Structural adjustment, alienation, and mass protest

Bernhard Reinsberg,[1*] Thomas Stubbs,[2] Louis Bujnoch[1]

1 – University of Glasgow, School of Social and Political Sciences

2 – Royal Holloway (University of London), Department of Politics and International Relations

* Correspondence to: bernhard.reinsberg@glasgow.ac.uk, Adam Smith Building, 40 Bute Gardens, G12 8RT, Glasgow, United Kingdom

April 29, 2022

Abstract: The International Monetary Fund (IMF) is (in)famous for its structural adjustment programs, which provide fresh credit for borrowing governments in exchange for market-liberalizing policy reforms. While studies have documented a causal relationship between structural adjustment and political instability, scholarly understanding of the mechanisms underlying this relationship remain perfunctory. The received wisdom is that IMF policy conditions generate material hardship which then drives political instability. We advance an additional pathway—that instability is also prompted by alienation effects related to the foreign imposition of policies. Drawing on a sample of up to 168 countries between 1980 and 2014, we test for the presence of both mechanisms. Our results suggest that there are alienation effects, indicated by a persistent protest-inducing impact of IMF program participation when controlling for market-liberalizing conditions, and especially when programs are concluded by left-wing governments and non-repeat borrowers. We also find evidence of hardship effects, indicated by a positive relationship between the intensity of fiscal austerity required and the number of protests. Our findings have important implications for the relationship between structural adjustment, contentious politics, and the role of international organizations in domestic policy reform.

Keywords: International Monetary Fund; conditionality; structural adjustment; austerity; grievances; protests

JEL codes: F33, F34, F53

Acknowledgements: Funding by the Gerda Henkel Foundation ("The human security implications of market-liberalizing policy reforms by the International Monetary Fund") is gratefully acknowledged. We thank Timon Forster, Adam Lerner, and participants of the Comparative Politics cluster at the University of Glasgow for comments on earlier versions of the manuscript.

"It is of course true that riots were triggered off by soaring prices, by malpractices among dealers, or by hunger. But these grievances operated within a popular consensus as to what were legitimate and what were illegitimate practices in marketing, milling, baking… which, taken together, can be said to constitute the moral economy of the poor. An outrage to these moral assumptions, quite as much as actual deprivation, was the usual occasion for direct action." (Thompson 1971, 78–79)

1. Introduction

In November 2016, the International Monetary Fund (IMF) approved a $12bn loan to Egypt as part of a three-year structural adjustment program. Aimed at restoring economic stability, the program required the Egyptian government to curtail public spending, shrink the public sector's role in service provision, raise state revenues via value-added taxes, and liberalize the foreign exchange rate. Non-governmental organizations, opposition parties, and activists opposed these measures, engaging in waves of protests. But the government implemented them regardless, in order to secure financing (El-Badrawi and Corkery 2017).

The Egyptian case is one among many well-documented examples of popular backlash against structural adjustment (Auvinen 1996; Auyero 2001; Nelson and Dinkel 2020; Ortiz and Béjar 2013; Ortiz et al. 2022). Across the globe, such reforms have triggered protests, most recently including Argentina, Ecuador, Haiti, Jordan, Pakistan, Sri Lanka, and Tunisia (Capelli 2018; El-Badrawi and Corkery 2017; Weisbrot 2019). In some instances, protests have forced governments to step down from power. The Ecuadorian government fled Quito after fuel subsidy cuts prompted protests. Resolution came only once the Moreno-led government rescinded the measure (Valencia 2019). In Jordan, Prime Minister Mulki resigned in the face of protests over rising costs of living after a two-year foray of reforms that included removal of subsidies on basic foodstuffs, hikes in consumption taxes, and labor market deregulation (Holmes 2018).

In all these cases, governments adopted structural adjustment policies at the behest of the IMF—an international financial institution that provides loans to governments in balance-of-payments crises. Through the practice of conditionality—mandating reforms in exchange for loans—the IMF is in a uniquely powerful position to influence the policy choices of borrowing governments. In exerting this authority, the IMF has historically favored market-liberalizing policy reforms (Bird 2007; Stubbs and Kentikelenis 2018b), earning the moniker of the world's premier 'agent of neoliberalism' (Kentikelenis and Babb 2019; Kentikelenis and Seabrooke 2017).

It has long been established that structural adjustment incites mass protest (Bussmann, Schneider, and Wiesehomeier 2005; Nelson and Wallace 2017; Stiglitz 2002), with pernicious consequences for political stability and economic output (Dreher and Gassebner 2012; Jong-A-Pin 2009; Matta, Appleton, and Bleaney 2017). Yet, persistent occurrence of protests—oftentimes debilitating the entire reform process—is puzzling: Why have policymakers failed to adapt their activities to minimize social discontent? Since the early-2000s, for example, the IMF has revised its own *modus operandi* to address the social consequences of its policy advice by including poverty-reduction conditions and embarking on a conditionality streamlining strategy to afford policy space to borrowing governments (Kentikelenis, Stubbs, King, 2016). Notwithstanding the extent to which these developments are ceremonial rather than substantive, we contend that the decisive reason these strategies have failed is because they misread *why* mass protests occur. To

understand the underlying rationale for protests, we posit two distinct effects. First, structural adjustment may cause *hardship effects* because of fiscal restraint, public sector downsizing, price liberalization, foreign exchange policies, and privatizations. These policies have detrimental socio-economic consequences that provoke affected groups to mobilize (Auvinen 1996; Forster et al. 2019; Oberdabernig 2013; Walton and Seddon 1994). Second, structural adjustment may entail *alienation effects*, as such intervention is perceived as a tool of Western neo-imperialism. As the opening quote by E.P. Thompson (1971) suggests, 'outrage to moral assumptions' is as much a reason for protest as material hardship. People may perceive their government signing an IMF program as a challenge to national sovereignty and protest the 'selling out' to foreign powers (Ortiz and Béjar 2013; Petras and Brill 1986; Vreeland 2007, 55). Unlike hardship effects, alienation may emerge even when reforms are not implemented.

Understanding why protests occur is important because it presupposes different courses of action. If material hardship causes protests, then quelling discontent might entail revisions to structural adjustment programs to compensate losers and allow governments policy space to mitigate socio-economic consequences. This thinking has erstwhile informed the IMF's conditionality streamlining strategy and is what their interpretation of country 'ownership' represents (Babb 2013; Kentikelenis, Stubbs, and King 2016). But if alienation is driving protest then these reforms will be insufficient. In addition, structural transformation of the global financial architecture will be needed that shifts power away from the US and Europe and into the hands of borrower countries. In the case of the IMF, this implies, at minimum, reapportionment of voting rights toward borrowing countries (Rapkin and Strand 2006), overhaul of staff expertise away from Western-based neo-classically trained economics (Chwieroth 2014; Momani 2007; Nelson 2017), and elimination of the gentleman's agreement guaranteeing European leadership (Momani and Hibben 2018). In short, people in borrower countries need to perceive that they are sufficiently represented by these organizations.

This article empirically untangles hardship and alienation effects. To this end, we study structural adjustment in the context of IMF programs in a panel dataset of up to 168 countries from 1980 to 2014. Our dependent variable is the well-established aggregate protest measure from the CNTS database (Banks and Wilson 2015). Our key predictors measure several dimensions of IMF intervention, including specific policy areas of conditionality, while accounting for the fact that countries do not select randomly into IMF programs and related policy conditions (Stubbs et al. 2020). We conjecture that hardship effects unfold as a result of IMF policy conditions, but take a residual approach to identify alienation effects, given that they cannot be directly observed at the country level. Our results are consistent with alienation effects. Controlling for a range of determinants, including market-liberalizing policies and globalization flows, we find that being under an IMF program increases the number of protests by at least 11%. This effect is particularly strong under left-wing governments and among borrowers without a recent history of IMF involvement. We interpret these findings as support for the alienation hypothesis. We also find some evidence for hardship effects. Comparing across IMF programs, we find a significant positive relationship between the amount of fiscal adjustment required and the number of protests.

By casting light on effects driving the relationship between structural adjustment and protest, our article integrates disparate insights from national-level political-sociological arguments (Booth

and Seligson 2009; Norris 2011; Thompson 1971) and scholarship on legitimacy in international organizations (Dellmuth, Scholte, and Tallberg 2019; Edwards 2009; Johnson 2011; Tallberg and Zürn 2019). In doing so, we document the importance of the legitimacy of political institutions—the belief of relevant audiences that institutions exercise their authority in an appropriate manner (Meyer and Rowan 1977; Norris 2011; Tallberg and Zürn 2019). While scholars have examined sources of subjective legitimacy of international organizations—focusing on participatory governance mechanisms in those organizations (Tallberg et al. 2015)—our article is the first to probe how such legitimacy affects social action at the domestic level (Franck 1990; Hooghe, Lenz, and Marks 2018; Hurd 1999; Lindblom 1977). This has profound implications for domestic policy implementation: it is not only the substantive content of economic reform that matters, but also the means by which they are introduced (Gross 2007).

2. Structural adjustment and mass protest

Structural adjustment has become shorthand for an extensive range of reforms designed to reduce the role of the state in the economy. These reforms conform around four key pillars: stabilization, liberalization, deregulation, and privatization (Summers and Pritchett 1993). Stabilization, or 'austerity', refers to measures designed to reduce the fiscal deficit such as cuts to public expenses and downsizing of state administrations; liberalization entails the elimination of barriers to trade and movement of capital; deregulation involves repeal of government rules, regulations, and checks and balances surrounding economic activity; and privatization entails selling of state-owned enterprises and natural resources to the private sector (Stubbs and Kentikelenis 2018a).

Attempts to undertake market-liberalizing reforms have become ubiquitous since the 1980s (Centeno and Cohen 2012; Fourcade-Gourinchas and Babb 2002), and remain so to the present day (Babb 2013; Kentikelenis, Stubbs, and King 2016). In advanced countries, governments typically opted to carry out such reforms based on monetarist ideological commitments or as a perceived necessary step to adapt to the international economy; whereas in low- and middle-income countries, governments frequently undertook these reforms under external duress of international financial institutions such as the IMF. As global lender of last resort, the IMF provides emergency loans to governments in dire economic straits, in exchange for commitment to far-reaching economic policy reforms. This puts the IMF in a powerful position, which it has used to progressively extend the scope of its policy advice over the past three decades (Kentikelenis, Stubbs, and King 2016), with the aim of reshaping countries into model students of market-liberalizing reform (Woo 2013).

Yet, protests have frequently forced governments to scale back on reform efforts, especially when it threatens their own survival. The 2019 Ecuadorian protests provide a case in point: the government ultimately reinstated a fuel subsidy in order to halt the descent into social chaos and economic paralysis (Weisbrot 2019). Given its potential for social, political, and economic disruption, researchers have long examined the link between structural adjustment and mass protest (Bussmann and Schneider 2007; Hartzell, Hoddie, and Bauer 2010; Walton and Ragin 1990). Walton and Seddon (1994: 39) identify 146 cases of structural adjustment protests between 1976 and 1992, defined as "large-scale collective action including political

demonstrations, general strikes, and riots, animated by grievances over state policies of economic liberalization in response to the debt crisis and market reforms urged by international agencies."

While it is well-established that structural adjustment can induce protest, there is less clarity on *why* this occurs (but see, Robertson and Teitelbaum 2011). We hypothesize that such reforms can induce protest through two pathways. First, they may generate material *hardship*, brought about by socio-economic effects of such reforms. Second, they may generate *alienation*, related to foreign imposition of policies that undermine the legitimacy of domestic governments.

2.1. The hardship hypothesis

Researchers have long argued that material hardship triggers protests (Gurr 1969; Hibbs 1973; Huntington 1968; Robertson and Teitelbaum 2011; Tilly 1978). We expect protest frequency to vary depending on the kinds of reforms included in a structural adjustment program, since they induce hardship in different ways (Bienen and Gersovitz 1985; Nelson and Wallace 2017; Walton and Seddon 1994).

First of all, government spending cuts tend to reduce aggregate demand in the economy, resulting in high unemployment, increasing poverty, and growing inequality (Forster et al. 2019; Oberdabernig 2013). Such austerity measures can be drastic: the IMF required Ecuador to cut public spending by 6% in its 2019 program (Weisbrot 2019). Spending limits also make it difficult for governments to allay economic hardship and compensate losers of reform. Indeed, they may undermine an implicit domestic bargain between the state and the urban poor in the political economies of many low- and middle-income countries: governments extract resources from peasants to provide public goods and services to urban dwellers in exchange for their loyalty (de Janvry 1981; Walton and Seddon 1994). As Walton and Seddon (1994, 50) write, "governments were blamed for sacrificing their own citizens [to appease the IMF]."

Second, public sector redundancies, hiring freezes, and cuts to wages, pensions, and other social security benefits disrupt the economic fortunes of civil servants. For the IMF, these reforms contribute to an efficient state administration as well as reducing fiscal deficits; however, by depriving civil servants—a well-organized social group—such policies can foment protest. Tunisia provides a case in point: in May 2016, the IMF approved a four-year program requiring freezes on public sector employment and wages; the Tunisian General Labor Union called for general strikes against such measures, leading to their overturning in 2018 (Capelli 2018).

A third policy linked to hardship is price liberalization, where government subsidies or controlled pricing on goods are abolished. The IMF views such measures as allowing the market to determine prices at optimal levels, while also reducing the fiscal deficit. But resulting price hikes are often for basic household goods like food, petrol, and heating, thereby prompting social discontent. For example, Ecuador's 2019 reform package included the elimination of fuel subsidies that resulted in price increases of 24%, disproportionately affecting poorer households (Monahan 2019). Furthermore, urban dwellers typically stand to lose out the most because they rely on subsidized food for subsistence (Walton and Seddon 1994), but are able to collectively organize (Bienen and Gersovitz 1986; Bush and Martiniello 2017; Walton and Ragin 1990; Walton and Seddon 1994).

Fourth, foreign exchange liberalization impacts the economy in different ways depending on factor mobility between non-tradeable sectors and the export sector (Bienen and Gersowitz 1985). While devaluation of the exchange rate may be favorable to economic performance by improving the competitiveness of exports, it can result in inflation of imported necessity goods—such as fertilizer, grain, rice, and fuel—resulting in social discontent (Auvinen 1996; Huber and Stephens 2001; Swank 1998). The case of Indonesia during the Asian Financial Crisis illustrates this point. Incentivized by promises of bailouts to the government and the financial system, the Indonesian government agreed to currency devaluation and tax increases, leading to an economic crisis that was "much more severe and much more punishing to the average Indonesia than it should be" (Corcoran 1998).

A final policy that can generate hardship is the privatization of state-owned enterprises (Aguirre and Reese 2004; Emery 2006; Uba 2008; Walton and Seddon 1994). The immediate rationale for such measures is to reduce public deficits through the sale of assets and to improve economic management of these industries. Yet, it can result in job losses and undercut the power of public sector workers (Aguirre and Reese 2004), and is therefore a major source of social discontent (Arce and Rice 2009). For example, in May 2019 workers protested against the privatization of the Pakistan Steel Mills, announced after government consultations with the IMF (Pakistan Today 2019).

An important qualifier to these hypotheses is that not all policies target groups capable of mobilizing mass protest (Haggard and Webb 1993). A well-established body of research shows that the effect of material hardship on protest is moderated by the extent to which affected social groups can mobilize collectively (McAdam, McCarthy, and Zald 1996; Thomas and Grindle 1990; Tilly 1978; Walton and Ragin 1990).

2.2. The alienation hypothesis

The IMF can also induce protest through alienation effects. In contrast to material hardship resulting from (partial) implementation of market-liberalizing reforms, alienation does not require that governments actually implement reforms. They emerge from a feeling of betrayal when leaders relinquish national sovereignty and 'sell out' to foreign powers (Ortiz and Béjar 2013). This causes alienation to the extent that such foreign powers are not perceived as legitimate authorities in the eyes of target audiences. As the opening quote by E.P. Thompson (1971) reminds us, grievances operate within a popular consensus as to what is legitimate practice.

In our case, alienation is underpinned by perceived lack of legitimacy of the IMF. In the Weberian tradition, legitimacy refers to belief among relevant audiences that an institution exercises authority in an appropriate manner (Dellmuth, Scholte, and Tallberg 2019; Tallberg and Zürn 2019; Weber 2001). Legitimacy is distinct from support: "While support for a political institution may partly be driven by instrumental cost–benefit calculation, legitimacy refers to a reservoir of confidence in an institution that is not dependent on short-term satisfaction with its distributional outcomes" (Tallberg and Zürn 2019, 587). The legitimacy of an international organization thus depends on a combination of factors including their rational-legal authority, performance, and procedures, and can be affected by legitimation processes (Barnett and Finnemore 2004; Edwards 2009; Tallberg and Zürn 2019). From the perspective of developing country publics, the IMF lacks legitimacy for several reasons: its voting apportionment is skewed

in favor of Western countries, with the US having a veto share of votes for major decisions; a gentleman's agreement between the US and Europe ensures the head of the IMF is a European (and the World Bank an American); the US and Europe use the IMF to foster foreign policy goals; and Western allies consistently receive better financing terms (Copelovitch 2010; Dreher, Sturm, and Vreeland 2015; McDowell 2017; Stone 2004).

Signing of an IMF agreement may therefore signal to social groups that governing elites are not acting in their best interests and are instead pursuing interests of foreign actors. As Buchanan and Keohane (2006, 409) argue, "the concept of legitimacy allows various actors to coordinate their support for particular institutions by appealing to their common capacity to be moved by moral reasons, as distinct from purely strategic or exclusively self-interested reasons." In our context, governments pay a so-called 'sovereignty cost' (Vreeland 2007) by giving the impression—or actually acquiescing—to demands of the IMF. This loss of legitimacy—which may occur even if social groups vary in their economic preference over the design of reform programs—may lead to increased protests (Petras and Brill 1986). It also holds that if protest is induced through alienation, we would expect its incidence to be unrelated to the type of economic reforms that governments seek to undertake. Given a specific package of reforms, the mere presence of an IMF program—which entails the signing of the agreement and the continued receipt of IMF advice—will exert an independent effect on protests.

As detailed below, alienation effects are not directly observable at the country level. We therefore probe two additional observable implications that should hold if alienation effects were present. From a theoretical perspective, these implications take seriously the notion that local circumstances mediate international pressures (Auyero 2001). First, we expect that alienation should vary depending on the political ideology of the government. A left-wing government that seeks to implement structural adjustment at the behest of the IMF will be more likely to meet resistance because the populace interprets this act as betrayal of shared values. Conversely, a right-wing government would be expected to undertake market-friendly reforms regardless and so will be less likely to experience protests. It is worth noting that these predictions are at odds with those in previous works. Beazer and Woo (2015) argue that left-wing governments are *less* likely to face resistance because right-wing oppositions will not object; whereas right-wing governments struggle to reform because a left-wing opposition will challenge the reforms and promote demonstrations. Similarly, Gunaydin (2018) contends that left-wing governments are better able to implement reform because they can forge coalitions with unions. The reason these scholars arrive at different viewpoints from us is because they emphasize policy preferences based solely on material concerns. In contrast, our reasoning is that alienation will be accentuated when left-wing governments attempt to implement structural adjustment as the populace is denied of a party that represents their values.

Second, the relationship between alienation and protest should be moderated by IMF 'recidivism'—the tendency for countries with a lengthier history of IMF program participation to be more likely to enter into subsequent programs (Bird, Hussain, and Joyce 2004; Conway 2007; Stubbs and Kentikelenis 2018a). Recidivism occurs, *inter alia*, due to interpersonal connections established in an initial program which lower transaction and negotiation costs, the need for further assistance because earlier programs did not successfully promote economic development, or because there is an initially high sovereignty cost attached to participation that diminishes the

more a country participates (Hartzell, Hoddie, and Bauer 2010; Nooruddin and Woo 2015; Vreeland 2003). The latter is most relevant to our study. If governments who recently participated in IMF programs have already paid the sovereignty cost of 'selling out', then we would expect these governments to be less likely to confront protests.

3. Data and methods

We draw on a time-series cross-country dataset of up to 168 countries for 1980-2014. We opt for a country-year panel design because our interest is in protest as a macro-level phenomenon and because it allows us to correct potential endogeneity and selection effects. The main drawback of such a panel design is that we cannot directly test alienation effects, as alienation is a latent concept and would need to be measured at the individual level.[1] Instead, we take a residual approach in which we estimate hardship effects associated with directly observable IMF conditions and infer alienation effects from conditionality-unrelated aspects of IMF programs.

3.1. Dependent variables

To measure protest, we use the total count of PROTEST events drawn from Databanks International (Banks and Wilson 2015), which sums the total number of strikes, riots, and anti-government demonstrations. In robustness tests, we analyze individual components of the aggregate protest measure. For all protest variables, we estimate quasi-linear models because the number of protest events is typically large.[2] To remove skewness, we take the natural logarithm of these variables. Figure A1 in the appendix plots the distribution of the protest variable.

3.2. Key predictors

Our main predictor is a dichotomous indicator for whether a country is under an IMF PROGRAM in a given year. Drawing on the IMF Monitor database (Kentikelenis, Stubbs, and King 2016), we further use the number of binding conditions in five policy areas. Fiscal policy conditions typically set targets for the budget deficit. Public sector conditions require governments to reduce the wage bill by laying off state officials and cutting wages, pensions, and other benefits. Price liberalization conditions mandate the removal of state subsidies for food, energy, and other public services. Foreign exchange conditions require changes to exchange rate policies such as adoption of flexible exchange rates and depreciation of the national currency. Privatization conditions specify that governments transfer ownership of state-owned enterprises to private actors. . We

[1] The ideal scenario would be micro-level data measuring how people felt about the influence of external actors in their countries and whether they protested, but this alone would not be sufficient. In terms of macro-level context, the country would need to be shocked with a new IMF program while the survey was ongoing in order to do a before-after comparison. We found no country for which all these properties held simultaneously. As an alternative, one could consider country-year averages of individual-level proxies for alienation, but the loss of observations would be significant, such that the requisite inferential strategies would not be feasible.

[2] While protest technically is a count variable, we treat it as quasi-continuous to estimate a linear outcome model. This is primarily because we are not aware of any negative-binomial regression model that could accommodate endogenous predictors. In robustness checks, we estimate a Pseudo-Poisson quasi-maximum likelihood model with country-fixed effects for the number of protests (Silva and Tenreyro 2007).

focus on the total number of binding conditions because failure to implement them interrupts scheduled disbursements of loans (Copelovitch 2010; Reinsberg et al. 2019; Woo 2013). To remove skewness, we follow convention and take the natural logarithm of condition counts including an offset of +1. We include all IMF variables without a lag because alienation effects should occur with the signing of the program and hardship effects for most conditions should also be felt immediately.[3]

3.3. Control variables

We draw on studies on the sociopolitical effects of IMF programs and protest literature for control variables. To avoid spurious correlation, we focus on variables that likely affect both the likelihood of being under an IMF program as well as inducing protest. One set of controls captures the economic health of a country. We include the INFLATION rate (the annual percentage change in consumer prices), a binary indicator for a FINANCIAL CRISIS (Laeven and Valencia 2013), and the level of RESERVES in months of imports (World Bank 2015).

Another set of controls is drawn from the protest literature, focusing on mobilization potential, opportunity structures, and relative deprivation unrelated to IMF interventions (Haggard and Webb 1993; Ortiz and Béjar 2013; Walton and Ragin 1990). First, capturing opportunities for mobilization, we control for URBANIZATION, defined as the percentage of the population that lives in cities (Annett 2001; Auvinen 1996; Ortiz and Béjar 2013; Walton and Ragin 1990). Structural adjustment particularly hurts the urban middle class, through the reduction of public service provision, price hikes, and job loss (Bienen and Gersovitz 1985; Walton and Seddon 1994). In addition, we include the natural logarithm of GDP PER CAPITA, because higher incomes likely affect protest (Dalton, Van Sickle, and Weldon 2010; Inglehart 1981; Norris 2011) while also mitigating the need for IMF lending.[4] Data are from the World Development Indicators (World Bank 2015). To capture opportunity structures, we control for HORIZONTAL ACCOUNTABILITY—checks and balances to executive power—and VERTICAL ACCOUNTABILITY—opportunities for civil society to organize and hold leaders to account. We obtain both variables from the Varieties of Democracy dataset (Coppedge et al. 2016).

Capturing potential impact of economic globalization on protest (Bussmann and Schneider 2007; Palmtag, Rommel, and Walter 2020), we further include an index of de-facto TRADE OPENNESS, available from the KOF institute (Gygli, Haelg, and Sturm 2018). Trade is related to higher risks of protest because openness to global market forces can destabilize societies, particularly those in the periphery (Amin 1977; Boswell and Chase-Dunn 2000; Evans 1979). Finally, we control for REGIONAL PROTEST, the average number of protests in other countries of the same geographical region, considering protests may spill across national borders.

To examine scope conditions, we consider the effect of IMF programs under different partisan ideology of the borrowing government. We expect a stronger effect under a LEFT-WING GOVERNMENT, drawn from the Database of Political Institutions (Scartascini, Cruz, and Keefer 2018). We also expect the effect is smaller for governments with a history of IMF borrowing.

---

[3] In robustness tests, we lag the IMF variables to allow for delayed realizations of these effects.

[4] We do not control for economic growth as this could cause post-treatment bias: IMF programs were found to decrease growth (Dreher 2006). Empirically, our results do not hinge on this choice.

This can be tested using an interaction term between IMF program and IMF RECIDIVISM—the time share in which the country has been under an IMF program in the past five years. In the appendix, we present variable definitions and descriptive statistics (Table A1).

3.4. Methods

Our analysis faces two inferential challenges: IMF programs and policy conditions may not be randomly assigned. To mitigate such concerns, we estimate a system of equations including instrumental variables (Roodman 2012). We include country-fixed effects, thereby eliminating the impact of time-invariant unobserved confounders. We also include cubic year splines to account for global temporal trends in protest patterns (Dreher and Gassebner 2012).[5]

In addition to the outcome equation for protest, we include at least one additional equation modeling selection into IMF programs. When we test for the impact of conditionality, we include another equation corresponding to the number of conditions. This setup is advantageous for our purpose because it allows us to untangle the respective effects of IMF conditions and non-conditionality aspects of IMF programs within a single model. Previous research has often limited the sample to program years and thus only identified the differential effect of IMF conditionality among IMF borrowers (Rickard and Caraway 2019).

Following previous research, we predict whether a country is under an IMF program using the UN General Assembly vote alignment (UNGA ALIGNMENT) with the G7 countries (Dreher, Sturm, and Vreeland 2015). This variable predicts IMF programs well and is plausibly excludable with respect to protest. A potential drawback of this instrument is that it likely identifies a local average treatment effect, given that only specific kinds of IMF programs may come about due to geopolitical alignment between a borrower and the G7. Indeed, one might think that such programs bear the highest risk of protest given that borrower allegiance with these advanced liberal market economies might cause the most alienation. Therefore, our estimates should be considered as upper bounds.

A remaining challenge is endogeneity of conditionality—for instance because IMF staff may design programs to avert protest—which we mitigate through an instrumental-variable approach using recently popularized shift-share instruments (Borusyak, Hull, and Jaravel 2022; Goldsmith-Pinkham, Sorkin, and Swift 2020; Lang 2020). Specifically, we exploit quasi-exogenous temporal shocks common to all borrowers and interact those with (potentially endogenous) exposure shares of IMF borrowers (Borusyak, Hull, and Jaravel 2022). This is plausible in our context but differs from alternative uses of shift-share instrumental-variables analysis that assumes exogenous exposure shares and allows shocks to be endogenous (Goldsmith-Pinkham, Sorkin, and Swift 2020). For each type of condition, our instrument is based on the interaction of the within-country average of the number of conditions and the (logged) IMF liquidity ratio (Lang 2020). This instrument fulfils the relevance criterion because when the IMF is more financially liquid, since a financially-stretched Fund negotiates more conditions in order to limit demand for its resources (Dreher and Vaubel 2004; Lang 2020; Vreeland 2003). Our results from the first-stage regression are consistent with this logic (Box A1 in the appendix). The instrument fulfills the exclusion restriction because country-specific changes in conditionality that deviate from its long-run

[5] In robustness tests, we also use year-fixed effects, which does not affect our qualitative conclusions.

average are brought about only by an IMF decision that does not pertain to the given country (Stubbs et al. 2020). Conditional on all other macroeconomic covariates included as control variables in our conditionality equation, we cannot think of any direct pathway from the IMF budget constraint to protest other than through conditionality. Hence, we can eliminate the possibility that countries with 'weak fundamentals' are given more IMF conditions while also being more prone to protest.

We summarize our various modeling approaches in the following sets of equations. For baseline correlational analysis, we use a single-equation fixed-effects model estimated through Ordinary Least Squares:

$$y_{it} = \alpha_{10} + \alpha_{11} IMF_{it} + X_{it}'\Gamma_1 + \nu_{1i} + \phi_{1t} + \varepsilon_{1it} \quad (1)$$

To account for non-random program selection, we estimate a conditional mixed process model combining the quasi-linear outcome equation with a probit-type selection equation[6] that uses a geopolitical instrument z_{it}:

$$\begin{cases} y_{it} = \alpha_{10} + \alpha_{11} \hat{IMF}_{it} + X_{it}'\Gamma_1 + \nu_{1i} + \phi_{1t} + \varepsilon_{1it} \\ P(IMF_{it}|X_{it}, z_{it}) = \Phi(\alpha_{20} + \alpha_{21} z_{it} + X_{it}'\Gamma_2 + \phi_{2t} + \varepsilon_{2it}) \end{cases} \quad (2)$$

To address endogeneity of IMF conditionality, we estimate a three-equation system using the previous two equations and a linear equation for the number of conditions, deploying a compound instrument (given by the product of exposure shares c_τ and global shocks n_t):

$$\begin{cases} y_{it} = \alpha_{10} + \alpha_{11} \hat{a}_{it} + \alpha_{12} \hat{c}_{it} + X_{it}'\Gamma_1 + \nu_{1i} + \phi_{1t} + \varepsilon_{1it} \\ P(a_{it}|X_{it}, z_{it}) = \Phi(\alpha_{20} + \alpha_{21} z_{it} + X_{it}'\Gamma_2 + \phi_{2t} + \varepsilon_{2it}) \\ c_{it} = \alpha_{30} + \alpha_{31}((\frac{1}{T}\sum_{\tau=1}^{T} c_\tau) n_t) + X_{it}'\Gamma_3 + \nu_{3i} + \phi_{3t} + \varepsilon_{3i} \end{cases} \quad (3)$$

Due to the simultaneous inclusion of an IMF dummy alongside the IMF conditions, we associate the former with alienation effects (a_{it}) and the latter with hardship effects (c_{it}).

4. Results

4.1. Main findings

To begin with, Figure 1 plots the distribution of protest events respectively for non-program and program observations, showing the latter are more likely to have protests. This holds across the distribution of protest events. To establish whether the differences in average protests by program status are significant, we also perform *t*-tests with unequal variances. We find that in the non-program group, the average protest count is 0.955 (95%-CI: 0.838-1.070), whereas it is 1.171 (95%-CI: 1.001-1.333). The difference is statistically significant (p=0.034).

[Figure 1 here]

[6] Here a probit-type selection model is appropriate, but we also explore a linearized probability model with country-fixed effects.

Table 1 demonstrates that IMF programs increase the frequency of protests in multivariate regressions, using different estimators. Model 1 presents fixed-effects estimation and an IMF dummy. Model 2 includes a selection equation for IMF programs, which increases the coefficient of the IMF dummy. Model 3 reverts to the fixed-effects model and adds the count of binding conditions. Model 4 accounts for selection into IMF programs, as well as instrumenting IMF conditionality. We find that IMF conditionality—a necessary factor for hardship effects to occur—has no effect on protests. Conversely, residual elements of the IMF program are positively related to protests. The IMF program coefficient is statistically significant in the first three models but only marginally significant in the last model. Across the various models, the effect of an IMF program is to increase the number of protests by at least 10.8% ($p<0.01$) and at most 31.9% ($p<0.1$). We refrain from interpreting control variables substantively but note that—if statistically significant—their estimated effects are in line with theoretical expectations. Taken together, coefficient estimates in the main equation provide an initial piece of indicative support in favor of the argument that IMF programs trigger alienation related to the perceived loss of national sovereignty and foreign imposition of policies.

Turning to the IMF program selection model, we confirm that UN General Assembly vote alignment is a strong predictor of IMF programs. Additional predictors behave as expected: IMF programs are more likely in the event of financial crises, when countries have lower reserves, lower per-capita incomes, and higher levels of urbanization. IMF borrowers also tend to be more democratic in terms of accountability to civil society. The last column includes an auxiliary model for the count of IMF conditions. Our shift-share instrument meets the conventional threshold for strong instruments ($F=18.34$). We also find that countries face more conditions if they face a financial crisis, if they are poorer, and more urbanized and more democratically accountable.

[Table 1 here]

Table 2 examines how various IMF policy conditions affect the frequency of protest. Importantly, the statistically significant coefficient on IMF programs can now be interpreted as the residual effect after considering hardship effects due to structural conditions. We focus on the five reforms identified as prone to trigger protest: fiscal policy measures, public sector reform, price liberalization, foreign exchange policies, and privatization. We find no significant coefficients for any kind of policy conditions. This result holds when we assume that conditions are exogenous as well as when we assume that they are endogenous and adopt shift-share instrumental-variable regression. Kleibergen-Paap F-statistics of the shift-share instruments are slightly below the conventional threshold of ten, and much below for fiscal conditions. Given weak instruments, we do not wish to draw conclusions from the findings, especially on fiscal conditions.

[Table 2 here]

We now test observable implications of alienation effects. Table 3 examines the effect of IMF interventions on protests under different partisan orientations of the borrowing government. As shown by the unconditional marginal effect estimate, governments of all strides face somewhat elevated risks of protest under IMF programs. However, we find this effect to be stronger among left-wing governments (panel A). If a left-wing government participates in an IMF program, the likelihood of protest increases from 32.2% (95%-CI: 23.0%-41.4%) to 53.5% (95%-CI: 40.6%-

66.5%). For a right-wing government, this increase is smaller, from 42.7% (95%-CI: 33.8%-51.6%) to 47.5% (95%-CI: 37.7%-57.4%). This suggests that 'selling out' to the Fund—regardless of the policies agreed—is especially harmful for left-wing governments.

Table 3 also probes the effect of IMF interventions on protests for different histories of prior IMF involvement, measured by the time share in which the country has been under an IMF program in the past five years (panel B). We find that entering an IMF program increases the likelihood of protests the most when countries have no recent history of intervention. Figure 2 shows the marginal effect of IMF programs across the range of values on IMF recidivism. The findings reinforce the alienation hypothesis: governments that have already paid the sovereignty cost of being under IMF tutelage benefit from a significantly lower incidence of protest.

[Table 3 here]

[Figure 2 here]

4.2. Robustness tests

We present additional robustness tests in the appendix. We first replace the cubic time polynomials by year-fixed effects. Our estimates of interest are qualitatively unaffected but less precisely estimated (Table A2). Next we probe different lag structures. We find that IMF-induced protest persists for two lags but the conditional effects with left governments disappear under lags and with IMF recidivism under the second lag. The results on left-wing governments are plausible because IMF programs may trigger government turnover and therefore people may not be able to blame incoming governments for the deeds of the predecessor (Table A3). Another way of taking temporal dynamics into account and to lend further credence to the alienation-based explanation is to separate program initiation years from subsequent program years and anticipation years. The intuition is that while alienation is felt immediately, hardship effects tend to accumulate as programs are rolled out. We find that the effect of IMF program onset tends to be greater than the effect of remaining under an IMF program. Moreover, alienation effects seem to hold as long as a left-wing government is under an IMF program (Table A4).

To verify that our results are not driven by specific protest types, we disaggregate the protest measure into three counts: strikes, riots, and anti-government protests. As we find statistically significant effects for all protest types, we conclude that our results are not driven by specific sub-measures of protest (Table A5).

Next, we consider alternative ways of accounting for program design features. Our results hold when jointly controlling for all types of policy conditions (Table A6). Importantly, we verify that our results hold when considering that some conditions may never be implemented because the IMF Executive Board decided to waive them. Assuming that governments must attempt implementation of the remaining conditions to obtain IMF assistance, we continue to find no evidence for hardship effects (Table A7).

In addition, we consider alternative econometric models. Given count data, Pseudo-Poisson maximum likelihood is an alternative approach, although it cannot jointly estimate both equations. Here we implement a control-function approach in which we first predict whether a

country is under an IMF program, obtain the residuals, and include them in a fixed-effects Poisson model. This two-step estimator may underestimate standard errors but point estimates are similar to our main results using linearized regressions (Table A8).

We further show that our findings are not driven by alternative explanations. First, countries may differ in their bargaining position vis-à-vis the Fund, for instance due to geopolitical alignment with powerful donor countries (Breen 2013; Dreher, Sturm, and Vreeland 2015; Lipscy and Lee 2019). If geopolitical alignment is correlated with left-wing ideology, our findings would be spurious. We measure geopolitical alignment of a borrower with the G7 countries based on UN General Assembly voting patterns (Bailey, Strezhnev, and Voeten 2015). Second, left-wing governments and countries with a borrowing history may choose systematically different economic policies—even when facing similar IMF programs—which may affect protest patterns. We test for this possibility by interacting the program indicator with tax revenues, (logged) inflation, and the prevalence of financial crises in the past five years. Third, we probe whether results are driven by specific political-administrative state structures. For instance, (lack of) state capacity may affect both IMF recidivism and protest opportunities. We control for this conditioning effect using the State Capacity Index (Hanson and Sigman 2016). In all the above tests, our main results are unaffected (Table A9).[7]

Along similar lines, we show that results are not artefacts of political instability. We characterize political instability by weakening respect for human rights, irregular central bank governor turnover, executive elections, and coups d'état. While we find all these incidents of political instability to be related to protests, our main results remain unaffected (Table A10).

A potential rival explanation to our conditional results on left-wing governments is that these governments—if pressured by the Fund—undertake dramatic policy shifts that could cause their supporters to protest in order to prevent such a shift. For right-wing governments, this logic does not apply because their supporters do not protest market-liberalizing reforms and their policies are already relatively economically liberal. To test whether governments of different ideology vary with respect to how much market-liberalizing reforms they enact, we regress the change in the Economic Freedom Index from the Heritage Foundation on its lagged level, an IMF dummy interacted with government partisanship, and different sets of controls. While we find that left-wing governments in general implement fewer reforms, there is no significant difference across different partisans when pressured to do so by an IMF program (Table A11). In turn, this corroborates that protesters resent the 'selling-out' of a left government to a foreign actor, rather than the purportedly greater straightjacket that left governments adopt under IMF programs.

Finally, some scholars have raised concern that the protest measures from the CNTS dataset are biased because they draw on a single news source, thus focusing on English-speaking countries, countries that are more proximate to the US, and large-scale protest with significant news value (Herkenrath and Knoll 2011). To mitigate such bias, we re-estimate our main regression by additionally controlling for the annual (logged) number of news reports on a given country in the

[7] A final alternative is that IMF involvement may trigger discontent by signaling government incompetence. We do not consider this as a plausible explanation because by the time a government commences its IMF program, its incompetence has already been revealed and hence no new information is transmitted.

New York Times—the news source upon which the CNTS data relies. While we find a strongly positive association between protest events and overall coverage, the relationship between IMF programs and protests remains unaffected (Table A12).

4.3. Hardship effects from program comparisons

We did not find significant effects of IMF conditions on protest. This should not be interpreted as lack of evidence for hardship effects, as simple counts of policy conditions may obscure the intensity of fiscal adjustment underlying protest. To address this challenge, we use data on the extent of fiscal adjustment, available for 138 IMF programs in 1999-2012 (Guimaraes and Ladeira 2021). With the individual program as unit of analysis, we cannot simultaneously test for hardship effects *and* alienation effects because the latter relies on comparisons between non-program and program years.

Table 4 shows the results from regressions of protests on the required fiscal adjustment (or 'austerity') using country-fixed effects, approval-year effects, and various sets of control variables. The first set includes the pre-program fiscal balance, which captures the fiscal health of a country in the year before the IMF program, as well as the length of the program, given that longer programs may evoke different expectations in the population. The second model adds the counts of total and fiscal conditions—standard measures of adjustment burdens. The third model adds macroeconomic fundamentals. Across all model specifications, we find a statistically significant positive relationship between the intensity of fiscal adjustment required and the frequency of protests. We interpret these results as evidence that greater austerity is likely to inflict greater hardship, thus increasing the likelihood of protests.

[Table 4 here]

5. Conclusion

This article examined the impact of structural adjustment on protest. While previous work emphasized hardship effects relating to the enactment of austerity and structural reform, we argued that structural adjustment also triggers an *alienation effect* that complements hardship effects. Using a sample of 168 countries from 1980 to 2014, we exploited detailed data on IMF conditions to untangle the two mechanisms.

On the one hand, IMF conditions may generate economic hardship within societies which cause affected groups to protest. We tested the impact of five policies thought to trigger protests—fiscal austerity, public sector reform, price liberalization, exchange rate policies, and privatization. Taking into account potential endogeneity of policy conditions and IMF programs, we found no (unconditional) effects of IMF conditionality in areas of structural reform on the number of protests. However, we found the amount of requested fiscal adjustment to be strongly positively related to protest, thus demonstrating the existence of hardship effects due to austerity. On the other hand, market-liberalizing reforms may generate alienation among the populace, especially when they are imposed by a foreign actor such as the IMF. Our results are consistent with this explanation. First, the residual effects of IMF programs—after taking conditionality into

account—are positively related to the number of protests. Second, these effects are particularly strong for left-wing governments, for which the political cost of 'selling out' to a market-liberalizing foreign actor are higher. Third, these effects are weaker for governments that have recently been under an IMF program, because they have already paid the 'sovereignty cost'.

Taken together, our findings suggest that alienation is as important as—if not more important than—economic grievances in explaining why structural adjustment engenders mass protests. Our non-findings on some conditionality policy areas do not imply that economic hardship effects do not matter. By controlling for economic crises, our models posed a high bar against the hardship hypothesis as they effectively compare countries in dire economic straits but with different patterns of IMF involvement. We chose this approach to avoid misappropriating protests to IMF intervention when they are instead the result of an overall declining economy (Auvinen 1996).

While our results make important inroads into the mechanisms underlying protests, we are unable to definitively prove that IMF programs cause protests because of alienation effects. This is because we had to infer alienation as part of the residual effect after accounting for hardship effects associated with IMF conditions. This produces valid estimates only if we capture hardship effects sufficiently well with conditions such that the residual effect does not include unmeasured aspects of hardship. We increased the confidence in our explanation by corroborating additional observable implications that can be meaningfully interpreted only when there exist alienation effects: Protest against IMF programs is more frequent under left-wing governments, as well as for non-repeat borrowers. In the former, the populace interprets the invitation of the Fund as an act of betrayal of shared values, while in the latter, governments have not yet paid the sovereignty cost of IMF tutelage. Furthermore, we ruled out that left-wing governments more extensively implement market-liberalizing reforms than other governments if under IMF tutelage, which could have driven differential protest patterns. Finally, qualitative cases demonstrating the existence of alienation effects further establish the plausibility of our findings (Ortiz and Béjar 2013).

Future research should develop improved measures and empirical tests of alienation effects. Given that alienation is an individual-level concept, macro-level research is necessarily limited and involves challenges. For example, while we could consider IMF facilities without conditionality to decisively rule out unmeasured hardship effects, these new facilities do not represent plausible counterfactuals because publics know that they do not bear any conditionality. Similarly, we cannot exploit time differences between program agreement and implementation because many programs include prior actions that governments must implement before obtaining a loan. Furthermore, if people anticipate hardship, they do not need to wait until such hardship materializes in order to mobilize to protest. These difficulties point to survey experiments as the only viable alternative to isolate the various mechanisms underlying IMF protests.

Our results provide insights into *how* structural adjustment—advanced through policy agendas of powerful international organizations—affect mass protest at the national level. They hold important lessons for policymakers. Given the prominence of alienation effects, reform-oriented policymakers need to be aware that not just the content of policies matters, but also the process by which they are introduced. Foreign imposition—even if only perceived—can undermine the reform agenda by causing political upheavals. Our finding thus casts doubt on related arguments

that reform-minded governments can use foreign powers like the Fund as a 'scapegoat'. Inviting foreign powers is a slippery slope: While it allows governments to avoid blame for unpopular policies, it might alienate the populace, destabilize political systems and, therefore, undermine progress toward reform.

References

Aguirre, Adalberto, Jr., and Ellen Reese. 2004. "Introduction: The Challenges of Globalization for Workers: Transnational and Transborder Issues." *Social Justice* 31(3): 1.

Amin, Samir. 1977. *Imperialism and Unequal Development*. New York: Monthly Review Press.

Annett, Anthony. 2001. "Social Fractionalization, Political Instability, and the Size of Government." *IMF Staff Papers* 48(3): 561–92.

Arce, Moisés, and Roberta Rice. 2009. "Societal Protest in Post-Stabilization Bolivia." *Latin American Research Review* 44(1): 88–101.

Auvinen, Juha Y. 1996. "IMF Intervention and Political Protest in the Third World: A Conventional Wisdom Refined." *Third World Quarterly* 17(3): 377–400.

Auyero, Javier. 2001. "Glocal Riots." *International Sociology* 16(1): 33–53.

Babb, Sarah L. 2013. "The Washington Consensus as Transnational Policy Paradigm: Its Origins, Trajectory and Likely Successor." *Review of International Political Economy* 20(2): 268–97. http://dx.doi.org/10.1080/09692290.2011.640435.

Bailey, Michael A, Anton Strezhnev, and Erik Voeten. 2015. "Estimating Dynamic State Preferences from United Nations Voting Data." *Journal of Conflict Resolution* 61(2): 430–56.

Banks, Arthur, and Kenneth A Wilson. 2015. "Cross-National Time-Series Data Archive."

Barnett, Michael N, and Martha Finnemore. 2004. *Rules for the World: International Organizations in Global Politics*. Ithaca: Cornell University Press.

Beazer, Quintin H, and Byungwon Woo. 2015. "IMF Conditionality, Government Partisanship, and the Progress of Economic Reforms." *American Journal of Political Science* 60(2): 304–21. http://doi.wiley.com/10.1111/ajps.12200.

Bienen, Henry S, and Mark Gersovitz. 1985. "Economic Stabilization , Conditionality, and Political Stability." *International Organization* 39(4): 729–54.

———. 1986. "Consumer Subsidy Cuts, Violence, and Political Stability." *Comparative Politics* 19(1): 25–44.

Bird, Graham. 2007. "The IMF: A Bird's Eye View of Its Role and Operations." *Journal of Economic Surveys* 21(4): 683–745. http://dx.doi.org/10.1111/j.1467-6419.2007.00517.x.

Bird, Graham, Mumtaz Hussain, and Joseph P Joyce. 2004. "Many Happy Returns? Recidivism and the IMF." *Journal of International Money and Finance* 23(2): 231–51.

http://www.sciencedirect.com/science/article/pii/S0261560603001153.

Booth, John A, and Mitchell A Seligson. 2009. *The Legitimacy Puzzle in Latin America: Political Support and Democracy in Eight Nations*. New York: Cambridge University Press.

Borusyak, Kirill, Peter Hull, and Xavier Jaravel. 2022. "Quasi-Experimental Shift-Share Research Designs." *Review of Economic Studies* 89(1): 181–213.

Boswell, T, and C K Chase-Dunn. 2000. "The Spiral of Capitalism and Socialism: Toward Global Democracy." https://books.google.com/books?id=K2P3-1kvyVYC.

Breen, Michael. 2013. *The Politics of IMF Lending*. New York: Springer.

Bush, R, and G Martiniello. 2017. "Food Riots and Protest: Agrarian Modernizations and Structural Crises." *World Development* 91: 193–207.

Bussmann, Margit, and Gerald Schneider. 2007. "When Globalization Discontent Turns Violent: Foreign Economic Liberalization and Internal War." *International Studies Quarterly* 51(1): 79–97.

Bussmann, Margit, Gerald Schneider, and Nina Wiesehomeier. 2005. "Foreign Economic Liberalization and Peace: The Case of Sub-Saharan Africa." *European Journal of International Relations* 11(4): 551–79.

Capelli, Clara. 2018. "Tunisians Take to the Streets over IMF-Imposed Austerity." *Observer*. https://www.brettonwoodsproject.org/2018/03/tunisians-take-streets-imf-imposed-austerity/.

Centeno, Miguel A, and Joseph N Cohen. 2012. "The Arc of Neoliberalism." *Annual Review of Sociology* 38: 317–40.

Chwieroth, Jeffrey M. 2014. "Professional Ties That Bind: How Normative Orientations Shape IMF Conditionality." *Review of International Political Economy* 22(4): 757–87. http://www.tandfonline.com/doi/full/10.1080/09692290.2014.898214.

Conway, Patric. 2007. "The Revolving Door: Duration and Recidivism in IMF Programs." *The Review of Economics and Statistics* 89(2): 205–20. http://www.jstor.org/stable/40043054.

Copelovitch, Mark S. 2010. "Master or Servant? Common Agency and the Political Economy of IMF Lending." *International Studies Quarterly* 54(1): 49–77.

Coppedge, Michael et al. 2016. "V-Dem Codebook v6. Varieties of Democracy (VDem) Project."

Corcoran, Terrence. 1998. "Next, Overthrow the IMF." *The Globe and Mail*.

Dalton, Russell, Alix Van Sickle, and Steven Weldon. 2010. "The Individual-Institutional Nexus of Protest Behaviour." *British Journal of Political Science* 40(1): 51–73.

Dellmuth, Lisa Maria, Jan Aart Scholte, and Jonas Tallberg. 2019. "Institutional Sources of Legitimacy for International Organisations: Beyond Procedure versus Performance." *Review of International Studies* 45(4): 627–46.

Dreher, Axel, and Martin Gassebner. 2012. "Do IMF and World Bank Programs Induce Government Crises? An Empirical Analysis." *International Organization* 66(2): 329–58.

Dreher, Axel, Jan-Egbert Sturm, and James R Vreeland. 2015. "Politics and IMF Conditionality." *Journal of Conflict Resolution* 59(1): 120–48. http://jcr.sagepub.com/content/59/1/120.abstract.

Dreher, Axel, and Roland Vaubel. 2004. “The Causes and Consequences of IMF Conditionality.” *Emerging Markets Finance and Trade* 40(3): 26–54.

Edwards, Martin S. 2009. “Public Support for the International Economic Organizations: Evidence from Developing Countries.” *Review of International Organizations* 4(2): 185–209.

El-Badrawi, Mahinour, and Allison Corkery. 2017. “No Title.” *Observer*. https://www.brettonwoodsproject.org/2017/02/egypts-new-imf-deal-comes-huge-price-tag-human-rights/.

Emery, Alan. 2006. “Privatization, Neoliberal Development, and the Struggle for Workers’ Rights in Post-Apartheid South Africa.” *Social Justice* 33(3): 6–19.

Evans, Peter. 1979. *Dependent Development: The Alliance of Multinational, State, and Local Capital in Brazil*. Princeton: Princeton University Press.

Forster, Timon et al. 2019. “How Structural Adjustment Programs Affect Inequality: A Disaggregated Analysis of IMF Conditionality, 1980–2014.” *Social Science Research* 80: 83–113.

Fourcade-Gourinchas, Marion, and Sarah L Babb. 2002. “The Rebirth of the Liberal Creed: Paths to Neoliberalism in Four Countries.” *American Journal of Sociology* 108(3): 533–79. papers3://publication/doi/10.1086/367922?ref=search-gateway:d6ae8b23a8ac96c5d8797c4637c319d3.

Franck, Thomas M. 1990. *The Power of Legitimacy among Nations*. Oxford: Oxford University Press.

Goldsmith-Pinkham, Paul, Isaac Sorkin, and Henry Swift. 2020. “Bartik Instruments: What, When, Why, and How.” *American Economic Review* 110(8): 2586–2624.

Grant, Wyn. 2004. “Pressure Politics : The Changing World of Pressure Groups.” *Parliamentary Affairs* 57(2): 408–19.

Gross, Catherine. 2007. “Community Perspectives of Wind Energy in Australia: The Application of a Justice and Community Fairness Framework to Increase Social Acceptance.” *Energy Policy* 35(5): 2727–36.

Guimaraes, Bernardo, and Carlos E Ladeira. 2021. “The Determinants of IMF Fiscal Conditionality: Economics or Politics?” *Canadian Journal of Economics* 54(3): 1361–99.

Gunaydin, Hakan. 2018. “Who Can Reform the Labor Market? IMF Conditionality, Partisanship, and Labor Unions.” *International Interactions* 0(0): 1–31. https://doi.org/10.1080/03050629.2018.1448807.

Gurr, Ted R. 1969. “A Comparative Study of Civil Strife.” In *Violence in America: Historical and Comparative Perspectives*, eds. Hughes D Graham and Ted R Gurr. Washington D.C.: The White House, 443–86.

Gygli, Savina, Florian Haelg, and Jan-Egbert Sturm. 2018. “The KOF Globalisation Index – Revisited.” *KOF Working Papers* (439). https://www.ethz.ch/content/dam/ethz/special-interest/dual/kof-dam/documents/Globalization/2018/KOF_Globalisation Index_Revisited.pdf.

Haggard, Stephan, and Steven B. Webb. 1993. “What Do We Know about the Political Economy of Economic Policy Reform?” *World Bank Research Observer* 8(2): 143–68.

Hanson, Jonathan K, and Rachel Sigman. 2016. “State Capacity and World Bank Project Success.”

Hartzell, Caroline A, Matthew Hoddie, and Molly Bauer. 2010. “Economic Liberalization via IMF Structural Adjustment: Sowing the Seeds of Civil War?” *International Organization* 64(2): 339–56. http://www.journals.cambridge.org/abstract_S0020818310000068.

Hawkins, Jeffrey J. 1991. “Understanding the Failure of IMF Reform: The Zambian Case.” *World Development* 19(7): 839–49.

Herbst, Jeffrey. 1990. “The Structural Adjustment of Politics in Africa.” *World Development* 18(7): 949–58.

Herkenrath, Mark, and Alex Knoll. 2011. “Protest Events in International Press Coverage: An Empirical Critique of Cross-National Conflict Databases.” *International Journal of Comparative Sociology* 52(3): 163–80.

Hibbs, Douglas A. 1973. *Mass Political Violence: A Cross-National Causal Analysis*. New York: Wiley.

Holmes, Oliver. 2018. “Jordan’s Prime Minister Steps down after Large Anti-Austerity Protests.” *Guardian*. https://www.theguardian.com/world/2018/jun/04/jordan-prime-minister-hani-mulki-resigns-protests-reports.

Hooghe, Liesbet, Tobias Lenz, and Gary Marks. 2018. “Contested World Order: The Delegitimation of International Governance.” *Review of International Organizations*: doi: 10.1007/s11558-018-9334-3.

Huber, Evelyne, and John D Stephens. 2001. *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago: University of Chicago Press.

Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New Haven: Yale University Press.

Hurd, Ian. 1999. “Legitimacy and Authority in International Politics.” *International Organization* 53(2): 379–408.

Inglehart, Ronald. 1981. “Post-Materialism in an Environment of Insecurity.” *American Political Science Review* 75(4): 880–900.

de Janvry, Alain. 1981. “The Role of Land Reform in Economic Development: Policies and Politics.” *American Journal of Agricultural Economics* 63(2): 384–92.

Johnson, Tana. 2011. “Guilt by Association: The Link between States’ Influence and the Legitimacy of Intergovernmental Organizations.” *Review of International Organizations* 6(1): 57–84.

Jong-A-Pin, Richard. 2009. “On the Measurement of Political Instability and Its Impact on Economic Growth.” *European Journal of Political Economy* 25(1): 15–29.

Kentikelenis, Alexander E., and Sarah Babb. 2019. “The Making of Neoliberal Globalization: Norm Substitution and the Politics of Clandestine Institutional Change.” *American Journal of Sociology* 124(6): 1720–62. https://www.journals.uchicago.edu/doi/10.1086/702900.

Kentikelenis, Alexander E, and Leonard Seabrooke. 2017. “The Politics of World Polity: Script-Writing in International Organizations.” *American Sociological Review* 82(5): 1065–92.

Kentikelenis, Alexander E, Thomas H Stubbs, and Lawrence P King. 2016. “IMF Conditionality and Development Policy Space, 1985-2014.” *Review of International Political Economy* 23(4): 543–

82.

Kohl, Benjamin. 2002. “Stabilizing Neoliberalism in Bolivia: Popular Participation and Privatization.” *Political Geography* 21(4): 449–72.

Laeven, Luc, and Fabian Valencia. 2013. “Systemic Banking Crises Database.” *IMF Economic Review* 61(2): 225–70.

Lang, Valentin F. 2020. “The Economics of the Democratic Deficit: The Effect of IMF Programs on Inequality.” *Review of International Organizations*: doi.org/10.1007/s11558-020-09405-x.

Lindblom, Charles E. 1977. *Politics and Markets*. New York: Basic Books.

Lipscy, Phillip Y., and Haillie Na-Kyung Lee. 2019. “The IMF as a Biased Global Insurance Mechanism: Asymmetrical Moral Hazard, Reserve Accumulation, and Financial Crises.” *International Organization* 73(1): 35–64.

Maloney, William, Grant Jordan, and Andrew McLaughlin. 1994. “Interest Groups and Public Policy: The Insider/Outsider Model Revisited*.” *Journal of Public Policy* 14(1): 17–38.

Matta, Samer, Simon Appleton, and Michael Bleaney. 2017. *The Economic Impact of Political Instability and Mass Civil Protest*. Nottingham.

McAdam, Doug, John D McCarthy, and Mayer N Zald. 1996. *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings*. Cambridge: Cambridge University Press.

McDowell, Daniel. 2017. “Need for Speed: The Lending Responsiveness of the IMF.” *Review of International Organizations* 12(1): 39–73.

Meyer, John W, and Brian Rowan. 1977. “Institutional Organizations: Formal Structure as Myth and Ceremony.” *American Journal of Sociology* 83: 340–63.

Momani, Bessma. 2007. “IMF Staff: Missing Link in Fund Reform Proposals.” *Review of International Organizations* 2(1): 39–57.

Momani, Bessma, and Mark Hibben. 2018. *What’s Wrong With the IMF and How to Fix It*. Cambridge: Polity Press.

Monahan, Katherine. 2019. “Ecuador’s Fuel Protests Show the Risks of Removing Fossil Fuel Subsidies Too Fast.” *The Conversation*. https://theconversation.com/ecuadors-fuel-protests-show-the-risks-of-removing-fossil-fuel-subsidies-too-fast-125690.

Nelson, Stephen C., and Geoffrey P.R. Wallace. 2017. “Are IMF Lending Programs Good or Bad for Democracy?” *Review of International Organizations* 12(4): 523–58.

Nelson, Stephen C. 2017. *The Currency of Confidence: How Economic Beliefs Shape the IMF’s Relationship with Its Borrowers*. Ithaca, NY: Cornell University Press.

Nelson, Stephen C, and Christopher Dinkel. 2020. *Are IMF Lending Programs Harmful for Human Rights?* Vancouver.

Nooruddin, Irfan, and Byungwon Woo. 2015. “Heeding the Sirens: The Politics of IMF Program Participation.” *Political Science Research and Methods* 3(01): 73–93. http://www.journals.cambridge.org/abstract_S2049847014000156.

Norris, Pippa. 2011. *Democratic Deficit: Critical Citizens Revisited*. New York: Cambridge University Press.

Oberdabernig, Doris A. 2013. "Revisiting the Effects of IMF Programs on Poverty and Inequality." *World Development* 46: 113–42.

Ortiz, David G., and Sergio Béjar. 2013. "Participation in IMF-Sponsored Economic Programs and Contentious Collective Action in Latin America, 1980-2007." *Conflict Management and Peace Science* 30(5): 492–515.

Ortiz, Isabel, Sara Burke, Mohamed Berrada, and Hernán Saenz Cortés. 2022. *World Protests: A Study of Key Protest Issues in the 21st Century*. London: Palgrave Macmillan.

Pakistan Today. 2019. "Workers Protest against Possible Privatisation of Pakistan Steel Mills." *Pakistan Today*. https://www.pakistantoday.com.pk/2019/05/06/workers-protest-against-possible-privatization-of-pakistan-steel-mills/.

Palmtag, Tabea, Tobias Rommel, and Stefanie Walter. 2020. "International Trade and Public Protest: Evidence from Russian Regions." *International Studies Quarterly* 64(4): 939–55.

Petras, James, and Howard Brill. 1986. "The IMF, Austerity and the State in Latin America." *Third World Quarterly* 8(2): 425–48.

Rapkin, David P., and Jonathan R. Strand. 2006. "Reforming the IMF's Weighted Voting System." *World Economy* 29(3): 305–24.

Reinsberg, Bernhard, Alexander Kentikelenis, Thomas Stubbs, and Lawrence King. 2019. "The World System and the Hollowing Out of State Capacity: How Structural Adjustment Programs Affect Bureaucratic Quality in Developing Countries." *American Journal of Sociology* 124(4): 1222–57. https://www.journals.uchicago.edu/doi/10.1086/701703.

Rickard, Stephanie J., and T. L. Caraway. 2019. "International Demands for Austerity: Examining the Impact of the IMF on the Public Sector." *Review of International Organizations* 14: 35–57.

Robertson, Graeme B, and Emmanuel Teitelbaum. 2011. "Foreign Direct Investment, Regime Type, and Labor Protest in Developing Countries." *American Journal of Political Science* 55(3): 665–77. http://doi.wiley.com/10.1111/j.1540-5907.2011.00510.x.

Roodman, David. 2012. "Fitting Fully Observed Recursive Mixed-Process Models with Cmp." *Stata Journal* 11(2): 159–206. http://www.stata-journal.com/article.html?article=st0224.

Scartascini, Carlos, Cesi Cruz, and Philip Keefer. 2018. *The Database of Political Institutions 2017 (DPI2017)*.

Stiglitz, Joseph E. 2002. *Globalization and Its Discontents*. New York: W. W. Norton & Company.

Stone, Randall W. 2004. "The Political Economy of IMF Lending in Africa." *American Political Science Review* 98(4): 577–92. http://journals.cambridge.org/production/action/cjoGetFulltext?fulltextid=265353.

Stubbs, Thomas H, and Alexander Kentikelenis. 2018a. "Conditionality and Sovereign Debt: An Overview of Human Rights Implications." In *Sovereign Debt and Human Rights*, eds. Ilias Bantekas and Cephas Lumina. Oxford: Oxford University Press, 359–80.

———. 2018b. "Targeted Social Safeguards in the Age of Universal Social Protection: The IMF and

Health Systems of Low-Income Countries." *Critical Public Health* 28(2): 132–39.

Stubbs, Thomas H, Bernhard Reinsberg, Alexander E Kentikelenis, and Lawrence P King. 2020. "How to Evaluate the Effects of IMF Conditionality: An Extension of Quantitative Approaches and an Empirical Application to Government Education Expenditures." *Review of International Organizations* 15(1): 29–73.

Summers, Lawrence H, and Lant H Pritchett. 1993. "The Structural-Adjustment Debate." *American Economic Review* 83(2): 383–89.

Swank, Duane. 1998. "Funding the Welfare State: Globalization and the Taxation of Business in Advanced Market Economies." *Political Studies* 46(4): 671–92.

Tallberg, Jonas, Lisa M. Dellmuth, Hans Agné, and Andreas Duit. 2015. "NGO Influence in International Organizations: Information, Access and Exchange." *British Journal of Political Science* 48(1): 213–38.

Tallberg, Jonas, and Michael Zürn. 2019. "The Legitimacy and Legitimation of International Organizations: Introduction and Framework." *Review of International Organizations* 14(4): 581–606.

Thomas, John W., and Merilee S. Grindle. 1990. "After the Decision: Implementing Policy Reforms in Developing Countries." *World Development* 18(8): 1163–81.

Thompson, Edward Palmer. 1971. "The Moral Economy of the English Crowd in the Twenty-First Century." *Past & Present* 50(1): 76–136.

Tilly, Charles. 1978. *From Mobilization to Revolution*. London: Addison-Wesley.

Uba, Katrin. 2008. "Labor Union Resistance to Economic Liberalization in India: What Can National and State Level Patterns of Protests against Privatization Tell Us?" *Asian Survey* 48(5): 860–84.

Valencia, Alexandra. 2019. "Ecuador's Moreno Scraps Fuel Subsidy Cuts in Big Win for Indigenous Groups." *Reuters*. https://uk.reuters.com/article/uk-ecuador-protests/ecuadors-moreno-scraps-fuel-subsidy-cuts-in-big-win-for-indigenous-groups-idUKKBN1WT26J.

Vreeland, James R. 2003. *The IMF and Economic Development*. Cambridge University Press.

———. 2007. "The International Monetary Fund: Politics of Conditional Lending." : 192. http://www.amazon.com/International-Monetary-Fund-IMF-Institutions/dp/0415782341%3FSubscriptionId%3D1V7VTJ4HA4MFT9XBJ1R2%26tag%3Dmekentosjcom-20%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3D0415782341.

Walton, John, and Charles C Ragin. 1990. "Global and National Sources of Political Protest: Third World Responses to the Debt Crisis." *American sociological review* 55(6): 876–90.

Walton, John, and David Seddon. 1994. "Food Riots Past and Present." In *Free Markets & Food Riots*, , 23–54.

Weber, Max. 2001. *The Protestant Ethic and the Spirit of Capitalism*. London: Routledge.

Weisbrot, Mark. 2019. "The IMF Is Hurting Countries It Claims to Help." *Guardian*. https://www.theguardian.com/commentisfree/2019/aug/27/imf-economics-inequality-trump-

ecuador.

Wibbels, Erik, and Moisés Arce. 2003. “Globalization, Taxation, and Burden-Shifting in Latin America.” *International Organization* 57(01): 111–36.

Woo, Byungwon. 2013. “Conditional on Conditionality: IMF Program Design and Foreign Direct Investment.” *International Interactions* 39(3): 292–315.

World Bank. 2015. “World Development Indicators.” http://data.worldbank.org/.

Table 1: The effect of IMF programs on protests

	(1)		(2)		(3)		(4)	
Protest								
IMF program	0.103**	(0.039)	0.324*	(0.150)	0.128**	(0.042)	0.277°	(0.152)
Inflation	0.035**	(0.013)	0.033*	(0.013)	0.035**	(0.013)	0.033*	(0.013)
Financial crisis	0.083	(0.054)	0.064	(0.058)	0.085	(0.054)	0.034	(0.066)
Reserves	-0.006	(0.007)	-0.004	(0.007)	-0.006	(0.007)	-0.003	(0.007)
GDP per capita	-0.020	(0.160)	0.045	(0.157)	-0.024	(0.161)	0.162	(0.195)
Urbanization	0.001	(0.006)	0.000	(0.005)	0.001	(0.006)	-0.002	(0.006)
Horizontal accountability	-0.055	(0.076)	-0.044	(0.072)	-0.056	(0.076)	-0.033	(0.075)
Vertical accountability	-0.020	(0.075)	-0.048	(0.072)	-0.019	(0.075)	-0.074	(0.078)
Trade openness	-0.001	(0.002)	-0.001	(0.002)	-0.001	(0.002)	-0.001	(0.002)
Regional protest	0.101***	(0.015)	0.099***	(0.016)	0.101***	(0.015)	0.099***	(0.016)
IMF conditions					-0.011	(0.014)	0.105	(0.090)
Observations (Equation 1)	3662		3662		3662		3662	
Within-R2 (Equation 1)	0.101		0.101		0.101		0.101	
IMF program								
UNGA alignment			2.864***	(0.706)			2.320***	(0.615)
Inflation			0.008	(0.037)			0.013	(0.038)
Financial crisis			0.291*	(0.116)			0.270*	(0.119)
Reserves			-0.049**	(0.018)			-0.044**	(0.016)
GDP per capita			-0.903***	(0.087)			-0.853***	(0.081)
Urbanization			0.022***	(0.004)			0.023***	(0.004)
Horizontal accountability			-0.092	(0.096)			-0.046	(0.098)
Vertical accountability			0.326**	(0.113)			0.273*	(0.110)
Trade openness			0.001	(0.003)			0.001	(0.003)
Regional protest			0.028	(0.019)			0.020	(0.017)
Observations (Equation 2)			3901				3901	
Pseudo-R2 (Equation 2)			0.245				0.245	
IMF conditions								
Compound instrument							-0.101***	(0.024)
Time-invariant component							0.352	(0.312)
Time-varying component							-0.098***	0.116*
Inflation							-0.004	(0.031)

Financial crisis	0.321**	(0.105)
Reserves	-0.012	(0.010)
GDP per capita	-1.222***	(0.192)
Urbanization	0.028**	(0.009)
Horizontal accountability	-0.103	(0.116)
Vertical accountability	0.325*	(0.134)
Trade openness	0.002	(0.003)
Regional protest	0.006	(0.013)
Observations (Equation 3)	3998	
Within-R2 (Equation 3)	0.077	
F-statistic of instrument	18.34	

Notes: Robust standard errors clustered on countries shown in parentheses. Significance levels: ° p<.1 * p<.05 ** p<.01 *** p<.001.

Table 2: The effect of IMF programs and conditionality on protests

	(1)		(2)		(3)	
Panel A						
Fiscal policy conditions	-0.008	(0.022)	-0.006	(0.022)	0.127	(0.244)
IMF program	0.109**	(0.038)	0.328*	(0.150)	0.235*	(0.108)
Control variables	Yes		Yes		Yes	
Selection model (Equation 2)	No		Yes		Yes	
Instrumented conditions (Equation 3)	No		No		Yes	
Observations (Equation 1)	3662		3662		3662	
Within-R2 (Equation 1)	0.101		0.101		0.101	
Observations (Equation 2)			3901		3901	
Pseudo-R2 (Equation 2)			0.245		0.245	
F-statistic (Equation 2)			13.927		13.927	
Observations (Equation 3)					3927	
Within-R2 (Equation 3)					0.072	
F-statistic (Equation 3)					1.174	
Panel B						
Public sector conditions	0.045	(0.044)	0.045	(0.044)	-0.627	(0.549)
IMF program	0.097*	(0.038)	0.319*	(0.151)	0.402**	(0.146)
Control variables	Yes		Yes		Yes	
Selection model (Equation 2)	No		Yes		Yes	
Instrumented conditions (Equation 3)	No		No		Yes	
Observations (Equation 1)	3662		3662		3662	
Within-R2 (Equation 1)	0.101		0.101		0.101	
Pseudo-R2 (Equation 2)			3901		3901	
Observations (Equation 2)			0.245		0.245	
F-statistic (Equation 2)			17.314		17.314	
Observations (Equation 3)					3927	
Within-R2 (Equation 3)					0.058	
F-statistic (Equation 3)					7.103	
Panel C						
Price liberalization conditions	-0.054	(0.039)	-0.055	(0.039)	-0.016	(0.360)
IMF program	0.112**	(0.038)	0.336*	(0.150)	0.341**	(0.124)
Control variables	Yes		Yes		Yes	
Selection model (Equation 2)	No		Yes		Yes	

Instrumented conditions (Equation 3)	No		No		Yes	
Observations (Equation 1)	3662		3662		3662	
Within-R2 (Equation 1)	0.102		0.102		0.102	
Observations (Equation 2)			3901		3901	
Pseudo-R2 (Equation 2)			0.245		0.245	
F-statistic (Equation 2)			14.182		14.182	
Observations (Equation 3)					3927	
Within-R2 (Equation 3)					0.061	
F-statistic (Equation 3)					7.954	
Panel D						
Foreign exchange conditions	-0.031	(0.030)	-0.029	(0.029)	0.225	(0.206)
IMF program	0.130**	(0.042)	0.346*	(0.151)	0.264*	(0.128)
Control variables	Yes		Yes		Yes	
Selection model (Equation 2)	No		Yes		Yes	
Instrumented conditions (Equation 3)	No		No		Yes	
Observations (Equation 1)	3662		3662		3662	
Within-R2 (Equation 1)	0.101		0.101		0.101	
Observations (Equation 2)			3901		3901	
Pseudo-R2 (Equation 2)			0.245		0.245	
F-statistic (Equation 2)			18.135		18.135	
Observations (Equation 3)					3998	
Within-R2 (Equation 3)					0.075	
F-statistic (Equation 3)					5.247	
Panel E						
Privatization conditions	0.004	(0.062)	0.004	(0.061)	-1.069	(0.695)
IMF program	0.102**	(0.038)	0.324*	(0.150)	0.375*	(0.155)
Control variables	Yes		Yes		Yes	
Selection model (Equation 2)	No		Yes		Yes	
Instrumented conditions (Equation 3)	No		No		Yes	
Observations (Equation 1)	3662		3662		3662	
Within-R2 (Equation 1)	0.100		0.100		0.100	
Observations (Equation 2)			3901		3901	
Pseudo-R2 (Equation 2)			0.245		0.245	
F-statistic (Equation 2)			16.068		16.068	
Within-R2 (Equation 3)					3998	
Observations (Equation 3)					0.063	

F-statistic (Equation 3)	9.923

Notes: Robust standard errors clustered on countries shown in parentheses. Significance levels: ° p<.1 * p<.05 ** p<.01 *** p<.001.

Table 3: The effect of IMF programs and conditionality on protests, moderated by government political ideology

	(1)		(2)		(3)		(4)	
Panel A								
IMF program	0.049	(0.045)	0.257°	(0.152)	0.074	(0.050)	0.217	(0.157)
Left-wing government	-0.104*	(0.053)	-0.099°	(0.053)	-0.104°	(0.053)	-0.102°	(0.054)
IMF program x Left	0.164**	(0.060)	0.164**	(0.060)	0.165**	(0.060)	0.164**	(0.059)
Conditions					-0.011	(0.014)	0.097	(0.092)
Control variables	Yes		Yes		Yes		Yes	
Selection model	No		Yes		No		Yes	
Instrumented conditions	---		--		No		Yes	
Observations (Equation 1)	3662		3662		3662		3662	
Within-R2 (Equation 1)	0.104		0.104		0.105		0.105	
Observations (Equation 2)			3901				3901	
Pseudo-R2 (Equation 2)			0.245				0.245	
F-statistic (Equation 2)			16.079				14.045	
Within-R2 (Equation 3)							3927	
Observations (Equation 3)							0.077	
F-statistic (Equation 3)							18.101	
Panel B								
IMF program	0.226**	(0.079)	0.281°	(0.157)	0.250**	(0.078)	0.308*	(0.131)
IMF recidivism	0.240**	(0.080)	0.207	(0.126)	0.239**	(0.080)	-0.190	(0.350)
IMF program x Recidivism	-0.281**	(0.099)	-0.284**	(0.098)	-0.281**	(0.099)	-0.270**	(0.104)
Conditions					-0.010	(0.014)	0.283	(0.250)
Control variables	Yes		Yes		Yes		Yes	
Selection model	No		Yes		No		Yes	
Instrumented conditions	---		--		No		Yes	
Observations (Equation 1)	3592		3592		3592		3592	
Within-R2 (Equation 1)	0.109		0.109		0.109		0.109	
Observations (Equation 2)			3833				3833	
Pseudo-R2 (Equation 2)			0.414				0.414	
F-statistic (Equation 2)			15.225				15.262	
Within-R2 (Equation 3)							0.123	
Observations (Equation 3)							3927	

F-statistic (Equation 3)	13.096

Notes: *Conditions* refers to the total number of binding conditions. Maximum likelihood estimation of a recursive system of equations. Robust standard errors clustered on countries shown in parentheses. Significance levels: ° p<.1 * p<.05 ** p<.01 *** p<.001.

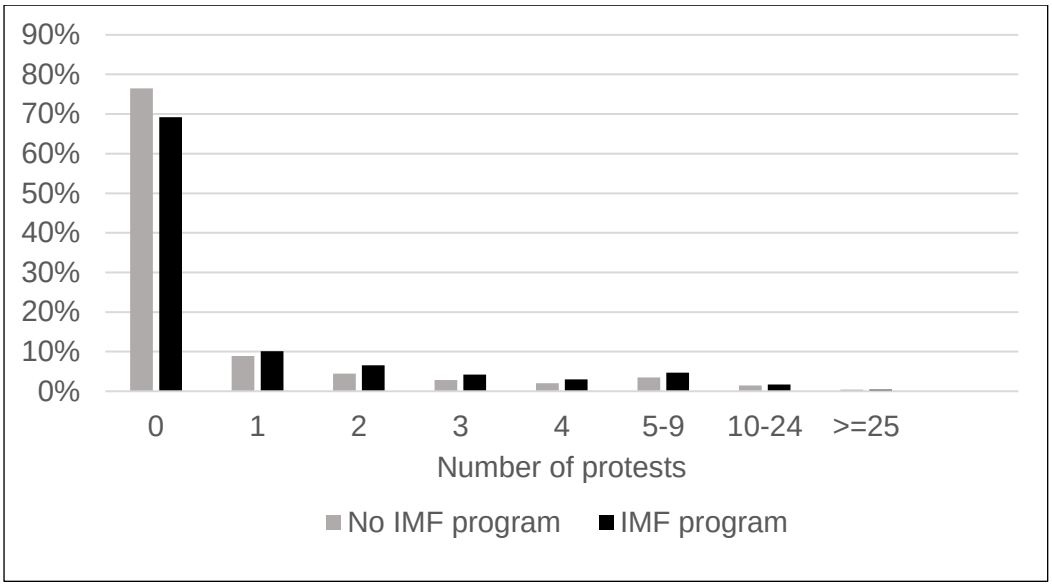
Table 4: The effect of required fiscal adjustment within IMF programs on protest

	(1)		(2)		(3)	
Protests						
Pre-program fiscal balance	0.048	(0.117)	0.097	(0.112)	0.049	(0.114)
Required fiscal balance	0.324*	(0.133)	0.308**	(0.117)	0.370***	(0.103)
Program length	0.590	(0.383)	0.595	(0.381)	0.719°	(0.417)
Total conditions			-0.045	(0.048)	-0.022	(0.056)
Fiscal conditions			0.010	(0.097)	-0.043	(0.151)
GDP growth (%)					0.069	(0.068)
Population below 15 years (%)					-0.399	(0.365)
Current account balance (%)					-0.033	(0.048)
Election					0.836	(0.785)
Observations	81		81		81	
Log-likelihood	-54.2		-52.6		-50.0	

Notes: Pseudo-Poisson maximum likelihood estimation of protest in the first year of program with country-fixed effects, approval year fixed effects, and clustered errors on countries. The unit of analysis is the program. Required fiscal balance is measured in the first year of the program (Guimaraes and Ladeira 2021). Significance levels: ° p<.1 * p<.05 ** p<.01 *** p<.001

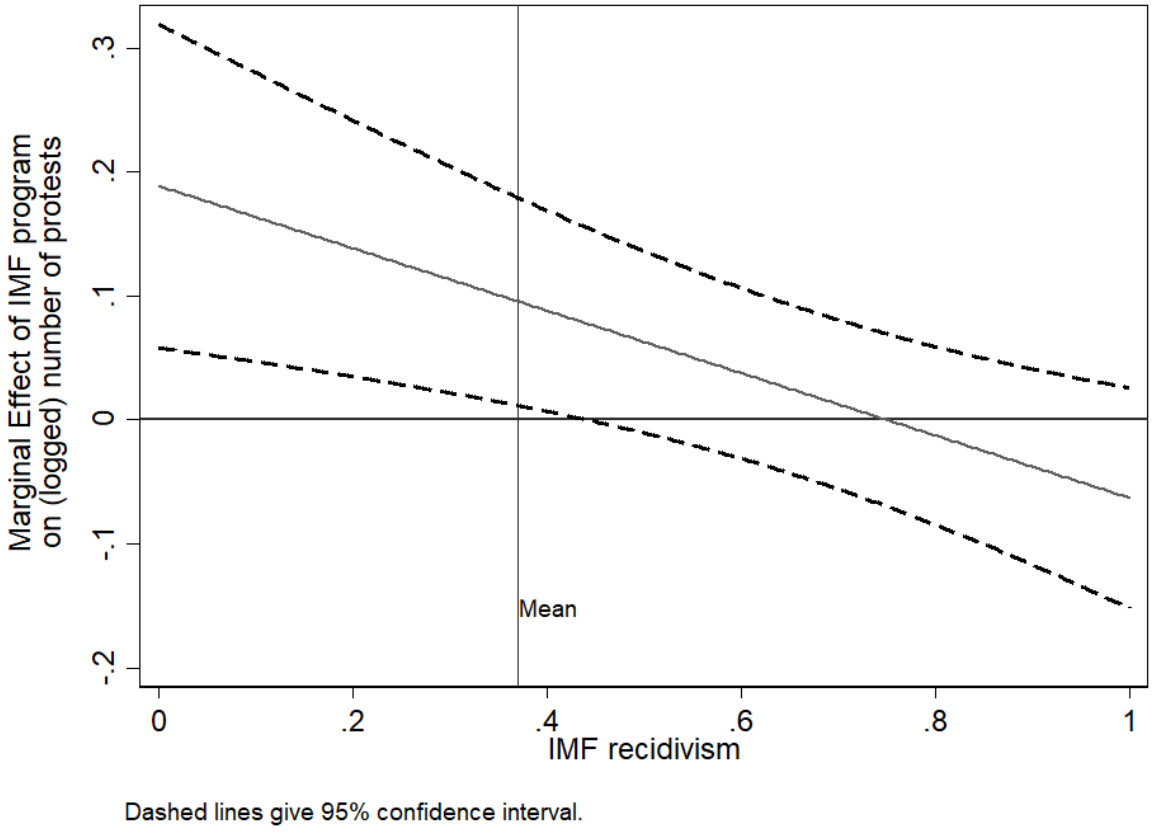
Figures

Figure 1: The distribution of protests for non-program observations and program observations.



Notes: The graph shows the distribution of raw protest counts separately for observations not under IMF programs (light-gray bars) and under IMF programs (black bars).

Figure 2: Marginal effect of IMF program on protests conditional on IMF recidivism



Notes: IMF recidivism is the share of years which a country has spent under IMF programs over the previous five years. The graph shows that IMF programs most strongly induce protest where a country has not had an IMF program in the past five years. The effect turns insignificant once a country spends about half the time under programs.