BULLETIN OF POLITICAL ECONOMY
11: 1-2 (2017): 21-44

IMF, Democracy and Economic Development

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In this article, we are going to analyze all the aspects around the connection between IMF Democracy and Economic Development. When IMF gives large loans in a country, its need to protect its capital, leads in a mitigation of the passion with which the conditions are imposed. The impact of an IMF loan is marginally significant negative variable to democracy, according to some studies.

On the other hand, by using the statistical procedure called "matching" method, we are going to have more credible estimates of the impact of the IMF on democracy. In this procedure, Jasjeet Sekhon's genetic matching routine is used to generate balanced subsamples for both of outcome variables each treated case is paired with a control case via one-to-one nearest neighbor matching with replacement. Each case is matched on all of the confounding covariates. The result is the fact that IMF programs are associated with increases in the level of democracy. Also, countries that spend more time under the IMF lending programs experience big improvements in the level of democracy. The available theoretical and empirical observations show convincingly that the negotiation process allows governments borrowers to maintain some influence on the IMF program content and therefore on the redistributive impact of these programs. When there are low levels of competition, as in authoritarian regimes, political leaders have an incentive to use their monopoly power and the deficient in public services, whereas in democracies, where there is competition in politics, leaders operate as regulated monopolies, providing most public services in an effort to maintain the edge over their opponents. Finally, the effect of IMF involvement on crisis depends on the state of the economy. Despite the limitations in the extent of the article, we are going to include as much data as possible in order to create a spherical view about the connection between IMF, democracy and economic development.

INTRODUCTION

IMF was established as a financial institution for the promotion of world trade and international financial stability of members. However, after

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the collapse of the Bretton Woods system, especially after the crisis of the 1980s, IMF focused on assistance to developing countries and transition economies. Among the many roles played by the Fund, an important role is the one that affects the global outlook in political democracy. Many thoughtful observers, such as Stiglitz (2002), believe that IMF lending programs undermines the quality of democracy in the countries which make use of the institution's resources. Since 2002, IMF has spent over $ 550 billion in funds for the Member States which needed its help. In order to safeguard these funds, IMF requires conditions and commitments by the country which borrows. As a result, IMF imposes serious limits on the discretion of the government policy and restrictions on accountability to the public. The various changes in policy by governments to keep pace with the IMF required, such as various devaluations, rising taxes, cuts in public spending and other, sometimes cause violent social protest. A typical example is that of Bolivia, where President Gonzalo Sanchez de Lozada announced a series of strict IMF austerity measures in 2003, the reaction of people was immediate, widespread and unequivocal as demonstrations and political demonstrations started, ending even to clash with army (Babb and Carruthers, 2008). As a result, Sanchez de Lozada left the presidential palace under conditions of severe social and political turmoil (Dreher and Gassebner, 2008). The idea that IMF austerity programs increase the risk of social instability is not new.

The stable high-level democracies are less prone to experience civil war and brutal output power. According to Kapur and Naim (2005), these statements exceed the economic sphere and have huge political and social consequences in the processes and institutions that make up the nerves of democracy. Barro and Lee (2005) analyze that as the involvement of the Fund becomes deeper, the democracy becomes weaker in countries that borrow. Abouharb and Cingranelli (2009) find that human rights conditions deteriorate in the presence of IMF programs. Brown (2009), working on a sample of Latin American countries the period 1998-2003, concludes that most loans exert downward pressure on the republic level. Dreher and Gassebner (2008) find that IMF programs dramatically increase the likelihood of governmental crises which in turn could exert undue pressure on fragile regimes. The conventional idea that democracy slows with the participation in IMF programs is rooted in two basic assumptions regarding the negotiation and implementation of IMF programs. First, when the negotiations are made, the doors are closed so that the voices of citizens are less likely to be heard. As supported by Kapur and Naim

(2005), by their nature, the conditions of IMF do not arise from the discussion in society, but from unelected foreign experts. Thus, under such conditions that reduce transparency, it is no surprise that opponents end in violence as their only reaction. Second, the actual implementation of IMF programs imposes strict limits on discretionary political power of borrowers and therefore can bring power distribution consequences. Governments have to choose which social groups will distribute with more cost cuts. As supported by Hartzell, Hoddie and Bauer (2010) membership in IMF programs reduces the ability of state institutions to address or compensate losers raised by economic liberalization through cost cuts and the loss of any other form of control in the economy. As a result, the likelihood of violence is increased by losers who are opposed to changing conditions. Some other studies suggest the opposite. For example, studies of Limpach and Michaelowa (2010) and Nelson and Wallace (2005), looking for factors influencing the level of democracy, conclude that there is a positive relationship between IMF programs and measures of democracy. Also, Keohane, Macedo and Moravcsik (2009) argue that participation in multilateral organizations often helps domestic democratic institutions to limit the validity of the specific faction's interest, to protect individual rights and improve the quality of democratic consultation while also increase capacity to achieve public purposes.

A more diversified view of policy implications of IMF lending arrangements, comes from Nooruddin and Simmons (2006), investigating how different regimes choose to bear the pain of IMF austerity. According to Noorudin and Simmons (2006), it's not sufficiently accurate to agree with critics that IMF programs are imposed on countries with economic turmoil and therefore IMF is absolutely guilty for any negative consequences that have programs for the poor.

It is rather suggested that the diversity of national polar institutions determines how spending cuts will be distributed to the various classes of the country. While the analysis shows that public expenditure on health and education are generally higher in the republic, under IMF regime, authoritarian regimes tend to increase spending in these areas as opposed to democratic ones in which cutting of these areas is made for achieving these objectives. As Vreeland (2003) argued, recourse to IMF includes the payment of a "sovereignty cost", since it entails delivery of financial management to an external authority. Perhaps an explanation for the behavior of authoritarian regimes would be the fact that as an offset to this cost, leaders become more populist, seeking to expand its support base through selective expenditure increases aimed at a wider section of the population.

THE "OWNERSHIP"

IMF among appears to play an important and controversial role, at the same time, in influencing global perspective of political democracy. The added complexity of the issues to be faced by the institution has caused various controversies as politicians on the one hand put the blame on the Fund for mismanagement and top economists on the other hand vehemently argue both for and against the IMF.

It is commonly accepted that the consequences of painful and politically sensitive austerity measures in borrowing countries transcend the economic sphere and are getting larger social and political dimensions, at least as regards the procedures and institutions that make up the nerves of democracy. The IMF's primary purpose to promote and maintain high levels of employment and real income has an indirect relationship with democracy. According to Devesh Kapur and Moisés Naím (2005) countries with higher incomes tend to be easier to implement on consensus methods of solving political issues. A lending stance favoring democracy or not, may have a more direct effect on the democratic institutions of the country. The economic reforms that the Fund obliges borrowing countries to take, inevitably creates winners and losers who can opt for political action to preserve their profits or to compose their losses. Moreover, as some events may threaten the democratic order largely as an economic crisis, the actions of the Fund could be of great help for the preservation of the democratic state. Most analyzes of the IMF's impact on democratic governance focus on the conditions imposed by the Fund to borrowers. The terms, historically the most central and controversial aspect of the Fund's programs, have a direct impact on democracy. In the guidelines given again to the IMF in 2002, it was emphasized that the terms must be applied "sparingly" and should be sensitive to the administrative capacity of the borrowers. The guidelines cause the Fund to focus on macroeconomic issues, point out that the Fund's programs as well, in which borrowers feel a sense of ownership, are more likely to succeed. In a country where the democratic checks and balances are weak, the "ownership" may be more of a stranglehold sign that have the vested interests in national policy. Then, the difference between the induction of a government to "hold" an IMF program and to do so throughout a whole country, may leave the Fund with hard choices. Regarding the "property" at the country level, the author wonders if this means that

IMF will have to leave the government to use public funds to save private banks looted from the political influence of the shares. The property, according to Devesh Kapur and Moisés Naím (2005), will not guarantee better policies. The borrowing governments can find ways to observe the terms of the loan and avoid or handle some of them. As shown by the example of Argentina, when IMF gives large loans in a country, its need to protect its capital leads in a mitigation of the passion with which the conditions are imposed.

THE NEGATIVE EFFECT OF IMF ON DEMOCRACY

In the research of Robert J.Barro and Jong Wha Lee (2005), it is found that IMF loans react to the financial statements and are also sensitive to political and economic variables. Estimates show that a higher percentage of contribution to IMF loans, reduces economic growth. Moreover, borrowing from IMF, according to the findings of the study, has no significant impact on investment, inflation and international opening, nevertheless has little negative impact on democracy and the rule of law. Reducing the rule of law implies an additional indirect channel through which borrowing from IMF reduces economic growth.

Thus, the analysis extends to other economic variables and polar measurements as IMF loan determinants. These variables include financial results, inflation, balances and democracy and rule of law indicators. The estimated results show that these additional variables are statistically insignificant in most cases, while the political and economic variables remain significant when additional political and economic variables are included. According to Staiger and Stock (1997), the instruments made by all the political and economic variables will not be weak.

In the results, Robert J. Barro and Jong-Wha Lee (2005) conclude that the effect of democracy is not linear, as the estimated coefficient of the linear term is statistically significant and the estimated rate of squared democracy is negative and marginally significant. Thus, the impact of an IMF loan is marginally significant negative variable to democracy. However, given the non-linearity of how democracy affects economic growth, this effect does not translate into significant indirect effects of IMF lending growth. The only statistically significant indirect effect on economic growth which has been isolated is that of the rule of law, as important localized negative effect of IMF is found in the state of law. The findings for the rule of law are consistent with those reported for external assistance and studies of Svensson (2000) and Alesina and Weder (2002), which according to them an increase in foreign aid leads to an increase in official corruption. The rationale was that foreign aid promotes speculative lobbying and of rulers. Similar opportunities may also arise from the IMF loan.

IMF CONDITIONALITY

According to Dreher, Sturm and Vreeland (2015), the major shareholders can use their power to give favorable treatment to governments that are strategically important to them. In their study, they analyze a data set of IMF conditionality and employ UNSC membership as a measure of political importance. The results confirm that strategically important countries do receive favorable treatment from the IMF when it comes to the conditions that are imposed in return for loans. UNSC members receive about 30 percent fewer conditions than other countries. Specifically, fewer prior actions are required of them to enter into an arrangement, and they face fewer performance criteria to receive continued loan disbursements.

Moreover, they detect more limited evidence of an effect on the number of structural benchmarks. The scope of policy areas covered by prior actions appears unaffected, although there is evidence that the scope of policy areas covered by performance criteria is narrower. In particular, they find reduced conditionality in the policy areas of debt repayment, the balance of payments, credit to the government, and domestic pricing.

Bashir and Lim (2012) highlight that some of the worst performing UNSC members did not receive obvious increases in foreign aid, and they suggest that the negative effects of membership may have been caused by an increased ability to avoid macroeconomic adjustment that would have been required along with similarly sized aid packages, even small ones. In their rejoinder, Bueno de Mesquita and Smith (2013) clarify that the problem is not necessarily more money but rather easy money, finance that does not come with proper policy conditions attached. Indeed, Dreher, Eichenauer, and Gehring (2013) find that aid committed while a country was a temporary member of the UNSC is less effective in raising the recipient country's rate of economic growth.

THE PROBLEM OF NON-RANDOMNESS AND THE MAPPING TECHNIQUE

In the research of Stephen Nelson and Geoffrey PR Wallace (2011), in order to solve the problem of non-randomness, they use the technique of mapping which allows the assignment of a case that accepted the help of IMF and of a near case that did not have the assistance of the Fund. As supported by Gilligan and Sergenti (2008), in the technique of mapping the conclusions are based entirely on data and no result is arising from hidden assumptions.

The estimates from data that have not been matched, are unreliable due to the difference in the distribution of important covariates between cases that are in the program and those that are not. In order to cope with this, the mapping technique is used to improve the balance in the data and then it turns out that the units are in active IMF program for year, are little more democratic than the units that are not in the IMF program. At this point, the study considers that the total number of years spent in IMF programs has a positive effect on the rating of democracy in various specifications.

Empirical perspective

Matching methods are used to reduce imbalance in the data and to sharpen the estimates of the impact of IMF lending programs on the level of democracy. Matching is a procedure that creates balanced datasets in which each treated unit is paired with an observationally similar control unit. Because the counterfactual comparisons are based entirely on the observed values of the confounding variables, estimates are not sensitive to "functional form assumptions about how to treat observations that lie outside the portion of the variable's empirical distribution that is shared by the treated and control groups" (Lyall 2010). Following Ho et al. (2009), matching was used as a preprocessing step and then tried to adjust for any imbalance that remains after the matching procedure by analyzing the data with a parametric OLS model.

The sample consists of 110 developing countries observed from 1970 to 2000. The survey is based on two widely used continuous measures of democracy: Polity 2 and Freedom House.

Polity 2 ranges from -10 (least democratic) to 10 (most democratic). The ranges from -10 to -6 correspond to autocracies, from -5 to 5 correspond to anocracies, and from 6 to 10 to democracies. Polity combines information on the competitiveness of the polar participation, the scope of restrictions regarding the power of the leader of the regime and the opening of the competitiveness of the process by which leaders are selected. In the analysis, an amended version of the Polity2 variable is used, that linearly interpolates values during the troublesome "interregnum" and "transition" periods.

The Freedom House is a composite of two indices, one that measures the respect for civil liberties and another that measures political rights. The composite Freedom House is transformed in order to run in ranges between 0 (least democratic) to 12 (most democratic).

The Freedom House and the Polity are highly correlated (0.85). The key variable is the presence of an active IMF lending program in country i in the year t. For the second set of statistical results, is created a variable that records the cumulative number of years that a country has spent under the auspices of the IMF from the beginning of the observation period up to year t.

According to Cheibub, Gandhi, Vreeland (2009), there are three types of authoritarian regime: the monarchy, the military and the political. If we think of regime type as a continuum spanning the most repressive dictatorship to the perfect democracy, monarchic and military autocracies are generally closer to the most repressive pole than civilian dictatorships. Indeed, monarchic and military autocracies are more autocratic than civilian-led dictatorships. The average Polity2 score for civilian autocracies in the sample is -2.44, which is significantly higher than average for military regimes (-5.859, difference of means is significant at $p = 0.0000$, t [14.28, 1037.37d.f.]) and the average for monarchic dictatorships (-8.219, $p = 0.0000$, t [18.47, 448.55d.f.]). Similar differences are found in the transformed Freedom House scores for military, monarchic, and civilian autocracies. Since totalitarian regimes are very oppressive, by getting an IMF loan, have more to lose than to win. The conclusions of the survey on the IMF's impact on Democracy could be biased if the majority of authoritarian regimes that were in an IMF program, were less repressive governments headed by civilians.

In addition, a variable is used, that records all previous transitions used in autocracy from 1946 to year t (Cheibub, Gandhi, Vreeland, 2009). Countries that are rich in oil, are prone to cycles of boom and less likely to obtain loans from the IMF over those with small oil exports. Ross (2001) notes that oil dependence is detrimental to democracy. The reserves of a country are an indicator of its economic health and the fewer are, the greater chance there is for IMF. Also, the health of the economy is likely to have an impact on democracy, particularly in fragile regimes. The average income per person and the size and direction of the annual variation in per capita wealth are factors that affect the likelihood of recourse to the IMF and the prospects for democracy. The economic crises, that brought a country to the IMF, should be considered too. Consequently, an exchange market pressure meter is used that, following the widespread definition of Frankel and Rose (1996), is set to number 1 for the years in which there was a nominal depreciation of the exchange rate of at least 30% which is also at least a 10% increase in the decay rate compared with the previous year. Other factors that cause confusion and are taken into account, are the size of a country's population and the level of political violence. The countries affected by serious domestic violence or engage in cross-border conflicts are less likely to be able to pool resources to form a credible reform program in consultation with the IMF. A new political violence index is included, which ranges from 0-13, which records the intensity of annual episodes of intra-interstate conflict (Marshall, 2010). And finally, it is assumed that the participation of a country A to the IMF program will increase the chance to participate in an IMF program the neighboring country B too, as the banking crisis extend beyond the borders of a country. There is convincing evidence for regional dynamics in the spread of democracy (Bunce and Wolchik, 2009). Countries are classified into one of six regions: Middle East and North Africa, Latin America and the Caribbean, East Asia and the Asia-Pacific region, post-communist, sub-Saharan Africa and South Asia.

RESULTS

The technique of genetic mapping of Jasjeet Sekhon is used to produce balanced samples for two variables (Polity 2 and transformed Freedom House). Each treated case is paired with a control case via one-to-one nearest neighbor matching with replacement. Each case was matched on all of the confounding covariates. Table 1 reports descriptive statistics for each of the covariates before and after matching when the Freedom House score is the outcome variable. Several common measures of balance are reported, including the standard mean differences between treatment and control cases, test statistics for t-tests, as well as p-values for the Kolmogorov-Smirnov test, which assesses the similarity of distributions of continuous variables across treatment and control populations.

In the unmatched data, the cases displayed are less likely to be a military or authoritarian monarchy or dependent on revenue from oil exports, tend to have a history of reversions to autocracy, are poorer and less economically viable, they are likely to face monetary crises and political violence and have lower levels of the control cases. By almost every measure the two groups significantly differ in ways that are likely consequential for the level of democracy.

According to the results, therefore, 1.252 cases of countries that are in IMF program, are slightly more democratic (Polity = -0.42) than 1.252 paired control cases (Polity = -1.59). Further imbalance can be reduced by running a parametric model that includes merging

Table 1
Balance Statistics, Freedom House Sample

Covariates		Mean Treated	Mean Control	Std. mean difference	T-Test (p-value)	K-S Test
Military Autocracy	Before matching	0.302	0.335	-7.091	0.087	–
	After matching	0.302	0.315	-2.883	0.052	–
Monarchic Autocracy	Before matching	0.027	0.090	-38.668	0.000	–
	After matching	0.027	0.026	0.508	0.317	–
# Previous Transitions	Before matching	0.589	0.434	15.430	0.000	0.000
	After matching	0.589	0.569	1.987	0.011	0.78
Oil Producer	Before matching	0.110	0.190	-25.502	0.000	–
	After matching	0.110	0.110	0	1	–
Reserves/GNI	Before matching	0.088	0.113	-32.356	0.000	0.000
	After matching	0.088	0.082	7.562	0.011	0.017
Population	Before matching	27724	53889	-31.172	0.000	0.009
	After matching	27724	26204	1.810	0.012	0.252
GDP Per Capita	Before matching	2437.1	2629.5	-9.33	0.045	0.000
	After matching	2437.1	2384	2.578	0.010	0.232
GDP growth	Before matching	0.630	1.689	-16.361	0.000	0.000
	After matching	0.630	0.529	1.552	0.316	0.372
Currency Crash	Before matching	0.137	0.084	15.358	0.000	–
	After matching	0.137	0.134	0.961	0.045	–
Political Violence	Before matching	0.839	1.159	-18.442	0.000	0.005
	After matching	0.839	0.816	1.286	0.196	0.99
Middle East/N. Africa	Before matching	0.065	0.144	-31.754	0.000	–
	After matching	0.065	0.065	0	1	–
Latin Am & Caribbean	Before matching	0.276	0.214	13.743	0.000	–
	After matching	0.276	0.276	0	1	–
East Asia & Pacifica	Before matching	0.062	0.121	-24.544	0.000	–
	After matching	0.062	0.062	0	1	–
Post-Communist	Before matching	0.098	0.025	24.436	0.000	–
	After matching	0.098	0.098	0	1	–
Sub-Saharan Africa	Before matching	0.436	0.423	2.585	0.526	–
	After matching	0.436	0.436	0	1	–
South Asia	Before matching	0.063	0.072	-3.727	0.378	–
	After matching	0.063	0.063	0	1	–

Source: Nelson and Wallace (2011)

variables. Table 2 reports OLS regression estimates of the covariates on the Freedom House score for both the unmatched and matched datasets. It is found that the assessment of the impact of the IMF on democracy in the unambiguous sample is positive but not statistically significant. This shows that the failure of the correction in choice in IMF programs systematically underestimates the positive impact of borrowing on the average level of democracy in developing countries.

The estimate from the sample in which mapping was made, reveals that the difference in IMF program countries and those that are not, is a point which represents a modest but statistically significant effect. Similar results occur when the Freedom House is the dependent variable. The average of Freedom House in 1.208 cases is 5,31 compared to 4,78 for the 1.208 control cases. Comparing the results of the regressions in the unmatched and matched data, it is observed that failing to control for selection, the analysts will lead to the fact that

Table 2
IMF programs and democracy (Freedom House Score)

Covariates	(1) Unmatched dataset	(2) Matched dataset
Military Autocracy	-2.760*	-2.670*
	(0.330)	(0.333)
Monarchic Autocracy	-3.501*	-1.330*
	(0.893)	(0.630)
Previous Transitions	0.176	0.182
	(0.184)	(0.187)
Oil Producer	-1.021*	-1.223*
	(0.504)	(0.528)
Reserves/GNI	3.724*	2.396
	(1.344)	(2.586)
Population	-1.57×10^{-6}	8.16×10^{-7}
	(2.38×10^{-6})	(2.32×10^{-6})
GDP Per Capita	0.0002	0.0003*
	(0.0001)	(0.0001)
GDP growth	0.0007	0.0001
	(0.007)	(0.010)
Currency Crash	0.267	0.284
	(0.177)	(0.238)
Political Violence Index	-0.131	-0.188*
	(0.073)	(0.067)
Under IMF Program	0.239	0.470*
	(0.170)	(0.188)
Sub-Saharan Africa	-2.431*	-2.094*
	(0.734)	(0.623)
East Asia & Pacifica	-1.218	-1.033
	(1.034)	(0.833)
Post-Communist	-1.688	-1.975*
	(0.930)	(0.870)
Latin America & Caribbean	-0.067	0.265
	(0.852)	(0.832)
Middle East & North Africa	-1.450	-1.106
	(0.904)	(0.715)
Number of observations	2403	2416
R-squared	0.50	0.49

Robust standard errors in parentheses below coefficients. * = $p < 0.05$

Source: Nelson and Wallace (2011)

IMF programs do not have a significant effect on democracy, when in reality countries receiving conditional lending programs, experience little but noticeable improvement in the rating of Freedom House.

Using the mapping, the differences were minimized between countries within and outside the program and found that part of the sample that was in the IMF program, had consistently higher scores in both measures of democracy. Moreover, IMF is not a single impact in the new country that enters the program, but the benefits of democracy accumulate as many countries are turning to the Fund.

Table 3 shows the correlation between the cumulative measure of the IMF report and the democracy score based on what has been described above. The results show that IMF recurring clients show significant increases in their levels of democracy. The substantial impact of the cumulative number of years spent under the supervision of the IMF appears to be the result of Model 3, a test that includes stable country and time effects to control the uncontrolled heterogeneity of a particular unit, and time trends at the level of Democracy throughout the sample. This implies that a standard deviation of the cumulative variable of the IMF programs (about 6 years) is linked with an increase in Polity2 of 1.44 [0.36, 2.50] and 0.9 [0.31, 1.50] increase in the Freedom House score. The transition from the minimum to the maximum value of the cumulative measure (0 to 29 years) is linked with an increase in the Polity2 score by 6.6 degrees [1.7, 11.5] and an increase of 4.29 [1.45, 7,13] degrees at the level of democracy. These findings suggest that the benefits to democracy tend to concentrate as more countries to turn to the Fund's lending solutions.

Table 3
IMF aggregate programs and democracy (Freedom House Score)

Covariates	(1)	(2)	(3)	(4)	(5)
Freedom House Score$_{t-1}$				0.874*	0.719*
				(0.017)	(0.029)
Military Autocracy	-2.738*	-2.868*	-2.908*	-0.444*	-0.992*
	(0.332)	(0.385)	(0.393)	(0.104)	(0.199)
Monarchic Autocracy	-3.408*	-1.643*	-1.690*	-0.469*	-0.399*
	(0.889)	(0.428)	(0.423)	(0.144)	(0.116)
# Previous Transitions	0.164	-0.908*	-0.852*	0.027	-0.547*
	(0.188)	(0.359)	(0.368)	(0.027)	(0.154)
Oil Producer	-0.941	-0.580	-0.602	-0.114	-0.240
	(0.506)	(0.449)	(0.461)	(0.078)	(0.145)
Reserves/GNI	3.731*	0.653	0.921	0.550*	0.590
	(1.372)	(1.229)	(1.226)	(0.217)	(0.543)
Population	-1.5×10^{-6}	-6.8×10^{-6}	-5.3×10^{-6}	-1.2×10^{-7}	-1.7×10^{-6}
	(2.4×10^{-6})	(3.4×10^{-6})	(3.4×10^{-6})	(3.9×10^{-7})	$(1.3\times10^{-6}$
GDP Per Capita	0.0002	-0.00005	-1.3×10^{-6}	0.00002	-0.00001
	(0.0001)	(0.0001)	(0.0001)	(0.00002)	(0.00003)
GDP growth	0.0001	-0.001	-0.001	0.003	0.003
	(0.007)	(0.004)	(0.003)	(0.003)	(0.003)
Currency Crash	0.271	0.154	0.163	0.070	0.071
	(0.177)	(0.136)	(0.141)	(0.087)	(0.089)
Political Violence Index	-0.141	-0.217*	-0.218*	-0.038*	-0.089*
	(0.071)	(0.056)	(0.055)	(0.015)	(0.021)
Cumulative IMF programs	0.030	0.115*	0.148*	0.010*	0.037*
	(0.025)	(0.027)	(0.049)	(0.005)	(0.010)
Sub-Saharan Africa	-2.390*			-0.197	
	(0.743)			(0.130)	
East Asia & Pacifica	-1.134			-0.085	
	(1.058)			(0.170)	
Post-Communist	-1.468			-0.127	
	(0.969)			(0.179)	
Latin America & Caribbean	-0.034			0.045	
	(0.875)			(0.144)	
Middle East & North Africa	-1.405			-0.084	
	(0.904)			(0.147)	
Country fixed effects	N	Y	Y	N	Y
Year fixed effects	N	N	Y	N	N
Number of observations	2403	2403	2403	2289	2288
R-squared	0.50	0.79	0.79	0.89	0.91

Robust standard errors in parentheses below coefficients. * = $p < 0.05$

Source: Nelson and Wallace (2011)

THE "DEMOCRATIC DEFICIT"

In the investigation of Irfan Nooruddin and Joel W.Simmons (2006), it's established that internal political factors can influence the results of IMF programs. The IMF's critics often accuse the Fund for the promotion of "democratic deficit", namely the transfer of national sovereignty to the IMF, limiting the autonomy of the domestic government. The conditions set by the Fund require governments to take measures that might otherwise avoid, but the argument of democratic deficit is so quick to blame IMF for imposing its will on helpless governments, and thus fails to recognize that domestic policies can also shape the way of implementation of the Fund programs in recipient countries.

At this point, it is recalled that IMF can only create a program at the request and consent of the recipient country, so the observed content of the program is the result of arduous negotiations between governments and IMF, regardless whether IMF is the ultimate hope. Therefore, the content of austerity is inherent in the characteristics of IMF and the beneficiary country. Conway, Patrik (2003) stresses that IMF austerity is an agreement between IMF and the participating countries and therefore should be considered inherently fixed. This means that politicians in borrowing countries retain some leverage over spending cuts and the extent of these reductions.

Political leaders in borrowing countries expect that austerity will require structural reforms with significant redistributive effects. The fact that they maintain leverage over the nature of the austerity package is very important as it enables incumbents to influence the reform package in ways that minimize the expected cost of the budget cuts. The identification of policies that can achieve this objective remains an open question.

Studies of Kahler Miles (1993) for Jamaica and Somalia show that the negotiations between IMF and the beneficiary country is quite extensive and allows governments even in relatively small countries economically exclude programs from cuts and structural reforms.

The program content is usually quite vague and this implies more freedom in domestic policy during the program implementation process and on how budget cuts are distributed. Initially, the IMF programs had set targets for reducing costs but were less willing to dictate which programs should be cut and which to protect. The study of Bienen and Gersovitz (1985) shows that in a sample of IMF agreements taken from 1969 to 1978, only 3 out of 105 of them were told specific measures spending. Similarly, Dreher and Jensen (2007) write that on average the number of structural conditions in the agreements is fairly low. In 1987, according to them, the average number of cases included in IMF programs was about 3-9 by the end of 1990. Even when agreements clarified where to be the cutting, they did sometimes in vague terms. Based on the analysis of 15 IMF programs, the independent assessment body concluded that IMF programs are often vague in defining the categories of expenditure to be affected by the program.

According to this study, IMF programs simply apply to countries facing financial troubles and therefore IMF is completely guilty in any negative impact that have these programs in economically inferior groups if the results are actually negative. Instead, the result of this short survey is that the available theoretical and empirical observations show convincingly that the negotiation process allows governments borrowers to maintain some influence on the IMF program content and therefore on the redistributive impact of these programs. If the results of IMF policies regarding the economically weaker groups, are actually negative as critics argue, then governments will have to bear some responsibility.

Democracy and conditions

A recent research in political science, states that some types of governments should place greater emphasis on social and public services. Bueno de Mesquita and others (2003) argue that political institutions affect a government's spending policy by creating incentives for politicians to feed larger than smaller constituencies. According to them, the size of the winning coalition relative to the size of the electorate is the relevant variable for understanding government policy.

If this ratio is high, then the government must build a big winning coalition, and it is more efficient for a government to provide public goods than trying to win the support of individual members by providing private goods. If the ratio is small, as for example in extra-temporal dictatorships, the dictator can retain his power by supporting a very small number of people. In this case, the dictator will buy support by providing private goods rather than spending on social programs, education or health. Based on this logic, the authors argue that democracies are more likely to offer public goods than non-democracies, since the former are characterized by universal suffrage, forcing leaders to gain the support of the majority of the population.

Lake and Baum (2001) support a close theoretical framework, and argue that democracies are more likely to provide public services than non-democracies. They show that Democratic leaders, because of the fact that they face greater levels of competition, they will spend more on public services than non-democratic. Thus, Member States can be compared with companies that maximize their revenues. Furthermore, revenues of Member States depend on the public services provided to citizens.

When there are low levels of competition, as in authoritarian regimes, political leaders have an incentive to use their monopoly power and the deficient in public services, whereas in democracies, where there is competition in politics, leaders operate as regulated monopolies, providing most public services in an effort to maintain the edge over their opponents.

Democracies, ceteris paribus, characterized by more competition and bigger winning coalitions than in authoritarian regimes, would spend most of their budget to public services such as education and health. In this conclusion end up many recent surveys, particularly Bueno de Mesquita and others (2003) and Lake and Baum (2001). Nooruddin and Joel W. Simmons (2006) lead to the fact that even under the austerity conditions that dominate in IMF program countries, where governments are invited to make spending cuts, democratic governments devote a larger share of their budget to public services by undemocratic governments.

Given the above thinking framework, the weakest groups in a country, that are usually not organized interest groups, are those who will bear the biggest spending cuts in terms of social protection and economic aid.

Empirically, the research concludes that the effect of IMF programs on social spending may well depend on the type of the country's regime. While critics say that IMF programs hurt the poor, it seems that in democratic countries the politicians have the institutional incentive and the opportunity to protect services that concern economically disadvantaged, adopting a policy that hurts less.

Instead, Vreeland says it needs political will to protect the economically weaker during austerity, and usually leaders have this desire in democratic regimes as when asked to make cuts, they choose to be pro-poor because the groups that would benefit otherwise are weaker politically.

In conclusion, one of the important research findings, is the fact that in democracies, the weight of the burden seems to be placed on the shoulders of those that are less able to have access to private sources of services such as health and education. Unlike the logic of the democratic deficit, it does not necessarily come from the IMF's intention to impose the will of the respective governments. Instead, governments retain some influence in the Application content of IMF programs.

IMF AND GOVERNMENT CRISES

According to Smith and Vreeland (2006), the effect of IMF programs is likely to depend on the circumstances under which a country came into. The signaling model of Dreher (2004) shows that IMF's programs can provide people the necessary specifications of their government under certain circumstances. The model assumes that incompetent governments do have to turn to the IMF, in contrast to the competent politicians that do not have if the economy performs fairly. Dreher (2004) shows that governments concluding IMF arrangements prior to a national election generally increase their reelection probability.

When growth rates are low, voters accept the necessity of the IMF's involvement. Nevertheless, in a good economic environment, only incompetent governments need their assistance. Moreover, the effect of IMF involvement on government crises is also likely to depend on the program's success and the economy's development. When a program turns out to be successful, people might be more inclined to accept short-term losses for expected future benefits. The probability of entering a crisis should thus decrease.

On the other hand, government might not be in danger if IMF programs are already active when the current government comes to power (Smith and Vreeland, 2006). In this case, people don't blame their government for the program's existence. The incumbent government can use IMF as an excuse, given the fact that they are not directly responsible for the program. As a result, resistance to the government decreases. However, when the economy performs well, the IMF's excuse cannot work. On the contrary, when the economy performs badly, opponents of the current policy are more likely to accept some economic deprivation. The IMF's policy conditions will then continue to reduce the probability of government crises. According the signaling model, inherited programs might not be useful in "reading" the current government's competence. Even competent governments might stick with the programs if the economy performs badly. If economic performance improves, however, people might take the persistence of the program as a signal of their government's incompetence.

Empirical results

In the Dreher's and Gassebner's (2012) study, the regression is a pooled time-series cross-section analysis and the data cover the period 1970–2002 with 132 developing countries included. However, some of the data are not available for all countries or years and the panel data are unbalanced and the number of observations depends on the choice of explanatory variables. The dependent variable is a dummy, taking the value of 1 in case of at least one major government crisis having occurred and 0 in the opposite situation. According to Databanks International (2005), a major government crisis is defined as "any rapidly developing situation that threatens to bring the downfall of the present regime, excluding situations of revolt aimed at such overthrow." The variable is frequently used as a measure of instability in the empirical literature (Broz 2002).

The analysis is a replication of Gassebner and Jong-A-Pin (2007), with some extra variables of interest. They examine which variables are robustly related to major government crises. These robust variables are: the type of political regime and its duration, several (logged) variables proxying for political violence (guerilla warfare, assassinations, and purges), and mass civil protest (demonstrations, riots, and general strikes) as well as economic growth per capita. Given the large number of additional, potentially important variables they tested, this model does not suffer from omitted variables bias (Gassebner and Jong-A-Pin 2007).

Specifications 1 to 7 of Table 3 test for the effect of the IMF and World Bank variables using conditional fixed-effects logit. Column (1) includes the number of World Bank programs, while column (2) includes IMF Structural Adjustment Facility/Poverty Reduction and Growth Facility (SAF/PRGF) and SBA programs for the whole sample period. It's noted, however, that the IMF's SAF was created in 1986, so the observations prior to 1986 are all set to 0 here. In column (3), the same it is shown specification restricted to the 1986 to 2002 period. Columns (4) and (5) replicate these specifications, including the IMF and World Bank variables jointly rather than separately. In columns (6) and (7), gross disbursements are added to the program variables.

The results suggest that major government crises are more likely in more democratic political systems. Parties in such systems can easily express their opinion on controversial policies and events that may ultimately trigger a crisis. Crises are significantly more likely when mass civil protest and political violence exists, represented by the highly significant coefficients of demonstrations and purges (while the coefficients of riots, strikes, assassinations, regime duration, and guerilla warfare are not robustly significant at conventional levels). Moreover, economic growth in the previous year reduces the likelihood of a government crisis, at the 1 percent level of significance.

Table 4
Government crises and IFI involvement

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DEMOCRACY	0.047	0.049	0.050	0.044	0.051	0.044	0.069
	(3.02)***	(3.18)***	(1.84)*	(2.80)***	(1.85)*	(2.64)***	(2.25)**
REGIME DURATION	−0.010	−0.011	−0.025	−0.011	−0.024	−0.010	−0.027
	(1.52)	(1.56)	(1.79)*	(1.65)*	(1.71)*	(1.23)	(1.60)
RIOTS (*log*)	0.152	0.141	0.461	0.142	0.464	0.138	0.550
	(1.01)	(0.94)	(2.17)**	(0.95)	(2.17)**	(0.85)	(2.22)**
DEMONSTRATIONS (*log*)	0.817	0.823	0.852	0.817	0.853	0.799	0.867
	(5.97)***	(6.02)***	(4.94)***	(5.96)***	(4.93)***	(5.31)***	(4.22)***
STRIKES (*log*)	0.367	0.381	0.258	0.368	0.262	0.509	0.483
	(1.80)*	(1.87)*	(0.96)	(1.81)*	(0.98)	(2.29)**	(1.52)
GUERILLA WARFARE (*log*)	0.444	0.416	0.457	0.430	0.466	0.340	0.347
	(1.71)*	(1.61)	(1.24)	(1.66)*	(1.26)	(1.21)	(0.82)
ASSASSINATIONS (*log*)	0.379	0.369	0.071	0.366	0.054	0.418	0.082
	(2.35)**	(2.28)**	(0.33)	(2.26)**	(0.25)	(2.35)**	(0.33)
PURGES (*log*)	1.344	1.338	1.571	1.361	1.565	1.377	1.967
	(5.11)***	(5.10)***	(2.33)**	(5.17)***	(2.34)**	(5.00)***	(2.18)**
GROWTH PER CAPITA ($t-1$)	−0.035	−0.037	−0.033	−0.038	−0.036	−0.032	−0.021
	(3.28)***	(3.41)***	(2.66)***	(3.52)***	(2.80)***	(2.54)**	(1.40)
WORLD BANK PROGRAMS ($t-1$)	0.220			0.175	0.172	0.223	0.191
	(2.62)***			(2.02)**	(1.65)*	(2.30)**	(1.60)
IDA DISBURSEMENTS (*share of GDP*, $t-1$)						185.102	177.908
						(1.60)	(1.34)
IBRD DISBURSEMENTS (*share of GDP*, $t-1$)						−34.575	−12.404
						(1.07)	(0.31)
IMF SAF/PRGF PROGRAM, ($t-1$)		0.609	0.609	0.491	0.503	0.582	0.681
		(2.56)**	(2.16)**	(2.00)**	(1.73)*	(1.88)*	(1.81)*
IMF SBA PROGRAM, ($t-1$)		0.143	0.377	0.106	0.333	0.139	0.225
		(0.83)	(1.68)*	(0.61)	(1.47)	(0.70)	(0.82)
IMF SAF/PRGF DISBURSEMENTS						−77.533	−77.400
(*share of GDP*, $t-1$)						(1.36)	(1.19)
IMF SBA DISBURSEMENTS						−4.561	38.450
(*share of GDP*, $t-1$)						(0.20)	(0.96)
Method	Logit	Logit	Logit	Logit	Logit	Logit	Logit
Sample	all	all	>1985	all	>1985	all	>1985
Observations	2406	2406	1207	2406	1207	1937	870
Number of countries	92	92	79	92	79	83	66

Notes: Columns (1) to (7) show the results of conditional fixed effects logit regressions. The instruments for the IFI programs are voting in line with the G7 countries in the UN General Assembly and the debt-to-GDP ratio. The dependent variable is 1 if there was at least one major government crisis in a given country and year. We control for temporal dependence by including the years since the last crisis and three temporal cubic splines. Absolute value of z statistics in parenthesis. ***$p < .01$; **$p < .05$; *$p < .10$.

Source: Dreher and Gassebner (2012)

Turning to the variables of interest, the coefficient remains similar in magnitude in columns (4) and (5) remaining significant at the 5 percent level when IMF programs are also included in the full sample, and at the 10 percent level when the sample is restricted to the 1986 to 2002 period.

The coefficients of the IMF's (SAF/PRGF and SBA) Programs are not significant at conventional levels in any of the additional

Table 5
Government crises, IMF and current state of economy

	(1)	(2)	(3)	(4)	(5)
DEMOCRACY	0.002	0.003	0.002	0.002	0.006
	(1.13)	(1.44)	(1.36)	(1.24)	(1.50)
REGIME DURATION	−1.26E-04	3.85E-04	2.51E-04	−0.001	0.002
	(0.15)	(0.28)	(0.23)	(0.53)	(0.81)
RIOTS (*log*)	0.050	0.057	0.046	0.040	0.061
	(1.54)	(1.53)	(1.15)	(1.23)	(1.57)
DEMONSTRATIONS (*log*)	0.101	0.129	0.122	0.137	0.118
	(3.83)***	(3.94)***	(3.98)***	(4.44)***	(3.55)***
STRIKES (*log*)	0.170	0.133	0.148	0.119	0.128
	(3.67)***	(2.42)**	(2.91)***	(2.16)**	(2.26)**
GUERILLA WARFARE (*log*)	0.019	0.044	0.026	0.059	0.035
	(0.39)	(0.77)	(0.49)	(1.08)	(0.60)
ASSASSINATIONS (*log*)	0.114	0.059	0.107	0.087	0.061
	(3.83)***	(1.43)	(2.68)***	(2.38)**	(1.56)
PURGES (*log*)	0.221	0.205	0.163	0.235	0.128
	(3.43)***	(2.17)**	(1.90)*	(2.91)***	(1.20)
GROWTH PER CAPITA ($t-1$)	−0.003	−0.002	−0.004	−0.003	−0.001
	(2.76)***	(1.08)	(2.75)***	(2.36)**	(0.49)
IMF SAF/PRGF PROGRAM, ($t-1$)	0.008	0.023	0.022	−0.172	−0.039
	(0.28)	(0.60)	(0.76)	(1.69)*	(0.34)
IMF PROGRAM ($t-1$) × GROWTH P.C. ($t-1$)	−0.005				
	(1.24)				
CURRENT ACCOUNT BALANCE (*share of GDP*, $t-1$)		−0.454			
		(0.52)			
IMF PROGRAM ($t-1$) × CURRENT ACCOUNT ($t-1$)		7.14E-11			
		(0.82)			
INFLATION ($t-1$)			−4.53E-06		
			(0.10)		
IMF PROGRAM ($t-1$) × INFLATION ($t-1$)			−0.001		
			(1.98)*		
SHARE OF COUNTRIES IN REGION UNDER IMF PROGRAM ($t-1$)				−0.636	
				(1.09)	
IMF PROGRAM ($t-1$) × REGIONAL SHARE IMF ($t-1$)				0.631	
				(1.61)	
INTERNATIONAL RESERVES (*in months of imports*, $t-1$)					−0.040
					(0.71)
IMF PROGRAM ($t-1$) × RESERVES ($t-1$)					0.021
					(0.55)
MAJOR GOVERNMENT CRISES ($t-1$)	0.112	0.133	0.140	0.121	0.152
	(3.26)***	(2.16)**	(3.20)***	(3.19)***	(2.73)***
Observations	3254	2504	2709	3254	2433
Number of countries	132	124	120	132	125
Number of instruments	103	103	103	103	103
AR1 test (p-value)	0.00	0.00	0.00	0.00	0.00
AR2 test (p-value)	0.53	0.36	0.74	0.51	0.25
Hansen test (p-value)	0.89	0.43	0.71	0.28	0.48

Notes: Table shows the results of dynamic panel GMM estimations including fixed time effects, where the dependent variable is the number of major government crises in a given country and year. Absolute value of z statistics in parenthesis. ***$p < .01$; **$p < .05$; *$p < .10$.

Source: Dreher and Gassebner (2012)

regressions. The IMF program dummies, however, are insignificant at conventional levels. Gross disbursements are also not significantly related to government crises in any specification. Following the interpretation of Boockmann and Dreher (2003), controlling for the amount of money, the existence of the program itself is likely to reflect conditions and advice.

In summary, there is some evidence to support that the effect of IMF involvement on crisis probability depends on the state of the economy. However, rather than being able to profit from potentially successful programs, governments face an increased risk of entering a crisis if they remain under an IFI program once the economy picks up. Again, disbursements are also added to the regressions and interacted disbursements with the variables measuring the state of the economy. Given that neither the disbursement variables nor the interactions were significant at conventional levels, are not reported in the table. It seems that the mere existence of a program, rather than the actual loan size, might help citizens evaluate their government's competence. Unsurprisingly, the signaling effect of IMF programs seems to be associated with the existence of the program, rather than the size of the loan itself. Only governments responsible for the conclusion of the program seem to be punished, while those inheriting a program are not.

CONCLUSION

The main topic here is how IMF is connected to democracy and economic development are connected to IMF programs.

The result of many surveys, mentioned above, was the negative effect of IMF loan participation on the rule of law. This channel implies a further, negative indirect effect of IMF loan participation on economic growth. As an example, the moral hazard created by the potential for IMF loans may cause governments to spend excessively on public investment, which were not included in a variable. The IMF programs may also encourage inefficient behavior on the part of government bureaucrats. IMF conditionality may harm economies in ways not captured by the variables considered. For example, there may be effects on tax structure and regulations.

Moreover, the Fund's procedures and tendency to press rapid and highly centralized decision-making styles on borrower countries are plainly in tension with democracy's emphases on participation in the making of public policy. In countries with reasonably strong institutions this tension is usually manageable, and as the South Korean case has shown, can even help democracy in the longer term. Fund officials can help matters and boost "ownership" by working not only with officeholders but also with leaders of the democratic opposition, as happened also in Brazil, where the main opposition candidate subsequently became president.

On the other hand, new questions are raised from the fact that UNSC members are found to receive about 30 percent fewer conditions than other countries. Specifically, fewer prior actions are required of them to enter into an arrangement, and they face fewer performance criteria to receive continued loan disbursements. Reduced conditionality is found in the policy areas of debt repayment, the balance of payments, credit to the government, and domestic pricing. The results suggest that politically important countries can expect softer treatment from the IMF.

In authoritarian regimes, political leaders have an incentive to use their monopoly power and the deficient in public services, whereas in democracies, where there is competition in politics, leaders operate as regulated monopolies, providing most public services in an effort to maintain the edge over their opponents. In democracies, the weight of the burden seems to be placed on the shoulders of those that are less able to have access to private sources of services such as health and education. Unlike the logic of the democratic deficit, it does not necessarily come from the IMF's intention to impose the will of the respective governments. Instead, governments retain some influence in the application content of IMF programs. The general fact is that across a wide range of economic and social indicators, IMF made things worse rather than better for most borrowing countries. When looking at the specific question of promoting democracy our argument points to some salutary political effects emanating from Fund activities. This study confirms widespread suspicions that borrowing countries differ in significant respects from non-borrowing countries, which affects both the likelihood of receiving a loan from the IMF, as well as future prospects for democracy. The empirical difficulties between countries in and out of IMF programs helps to account in part for the inconsistent findings regarding the relationship between IMF and democracy. Once these baseline country characteristics are properly taken into account, positive effects can be found for IMF programs across multiple measures of democracy. Furthermore, the political benefits are not simply a function of the mere presence of IMF lending, but tend to accrue the longer a country finds itself borrowing from the institution.

Finally, structural adjustment arrangements significantly increase the probability of major government crises. The impact of IMF is not robust to controlling for endogeneity. Governments face an increased risk of entering a crisis if they remain under the IFIs' programs when the economy performs better. The development of the economy over the period of a program affects crisis probability. This insight might help governments in choosing the right time to exit such programs. On average, governments can blame the IFIs for unpopular policies when the economy is experiencing tougher times. However, once a recovery is on its way, governments might consider terminating existing arrangements in order to avoid a crisis. The above conclusions constitute promising avenues for future research.

Acknowledgements

We would like to thank two anonymous referees for helpful comments and suggestions.

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