

Political Regimes and Adjustments to the Global Economy

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Abstract

Can different adjustment strategies to the volatile globalizing economy be attributed to domestic regimes? This paper tests the hypotheses that the different threats to the political survival of leaders shape their adjustment policies, when faced with an economic crisis. Whereas democratic leaders promote financial liberalization to avoid blame of economic incompetence and partisan rent seeking, leaders in non-democracies retain control of the economy since criticism of their policies can be equated to an attack on the political regime. The analysis finds that in the pursuit of stable exchange rates to promote international trade and investment, democracies prioritize capital openness and financial liberalization, while non-democracies depend on monetary independence. As such, this paper has provided a domestic political foundation to explain the difference in international financial policies, providing new insights to the current policy debates among advanced and developing countries over ways to rectify global imbalances.

Key words: International finance, democracies, non-democracies, Mundell-Fleming trilemma, financial market reform

I. The puzzle

The economic crisis of 08-09 (hereafter the Great Recession) is often compared with the Great Depression. However, the similarities between the two events may be superficial, apart from Wall Street triggering the rapid contraction of major economies and international trade. Unlike the 1930s, major economies have not engaged in a protectionist closing of international markets or a competitive devaluation of currencies. Instead, contemporary discussion on the Great Recession—its causes and recovery measures—have brought to the forefront the issue of global capital imbalances and exchange rate misalignments. The standard view voiced by distinguished scholars of open macro-economists blamed the alarming growth of global imbalances during the 2000s for financing the U.S. housing bubble and causing conditions ripe for the Great Recession (Obstfeld and Rogoff 2009). With the policies of emerging economies being partly blamed for global imbalances, their reforms have been placed on the agenda at international financial summits, such as those of the IMF and the G20. At these meetings, advanced economies have been pressuring emerging economies, China in particular, to

appreciate their currencies and open their financial markets.

Closer to this paper's interests, lurking beneath the ongoing international policy debate is a tacit understanding that countries have been pursuing different strategies of open trade and growth. In other words, not all governments adopted the market-friendly domestic reforms and market liberalization as propagated by advanced democracies. Hence, the question becomes, why are governments hesitant to adopt similar open policies?

To answer this puzzle, this paper argues that leaders of different political regimes face different kinds of threats and challenges to their survival in power. The strategies and policies chosen by government leaders depend on the kind of political challenges they face when exogenous economic shocks erupt. Obviously, open trade and investment increase not only opportunities for growth but also vulnerability to volatile international markets. As such, government leaders face the dilemma of promoting economic globalization and insulating the domestic economy from the former's vicissitudes. What policies the leaders prefer, therefore, depends on how dependent they are on economic growth for political survival, and what kind of political challenges they encounter when their open economic policies face an exogenous economic crisis.

The paper is organized in the following way: The next section provides an explanation of economic policy choice that focuses on the challenges government leaders face to their political survival when their open economic policies face international economic shocks. The argument is tested by examining the policy choices of government leaders facing the well-known Mundell-Fleming dilemma, which postulates that governments must choose between financial openness and monetary independence if they wish to realize exchange rate stability beneficial to the expansion of international trade and investment.

This paper hypothesizes that economic crises pressure democratic leaders to embark on market opening reforms, whereas the same pressure makes non-democratic leaders preserve their control of the economy. After the empirical examination of the argument, this paper concludes by stating the implications of the findings. If a country's strategy to meet the challenges of a global economy is shaped by the characteristics of the political regime, an investigation into this linkage sheds new light on the prospects of global policy coordination in a world where the former's different types of political regimes coexist.

II. The Hypothesis: Political Regimes and Exchange Rate Policies

Ostentatiously stated, there has been no empirical research on the *political regime* underpinnings of international monetary policy. Why are leaders of different political regimes likely to choose different international monetary policies? Although there has been little investigation into this specific puzzle, recent research on the domestic sources of foreign policy, accumulated in the fields of international political economy and comparative politics provides

us ample insights to build an argument.

In particular, this paper draws from the basic insights of the leadership survival, argument, recently elaborated by Bruce Bueno de Mesquita and others (2002, 2003) This paper takes only the very basic tenets of their sophisticated logical construct, which resonates in some studies of comparative politics: they are namely, the support base upon which government leaders depend to seize and maintain power and the degree of institutionalized open competition among elites vying for power. We classify political regimes by using these two yardsticks.

The classification of political regimes based on the size of the selectorate and the nature of elite competition is presented in the first two columns in Table 1. The size of the selectorate distinguishes autocracies from the three other types of regimes; i.e., developing autocracies, developing democracies, and democracies. Our second criterion, whether leadership recruitment is open and competitive, which implies the openness and competitiveness of the party system, differentiate democracies and developing autocracies. In democracies, leadership selection is carried out by open party competition, whereas autocratic leadership selection is usually closed only to certain elites and lack outside competition. Usually, the elites in developing autocracies are recruited from the ruling party. The large selectorate characteristic of developing autocracies tends to create a mobilization party and develop a one-party system. Historically, the Leninist party has been the model for one-party regimes.

As introduced in Table 1, “democracies” are characterized by competitive party systems in which the government leader is challenged by the opposition parties. By contrast, developing autocracies are typically one-party systems, in which the challengers to the ruling party are repressed as illegal anti-system groups. As such, the weakening of the ruling party in developing autocracies entails a regime crisis, not merely a possible change of ruling parties. Finally, it is easy to conceive of new or fragile democracies in which the elected leader faces extra-electoral challenges from anti-democratic forces. Table 1 puts such regimes into a distinct category called developing democracies.

Table 1 The framework

Regime Types	Regime Classification		Economic Strategy	
	Support Base	Opposition	Growth Imperatives	Exchange Rate Stability
Democracy	Large	Open/Competitive (Pro-regime)	Stable/Accountable	Open/Float
Development Democracy	Large	Open/Mixed	Rapid/Managed	Mixed
Development Autocracy	Large	Closed/Anti-regime	Rapid/Controlled	Monetary Autonomy/ Controlled Exch. Rate
Autocracy	Small	Closed/Anti-regime	Mixed	Vary

The next question is, what kind of economic strategies are generated by different regimes? According to Bueno de Mesquita et al. (2002, 2003), the size of the winning coalition affects the type of goods government leaders need to distribute to secure political survival. Leaders whose survival depends on a large winning coalition have strong incentives to deliver common goods, typically, economic growth, that also benefits the whole population. By contrast, leaders who can survive by satisfying a narrow winning coalition tend to distribute selective goods to the critical supporters. Hence, as stated in the “economic strategy” column of Table 1, it can be assumed that all leaders pursue economic growth to some extent except autocratic ones.

The claim that growth-oriented states may have dubious democratic credentials is a notion pivotal to the “development state” literature in comparative politics. In a historically-rooted refute to the modernization theses of the 1960s, which assumed that late developing economies emulate the path of advanced ones including democratic politics (Lipset 1960, Rostow 1960), the development state thesis claims that late developing economies need new state-led institutions unseen in advanced ones in order to catch up. Originating from the works of Gerschenkron (1962), the development state view has pointed out that in late developing countries, the state assumes a dominant role in creating unique financial and state institutions to guide the economy to a planned path of rapid growth (Johnson 1982, Zysman 1983).

A critical implication of the development state thesis is that state-led growth may come at the cost of arrested democratic development. A more recent version of this argument comes from students studying economic reforms. New studies have unearthed empirical support of the idea that non-democratic regimes are more capable of creating institutions and enacting reforms that make their economies attractive to international investors and thereby promote inward foreign direct investment (Li and Resnick 2003, Jakobsen and de Soysa 2006, Choi and Samy 2008, see Jensen 2003 for a dissenting view).

Provided that leaders contemplate growth-oriented reforms, the question of when they are prodded to do so, is also critical. Our framework that focuses threats to leadership survival inevitably focuses on an economic crisis, when government leaders become vulnerable. When the government’s ability to manage the crisis and chart the best course for economic recovery is questioned, its leaders must reassess the exiting policies and present blueprints for change. This reasoning is not particularly new and is widely used to explain why countries are more likely to enact economic reforms after a crisis in general, and why democracies, in particular, are more likely to enact market-friendly reformers for trade and investment (Drazen 1993, Rodrik 1996, Drazen and Easterly 2001, Milner and Kubota 2005, Mansfield et al. 2002, Mansfield et al. 2008, Giannone et al. 2010).

Our point is simply that the kind of solution leaders seek is dependent on the kind of challenges they face. For instance, in an economic crisis, democratic leaders are compelled to appeal to the electorate that they can competently revive the economy and must weather attacks from the opposition parties that claim they have better plans and that the government is corrupt, only trying to benefit and protect well-established support groups. Because

democratic leaders have to face elections, they are usually accused of bungling the economy and putting party interests above the nation.

Interestingly enough, a number of recent studies have found that partisan debates over economic competency and attacks against vested interests tend to facilitate reforms that allocate benefits away from politically privileged groups towards more universal and transparent allocation. As such, leaders in competitive party systems tend shy away from discretionary policies in favor of rule-based, market-friendly reforms as a blame avoidance strategy (cf. Weaver 1986).

By contrast, government leaders whose fate is closely tied to the stability of the regime are less willing to give up the commanding heights of economic control. Although such leaders are willing to promote open trade and investment, and undertake reforms to assure international investors and private traders, they do so to generate growth. As such, developing autocratic leaders are more likely to carry out liberalization and reforms only to the extent they do not hinder their control over the economy. In particular, leaders of developing autocracies are likely to retain measures that help insulate the economy from the tribulations inflicted by international market volatility.

The expected policy differences caused by different types of challenges to government leaders are summarized in the right hand columns of Table 1. Although the difference between democracies and developing autocracies are expected to manifest in a variety of policy areas, international monetary policy is an area in which such differences should be apparent. Hence, this paper will explore international monetary policy as an ideal case to test the regime difference idea.

The reason regime differences should be conspicuous in international monetary policy can be derived from the well-known Mundell-Fleming theorem, which stipulates only two of the three major goals of international monetary policy can be simultaneously realized: the three major goals are exchange rate stability, capital openness, and monetary independence. According to Mundell-Fleming, if a country liberalizes its capital markets, it faces a dilemma between exchange rate stability and maintaining monetary independence, meaning the power to unilaterally determine interest rates based on the domestic economic concerns. This is because if a country sets its interest rates unilaterally, the interest rate differences between that country and others will ignite either an inflow or outflow of capital towards higher interest rates thereby changing the exchange rates between that country and others. Similarly, if a capital open country pursues exchange stability, it has to set its interest rates so that the interest rate differences between the country and the key currency country does not ignite capital flows. As such, the country has to follow the monetary policies of the key currency country, losing the ability to unilaterally decide interest rates.

Now, if we assume that governments are commonly interested in promoting international trade and investment to realize economic growth, they should prioritize exchange rate stability (Frieden 1991). In order to attain this goal, the government has to face a choice between

pursuing capital openness and retaining monetary independence. In other words, leaders planning an open growth strategy cannot be insensitive to exchange rate fluctuations.

Given this assumption, it is easy to figure out how leaders are likely to respond to the capital openness-monetary independence dilemma. Facing international economic volatility, democratic leaders are likely to prefer capital openness and for that purpose promote financial market reforms. By contrast, it can be imagined that facing international economic volatility, autocratic leaders are likely to retain monetary independence and for that purpose use exchange rate controls.

From the above discussion, the below hypotheses can be stipulated. It should be noted that this paper makes no predictions about the policies of (plain) autocratic leaders, which are at the whim of the autocrat who is not accountable to the population at large.

Hypothesis 1. Political regimes pursue different strategies to achieve exchange rate stability having experienced exogenous economic crises: Democracies pursue capital openness and developing autocracies favor preserving monetary independence. Developing democracies follow a mixed strategy.

Hypothesis 2: Political regimes enact reforms differently to achieve their preferred strategy for exchange rate stability: Democracies promote financial market reform to facilitate capital openness and developing autocracies arrest such reforms to preserve monetary independence. Developing democracies follow a mixed strategy.

Although the above two are the main hypotheses of this paper, we also venture to see the consequences of leader choices. For instance, do the different strategies of democratic leaders and autocratic leaders result in different external balance consequences? From this paper's argument, it can be assumed that the developing autocratic leaders' need to protect economic growth against external shocks entice them to use policies at their disposal to accumulate external surpluses and foreign reserves. Being unable to directly observe the intentions of autocratic leaders, we can see whether they have been able to successfully attain their policy goals. Such interests lead to the following hypothesis.

Hypothesis 3: Autocratic leaders' preference for monetary independence and fixed exchange rate arrangements enables them to improve external balances and foreign reserves.

Having distilled the paper's argument into concrete hypotheses, we now proceed to describing the data and introducing the analysis results.

III. Empirical Analysis

The Data

Dependent Variables

The above hypotheses are tested by country panel and time series linear regressions that include a lagged dependent variable as well as country dummies for fixed effects. The dependent variable for Hypothesis 1 and Hypothesis 2 is the exchange rate stability index included in the monetary trilemma dataset compiled by Aizenmen, Chinn, and Ito (2010); the index is constructed by calculating the annual standard deviations of monthly log-change in the exchange rate between the home country and base countries. For Hypotheses 3a and 3b, the dependent variables are respectively, a country's external balance of goods and services (as portion of the GDP) and its foreign reserves (standardized by monetary (M2) supply). Both figures are drawn from the World Bank's World Development Index online database.

Independent Variables

There are three sets of independent variables—variables measuring the number of economic crises, variables measuring political regimes, and variables measuring policy reforms. To examine a country's past vulnerability to exogenous shocks, to which political leaders should have been held accountable, four indices were prepared. One index counts the number of recessions, measured by the years of negative annual growth. The two other indices are those of trade crisis and balance of payments crises: These two were calculated respectively by counting the number of years when the external balances or current account balances dropped more than one standard deviation below the mean yearly change. Finally, the currency crisis index counted the number years in which the monthly changes in the exchange rate and foreign reserves fell more than two standard deviations from the mean.

All four indices turned out to be highly significant in explaining shifts in international monetary policy captured by the exchange rate stability variable, as well as variables that will be explained below; namely, capital openness and the monetary independence. Such results corroborate the idea that economic crises prod leaders to take steps that help lock in the international monetary policy path of a country. However, for the sake of brevity, only the results that used **currency crisis** will be used in below discussion.

Pending the completion of the author's own dataset, the political regime variables derive from three sources: the Hadenius and Teorell (2007) dataset of authoritarian regimes (henceforth **regime** dataset), the political survival (henceforth **survival**) dataset by Bueno de Mesquita et al. (2002), and the POLITY dataset. These three indices portray important aspects of the regime classification presented in Table 1. The **regime** dataset, however, does not differentiate among democracies but distinguishes between party ruled autocracies, which this paper classifies as

developing autocracies, and other autocracies. By comparison, the **survival** dataset, which is constructed from POLITY dataset, uses the latter's competition and openness in executive recruitment indices. I used 0.75, 0.5, and 0.25 as thresholds to distinguish between democracies, developing democracies, developing autocracies, and autocracies. Similarly, I used 8, 0 and -8 as thresholds to construct a corresponding classification using POLITY (which ranges from 10 to -10 to rank regimes from democracies to autocracies).

Finally, international monetary goals and policies are represented by four variables. The first two variables—capital openness and monetary independence—derive from the aforementioned Aizenmen, Chinn, and Ito (2010) data set. These variables represent a government's international monetary strategy. The word strategy is used to indicate that the variables do not directly represent what is undertaken by governments. The capital openness index is created by coding capital account controls listed in IMF's Annual Report on Exchange Arrangements and Exchange Restrictions and is a *du jure* index of policy intentions, while the monetary independence index is based on the monthly money market interest rate correlation between a country and base countries and is a *de facto* index. As such, both variables have problems when equated with government policy. It has often been mentioned that there is a discrepancy between what government preach, as represented in the capital openness index, and what they practice. The monetary independence index has similar problems. For instance, when the countries committed to capital openness and exchange rate stability nonetheless decide to, either unilaterally or by international coordination, loosen (or tighten) their monetary policy and allow currency depreciation (or appreciation), such an instance is coded as an display of monetary independence.

Because of this problem, we examined two other variables to probe a governments' international monetary policies. The major variable is the financial reform index compiled by Abiad, Detragiache, and Tressel (2010), which is a composite index of seven components such as interest rate liberalization, bank entry deregulation, and banking privatization. The financial reform index captures the governments' commitment to capital opening beyond what is declared. For an alternative, we looked into is exchange rate arrangements. We used data codified by Ilzetzki, Reinhart and Rogoff (2008), which basically distinguishes between, fixed, semi-fixed, managed, and free floating exchange rates. Alternate classifications of exchange rate arrangements were also used and all of them showed very robust correlations with a country's external balances and the foreign reserve size. We show the results obtained by the coarse classification of Ilzetzki, Reinhart and Rogoff (2008).

The Analysis

Descriptive Analysis

Before analyzing the relationship between political regimes and economic adjustments, it is helpful to understand beforehand the trends in regime distribution and the trends in economic

outcomes. Figures 1a and 1b traces the rise and fall of regimes during the last three decades, using **regime** and **survival** data. The depicted trends confirm that the early 1990s witnessed a great turning point that increased the number of developing democracies and developing autocracies, mostly at the cost of traditional autocracies.

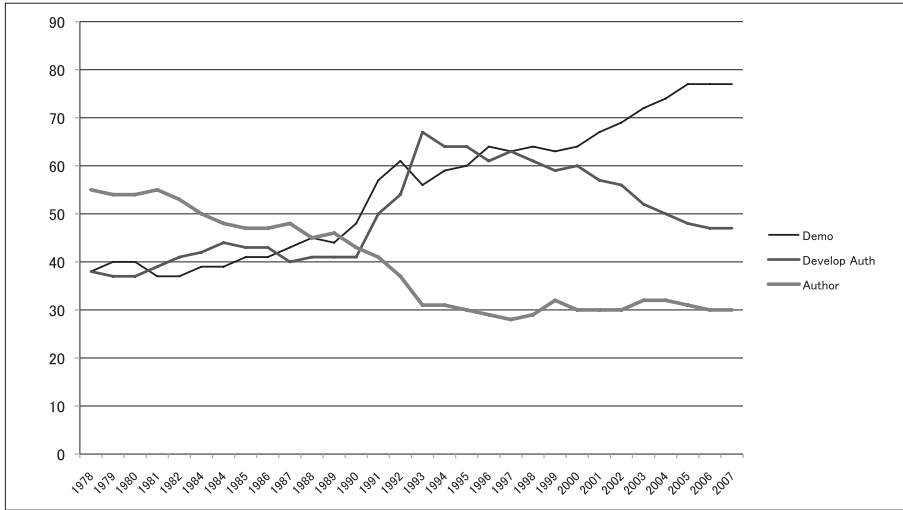


Figure 1a Trends in the distribution of regimes (Regime dataset)

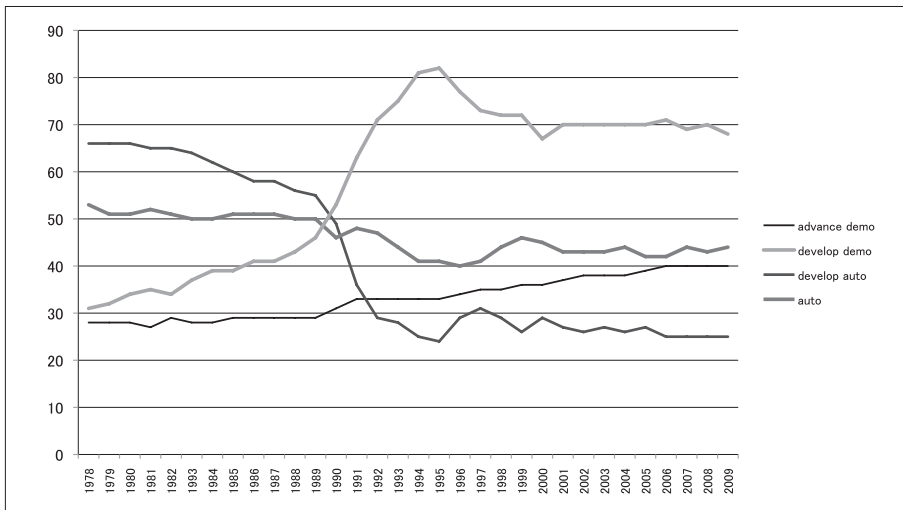


Figure 1b Trends in the distribution of regimes (Selectorate dataset)

The international economic policy trends of different regimes are charted in Figures 2a, 2b, and 2c. Figures 2a and 2b depict the trade dependency and exchange rate stability of different regimes. It is apparent that all regimes showed a similar and gradual increase in trade openness and exchange rate stability. By contrast, the capital openness trends depicted in Figure 2c show significant differences among political regimes in spite of all regimes moving

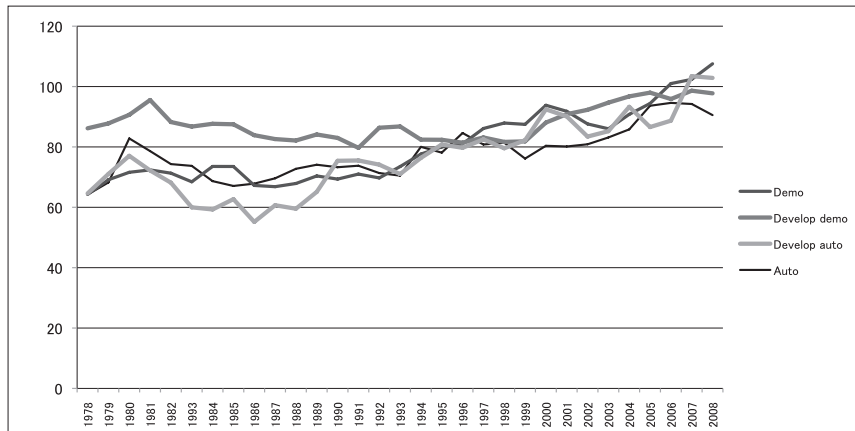


Figure 2a Trade dependency_Selectorate

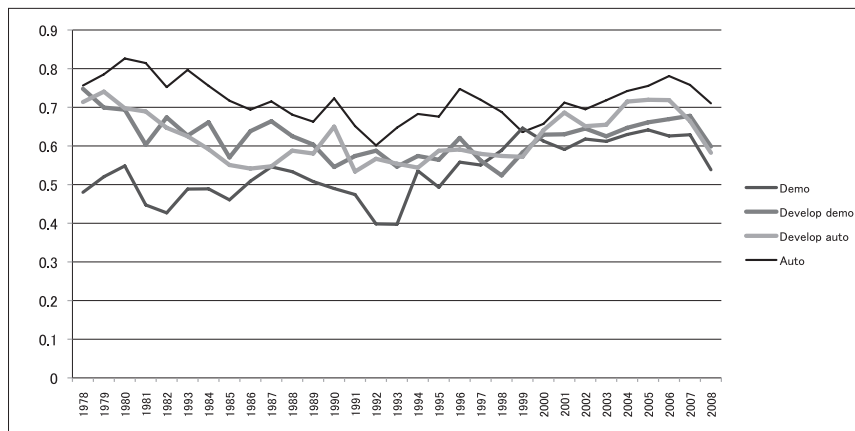


Figure 2b Exchange rate stability_selectorate

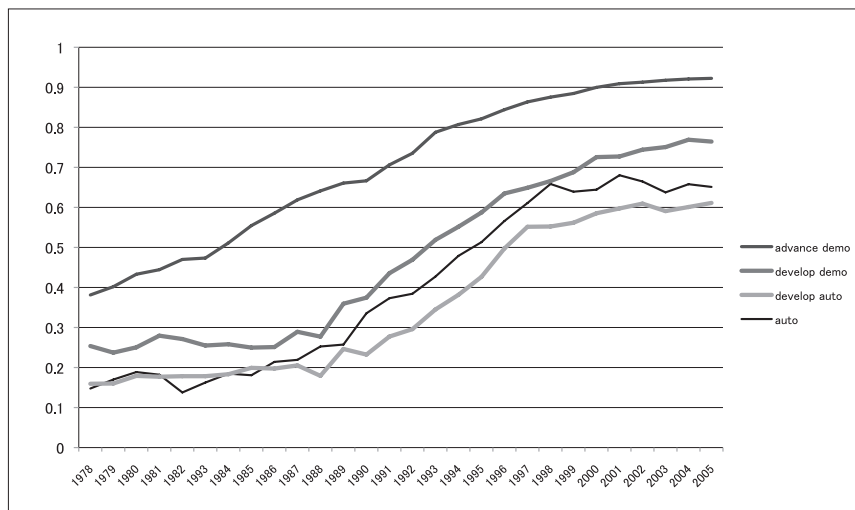


Figure 2c Financial Reform_Selectorate

towards increases openness. It is exactly the kind of policy differences represented in Figure 2c that we seek to explain.

Quantitative Analysis

The hypotheses concerning the impact of survival impulses on international monetary policy are tested by time-series linear regressions models with fixed effects (country dummies). A list of the variables used in the models is presented in the Appendix Table 1. To begin with, **exchange rate stability** is the dependent variable used to test Hypothesis 1. The independent variables are the lagged dependent variable, **currency crisis**, a regime variable, and either **capital openness** or **monetary independence**. To see whether political regimes use different strategies to realize monetary stability the political regime variable is interacted with either **capital openness** or **monetary independence**.

The results are listed in Table 2a and 2b: the regime effects of capital openness on exchange rate stability is presented in Table 2a, while the effect of monetary independence is presented in Table 2b. As can be detected the Tables only show the correlation coefficients, the standard errors, the z-values, and the p-values, and omits the lagged dependent variable and the country dummies.

The results shown at the top left corners of the two Tables clearly indicate that past vulnerability to currency crisis, the degree of capital openness, and the degree of monetary independence all contribute to a country's currency stability. However, while the contribution of capital openness is positive, that of monetary independence is negative. More importantly, these general results are driven by political regimes. A breakdown of the effects of capital openness and monetary independence show that their contribution works in opposed ways among political regimes.

A reading of the middle lines of Table 2a shows that capital openness entails exchange rate stability only for democracies, regardless of how the democracy variable is specified. When **capital openness** is interacted with the democracy variables, the results are positive and statistically significant. By contrast, when **capital openness** is interacted with the developing democracy or the developing autocracy variables the results are negative and significant, as seen in the bottom lines of Table 2a, and that results stands regardless of the construction of the regime variables (except for one equation). This result means that compared to the omitted democracy variable, capital openness is detrimental for developing democracies and developing autocracies. Furthermore, a glance of the coefficient correlates strongly suggests that the destabilizing effect of capital openness for exchange rate stability is larger for developmental autocracies than developmental democracies.

As a whole the results displayed in Table 2a unequivocally confirms that capital openness contributes to exchange rate stability in diametrically opposed ways for democracies and non democracies, and only for democracies does it help realize exchange rate stability. For non-democracies, capital openness has resulted in exchange rate instability. From this we can infer

Table 2a Exchange rate stability, capital openness, and political regimes

DV = Exchange rate stability Crisis = currency crisis	Regime index = Regime				Regime index = Survival				Regime index = POLITY			
	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t
Currency crises (t-1)	0.008	0.002	5.57	0.000								
Capital openness (t-1)	0.034	0.014	2.39	0.017								
Currency crises (t-1)	0.008	0.002	5.15	0.000	0.007	0.002	4.74	0.000	0.008	0.002	4.68	0.000
Capital openness (t-1)	-0.006	0.021	-0.30	0.764	0.007	0.017	0.43	0.670	0.009	0.020	0.42	0.673
Democracy	-0.040	0.015	-2.70	0.007	-0.062	0.028	-2.20	0.028	-0.048	0.017	-2.88	0.004
Dem * Cap. openness (t-1)	0.073	0.026	2.78	0.005	0.101	0.031	3.23	0.001	0.056	0.028	2.00	0.045
Currency crises (t-1)	0.009	0.002	5.42	0.000	0.009	0.002	5.57	0.000	0.009	0.002	4.89	0.000
Capital openness (t-1)	0.067	0.018	3.61	0.000	0.101	0.027	3.68	0.000	0.063	0.022	2.90	0.004
Development democracy					0.049	0.029	1.70	0.089	0.044	0.018	2.43	0.015
Dev. Dem * Cap. open (t-1)					-0.088	0.035	-2.54	0.011	-0.070	0.034	-2.08	0.038
Development autocracy	0.046	0.016	2.97	0.003	0.110	0.032	3.50	0.000	0.055	0.019	2.85	0.004
Dev. Auto * Cap. open (t-1)	-0.106	0.030	-3.55	0.000	-0.144	0.045	-3.19	0.001	-0.033	0.033	-1.00	0.318
Autocracy	0.033	0.019	1.77	0.076	0.060	0.031	1.92	0.055	0.071	0.028	2.51	0.012
Auto. * Cap. open (t-1)	-0.024	0.034	-0.72	0.470	-0.061	0.040	-1.54	0.124	-0.070	0.056	-1.24	0.214

Lagged dependent variable and country dummies omitted

Table 2b Exchange rate stability, monetary independence, and political regimes

DV = Exchange rate stability Crisis = currency crisis	Regime index = Regime				Regime index = Survival				Regime index = POLITY			
	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t
Currency crises (t-1)	0.010	0.001	6.82	0.000								
Monetary ind. (t-1)	-0.069	0.018	-3.75	0.000								
Currency crises (t-1)	0.010	0.001	6.52	0.000	0.009	0.001	6.14	0.000	0.011	0.002	6.29	0.000
Monetary ind. (t-1)	-0.012	0.027	-0.46	0.646	-0.034	0.022	-1.56	0.120	-0.033	0.027	-1.21	0.225
Democracy	0.042	0.021	1.99	0.047	0.056	0.027	2.04	0.041	0.026	0.022	1.14	0.253
Dem * Mon. indep. (t-1)	-0.110	0.036	-3.02	0.003	-0.132	0.040	-3.27	0.001	-0.111	0.040	-2.80	0.005
Currency crises (t-1)	0.010	0.002	6.62	0.000	0.010	0.002	6.55	0.000	0.011	0.002	6.12	0.000
Monetary ind. (t-1)	-0.122	0.025	-4.83	0.000	-0.162	0.034	-4.72	0.000	-0.144	0.030	-4.81	0.000
Development democracy					-0.045	0.029	-1.53	0.126	-0.027	0.027	-0.99	0.324
Dev. Dem * Mon. ind (t-1)					0.099	0.045	2.18	0.029	0.098	0.051	1.93	0.053
Development autocracy	-0.057	0.024	-2.41	0.016	-0.037	0.037	-0.99	0.323	-0.022	0.027	-0.83	0.409
Dev. Auto * Mon. ind (t-1)	0.134	0.042	3.17	0.002	0.151	0.059	2.56	0.011	0.135	0.048	2.79	0.005
Autocracy	-0.015	0.027	-0.57	0.571	-0.055	0.032	-1.70	0.089	-0.027	0.047	-0.57	0.567
Auto. * Cap. Open (t-1)	0.077	0.049	1.58	0.113	0.171	0.052	3.31	0.001	0.091	0.084	1.08	0.278

Lagged dependent variable and country dummies omitted

that capital openness has not been the preferred strategy for non-democracies to manage exchange rates and that such regimes are more likely to resort to monetary independence to realize exchange rate stability.

This intuition is substantiated by the results presented in Table 2b, showing the effects of monetary independence on exchange rate stability. In a mirror image of what can be learned from Table 2a, the results listed in Table 2b confirm that the exchange rate destabilizing effect

of monetary independence is only limited to democracies, as seen from the middle lines of Table 2a. When **monetary independence** is interacted with the developing autocracy or developing democracy variables, the results are without exception negative and significant (one result at the 90 percent level). This result confirms that monetary independence facilitates exchange rate stability for developing democracies and developing autocracies, contrary to its effect for democracies.

As such, for developing regimes monetary independence seems to have been the preferred strategy for exchange rate stability, quite the opposite to democratic regimes. The results introduced so far unequivocally corroborate Hypothesis 1 by establishing that in the shadow of the Mundell-Fleming dilemma, it can be assumed that democracies and developing regimes have been using opposite strategies to realize exchange rate stability.

However, unearthing the fact that democracies realized exchange rate stability by capital openness, while developing regimes did the same thing by monetary independence does not go far enough to say that such correlations are a result of policy choices. The link between policy choices and exchange rate stability, as expressed in Hypothesis 2, can be substantiated by showing that the strategies of capital openness and monetary independence are a result of policy choices. The linkage is established by examining whether currency crises compel leaders to undertake financial market reforms and whether financial market reforms entail capital openness or exchange rate stability.

The connection between currency crises and financial reforms is portrayed in Table 3a. The upper half of Table 3a shows that past experience with financial crises have strong and robust effects in advancing financial reform: democracies are significantly more likely to undertake financial reform than non-democracies. Interestingly, as can be seen from the bottom half of Table 3a, when the crisis variable is interacted with regime variables, the democracy variable becomes negative and highly significant, whereas the non-democracy variables become positive and highly significant. This implies that although democracies are more advanced in reforming the financial markets, democracies that have experienced a large number of past currency crises tend to shy away from further reforms. By contrast, for non-democracies past experience of currency crises work to push such countries towards further reforms. The crisis and democracy interactive term, however, does not damage this paper's claim that democratic leaders contemplate market-friendly reforms after economic crisis. Rather, the result seem to indicate that financial market reforms have reached a saturation point for democracies vulnerable to the whims of international financial markets.

Whether or not democracies are timid reformers when faced with currency crises, the results displayed in Table 3b clearly states that only in democracies are financial reforms associated with capital openness. Although financial reform forcefully facilitates capital openness, this effect is attributable almost exclusively to democracies. The coefficient correlation of the democracy-financial reform interactive variable is almost as large as the reform variable. The weak significance of the interactive variable seen when the POLITY figures are used, can

Table 3a Economic crises, financial reforms, and political regimes

DV = Financial Reform Crisis = currency crisis	Regime index = Regime				Regime index = Survival				Regime index = POLITY			
	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t
Currency crises (t-1)	0.206	0.023	8.97	0.000	0.174	0.018	9.46	0.000	0.245	0.024	10.27	0.000
Democracy	0.476	0.127	3.74	0.000	0.527	0.209	2.52	0.012	0.742	0.132	5.63	0.000
Democracy * Crisis	-0.099	0.023	-4.25	0.000	-0.106	0.024	-4.45	0.000	-0.152	0.024	-6.29	0.000
Currency crises (t-1)	0.107	0.018	5.90	0.000	0.078	0.023	3.39	0.001	0.094	0.018	5.20	0.000
Development democracy					-0.220	0.216	-1.01	0.310	-0.597	0.166	-3.58	0.000
Dev. Dem * Crisis (t-1)					0.058	0.025	2.28	0.022	0.114	0.032	3.62	0.000
Development autocracy	-0.295	0.139	-2.12	0.034	-0.732	0.239	-3.06	0.002	-0.696	0.144	-4.83	0.000
Dev. Auto * Crisis (t-1)	0.065	0.025	2.59	0.010	0.213	0.047	4.50	0.000	0.146	0.034	4.31	0.000
Autocracy	-0.798	0.159	-5.01	0.000	-0.980	0.235	-4.16	0.000	-1.256	0.219	-5.74	0.000
Auto. * Crisis (t-1)	0.187	0.044	4.27	0.000	0.256	0.048	5.36	0.000	0.055	0.152	0.36	0.716

Lagged dependent variable and country dummies omitted

Table 3b Capital openness, financial reforms, and political regimes

Capital openness Reform = financial	Regime index = Regime				Regime index = Survival				Regime index = POLITY			
	Coef.	Std. Err.	t	P> t	Coef.	Std. Err.	t	P> t	Coef.	Std. Err.	t	P> t
Reform	0.003	0.001	5.14	0.000	0.004	0.001	7.59	0.000	0.003	0.001	3.38	0.001
Democracy	-0.014	0.011	-1.23	0.220	0.006	0.018	0.35	0.725	-0.016	0.013	-1.22	0.223
Reform*Democracy	0.002	0.001	2.80	0.005	0.002	0.001	2.36	0.018	0.003	0.001	2.48	0.013
Develop demo									-0.023	0.013	-1.72	0.086
Reform*Dev demo									0.003	0.001	2.12	0.034

Lagged dependent variable and country dummies omitted

Table 3c Exchange rate stability, financial reforms, and political regimes

DV = Exchange rate stability Crisis = currency crisis	Regime index = Regime				Regime index = Survival				Regime index = POLITY			
	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t	Coef.	Std. Err.	z	P> t
Currency crises (t-1)	0.011	0.003	3.64	0.000	0.011	0.003	3.74	0.000	0.011	0.003	3.78	0.000
Financial reform (t-1)	-0.001	0.002	-0.48	0.633	0.000	0.001	-0.28	0.780	0.000	0.002	0.24	0.808
Democracy	-0.038	0.027	-1.42	0.156	-0.037	0.042	-0.86	0.388	-0.064	0.028	-2.28	0.023
Dem * Fin. reform (t-1)	0.004	0.002	1.97	0.049	0.005	0.002	2.33	0.020	0.003	0.002	1.30	0.195
Currency crises (t-1)	0.012	0.003	3.90	0.000	0.013	0.003	4.37	0.000	0.012	0.003	3.98	0.000
Capital openness (t-1)	0.003	0.002	1.64	0.100	0.004	0.002	1.85	0.064	0.003	0.002	1.53	0.127
Development democracy					0.009	0.045	0.20	0.842	0.037	0.035	1.08	0.281
Dev.Dem*Fin. reform (t-1)					-0.004	0.002	-1.56	0.120	-0.002	0.003	-0.74	0.458
Development autocracy	0.033	0.030	1.10	0.270	0.092	0.049	1.88	0.060	0.085	0.031	2.73	0.006
Dev.Auto*Fin. reform (t-1)	-0.005	0.002	-2.09	0.037	-0.004	0.003	-1.10	0.270	-0.001	0.003	-0.31	0.756
Autocracy	0.042	0.033	1.30	0.193	0.039	0.048	0.81	0.417	0.135	0.053	2.56	0.010
Auto. * Fin. reform (t-1)	0.002	0.003	0.59	0.558	-0.001	0.003	-0.37	0.711	-0.010	0.008	-1.29	0.196

Lagged dependent variable and country dummies omitted

be easily rectified if the development democracy variable is added. This result denotes that the relation between financial reform and democracies is stronger when democracy is broadly defined to include developing ones. This is a significant point because it means that even if developing regimes vulnerable to international markets are bolder financial reformers, such reforms do not bring forth capital openness for development democracies. This assertion can be further verified if we look in to the effect of financial reform on currency stability.

The results presented in Table 3c speak to the effect of financial reforms on currency stability. The most noteworthy point of the result is that financial reforms have opposite effects on currency stability between democracies and non-democracies. This pattern is identical to the one we saw earlier between capital openness and financial reforms. That financial reforms contribute to currency stability only for democracies and not for non-democracies can be discerned by a quick look at the interactive variables. When interacted with democracy variables, **financial reform** is positive and mostly significant, whereas when interacted with non-democracy variables it is negative with most results not reaching statistically significant levels. It can easily be imagined that the relation between financial reforms and exchange rate stability is weaker unless intermediated by capital openness.

Taken together, the results displayed in the three tables in Table 3 provide strong evidence that the international monetary strategies of government leaders reflect the concrete reforms they undertake. For democratic leaders, financial reforms are an integrated part of their strategy to pursue open economic growth by liberating market forces. By contrast, financial reforms for developing autocracy leaders are necessary steps to facilitate economic growth and are carried out in ways that do not undermine their control of the economy. As such, the results unequivocally corroborate Hypothesis 2.

Can the argument about financial market reform be applied to exchange rate arrangements? In other words, do non-democracies prefer exchange rate arrangements as a means to stabilize their currency? We have explored this venue and have obtained mixed but encouraging results. However, since there remains ample room for improvement until a definite conclusion is reached, only the tentative findings are introduced in this version of the paper. One problem that needs to be addressed is that the current exchange rate classification, although ingenuous, does not reflect the government's degree of desired control. The order of common currency and then controlled, managed, and floating exchange rates puts the abrogation of exchange rate decisions (namely, the adoption of a common currency) next to the most controlled exchange rate arrangement. Problematic as it may be, however, the existing data has provided some results.

First of all, our analysis did suggest that recurring currency crises compel democracies and non-democracies to make divergent choices of exchange rate arrangements. When exchange rate arrangements were regressed by a lagged dependent variable, the currency crises variable, political regime variables, and the interactive variables of the latter two, the interactive variable turned out to be positive and mostly significant (except for one) with

democracy, and negative and mostly significant with non-democracies. These results indicate that democracies subject to currency fluctuations tend to keep their currencies floated, whereas, by contrast, developing regimes are likely to adopt managed exchange rates in a volatile international economy.

Secondly, when currency stability were regressed by the currency crises variable, the exchange rate arrangement variable, political regime variables, and the interactive variables of the latter two, the interactive variable turned out to be negative and barely significant with democracy, and positive and barely significant with non-democracies. These results merely suggest that managed exchange rates is not the choice of democracies to stabilize exchange rates and that managed exchange rates is a means to realize exchange rate stability for non-democracies. Hence, although the results show a parallel between exchange rate management and financial reforms, the results are not robust enough to be confident.

Finally, we ran a number of regressions probing whether the autocratic leaders preference of monetary independence and controlled exchange rates actually enable them to improve external balances and foreign reserves, as stated in Hypothesis 3. Although simple regressions clearly confirmed that developing autocracies ran exchange rate surpluses, while developing democracies ran large deficits, we could not find a policy variable that explained the size of external balances. Conversely, our regression confirmed that international monetary policies affect the size of foreign reserves, but we were unable to find differences among political regimes.

With regard to external balances, in general, we found that progress in financial reforms tends to have a negative and somewhat significant effect on external balances, whereas the adoption of floating exchange rate has a positive and significant effect on external balances. However, such policy effects do not vary among different political regimes, except the case of financial reforms for developing autocracies. The results indicated that financial reform contributes to external balance in the case of developing autocracies. This finding when combined with earlier finding of leaders of developmental autocracies being bold financial reforms not associated with capital openness, suggests that such leaders undertake financial reforms as a means to increase external surpluses.

With regard to foreign reserves, our preliminary analysis showed that financial reforms and floating exchange rates had the effect of increasing the size of external reserves. The most promising finding was that financial reforms tend to reduce the size of the large reserves held by democracies, whereas such reforms increased the size of reserves held by non-democracies. This result dovetails with the result that showed financial reforms contributed external surpluses for non-democracies.

To sum up the empirical analysis, this section has unearthed strong evidence indicating that democracies and developing adopt different strategies in confronting the dilemma between capital openness and monetary independence, thereby corroborating Hypotheses 1 and 2. Compared to this finding, the analysis has been less successful in reporting the international

economic consequences of developing autocracies' strategy of controlled adjustment to financial globalization.

VI. Concluding Remarks

This paper has presented a simple theory explaining why political regimes may undertake diverging strategies to realize open economic growth. The theory predicted that while democratic leaders are more likely to promote market-oriented reforms, development autocracies are unlikely to give up the crucial levers of the economy. The theory was tested by examining international monetary policy in which government leaders faced a dilemma between pursuing capital openness and maintaining monetary autonomy. The analysis found strong evidence in support of the theory.

However, the empirical investigation has yet to discover distinct international economic consequences of the different strategies, particularly in the area of external balances and foreign reserves. Further research in this direction is warranted since credible findings in this aspect is crucial in addressing important issues such as, (a) how has the spread of democracy in the 1990s shape the spread of economic globalization, and (b) what kind of economic coordination problems are likely to arise in the post-Great Recession world where different types of political regimes coexist?

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Appendix Table 1 Summary of variables

Variable Name	Summary						Sources
	Obs	mean	sdv	min	max		
Exchange rate stability	5077	0.631	0.333	0.007	1	Aizenmen, Chinn, and Ito (2010)	
Monetary independence	4413	0.435	0.183	0	0.968		
Capital openness	4500	0.428	0.356	0	1		
Regime	5419	2.158	0.813	1	3	Authoritarian Regimes Data Set, Hadenium and Teorell (2007)	
Selectorate	5727	0.596	0.290	0	1	The Logic of political survival data source, Bueno de Mesquita (2002)	
POLITY	4555	1.528	7.315	-10	10	POLITY IV Project Dataset < www.systemicpeace.org/polity/polity4.htm >	
Currency crisis	4437	3.593	2.770	0	16	Calculated by the author using IMF International Financial Statistics < http://www.imfstatistics.org/imf/ >	
Financial reform	2311	11.202	6.156	0	21	Abiad, Detragiache, and Tressel (2010)	
External balance	4901	-6.458	17.142	-162.550	81.697	World Development Index	
Foreign reserves	4251	0.388	0.446	-0.015	5.236	< http://data.worldbank.org/data-catalog >	