Fighting Past Economic Wars: Crisis and Austerity in Latin America

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Stephen B. Kaplan
George Washington University

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†Assistant Professor of Political Science and International Affairs, George Washington University.
Abstract

Political economy theory expects that changes in macroeconomic governance are often catalyzed by institutional factors, such as partisanship, elections, or IMF conditionality. I challenge and contextualize this view by incorporating the role of technocratic advisors into a domestic policymaking framework. I contend that presidents from countries with crisis legacies are more likely to appoint mainstream economists that pursue budget discipline. Employing an originally constructed dataset, the Index of Economic Advisors, I conduct an econometric test of 16 Latin American countries from 1961 to 2011. I find that politicians are most likely to appoint mainstream economists who embrace fiscal rectitude in countries with inflation-crisis legacies. Furthermore, these crisis legacies are sticky given the severity of inflationary trauma relative to other types of domestic economic volatility in Latin America. In fact, these effects hold when controlling for both historical and contemporaneous shocks to unemployment.

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What explains the sustained commitment to budget discipline among many Latin American governments notwithstanding the general level of regional disillusionment with ‘Washington Consensus’ reforms?\(^1\) For example, the Bolivian government is well known for its rebuff of Western governance models, including President Evo Morales’ nationalization of the natural gas industry. In the realm of national fiscal affairs, however, 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," and "defeating inflation" to the country’s economic model.\(^2\) Moreover, fiscal rectitude has endured beyond the global commodity correction, with the Bolivian government maintaining an average primary budget surplus of almost one percent of GDP since 2008. What accounts for the persistence of macroeconomic discipline?

In this paper, I develop a new theory about the political legacy of economic crises. I argue that macroeconomic policy choices are a product of crisis histories. Latin American politicians operate according to standard political logic, assuming voters respond to economic conditions, but their incentives change when their countries have experienced devastating economic crises. The political impetus to protect voters from negative income shocks can be as strong as the political incentive to pad their earnings.

In a region like Latin America that is characterized by considerable economic volatility, politicians are keenly aware of the political turnover induced by negative income shocks. They have coincided with the ouster of about two-fifths of the sixteen Latin American presidents that were removed early from office since 1978 (see Hochstetler and Samuels 2011). Hyperinflation, in particular, has yielded some of the most severe shocks historically, rupturing the domestic price system, quashing popular living standards, and erasing as much as 30 to 90 percent of earning power in inflation-ridden countries.\(^3\)

I contend that presidents seek to minimize the risks of such traumatic crises re-emerging during their administration, invoking historical analogies about the lessons of hyperinflation. I thus expect politicians from inflation-crisis countries to pursue fiscal discipline, based on the mainstream economic lesson derived from such crises that high fiscal deficits are inflationary (Sargent and Wallace, 1981). International financial institutions (Thacker 1999; Vreeland 2003) and global financial markets (Frieden 1991; Mahon 1996; World Bank’s 2010 Americas Conference, September 14, 2010. CEPAL.

\(^1\) Scholars attribute the left’s rise to disillusionment with Western reforms, and the ongoing structural problems of poverty, inequality, and crime (Mainwaring, 2006; Corrales, 2008; Weyland, Madrid, and Hunter 2010; Levitsky and Roberts, 2011).

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\(^3\) CEPA.
McNamara 1998; Mosley 2000; Wibbels 2006) have long advocated for budgetary rectitude. For example, fiscal discipline topped Williamson’s (1989) original list of Washington Consensus reforms.

However, a nation’s understanding of its own crisis-history is an important determinant of whether or not they heed such advice. Hyperinflation helps explains Latin American governments more steadfast commitment to budget austerity relative to other reforms. Austerity, or the commitment to such fiscal discipline even during hard times,\(^4\) helped many countries successfully tame hyperinflation. By comparison, alternative heterodox interventions, featuring the combination of expansionary fiscal policies along with wage and price controls, were largely discredited after failing to control runaway inflation.

In the years following hyperinflation, Latin American governments have experienced other varieties of domestic crises, including protracted periods of unemployment that have temporarily raised the political saliency of heterodox interventions. Ultimately, however, their policy resilience has been limited by their crisis roots, which have not disrupted the price system and the economy as gravely as inflation crises.

How are such differences in economic ideas channeled and sustained through the political system? I contend that there are two primary pathways: politicians and technocrats. First, presidents may prioritize fiscal sustainability within their overall economic agenda. In crisis-scarred countries, the persistence of inflation-sensitivity among the electorate and businesses raises the political appeal of mainstream policy solutions that use fiscal discipline as a conduit for inflation-controlled growth.

They may also appoint technocrats, or ministers with specialized training in economics to provide such governance. In fact, there has been a fivefold increase in technocrats serving as key members of Latin American presidential teams since 1970.\(^5\) Such technocrats first emerged in the wake of the 1980’s debt crisis, when politicians hoped such expertise would help assuage foreign investors’ concerns about economic turmoil undercutting their profitability (Schneider 1998).

Given their powerful position in presidential cabinets, technocrats are an important transmission mechanism for explaining policy choices, but have received less attention compared to such other channels as elections and partisanship. While a burgeoning literature on ministerial turnover (Amorim Neto 2006; Martinez-Gallardo 2012; Martinez-Gallardo 2014; Camerlo and Pérez-Liñán 2015a; Camerlo and Pérez-Liñán 2015b) examines how institutions and critical events shape near-term cabinet changes, this study explores the extent to which crisis memories can yield sustained ideological shifts in ministerial composition.

\(^4\)I employ a definition of austerity that is synonymous with the public finance literature’s concept of fiscal discipline, where deficit reduction is the pathway to financial stability, business confidence, and investment-led growth (Musgrave 1959).

\(^5\)Author’s calculations from *Index of Economic Advisors*. 
In light of their status as non-career politicians (Alexiadou 2015), technocrats’ professional training should allow them to adequately diagnose economic problems (Dargent 2014). However, in line with the Keynesian wisdom above, they are not exempt from ideological or political influences (Grindle 1977; Camp 1985; Dominguez et. al. 1997). In inflation-ridden countries, crises have moved politicians and technocrats closer to the economic center, prioritizing inflation control through fiscal discipline.

In testing these theoretical priors, my analysis proceeds in two stages. I first examine the effect of inflation crises on ministers’ ideological orientation, before exploring how crises affect politicians’ fiscal policy choices both directly, and indirectly through ministerial appointments. I focus on fiscal governance because a government’s priorities are reflected in its national budget, just as a firm or household’s preferences are conveyed through its balance sheet. Finally, I examine these claims in Latin America, a region that is ideally suited for this analysis because of its considerable variation in inflation crisis legacies – about one-half of its countries have experienced a severe inflation crisis historically (Table A.7 in the online appendix).

During the first stage of this analysis, I also build on research that shows that policymakers’ education is a proxy for their policy preferences (Chwieroth 2007; Nelson 2014a; Nelson 2014b; and Alexiadou 2015). In order to operationalize the policy orientation of key members of presidential economic teams, I employ a unique, novel dataset, dubbed the Index of Economic Advisors. This index characterizes the policy preferences of economic advisors (mainstream vs. heterodox) over the last half century, based on their professional background and education credentials. To my knowledge, it’s the first index of its kind to incorporate Latin American universities, which are also classified by ideological orientation through a series of in-country surveys of Latin America economists from 2015-16.

Employing cross-national data from sixteen Latin American countries from 1961-2011, I find that hyperinflation histories are often associated with governments that have more mainstream economic advisors and greater fiscal discipline than their non-crisis counterparts. These empirical results may help explain Latin America’s well-known pattern of procyclical fiscal spending (Gavin and Perotti, 1997; Pinto, 2010), where downturns tend to coincide with sustained periods of budget austerity, which can limit government’s ability to effectively respond to business cycle fluctuations (Blyth, 2013).

These findings also mark a notable departure from the developed country literature on macroeconomic partisanship. In contrast to traditional models of the economy that expect a partisan split on inflation-control policies that favor businesses (Hibbs, 1977; Bartels, 2008), these findings show that transformative national events like economic shocks can blur traditional partisan differences, contributing to the lack of ideology.
in party systems (Roberts and Wibbels, 1999; Lupu, 2014). That said, this macroeconomic consensus is distinct from micro-level dimensions, such as privatization or public investment, where scholars have found a closer link between traditional partisanship and regulatory outcomes (Murillo, 2009; Boix, 1998).

This investigation also offer new insights for studies examining globalization, neoliberalism, and the Latin American left, which have found considerable variation in the extent of government intervention in developing economies. On one side of these debates, scholars contend that economic integration (Rudra, 2002), global markets (Mahon, 1996; Mosley, 2000; Wibbels, 2006), and international institutions (Thacker, 1999; Vreeland, 2003; Winters, 2010; Dietrich, 2013) have contributed to a retrenchment of Keynesian-style countercyclical fiscal policies and social safety nets. In support of this view, scholars find that a variety of factors, including a weak labor movement (Roberts, 2002), party-brand dilution (Lupu, 2015), strong business interests (Thacker, 2000; Schneider 2004; Fairfield, 2010), centrist and non-economic voters (Baker and Greene, 2011; Hellwig 2014), and reform-seeking politicians (Corrales, 2000) helped facilitate a broad-based acceptance of this neoliberal consensus (Stokes, 2001; Murillo, 2002; Levitsky, 2003). Other scholars, however, find that neoliberal reforms have not been uniform. Rather, many countries with import substitution industrialization legacies (ISI) have crafted political bargains (Frieden, 1991) that preserved supply side interventions, including industrial promotion, public employment (Kurtz and Brooks, 2008), labor protection (Carnes 2014), and social insurance (Wibbels and Ahlquist, 2011). In the realm of macroeconomic policymaking, I contend that the variation in policy approaches reflects the nature of a country’s crisis history, with budget discipline tending to be more common in inflation-scarred countries.

Finally, these findings have significant implications for the study of policymaking beyond Latin America. Diffusion scholars suggest that the prevalence of neoliberalism reflects the spread of economic orthodoxy through Western diplomacy, an Americanized global economics profession (Hall, 1993; Babb, 2001; Montecinos and Markoff, 2010), and multilateral institutions (Barnett and Finnemore, 2004; Woods, 2006; Simmons, Dobbin, and Garrett 2008). Recent scholarship has found that the IMF operates as a diffusion mechanism for the spread of neoliberal economists and hence neoliberal ideas, which in turn increases the likelihood of IMF preferential loan treatment (Nelson, 2014a; 2014b). Diffusion scholars correctly identify an important global pattern: policy choices often reflect the ideological persuasion of key advisors. But, to what extent do such choices have domestic roots? Some ideas, like the IMF’s austerity, often appear on countries’ menu of policy options, but are not systematically adopted. I seek to explain this policy variation, claiming that states’ independent histories are pivotal to understanding when technocrats pursue austerity.
The article unfolds as follows. The next section contains the main theoretical contribution; here I explain how severe price volatility created shifts in technocratic orientation and governance. In Section 3, I provide quantitative empirical support for this theory using data from Latin America, a region known for its inflation crisis history. Finally, I close by suggesting a number of potentially fruitful paths forward for academic research, and discussing the study’s broader scholarly and political implications.

Theoretical Framework

In the world of Darwin, genes propagate in advantageous environments. Similarly, in the policy world, economic ideas prosper under favorable conditions. At the end of the 21st century, an era of relative developed country stability, known as the Great Moderation, opened the door to a mainstream governance consensus that emphasized economic moderation and budget discipline. Following the world’s struggles with inflation during the 1970s, many political leaders in developed countries centered their economic agendas around the neoclassical synthesis in contemporary macroeconomics. This governing consensus was skeptical of the merits of fiscal policy interventions because of the perceived link between budget deficits and higher inflation (Sargent and Wallace 1981). Rather, it recommended employing an inflation-fighting independent central bank as the principal economic policy instrument.

These governance principles, which are often linked to accessing global financing, filtered down to the domestic agendas of developing country politicians. But, why would developing countries be willing to accept such austere principles when they often experienced much greater economic volatility historically?

I contend that transformative national events play a pivotal role in explaining the adoption of economic paradigms. Governing in such an uncertain environment, politicians are concerned about avoiding economic turbulence on their watch, particularly those crises that have exacted the heaviest domestic toll. They fear that crises could devastate popular living standards and catalyze political turnover. Indeed, economic crises have contributed to the ouster of many developing country leaders, including Argentina’s Raúl Alfonsín and Fernando De la Rua, Brazil’s Fernando Collor de Mello, Bulgaria’s Zhan Videnov, Bolivia’s Siles Zauzo, and Ukraine’s Leonid Kravchuk. Politicians thus react to their economic environments, choosing advisors whose economic training promises to avoid repeating the costs of the most devastating crises.

Employing such historical lessons is not unique to fighting economic wars. International relations scholar-

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6This theory builds upon earlier scholarship on crisis and reform (Frieden 1991; Remmer 1991; Mahon 1996; McNamara 1998; Drazen and Easterly 2001; Weyland 2002; Kaplan 2013).
ars have found that major historical events often guide decision makers (Jervis 1976, Khong 1992, and Levy 1994). In foreign policy, for instance, scholars have found that historical analogies are often key elements of military and foreign affairs strategies. For example, many US presidents, including Harry Truman and Ronald Reagan, formulated their post-World War II military interventions, using the historical analogy of Munich appeasement (Khong 1992). In economic policymaking, the relevant analogies reflect historical states of the economy, with crises often being the most salient events.

In Latin America, the region’s most salient historical crisis is hyperinflation. These traumatic domestic experiences helped align national economic agendas with those of international institutions and markets. In fact, previous scholarship has demonstrated that political leaders often use international tools, such as IMF conditionality, to help achieve their own domestic policy priorities (Vreeland 2003).

I contend that the region’s understanding of its inflation crisis history raised the domestic political appeal of hiring mainstream economists that promised to contain inflation through fiscal discipline. In the wake of these crises, the importance of price stability gained political traction over heterodox policies that had struggled to reign in runaway prices. Heterodox programs typically used price controls rather than budgetary rectitude to curb inflation, overlooking the aforementioned link between large fiscal deficits and inflation. The political desire to use expansionary fiscal policies to redistribute income and spur development was a laudable goal in countries that had struggled with high income inequality. However, these programs were unable to break the vicious cycle of ballooning deficits, booming money supply, and unbridled inflation that haunted so many Latin American governments. When governments used the printing press (or central bank financing) to fund deficit spending, the money supply had expanded at breakneck speeds, causing prices to soar without bounds (Dornbusch and Edwards 1991). Surging inflation further eroded real tax revenues and exacerbated budget shortfalls, with governments often responding by printing more money.

Latin American hyperinflations soared thousands of percentage points higher annually, rupturing economic activity and popular incomes in a way that has been unparalleled by any business cycle fluctuations since that time. By comparison, the relative success of mainstream policies in eventually taming runaway inflation boosted their technocratic saliency, particularly the importance of avoiding unsustainable deficits.

I argue that the historical lessons associated with such traumatic crises are enduring, creating sustained shifts in post-crisis technocratic composition and national approaches to budgetary management. I anticipate that such historical memories are channeled into economic policymaking through two primary channels.

The first pathway occurs directly through political elites, where "a sufficiently acute crisis creates a
consensus that the old order has failed and needs to be replaced” (see Drazen and Easterly 2001). More specifically, in countries where runaway inflation has eroded middle and working class incomes, political leaders are more likely to internalize the lessons of budgetary overexpansion. In such inflation-scarred countries, job creation remains a political priority, but not if it entails using aggressive fiscal stimulus that spurs inflation (Kaplan 2013). A repeat of past inflation crises would carry prohibitive costs. Not only do they create grave income shocks that torpedo popular living standards, but scholars have also found that they have electoral repercussions. High inflation erodes electoral support for incumbent governments and discredits political parties (Remmer 1991; Stokes 2001; Murillo, Oliveros, and Vaishnav 2010).

Politicians therefore use sound fiscal governance to keep inflation under control and convey their managerial credentials to households, businesses, and investors. In fact, 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 adult population believed fighting inflation was ‘the most important issue for their country’ between 1995 and 2008. More recently, the Latin American Public Opinion Project’s (LAPOP) Americas Barometers show that Latin Americans rank “inflation, high prices” and "economic crises" among the top five most serious problems facing their countries out of a list of almost forty different issues in 2008 and 2010.

In addition to this direct effect, I also expect crisis memories to have a more indirect effect on economic policymaking through ministerial appointments. A burgeoning literature on executive branch politics has found that institutional attributes and critical events often shape ministerial turnover (Amorim Neto 2006; Martinez-Gallardo 2012; Martinez-Gallardo 2014; Camerlo and Pérez-Liñán 2015a; Camerlo and Pérez-Liñán 2015b). Building on a comparative politics scholarship that finds cabinet changes, party structures, and coalition-building can be a source of stability in presidential systems (Mainwaring and Shugart 1997; Corrales 2002; Cheibub, Przeworski, and Saiegh 2004), it examines how cabinet reshufflings are often aimed at mitigating uncertainty in both democratic and non-democratic regimes (Chwieroth and Walter 2010) following negative popularity shocks (Camerlo and Pérez-Liñán 2015a), political unrest (Camerlo and Pérez-Liñán 2015b), and economic crises (Martinez-Gallardo 2014).

By comparison, this paper also examines the effect of economic crises on presidential cabinets, but over a longer-term horizon. Rather than examining how critical events influence near-term cabinet changes, it explores the role of historical memory on sustained ideological shifts in presidential economic teams. Moreover, compared to the focus on inter-branch negotiations (Negretto 2006) in the minister retention
literature, I study a single policy dimension – macroeconomic policymaking.

In this dimension, the executive branch directly formulates and implements fiscal policy, serving as the command and control of the budgetary process (Hallerberg, Scartascini, and Stein 2009; Bonvecchi and Scartascini 2011). Political factors that foster greater ideological diversity in the executive branch, such as left partisanship or coalitional cabinets, can certainly influence technocratic appointments and governance. However, given the executive branch’s considerable policy discretion in mapping a country’s course of fiscal policy, such intrabranch politics is likely to be more salient than interbranch politics. While Congress has a direct role in the budget approval stage, it often cannot change the broad contours of macroeconomic policy. In other words, legislators can bargain over line-item spending, but new expenditures are either capped or "offset" by additional financing sources (Hallerberg, Scartascini, and Stein 2009).

Past shocks may thus not only condition technocratic appointments, but also the government’s fiscal policy stance. To avoid repeating their crisis histories, presidents appoint technocrats, or ministers with specialized training in economics. While such technocrats are often expected to apply non-partisan, professionalized approaches to decision-making, their policy preferences typically reflect a country’s understanding of its economic history. In other words, politicians tend to fight past economic wars.

In the shadow of inflation crises, presidents are more likely to appoint mainstream ‘inflation hawks’, who view fiscal discipline is the pathway to inflation control, rather than more ‘dovish’ heterodox advisors, who are willing to use fiscal intervention to catalyze the economy and remedy job losses. These heterodox advisors are most likely to emerge after unemployment shocks at the other end of the business cycle. Indeed, when economic activity slows too markedly, unemployment can trigger social mobilization and public protests against mainstream governance. For example, Argentina, Ecuador, and Venezuela have all experienced a recent unemployment shock that raised the political saliency of job creation relative to inflation control. Unemployment reached historic highs in all three countries in the early 2000s, helping open the door to less conventional advisors that governed with greater budgetary intervention in the economy.

However, these shocks tend to be far less historically salient than inflation crises because they did not disrupt the price system, and hence the economy as severely. Their more limited saliency helps explain some recent policy reversals. In Argentina, for instance, the return of moderate inflation under President Cristina Kirchner quickly stoked fears about the perils of runaway inflation, swinging the pendulum back towards a centrist president Mauricio Macri and a cadre of mainstream technocrats who pledged to control inflation with austerity. When a country like Argentina has suffered a dual-crisis legacy, the political lessons from
Inflationary shocks are often more enduring. Even years after an inflation crisis, mainstream economists tend to believe that fiscal discipline has its merits. It not only provides businesses and investors with a stable, long run operational environment, but also protects voters’ incomes.

Ironically, delivering such price stability may unintentionally create other risks. When appointments are driven by historical legacies more than by contemporaneous problems, leaders may not respond optimally to new challenges, impeding their national competitiveness. Austerity has undoubtedly helped keep inflation under control in Latin America, but it may have also stifled growth, production, and unemployment (Blyth 2013; Stiglitz and Greenwald 2014). It pays the most dividends at the peak of the economic cycle, when it can help curb high-growth spending sprees that might otherwise catalyze inflation or default. Without the proper economic diagnosis, however, the austerity prescription can inadvertently impair economic health.

In summary, in a region like Latin America that has exhibited considerable price volatility historically, I expect that macroeconomic governance is often a product of inflation crisis legacies. To evaluate this theoretical prior systematically, I employ the following testable hypotheses. The first hypothesis examines the link between economic crises and ministerial appointments, while the second hypothesis assesses how crises affect fiscal governance strategies both directly, and indirectly through these ministerial appointments:

\[ H_1: \text{Inflation crisis legacies tend to shape the professional composition of presidential cabinets. Following severe inflation shocks, economic teams are more likely to be comprised of mainstream (rather than heterodox) advisors compared to those countries that have not experienced extreme inflation crises. These shocks also tend have more historical saliency than other type of crises.} \]

\[ H_2: \text{Inflation crises affect fiscal governance both directly through greater inflation-aversion among political leaders, but also indirectly through ministerial appointments. Mainstream advisors are more likely to pursue fiscal austerity by improving budget balances.} \]

**Data and Methods**

To test these hypotheses, we journey to Latin America, a region where the degree of economic volatility has been two to three times higher than developed countries (Maddison, 2001). The region’s volatility in large part has reflected its inflation crisis history; about one-half of its countries have experienced an inflation crisis, making it a fitting environment to examine how crises affect governance. I anticipate that these crisis legacies are sticky given the severity of inflationary trauma relative to other types of domestic volatility.
(i.e. unemployment shocks) in Latin America. I expect inflation crisis memory to affect economic policy through two different channels: a direct political effect where crisis legacies create a political incentive to pursue fiscal discipline by widening the constituency that favors inflation-controlled growth, and an indirect effect where presidential appointments of technocratic advisors lead to more restrained fiscal governance.

The empirical analysis proceeds in two stages. Employing a panel of data covering 16 democratic countries from 1961-2011 that includes a total of 225 economic ministers, the first-stage model explores the factors driving ministerial appointments. I find that crisis legacies are an important domestic channel that is distinct from more traditional factors influencing the appointment process, such as regional diffusion, partisan economic ideas, and coalitional cabinets. However, other political factors may not be as observable, creating potential bias. For example, mainstream economists, working for business groups, media conglomerates, technocratic networks, and think-tanks interpret economic conditions and frame business sentiment, which can then influence ministerial appointments (Luna and Kaltwasser 2014). I thus attempt to account for such endogeneity in the appointment process with instruments to control for non-random selection (Heckman 1988; also see Vreeland 2003; Chwieroth 2007). By incorporating such instruments in the second stage of the model, I can test for the independent effects of economic advisors on fiscal policy choices. This approach allows us to examine the indirect effect of crisis legacies operating through ministerial appointments, in addition to direct linkages between crisis legacies and fiscal governance (see online appendix).

Data Description: Independent and Dependent Variables

Policy Orientation of Economic Ministers In order to test the first-stage probit model, I use a dichotomous variable, $\text{Mainstream}_{it}$, that measures whether or not economic ministers, who are appointed by political leaders, have mainstream economics training. The dichotomous measure is based on the *Index of Economic Advisors*, an original cross-country dataset, which to my knowledge is the first of its kind to provide detailed information regarding both the educational credentials and professional background of Latin American economic advisors. In additional robustness checks using an ordered probit model, I also employ the full index, $\text{Mainstream}_{i}\_\text{IEA}_{it}$ (see Table A.1 in the online appendix), rather than the binary measure as the dependent variable, finding that the results do not materially change (see models 2 and 4 in Table 1).

In constructing these measures, I draw on an extensive sociology and political science literature showing that professional economics training often shapes policy preferences through socialization and diffusion. In other words, economists often diagnose problems and offer policy solutions through the ‘interpretive
lens’ of their professional training (Hall, 1993; Dominguez et al., 1997; Babb, 2001; Chwieroth, 2007; Kogut and MacPherson 2008; Montecinos and Markoff, 2010). Building on these findings, scholars have employed rich datasets on U.S. economics training as a proxy for neoliberalism (Chwieroth 2007; Kogut and MacPherson 2008; Nelson, 2014a; Nelson, 2014b), based on the premise that neoliberal ideas diffuse from an Americanized global economics profession. Hallerberg and Wehner (2013) also employ similar indices to evaluate if OECD governments are more likely to appoint technocrats during financial crises, Alexiadou (2015) finds left-leaning ministers are more likely to increase social welfare programs, while Flores, Lloyd, and Nooruddin (2016) gauge the effect of technocratic leadership on sovereign credit ratings.

Compared to these global indices that often assume homogeneity, the Index of Economic Advisors allows for greater contextualization of educational backgrounds across a wider ideological spectrum. I begin with a similar premise, coding those advisors that have trained at highly-ranked economics departments outside of Latin America as mainstream. However, I also code several Latin American universities, such as Pontificia Universidad Católica de Chile, Universidad Torcuato Di Tella in Argentina, and the Fundação Getulio Vargas in Brazil, as mainstream economics departments (see Table A.6 for a full listing) because these universities embody similar approaches to those that are typically considered neoliberal in the United States.

Furthermore, to account for any economic departments that may diverge from mainstream economics both within and beyond Latin American borders, the index removes any universities whose economics departments are members of the Association for Heterodox Economics (AHE)’s International Directory for Heterodox Economists. I further ensure the robustness of the coding, by corroborating this directory with an online survey conducted from 2015-16 asking local scholars in 16 Latin American countries to score their major national universities on a scale ranging from heterodox to orthodox.

Aggregating this information, I code professional educational training of finance ministers and central bank presidents as a binary variable according to the rule below. This coding rule yields an average of 18 economic advisors per country, whose tenure averages almost 3 years.

\[
Mainstream_{it} = \begin{cases} 
1 & \text{if one/both advisors have advanced mainstream economics graduate degree} \\
0 & \text{otherwise}
\end{cases}
\]

In additional robustness checks, I expand the purview of the measure beyond this formal educational filter to include the professional background of key advisors, \(Mainstream_{piit}\) (see model 5 in Table 1). Given that preferences may change over time, these tests gauge the importance of work experiences and
professional networks in domestic policy formation. This coding assumes that those advisors hailing from international financial institutions (e.g. the IMF or World Bank), global finance, or business, tend to hold liberal economic beliefs that align with mainstream thinking (section A.1.1, Table A.1 in the online appendix).

**Inflation Crisis Legacy** I measure the duration of the inflation crisis memory in several different ways. In the main text, I employ Drazen and Easterly’s (2001) definition of a hyperinflation crisis, specified as an observation two or more standard deviations above the mean. Given the prior that past shocks condition current policymaking, the binary variable \( \text{Hyperinflation legacy} \) classifies a country as having such a legacy after inflation returns to the historical norm (i.e. within one standard deviation of the mean).

\[
\text{Hyper}_{it} = \begin{cases} 
1 & \text{if a country had a past inflation crisis} \\
0 & \text{otherwise}
\end{cases}
\]

In additional robustness tests, I also employ a more encompassing measure of inflation crises \( \text{Inflation crisis legacy} \) to account for the region’s variation in inflation crisis experiences that include both hyperinflation and ‘very’ high inflation crises (Tables A.3 and A.7 in the online appendix). Additionally, I develop a binary measure of crisis memory for unemployment shocks to observe if the appointment of heterodox advisors is more likely at the other end of the business cycle. Next, I create an interaction term for countries that have experienced both shocks to see if inflation crises are historically more salient, as expected. I also use a series of alternative crisis measures in further robustness checks, including \( \text{Highest past inflation}, \) \( \text{Lagged inflation} \) (t-20 and t-30 yrs), and \( \text{Lagged unemployment} \) (t-5). See section A.1.1, and Table A.3.

Returning to the hyperinflation variable, I conduct further robustness tests to observe if the political saliency of past inflation crises fades with time, shortening the window of crisis memory to 5, 10, and 20 years. Finally, I also create a measure that accounts for the total years since the end hyperinflation.

**Control Variables** I control for a variety of global economic factors, domestic economic variables, and institutional factors that may affect ministerial appointments and national fiscal balances. I also use a slightly different set of controls for the ministerial appointments and fiscal policy regressions, as I expect different factors to be important for different outcomes. For example, I incorporate several key political variables from the minister retention literature, including partisanship, coalitional cabinets, legislative minorities, and non-
democratic regimes (see Chwieroth and Walter 2010; Martinez-Gallardo 2012; 2014; Camerlo and Pérez-Liñán 2015a, 2015b), to help account for potential drivers of cabinet changes that operate independently of crisis memories. Additionally, given the crux of the analysis focuses on the links between crisis memories, ministerial appointments, and fiscal governance, I also employ the standard control variables (including a lagged dependent variable) for fiscal policy regressions used in the political budget cycle literature (Brender and Drazen 2005; Keefer, 2005; Barberia and Avelino 2011). See section A.1.2 in the online appendix.

**Model Specification**

To operationalize the hypotheses, I use the following specifications:

\[
Mainstream_{it} = \alpha + \beta_1 \text{Hyper}_{it} + \beta_2 X_{it} + \beta_3 \text{Mainstream}_{i,t-1} + \varepsilon_{it} \tag{1}
\]

\[
Fiscal_{it} = \alpha + \beta_1 \text{Mainstream}_{it} + \beta_2 \text{Hyper}_{it} + \beta_3 X_{it} + \beta_4 \text{Fiscal}_{i,t-1} + n_i + \varepsilon_{it} \tag{2}
\]

where \(Mainstream_{it}\) = mainstream ministerial orientation; where \(Fiscal_{it}\) = primary fiscal balance (as a percentage of GDP); where \(\text{Hyper}_{it}\) = hyperinflation history. The index \(i\) = country and \(t\) = year. \(X_{it}\) = vector of control variables; \(\text{Fiscal}_{i,t-1}\) = primary fiscal balance (one year lag); \(n_i\) = dummy capturing unobserved country effects; \(\varepsilon_{it}\) = error term. For more details, see section A.1.3-4 of the appendix.

To test these hypotheses, I focus on the independent variable coefficients for \(\text{Hyper}_{it}\), and \(\text{Mainstream}_{it}\). When \(\text{Mainstream}_{it}\) is the dependent variable, a positive coefficient for \(\text{Hyper}_{it}\) would support the first hypothesis that countries with a hyperinflation legacy tend to have a higher share of mainstream economist in presidential cabinets. Similarly, when \(\text{Fiscal}_{it}\) is the dependent variable, I expect to observe a direct effect where \(\text{Hyper}_{it}\) yields greater budgetary restraint, and an indirect effect where independent of hyperinflation’s initial effect on ministerial appointments, \(\text{Mainstream}_{it}\) also yields greater budget discipline.

**Empirical Results**

**The Effect of Past Inflation Crises on Policy Orientation**

Do crisis legacies condition ministerial appointments? The first series of probit models display the effects of the independent variables on the professional training of Latin American economic ministers. The coefficient on inflation crisis legacies is positive and statistically significant (at the 99 percent confidence
interval) across the regression models (see models 1-4 in Table 1). Employing these coefficients to derive the predicted probability of having a mainstream economics minister, I find that an inflation crisis history makes a government about 35 to 38 percent more likely to appoint advisors with mainstream economics credentials compared to non-crisis periods (see models 1-3 in Table 1). These results lend considerable support to the first hypothesis \((H_1)\) that runaway inflation breeds fiscal conservatives schooled in mainstream economics. Moreover, these findings do not materially change when conducting an ordered probit regression with the ordinal variable instead of the probit model with the dichotomous measure (see models 2 and 4).

I also expand the definition of a mainstream economist to include professional background (i.e. previous career experience), \(\text{Mainstream}_p\), given the theoretical prior that experience working for the private sector, global financial markets, or international institutions is more likely to align an advisor with a mainstream policy orientation. Employing such a more comprehensive measure (see Table A.1) did not yield any material changes in the direction our statistical significance of the coefficients. However, they do become greater in magnitude (see model 5), suggesting that transnational networks in global finance may also influence the extent to which policymakers adhere to the mainstream consensus.

Does the opposite shock, an unemployment crisis, temper hyperinflation lessons? Or, do inflation crises tend to have more historical saliency than other types of crises, as expected? In the absence of an inflation crisis legacy, unemployment shocks do appear to have some saliency. The coefficient for unemployment crisis legacy is negative and statistically significant (model 6 in Table 1), suggesting that presidents are more likely to deviate from the mainstream consensus following such shocks. They tend to appoint heterodox advisors that believe heavy deficit spending can alleviate demand shortfalls and generate employment.

That said, the conditional regression model also shows that a dual-crisis legacy has a positive and statistically significant effect on the appointment of mainstream economists that value fiscal discipline and inflation control (see model 6 in Table 1). These findings suggest that historical lessons from inflation crises have a more pronounced effect on ministerial appointments than those associated with unemployment crises.

The core results remain unchanged when controlling for several institutional variables, including whether a country has an IMF program, a long democratic tenure, or a left-wing government (see models 3-6 in Table 1). In models 7-8, we also add two more control variables to measure institutional constraints on executive power. \(\text{Minority}\), reflects whether or not the president has a legislative minority, while \(\text{Coalition}\) measures whether the cabinet includes members of non-presidential parties. The negative and statistically significant coefficients for left partisanship and coalitional cabinets illustrate that greater ideological dispersion (both
through left governments and coalition governments) tends to breed more heterodox advisors.

While the main findings show that historical memory is associated with sustained ideological shifts in ministerial composition, domestic political conditions also seem to play an important role. In the realm of macroeconomic policy, however, intrabranch politics appears to be more salient than interbranch politics. The minority coefficient is statistically insignificant, meaning that we cannot rule out the null hypothesis that legislative minorities have little influence over the appointments of finance ministers and central bank presidents. Given the considerable discretion that presidential economic teams have in formulating and implementing fiscal policy, perhaps legislative minorities are more likely to influence line-item spending debates, rather than the overall budgetary framework.

**Robustness Checks**

In a series of robustness checks, I find that the correlation between past inflation crises and policy orientation is markedly resilient. First, I account for the possibility that the saliency of past crises fade over time. I modify the structure of the binary variable for inflation crisis legacy to track a shorter 20-year window (see model 7 in Table 1). These robustness tests do not yield any material changes to the core findings, with the coefficient for inflation crisis legacies maintaining its precision and statistical significance for not only the 20 year, but also the 5 and 10 year windows.\(^7\) Given these windows begin once inflation returns to its historical norm (i.e. one standard deviation above the mean), it is unlikely that policymakers are simply reacting to a resurgence of crisis conditions. Rather, crisis memory appears to be an important factor.\(^8\)

In a final robustness check, I find that the coefficient on years since crisis is also statistically significant, suggesting that crisis legacies appear to have an enduring effect on ministerial appointments (see model 8).

Notably, in the online appendix, I also conduct a series of tests using alternative crisis measures to allay potential concerns about the *Hyperinflation legacy* variable’s rigidity. None of these measures, including a more encompassing measure of *Inflation crisis legacy*, *Highest past inflation*, *Lagged inflation* (t-20 and t-30 yrs), and *Lagged unemployment* (t-5), change the primary results (section A.2.1; Table A.4).

The primary findings are also robust after controlling for shorter-term inflation and unemployment issues (models 7-8 in Table 1). This result supports the notion that crisis legacies are often enduring, even when accounting for business cycle fluctuations. If politicians from crisis-ridden countries are more likely to

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\(^7\) Available upon request.

\(^8\) To ensure that crisis memory does not reflect the ideational preferences of the ministers hired to respond to the initial crisis, I removed them from the dataset in the rare case that they were still governing at the beginning of the crisis memory window.
appoint advisors with inflation-fighting credentials, it also suggests that they may not be heeding sufficient attention to contemporaneous economic conditions.

For this reason, I also add a lagged dependent variable to control for the potential persistence of ideological minister types over time (see model 8). The coefficient for the lagged value of mainstream economists is positive and statistically significant, suggesting that economic ideology can be sticky. However, adding the lagged dependent variable to the specification does not materially change the main results.

I also control for the role of regional diffusion in explaining national ministerial appointments (model 6-8 in Table 1). The coefficient for regional diffusion is positive and statistically significant, providing support for the diffusion literature’s expected regional proliferation of mainstream technocrats. This trend may in part reflect the tendency for democratic governments to appoint technocrats to improve their access to financing (Beaulieu, Cox, and Saiegh 2012; Flores, Lloyd, and Nooruddin 2016).

While presidents may in part choose their economic officials based on regional trends, this pattern does not temper the domestic link between crisis legacies and ministerial appointments. The primary findings remain robust, lending support to the notion that there is a domestic channel for ideational change that is independent of the global dissemination of ideas. Moreover, we cannot rule out the possibility that individual crisis legacies are reinforcing the regional trend toward mainstream technocrats who value inflation control.

The Effect of Past Inflation Crises on Fiscal Policy Choices

The first stage of the selection model above (see Table 1) shows that inflationary crises provide a window of ideological opportunity, often conditioning the type of ministerial appointments. Independent of the initial process leading to their appointment, the model’s second stage (see Table 2) then shows that these economic officials tend to be more fiscally conservative than their counterparts without formal training in mainstream economics. In models 1-4 in Table 2, for instance, the coefficient on mainstream economists is positive and statistically significant, with average budget balances that are about 1 percentage point of GDP higher than their less-conventional peers. These findings hold when controlling for institutional variables, including the age of democracy, left partisanship, and IMF programs (see models 3 and 4).

Beyond this indirect effect operating through ministerial appointments, might there also be a direct effect of crises on fiscal governance? The coefficients on inflation crisis legacy are positive and statistically significant. This pattern is in line with the historic tendency of procyclical fiscal spending in Latin America (Gavin and Perotti, 1997; Pinto, 2010), where economic downturns tend to coincide with sustained periods
of higher budgetary constraints. I find that the political commitment to fiscal discipline is prolonged by crisis memory, specifically the severity of past inflationary shocks. Average budget balances following inflation crises tend to be 2 to 3 percentage points of GDP higher than during non-crisis periods (see Table 2). 

For example, Brazil’s 2011 primary fiscal surplus was more than 3 percentage points of GDP greater than the negative primary budget balance recorded that year in Venezuela, a country that had never experienced an extreme inflation shock. However, the regression estimates above imply that should Venezuela’s annual inflation rate surpass 300 percent in 2016 (or more than 2 standard deviations above the historical mean) as projected by many economists, such a severe inflation crisis could trigger a period of fiscal consolidation where budget balances are as much as 3 percentage points of GDP higher than their pre-shock levels.

Finally, the above pattern of crisis-induced austerity holds, even when controlling for contemporaneous economic conditions, including the lingering structural effects of post-crisis inflation, the business cycle, and unemployment. Results for other control variables are also consistent with expectations. The positive and statistically significant coefficient for global growth suggest that improved fiscal balances are often correlated with better global economic conditions. At the same time, the coefficient for the lagged dependent variable, primary fiscal balances (t-1), has a positive and statistically significant relationship, implying that a history of prudent fiscal governance makes budget discipline more likely today.

Robustness Checks

A series of further tests show that the correlation between inflation crises and fiscal governance is robust. First, employing the full index of economic advisors, rather than the binary measure, as the independent variable does not materially change the primary results (models 5 and 6 in Table 2). Additionally, I use the more comprehensive measure of mainstream economist (i.e. education background or previous work experience) to account for the informal training that advisors likely receive when working for international financial institutions, global finance, or international business. This robustness check did not yield any substantial changes in the direction of statistical significance of the coefficients for mainstream economists, or inflation crisis legacies (models 7 and 8 in Table 2). Finally, these results remain robust after a series of tests using the Arellano-Bond GMM estimator (models 2, 4, 6, and 8 in Table 2), which do not considerably alter their size, direction, or statistical significance. In short, these robustness tests provide considerable support for the theoretical framework, finding that crises affect fiscal governance both directly, and indirectly through the ideational beliefs of technocratic communities (see section A.2.2 of the online appendix).
Discussion

To further examine the extent of influence that crisis legacies can have on ministerial appointments and governance, I extend the analysis by briefly discussing three country cases: Argentina, Ecuador, and Peru. These three countries are similar along economic and political indicators: they are presidential, high middle-income South American countries, yet the maximize the variation in the main independent variable of interest – inflation crisis legacies. Peru suffered through hyperinflation in the early 1990s, Argentina lived through shocks at both ends of the business cycle (hyperinflation and an unemployment crisis) during the last three decades, while Ecuador has never experienced hyperinflation.

The Peruvian case perhaps best illustrates the saliency of crisis memories on policy making, given that a single political leader, Alan García, served presidential terms before and after the country’s inflation crisis. In 2006, García returned to the presidency sixteen years after being ousted for a hyperinflation episode that eroded wages and deepened poverty. During his second presidential life, he swapped his first-term interventionist policies – once deemed reckless by the International Monetary Fund (IMF) – for fiscal discipline and inflation-targeting that were praised by the same institution. To achieve these goals, 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. Notably, García’s successor and leftist political rival, Ollanta Humala, also used technocratic continuity to signal his commitment to low-inflation policies, retaining key García advisors with economic doctorates from Johns Hopkins and Brown University respectively.

By comparison, Argentina has experienced considerably more within-country variation in its crisis history. Similarly to Peru, it incurred a hyperinflation shock that catalyzed macroeconomic reform. Liberal economists brandishing inflation-fighting credentials were central to the Argentina’s Convertibility Program, an economic model based on austerity that aimed to contain the 1980’s runaway inflation. After being the cornerstone of its 1990’s economic policy, a severe unemployment shock in the early 2000s help spark a policy reversal away from inflation-checking neoliberalism. For example, President Cristina Kirchner turned to heterodox advisors, such as University of Buenos Aires-trained economist Axel Kicilof, that promised to use heavy government intervention to minimize the new political albatross of unemployment.

To what extent, however, do such unemployment crises dilute the tenets of inflation-controlled discipline? Similar to the statistical findings showing greater resiliency of inflation crisis memories (see model 6

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in Table 1; models 5-8 in Table A.4), the influence of unemployment shocks appears to fade with time relative to inflation crises. Under the Kirchner administration, a reemergence of inflation pressures during her second term triggered the public’s inflation sensitivity and punctured her popularity, eventually contributing to the election of centrist president Mauricio Macri and his technocratic team. While Argentina’s unemployment shock had temporarily raised the saliency of job creation in the mid-2000s, hyperinflation casts a longer policymaking shadow because of its devastation to both the price system and the overall economy. Even Cristina Kirchner had appointed a mainstream economic minister, Martin Lousteau, early in her term amid ongoing concerns about devaluation-induced inflation.

What happens to governance in countries without inflationary scars? For example, Ecuador’s inflation has not breached 100 percent per annum over the last half century. Without historical lessons to constrain deficit spending, Ecuador’s policy is conditional on commodity booms and busts. During booms, a negative correlation coefficient (−0.40) for terms of trade and mainstream advisors suggests that presidential advisors tend to be heterodox, which is in line with the regional trend (see models 1-2 in Table 1; Table A.4). They also tend to oversee wider fiscal deficits. For example, during its boom years, the Rafael Correa administration posted an average primary fiscal deficit of almost 3 percent between 2007-2014. More recently, however, the oil market downturn has sparked spending cuts and tax hikes by Correa’s new MBA-toting finance minister Fausto Herrera. It took a commodity shock to propel Correa toward austerity. Without the sustained saliency of hyperinflation lessons, however, it’s unlikely that Ecuador’s austerity push would persist during an oil-price recovery.

**Conclusion**

The effect of past crises on policymaking communities is impressive. Employing an originally constructed data index, dubbed the Index of Economic Advisors, cross-national statistical tests in 16 Latin American countries from 1960 to 2011 show that fiscal governance is conditioned by inflation shocks through both a direct and indirect effect. Presidents from countries with inflation-crisis legacies are more likely to prioritize fiscal sustainability within their overall agenda. They also appoint considerably more mainstream technocrats to presidential teams (see Figure 1), who then tend to govern with greater discipline than their non-crisis peers. These severe crises often cast a long shadow over policymaking, with budgetary restraint enduring even after the business cycle shifts toward slower growth and higher unemployment.
With such a shared professional training, it’s not uncommon for public discourse to center on fiscal prudence and inflation control, even in a country like Brazil where the Rousseff administration experimented with micro-level heterodoxy (i.e. using off-balance sheet financing from the Brazilian Development Bank to fund industrial expansions). Recent finance ministers, including Henrique Meirelles, Nelson Barbosa, and Joaquim Levy, have still emphasized “long-term fiscal adjustment”, “fiscal stability”, and “inflation vigilance.” In line with these policy goals, and despite some recent fiscal drift, the Brazilian government has averaged a primary budget surplus of more than 1.5 percent of GDP over the last two decades.

However, such a sustained austerity focus suggests that Brazilian technocrats may be too influenced by their inflation crisis history. Given the extent of the Brazilian recession, some economists would argue that fiscal stimulus, not restraint, is better at boosting economic growth. For example, according to Keynes, "the boom, not the slump, is the right time for austerity" (Blyth 2013). During the 2008 financial crisis, even the United States, the global champion of austerity, stimulated its own economy to exit the recession.

Similarly to Brazil, neighboring Argentina had also placed disproportionate weight on its crisis past, relative to contemporary economic conditions through much of the 1990s and early 2000s. Its political leaders unleashed a team of technocrats, brandishing mainstream economic credentials from the University of Chicago to Harvard University, to wage its war on hyperinflation. They maintained a stringent commitment to fiscal discipline under the country’s convertibility law for more than a decade after the crisis had subsided. The enduring focus on inflation control neglected the country’s growing lack of competitiveness, and helped sow the seeds for the 2001-02 debt crisis. Indeed, the drawback of governing through a historic lens is that a lingering political focus on past crises can limit policy flexibility today.

In conclusion, the findings offer important new insights for the political economy literature, demonstrating the key role that both transformative national events and key economic advisors often have in shaping policy choices. This paper also offers a new and innovative dataset that measures the policy orientation of Latin America’s key economic advisors, which can benefit many different types of future research endeavors that examine the effect of ideational factors on such national policy choices as privatization and the funding of social spending, military expenditures, and development. Finally, from a policy perspective, these findings also point to the potential risks of fighting the last economic war, which can leave governments captives of history and misguided ideological paradigms, and thus unable to respond to new economic challenges.

10 Reuters, August 24, 2016
References


Table 1: The Effect of Past Inflation Crises on Policy Orientation

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Observations: 465 465 381 381 391 377 261 257

Standard errors in parentheses
Models 2 and 4 employ an ordered probit model, with mainstream_IEA as DV. Model 5 employs mainstream_p as DV.
See Tables 2 and A.2 for definitions. Year effects and income coefficients included in regressions, but dropped due to space limitations.
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