The Political Economy of Macroeconomic Policymaking:[*]

Economic Crises and Technocratic Governance

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Abstract

How do economic crisis affect national-level policy choices? Are technocratic advisors more likely to enter government during periods of severe economic volatility? If so, how does such governance affect economic policymaking and social responsiveness? In this paper, I evaluate the role of technocratic advisors on Latin American reforms. Building on the political psychology literature, I argue that collective crisis memories in technocratic communities have a disproportionate influence on elite-level policymaking. Employing an originally constructed data index, the *Index of Economic Advisors*, I conduct a large-N cross-national test from 1960-2011 to examine whether economic crises lead to more technocrats serving in presidential cabinets, and find that crises often professionalize presidential teams. The statistical results also show that technocrats' governance approaches are conditioned by the nature of past shocks. An inflationary crisis history makes budget austerity more likely. Deflationary spirals have been far less common in Latin America, but comparative case study evidence of Argentina in the early 2000s shows that these shocks often catalyze sustained fiscal expansion. This investigation has significant implications for the study of democracy and development. Technocratic governance might help provide economic stability following crises, but an enduring political focus on past crises can limit policy flexibility and social responsiveness.

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1 Introduction

Throughout her first term in office, Brazilian President Dilma Rousseff has often reaffirmed her government's commitment to budgetary discipline during periods of political uncertainty. In her response to last summer's mass demonstrations, fiscal responsibility and inflation control were a central component to her five pillars of government reform. In the prelude to this year's presidential elections, Rousseff declared to Congress that price stability is "non-negotiable" and further underscored her "profound commitment to fiscal responsibility." Her predecessor, Luiz Inácio Lula da Silva, would also often champion good fiscal governance in public speeches, for example highlighting that "controlled inflation represents an extraordinary gain for salaried workers."[1] Why would incumbent presidents from a developing country like Brazil that has struggled with poverty, income inequality, and unemployment repeatedly emphasize budget discipline over stimulus? Why not oversee large budget deficits that distribute political benefits to as many people as possible?

To explain such phenomena, I develop a theory rooted in a country's technocratic understanding of its past economic crises. I argue that high economic volatility creates risk aversion among politicians. In contrast to standard risk preference models that weight all historical information equally, I claim that a legacy of economic crises has a disproportionate influence on elite-level decision-making. The powerful and painful collective memories of economic trauma causes politicians to appoint ministers who have specialized training in economics that promises to improve governance and avoid repeating past crises.

These technocrats are often empowered politically because of their non-partisan expertise, but they are not immune from ideational leanings economically. Macroeconomics is a profession that has been dominated by two major schools of thought, Keynesianism and Monetarism. Both governance approaches have crisis roots, but they offer competing policy prescriptions. Keynesian hopes to catalyze economic recovery through government stimulus, while Monetarism hopes to control excessive expansion through austerity.

I anticipate that the type of past economic shock – inflation vs. deflation – will influence how these economic teams approach macroeconomic governance in their respective countries. For example, the divergence between the United States and Germany's response to the 2008-09 global fi-

[1] *Reuters*, June 18, 2007.

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nancial crises likely reflects differences in their understanding of their crisis past. President Obama's flurry of economic stimulus that followed the 2008 financial calamity was anchored by a powerful, anti-depression discourse. Fearing that a severe credit crunch would unleash a deflationary spiral not seen since the Great Depression, Obama used massive spending to avoid an economic collapse. It's not surprising, however, that U.S. politicians place a higher weight on escaping a known economic catastrophe, the Great Depression, than a trauma they have never experienced like very high or hyperinflation.[2]

By contrast, Germany's strident advocacy for economic orthodoxy during the eurozone crisis reflects the country's deep-seated inflation fears. Even years after the Weimer Republic's extraordinary trillion-fold inflation, many German politicians expound on the merits of inflation control. In the wake of Europe's crisis, for instance, German Chancellor Angela Merkel stressed that "protecting people from inflation: that's what really matters."[3]

Crisis aversion begins in the political realm, but is perpetuated through technocratic communities whose governance approach reflects a country's crisis history. In nations that have experienced severe inflationary shocks, technocrats – who prefer not to risk overheating the economy – place disproportionate weight on budget discipline and inflation control. By comparison, in countries that have incurred traumatic deflationary shocks, technocrats – who hope to avoid a severe depression – are more likely to place disproportionate weight on budgetary stimulus notwithstanding its inflationary risks.

I examine these theoretical claims in Latin America, a region that is ideally suited for this analysis because of its significant variation in inflation crisis history – about one-half of the countries in the region have experienced a high or hyperinflation crisis.[4] Using cross-national data from seventeen Latin American countries from 1961-2011, I test whether these inflation crises lead to more technocrats serving in presidential cabinets, and if so, whether technocrats tend to be more fiscally conservative as expected. To analyze the technocratic composition of economic teams, I employ an originally constructed data index, the *Index of Economic Advisors*[5] that characterizes the education credentials (i.e. whether or not they have an advanced degree in economics, business

[2] The highest inflation rate recorded in the United States during the twentieth century was 14 percent in 1980, well below the astronomical inflation rates in Latin America during the 1970s and 1980s (World Development Indicators).

[3] *La Stampa*, July 11, 2007.

[4] They include Argentina, Bolivia, Brazil, Chile, Mexico, Nicaragua, Peru, and Uruguay.

[5] For more details regarding its construction, please see the appendix.

or finance) and the previous employment (i.e. whether or not they are a non-political appointee from the business, finance, or academic universes) of finance ministers and central bank presidents throughout Latin America during the last half century.

I find that severe inflation crises tend to professionalize presidential economic teams and improve government's budget balances. While deflationary shocks have been far more rare than inflationary shocks in Latin America, I present comparative case study evidence showing that these crises tend to yield the exact opposite effect: a fiscal expansion.

These findings mark a notable departure from the developed country literature on macroeconomic partisanship, providing evidence in support of the developing country scholarship that suggest that party systems are often less ideological than their European and U.S. counterparts.[6] In contrast to traditional models of the economy that expect a partisan split on inflation-control policies that favor businesses,[7] these findings show that the powerful and painful collective memories of economic shocks can blur traditional class and partisan ideological differences.[8] In the case of inflationary shocks, for example, there is often a political convergence on inflation tolerance where leftist leaders also seek to earn credibility by anchoring inflation. In the wake of income shocks that devastated people's living standards, inflation control is not simply the concern of right-wing politicians hoping to please businesses and financiers. Left-leaning politicians also realize the importance of ensuring a stable economic environment.[9] For example, former Brazilian President Fernando Henrique Cardoso has emphasized the importance of inflation control for his multi-party political coalition following his country's hyperinflation.[10]

"The poor would not tolerate inflation any longer, and the wealthy were tired of seeing their business plans and investments destroyed by rising prices."[11]

The arguments in this article also engage the important issue of the rise and fall of neoliberalism in developing countries. Within Latin America, scholars have identified a broad emergence of an elite neoliberal consensus in the 1990s,[12] which later crumbled with destabilizing financial

[6] Roberts and Wibbels 1999; Lupu 2014.

[7] Hibbs 1977; Alesina 1987; Bartels 2008.

[8] Other forms of political manipulation, such as using government resources to support incumbent campaign activities, may be more common in these developing countries (Beaulieu and Hyde 2008).

[9] The left favors a stable economic environment given its importance in attracting foreign investment that boosts wages and jobs (Pinto 2013).

[10] Mainwaring and Scully 2009.

[11] Cardoso 2006.

[12] Roberts 1998; Stokes 2001; Murillo 2001; Murillo 2002; Weyland 2002; Levitsky 2003.

volatility and rising income inequality.[13] I argue that in the realm of macroeconomic policymaking, however, the neoliberal consensus never unraveled through much of the region. Inflationary trauma that ended in a near-breakdown of the political and economic systems has prompted politicians to place disproportionate weight on avoiding another inflationary crisis. This analysis of government choices is in line with recent scholarship that has found that Latin American citizens surprisingly hold centrist economic policy preferences.[14] It also offers a domestic political explanation for why developing countries have broadly retrenched Keynesian state welfare intervention.[15] Building on a Latin American scholarship[16] that has emphasized the importance of a weakened labor movement,[17] the strength of business interests,[18] crisis-ridden right-wing governments,[19] and party-backed economic reformers,[20] this paper claims that the rise of economic orthodoxy also reflects a country's technocratic understanding of its economic history.

Finally, this investigation also has significant implications for the study of economic policymaking beyond Latin America. Diffusion scholars suggest that the rise of neoliberalism reflects the spread of economic orthodoxy through Western diplomacy, multilateral institutions,[21] and an Americanized global economics profession.[22] To the extent that policy clustering occurs regionally, they find that it is often a product of peer learning and economic coercion. Policymakers either learn from regional success stories[23] or adopt the International Monetary Fund's policy blueprints.[24] Recent scholarship has suggested that the IMF itself operates as a diffusion mechanism for the spread of neoliberal economic policymakers,[25] which in turn increases the likelihood of IMF preferential loan treatment.[26] Diffusion scholars correctly identify an important global and regional

[13] Roberts 2012.

[14] Baker 2008 and Baker and Greene 2011.

[15] Mosley 2000, 2003; Rudra 2002, 2008; Wibbels 2006.

[16] Notwithstanding such broad retrenchment, Latin American scholars have found that those countries with import-substitution industrialization legacies were more likely to craft political bargains (Frieden 1991; Frieden, Pastor, and Tomz 2000) that preserved supply-side interventions such as industrial promotion and public employment (Kurtz and Brooks 2008), along with a greater emphasis on social insurance (Wibbels and Ahlquist 2011).

[17] Roberts 2002.

[18] Thacker 2000; Schneider 2004; Fairfield 2010.

[19] Pop-Eleches 2008.

[20] Corrales 2000.

[21] Scholars have found, however, that the U.S. has wielded less influence at certain international institutions, such as the World Bank, particularly at the level of project design (Winters 2010).

[22] Hall 1993; Babb 2001; Babb and Fourcade-Gourinchas 2002.

[23] Weyland 2007; Simmons and Elkins 2004.

[24] Stiglitz 2002; Barnett and Finnemore 2004; Woods 2006; Simmons, Dobbin, and Garrett 2008.

[25] Nelson 2014a

[26] Nelson 2014b.

pattern: economic policy choices often reflect the ideological persuasion of key economic advisors.[27] But, to what extent do such choices have domestic roots?[28] Some ideas, like the IMF's austerity, often appear on countries' menu of policy options, but they are not systematically adopted.[29] My argument seeks to explain this domestic policy variation, claiming that states' independent economic histories are pivotal to understanding when technocrats pursue budget discipline and when they opt for more aggressive stimulus.[30]

The article unfolds as follows. The next section contains the main theoretical contribution; here I explain how economic volatility creates risk aversion among policymakers. In Section 3, I provide quantitative empirical support for this theory using data from Latin America, a region known for its history of inflation crises. In Section 4, I also assess the policy ramifications of crises that are instead rooted in deflation – a far less common occurrence in the region. Given the lack of deflationary observations, a comparative case study analysis is best suited to testing this portion of the theoretical mechanism. I thus employ a country case analysis of Argentina during the 2000s – home to the only pronounced case of deflation in Latin America during the last half-century. Finally, I close by discussing the study's broader scholarly and political implications.

2 Theoretical Framework: Economic Crises and Risk Aversion

Informed by the psychology literature[31] on choices under risk and uncertainty, we know that decisions often reflect both descriptive and experiential information.[32] Both types of information help improve Bayesian reasoning; however, experiential information has a disproportionate influence on people's choices. In other words, people place greater weight on personal judgements than second-hand information from newspapers, books, or the internet. For example, drivers familiar with a town are likely to ignore the electronic bellows of their GPS computer.

[27] Carter and Irons 1991; Babb 2001; Montecinos and Markoff 2010.

[28] For example, Vreeland (2003) demonstrates that political leaders and economic reformers often use IMF conditionality as a tool to achieve their own domestic agenda priorities.

[29] Nooruddin and Simmons 2006.

[30] This work builds on previous scholarship that has combined economic structure and human agency to explain the evolution of economic policy decisions (Woods 1995 and McNamara 1998).

[31] I follow in the tradition of Weyland (2002), who was one of the first scholars to employ psychological explanations of economic policy choices in developing countries. While Weyland embeds his path-breaking analysis in prospect theory, I employ an analysis that is rooted in the second generational psychological literature on choices under risk and uncertainty. I show how the powerful and painful collective memories of economic shocks can have a sustaining effect on economic policy choices, notwithstanding a country's position in its economic cycle.

[32] Weber et. al., 1993; Weber et. al. 2004; Hertwig et. al. 2004.

Ironically, when people rely on their own experiences, they tend to often miscalculate the variance of the true population. They underestimate the likelihood of experiencing a personal trauma like an automobile accident. Fascinatingly, however, once people experience a crisis, they overestimate its likelihood, fretting about its recurrence.[33] For example, teenagers with collision-free histories often possess a sense of invulnerability. Their driving moves are often reminiscent of Bo and Luke Duke. In the wake of an accident, however, invulnerability can quickly transform into trepidation. Teenagers are more likely to heed the lessons of cautious driving if they crash their car than if they watch an afterschool television special.

These findings readily translate to the policy world, where scholars have found that memory-based judgements often guide decision makers, and that most notably, major historical events often leave the greatest impression.[34] In foreign policy, for instance, scholars have found that historical analogies are often key elements of military and foreign affairs strategies.[35] For example, many US presidents formulated their post-World War II military interventions, using the historical analogy of Munich appeasement.[36] In 1950, the Truman administration anchored its thinking about the Korean peninsula in the Munich agreement.[37] Designed by Great Britain and France (with the US opting for neutrality), the 1938 Munich Agreement ceded Czechoslovakia's Sudetenland territory to Germany. Aiming to appease Hitler's territorial demands, the strategy opened the door to an eventual Nazi invasion of Czechoslovakia. Rather than repeat this diplomatic mistake, Truman opted to repel North Korea's incursion into its Southern neighbor's territory. Similarly, in the early 1980s, the Reagan administration anchored its Cold War policy in the Americas in the same historical metaphor. In Nicaragua, Reagan supported the contra rebels' efforts to overthrow the leftist Sandinista government, labeling domestic critics of his policy as "appeasers."[38]

Historical lessons are not limited to foreign policy. Economic policy solutions are also often crafted through the lens of macroeconomic history. Politicians are not necessarily the shrewd operators envisioned by standard risk preference models. Instead, they are often restless, passionate people that are motivated by their "animal spirits." Rather than judging all historical events

[33] Ibid.
[34] Jervis 1976, Khong 1992, and Levy 1994.
[35] Ibid.
[36] Khong 1992.
[37] Truman 1955-1956.
[38] Khong 1992.

uniformly, decision makers often place greater weight on some historical experiences than others.

Economic crises are often some of the most salient experiences. Their political, social, and economic trauma typically cast a long shadow over elite decision making. After experiencing severe crises, politicians tend to place a high weight on risk-averse policies that promise to avoid repeating past shocks. They react to their economic environments, choosing the advisors and policies that have the best chance for stabilizing the economy.

They appoint technocrats, or ministers with specialized training in economics, who apply non-partisan, professionalized approaches to decision-making.[39] Their expertise gives them a powerful voice in their country's economic affairs, as presidents hope that these technocrats can improve governance and avoid repeating their crisis histories. For instance, Brazilian President Itamar Franco appointed Fernando Henrique Cardoso to the finance minister post in May 1993, saying "Hire who you want, and fire who you want. But remember that I need this inflation problem solved." Cardoso knew that his "success as finance minister would be measured by just one thing: whether [he] could beat inflation."[40] In the universe of Darwin, genes propagate in advantageous environments. Similarly, in the policy world, technocratic advisors and their economic programs survive and prosper under favorable conditions.

2.1 The Stickiness of Macroeconomic Ideas

Macroeconomic paradigms are often a product of historical legacies. I anticipate that the nature of the past economic crisis – inflation vs. deflation – will anchor collective thinking about macroeconomic governance. Crisis aversion emanates from the political world, but is sustained through technocratic communities that are committed to the governance paradigms that promise to avoid repeating past crises. Technocrats are often heralded as technicians that are insulated from partisan pressures; however, they tend to hail from an economics profession that has strong, ideational foundations. Their expertise is often grounded in one of two rival schools of macroeconomic thought, Keynesianism or Monetarism. Each of these schools of thought have their roots in a different crisis history, and hence, offer competing governance solutions.

In the wake of the Great Depression, Keynesianism became the standard macroeconomic model

[39] See Alexiadou et.al. 2013 for a more extended discussion.
[40] Cardoso 2006.

throughout much of the world. As the globe emerged from its deflationary slump, its policy prescription of using expansionary monetary and fiscal policies to offset the adverse effects of an economic downturn remained widely popular until the advent of a new crisis – the 1970's stagflation. The puzzling rise of both inflation and unemployment created a window of opportunity for monetarism. Championed by Milton Friedman, it contended that inflation was a harmful by-product of expansionary economic policy. To keep inflation at bay, monetarism emphasized minimal government intervention in the economy, outside of a central bank that aimed to achieve price stability by controlling the money supply.

The debate between these two schools centers on the inflation and unemployment trade-off – popularly known as the Phillips curve trade-off.[41] Keynesianism is more optimistic about policy-maker's ability to exploit the Phillips Curve trade-off to reignite economic activity, using macroeconomic policy to permanently create new jobs and growth. Creating new capacity and adding new jobs eventually spurs inflation, but only at very low levels of unemployment. Wages and prices are sticky. Workers may ask for higher pay, but these appeals typically occur when there is a booming economy and high demand for labor.[42] By comparison, monetarists claimed that government intervention is ineffective in the long-run. In response to economic stimulus, people adjust their inflation expectations higher. Workers demand better wages and firms raise prices. Inflation accelerates, undercutting any initial gains from the stimulus. Indeed, monetarists claim there is a natural rate of unemployment, beyond which any attempts to spur economic activity only yield further inflation.[43]

Facing this inflation-unemployment trade-off, politicians must weigh the relative importance of these two factors to the economy. Most macroeconomic models, for example, assume that economic choices reflect politicians' sensitivity to inflation and unemployment (see the appendix). A government favoring a Keynesian view is likely to tolerate some inflation in exchange for higher growth and lower unemployment. By contrast, a government favoring a monetarist approach to policy making also cares about growth and jobs, but does not sanction a government-induced expansion, deeming that it only yields higher inflation.

[41] The Phillips curve is named after the British economist A.W. Phillips, who in 1958 observed a negative relationship between inflation and unemployment rates.

[42] Samuelson and Nordhaus 1995.

[43] Friedman 1970.

I argue that politicians' relative sensitivity to inflation and unemployment should reflect their crisis histories. Politicians appoint cabinet advisors, who stabilize the economy and promise not to repeat past crises. In countries plagued by a legacy of runaway inflation, price stabilization agendas featuring fiscal discipline should win the day. Growth and job creation may remain a political priority, but not if they risk spurring inflation. Countries that have more recently faced a deflationary shock should be more apt to appoint technocrats that are willing to use fiscal stimulus to offset an economic downturn. Technocratic communities tend to preserve these historic lessons, with the memory of past shocks imprinted in their collective minds. For example, scholars have found that the political and economic chaos associated with the Weimer Republic's trillion-fold inflation between 1914 and 1923 endures in the collective German technocratic and political consciousness.[44] In fact, Hanz Tietmeyer, Germany's central bank president between 1993 and 1999, claims that hyperinflation forever changed national politics.

> The inflation of 1923 left a terrible legacy for the future fate of our country...The objective of stable money was and is deeply rooted in our society. It is based on a wide consensus in broad sections of our population. It is based on a culture of stability. That is why German public opinion–particularly in critical periods–again and again proved a loyal ally of stability-oriented policy.[45]

3 Empirical Tests

3.1 Empirical Hypotheses

To evaluate the theoretical priors about inflation crises, I employ the following testable hypotheses:

> H1: Past inflation crises breeds economic risk-aversion; a history of inflation crisis yields a greater number of professionally-trained economic ministers than countries that have not experienced an inflation crisis.

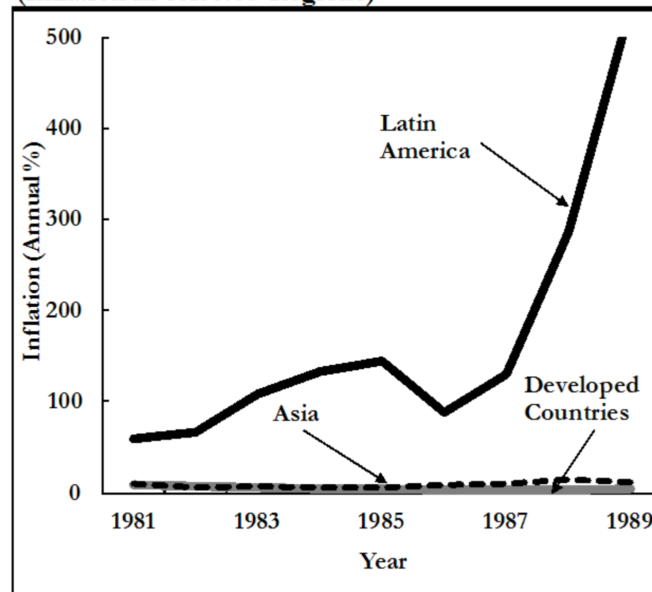
> H2: Professionally-trained ministers from inflation crisis countries are more likely to improve government budget balances (by either increasing fiscal surpluses or narrowing fiscal deficits)

[44] Lohmann 1998.
[45] Tietmeyer 2001.

relative to their counterparts from non-crisis countries.

To test these hypotheses, we journey to Latin America, a region that is ideally suited for our analysis because it offers significant variation in inflation crisis history – with eight of the seventeen Latin American countries in this study having experienced high or hyperinflation.[46] For many of these crisis countries, the gravest bout of runaway inflation occurred during the 1980s. Several of these nations incurred thousand-fold annual price increases, which catapulted the region's average annual inflation above 500 percent by the end of the decade, compared to single digit inflation elsewhere in the world (see Figure 1.1).

Figure 1.1: Latin America's Struggles with Inflation (Inflation in Selected Regions)



These inflation crises created acute economic and political costs that still casts a shadow over economic policymaking today. Compared to other types of financial and economic crisis, these crises are often the most regressive because inflation hurts the poor relatively more than the rich. Wealthy individuals are generally sophisticated investors that funnel their earnings into financial assets that hedge against inflation. By contrast, the poor typically keep the majority of their earnings in cash holdings that are eroded by inflation. In addition, the poor are often more reliant

[46] Hyperinflation popularly refers to monthly price increases exceeding 20 percent, though it has been more strictly classified as monthly inflation over 50 percent (Cagan 1956). Compounded annually, this yields an inflation rate of almost 13,000 percent!

on state spending, including income transfers and pensions, that are not indexed to inflation.

Many empirical studies find support for inflation's distributive consequences, showing that high inflation is associated with lower real (inflation-adjusted) wages and higher income inequality in Latin America.[47] For example, during their respective hyperinflation crises, real wages declined by thirty, sixty, and ninety percent respectively in Argentina, Peru, and Nicaragua.

In a region like Latin American where the median voter is poor, political leaders are keenly aware of these severe distributive costs. In his reflections about the Brazilian presidency, Fernando Henrique Cardoso claims that "inflation acted like a regressive tax that made poor people poorer."[48] Alejandro Foxley, former Chilean finance minister and economic architect of Chile's democratic transition, has emphasized a similar point in public speeches, saying "in countries with high inflation, the workers lose all of the time."[49]

In fact, most Latin American politicians are highly sensitive to inflation given its historically steep political price. Hyperinflation not only ruptured the economic system, but also led to a near breakdown in the political and social order - where protests, rioting, looting, and deaths became commonplace.[50] It also dealt a devastating blow to popular living standards, which helped catalyze unprecedented levels of political turnover.[51] Inflation crises contributed to the ouster of many politicians from office, including Argentina's Raúl Alfonsín, Brazil's Fernando Collor de Mello, Bolivia's Siles Zuazo, Peru's Alan Garcia, and Chile's Salvador Allende – which ended in a complete democratic breakdown.

The collective trauma associated with these crises has left a permanent imprint on the national psyche. Not surprisingly, inflation was politically salient at the time. For example, national polls that were conducted during Argentina and Brazil's hyperinflations found that more than two-thirds of their respective national citizens considered inflation the most important problem facing their families.[52] But, inflation control has also had a steady baseline of support since the end of hyperinflation. In its survey of sixteen Latin American countries, the Latinobarómetro found that more than one-quarter of the Latin American adult population believed fighting inflation

[47] Cardoso and Helwege 1992; Rezende 1998.

[48] Cardoso 2006.

[49] Foxley 1993.

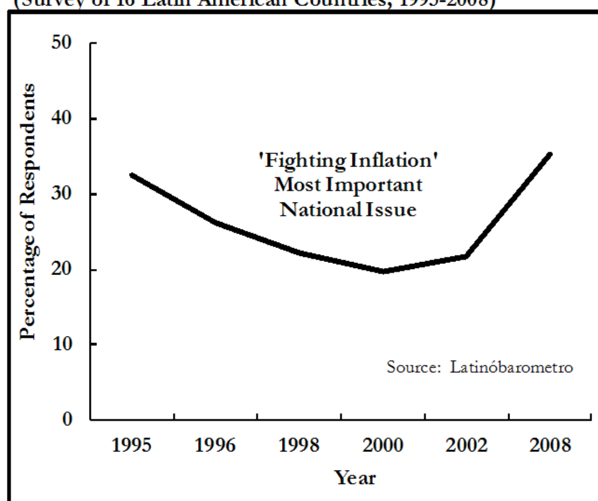
[50] For example, following the May 1989 Argentine elections, the New York Times reported that 15 people died in riots and looting touched off by rising prices.

[51] Remmer 1991; Stokes 2001.

[52] Echegary and Elordi 2001; Stokes 2001; Weyland 2002.

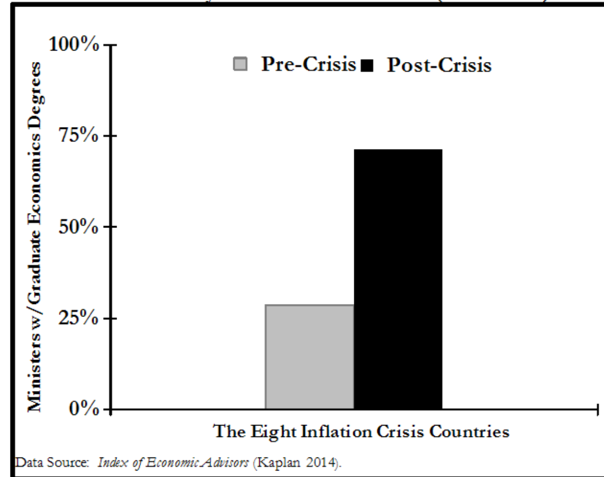
was ‘the most important issue for their country’ between 1995 and 2008 (see Figure 1.2). These surveys about inflation attitudes are broadly in line with recent Latin American public opinion scholarship. Baker finds that most of the region’s citizens strongly support free-market reforms with the exception of privatization,[53] while the Latin American Public Opinion Project’s (LAPOP) 2008 Americas Barometer showed that Latin Americans rank “inflation and high prices” as one of the five most serious problems facing their countries out of a list of more than thirty-five issues.

Figure 1.2: Support for Fighting Latin American Inflation (Survey of 16 Latin American Countries, 1995-2008)



In light of this steady support for inflation control, presidential economic teams have been consistently populated with technocrats that promise to deliver price stability. Guided by historical memories of inflation crises, the disciplined economic prescriptions that finally ended the 1980’s hyperinflations continue to be the bedrock of macroeconomic governance in inflation-scarred countries. Post-crisis presidents have sought out professionally-trained economists that value inflation-control for their cabinets, distancing themselves from the pre-crisis potpourri of lawyers, public accountants, and even linotypists and linguistics specialists. In the eight countries with crisis-legacies, three-quarters of post-crisis presidential cabinets – as measured by the two primary economic cabinet posts, finance minister and central bank president – were professionally-trained economists (Figure 1.3).

[53] Baker 2008.



By contrast, in the years before inflation crises, the political and technocratic merits of inflation control were more questionable. In fact, presidential cabinets tended to be far less populated with professional economists concerned about inflation. Less than one-third of economic teams in these inflation crisis countries had graduate degrees in economics or business.

In countries that have never experienced a severe inflation crisis like Venezuela, the historic and current composition of cabinets is quite similar. Only 38 percent of Venezuelan economic ministers and central bank presidents have been professionally trained in economics or business during the last half century. The Venezuelan public tends not to value price stability in the same way as its inflation-scarred neighbors. While inflation saliency is on the rise in Venezuela, national surveys tend to find that personal safety and crime are the nation's most pressing concerns. Notwithstanding living with the highest national inflation in Latin America, a 2010 survey found that only 3 percent of respondents named reducing prices/controlling inflation as a national priority.[54]

Recall that I expect these differences in presidential cabinets' technocratic composition to in part explain cross-national variation in budgetary discipline. In the rest of this section, I will test this theoretical prior. Specifically, in what follows I operationalize hypotheses (H1 and H2) with the following baseline regression equations:

$$Technocrats_{it} = \alpha + \hat{\beta}_1 \pi_{it} + \hat{\beta}_2 X_{it} + \varepsilon_{it} \tag{1}$$

[54] Consultores 21 (May-June 2010).

$$f_{it} = \alpha + \hat{\beta}_1 Technocrats_{it} + \hat{\beta}_2 \pi_{it} + \hat{\beta}_3 Technocrats_{it} * \pi_{it} + \hat{\beta}_4 X_{it} + \hat{\beta}_5 f_{i,t-1} + n_i + \varepsilon_{it} \qquad (2)$$

where $technocrats_{it}$ = index of economic advisors (measures the technocratic credentials of economic ministers; see coding rules in the appendix)*;* and where π_{it} =inflation crisis history. The index i = country and t = year. X_{it} = vector of control variables; f_{t-1it} = fiscal dependent variable (one year lag). The term n_i = dummy for each country, intended to capture unobserved country effects; while ε_{it} = error term.

To test these hypotheses, I focus on the coefficient on the variable π_{it} (inflation crisis history) in the first regression, and the coefficients of the interaction of the variables $Technocrats_{it}$ and π_{it} in the second regression. A positive coefficient when technocrats is the dependent variable, would provide support for the first hypothesis that inflation crisis legacies breed ministry professionalization. Similarly, a positive coefficient when the government's fiscal balance is the dependent variable would confirm the second hypothesis that these inflation-scarred technocrats govern with greater budgetary discipline relative to their non-crisis counterparts.

3.2 Data and Methodology

This section evaluates the hypothesis in Latin America, using a panel of data covering 16 democratic countries from 1961-2011. Employing the dataset, we can observe how Latin America – a region known for its inflation crisis history – has governed over the last several decades. The empirical analysis proceeds in two stages. First, in order test for the effect of inflationary crises on the professional credentials of economic ministers, I employ an ordered probit regression analysis. Using the same cross-sectional data set, I then use multivariate regression analysis to examine the effect of technocratic economic ministers and an inflation crisis history on government budget balances. I present these findings using both fixed effects and a generalized methods of moments (GMM) estimators. All models are estimated with robust standard errors, clustered by country and year. The appendix contains data sources and descriptive statistics.

Technocratic Economic Ministers

In order to test whether crises lead to more technocrats serving in presidential cabinets, I created an ordinal variable, $technocrats_{it}$, that measures the professional training of economic ministers. I also use this measure as an independent variable to examine whether a higher share of technocrats in key cabinet posts improves government budget balances. Based on data from the newly constructed *Index of Economic Advisors*,[55] I code professional educational training of central bank presidents and finance ministers along a spectrum from 0 to 2 according to the following rule.[56]

$$technocrats_{it} = \begin{cases} 2 \text{ if both advisors have an advanced graduate degree in economics or finance} \\ 1 \text{ if one of the the advisors has an advanced degree in economics or finance} \\ 0 \text{ otherwise} \end{cases}$$

Inflation Crisis Legacy

Seeking to account for the influence of inflationary history on policymaking, I design a binary variable, $inflation_crisis_{it}$, that measures the effect of past inflationary crises on political and economic priorities. I assign this variable a value of 1 if a country had a previous inflationary crisis, and 0 otherwise.[57] I anticipate that the political and institutional memory of Latin America's severe hyperinflation episodes should lead to both the professionalization of presidential economic teams and greater fiscal discipline. What constitutes a past inflationary crisis? I use Sach's definition of "very high inflations," or inflation above 100 percent per annum, as the price threshold that marks a crisis.[58]

$$inflation_crisis_{it} = \begin{cases} 1 \text{ if country had a past inflation crisis} \\ 0 \text{ otherwise} \end{cases}$$

[55] The Index of Economic Advisors characterizes the education credentials and the previous employment of finance ministers and central bank presidents throughout Latin America during the last half century. Compared to earlier indices that consider technocrats as solely hailing from Western economic academic institutions, this coding also classifies officials with advanced graduate training from Latin American universities – such as Pontifica Universidad Católica de Chile, Universidad Torcuato Di Tella in Argentina, or the Fundação Getulio Vargas in Brazil – as techocrats because these universities embody similar economic approaches to those found in developed countries. See the appendix for a full description of its construction and coding.

[56] For robustness, I expanded the definition of a technocrat to include educational background or previous career experience, given that experience working for the private sector or international institutions can also contribute to technocratic knowledge of finance, business, or global markets (see appendix for more details).

[57] In additional robustness checks, I use a second measure of inflationary crisis, $highest\ past\ inflation_{it}$, that represents a country's highest historic inflation.

[58] See Sachs and Larrain 1993

Economic Control Variables

In the following regressions, I include a measure of a country's output gap (*Domestic Output Gap*) and unemployment rate (*Unemployment*) to control for its position in its economic cycle, global growth (*Global growth*), given that our sample includes many small open economies, and a demographic variable that accounts for a country's domestic population (*Population*). I also employ a measure of a country's terms of trade position (*Terms of Trade*), which conditions for commodity booms that are often a central catalyst for fiscal expansion. Foreign reserves, as a percentage of external debt (*Reserves*), are included to control for currency flight and exchange rate management. I also use the IMF exchange rate classification, coded along a four point spectrum moving from fixed to floating currency arrangements, to account for the type of exchange rate regime (*Exchange Rate Regime*).

When technocratic ministers is the dependent variable, I also account for the size of the financial sector (*Domestic Financial Depth*), on the assumption that larger, more complex financial sectors lead to a greater demand for highly-skilled, professional ministers. I use M2 as a percentage of GDP, or outstanding banking sector liabilities, as a proxy for financial sector size. When fiscal policy is the dependent variable, I include the interest rate (*Interest Rate*) and inflation rate (*Inflation*) to control for the effect of interest rates and price instability on government budget balances. Indeed, most economic theories predict that rising inflation depresses budget revenues and widens the deficit.[59] I also employ a dummy variable for an unemployment crisis (*Unemployment Crisis*),[60] with the expectation that an unemployment shock will beget greater government stimulus. Finally, based on the assumption that past fiscal performance influences present fiscal conditions, I also include a lagged dependent variable in each specification.

Political Control Variables

How do political institutions affect the professional composition of advisers and their policy choices? Are presidents more likely, for instance, to appoint technocrats to their economics teams when their country is under an IMF agreement? Similarly, are technocratic advisors more apt to

[59] This phenomenon is known as the Olivera-Tanzi effect (see Samuelson and Nordhaus 1995).

[60] These shocks are calibrated using Latin American historical data and are set equal to two standard deviations above the available time series covering 1961-2011, putting them among the 2.3 percent most severe during the period.

enter government when there is an independent central bank? Do IMF agreements and central bank independence lead to a greater emphasis on price stability? To account for such institutional factors, I add several control variables: including a measure of constraints on executive power (*Executive Constraints*),[61] an IMF participation dummy (*IMF*);[62] and a central bank independence index [63] that measures the legal autonomy of the central bank (*Central Bank Independence*).[64]

I also test for whether or not partisanship explains economic policy choices. The World Bank's Database of Political Institutions offers a measure that should help account for partisan behavior in Latin America's complex political spectrum, where political parties have either shifted their ideological priorities or diluted their partisan brands over time.[65] It codes party orientation specifically with respect to economic policy along a right-left spectrum from 0 to 3.[66] Employing this coding, I designed the binary variable, $partisanship_{it}$, to test for whether left-leaning politicians (compared to centrist and right-leaning politicians) are more likely to appoint technocratic ministers to signal their ability to manage the economy.

$$partisanship_{it} = \begin{cases} 1 \text{ if government is classified as left-leaning} \\ 0 \text{ otherwise} \end{cases}$$

Finally, I include a time trend (*Year*) to account for the possibility that economic ministries have become more professionalized over time.

3.3 Empirical Results

The Effect of Inflationary Crises on Economic Ministries

Are politicians who hail from countries that have suffered a severe inflation shocks more likely to enlist inflation-fighting technocrats in government? The first series of ordered probit models display the effects of the independent variables on the professional training of Latin American

[61] I use the executive constraints (xconst) variable from the Polity IV data set. In additional robustness checks, I also employ an alternative measure of executive constraints from Henisz's (2000) Political Constraint Database.

[62] The IMF dummy is coded 1 for the country-years when there was a conditioned IMF agreement in force, 0 otherwise. I use two different measures of IMF participation from Vreeland (2002, 2003) and Dreher (2006).

[63] Polillo and Guillén (2005) update of the Cukierman, Webb, and Neyapti (1992) index.

[64] I only include the central bank independence index in additional robustness checks since it assigns numerical values to countries that do not vary over time. The country dummies, which are already included in the model, incorporate the same effect.

[65] Roberts and Wibbels 1999; Lupu 2014.

[66] For example, parties that are defined as conservative, Christian democratic, or right-wing take on a value of 1. Parties defined as centrist take on a value of 2. Parties that are defined as communist, socialist, social democratic, or left-wing take on a value of 3. Otherwise, the variable is 0.

economic ministers. The coefficient on past inflation crisis is positive and statistically significant at the 99 percent confidence interval across the regression models (see models 1-5 in Table 1). Employing these coefficients to derive the predicted probability of minister professionalization, I find that an inflation crisis history makes a government as much as two-fifths more likely to have both a finance minister and central bank president with advanced economic training. These results lend considerable support to the inflation crisis hypothesis (H_1).[67] A crisis past appears to catalyze economic ministry professionalization.

Results for control variables also generally correspond to expectations. The coefficient for the domestic output gap is negative and statistically significant, meaning when economic growth is below its trend rate, politicians are less likely to appoint professional economists to provide inflation control. Similarly, unemployment is negatively correlated with technocratic ministers, suggesting that when unemployment is high, politicians are not as likely to appoint advisors with advanced economics training.

For robustness, I expanded the definition of a technocrat to include educational background or previous career experience, *techp*, given that experience working for the private sector or international institutions can also contribute to technocratic knowledge of finance, business, or global markets (see appendix for more details). This robustness test did not yield any material changes, however (see model 5 in Table 1).

In a series of further robustness checks, the core results remain unchanged when controlling for several political control variables that account for whether a country has a long democratic tenure, considerable constraints on its executive, an IMF program, or a left-leaning government. The coefficient for age of democracy, for example, is positive and statistically significant. This finding is in line with the notion that politicians in established democracies are more likely to be held accountable by their electorates,[68] and hence, may confront greater pressure to appoint skilled technocrats to economic posts. This positive relationship between democracy and technocrats also provides some support to the 'democratic advantage' literature, which suggests that democratic governments may have yet another incentive to appoint technocrats:[69] improving their access to

[67] Endogeneity between technocratic ministers and inflation crises is unlikely to be a major problem because the ministerial shift to technocrats follows the region's inflation crisis.

[68] Brender and Drazen 2005; also see Barberia and Avelino 2011.

[69] Flores, Lloyd, and Nooruddin 2014.

financing.[70]

Notably, the small and statistically insignificant coefficient on left partisanship suggests that I cannot reject the null hypothesis that partisanship has no effect on the share of technocratic advisors serving the government. While a rich political economy literature on partisanship expects that the right will be more likely to appoint technocratic ministers who value inflation control,[71] I find little support for such partisan differences in Latin America.

The Effect of Technocratic Ministers on Budgetary Balances

Does the region's turn toward technocratic presidential advisors help explain the prevalence of more centrist, macroeconomic policies in the region? The diffusion literature expects that economic policy choices reflect the ideological persuasion of key economic advisors, suggesting that formal training in Western economics leads them to share a similar set of beliefs about the importance of a disciplined approach to economic policymaking.[72] I find some support for this pattern, but it's conditional on the region's crisis history.

The coefficient on technocratic ministers, as measured by the *Index of Economic Advisors*, is statistically insignificant across the majority of the fiscal regression models (see Table 2, models 1-6). We therefore cannot rule out the null hypothesis that professional training has no effect on budgetary policy during non-inflationary periods. Moreover, in the models where the coefficient is statistically significant, it also has a negative sign, suggesting that technocrats may even have the opposite effect on governance – they may preside over larger fiscal deficits than their counterparts without such formal training.

Notably, the coefficient on inflation crisis has a positive and statistically significant relationship with governments' fiscal balances. In other words, governments hailing from countries with inflation crises, on average, tend to have budgetary finances that are as much as 1.7 percentage points of GDP better (i.e. lower budget deficits or higher budget surpluses) than governments that have never experienced an inflation crisis.

Inflation crisis legacies appear to be an important contributor of budgetary discipline, but might technocrats help reinforce these crisis memories? Perhaps, the effect of formal training

[70] Beaulieu, Cox, and Saiegh 2012

[71] Carter and Irons 1991; Babb 2001; Montecinos and Markoff 2010.

[72] Ibid.

is conditional on a country's economic conditions, with professional economists more likely to value fiscal discipline and inflation control in countries traumatized by runaway inflation. The conditional models (see Table 2) examine the relationship between a country's crisis history and its economic advisors' formal training. The regression results show that technocratic ministers have a statistically significant and strongly ameliorating effect on the health of public finances in inflation-crisis countries, in line with the expectations of the second hypothesis (H_2).

Figure 1.4: Marginal Effects of Technocrats and Inflationary Crisis History on Fiscal Policy

	Marginal effect of technocrats on budget balances	95% confidence interval
No inflationary crisis history	-0.391**	-0.723, -0.059
Inflationary crisis history	0.234	-0.256, 0.723
	Marginal effect of past crisis on budget balances	95% confidence interval
No technocrats	1.669**	0.142, 3.196
Technocratic ministers	2.294***	1.045, 3.543

[1] A positive relationship significes improved budget balances (larger surpluses or narrower deficits).

Source: Model 5 in Table 2.

Figure 1.4 illustrates the marginal effects of these conditional models (also see model 5 in Table 2). In countries that have never experienced an inflation crisis, technocrats have a negative and statistically significant effect on budget balances. In other words, they are more likely to widen budget deficits to stimulate the economy. By contrast, government balances tend to improve considerably in inflation-scarred countries. This statistically significant relationship becomes stronger and more precise when professional economists advise governments; technocratic ministers are positively correlated (at the 99 percent confidence level) with a strengthening of government budget balances. In other words, inflation crises tend to promote fiscal rectitude generally, but professionally-trained technocrats are likely to be even more austere than non-technocrats in the countries. In fact, these findings suggest that an inflation crisis history, on average, improves government budget balances by about 1.7 percentage points of GDP – and technocratic advisors tend to add an additional two-thirds of a percent of GDP to this baseline.

Results for the control variables are also consistent with expectations. The coefficient for the dummy variable for unemployment crisis is negative, high in magnitude, and statistically significant,

suggesting that unemployment crises tend to coincide with considerable fiscal account deterioration (i.e. wider budget deficits). This findings also supports this paper's underlying theoretical logic that policymakers are more likely to expand fiscal policy when facing an unemployment shock than an inflation crisis. A fall in domestic interest rates or a rise in inflationary pressures are associated with improvements in budgetary balances. The positive and statistically significant coefficient for age of democracy suggests that governments from more mature democracies are more likely to be disciplined fiscally. These results are consistent with empirical studies that have found that political deficit cycles in developing economies disappear in older democracies.[73]

In summary, these findings provide considerable support for the theoretical framework, which expects that technocratic ministers are most likely to favor control of budget deficits as a pathway to inflation control in countries that have experienced inflation crises. Notably, these results remained robust after conducting a series of tests using both the expanded technocratic measure (*techp*)[74] that includes previous employment (see model 3 in Table 2) and the Arellano-Bond GMM estimator (see models 4-6 in Table 2), which did not considerably alter the size, direction, or statistical significance of the key findings.[75]

4 Comparative Case Analysis: Argentina's Deflationary Crisis Leads to Excessive Fiscal Expansion

Compared to inflationary spirals, deflationary crises – characterized by a precipitous fall in inflation, growth, and unemployment – have been far less frequent within Latin America. Several countries, including Bolivia, Costa Rica, El Salvador, Guatemala, and Venezuela, struggled with brief deflationary episodes in the early to mid-1960s, but Argentina in the early 2000s is the only pronounced case of deflation during the last half-century. For this reason, the statistical analysis did not examine the impact of deflationary crises on the technocratic composition of presidential cabinets and economic policy choices. That said, the statistical findings did show that budgetary policy tends to be more stimulative under both non-inflationary conditions and during unemploy-

[73] Barberia and Avelino 2011; Brender and Drazen 2005.

[74] See footnote 55.

[75] The Arellano-Bond test for the GMM-estimators presents no significant evidence of serial correlation in the first-differenced errors at the second order.

ment crisis, suggesting that these results are likely to hold in the rare case of deflationary spirals. Deflationary crises, which are often associated with a steep drop in employment, should also beget budgetary expansions aimed at reviving moribund growth.

With a dearth of cases, however, I can exploit Argentina's unique over-time variation in crisis history (the country has experienced both deflationary and inflationary crises) to test my theoretical priors. If they are correct, Argentine politicians should be more likely to appoint economic advisors, who are willing to use fiscal stimulus to offset an economic downturn, following deflationary rather than inflationary crisis. Let us begin with a brief review of Argentina's hyperinflation history.

Argentina's hyperinflation episodes reached their climax in 1989, characterized by stratospheric inflation rates that neared 4,000 percent[76] and eviscerated living standards. In response to this traumatic crisis, policy makers adopted an orthodox policy prescription based on budgetary discipline that promised not to reopen inflationary scars. In fact, politicians and their technocratic communities embraced economic orthodoxy throughout the 1990s because its emphasis on inflation control helped nurture improved living standards, and hence, economic and political stability. During this period, Argentina's President Carlos Menem appointed two technocrats with economic doctorates from Harvard University and the University of Chicago to lead his economic team, Domingo Cavallo and Roque Fernández, who then ushered in an era of austerity. The average budget deficit during their technocratic reign was a mere 1.1 percent of GDP in the 1990s compared to a lofty 5.3 percent of GDP during the 1980s. These case findings are in line with our earlier statistical analysis showing that inflationary crises catalyzed both the professionalization of ministries and a sustained commitment to budgetary discipline.

At the turn of the last century, however, Argentina experienced a prolonged depression, where economic growth fell on average by about 5 percent per year between 1999 and 2002. In the prelude to its eventual 2002 default, a deflationary spiral – which featured negative inflation for three consecutive years – sunk wages, catapulted the unemployment rate above 20 percent, and left nearly three-fifths of the Argentine population in poverty. The crisis also catalyzed pot-banging popular protests, known as *cacerolazos*, which led to the sacking of three different economic ministers within one month and the early resignation of President Fernando de la Rúa.

Following this traumatic economic and political crisis, Argentine governments continued to

[76] CEPAL 1989.

tap technocratic advisors, brandishing advanced economics training from the hallowed halls of Harvard, Yale, and even Argentina's own elite universities, including CEMA (Centro de Estudios Macroeconómicos de Argentina), Universidad Torcuato Di Tella, and UBA (Universidad de Buenos Aires). However, after Argentina had experienced a traumatic deflationary spiral and massive unemployment crisis (or the exact opposite of an inflationary shock), this new brand of technocrats tended to be more willing to aggressively intervene in the economy. A history of economic volatility continued to yield risk aversion among their communities, but their ideological composition and economic policies reversed course after the crisis completely upended the balance of political and economic risks. Facing scores of Argentine unemployed and poor, the risk-averse choice was to spend instead of save government money.

In other words, the severe deflationary shock associated with the 2001-02 debt crisis had opened the political space for greater macroeconomic intervention. Politically, a shift among political elites to fighting unemployment rather than inflation was sensible. Following the crisis, the Latinobarómetro shows that by 2003 about one-third of the Argentine population considered unemployment to be "the most important problem in the country." By comparison, about 15 percent of Argentines rated inflation their most pressing concern that year, marking a pronounced shift from the years following hyperinflation. For example, 67 percent of the people interviewed in a 1990 Buenos Aires survey identified inflation as the most important problem facing their families.[77] Moreover, during Menem's first administration, inflation was inversely correlated with the Argentine president's approval ratings: the lower the inflation rate, the greater Menem's popular appeal.[78]

Not surprisingly, Argentine presidents seized this opportunity. Following his 2003 presidential victory, Néstor Kirchner began laying the foundation for a new economic model that was centered on rapid growth and job creation instead of inflation control. The hallmark of the previous model was the Convertibility Plan[79] - which successfully tamed hyperinflation, but eventually led to a severe currency overvaluation that deindustrialized the economy and weakened its competitive-

[77] Echegary and Elordi 2001.

[78] Stokes 2001.

[79] The Convertibility Plan was crafted by Minister of the Economy Domingo Cavallo. By an act of Congress, it sought to maintain exchange rate stability, and hence domestic price stability, by pegging the Argentine peso to the U.S. dollar. The law guaranteed peso-U.S. dollar parity and barred money supply increases that were not backed by foreign exchange reserves.

ness. Labeling the neoliberal ideas associated with convertibility as "theories of misery," Kirchner often spoke of building a "more just, inclusive, and equitable future" through the "struggle for growth, jobs, and social inclusion."[80] He hoped to increase employment through public spending and industrial promotion.

Facing economic headwinds from the crisis, however, Kirchner had to proceed slowly. In the wake of the 2001-02 debt crisis, Argentines feared that the collapse of its currency board system, which had anchored inflation expectations throughout the 1990s, would unleash a new bout of runaway inflation. Kirchner's economic team embraced fiscal discipline to keep low and stable inflation. In fact, a key member of that team, Ricardo Delgado, reflected upon President Kirchner's marching orders, which included a "clear commitment to fiscal health" that was considered part of "the political fortification."[81] Kirchner's fiscal discipline helped yield a budget surplus that averaged a healthy 2.6 percent of GDP during his presidential term.

This policy not only delivered both price stability and financial independence, but also created a political opportunity for his wife and fellow Justicialist Party candidate, Cristina Fernández de Kirchner. Following her 2007 presidential victory, she had greater latitude to use government intervention in the economy to address popular concerns about high unemployment. In fact, "growth, employment, and distribution [were] the basic premises of the model carried forward by Cristina Fernández de Kirchner,"[82] according to her current economy minister, Axel Kicillof.

With the 2001-02 crisis in their rearview mirror, the Kirchners could now focus on what they thought mattered most to an impoverished country: job creation rather than price stability. Former Economy Minister and Vice President Amado Boudou[83] expressed this view on behalf of the government on multiple occasions.

> "Inflation? Argentina records no inflation...Inflation is not an issue of big proportions that the Argentine population is criticizing...I do not see an inflationary process going on...what is necessary is to achieve is a substantial drop of the interest rates so that we can regain the investment level for which the role of the private sector will be crucial

[80] Kirchner's public address, December 15, 2005

[81] Author's interview, May 2007.

[82] *Telem,* April 30, 2014.

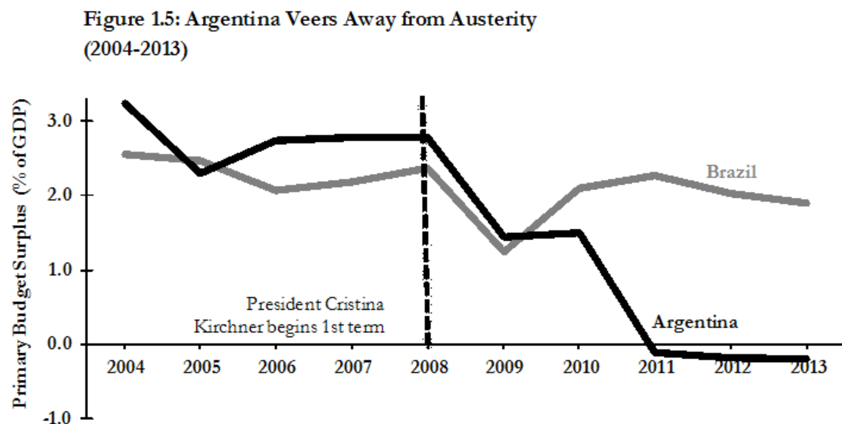
[83] Currently serving as Kirchner's Vice President, Boudou was the Minister of the Economy between July 2009 and December 2011.

as they can generate numerous jobs."[84]

This view of inflation stands in start contrast to those expoused by government officials who served prior to the crisis during the 1990s and early 2000s. For example, former Economy Minister Domingo Cavallo suggests that "inflation is the most important determinant of public opinion. Inflation poses the gravest political risk. The inflation, stagnation, and hyperinflation phenomenon is very Latin American...with (our) hyperinflation history, parties that allow inflation lose elections and parties that control inflation win elections...populism only works in the context of economic stability."[85]

This dichotomy among ministers' prescriptions demonstrates how the 2001-02 crisis had changed the economic logic. Deflation had replaced inflation as the political albatross. Better to stimulate the economy than risk falling victim to another unrelenting wave of unemployment and poverty. Compared to the austerity of many of its neighbors such as Brazil that were still fretting about past inflationary shocks, Argentina drifted from fiscal discipline (see Figure 1.5).

Figure 1.5: Argentina Veers Away from Austerity (2004-2013)



Beginning in 2008, President Cristina Kirchner quickly relaxed economic policy, raising government expenditures by about 7 percentage points of GDP during her first term in office.[86] Surfing a commodity tide, Kirchner attempted to create jobs, increase wages, and improve living standards

[84] Excerpts from Boudou's public radio addresses (*New York Times* y *El Ambito Financiero*, February 2010; *Buenos Aires Herald*, February 2011).

[85] Author's interview with Domingo Cavallo, May 25, 2007. Cavallo first served as Economy Minister under President Carlos Menem (1991-1996) and later for President De la Rua (2001).

[86] CEPAL.

through the government's balance sheet. She increased energy and transportation subsidies, hiked the minimum wage by 25 percent, expanded public employment and public works projects, and targeted countless social and industrial benefits to her supporters. Firing government spending on all cylinders, the Argentine president erased a 3 percent of GDP budget surplus and left government accounts in the red by 2011.

In light of the economic dislocations associated with Argentina's neoliberal experiment, it's not surprising the Kirchners brought the state back into politics. However, the ideological malleability of Peronism has been impressive. It has accommodated stark programmatic differences over time - encompassing both Menem's 1990 neoliberalism and the Kirchners' twenty-first century economic heterodoxy.

However, the Kirchners also have a lot in common with their predecessors. Just as the Menem administration reacted to severe economic volatility with risk-aversion, so too did the Cristina Kirchner administration. The popularity of their respective brand of politics simply reflected the nature of the crises. While Menem hoped to avoid another inflation crisis with the convertibility plan's inflexible commitment to inflation control, Kirchner instead hoped to avoid another deflation crisis with an inflexible commitment to economic expansion.

Notwithstanding a post-crisis expansion that had already average nearly 9 percent growth over the past five years, President Cristina Kirchner continued to spend, refusing to slow the economy to more sustainable growth levels. When inflation began to rear its ugly head, the Kirchner administration preferred to protect Argentines from rising prices with extensive subsidies and wage hikes, even if these measures risked unleashing the runaway inflation that once haunted Argentina in the early 1990s. The members of her economic team even resorted to doctoring the official inflation statistics so that they could justify maintaining their expansionary policy stance.[87]

Counterfactually, it would have been possible for Kirchner to use macroeconomic policy to gradually slow the economy without jeopardizing the expansion. In line with Keynesian economic theory, the president's economic team could have used counter-cyclical policy – or a withdrawal of fiscal and monetary stimulus – to cool the economy and prevent inflation while still allowing for

[87] The Argentine statistical agency, Instituto Nacional de Estadística y Censos (INDEC), has been accused of tampering with national inflation statistics for several years. In fact, private sector Argentine economists had project inflation that was two to three times higher than INDEC's offical rate until the agency created a new inflation index this year.

continued growth and job creation. However, there was little tolerance for any conversation about a growth slowdown.

President Kirchner's tendency to overweight the risk of job loss over inflation is perhaps best embodied by her choice of economy ministers. The first economy minister she had appointed in 2007 to join her cabinet was Martin Lousteau. In keeping with recent tradition in Argentina, he was a technocrat who had graduated with a Master of Science in Economics from the London School of Economics and had worked as the chief economist of APL Economia, the consulting firm founded by President Kirchner's central bank governor, Alfonso Prat-Guy. In the spirit of Prat-Guy's public service – in which he was most notably the architect of the monetary policy framework that halted inflation in the early 2000s – Lousteau proposed an anti-inflation platform at the beginning of Kirchner's term. According to Cristina Fernández's Cabinet Chief, Alberto Fernández, the President rejected the program "pointblank" because it was based on slowing the economy. Fernández had also chided the program, saying that "whoever belongs to this government that for the last five years has seen the economy grow at 10 percent annually, can't propose a cooling of the economy."[88] By April 2008, Kirchner had replaced Lousteau with a caretaker minister, Carlos Fernández, who Alberto Fernández applauded because he "thinks in economics in the same terms as us...and will guarantee the course of action which President Cristina Kirchner [had] decided for the economy."[89]

Notably, Kirchner's next three economic ministers – Amado Boudou, Hernán Lorenzino, and Axel Kicolof – all had advanced graduate training in economics, but they had a policy orientation that was more clearly aligned with Cristina Kirchner's new political war – the war on jobs – rather than Argentina's last war – the war on inflation. Argentina's current Economy Minister, Axel Kicilof, who wrote his doctoral dissertation on Keynesian economics, is a proponent of anti-recessionary stimulus, believing "it is consumption that gets the wheels turning."[90] Similarly, Amado Boudou also encapsulated this left-of-center technocratic view when he declared that "the most important factor for the development of a people is the job."[91]

In a country that has been plagued by economic volatility, risk aversion remains at the heart

[88] *MercoPress,* April 25, 2008.
[89] Ibid.
[90] *Buenos Aires Herald*, June 5, 2014.
[91] *El Ámbito*, August 25, 2013.

of Argentine governance. The Kirchners simply swapped inflation-aversion for deflation-aversion, as the political saliency of unemployment increased following the 2001-02 debt crisis. By comparison, the other inflation-scarred countries in Argentina's neighborhood did not undergo the same transformation in their political economy because they did not suffer the same offsetting deflationary shock as Argentina. During Argentina's 1999-2002 recession, for example, Brazil and Chile averaged 2.1 and 2.3 percent real GDP growth respectively over the same period. Without a comparable crisis, politicians had little incentive to change their centrist economic models based on budgetary discipline and inflation control. In contrast to Argentina's fiscal drift (see Figure 1.5), Brazil and Chile averaged primary budget surpluses of 2.1 and 3.2 percent of GDP perspectively over the last decade. Perhaps, the difference is best underscored by former Alejandro Foxley, who was considered to be one of the architects of Chile's current economic model and most recently served in the cabinet of the Bachelet administration.

> "People in Chile don't like inflation at all, particularly lower and middle-class people who are vulnerable to price increases in food, energy, and electricity bills, and so on..any country that goes through hyperinflation, people have a long memory because it shocks them in their daily lives."[92]

Such memory-based judgements appear to often guide political thinking in a region like Latin America that has suffered from considerable economic volatility. Throughout the last few decades, inflation crises have propelled many Latin American governments toward greater economic discipline. However, the Argentine case underscores that this is not a permanent transformation, and vulnerabilities to new shocks that are deflationary (i.e. a renewed global credit crunch) rather than inflationary could tip the scales in the other direction.

5 Conclusion

The effect of past inflationary crises on Latin American policymaking communities is impressive. Employing an originally constructed data index, dubbed the *Index of Economic Advisors*, my cross-national statistical tests in 16 Latin American countries over the last half-century show that

[92] Author's interview with Alejandro Foxley, September 29, 2011.

severe inflation crises tend to professionalize presidential economic teams, who then often govern with an anti-inflation bias. I find that governments in inflation-scarred countries generally have more fiscal discipline than their non-crisis counterparts, but the presence of technocratic ministers leads to even more austere budgetary policies.

Traumatic economic shocks tend to cast a long-shadow of economic policymaking, where politicians and their technocratic advisors govern more cautiously in hopes of avoiding a repeat of past crises. Alan García, who returned to the Peruvian presidency sixteen years after a 1990 inflation-spurred ouster, perhaps best illustrates this trend of political risk aversion. After governing through a hyperinflation episode that eroded wages and deepened poverty, García adopted a sound economic policy framework that included fiscal discipline and inflation-targeting during his second presidential life in Peru. To lead his economic stability charge, he appointed Luis Carranza Ugarte, a former banker and one of Peru's most orthodox economists, to the prominent post of Minister of Economy and Finance. He swapped his first-term interventionist policies, once deemed reckless by the International Monetary Fund (IMF), for prudent low-inflation policies that were later praised by the same institution.[93] Notably, García's successor and leftist political rival, Ollanta Humala, also embraced economic austerity in light of Peru's inflationary past. He signaled a commitment to García's low inflation policies by naming his deputy finance minister Louis Miguel Castilla as the Minister of Economy and Finance and leaving Central Bank President Julio Velarde in his post for five more years.

The Peruvian case demonstrates the importance that memory based judgements often have in the policy making process. By comparison, the diffusion literature [94] points to a different trend. It finds that the adoption of neoliberal reforms reflects the dissemination of economic orthodoxy via Western diplomacy, multilateral institutions, and an Americanized global economics profession. Diffusion theorists astutely identify an important global and regional pattern. Neoliberal ideas certainly prevailed in many Latin American countries during the latter part of the twentieth century. But, why did some countries like Venezuela vehemently reject these ideas, notwithstanding these external pressures? Similarly, what accounts for the resilience of market-centered approaches to macroeconomic policy in Chile and Brazil long after the supposed decline of neoliberalism in Latin

[93] *The Economist*, July 27, 2006.
[94] See footnotes 22-27.

America? Even in Bolivia, a country well-known for its rebuff of the Washington Consensus, its Economy Minister Luis Alberto Arce often sounds like an IMF poster child when touting the importance of "recurring budget surpluses, a prudent fiscal attitude...responsible fiscal management" and "defeating inflation" to the country's current economic model.[95] Why, in other words, is the diffusion wave so choppy? Diffusion certainly accounts for an important phenomenon, showing how the ideological persuasion of key advisors can affect a government's menu of policy options.

In this paper, however, I find that such ideational patterns are conditioned by a country's understanding of its past economic crises. Technocrats and their governance choices reflect their crisis legacies. For example, austerity prospered in an economic environment plagued by collective memories of inflationary trauma, where Latin American leaders gained political credibility through inflation control. By contrast, traumatic deflationary spirals are more likely to open a political window for technocrats who advocate for sustained budgetary stimulus. Ultimately, politicians react to their environments, choosing the economic advisors and policies that have the best chance for success. In the world of Darwin, genes propagate in advantageous environments. Similarly, in the policy world, economic ideas prosper under favorable conditions.

The drawback of such risk aversion is that politicians may tie their own hands by appointing technocrats that limit their room for policy maneuverability. In the case of Argentina, the technocratic response to hyperinflation – a rigid commitment to convertibility – was so disproportionate and costly that it eventually sowed the seeds for the exact opposite crisis: a deflation spiral. Governing through the lens of history also heightens the risk of extreme policy reversals in more volatile economies. For example, during its deflationary spiral in the 2000s, Argentine policymakers reversed their economic policies to reflect the saliency of the latest crisis. As deflationary fears replaced inflation anxiety, political costs were increasingly calculated in job losses rather than in purchasing power losses. For Argentines, austerity may have once reduced the risk of rekindling runaway inflation, but highly interventionist policies now held the promise of boosting the country's moribund employment.[96] In a recent interview with Roberto Lavagna, the Argentine economy minister who navigated the country beyond the 2001-02 economic crisis, Lavagna emphasized the tendency for economic volatility to beget costly policy reversals.

[95] Luis Arce's remarks to World Bank's *2010 Americas Conference* in Miami on September 14, 2010.

[96] This pattern is in line with the statistical results, which found that unemployment crises were often associated with higher Latin American budget deficits.

> "The pendulum moves from one extreme to the other – this is the history of Argentina over the last 30 to 40 years...here, the people have a way of reacting a lot more strongly to economic problems than in other countries...any populist can push toward an extreme, and when you are at an extreme point an economic crisis arrives; and when an economic crisis arrives, the solution comes from orthodoxy and then everything changes back; when orthodoxy changes everything and fails – and inevitably it will also fail – it [populism] returns again."[97]

Over the last few decades in Latin America, such extreme macroeconomic policy reversals have been limited beyond the Argentina context. Past inflation trauma has ushered in era of macroeconomic discipline throughout much of the region. These policies have provided the region with much need economic stability, but ongoing risk-aversion has left the region unable to adapt to the most pressing new challenges.

Facing demands from a growing middle class to be socially more responsive, however, some countries have been tempted to push the bounds of their society's inflation tolerance. Brazil's President Dilma Rouseff, for example, has increasingly intervened in the economy, and permitted single-digit inflation to reach the top of the central bank's target range of 2.5-6.5 percent. While nowhere near past crisis-levels, there has been public outcry from both citizens and the business community about inflation. Notwithstanding the election year, Brazil's central bank now finds itself decidedly hiking interest rates to ward of inflation. The lesson is clear. Policymakers tend to fight the last economic war. Without an offsetting deflationary shock, hyperinflation's shadow still looms large, leaving policy formation at an extreme.

Given the historic importance of economic shocks to policy trajectories, a deflationary shock would be the most likely catalyst for a sustained change in the region's economic models. Currently, the balance of economic risks points toward deflation for much of Latin America. The United States' ongoing monetary policy tapering – or withdrawal of economic stimulus – threatens to significantly raise the region's cost of capital as financing returns to the U.S. during the nascent recovery. If such reversals become abrupt, deflation could rear its ugly head, ushering in a new era for Latin American macroeconomic policy.

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[97] Author's interview with Dr. Roberto Lavagna in Buenos Aires, Argentina in August 2012. Lavagna was Economy Minister from 2002 to 2006, and a presidential candidate in Argentina's October 2007 presidential elections.

We are already seeing such policy reversals elsewhere in the world. After five years of austerity, lackluster growth, and high unemployment in much of the euro area, the merits of austerity are being openly contested and accompanied by resounding electoral calls for policies that encourage growth, jobs, and competitiveness. Such changes to Europe's economic model could help fuel the recovery, but Latin America's recent crisis history offers Europe a cautionary tale about the importance of post-crisis policy moderation.

Table 1: The Effect of Past Crises on Ministry Professionalization

	(1) Tech	(2) Tech	(3) Tech	(4) Tech	(5) Techp
Inflation Crisis	0.703***	0.986***	1.001***	1.015***	1.031***
	(0.130)	(0.149)	(0.150)	(0.152)	(0.152)
Output Gap	-0.079***	-0.075***	-0.077***	-0.076***	-0.077***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
Global Growth	0.034	0.028	0.029	0.029	0.013
	(0.044)	(0.045)	(0.045)	(0.045)	(0.045)
Terms of Trade	-0.391***	-0.209	-0.202	-0.198	-0.155
	(0.151)	(0.150)	(0.149)	(0.149)	(0.125)
Foreign Reserves	0.007**	0.006*	0.005	0.005	0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Financial Depth	-0.007*	-0.007*	-0.007*	-0.008*	-0.007*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Unemployment	-0.045***	-0.056***	-0.055***	-0.056***	-0.048***
	(0.016)	(0.016)	(0.016)	(0.017)	(0.017)
Year	0.015*	0.005	0.004	0.004	0.005
	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)
Age of Democracy		0.016***	0.016***	0.016***	0.019***
		(0.004)	(0.004)	(0.004)	(0.004)
Exec. Constraints		-0.049	-0.052	-0.049	-0.085*
		(0.046)	(0.046)	(0.046)	(0.047)
IMF Program			-0.093	-0.097	-0.052
			(0.130)	(0.130)	(0.130)
Left Governments				-0.096	-0.219
				(0.147)	(0.148)
Observations	396	382	382	382	387
R^2					

Standard errors in parentheses

Ordered probit model for 16 Latin American countries.

$^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Table 2: The Effect of Past Crises on Fiscal Balances (16 Latin American Countries)

	(1) FE	(2) FE	(3) FE/Techp	(4) GMM	(5) GMM	(6) GMM
Technocratic Ministers	-0.084	-0.188	-0.221	-0.387**	-0.391**	-0.280
	(0.175)	(0.186)	(0.232)	(0.169)	(0.186)	(0.189)
Inflation Crisis	1.754**	1.177*	1.440**	1.498*	1.669**	1.499**
	(0.591)	(0.644)	(0.607)	(0.779)	(0.739)	(0.761)
Tech. Min.*Crisis History		0.461**	0.514**	0.703**	0.625**	0.554*
		(0.195)	(0.209)	(0.275)	(0.301)	(0.289)
Output Gap	-0.002	0.006	0.008	0.014	0.022	0.038
	(0.040)	(0.040)	(0.040)	(0.034)	(0.027)	(0.029)
Commodity Prices	0.004	0.003	0.002	0.003	0.003	0.003
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)
Inflation (log)	0.547**	0.523*	0.538**	0.421*	0.417**	0.506**
	(0.241)	(0.251)	(0.242)	(0.226)	(0.210)	(0.217)
Population	-0.140	-0.227	-0.229	0.080	0.226	0.207
	(0.671)	(0.635)	(0.637)	(0.556)	(0.555)	(0.698)
Interest Rates	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year	0.012	0.020	0.021	-0.050	-0.058	-0.044
	(0.063)	(0.060)	(0.060)	(0.057)	(0.054)	(0.066)
Fiscal Balance (t-1)	0.410**	0.412**	0.412**	0.278	0.266	0.265
	(0.152)	(0.149)	(0.152)	(0.199)	(0.200)	(0.196)
Fiscal Balance (t-2)				0.149	0.147	0.171
				(0.195)	(0.194)	(0.197)
Unemployment crisis				-3.211***	-3.141***	-2.888***
				(0.461)	(0.434)	(0.500)
Age of Democracy				0.051**	0.047**	0.046*
				(0.024)	(0.024)	(0.025)
Exec. Constraints					0.176	0.158
					(0.114)	(0.117)
IMF Program						0.473
						(0.378)
Observations	259	259	258	235	235	228
R^2	0.46	0.46	0.47			

Standard errors in parentheses

FE=Fixed effect models. GMM=GMM estimator, using first differences. Robust standard errors.

$^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

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A Appendix

Table A.1: Variable Definitions and Sources

Variable	Definition and Measurement	Source(s)
Technocratic Economic Ministers	Professional educational training of central bank presidents and finance ministers, coded from 0 to 2. If one of the two key ministers has an advanced graduate degree in economics or finance, the value is 1. If they both have advanced economic or finance training, the value is 2. Otherwise, the variable is 0.	Index of Economic Advisors
Inflation Crisis	I assign a value of 1 to a country when it has had a past inflation crisis and 0 otherwise. I code an inflation crisis as inflation above a 100 percent annual threshold.	Sachs and Larrain 1993; World Bank's World Development Indicators (WDI).
Fiscal Balance	Government Revenues - Expenditures (+/- percent of GDP)	Comision Economica para America Latina y El Caribe (CEPAL).
Domestic Output Gap	Measure of the output gap, calculated as the log difference between real GDP and its country specific trend.	Country specific trend calculated using the Hodrick-Prescott filter on real GDP change.
Global GDP Growth	Average global real GDP growth (annual percentage change).	Calculated from World Bank's World Development Indicators (WDI).
Global Commodity Price Index	Percentage change in global commodity (CRB) index; comprised of 17 primary commodities weighted by their importance to global trade.	Global Financial Database; Reuters's Global Commodity Index (CRB).
Terms of Trade	Export value index (2000=100) / import value index (2000=100).	Calculated from World Bank's World Development Indicators (WDI).
Inflation	Change in log CPI (annual percentage change)	World Development Indicators (WDI)
Domestic Financial Depth	Broad money (M2), or money in circulation, as a percentage of GDP.	World Bank's World Development Indicators (WDI).
Unemployment	Change in unemployment (percentage of total labor force).	CEPAL.
Interest Rates	The rate on short-term lending between financial institutions (percent per annum).	International Financial Statistics (IFS).
Total Foreign Reserves	Total reserves as a percentage of external debt	World Development Indicators.
Exchange Rate Regime	Coded along a four point spectrum moving from fixed to floating currency arrangements.	IMF exchange rate classification.
Population	The fraction of a country's population that is over 65.	World Bank's World Development Indicators (WDI).
Unemployment Crisis	These shocks are set equal to two standard deviations above the available time series covering 1961-2011.	Calculated from CEPAL.
Executive Constraints (Polity IV)	Measure of checks and balances on executive power; employs a seven-category scale from unlimited authority to executive parity.	Polity IV Codebook and Database.
Executive Constraints (Henisz)	Measure of political constraints; estimates the feasibility of policy change relative to institutional checks and balances.	Henisz, W.J. (2000).The Institutional Environment for Economic Growth. *Economics and Politics*, 12(1).
Central Bank Independence	Measures autonomy of central banks as written into countries' laws and legal systems. Updates Cukierman, Webb, and Neyapti (1992) Index.	Polillo, S. and Guillen, M. (2005). Globalization Pressures and the State: The Global Spread of Central Bank Independence. *American Journal of Sociology*, 110(6).
IMF Participation (Vreeland)	Participation in IMF programs: Dummy variable coded 1 for country-years when there was a conditioned IMF agreement in force, 0 otherwise.	Vreeland 2002, 2003.
IMF Participation (Dreher)	IMF Participation: Dummy variable coded 1 for country-years when there was IMF standby or EFF agreement for at least five months, 0 otherwise.	Dreher 2006.
Left Partisanship	Party orientation with respect to economic policy, coded from 0 to 1. Parties that are defined as communist, socialist, social democratic, or left-wing take a value of 1. Otherwise, the variable is 0.	World Bank's 2010 Database of Political Institutions.
Age of Democracy	The total years a country has experienced uninterrupted democracy	Polity IV Index

Table A.2: Summary Statistics (16 Latin American Countries)

	mean	sd	min	max
Technocratic Ministers	0.86	0.83	0	2
Inflation Crisis	0.21	0.41	0	1
Fiscal Balance	0.01	3.61	-28	9
Output Gap	0.95	1.89	-15	13
Global Growth	3.55	1.72	-2	7
Commodity Prices	1.85	16.62	-66	48
Terms of Trade	1.18	0.50	0	7
Foreign Reserves	657.44	12182.98	1	307658
Financial Depth	32.32	16.35	7	111
Unemployment	8.42	3.90	1	20
Inflation (log)	2.83	1.25	-0	10
Population	4.98	2.16	2	14
Interest Rates	58.02	615.22	0	12875
Exec. Constraints	4.68	2.06	0	7
Exec. Constraints	0.29	0.20	0	1
Central Bank Independence	0.50	0.19	0	1
IMF Program	0.34	0.47	0	1
Age of Democracy	12.23	18.45	0	92
Observations	867			

Average inflation is converted to its natural logarithm.

A.1 Macroeconomic Model Discussion

The literature on the political economy of macroeconomic policymaking provides a theoretical structure for economic policy choices. In these models, government preferences are captured through loss functions. The Barro-Gordon loss-function is one of the most commonly employed theoretical models. It shows politicians' relative sensitivity to unemployment and inflation. Their utility varies directly with employment (or growth), yet indirectly with inflation.[98]

$$L = a(U_t - kU_{t^n})^2 \ + \ b(\pi_t)^2$$

where U_t = *employment rate;* U_{t^n} = *natural rate of unemployment;* π_t = *inflation rate;* a = *relative weight of unemployment in the loss function* $(a > 0)$*;* b = *relative weight of inflation term*

[98] The functional form of these loss functions varies across the literature, but their main intuition is that policymakers and voters dislike inflation and unemployment, but support economic growth. For a more detailed description of loss functions and macroeconomic policymaking, see Barro and Gordon (1983) and Scheve (2004).

in loss function ($b > 0$); k = extent of distortions (e.g. unemployment compensation and income taxation) that make U_{t^n} exceed the efficient or socially optimal rate ($0 < k < 1$).

This loss function shows how policymakers value full employment and price stability. More specifically, the ratio of its parameters a and b captures the benefit of employment (and growth) relative to the cost of higher inflation. In other words, these parameters indicate policymakers' level of inflation aversion. A government favoring a Keynesian view is likely to assign a low weight to inflation relative to unemployment in its loss function. By contrast, a government favoring a monetarist approach is more likely to assign a higher weight to inflation relative to unemployment in their loss functions.

Building from the intuition of these models, I expect that countries' crisis histories will influence domestic politicians' sensitivity to inflation and unemployment.

A.2 Coding Rules for the Index of Economic Advisors

In order to test whether the region's hyperinflationary shocks led to the professionalization of economic advisers, I collected data regarding the academic and professional background of economic policymakers in Latin America. In this cross-sectional, time series data, there are 1896 observations. Each observation compiles information regarding the economic and financial government officials for 16 countries in Latin America throughout the 1960-2011 period. Coded according to academic training and professional background, the observations can be used to determine whether economic crises led presidential teams to become more technocratic, and if so, whether such ministers governed with greater fiscal discipline.

The data collected comes from a variety of sources, including, but not limited to, official ministries and central bank websites, news articles, *International Year Book* and *Statesmen's Who's Who* (1965-2009) attendees list of annual IDB and IMF/WB meetings, official government documents ("gacetas oficiales"), and official CVs. Secondary information was also collected from local newspapers and various books and articles.

Originally, data was collected for every single minister and central bank president available, regardless of whether a given year had more than one finance minister and/or central bank governor. For the final dataset, however, only one finance minister and one central bank president were

included, based on which individual held the position for the most days in that given year.[99]

Variables included in database:

COUNTRY: 16 countries in the region were included in the dataset. These are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Uruguay and Venezuela.

ECON MIN: Name of the minister of finance who held the position for the most amount of days in the given year.[100]

CBGOV: Name of the central bank governor who held the position for the most amount of days in the given year.

EDUC: Highest educational degree achieved by minister or central bank governor. This information includes not only the degree type (BA, MA, MBA, PhD and others), but also the subject area of the degree, academic institution, and location.

EDUC CODE: The extent of professional academic training in economics, finance or business administration is expected to have an impact on an individual's approach to fiscal and monetary policy. Carter and Irons (1991), Babb (2001), Montecinos and Markoff (2010) have emphasized that the formal training of economists leads them to share a similar set of beliefs, often different from those of non-economists. This paper shares this perspective, but argues that technocrats' approach to policymaking (i.e. whether they prioritize austerity or stimulus) is conditional on the nature of past crises (inflation vs. deflation shock). However, unlike the earlier literature, it does not filter according to whether technocrats were trained at a Western institution, given that many Latin American universities, such as Pontifica Universidad Católica de Chile, Universidad Torcuato Di Tella in Argentina, or the Fundação Getulio Vargas in Brazil, would embody a similar approach to economics as developed country institutions. The variable is coded as 0 if neither the finance minister nor the central bank governor have advanced training in economics/finance; 1 if either the finance minister OR central bank governor have advanced training; and 2 if both have advanced

[99] The complete dataset is available upon request.

[100] While most countries have only one ministry assigned to fiscal policy, some have a variety of ministries involved in economic and financial planning, making it difficult to discern whether the government institution of interest should be the Ministry of Finance, the Ministry of Economy, or the Ministry of Economic Development, among others. For more information regarding the selection of ministry, including a table listing each Ministry per country, please refer to the end of this document.

Additionally, on some occasions (e.g. Argentina 2001/2002) there were more than 1 ministers of finance in a given year. The higher turnover often occurred at instances of financial crises, and consequently, the individual who held the seat for the longest amount of time during any given year was selected.

training in finance and/or economics.[101]

PREVIOUS POST: The individual's previous career position prior to being appointed minister of finance or central bank governor. On occasion, the most recent post prior to the appointment was not available, in which case an earlier post is used as proxy. The information includes prior position and institution.

PREVIOUS POST CODE: While some individuals may not have had formal academic training in economics, business, or finance, experience in the private sector – or at international financial institutions – are often considered to provide economic officials with a comparable level of training. For robustness, we expanded the definition of a technocrat to include previous career experience. We assume that officials hailing from the private sector or international financial institutions were appointed to their posts in light of their applied experience in business, finance, or global markets. For example, William Handal, the former minister of finance of El Salvador, had worked in finance, planning, and control for TACA Airlines for 31 years. Similarly, during Brazil's turbulent hyper-inflationary years, Fernão Carlos Botelho Bracher, a vice president at Banco Bradesco, the largest private bank in country, was selected for the post of central bank president because of his experience in financial markets. The variable is coded as a 1, if the previous post prior to appointment was in the private sector or at an international financial institution (i.e. the IMF, UN, or the World Bank). All other sectors (government, non-profit, etc) are coded as 0.

On the selection of the financial and economic planning ministry:

While all countries (excluding Panama) only have one central bank or monetary authority, some countries have a variety of ministries involved in economic and financial planning, making it difficult to discern whether the government institution of interest should be the Ministry of Finance, the Ministry of Economy, or the Ministry of Economic Development, among others. These countries include Bolivia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Nicaragua and Panama. In the case of the Central American countries, the decision of which ministry to use was based on the ministry participating in COSEFIN – the permanent forum for ministries of finance in Central America, Panama and the Dominican Republic. The ministries/secretariats used for each country can be found in the table below:

[101] As this code attempts to capture academic training in economics and/or finance, we consider MBA, MA/PhD's in public policy and international affairs as further academic training in economics/finance.

Table A.3: List of Economic Ministries

Country	Institution
Argentina	Ministerio de Economia y Finanzas Publicas (Formerly Hacienda)
Belize	Prime Minister is designed Minister of Finance
Bolivia	Ministerio de Economia y Finanzas Publicas (Formerly Hacienda and Finanzas Publicas)
Brazil	Ministerio da Fazenda
Chile	Ministerio de Hacienda
Colombia	Ministerio de Hacienda y Credito Publico
Costa Rica	Ministerio de Hacienda (Formerly Ministerio de Economia y Hacienda 1948-1966)
Dominican Republic	Ministerio de Hacienda (Formerly Secretaria de Finanzas 1966-2006)
Ecuador	Ministerio de Economia y Finanzas (Formerly Ministerio del Tesoro y Ministerio de Economia 1944-1963, Ministerio de Finanzas 1963-1985, Ministerio de Finanzas y Credito Publico 1985-2000)
El Salvador	Ministerio de Hacienda
Guatemala	Ministerio de Finanzas Publicas (Formerly Ministerio de Hacienda y Crédito Público 1945-1971)
Honduras	Secretaria de Finanzas (Formerly Secretaría de Economía y Hacienda 1954-1971; Secretaria de Hacienda y Credito Publico 1971-1996)
Mexico	Secretaria de Hacienda y Credito Publico
Nicaragua	Ministerio de Hacienda y Credito Publico
Panama	Ministerio de Economia y Finanzas (Formerly Hacienda y Tesoro 1998)
Paraguay	Ministerio de Hacienda
Peru	Ministerio de Economia y Finanzas (Formerly Hacienda 1969; Economia y Finanzas 1969-1980; Economia, Finanzas y Comercio 1980-1985)
Uruguay	Ministerio de Economia y Finanzas
Venezuela	Ministerio de Planificacion y Finanzas (Formerly Hacienda 1894 – 1999, Finanzas 1999-2008, Economia y Finanzas 2008-2010)