

POLITICAL FREEDOM, EXTERNAL LIBERALIZATION AND FINANCIAL  
STABILITY

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## **I. Introduction**

Since the 1980s, the frequency of financial crises in emerging economies has increased alongside greater liberalization of domestic and international financial markets. The IMF estimated that between 1980 and 1996 two thirds of its member countries experienced significant banking sector problems (Lindgren, Garcia, and Saal, 1996). And while the costs of financial crises are often staggering to the respective countries, financial crises can also be very disruptive to the continued flow of goods and capital, thereby impacting a country's trade partners as well as its lenders.

Some attempts have been made to stabilize emerging economies while keeping market based mechanisms intact e.g., through early warning systems or increased transparency. But increasingly the debate has shifted towards stabilizing institutions that would address the causes of crises. Among these institutions, more political freedoms have been cited as one possibility. Greater citizen involvement in economic resource allocation may result in a more equitable distribution of economic gains between capital and labor, thereby helping to stabilize domestic demand. Also, more involvement may help to raise productivity by allocating more resources for education and skill development compared to a situation with fewer political freedoms. Thus, as a result of increased freedoms, there may be additional resources thanks to faster productivity growth, and these resources may be more equally distributed between labor and capital as compared to a situation with fewer political freedoms. Hence, the chance of financial investments outpacing real economic growth, often characteristic of speculative financing, could be reduced.

There is already some evidence that political freedoms are associated with faster productivity growth and more equality, but there is also some evidence that greater capital and trade mobility adversely affect political freedoms. In particular, more deregulation of trade and capital flows may lead to increases in import competition and in capital mobility, thereby raising the chances of threat effects by employers and hence possibly wage and employment gains that would have been possible in a less open environment. Thus, even if political freedoms have a positive effect on financial stability, this effect may be lower in an open economy than in a more closed one.

## **II. Background**

Because the costs of financial crises can be substantial for the countries involved and for economies that are connected to them through trade and capital linkages (Honohan and Klingebiel, 2000; Caprio, 1998), increased attention in the literature has been paid to the causes of crises at a time when crises appeared to become more frequent. Two main findings are that financial crises follow, to some degree, certain patterns (Eichengreen et al., 1995; Kaminsky and Reinhart, 1999) and that more deregulated economic environments are more prone to financial instabilities (Arestis and Demetriades, 1999; Weller, 2001). In particular, financial crises are preceded by a widening gap between financial markets and real economic outcomes, ultimately resulting in unrealized investor expectations, thereby leading to the withdrawal of funds,

which often precipitating both a currency and a banking crisis (Grabel, 1993, 1998; Weller, 2001).

In addition, the growing frequency of financial crises has been linked to the emergence of financial deregulation, based on Minsky's (1986) "financial instability hypothesis" (Grabel, 1993; 1995). Financial deregulation, also known as financial liberalization (FL), has become widespread as most emerging economies gradually began lifting financial market restrictions in the 1980s. FL is generally defined as the elimination of financial regulations in domestic financial markets (McKinnon, 1973; Shaw, 1973), such as interest rate ceilings or lending requirements. However, while the focus of the original FL literature has been largely on domestic liberalization, external liberalization tends to follow suit, thereby increasing capital and trade mobility. As discussed further below, it is especially the fallout from external liberalization that affects the development and the effectiveness of political freedoms, and hence may indirectly affect financial instability.

Financial fragilities arise from increased speculative financing, resulting in a growing gap between real and financial sector growth. Hence, speculative financing is marked by a deterioration of the quality of credit, which is reflected in a growing gap between real sector and credit market performance. Moreover, speculative financing is also reflected in an asset price bubble that is fuelled by a growing distribution of economic resources towards profits. However, with real and financial sectors growing apart, borrower default risk increases. Maturity risk also increases, as short-term overseas investors become more likely to withdraw their funds if the higher default risk materializes. In addition, the exchange rate risk grows with the prospect of rapidly withdrawn short-term overseas capital (Arestis and Demetriades, 1999). Withdrawal of foreign capital leads to an asset bust, and due to declining collateral, it also leads to a wave of bad loans and to a credit crunch (Alba et al., 1999; Demetriades; 1999).

Economies are more vulnerable to default, maturity and exchange rate risks after FL than before (Grabel, 1998; Weller, 2001). After FL, previously credit constrained sectors may receive financing because interest rate constraints are reduced and more capital is available. More capital might increase investment, expanding the real and the financial sectors, which may result in more capital inflows. Capital inflows in turn lead to an appreciating currency, thereby attracting again more capital. Thanks to internal and external deregulation, equity markets become more liquid as both domestic and international investors are channeling funds into them (Arestis and Demetriades, 1999). Greater stock market growth and liquidity attract more speculative equity market investments. At the same time, credit rises since higher interest rates and asset prices offer banks incentives to expand their lending (Grabel, 1993; 1995). Due to greater liquidity, productive and speculative investments grow. Capital invested in short-term speculative assets diverts funds from business investment finance, which is likely given that capital markets following FL promise high growth rates. Thus, bank credit can fuel an asset boom cycle (Demetriades, 1999).

In terms of a country's external relations, an overvalued exchange rate can translate into a deterioration of the terms of trade, hence fuelling a weakening of the current account balance. Consequently, the financial sector grows, while the real sector slows down due to deteriorating terms of trade and a lack of access to investment finance.

Moreover, policymakers find themselves in a dilemma since stabilizing measures for the exchange rate either fuel investors' expectations of an economic slowdown, such as higher interest rates, or they are limited in scope, such as the selling of reserves. Ultimately, the economy is marked by higher interest rates, a credit crunch, higher import prices, and depressed domestic demand.

Capital and current account deregulation appear to foster investor euphoria, especially through increased asset prices, that inflate the collateral of borrowers, raise the expectations of lenders and increase domestic demand based on paper wealth. Investors consequently underestimate the risks involved in their portfolio allocations. Due to competitive pressures, financial institutions that do not engage in short-term speculative activities are punished through higher costs of capital. Thus, greater financial market competition may in fact create a "too big to fail" problem due to herd behavior. In other words, financial market speculation becomes, at least in the short-run, self-fulfilling since more investors are engaging in speculative activities, thereby temporarily perpetuating a speculative boom.

Given the findings on the causes of financial crises, the intermediate steps to stabilize emerging economies are to lower default, maturity and exchange rate risks in an economic environment that is marked by growing financial deregulation. One possible way to reduce financial instabilities may be to lower the chances for speculative financing and thus limiting the chances for default risk. That is, institutions that can help to reduce the gap between real and financial economic growth in a deregulated environment are likely to be effective in stabilizing emerging economies.

Among institutions that may be able to reduce the chances for speculative financing are political freedoms. In particular, we distinguish between political rights and civil liberties. Political rights measure the freedom and integrity of the electoral process, suffrage rights, the amount of power endowed to elected leaders, the ability of individuals to join and to support opposition parties, and the freedom of minority members in society to self-determination. Civil liberties encompass freedom of expression, belief, association, and organizational rights, as well as rule of law, human rights, personal autonomy, and economic rights; they focus on the ability "to develop views, institutions, and personal autonomy apart from the state."

Increased political freedoms could facilitate the participation of citizens, most of whom are workers, in the allocation of economic resources. As workers have a stronger voice, there may be a greater reallocation of resources to workers through higher wages, more employment, and stronger social safety nets. Especially, increased political freedoms may enhance workers' desires for income redistribution. Hence, the overall distribution of economic resources may become more equitable as political freedoms

provide a system of checks and balances on the resource allocation toward capital. There may also be an indirect reallocation through more resources for education and training, which may increase the chances for faster productivity growth. In addition, workers may receive a more stable share of the increased economic resources.

Faster growth and more equitable distributions of economic gains can provide both the incentives and the resources for more stable and sustainable growth. As productivity growth increases, so does profit and wage growth, thereby offering businesses the incentive to increase investments, and households the resources to raise consumption. Alternatively, faster growth with a less equitable distribution of economic gains could lead to over investment relative to the level of domestic demand. Also, a more equitable distribution without faster growth may lack the incentives for businesses to invest in productive capacities and thus increase the incentives for speculative investments. In either case, mechanisms that could help to raise productivity and domestic demand growth could facilitate a more stable and sustainable growth path.

If domestic demand and productivity grow in tandem, the chances for speculative financing may be reduced, and hence the chance for financial crises. Increased demand and faster growth resulting from faster productivity growth, higher wages, and more employment lower the chances that resources are diverted for speculative financing towards credit and asset markets. Furthermore, as financial market growth has a greater chance to remain stable relative to real economic growth, the possibility of speculative financing is contained. Thus, as the gap between the real and financial sectors is less likely to increase, rises in borrower default risk, maturity risk, and exchange rate risks may be contained, which in turn lowers the risk of financial crisis.

Given that the impact of political freedoms on financial stability arises both directly and indirectly, it is important to distinguish which political freedoms are more likely to have a direct impact and which ones will have an indirect impact on economic outcomes. In particular, political rights that give citizens a voice in the political process are more likely to provide workers with a mechanism to influence redistributive policies, such as social safety nets, or education and training.

In comparison, civil liberties are more likely to improve workers' security in the work place and pave the way for direct effects on wage growth and employment security since they comprise most labor standards. Civil liberties tend to include freedom of expression and belief, freedom of association and organizational rights, rule of law and human rights, and, personal autonomy and economic rights. Labor standards are largely a subset of civil liberties. Core labor standards as defined by the International Labor Organization (ILO) include the prohibition of forced labor; nondiscrimination in employment; freedom of association; freedom of collective bargaining and prohibition of child labor. The freedom of association and the freedom of collective bargaining are included in the freedom of association and of organizational rights. Human rights include the prohibition of slave and child labor. Also, personal autonomy and economic rights encompass the nondiscrimination in employment.

A growing body of literature supports a positive causal relationship between political freedoms and positive economic outcomes, such as higher wages and productivity and less inequality. Rodrik (1999) found a positive link between political freedoms and manufacturing wages in both industrialized and industrializing countries based on macro economic data. Similarly, Palley (2000) also found that better worker rights resulted in higher wages and less inequality. Also, Michie and Sheehan (2000) found, using firm-level data from the UK, that there was a strong positive correlation between employee protections and innovation. Rubery et al. (1999) similarly found, based on macroeconomic data from industrialized countries, that equal opportunities boosted productivity. Buchele and Christiansen (2001, 2000) found that OECD countries with stronger worker rights had better social and economic outcomes, including productivity growth and inequality, than those countries with weaker worker rights. Alesina and Rodrick (1994) found that increased democracy resulted in faster growth and less income inequality. Similarly, Quinn and Woolley (2001) found, based on analyses of 108 countries, that democracies reflect voter preference for stable growth.

A number of studies also suggest that there is a connection between political freedoms and economic stability. Weak political freedoms, hampered by lax oversight or corruption may have contributed to financial crises in the past. Alba et al. (1999) found the Thai financial crisis was caused by the introduction of a liberalized economy into a weak institutional environment. Similarly, Demetriades and Fattouh (1999) found that the deregulation of the South Korean economy before existing institutional weaknesses could be addressed contributed to the crisis in 1997. Also, Palley (2001) suggests that worker rights could help to improve financial stability. In other words, there is some evidence that more political freedoms may result in greater stability through improved political governance, and not just through its effects on productivity growth and equality.

Aside from a number of studies documenting the benefits of political freedoms, there are also some studies that analyzed the effects of economics on freedom. Indeed, the failure of open markets to promote democracy in some locations provided the impetus for research on the causal relationship between economics and democracy, and by and large found that some economic trends hamper the development or growth of democratic institutions. Collingsworth, Goold, and Harvey (1994) demonstrated that foreign direct investment (FDI) depressed human rights in industrializing countries. Barrientos (1996) analyzed the effect of trade liberalization on women agricultural workers in Latin America and found that trade liberalization without strong labor protections decreased both worker rights and wages. Ali (1996) similarly argued that FDI undermines weak trade sanctions, offering countries no incentive to democratize or to respect the human rights of local populations. Weeks (1999) concluded, based on macroeconomic data from Latin America, that increased labor market flexibility resulted in a significant deterioration of labor standards during the 1990s. Hence, there is some evidence that greater mobility of goods and capital flows in a deregulated environment reduces political freedoms. In particular, more deregulation of trade and capital flows may lead to increases in import competition and in capital mobility, thereby raising the chances of threat effects by employers and hence possibly wage and employment gains that would have been possible in a less open environment.

Finally, not all studies investigating the relationship between freedom and economics determined causality. Garnier and Majeres (1992), for instance, argued that development is best approached from political and economic angles simultaneously. Eide (1996) argued that respect for human rights is crucial for development, and Conley and Livermore (1996) similarly argued that there is an intrinsic link between respect for human rights, development, and democracy.

Thus, the evidence indicates that better economic and democratic institutions may result in improved wage and productivity growth and in faster and more stable economic growth. However, the evidence also suggests that democratic institutions and their potentially beneficial effects may be undermined by increased capital and trade liberalization, as well as labor market deregulation. Capital and current account deregulation may fuel aggressive investing in the financial sector, which will in turn foster a speculative boom. As a result, growth in the real and financial sectors will diverge, precipitating weaknesses in the economy and possibly instigating a crisis.

The link between freedom and financial stability is complex. Various political rights and civil liberties, specifically good governance, popular participation in policy decisions, and stronger individual protections, such as worker rights, seem to promote positive economic outcomes. From the existing literature, it appears that worker rights are likely to have the most immediate economic consequences, such as stronger wage growth and less inequality, and that other political freedoms may have less of an effect on financial stability.

### **III. Empirical analysis**

We analyze two types of financial crises: banking crises and currency crises in emerging economies from 1980 to 1998. There is some degree of uncertainty associated with classifying banking crises, hence we rely on established list of banking crises that have been the basis of other studies (Lindgren et al., 1996; Demirgüç-Kunt and Detragiache, 1997; Kaminsky and Reinhart, 1999). Generally, bank crises are defined as “bank runs or other substantial portfolio shifts, collapses of financial firms, or massive government intervention” (Lindgren et al., 1996:20)<sup>1</sup>. We include 22 banking crises, for which we have complete data (table 1).

Currency crises are somewhat easier to measure. In particular, currency crises are characterized by a sharp decline in the value of a currency or by a rapid depletion of official reserves. Hence, researchers tend to use an index that combines both changes in the official exchange rate and changes in official reserves to generate a currency crisis index (Kaminsky and Reinhart, 1999):

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<sup>1</sup> There is also a broader definition of significant banking sector problems, instead of crises, which basically includes any noticeable problems short of a crises (Lindgren et al., 1996). However, because of its breadth, this measure is not very useful in identifying events that approach crisis status.

$$I = \frac{\Delta e}{e} - \frac{\sigma_e}{\sigma_R} * \frac{\Delta R}{R} \quad (1)$$

where  $\Delta e/e$  denotes the 12-month percent change in the official exchange rate and  $\Delta R/R$  the 12-month percent change of official reserves. Also,  $\sigma_e$  is the standard deviation of the change in the exchange rate, and  $\sigma_R$  is the standard deviation of the change of official reserves. Since the official exchange rate is measured as national currency relative to the U.S. dollar and since changes of official reserves are entered with a negative sign, an increase in the index suggests a weakening of the currency. Specifically, measures of the index that are three standard deviations above its average are classified as currency crises (Kaminsky and Reinhart, 1999). Consequently, we measure 29 instances of currency market turbulences, for which we have complete data.

Our dependent variable is a binomial variable which takes the value of one for crisis periods and zero otherwise. We consider the actual crisis year and the two years before it as crisis periods. Due to turbulence that will likely occur during the years immediately following a crisis, we eliminate the two years after a crisis from our analysis. To test the robustness of our results, we also test our results with the crisis period defined as only the year prior to the crisis and the year immediately following the crisis deleted from our sample. However, shorter crisis periods are likely to be more influenced by the greater macro economic volatility surrounding financial crises.

Banking and currency crises follow an increase in default, maturity, and exchange rate risks. Political freedoms, in particular political rights and civil liberties may mitigate these risks, and hence the chance for financial crises.

First, default risk arises from overly optimistic credit expansions. Thus, real credit levels should be higher prior to a crisis than at other times. Higher levels of real credit only indicate speculative financing, though, if they occur in an environment where real production expands at a slower pace than financing. A widening gap between production and credit should signal increased speculative financing. To gain a sense of the dynamics of production prior to financial crises, we include a real GDP index. While rising credit, after controlling for output, should raise the chance of a banking crisis, the opposite holds true for increasing real output.

Alongside higher default risk, maturity risk should also increase. Deteriorating economic fundamentals raise the chance of capital outflows. The exposure to maturity risks of any economy depends on its exposure to short-term external loans relative to official reserves that could be used to defend a country's financial system against rapid outflows. We include the level of short-term debt relative to official reserves, which we expect to be positively correlated with the chance of a banking crisis occurring.

Rapid capital outflows and deteriorating economic fundamentals should weaken the external value of the currency. Rising exchange rate risks are captured by the real value of the currency. We expect the domestic currency to become overvalued prior to a

crisis, thereby raising financial fragility. Greater exchange rate risks also leads to a deterioration in the terms of trade, which should worsen the current account balance.

To account for a country's external vulnerabilities, we include a measure for the alignment of the real value of the domestic currency and a value of flows relative to reserves. In particular, we calculate the difference of the real exchange rate from its long-term average for each country, and we relate the difference in changes in short-term debt and the current account balance to official reserves. Because the exchange rate is measured as national currency relative to the U.S. dollar, an exchange rate's negative deviation from its long-term average constitutes an overvaluation, which should be correlated with a higher likelihood of crises. Also, more short-term capital inflows, a greater current account deficit, or both should raise a country's maturity risk.

Further, it is likely that the government is already feeling strains on the resources it could use to stabilize its financial system, such as official reserves. We use changes in official reserves as proxy for the ability of governments to stabilize their financial systems. Official reserves may grow more slowly during the months immediately before a crisis than during non-crisis periods if the government needs to support its currency or its banking system in the wake of deteriorating economic fundamentals. To control for the demands a government may face from its financial system, we include real deposits and real M1 to proxy for the size of the financial system. Due to speculative financing prior to a crisis, the monetary base should also be greater prior to a crisis.

The institutional environment also factors into our analysis. In particular, we include measures for external deregulation and for political freedoms. Greater external FL should directly increase maturity and exchange rate risks. Moreover, external liberalization is often predicated on the notion that it would help to attract more capital to emerging economies. However, this implicitly requires internal financial liberalization, especially a liberalization of interest rates, to be effective. Consequently, a comprehensive measure of external opening can also serve as proxy for domestic financial deregulation, thus possibly leading to an increase in default risk, too. Since the chances of financial crises have been found to be higher in more deregulated regimes than under regulated ones, a higher value of the external opening variable, indicating less open economies, should be negatively related to the chances of financial crises.

A few simple indications suggest that the institutional environment matters for financial stability. In particular, there is some evidence that banking and, even more so, currency crises, are more likely in politically non-free environments than in free ones. For instance, the chance of a currency crisis is 20% higher in a non-free environment than in a freer one (table 2).

Also, simple likelihood ratios suggest that banking crises are substantially more likely in open environments, whereas currency crises are more likely in closed environments.

Further, the numbers also indicate that the stabilizing effect of political freedoms with respect to banking crises may be greater in closed environments (row (4) in table 2) than in open environments (row (3) in table 2), at least with respect to banking crises. In other words, political freedoms in open environments are only half as effective – or in fact ineffective – as in closed environments in reducing the chance of banking crises. Political freedoms are slightly more effective in open environments than in closed ones in reducing the likelihood of currency crises.

The selection of explanatory variables allows us to control for the various risks outlined<sup>2</sup>. To control for an increase in default risk, we include real GDP growth and the ratio of domestic credit to GDP. Further, to account for a rise in maturity risk, we include the ratio of short-term loans to official reserves. But to avoid unnecessary multicollinearity problems, we follow Grabel's (1998) suggestion to measure the external risk exposure as the difference in the changes in short-term loans and the current account balance relative to official reserves. To control for the exchange rate risk, we include the difference between the real exchange rate and its long-term average.

We also control for a government's ability to stabilize the financial system by including the growth rate of official reserves, while we include two monetary aggregates, M1 and deposits relative to GDP, to account for overall financial market trend. A rise in M1 relative to GDP should indicate an increase in financial disintermediation, all else equal, and thus reduce the chance of financial crises. But an increase in deposits may lead to an increase in financial and economic vulnerabilities since a larger financial system may play a more central role in an economy.

Lastly, we include measures for openness of emerging economies. Our measure for external opening is a combined measure of four separate restrictions on trade and capital flows: current account restrictions, capital account restrictions, export proceeds surrender requirements and multiple exchange rates (Klein and Olivei, 1999). Each measure takes on the value of 1 if a restriction exists and zero otherwise. We define a country as open if all four indicators are equal to zero and closed otherwise.

The data for our variables are taken from a number of sources. Data on international debt are compiled from the World Bank's *Global Development Finance* database, formerly known as the *World Debt Tables*, which has the advantage over other sources, such as the *Joint BIS-IMF-OECD-World Bank Statistics on External Debt*<sup>3</sup>, that it covers a longer time period. Also, all other economic variables are provided in the IMF's *International Financial Statistics*. The external restrictions variables are compiled from the IMF's *Exchange Rates and Restrictions Yearbook*<sup>4</sup>. The political freedom variables are taken from Freedom House's *Freedom in the World Survey*.

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<sup>2</sup> For a detailed description of the variables and their sources see Table A-1 in the appendix .

<sup>3</sup> The *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* offers higher frequency data, but it only goes back as far as the mid- and early 1990s.

<sup>4</sup> The format of the summary tables in the IMF's *Exchange Restrictions and Arrangements* changed for data after 1996 with respect to capital account controls. We considered a country to have a restricted capital account if the majority of available indicators showed restrictions.

Freedom House has provided a standardized annual assessment of freedom in independent countries and their territories worldwide since 1973. To measure the political rights and civil liberties that individuals enjoy, the survey uses a variety of sources, including foreign and domestic news, NGO reports, think tank and academic analyses, as well as individual professional contacts to form a composite measure of freedom. The multiple sources enable the survey to rate each country based upon the liberties enjoyed by its population, rather than relying solely upon the country's laws. Political rights are determined by survey questions measuring the freedom and integrity of the electoral process, suffrage rights, the amount of power endowed to elected leaders, the ability of individuals to join and to support opposition parties, and the freedom of minority members in society to self-determination. To measure civil liberties, the survey includes fourteen questions divided into four categories: freedom of expression and belief; freedom of association and organizational rights; rule of law and human rights; and, personal autonomy and economic rights. Subsequently, a number between one and seven is assigned to each category (one representing the most amount of freedom and seven representing no freedom). Because the survey of civil liberties is based on actual freedoms enjoyed by a country's population, Freedom House's measure is also a proxy of worker rights, rather than labor standards.

The data set used here comprises 57 emerging economies from 1980 to 1998. We only considered emerging economies, instead of emerging economies and industrialized economies, since the structures of the two types of economies seemed to disparate to be justifiably included in a common study. Also, the time frame was determined by the fact that comprehensive data on banking crises could only be obtained for this time period. Furthermore, complete data were not available for each country, reducing the number of total observations to 733<sup>5</sup>. Our sample includes 16 countries from Africa, 10 countries from Asia, 11 countries from Central and Eastern Europe, 18 countries from Latin America and the Caribbean, and two countries from the Middle East.

Our multivariate analysis for the determinants of banking crises uses a logit regression<sup>6</sup>. The results for regression (1) in table 4 show our baseline results without controls for external restrictions or political freedoms. All variables, except changes in official reserves, have the right sign or are insignificant. In particular, the chance of banking crises declines with faster growth, lower real currency valuations, lower growth in official reserves, larger financial systems, and fewer short-term capital and goods imbalances. The fact that higher growth in official reserves is associated with greater chances of crises may simply reflect the fact that monetary authorities raise their resources prior to a crisis.

Next, we add a dummy variable for external restrictions to our regression. In this case, the dummy variable for external restrictions takes on the value of zero if the economy is closed and one if it is open. As expected, our results in regression (2) show that more openness is destabilizing to emerging economies. In particular, the chance of a banking crisis is more than four times ( $e^{1.456}=4.302$ ) as high for open economies than it is

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<sup>5</sup> The number of observations used is smaller as years immediately after crises are eliminated.

<sup>6</sup> Because we include countries that did not experience any crises, country fixed effects are not feasible.

for closed economies, all else equal. All other explanatory variables are robust with respect to sign and significance compared to our baseline regression.

Next, we add a measure for political freedom. This measure is the average of the political rights and the civil liberties score since both measures are highly correlated, thus allowing us to avoid multicollinearity problems. The results in regression (3) show that freedom has no measurable impact on the chance of banking crises. This is not necessarily surprising since the political freedom variable is a composite measure that includes political rights with an equal weight, which we expect to have a small effect, if any, on financial stability considering the findings in the literature. In regression (4) we also add a interactive term between external restrictions and political freedoms since previous findings indicate that there may be an adverse effect of capital and goods mobility on political freedoms. Our results, though, indicate that the effect of political freedoms is not different when external restrictions exist from times when they do not.

It is likely that the chance of banking crises changes with institutional developments in each country over time. However, since we cannot control for all facets of institutional change, we add a country-specific time trend. It seems reasonable to assume that, if there are institutional developments that benefit or adversely affect financial fragility over time, the impact of these institutional developments will diminish over time due to institutional learning. Hence, we add a logarithmic time trend. Regression (5) shows that the chance of banking crises diminishes over time, and that all other results remain robust.

Lastly, to test the robustness of our results we reduce the size of the crisis periods to include on one year prior to a crisis. The results in regression (6) show that the results are not sensitive to our definition of the dependent variable.

Since the political freedom variable that we have used so far is a composite measure of political rights and civil liberties and since political rights are less likely – from a theoretical perspective – to play a significant role in determining financial stability, it is likely that the individual measures for political rights and civil liberties will generate different outcomes. Hence, we re-estimate the regression with political rights and civil liberties separately. The results reported in table 4 show that our earlier results with respect to our economic control variables are robust. Moreover, political rights do not have an effect on the financial stability of banking systems in emerging economies, whereas civil liberties do. In particular, an increase in civil liberties, as measured by a decline in the index, is also associated with a drop in the chance of banking crises, regardless of how we specify the regression equation<sup>7</sup>. Hence, our expectations that civil liberties have a stronger effect on the chance of financial stability are confirmed by our regression results. If civil liberties erode, for example, by one number, banking crises become 26% ( $e^{0.230}=1.26$ ) more likely.

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<sup>7</sup> The results are robust with respect to the definition of the crisis period, too. Detailed results are available from the authors.

So far, our analysis has focused on banking crises. Another type of financial crises that has become increasingly frequent is currency crises. Since the macro economic causes for both types of crises are very similar (Grabel, 1998; Kaminsky and Reinhart, 1999; Weller, 2001), we re-estimate our regression with currency crises as the dependent variable. The results in table 5 show that all explanatory variables have the expected sign or are insignificant. In particular, the chances for currency crises increase with slower GDP growth, larger financial systems, higher levels of credit relative to GDP, larger exchange rate overvaluations, greater short-term capital inflows and external imbalances. Hence, the causes of currency crises differ slightly from those of banking crises. The credit market plays a significant role now, while official reserves and external openness do not play a significant role with respect to currency crises.

However, just as with banking crises, our composite political freedom variable is an insignificant determinant of currency crises. Hence, we again analyze the impact of political rights and civil liberties separately. All signs for the economic control variables remain robust compared to our earlier specification. Similar to our analysis of banking crises, we find that political rights have no effect on the likelihood of crises, whereas civil liberties, which encompass worker rights, are effective in lowering the probability of currency crises. Hence, our results are consistent with a view that political freedoms can be stabilizing if they have a direct effect on the generation and distribution of economic resources through worker rights. In particular, improvements in civil liberties by one number reduce the chance of currency crises by 22%.

It is possible that not only deregulation by itself, for instance through spurring investment euphoria, results in a greater chance of banking crises, but that some or all risks that cause financial crises are greater after deregulation than before (Weller, 2001; Grabel, 1998). Since such a structural shift among the explanatory variables would not be captured by our external openness dummy, we re-estimate our regression for open and closed economies separately. Moreover, since we have only found civil liberties to be a robust and significant influence on financial crises, we focus only on civil liberties and not on political rights<sup>8</sup>.

Our regression results in table 7 suggest that the impact of civil liberties in reducing the chance of financial crises varies from open to closed economies. With the exception of the real exchange rate in determining banking crises in open economies all coefficients have the expected sign or are insignificant. Moreover, civil liberties can help lower the chance of banking and currency crises in closed economies, but not in open economies. In more closed economies, an improvement in civil liberties by one number can help to reduce the chance of banking crises by 20-30%.

#### **IV. Conclusion**

In this paper, we analyze the possible effects of political freedoms on financial stability. In particular, we study the impact of political rights and civil liberties on the

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<sup>8</sup> The analysis shows no difference for political rights between open and closed economies. Detailed results are available from the authors.

likelihood of banking and currency crises. Based on the existing literature and on the theoretical argument, one should expect civil liberties, which comprise worker rights, to have a more direct and stronger effect in lowering the chance of financial crises than political rights. In particular, better worker rights may increase the chance for faster productivity growth and they may help to achieve a more equitable distribution of economic resources. Hence, the chances for speculative financing in the form of either a growing gap between the financial and the real sector or of increased asset price speculation are lowered. Our results indeed confirm that more civil liberties robustly lower the chance of both banking and currency crises. In comparison, political rights have no effect on the chance of financial crises.

Further, the effectiveness of political freedoms may be lower in more open economies than in more closed ones. For one, more deregulated financial markets also face substantially higher chances of financial crises. And more deregulation of trade and capital flows may also lead to increases in import competition and in capital mobility, thereby raising the chances of threat effects by employers and hence possibly wage and employment gains that would have been possible in a less open environment. Hence, we expected to find that more openness is associated with a greater chance of crises and that the effectiveness of political freedoms, in particular civil liberties, would be reduced in more open economies. Our results indicate that at least banking crises are significantly more likely in more open economies than in more closed ones, and that civil liberties significantly reduced the chance of banking or currency crises in more closed economies, but that this effect does not exist in open economies.

TABLE 1  
OVERVIEW OF BANKING CRISES

Country	Crisis Date
Argentina	1995
Bolivia	1987
Bulgaria	1995
Brazil	1994
Chile	1981
Colombia	1984
India	1991
Indonesia	1992
Malaysia	1985, 1997
Nepal	1988
Thailand	1983; 1996
Jordan	1989
Kenya	1993
Latvia	1995
Lithuania	1995
Cameroon	1989
Congo, Republic of	1994
Sri Lanka	1989
Turkey	1991, 1994

Sources: Kaminsky and Reinhart, 1999; Demirgüç-Kunt and Detragiache, 1997; Lindgren, Garcia and Saal, 1996

TABLE 2  
RELATIVE LIKELIHOOD OF BANKING AND CURRENCY UNDER DIFFERENT  
INSTITUTIONAL SETTINGS

Ratio	Coverage	Banking crises	Currency crises
(1) Likelihood of crisis in non-free environments relative to free environments	Freedom	1.09	1.19
	Political rights	0.56	1.05
	Civil liberties	1.33	1.46
(2) Likelihood of crisis in open environments relative to closed environments		2.64	0.79
(3) Likelihood of crisis in open and non-free environments relative to open and free environments		0.75	1.50
(4) Likelihood of crisis in closed and non-free environments relative to closed and free environments		1.43	1.35
(5) Ratio of (4) to (3)		1.92	0.91

Notes: All figures as ratios. Countries with a freedom, political rights or civil liberties rating greater than "3" are considered non-free and free otherwise.

TABLE 3  
THE EFFECT OF POLITICAL FREEDOM ON BANKING CRISES

Variable	Exp. Sign	Baseline	External rest. added	Political freedoms added	Interactive term added	Trend added	Shorter crisis periods
		(1)	(2)	(3)	(4)	(5)	(6)
Real GDP growth	-	-0.074*** (0.026)	-0.080*** (0.027)	-0.083*** (0.027)	-0.082*** (0.027)	-0.081*** (0.026)	-0.063** (0.029)
M1/GDP	-	-0.026 (0.020)	-0.023 (0.020)	-0.028 (0.021)	-0.028 (0.021)	-0.039* (0.022)	-0.031 (0.024)
Quasi-money/GDP	+	0.021** (0.009)	0.021** (0.009)	0.025*** (0.010)	0.026*** (0.010)	0.035*** (0.011)	0.031** (0.013)
Credit/GDP	+	0.006 (0.004)	0.006 (0.005)	0.005 (0.005)	0.005 (0.005)	0.003 (0.005)	0.003 (0.006)
Real exchange rate difference	-	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0005*** (0.0002)
Δ Official Reserves	-	0.002* (0.001)	0.002* (0.001)	0.002* (0.001)	0.001* (0.001)	0.001* (0.001)	0.001** (0.0007)
(Capital Flows – Current Account)/ Reserves	+	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.0004)	0.0001** (0.00004)	0.0001*** (0.00004)
External Opening	+		1.456*** (0.357)	1.483*** (0.359)	1.772** (0.878)	2.029** (0.911)	1.903* (1.022)
Freedom	+			0.118 (0.090)	0.133 (0.100)	0.157 (0.101)	0.120 (0.122)
External Opening * Freedom	-				-0.842 (0.235)	-0.132 (0.242)	-0.128 (0.274)
Logarithmic trend	+/-					-0.445*** (0.175)	-0.293 (0.209)
Constant	+/-	-2.630*** (0.346)	-2.883*** (0.363)	-3.317*** (0.500)	-3.381*** (0.532)	-2.736*** (0.584)	-3.367*** (0.692)
No. of Observations		687	687	687	687	687	709
Chi-squared		29.23***	42.51***	44.59***	44.73***	49.04***	39.11***

Notes: Crisis period defined as year of crisis and the two years prior. Standard deviations in parentheses. \* indicates significance at the 10%-level, \*\* indicates significance at the 5%-level, and \*\*\* indicates significance at the 1%-level. Chi-squared statistics report the likelihood ratio statistic for the null hypothesis that the model's explanatory power is equal to that of the intercept only.

TABLE 4  
THE EFFECT OF POLITICAL RIGHTS AND CIVIL LIBERTIES ON BANKING  
CRISES

Variable	Exp. Sign	Political rights added	Civil liberties added	Interactive term added (pol. rights)	Interactive term added (civ. liberties)	Trend added (pol. rights)	Trend added (civ. liberties)
		(3')	(3'')	(4')	(4'')	(5')	(5'')
Real GDP growth	-	-0.080*** (0.027)	-0.087*** (0.027)	-0.080*** (0.027)	-0.086*** (0.027)	-0.079*** (0.026)	-0.085*** (0.027)
M1/GDP	-	-0.024 (0.021)	-0.031 (0.022)	-0.025 (0.021)	-0.031 (0.022)	-0.034 (0.022)	-0.042** (0.021)
Quasi-money/GDP	+	0.022** (0.010)	0.031*** (0.011)	0.022** (0.010)	0.030*** (0.010)	0.031*** (0.011)	0.040*** (0.011)
Credit/GDP	+	0.006 (0.005)	0.004 (0.005)	0.006 (0.005)	0.003 (0.005)	0.004 (0.005)	0.003 (0.005)
Real exchange rate difference	-	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0004*** (0.0002)
Δ Official Reserves	-	0.002* (0.001)	0.001* (0.001)	0.002* (0.001)	0.001* (0.001)	0.002* (0.001)	0.001** (0.001)
(Capital Flows – Current Account)/ Reserves	+	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00004)	0.0001** (0.00004)
External Opening	+	1.465*** (0.358)	1.493*** (0.361)	1.567** (0.727)	2.017** (1.027)	1.768** (0.754)	2.329** (1.061)
Political Rights	+	0.031 (0.079)		0.038 (0.088)		0.056 (0.089)	
External Opening * Political Rights	-			-0.032 (0.203)		-0.068 (0.209)	
Civil Liberties	+		0.230** (0.099)		0.254** (0.108)		0.281*** (1.110)
External Opening * Civil Liberties	-				-0.140 (0.260)		-0.198 (0.267)
Logarithmic trend	+/-					-0.430** (0.174)	-0.461*** (0.176)
Constant	+/-	-2.989*** (0.453)	-3.802*** (0.550)	-3.013*** (0.478)	-3.908*** (0.587)	-2.363*** (0.539)	-3.259*** (0.634)
No. of Observations		687	687	687	687	687	687
Chi-squared		42.84***	48.20***	42.92***	48.36***	47.09***	52.56***

Notes: Crisis period defined as year of crisis and the two years prior. Standard deviations in parentheses. \* indicates significance at the 10%-level, \*\* indicates significance at the 5%-level, and \*\*\* indicates significance at the 1%-level. Chi-squared statistics report the likelihood ratio statistic for the null hypothesis that the model's explanatory power is equal to that of the intercept only.

TABLE 5  
THE EFFECT OF POLITICAL FREEDOM ON CURRENCY CRISES

Variable	Exp. Sign	Baseline	External rest. added	Political freedoms added	Interactive term added	Trend added	Shorter crisis periods
		(1)	(2)	(3)	(4)	(5)	(6)
Real GDP growth	-	-0.064*** (0.027)	-0.069*** (0.027)	-0.072*** (0.027)	-0.073*** (0.027)	-0.073*** (0.027)	-0.68** (0.030)
M1/GDP	-	-0.014 (0.019)	-0.014 (0.019)	-0.020 (0.020)	-0.019 (0.020)	-0.020 (0.020)	-0.013 (0.021)
Quasi-money/GDP	+	0.017* (0.009)	0.018* (0.009)	0.023** (0.010)	0.022** (0.010)	0.023** (0.010)	0.021* (0.011)
Credit/GDP	+	0.008** (0.004)	0.008** (0.004)	0.008* (0.004)	0.008* (0.004)	0.007* (0.004)	0.009** (0.004)
Real exchange rate difference	-	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)
Δ Official Reserves	-	-0.0002 (0.002)	-0.0002 (0.002)	-0.0002 (0.002)	-0.0002 (0.002)	-0.0002 (0.002)	-0.005 (0.004)
(Capital Flows – Current Account)/ Reserves	+	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)
External Opening	+		-0.013 (0.498)	-0.005 (0.500)	-0.820 (1.401)	-0.815 (1.410)	-10.370 (7.909)
Freedom	+			0.149 (0.095)	0.129 (0.100)	0.131 (0.100)	0.117 (0.113)
External Opening * Freedom	-				0.217 (0.335)	0.218 (0.337)	1.815 (1.322)
Logarithmic trend	+/-					-0.072 (0.184)	0.085 (0.222)
Constant	+/-	-2.941*** (0.364)	-2.936*** (0.369)	-3.503*** (0.526)	-3.421*** (0.539)	-3.304*** (0.616)	-3.949*** (0.715)
No. of Observations		687	687	687	687	687	687
Chi-squared		24.85***	24.79***	27.20***	27.24	27.62***	27.41

Notes: Crisis period defined as year of crisis and the two years prior. Standard deviations in parentheses. \* indicates significance at the 10%-level, \*\* indicates significance at the 5%-level, and \*\*\* indicates significance at the 1%-level. Chi-squared statistics report the likelihood ratio statistic for the null hypothesis that the model's explanatory power is equal to that of the intercept only.

TABLE 6  
THE EFFECT OF POLITICAL RIGHTS AND CIVIL LIBERTIES ON CURRENCY  
CRISES

Variable	Exp. Sign	Political rights added	Civil liberties added	Interactive term added (pol. rights)	Interactive term added (civ. liberties)	Trend added (pol. rights)	Trend added (civ. liberties)
		(3')	(3'')	(4')	(4'')	(5')	(5'')
Real GDP growth	-	-0.070*** (0.027)	-0.074*** (0.027)	-0.072*** (0.027)	-0.075*** (0.027)	-0.072*** (0.027)	-0.074*** (0.027)
M1/GDP	-	-0.019 (0.020)	-0.021 (0.019)	-0.018 (0.020)	-0.021 (0.019)	-0.019 (0.020)	-0.022 (0.020)
Quasi-money/GDP	+	0.021** (0.010)	0.024*** (0.010)	0.021** (0.010)	0.024** (0.010)	0.022** (0.010)	0.025** (0.010)
Credit/GDP	+	0.008* (0.004)	0.008* (0.004)	0.008* (0.004)	0.008* (0.004)	0.008* (0.004)	0.007* (0.004)
Real exchange rate difference	-	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)	-0.0003** (0.0001)
Δ Official Reserves	-	-0.0002 (0.002)	-0.0002 (0.002)	-0.0001 (0.002)	-0.0002 (0.002)	-0.0001 (0.002)	-0.0002 (0.002)
(Capital Flows – Current Account)/ Reserves	+	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)
External Opening	+	-0.0001 (0.499)	-0.018 (0.500)	-0.661 (1.142)	-0.869 (1.638)	-0.659 (1.149)	-0.847 (1.646)
Political Rights	+	0.094 (0.083)		0.075 (0.088)		0.076 (0.088)	
External Opening * Political Rights	-			0.189 (0.278)		0.191 (0.280)	
Civil Liberties	+		0.202** (0.103)		0.184* (0.107)		0.187* (0.108)
External Opening * Civil Liberties	-				0.213 (0.378)		0.210 (0.380)
Logarithmic trend	+/-					-0.067 (0.184)	-0.074 (0.184)
Constant	+/-	-3.274*** (0.480)	-3.748*** (0.564)	-3.200*** (0.491)	-3.671*** (0.579)	-3.087*** (0.576)	-3.551*** (0.649)
No. of Observations		687	687	687	687	687	687
Chi-squared		26.11***	28.52***	26.23***	28.48***	26.57***	28.90***

Notes: Crisis period defined as year of crisis and the two years prior. Standard deviations in parentheses. \* indicates significance at the 10%-level, \*\* indicates significance at the 5%-level, and \*\*\* indicates significance at the 1%-level. Chi-squared statistics report the likelihood ratio statistic for the null hypothesis that the model's explanatory power is equal to that of the intercept only.

TABLE 7  
THE EFFECT OF POLITICAL RIGHTS AND CIVIL LIBERTIES ON CURRENCY  
CRISES

Variable	Exp. Sign	Banking crises		Currency crises	
		Closed economies	Open economies	Closed economies	Open economies
Real GDP growth	-	-0.072*** (0.028)	-0.547* (0.318)	-0.063** (0.028)	0.012 (0.403)
M1/GDP	-	-0.040* (0.022)	-0.835** (0.370)	-0.020 (0.020)	-1.731 (1.112)
Quasi-money/GDP	+	0.039*** (0.011)	0.350** (0.165)	0.024** (0.011)	0.844* (0.524)
Credit/GDP	+	0.006 (0.005)	-0.069 (0.060)	0.009* (0.005)	-0.218 (0.155)
Real exchange rate difference	-	-0.0005** (0.0002)	0.046** (0.020)	-0.0003** (0.0001)	0.0246 (0.017)
Δ Official Reserves	-	0.001** (0.001)	0.044 (0.033)	-0.005 (0.003)	0.110 (0.083)
(Capital Flows – Current Account)/ Reserves	+	0.0001** (0.00004)	-0.006 (0.016)	0.0002* (0.0001)	0.045 (0.038)
Civil Liberties	+	0.298*** (0.111)	-0.713 (0.773)	0.190* (0.109)	0.881 (1.186)
Logarithmic trend	+/-	-0.235 (0.196)	-9.282*** (3.575)	-0.013 (0.194)	-11.696* (7.131)
Constant	+/-	-3.925*** (0.686)	23.372** (10.105)	-3.727*** (0.670)	14.450 (12.177)
No. of Observations		628	59	619	68
Chi-squared		39.94***	7.34	29.36***	4.31

Notes: Crisis period defined as year of crisis and the two years prior. Standard deviations in parentheses. \* indicates significance at the 10%-level, \*\* indicates significance at the 5%-level, and \*\*\* indicates significance at the 1%-level. Chi-squared statistics report the likelihood ratio statistic for the null hypothesis that the model's explanatory power is equal to that of the intercept only.

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**Appendix:**

TABLE A-1  
VARIABLE DEFINITIONS AND SOURCES

Variable Name	Definition	Source
Real GDP growth	Annual percent change of real GDP. Real GDP is calculated as value of the nominal GDP for 1995 times the GDP volume index (base=1995).	IMF, IFS
M1/GDP	Currency (M1) relative to nominal GDP (in percent)	IMF, IFS
Quasi-money/GDP	Savings deposits relative to nominal GDP (in percent)	IMF, IFS
Credit/GDP	Domestic credit relative to GDP	IMF, IFS
Real exchange rate difference	The difference between the real exchange rate and its long-term average. The real exchange rate is the nominal exchange rate adjusted for each country's respective consumer price index and the U.S.' consumer price index.	IMF, IFS
$\Delta$ Official Reserves	Annual percent change of official foreign reserves (in percent)	IMF, IFS
(Capital Flows – Current Account)/ Reserves	The difference between the change in short-term debt and the current account balance relative to official reserves (in percent)	IMF, IFS; WB, GDF
External Opening	A combined measure including a dummy for current account controls, capital account controls, export proceed surrender requirements and multiple exchange rates. In each case, the existence of a restriction is measured by one and the non-existence by zero. A country is considered open if all measures are equal to zero and closed otherwise.	IMF, Exchange Restrictions and Arrangements
Freedom	Political freedom is the average of civil liberties and political rights indicators	Freedom House
Civil Liberties	Civil liberties indicator ranging from 1 to 7. Higher number suggests fewer liberties.	Freedom House
Political Rights	Political rights indicator ranging from 1 to 7. Higher number suggests fewer rights.	Freedom House