

2019

# How Argentina Can Stabilize Its Economy and Graduate from Sovereign Default

Krystyn Gutu`  
*Pace University*

Follow this and additional works at: [https://digitalcommons.pace.edu/honorscollege\\_theses](https://digitalcommons.pace.edu/honorscollege_theses)



Part of the [Economics Commons](#)

---

## Recommended Citation

Gutu`, Krystyn, "How Argentina Can Stabilize Its Economy and Graduate from Sovereign Default" (2019). *Honors College Theses*. 212.  
[https://digitalcommons.pace.edu/honorscollege\\_theses/212](https://digitalcommons.pace.edu/honorscollege_theses/212)

This Thesis is brought to you for free and open access by the Pforzheimer Honors College at DigitalCommons@Pace. It has been accepted for inclusion in Honors College Theses by an authorized administrator of DigitalCommons@Pace. For more information, please contact [nmcguire@pace.edu](mailto:nmcguire@pace.edu).

# **How Argentina Can Stabilize Its Economy and Graduate from Sovereign Default**

Krystyn Gutu

Major: Finance

Faculty Advisor: Professor Niso Abuaf

Pace University | Department of Finance

Presentation Date: May 9, 2019

Advisor's Approval Page

**Abstract**

This paper examines how Argentina can better predict and minimize the affect of financial crises on its economy, and graduate from sovereign default. To do this, Argentina must be willing to recognize common indicators of a crisis, and how to avoid repeating similar mistakes in the future. We will closely examine Argentina's 1980s crises, 2001 default, and current financial volatility. Specifically, we will consider the following financial catalysts that caused the Argentine crises: 1) increased commodity prices, 2) false sense of financial security, 3) rising inflation, 4) currency depreciation, and 5) volatile real estate cycles; as well as three ways to avoid and/or minimize future crises: 1) controlled money creation by the central bank, 2) controlled government budget deficit, and 3) maximizing liquid assets. By addressing these issues, Argentina should be able to reduce its financial volatility.

**Table of Contents**

Introduction	6
Methodology	17
Empirical Results	19
Conclusion & Suggestions for the Future	24
References	26

## List of Figures & Tables

Table 1: Comparison of Annual GDP, Government Spending, & Public Debt (1999–2017)	7
Table 2: Percentage of Population Below the Poverty Line (1998–2018)	15
Table 3: Number of Years in Banking Crisis & Number of Banking Crises (Since 1945/ Independence; Regionally)	19
Table 4: Ratio of External Debt-to-GNP at the End of the Year of Default/Restructuring	20
Table 5: Latin American Misery Index for Worst Inflation by Country (Actual 2018 Index & Forecast 2019 Index)	21
Table 6: Share in Years in Which Inflation Exceeded 20%	22
Table 7: Share in Years in Which Inflation Exceeded 40%	22
Table 8: Number of Years of Hyperinflation	23
Table 9: Year of Peak Inflation	24

## **Introduction**

### **Section 1: Why Crises Occur**

#### **Reasons #1 & #2: Increased Commodity Prices; False Sense of Financial Security**

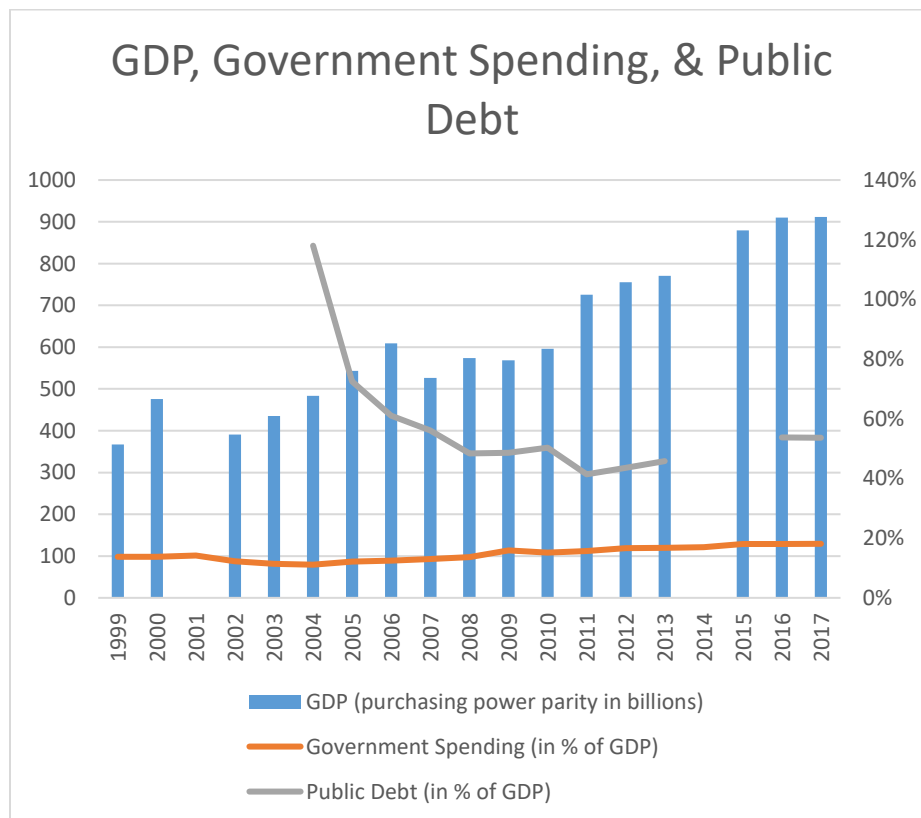
Argentina suffered a series of defaults in the 1980s, following a period of increased commodity prices in the 1970s. Due to the increase in domestic revenue, Argentina fell into a false sense of financial security, which led the country to believe that “this time is different.” This syndrome occurs when a financial institution (FI) falls victim to the belief that whatever drove a previous economy to fail cannot possibly drive their current economy to follow the same pattern. For this reason, they may ignore “obvious” indicators of an upcoming default. For example, commodity prices grew throughout the 1970s, only for it to come to a stop from 1979–1982, when prices dropped by roughly 40%. This resulted in the onset of an external default in 1982, as well as two internal defaults in 1982 and 1989. Some regions even witnessed as much as a 70% decrease or more in their commodity prices. Although domestic defaults account for approximately 67% of all debts, they receive less public attention than external defaults primarily because they affect fewer people. This means that Argentina’s 1989 domestic default went mostly unnoticed.

These crises, which are considered banking crises, appeared as a result of decreased asset value, as well as the act of over-borrowing during financially stable times. Banking crises last anywhere between 4 to 6 years, and mark the beginning of cluster crises. Cluster crises occur when one crisis provokes another (which provokes another... and so on); it can occur both domestically (i.e. Argentina’s internal cluster crises in 1982), as well as globally (i.e. Asia’s Debt Crisis of the 1990s, which affected much of Latin America’s economies). Historical data shows that banking crises are often followed by a three-year period of increased government spending,

which typically averages 86%. Emerging markets experience increased government spending more often than advanced economies do; because many emerging markets include Latin American countries, increased government spending is common to this region.

The chart below, made with data from IndexMundi and the Global Economy, better illustrates Argentina's response to their latest banking crisis in 2001. This crisis took place in the midst of Argentina's 1998–2002 depression, which resulted in the world's largest default: \$95 billion in debt to the IMF. An economic depression is defined as an extreme recession, resulting from loss of confidence and investments. President Mauricio Macri helped stabilize this economic volatility, in 2017, when investments grew by 11.3% from the previous year.

**Table 1: Comparison of Annual GDP, Government Spending, & Public Debt (1999–2017)**





Although Argentina experienced a consistent increase in government spending since 2004 (which is common among emerging markets), they did not experience an average 86% increase from 2001–2004. In 1999, the country was allocating 14% of its GDP to government spending. This figure remained the same for the following two years, only to drop to 12% and 11% until 2007. It only recently reached its peak in 2017, when the country allocated 18.11% of its GDP to government spending. The above chart further shows that GDP and government spending have both gradually increased, while public debt has gradually dropped from 2004–2014, only for it to shoot back up in recent years. Government spending, in Argentina, has taken place in the form of regulated imports, increased export taxes, massive infrastructure projects, corruption, etc. A great deal of corruption resulted under Presidents Mauricio Macri (2015–2019), Cristina Fernandez de Kirchner (2007–2015), and Néstor Kirchner (2003–2007). For instance, when Macri came into power, he had the opportunity to cut government spending, which was increasing at too quick a rate; instead, he chose to drop the tax bracket for businesses and borrowed impractical amounts of money to do so – neither of which solved the aforementioned government spending issue.

### **Reason #3: Rising Inflation**

Argentina suffers a long history of rising inflation. High inflation means that debtors are able to pay off loans in a currency much lower than the original purchasing power they made their investments in – proving disadvantageous to the FI. High inflation occurs when the inflation rate surpasses 20%, and hyperinflation occurs once the rate surpasses 40%. It is difficult to escape high inflation, as well as volatile inflation because it stems from an increase of printing money. Although this may help stabilize the economy from the government's perspective, it

makes it more difficult for citizens to afford the same expenses, now that their money has been diluted and has a lower value.

Examples of hyperinflation during the 1900s includes Germany's historic episode in 1923, with a rate of inflation of **22,220,194,522.37%**. In 1989, Argentina reached record inflation of **4,923.3%**, which was provoked by its domestic debt. Not only was this inflation greater than any other South American country at the time, but it also incurred a ratio of domestic debt-to-GDP of 25.6%. This is important to note since domestic default is not extensively documented, and external default, inflation, and domestic debt are all inter-connected issues that affect each other during a default.

Relevant crises' factors include the independence of the central bank, as well as the exchange rate regime. As defaults are often a shock, it is necessary to consider that inflation usually reaches an average of 33% during the year of external defaults, and an average of 170% during the second year of domestic defaults.

Inflation causes changes to both the banking system, and the financial sector. If debt is short-term, inflation poses a greater issue than if it were long-term because inflation needs to be much more aggressive in order to achieve results. Higher background inflation rates subsequently suggest that an economy is less likely to fall victim to a downward deflationary spiral. The worst inflation is external inflation, and global financial destruction is the root cause of default waves, such as those that occurred in Latin America, during the 1980s, 1990s, and early 2000s. Defaults can be solved through the implementation of lower debt repayment levels, or through a lower debt-to-GDP ratio. Although hyperinflation is a possibility, high and moderately-high inflation is more likely than the aforementioned chronic hyperinflation.

In attempt to drive inflation down, which reached 25% in 2017, the central bank increased Argentina's interest rates (from 25%) to 40% in April, 2018. By June, President Macri and the IMF agreed on a \$50 billion credit line, but because interest rates continued to grow to 60% by late August, the IMF later increased the previous program to \$57.1 billion by September. Interest rates are continuing to grow, and stand at a current estimate of 68%. Historical data suggests that because of this growth in inflation, another default or restructure is likely to occur in the near future.

The agreement regarding Argentina and the IMF requires a 0 deficit during 2019, is meant to be dispersed over the following three years, and stems from decades of increasing deficits, as well as foreign investments pulling out of the Argentine economy (Bronstein). Whether this approach will work is questionable; Argentina's inflation is expected to drop to 17%, 13%, and 9% in 2019–2021, while external debt is expected to rise by more than \$100 billion. If inflation does in fact drop, Argentina may be able to avoid a further crisis. However, as most of the country's debt is accumulated in dollars, this poses a huge currency exchange risk for Argentina.

#### **Reason #4: Depreciating Currency**

Argentina's currency (the peso) fell roughly 20% by May, 2018; losing almost half of its value against the dollar, by the end of the year. This means that as their currency continues to drop, their value of debt (in dollars) continues to grow. Argentina experienced a similar foreign currency-denominated debt in 1982, 1989–1990, and 2002–2005. The sharp drop in currency value indicates further financial volatility. Economic growth is also expected to slow down, as a result. This proves disadvantageous as a slowing economy is another indicator of a failing economy (Allen).

By slowing the economy, it is likely that the central bank will also reduce liquidity, which may result in a liquidity crisis. This arises when the borrower is both willing and able to pay off its debts over an extended period of time but is currently unable to do so in the short term (solvency). By reducing liquidity, Argentina suffers the risk of a bank run. These typically occur when there is reason to believe that the economy is about to collapse. Although this may be false, an increase in panic often equates to an increase in bank withdrawals. However, if Argentina has fewer liquid assets, it may be unable to repay its bank clients. This may result in increased rates of loan default, increased rates of bank failure, and decreased creditability. This can then pressure strong banks to support those which cannot keep up with the current financial and economic toils, subsequently intensifying the recession. A depreciated peso also signifies the probability of a confidence crisis, which occurs when clients lose confidence in the bank. This is only an issue if the bank has the funds, just not at the current moment, in liquid form.

#### **Reason #5: Volatile Real Estate Price Cycles**

Argentina experienced volatile real estate price cycles during its 1998–2002 depression. They reached the peak in these cycles in 1999, and the banking crisis hit in 2001. Had Argentina stabilized its real estate cycles during this two-year period (1999–2001), they may have been able to avoid the 2001 crisis, that resulted in a \$95 billion default. In 2003, Argentina experienced the trough of its real estate cycles and “reverse-graduated” from sovereign default. For a country to graduate from sovereign default, they must prove themselves a reliable borrower, which is why it will be interesting to see whether or not Argentina can graduate.

Graduation and “reverse-graduation” are two concepts that measure a FI’s reliability regarding defaults. Sovereign ratings recorded by the Institutional Investor Ratings (IIR), as well as the ratio of external debt-to-GNP, are two measurements regarding defaults. Club A is the

least debt intolerant group. From 1979–2007, the IIR claimed that Club A’s IIR had to be 73.5 or higher (mean + 1 standard deviation); and Club B had to range between 21.7 and 73.5.

Additionally, Club B has four subtopics, distributed into different types: Type 1 – the least vulnerable group, with above average IIR, and a ratio of external debt-to-GNP below 35%; Type II – above average IIR, and a ratio of external debt-to-GNP *above* 35%; Type III – below average IIR, and a ratio of external debt-to-GNP below 35%; and Type IV – the most vulnerable group, with a below average IIR, and a ratio of external debt-to-GNP *above* 35%.

Overall, Club B is very unpredictable. In 2000, Argentina had an IIR of 44 points and a ratio of 51%, meaning an IIR below the average and a ratio above 35%, placing it in the least desirable subtopic of Club B (Type IV). Club C is the most debt intolerant of the three groups; because of its high volatility, Club C has the least opportunities to borrow from lenders. Its IIR fell below 21.7 points (mean – 1 standard deviation) from 1979-2007.

In 2003, Argentina’s IIR dropped to only 15 points, resulting in a digression from Club B, Type IV, to Club C. Rather than graduate, Argentina further increased its obstacles in borrowing money, as it lost further credibility with lenders.

Although difficult, it is important for a country to first prioritize higher IIR ratings, and then to drop its ratio of debt-to-GNP. Possible suggestions on how one might achieve lowering their debt-to-GNP ratio is through rapid growth, or generous and extended repayments. That said, external debt is mostly achieved via restructuring and default.

Since it is important that a country drops its debt-to-GNP ratio in order to graduate from sovereign debt, Brady Bonds were introduced in the 1980s as an attempt to achieve this mission. Issued by an emerging market, the U.S. dollar-denominated bond was aimed at countries such as: Argentina, Brazil, Bulgaria, Costa Rica, the Dominican Republic, Ecuador, Jordan, Mexico,

Morocco, Nigeria, Peru, the Philippines, Poland, Uruguay, and Vietnam, which includes many of the same countries whose external debt-to-GNP ratio, at the end of their default or restructuring year, was above Argentina's 55.1% in 1982, or their 50.8% in 2001. Of the 15 countries included in the Brady Bond attempt, 8 of them fall within the Latin American region.

Although countries do not typically outgrow debt burdens, it is important to try to do so by decreasing the debt-to-revenue ratio; this can be done either through decreased debt, increased revenue, or a combination of the two. Ironically, through the Brady Bonds restructure, Argentina's ratio *increased*, and continued to do so for the next few years. Of all the countries that participated in the Brady Bonds restructuring, Argentina, Brazil, Ecuador, Peru, [the Philippines, Poland], and Uruguay had higher debt-to-GNP ratios in 2000, than in the three years post restructuring; while *only* Latin American countries – Argentina, Brazil, Ecuador, Peru – had higher ratios in 2000 than *before* the restructuring. In fact, by 2003, three of the Latin American participants – Argentina, Ecuador, Uruguay – either defaulted on or restructured their external debt; and by 2008, Ecuador had defaulted *yet again*.

Sovereign defaults are easy to predict once the lender understands how to measure debt intolerance. Debt intolerance is strictly measured by a country's history of paying off loans, and their likeliness to default. For this reason, the IMF should have been able to predict Argentina's 2001 default, due to past defaults in 1982 and 1989. Additionally, there is a high positive correlation between global banking crises and the likeliness of sovereign defaults on external debt, meaning that Argentina's banking crisis, which began in 1998, could have predicted the 2001 sovereign default (on IMF debt).

If one were to approach Argentina's creditability from a broader outlook, they would see that Argentina experienced eight external defaults since its independence in 1816, and that the

country participated in 21 IMF programs since 1956 (when they joined the global organization) (Nelson).

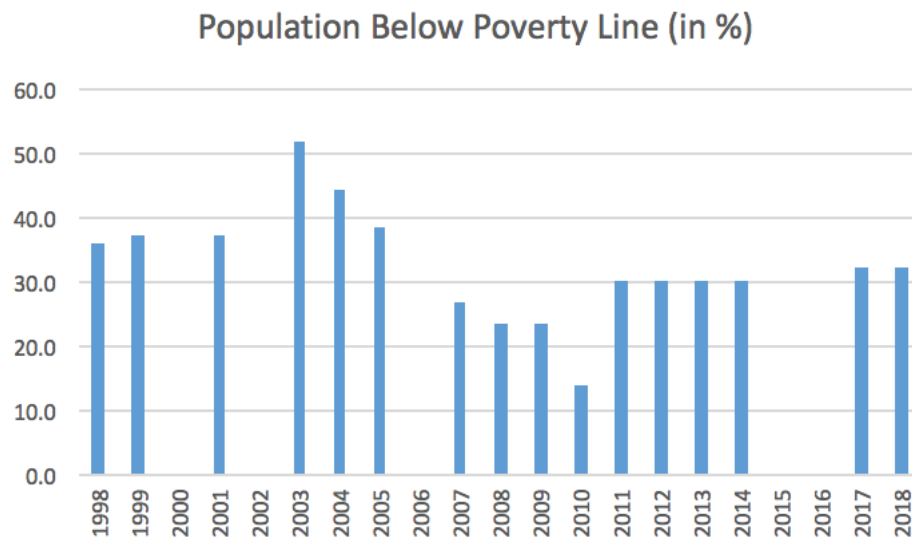
Had the IMF more closely considered Argentina's history as a sovereign defaulter, it may have refused lending the country such a large amount of money, meaning that the country would have never had the chance to default. For instance, a creditor may be able to avoid defaults by attaining a better understanding of its borrower's purchasing history, repayment history, past debt burdens, and reasons behind aforementioned debt burdens (Reinhart and Rogoff 137). After commodity prices fell in Latin America in the 1970s, the region saw crashes throughout the 80s. During this time, New York bankers were investing large amounts of their money into the Latin American economies in the 70s, meaning that they, too, faced huge defaults. Had these lenders considered Argentina's previous banking crises of 1951 and 1956, they may have been able to protect themselves and invest somewhere more credible.

By doing this, a lender would be taking the appropriate precautions to secure itself against default risk. Although Argentina led the new world as one of the top economies at the turn of the 20<sup>th</sup> century, more recent data shows that the country has proved anything *but* reliable, since. Through this self-education, lenders can avoid being debt intolerant and choose a more logical approach when deciding who to lend to. Case in point, the IMF could have predicted that Argentina would default. As a consequence, many Argentinians hold them accountable for the country's 2002 depression that pushed millions of its citizens into poverty. This should have been, and could have been, avoided.

Lenders should be aware of domestic debt history and apply this knowledge in protecting themselves from easily avoidable default crises. This can be better illustrated in the chart below, which represents Argentina's population below poverty; although "only" 37.0% in 2001, this

greatly increased during the depression, to 51.7% in 2003 (the year after the depression ended) (compiled with data from IndexMundi). The IMF should have been more calculating and realize that Argentina would be unable to repay its debt. If this were the case, the whole incident could have at least been diminished; Argentina's population in poverty grew by a shocking 39.73% from 2001 to 2003. From the perspective of the people, it appears that the central bank is willing to put its people through another recession, as long as it means more stability for the bank.

**Table 2: Percentage of Population Below the Poverty Line (1998–2018)**



As was previously mentioned, the 1980s' defaults occurred due to an increase in commodity prices during the '70s. This resulted in a false sense of security. Argentina's record inflation of **4,923.3%** was achieved in 1989 – the year of the domestic cluster crises (domestic and external). External defaults are worse due to Argentina's weak peso. As the peso continues to drop, the value of their debt continues to grow. This proves currently disadvantageous as the peso has lost nearly half of its value against the dollar, in the last year. As for the 2001 default, it resulted due to volatile real estate cycles during the depression. In 2003, Argentina suffered the trough of its



real estates cycles, “reverse-graduated” from sovereign default, and greatly increased its population of citizens below the poverty line.

## **Section 2: How to Avoid Future Crises**

### **Reasons #1 & #2: Controlled Money Creation; Controlled Government Budget Deficit**

Future crises can be avoided through controlled money creation by the central bank, as well as controlled government budget deficit. The Kirchners financed the deficit by controlling their costs through money creation, as well as by forcing national banks to buy government bonds. These governments were run by Néstor Kirchner, 2003–2007, and later, by his widowed wife, Cristina Fernandez de Kirchner, 2007–2015. Macri, on the other hand, turned to more traditional approaches regarding the necessity to finance the deficit. He did this by turning to international capital markets to lend him money, resulting in increased financing costs.

Macri has successfully improved Argentina’s relationship with the U.S., which was previously questionable under the Kirchners’ rule. This is worth noting as the U.S. is also the IMF’s largest shareholder. Although one might speculate that because Argentina is such a frequent borrower of the IMF, the U.S. might not think warmly of them – this is not the case. On the contrary, President Donald Trump encourages Argentina’s relationship with the IMF, and even supports Macri’s leadership.

With elections taking place December 2019, Macri faces the risk of losing to Fernandez, who is planning to run again (Argentine presidents can run for as many terms as they are elected, but never more than 2 consecutive terms). This is important to consider as pre-election buzz exaggerates the intensity of a financial crisis. A non-domestic example of this is Brazil’s 2002 financial crisis, which stemmed from the political disagreement between their centrist

government shifting to a more populist leadership. This may suggest another crisis (or sovereign default) in Argentina's near future, as their election nears.

### **Reason #3: Maximizing Liquid Assets**

Crises can also be avoided if Argentina successfully maximizes their liquid assets. By doing this, a country can better guarantee its ability to avoid a bank run – a relatively easy financial crisis to defend an FI against. If the FI is able to gain the confidence of a borrower, the bank may be able to receive a short-term loan, which will allow them to pay off their debts to their customers now, and repay the third party (that helped them out) at a later date. Short-term lending, in this case, is less risky for the lender as there's a higher chance of being reimbursed; but riskier for the borrower, as this means that they have less time to produce the money. If the bank fails to liquidate the necessary amount needed a second time, they risk a financial crisis as they have less time to roll their money over. With increased risk comes greater probability of a financial crisis. That said, a FI may decide to default even if it has the necessary liquid assets demanded, but doesn't think that full repayment is worth pushing itself into further economic and financial instability. This brings up the contrast of willingness to pay, and the ability to pay. A FI must be both willing *and* able, meaning that Argentina must create money so that it has increased liquid assets. By doing this, the country will become able, though not necessarily willing.

### **Methodology**

My study consists of both quantitative and qualitative data of global, and domestic, financial crises. The majority of this information was extracted from the book *This Time is Different: Eight Centuries of Financial Folly*, by Carmen M. Reinhart and Kenneth S. Rogoff.

Using this source, I compared the financial defaults of several countries from around the globe. Although the book covered eight centuries, as well as each continent, I used the information to focus primarily on Argentina, and then Latin America. This was helpful in analyzing Argentina's financial stability, as well as potential solutions for how they can defuse, and possibly even avoid, future financial crises.

By comparing such an extensive breadth of financial data, I was able to consider the similarities that 1) precede, 2) parallel, and 3) follow financial crises – regardless of when in history, and wherein the world. Through this analysis, we can better understand the historical precursors that result in a crisis, as well as how to avoid these crises in the future. Before doing this, it is important to consider the many types of crises that a country faces: banking crises, defaults, sovereign debts, inflation, confidence crises, and liquidity crises are only a few. Although sovereign defaults (which a country can graduate from) and banking crises (which no country has ever graduated from before) are the most prevalent, crises typically occur in clusters and rarely appear on their own. This means that as soon as a crisis occurs, one should already assume that another is shortly behind.

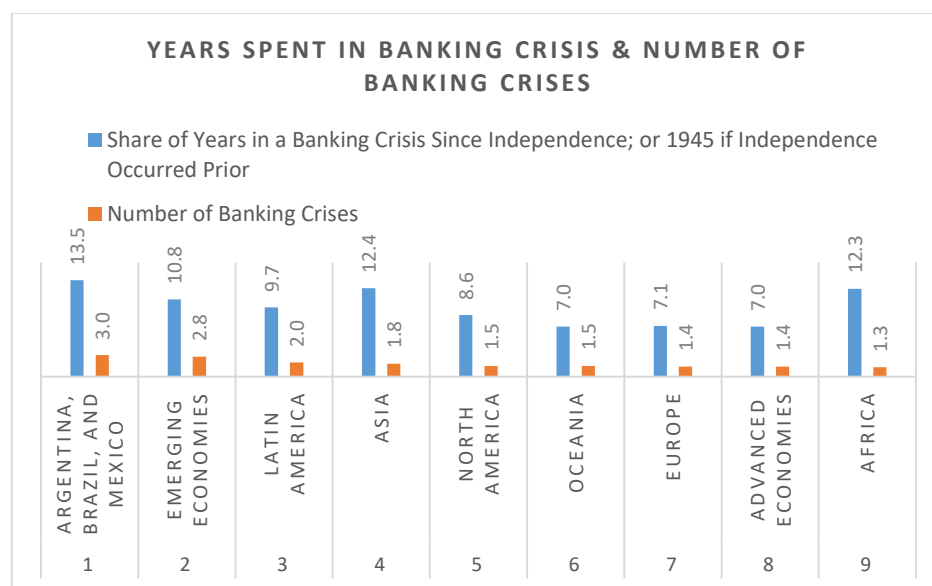
Through my qualitative data, it has become increasingly clear that although many incidents may seem “rare” at first glance, they have actually occurred before. By taking note of these parallels, one can better analyze, and handle, the situation at hand. In fact, financial institutions are known to operate in a constant state of denial, where they stubbornly believe that “This Time Is Different” – this approach allows FIs to make long-term decisions under the mentality that financial crises are events which impact other people, in other countries, in other regions, with other economies. By deconstructing this approach, it becomes clear that a crisis can happen anywhere, and at any time. This suggests that as soon as we are able to understand what drives a

crisis, we will consequently become able to determine how to avoid and/or minimize the impact of said crisis from occurring in the future.

## Empirical Results

To understand the impact of Argentina's crises on a larger scale, I compiled data from other country's financial crises to better illustrate the magnitude of Argentina's instability. As we can see below, Argentina, Brazil, and Mexico receive their own group, emphasizing just how much time the three countries spent in banking crises, compared to other countries/regions. This group not only achieved the highest number of banking crises since 1945, but also holds 1<sup>st</sup> place for the number of years spent in crises, since 1945. It is worth noting that Asian and African financial crises aren't as well recorded as European and Latin American crises, meaning that the data may be skewed.

**Table 3: Number of Years in Banking Crisis & Number of Banking Crises (Since 1945/Independence; Regionally)**



The following chart was made to better illustrate the debt-to-GNP ratio at the end of the year of default/restructuring (Reinhart and Rogoff 23). As you can see, I purposely made Argentina the lowest ratio on the chart. Around the same time as its defaults (1982–2001), other countries also defaulted (cluster crises), and at worse rates. Argentina's external debt-to-GNP was 55.1% in 1982, and 50.8% in 2001. Other examples include: Bolivia, who defaulted in 1980, with a ratio of debt-to-GNP of 92.5%; Chile, in 1983, at 96.4%; Costa Rica, in 1981, at 136.9%; Ecuador, in 2000, at 106.1%; Guyana, in 1982, at 214.3%; and Panama, in 1983, at 88.1%.

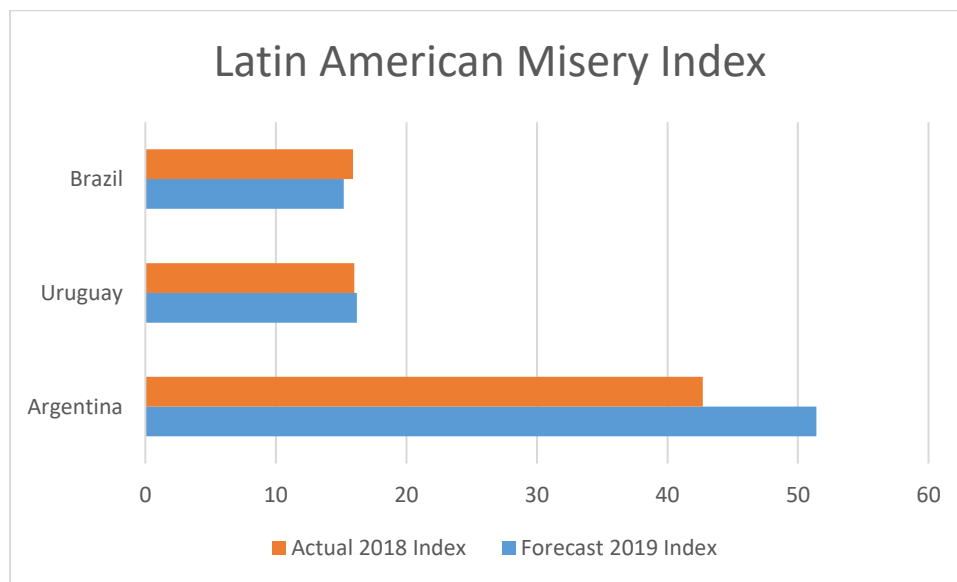
**Table 4: Ratio of External Debt-to-GNP at the End of the Year of Default/Restructuring**



This is important to consider because these numbers show that the average ratio at default/restructuring is 69.3%, making Argentina below average in both cases (by at least 15%).

Regarding international inflation, Venezuela is the only country to currently surpass Argentina. Venezuela had an actual 2018 index of 929,824.5%; and a forecasted 2019 index of 8,000,011.4%. As for Brazil, Uruguay, and Argentina – see below. Although not nearly as bad as Venezuela, Argentina is the second leading country in the world, regarding misery index for countries with worst inflation (Jamrisko and Saraiva). **Inflation, external debt, and domestic debt are all interconnected issues.**

**Table 5: Latin American Misery Index for Worst Inflation by Country (Actual 2018 Index & Forecast 2019 Index)**

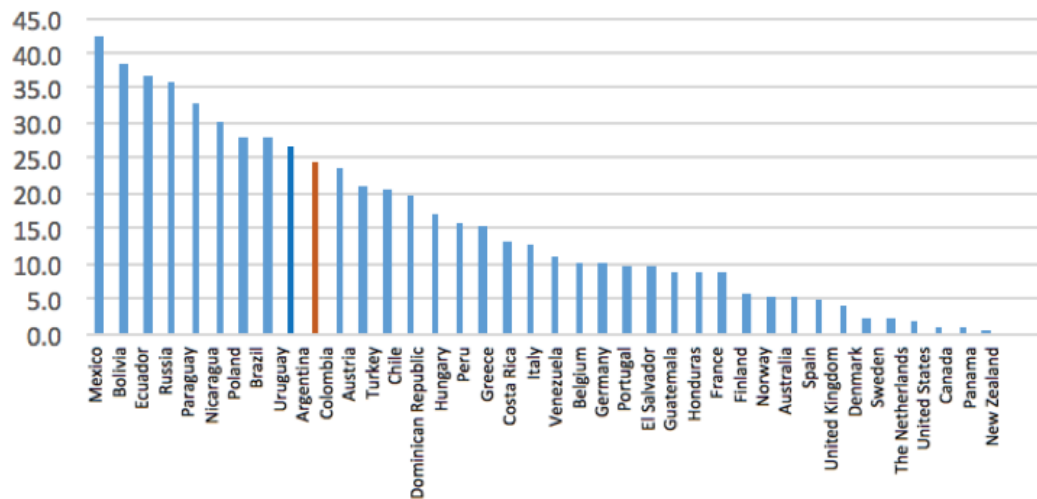


Latin America, in general, faced consistently high inflation. If you look at the graphs below, you can see that Argentina spent a decent share of years in inflation exceeding 20%, and even 40%. Currently, inflation is exceeding 50% in Argentina (Mander).

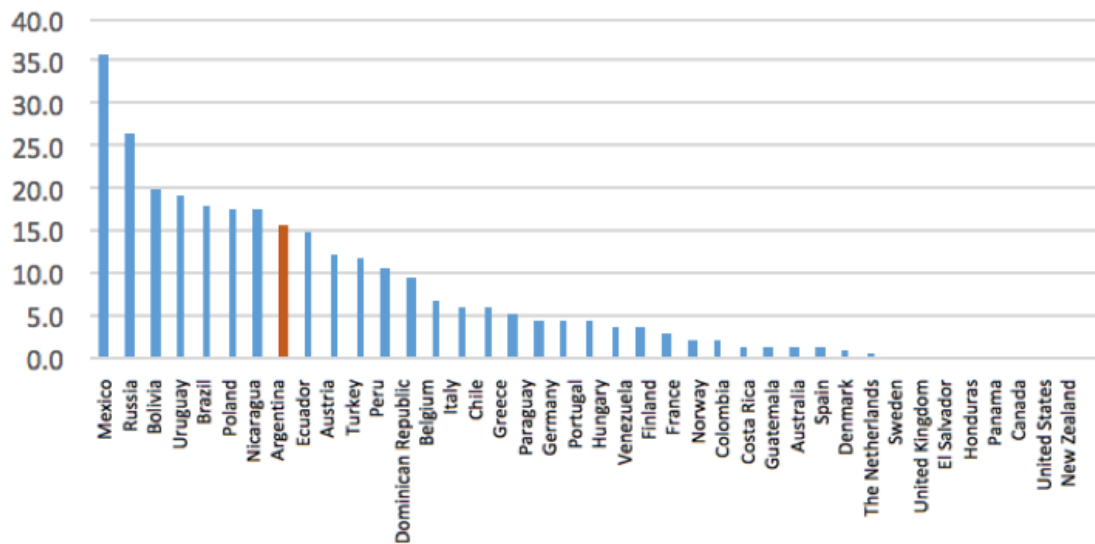
As we can see below, Argentina is among the top 10 countries (#10) to have suffered the greatest periods of inflation, exceeding 20%. Even France and Spain don't show up among the highest. In regards to countries to have suffered the greatest periods of inflation, exceeding 20%,

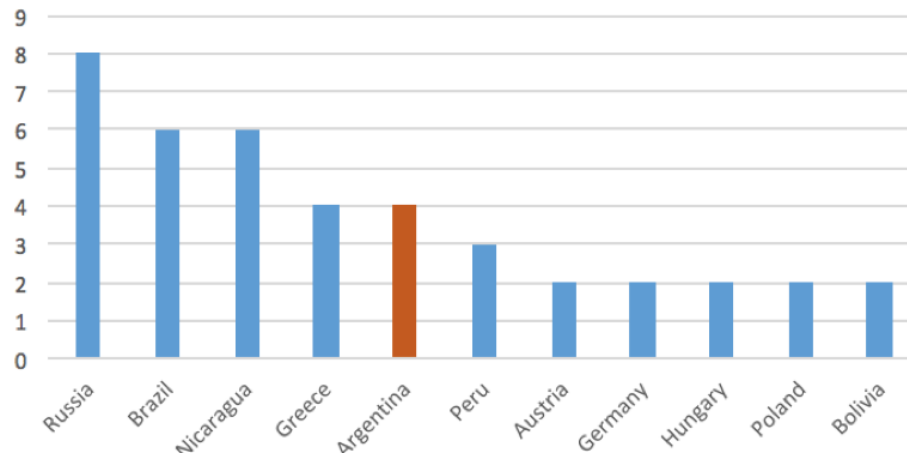
Argentina is #8; again France and Spain don't appear until later to the right. In terms of hyperinflation, Argentina ranks #5.

**Table 6: Share in Years in Which Inflation Exceeded 20%**



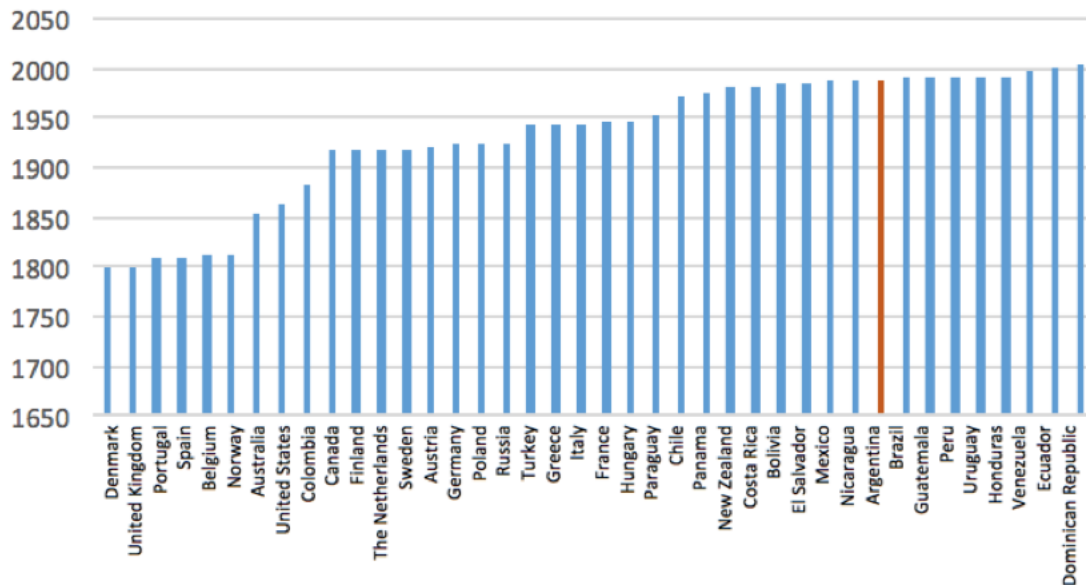
**Table 7: Share in Years in Which Inflation Exceeded 40%**



**Table 8: Number of Years of Hyperinflation**

As we can see from the chart above, Argentina is one of few countries to make the chart. Although not the leader in this case, Argentina is 1 of 11 countries that underwent so many years of hyperinflation; 5/11 countries are Latin American, while the remaining 6/11 countries are European. As has been already mentioned, Asian and African crises were more poorly recorded, meaning that simply because there are no data regarding years spent in hyperinflation doesn't mean that no Asian or African country suffered it. Argentina reached its peak inflation in 1989 when the nation suffered both an external default, as well as a domestic default; and has a maximum annual inflation of 3,079.5%. Russia experienced its peak in 1923, and has a maximum annual inflation of 13,534.7%; Brazil reached its peak in 1990, and has a maximum annual inflation of 2,947.7%; Nicaragua experienced its peak in 1987, and has a maximum annual inflation of 13,109.5%; Greece experienced its peak in 1944, and has a maximum annual inflation of  $3.02 \times 10^{10}$ .



**Table 9: Year of Peak Inflation**

## Conclusion & Suggestions for the Future

Applied appropriately, Argentina can stabilize its economy, graduate from sovereign default, and avoid further financial crises by taking note of common themes occurred in the past. For instance, crises primarily occur in clusters, and are typically triggered by a banking crisis. Banking crises commonly result from decreased asset prices, increased government spending, slowing economic growth, and volatile housing cycles. Not only should one expect additional crises to follow, but they should also expect a three-year period of increased government spending, with an average increase of 86%. FIs often face financial crises simply because they are too stubborn to admit that “this time is not different.”

Defaults can be solved through the implementation of lower debt repayment levels; or through a lower debt-to-GDP ratio. Although hyperinflation is a possibility, high and moderately-high inflation is more likely than the previously chronic hyperinflation. See page 22,

in this paper, to see various charts depicting which countries experienced inflation rates exceeding 20% and 40%.

Furthermore, the average cumulative reduction in output is 8% during the three years leading up to a domestic default, while only 4% *during* the year of default. As domestic default is typically a result of macroeconomic distress, it is important to understand the determining factors in Argentina's crises, and in connection with the macroeconomic distress that eventually pushed them into yet *another* default. Although external default was seemingly more prevalent than domestic default, during the period prior to World War II, it is important to remember that domestic debt is often kept hidden from the public, meaning that external defaults may simply be more *publicized*, and not necessarily more *prevalent*. This said, domestic debt can be exterminated through default on external debt, or through high inflation – as France has exemplified during its *own* default. However, rising inflation may also complicate financial crises, as it needs to be properly maintained to prove advantageous, rather than harmful, to the FI. Due to there being less data on domestic debt defaults, it is more difficult to analyze these crises and determine how to avoid them.

Emerging markets more often endure increased government spending, higher income, and more volatile interest rates than advanced economies do. This means that they are more sensitive to financial crises, and therefore more prone.

Indicators of an oncoming crisis include an increase in risk and inflation, as well as a decrease in economic growth. Other indicators include a false sense of financial stability that results in increased government spending; and volatile real estate cycles. To avoid such crisis, a FI can rely on maximizing liquid assets, stabilizing the housing market, and controlling debt buildup as appropriate precautions and defense mechanisms.

## References

- Acosta, Martin. “Argentina Soy, Corn Harvests Begin with Low Yields Reported.” *Reuters*, Thomson Reuters, 28 Mar. 2018, <https://www.reuters.com/article/us-argentina-grains-weather/argentine-soy-corn-harvests-begin-with-low-yields-reported-idUSKBN1H430Q>
- Allen, Laurence. “Country Reports – Argentina.” *IHS Markit*, 25 July 2018.
- “Argentina – Population Below Poverty Line – Historical Data Graphs Per Year.” *IndexMundi*, <https://www.indexmundi.com/g/g.aspx?c=ar&v=69>
- “Argentina’s Currency Crisis is Far from Over.” *The Economist*, The Economist Newspaper Limited, 5 Jul. 2018, <https://www.economist.com/finance-and-economics/2018/07/05/argentinas-currency-crisis-is-far-from-over>
- Bailey, Tom. “A History of Economic Trouble in Argentina.” *World Finance*, World Finance, 10 Mar. 2016, <https://www.worldfinance.com/special-reports/a-history-of-economic-trouble-in-argentina>
- Bronstein, Hugh. “UPDATE 3-Argentina Peso Snaps Three-Day Rally with More Losses Expected.” *Reuters*, 4 Oct. 2018, <https://www.reuters.com/article/argentina-economy/update-3-argentina-peso-snaps-three-day-rally-with-more-losses-expected-idUSL2N1WK0IB>
- Calatrava, Almudena. “Argentina’s Fernandez Still Inspires Loyalty Among Many.” *Daily Journal*, Daily Journal, 5 Nov. 2018, <http://www.dailyjournal.net/2018/11/05/lt-argentina-fernandezs-fans/>
- Coppola, Frances. “The IMF Has Learned Nothing from the Greek Crisis.” *Forbes*, Forbes Inc., 28 Oct. 2018, <https://www.forbes.com/sites/francescoppola/2018/10/28/the-imf-has-learned-nothing-from-the-greek-crisis/#1ab43e3b6f3c>

- “Economic History of Argentina.” *Wikipedia*, Wikimedia Foundation, Inc., 5 Nov. 2018, [https://en.wikipedia.org/wiki/Economic\\_history\\_of\\_Argentina](https://en.wikipedia.org/wiki/Economic_history_of_Argentina)
- Gillespie, Patrick. “IMF Board Approves \$56.3 Billion Credit Line for Argentina.” *Bloomberg*, Bloomberg Inc., 26 Oct. 2018, <https://www.bloomberg.com/news/articles/2018-10-26/imf-board-approves-56-3-billion-credit-line-for-argentina>
- Gillespie, Patrick & Doll, Ignacio Olivera. “Argentina Gets \$57 Billion as IMF Doubles Down on Record Bailout.” *Bloomberg.com*, Bloomberg, 26 Sept. 2018, [www.bloomberg.com/news/articles/2018-09-26/argentina-gets-57-billion-as-imf-doubles-down-on-record-bailout](http://www.bloomberg.com/news/articles/2018-09-26/argentina-gets-57-billion-as-imf-doubles-down-on-record-bailout)
- Gillespie, Patrick & Doll, Ignacio Olivera. “Argentine to Extend Currency Band in 2019, Likely Adjust Less.” *Bloomberg*, Bloomberg Inc., <https://www.bloomberg.com/news/articles/2018-11-05/argentina-to-extend-currency-band-in-2019-likely-adjust-less>
- Heath, Maximilian. “As Drought Bakes Argentina Soy and Corn, Wheat Outlook Improves.” *Reuters*, Thomson Reuters, 6 Mar. 2018, <https://www.reuters.com/article/us-argentina-grains/as-drought-bakes-argentina-soy-and-corn-wheat-outlook-improves-idUSKCN1GI22H>
- Hermesauto. “Re-Pricing: A Business Necessity in Argentina’s Economic Crisis.” *The Straits Times*, 1 Nov. 2018, <https://www.straitstimes.com/world/americas/re-pricing-a-business-necessity-in-argentinass-economic-crisis>
- Jamrisko, Michelle, and Catarina Saraiva. “The World’s Most Miserable Economy Has Seven-Figure Inflation.” *Bloomberg.com*, Bloomberg, 17 Apr. 2019, <https://www.bloomberg.com/news/articles/2019-04-17/the-world-s-most-miserable-economy-has-seven-figure-inflation>

- Mander, Benedict. "Argentina's Growing Poverty Raises Tough Questions for IMF." *Financial Times*, Financial Times, <https://www.bloomberg.com/news/articles/2019-04-17/the-world-s-most-miserable-economy-has-seven-figure-inflation>
- Margulies, Ben. "Argentina's New Currency Crisis: What Happened This Time?" *Frontera*, Frontera Pte Ltd, 13 Sep. 2018, <https://www.wsj.com/articles/how-argentinas-evolving-economic-crisis-unfolded-1536062407>
- Meredith, Sam. "Argentina's Central Bank Hikes Rates to 60% as the Currency Collapses." *World Economy*, CNBC LLC., 30 Aug. 2018, <https://www.bloomberg.com/view/articles/2018-08-31/argentina-currency-crisis-illustrates-two-facts-of-finance>
- Mitchell, Kenneth & Scott III, Robert H. "Argentina Bets 60 Percent Interest Rates – and \$50B International Bailout – Will Revive Its Economy." *The Conversation*, The Conversation US Inc., <http://theconversation.com/argentina-bets-60-percent-interest-rates-and-50b-international-bailout-will-revive-its-economy-104529>
- Nelson, Rebecca M. "Argentina's Economic Crisis." *Congressional Research Service*, 2 Oct. 2018.
- Rapoza, Kenneth. "Argentine Approaching the Eye of the Hurricane." *Forbes*, Forbes Inc., 31 Oct. 2018, <https://www.forbes.com/sites/kenrapoza/2018/10/31/argentina-approaching-the-eye-of-the-hurricane/#75ba61bdf412>
- Reinhart, Carmen M., and Kenneth S. Rogoff. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press, 2011.
- "Re-Pricing: A Business Necessity in Argentina's Economic Crisis." *The Straits Times*, SPH Digital News, 1 Nov. 2018, <https://www.straitstimes.com/world/americas/re-pricing-a-business-necessity-in-argentinas-economic-crisis>