

Savings were achieved mainly because of reductions in interest payments. The average interest coupon of the debt reduced from 7 per cent on eligible bonds to 3 per cent on the new bonds. Maximum coupon rates fell from 8.28 per cent on old bonds to a maximum of 5 per cent on the new bond stock. Moreover, the average maturity life of the debt also increased from 8.7 years in the eligible debt stock to 12.5 years in new bond debt stock. The government still has to renegotiate the IMF lending, which has capital maturities concentrated between 2022 and 2023.

As for the defaulted peso-denominated obligations, under a strict capital controls regime, the Ministry of Economy normalized short-term domestic debt markets within a few months and reduced the cost of deficit financing. The government was able to repay all peso-denominated defaulted debt and obtain financing in domestic financial markets. For example, authorities were able to increase the rollover rate of short-term peso bills from 46 per cent in February 2020 to 158 per cent in August 2020, and reduce the domestic currency bond market yields from 70 per cent to 10 per cent in the same period. Threats remain, however, because of the lingering presence of international investors who put pressure on the exchange rate.

CONCLUDING REMARKS

This article has examined the last boom-and-bust cycle of external financial deregulation, external borrowing and sovereign default of a major middle-income Latin American country, namely Argentina. On top of the traditional elements of boom-and-bust cycles (Palma, 2001), this last episode demonstrated the dangers of new vulnerabilities in the forms of financial integration of Latin American countries and EMEs that characterized the 2000s (Gabor, 2020; Kaltenbrunner and Painceira, 2015). In that sense, the Argentine experience may serve as a warning for other EMEs (and even low-income countries) that are going through debt distress, aggravated by the COVID-19 pandemic.

Three key elements of the Argentinian crisis can be highlighted. First, Argentina marked the first case of a country adopting *and abandoning* an inflation-targeting monetary regime. The Argentine experience manifested the destabilizing risks inherent to exchange rate fluctuations in EMEs that adopt this monetary regime. Instead of cooling down the economy, as the theoretical framework suggests, increasing interest rates attract short-term financial inflows which are fickle and flee the country at the first sign of stress in the domestic or international financial system. Rising interest rates, however, failed to discourage domestic capital flight even at the peak of external capital inflows. Sudden depreciations incentivized capital outflows by both domestic and foreign investors.

Second, the crisis was triggered by another feature of Latin American financial systems in the 2000s: the presence of foreign investors in domestic currency markets, be it stocks, bonds or short-term central bank liabilities, as in the case of Argentina. International investors acquired short-term liabilities of the Central Bank of Argentina, called LEBAC, but within a few months they dumped that investment, demanded dollars, and triggered a run on the exchange rate. The failure of the government to contain the run and the loss of reserves led to the request for IMF financing assistance.

Third, in the context of a precarious external situation, political uncertainty and sustained drain of international reserves, the government decided to default on its short-term domestic currency debt. The move, with very few precedents in history, had the intention of avoiding 'issuing currency' and therefore alleviating the pressure on the exchange rate. Instead, it triggered a liquidity run, withdrawals from investment funds and hikes in interest rates, effectively incentivizing further domestic capital flight.

The Fernández administration that came into power in December 2019 managed to achieve a successful debt restructuring and rebuild the peso-denominated debt market. However, significant difficulties lie ahead, augmented by the COVID-19 pandemic. The end of a boom-and-bust debt cycle is a necessary but not a sufficient requirement for overcoming the structural limitations to a development process.

REFERENCES

Agenor, P.A. and L. Pereira da Silva (2019) *Integrated Inflation Targeting*. Basel: Bank for International Settlements.

Aguirre, P. and J.A. Alonso (2020) 'What Makes Capital Account Regulation Effective? Comparing the Experiences of Brazil, Peru and Iceland', *Journal of Economic Issues* 54(3): 772–97.

Akyüz, Y. (2014) 'Internationalization of Finance and Changing Vulnerabilities in Emerging and Developing Economies'. Discussion Paper No. 217. Geneva: United Nations Conference on Trade and Development.

Aldasoro, I. and T. Ehlers (2018) 'The Geography of US-dollar Funding of Non-US Banks', *BIS Quarterly Review* December: 15–26.

Aldasoro, I., S. Avdjiev, C. Borio and P. Disyatat (2020) 'Global and Domestic Financial Cycles: Variations on a Theme'. BIS Working Paper No. 864. Basel: Bank for International Settlements.

Arestis, P. and M. Sawyer (2008) 'A Critical Reconsideration of the Foundations of Monetary Policy in the New Consensus Macroeconomics Framework', *Cambridge Journal of Economics* 32(5): 761–79.

Auboin, M. (2012) 'Use of Currencies in International Trade: Any Change in the Picture?'. Working Paper ERSD-2012-10. Geneva: World Trade Organization.

Avdjiev, S., R. Mccauley and H.S. Shin (2016) 'Breaking Free of the Triple Coincidence in International Finance', *Economic Policy* 31(4): 409–51.

Barraud, A. (2018) 'Deficit fiscal: en la genesis de las crisis económicas argentinas' ['Fiscal Deficit: At the Origin of Argentinian Economic Crises'], *Revista Consejo Digital*. https://archivo.consejo.org.ar/consejodigital/RC49/barraud.html (accessed 10 December 2019).

Beers, D., E. Jones and J. Walsh (2020) 'Boc-Boe Sovereign Default Database: What's New in 2020'. Staff Analytical Note 2020-13. Ottawa: Bank of Canada.

BIS (2015) 'Currency Carry Trades in Latin America'. BIS Papers No. 81. Basel: Bank for International Settlements.

Bluedorn, J.C., R. Duttagupta, J. Guajardo and P. Topalova (2013) 'Capital Flows Are Fickle: Anytime, Anywhere'. IMF Staff Working Paper13/183. Washington, DC: International Monetary Fund.

Bonizzi, B. (2017) 'International Financialisation, Developing Countries and the Contradictions of Privatised Keynesianism', *Economic and Political Studies* 5(1): 21–40.

Bonizzi, B., A. Kaltenbrunner and J. Powell (2020) 'Subordinate Financialization in Emerging Capitalist Economies', in M. Philip, D. Mertens, and N. van der Zwan (eds) *The Routledge International Handbook of Financialization*, pp. 177–87. Abingdon: Routledge.

Bortz, P. and A. Kaltenbrunner (2018) 'The International Dimension of Financialization in Developing and Emerging Economies', *Development and Change* 49(2): 375–93.

Burgo, E. (2019) 'Por qué fallaron la economía y los economistas De Macri' ['Why Macri's Economics and Economists Failed'], *Revista Anfibia*. www.revistaanfibia.com/cronica/cepo-economistas-de-macri/ (accessed 9 December 2019).

Carsten, A. (2019) 'Exchange Rates and Monetary Policy Frameworks in Emerging Market Economies'. Speech at the London School of Economics 2 May. www.bis.org/speeches/sp190502.htm (accessed 10 December 2019).

Cherkasky, M. and M. Abeles (2019) 'Régimen monetario e instituciones laborales: Una interpretación alternativa de la tendencia a la disminución del traspaso del tipo de cambio (pass-through) en los países periféricos' ['Monetary Regime and Labour Market Institutions: An Alternative Interpretation of the Diminishing Trend in Exchange Rate Pass-through in Peripheral Countries'], *Revista De CEPAL* 128 (August): 7–38.

De Lucchi, J.M. (2018) 'Una crisis cambiaria por mala praxis' ['An Exchange Crisis due to *Mala Praxis*']. Buenos Aires: Universidad Metropolitana para la Educación y el Trabajo. www.grupolujan-circus.blogspot.com/2018/11/una-crisis-cambiaria-por-mala-praxis.html (accessed 30 November 2019).

Dow, S. (1999) 'International Liquidity Preference and Endogenous Credit', in J. Deprez and J. Harvey (eds) *Foundations of International Economics: Post Keynesian Perspectives*, pp. 153–70. London: Routledge.

Ebeke, C. and A. Azangue (2015) 'Inflation Targeting and Exchange Rate Regimes in Emerging Markets'. IMF Working Paper 15/228. Washington, DC: International Monetary Fund.

ECLAC (2017) *Economic Survey of Latin America and the Caribbean 2017*. Santiago de Chile: Economic Commission for Latin America and the Caribbean.

ECLAC (2020) 'Enfrentar los efectos cada vez mayores del COVID-19 para una reactivación con igualdad: nuevas proyecciones' ['Confront the Increasing Effects of COVID-19 for a Recovery with Equality: New Projections']. Special Report COVID-19 No 5. Santiago de Chile: Economic Commission for Latin America and the Caribbean.

Fitch (2013) 'Why Sovereigns Can Default on Local-currency Debt'. Fitch Ratings. www.next-finance.net/IMG/pdf/Why_Sovereigns_Can_Default_on_Local-Currency_Debt.pdf

Gabor, D. (2018) 'Goodbye (Chinese) Shadow Banking, Hello Market-based Finance', *Development and Change* 49(2): 394–419.

Gabor, D. (2020) 'Critical Macro-finance: A Theoretical Lens', *Finance and Society* 6(1): 45–55.

Gopinath, G. (2015) 'The International Price System'. NBER Working Paper No. 21646. Cambridge, MA: National Bureau of Economic Research.

Guzmán, M. (2016) 'An Analysis of Argentina's 2001 Default Resolution'. CIGI Papers No. 110. Waterloo (Canada): Centre for International Governance Innovation.

Hofmann, B., I. Shim and H.S. Shin (2020) 'Emerging Market Economy Exchange Rates and Local Currency Bond Markets amid the COVID-19 Pandemic'. BIS Bulletin No. 5. Basel: Bank for International Settlements.

Howitt, P. (2012) 'What Have Central Bankers Learned from Modern Macroeconomic Theory?', *Journal of Macroeconomics* 34(1): 11–22.

IMF (2017) 'Argentina 2017 Article IV Consultation Staff Report'. Washington, DC: International Monetary Fund.

IMF (2018a) 'Argentina Request for Stand-by Agreement Staff Report'. Washington, DC: International Monetary Fund.

IMF (2018b) 'First Review under the Argentina Stand-by Agreement Staff Report'. Washington DC: International Monetary Fund.

IMF (2018c) 'Recent Developments on Local Currency Bond Markets in Emerging Economies'. Staff Note for the G20 International Financial Architecture Working Group, Seoul (15 June).

Johnson, H. (1977) 'The Monetary Approach to Balance of Payments Theory and Policy: Explanation and Policy Implications', *Economica* 44(175): 217–29.

Kaltenbrunner, A. (2015) 'A Post Keynesian Framework of Exchange Rate Determination: A Minskyan Approach', *Journal of Post Keynesian Economics* 38(3): 426–48.

Kaltenbrunner, A. and P. Lysandrou (2017) 'The US Dollar's Continuing Hegemony as an International Currency: A Double-matrix Analysis', *Development and Change* 48(4): 663–91.

Kaltenbrunner, A. and J.P. Painceira (2015) 'Developing Countries' Changing Nature of Financial Integration and New Forms of External Vulnerability: The Brazilian Experience', *Cambridge Journal of Economics* 39(5): 1281–1306.

Kaltenbrunner, A. and J.P. Painceira (2017) 'The Impossible Trinity: Inflation Targeting, Exchange Rate Management and Open Capital Accounts in Emerging Economies', *Development and Change* 48(3): 452–80.

Kaminsky, G.L. (2016) 'International Borrowing Cycles: A New Historical Database'. NBER Working Paper No. 22819. Cambridge, MA: National Bureau of Economic Research.

Kaplan, S. (2013) *Globalization and Austerity Politics in Latin America*. New York: Cambridge University Press.

Kindleberger, C. and R. Aliber (1978/2005) *Manias, Panics and Crashes: A History of Financial Crises* (5th edn). Hoboken, NJ: John Wiley & Sons.

Lavoie, M. (2014) *Post Keynesian Economics*. Northampton, MA: Edward Elgar.

Lingua, E. (2019) 'Efectos desquiciantes del impuesto a la renta financiera' ['Deranging Effects of the Tax on Financial Profits'], *Revista Institucional Bolsa de Comercio de Rosario* 108(1535): 24–28.

Marichal, C. (1989) *A Century of Debt Crises in Latin America*. Princeton, NJ: Princeton University Press.

Martínez Gerber, P. (2020) 'El Banco Central como hacedor de mercados en países emergentes: El BCRA y el default argentino en pesos en 2019' ['The Central Bank as Market Maker in Emerging Economies: The BCRA and the Argentine Default in Pesos in 2019']. Mimeo.

McCallum, B. (2001) 'Monetary Policy Analysis in Models without Money', *Federal Reserve Bank of St Louis Review* 83(4): 145–60.

McCauley, R., P. McGuire and V. Sushko (2015) 'Global Dollar Credit: Links to US Monetary Policy and Leverage'. BIS Working Papers No. 483. Basel: Bank for International Settlements.

Medeiros, C.A. (2008) 'Financial Dependency and Growth Cycles in Latin American Countries', *Journal of Post Keynesian Economics* 31(1): 79–99.

Minsky, H. (1986) *Stabilizing an Unstable Economy*. New York: McGraw Hill.

Mishkin, F. (2001) 'Inflation Targeting', in B. Snowdon and H. Vane (eds) *Encyclopedia of Macroeconomics*, pp. 361–64. London: Edward Elgar.

Moreno-Brid, J.C. and S. Garry (2016) 'Economic Performance in Latin America in the 2000s: Recession, Recovery and Resilience?', *Oxford Development Studies* 44(4): 384–400.

Neumeyer, A. (2015) 'El dólar y los precios: anticipando el fin del cepo' ['The Dollar and Prices: Foreseeing the End of the Clamp'], *Foco Económico* blog 4 October. www.focoeconomico.org/2015/10/04/el-dolar-y-los-precios-anticipando-el-fin-del-cepo-por-andres-neumeyer/ (accessed 5 December 2019).

Noyola Vázquez, J. (1956) 'El desarrollo económico y la inflación en México y otros países latinoamericanos' ['Economic Development and Inflation in Mexico and Other Latin American Countries'], *Investigación Económica* 16(4): 603–48.

Ocampo, J.A., J. Malagón and C. Ruiz (2017) 'Colombia's Macroeconomic Challenges at the End of the Supercycle of Commodity Prices', *Journal of Post Keynesian Economics* 40(1): 95–111.

Ostry, J., A.G. Ghosh and M. Chamon (2012) 'Two Targets, Two Instruments: Monetary and Exchange Rate Policies in Emerging Market Economies'. IMF Staff Discussion Note 12/10. Washington, DC: International Monetary Fund.

Palma, J.G. (2001) 'Three-and-a-half Cycles of "Mania, Panic, and (Asymmetric) Crash": East Asia and Latin America Compared', in H.J. Chang, J.G. Palma and D.G. Whittaker (eds) *Financial Liberalization and the Asian Crisis*, pp. 254–86. Basingstoke: Palgrave.

Pasotti, P. and A. Vercelli (2015) 'Kindleberger and Financial Crises'. FESSUD Working Paper Series No. 104. Financialisation, Economy, Society and Sustainable Development (FESSUD) Project.

de Paula, L.F., B. Fritz and D. Prates (2017) 'Keynes at the Periphery: Currency Hierarchy and Challenges for Economic Policy in Emerging Economies', *Journal of Post Keynesian Economics* 40(2): 183–202.

Rowthorn, R. (1977) 'Conflict, Inflation and Money', *Cambridge Journal of Economics* 1(3): 215–39.

Sandleris, G. (2005) 'Essays on Sovereign Debt'. PhD Dissertation, Columbia University, New York.

Serrano, F. and R. Summa (2015) 'Mundell-Fleming without the LM Curve: The Exogenous Interest Rate in an Open Economy', *Review of Keynesian Economics* 3(2): 248–68.

Serrano, F. and R. Summa (2018) 'Distribution and Conflict Inflation in Brazil under Inflation Targeting, 1999–2014', *Review of Radical Political Economy* 50(2): 349–69.

Sturzenegger, F. (2016) 'El uso del concepto de equilibrio general en su aplicación a la política monetaria' ['The Use of the General Equilibrium Concept in its Application to Monetary

Policy’]. Speech at the National Academy of Economic Sciences (16 March). www.bcra.gob.ar/Pdfs/Prensa_comunicacion/Distertación_Sturzenegger_Academia_NCE.pdf

Sturzenegger, F. (2019) ‘Macri’s Macro: The Meandering Road to Stability and Growth’. Department of Economics Working Paper No. 135. Victoria (Argentina): Universidad de San Andrés.

Taylor, A. (2006) ‘Foreign Capital Flows’, in V. Bulmer-Thomas, J.H. Coatsworth and R. Cortés Conde (eds) *The Cambridge Economic History of Latin America, Vol II*, pp. 57–100. New York: Cambridge University Press.

Tooze, A. (2018) *Crashed. How a Decade of Financial Crises Changed the World*. London: Allen Lane.

Trajtenberg, L., S. Valdecantos and D. Vega (2015) ‘Los determinantes de la inflación en América Latina: Un estudio empírico del período 1990–2013’ [‘The Determinants of Inflation in Latin America: An Empirical Study of the Period 1990–2013’], in A. Bárcena, A. Prado and M. Abeles (eds) Estructura Productiva y Política Macroeconómica. Enfoques Heterodoxos desde América Latina [Productive Structure and Macroeconomic Policy. Heterodox Approaches from Latin America], pp. 163–90. Santiago de Chile: Economic Commission for Latin America and the Caribbean.

Woodford, M. (2003) *Interest and Prices*. Princeton, NJ: Princeton University Press.

Zack, G., D. Schteingart and F. Favata (2017) ‘Pobreza e indigencia en Argentina (2003–2017): Construcción de una serie completa y metodológicamente homogénea’ [‘Poverty and Indigence in Argentina (2003–2017): Construction of a Complete and Methodologically Homogeneous Series’]. Paper presented at the LII Annual Conference of the Asociación Argentina de Economía Política, Bariloche (15–17 November).

Zeolla, N. and P. Bortz (2020) ‘International Reserves: How Much of a Cost? And Really a Cost?’. Mimeo (available from the authors on request).

Zeolla, N. and M. Rua (2018) ‘Desregulación cambiaria, fuga de capitales y deuda: la experiencia argentina reciente’ [‘Exchange Deregulation, Capital Flight and Debt: The Recent Argentine Experience’], *Revista Problemas del Desarrollo* 49 (July–September): 5–30.

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