

# Consistency versus credibility: how do countries choose their exchange rate regime ?

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## Abstract

The empirical distinction between *de facto* and *de jure* exchange rate regimes raises a number of interesting questions. Which factors may induce a *de facto* peg? Why do countries enforce a peg but do not announce it? Why do countries “break their promises”? In this paper we show that a stable socio-political and an efficient political decision-making process are a necessary prerequisite for choosing a peg and sticking to it. Whenever a country is implementing a *de facto* peg the same factors signal that the peg is more likely to be announced. Finally these factors explain why regime choices are not reversed.

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# 1 Introduction

What was critical for the maintenance of pegged exchange rates, was protection for governments from pressure to trade exchange rate stability for other goals. Under the nineteenth-century gold standard the source of such protection was insulation from domestic politics. The pressure brought to bear on twentieth-century governments to subordinate currency stability to other objectives was not a feature of the nineteenth-century world. Because the right to vote was limited, the common labourers who suffered most from hard times were poorly positioned to object to increases in central bank interest rates adopted to defend the currency peg. Neither trade union nor parliamentary labour parties had developed to the point where workers could insist that defense of the exchange rate be tempered by the pursuit of other objectives (Eichengreen, 1998).

Few issues are more controversial in international economics than the choice of the exchange rate regime. Ever since the demise of the Bretton Woods system, economists have disagreed over the relative merits of fixed and flexible exchange rates. In the profession and among laymen, the consensus shifted from the “naive” enthusiasm for flexible exchange rates in the late sixties, to the preference for fixed rates in the early eighties and for intermediate regimes in the early nineties. After the Asian crisis the consensus changed again embracing the bipolar view of exchange rate regimes<sup>1</sup> i.e. either irrevocably fixed rates (currency board, dollarisation) or truly flexible rates.

The empirical evidence presented in the seminal contribution of Calvo and Reinhart (2002) challenged this view, suggesting that many countries follow *de facto* a regime different from what officially declared. On the one hand, pegs are often announced but not implemented in practice. On the other hand, several countries seem to “fear of floating” adopting *de facto* a peg (or a regime close to it) while officially declaring a float.<sup>2</sup> The empirical distinction between *de jure* and *de facto* regimes raises a number of interesting questions. Which factors may induce a *de facto* peg? Why do countries enforce a peg but do not announce it? Why do countries “break their promises”? Is there a difference between countries who renege on a peg and those who “fear of floating”?

In our view, an answer to these questions is to be found by looking at the double-edged incentives behind the adoption of an exchange rate regime. Models in the Barro-Gordon tradition, that we label as *credibility view*, suggest that

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<sup>1</sup>See Fischer (2001).

<sup>2</sup>See also Hausmann et al. (2001).

commitment to tough policies is relatively more desirable the stronger is the potential inflation bias (the Argentinian currency board provides a paradigmatic example of this approach). Unfortunately, commitment may backfire! In fact resisting a devaluation under adverse economic circumstances may raise the incentives to devalue in the future harming the credibility of the peg and triggering speculative attacks (Bartolini and Drazen, 1997; Drazen, 1997; Drazen and Masson, 1994). Indeed tough policies may *raise* inflation expectations (Velasco and Neut, 2004). According to this alternative approach, consistency with the underlying fundamentals is required to ensure the sustainability of the exchange rate regime. Thus the *consistency view* calls for retaining the option of flexibility when the potential inflation bias is stronger.

Our work contributes to the existing literature in several respects. First, we go beyond the standard *de jure* and *de facto* dichotomy and analyse a taxonomy of regimes (*de jure*-non-*de facto* pegs, *de facto*-non-*de jure* pegs, *de facto-de jure* pegs, fear of floating etc.). This allows to identify the determinants of specific regime choices and the value of breaking certain “promises”. Second, by explicitly focusing on the *credibility-vs-consistency* dilemma, we are able to represent and interpret several economic and political channels within a common framework.<sup>3</sup> Since the regime choice is intertwined with reputational and sustainability issues, it is crucial for our analysis to identify the factors which may constrain the policymaker’s actions. Among these, political variables must play a key role. To our knowledge, ours is the first comprehensive study that assesses systematically the role of political variables in exchange rate regime choice. Third, we generalise, integrate and expand existing results by estimating a rich model specification on a large data-set of some 160 countries spanning between 1974 and 2000.

Our results strongly favour the consistency view. Indicators of sociopolitical risk and fragmentation of the political system increase the chances of observing a *de facto* float. Moreover, whenever a country is already implementing *de facto* a peg, the same indicators signal that the peg is less likely to be announced. Even though countries heavily indebted in foreign currency are more likely to *de facto* peg, such countries are less likely to publicly announce the peg. Finally, in line with the predictions of the consistency view, we find that socio-political unrest and political fragmentation raise the chances that a promise to implement a peg be broken.

The remainder of the paper is organised as follows: section 2 discusses the channels underlying the two views. Section 3 describes their empirical repre-

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<sup>3</sup>Under this point of view our work differs from and complements that of Alesina and Wagner (2003), who focus on institutional factors in exchange rate regime choice, and Levy-Yeyati et al. (2004), who test different theories of regime choice.

sentation and the econometric methodology employed. Section 4 summarises the empirical results. Finally, section 5 concludes.

## 2 Competing views on regime choice determinants

During the last decades the literature has produced several theories of exchange rate regime choice. Early work on optimal currency areas (Mundell (1961), McKinnon (1963) and Kenen (1969)) points to a country's degree of international openness and the symmetry of shocks vis-à-vis the partner(s) as the conditions that maximise the benefits from pegging. The traditional Mundell-Fleming-Poole model stresses the nominal-vs-real shocks dichotomy as the main determinant of the regime choice. More recently several authors (Eichengreen, 2001; Chang and Velasco, 1999; Aghion et al., 2003) argued that capital flows and balance sheet effects are one of the key determinants that drive a country's choice of exchange rate regime. Finally the Barro-Gordon argument emphasises the role of the exchange rate as a commitment device (Giavazzi and Pagano, 1988); in this vein the sustainability of the peg is determined by the policymaker's preferences and by the costs of reversing to discretionary regimes. In contrast to this view a number of contributions (Bartolini and Drazen, 1997; Drazen, 1997; Drazen and Masson, 1994; Velasco and Neut, 2004) argue that the credibility of announced policies crucially depends on the economic and socio-political environment. Under adverse circumstances even an inflation averse policymaker may want to devalue; thus the perceived chances of a devaluation may increase if a tough policy today worsens the trade-off between credibility and flexibility tomorrow, possibly due to a persistent employment increase or to debt accumulation.<sup>4</sup>

We investigate this fundamental duality in the choice of the exchange rate regime. On the one hand, the regime could be chosen so to be sustainable given the underlying economic and political conditions. We label this view as *consistency model*, implying that in making its decision the government selects the regime which best fits with the current state of the world. On the other hand, the regime could be chosen as an invisible handcuff to tie the government to a specific policy course and to signal the credibility of such commitment. This view, that we call *credibility model*, implies that the exchange rate regime is an instrument for governments to address credibility-deficits and dynamic

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<sup>4</sup>By and large, the theories presented above do not distinguish between *de jure* and *de facto* regimes, while, as we will show in section 4, these are quite different and are explained by different economic and political variables.

inconsistency problems. Since they move from fundamentally different standpoints on the use of the exchange rate, the two views lead to substantially conflicting predictions about the effect of economic and political factors on the regime choice. The purpose of this section is to review those predictions and the associated existing empirical evidence.

In the following we present both political channels and economic channels that are suited for this dual interpretation. There are of course other economic factors that affect the exchange rate regime choice; they will be presented in section 3.

## 2.1 Economic channels

*Liability dollarisation.* The consistency view relies on several recent contributions (Calvo and Reinhart, 2002; Hausmann et al., 2001; Aghion et al., 2003) that have stressed the role of balance sheet effects in the collapse of exchange rate regimes. According to this view the higher is the degree of liability dollarisation the higher are the negative effects on the economic environment of exchange rate variability. In this case higher liability dollarisation calls for fixed exchange rates. Conversely, the credibility view emphasises the possible moral hazard effects of pegs: by committing to an exchange rate peg the policymaker may provide a sort of insurance against exchange rate variations that could induce domestic agents to increase their liability dollarisation (Eichengreen and Hausmann, 1999). In this case, if the country already displays a high degree of liability dollarisation, then the policymaker could avoid pegging the currency to reduce this moral hazard effect. The empirical evidence directly tests only the consistency model and generally supports it: Poirson (2001); Levy-Yeyati et al. (2004); Alesina and Wagner (2003) find that liability dollarisation is associated with fixed exchange rates.

*Inflation.* The relationship between inflation and the choice of the exchange rate has a twofold interpretation depending on the underlying view. On the one hand, the consistency model calls for a negative relationship between probability of fixing the exchange rate and average inflation. To the extent that the inflation rate is higher than the rate of depreciation of the currency, it is harder to sustain fixed exchange rates, as the real exchange rate tends to appreciate. On the other hand, the credibility model calls for a positive relationship between the probability of pegging and inflation. It is well known in fact that the exchange rate can be effectively used as nominal anchor, particularly in countries where monetary institutions are weak. The literature on exchange rate based stabilisations<sup>5</sup> shows that fixed exchange rates tend to be

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<sup>5</sup>See Calvo and Végh (1999) for a recent survey.

adopted by high inflation countries as alternative stabilisation rules become unmanageable when persistently high rates of inflation erode the credibility of the monetary authority. The empirical evidence is mixed: Poirson (2001) supports the credibility model finding a positive relationship between inflation and fixed exchange rates,<sup>6</sup> while Levy-Yeyati et al. (2004) and Rizzo (1998) find support for the consistency model finding that countries with lower inflation tend to adopt fixed exchange rates.

## 2.2 Political channels

We consider three channels that link politics to the choice of the exchange rate regime: (i) the electoral cycle, (ii) government termination and socio-political unrest, (iii) institutional arrangements concerning the decision-making process.

*Electoral cycle.* Models of political business cycle show that governments can improve their chances of being re-elected by engineering a cyclical expansion and/or by generating benefits that specifically accrue to pivotal constituencies (depending on the electoral rule). In this respect, when elections approach governments need to retain discretionary control over monetary policy and hence they should opt for a float. However, by adopting a peg in electoral years, governments can signal their competence and credible commitment to sound macroeconomic management (Drazen, 2000; Alesina et al., 1997). This can also increase their chances of re-election. Therefore, *in electoral years the consistency model predicts the adoption of a float; the credibility model instead predicts the adoption of a fixed exchange rate regime.*

The available empirical evidence on the effect of elections on the regime choice is limited. Bernhard and Leblang (1999) find that electoral dummies are not statistically significant in their estimates. Blomberg et al. (2004) provide support for the hypothesis that the probability of abandoning a peg increases in electoral periods. However, their result is limited to Latin American countries only. More generally, the literature indicates that the vulnerability of countries to speculative attacks tends to increase in the upcoming of elections.

*Government termination and socio-political unrest.* When the probability of the government being terminated is high and/or widespread socio-political unrest cause instability and uncertainty, policymakers tend to hold a short-time horizon. Therefore they have an incentive to adopt policies that ensure their immediate survival in office. To this purpose they require discretionary control over policy instruments.<sup>7</sup> Thus, under politically unstable conditions, a peg is likely to be particularly unattractive and difficult to sustain, as the

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<sup>6</sup>The result is limited only to the 1990s.

<sup>7</sup>See Persson and Tabellini (2001) and references therein.

other policies that should accompany a peg (such as fiscal stabilisation) are also costly and unlikely to be carried out. This in turn suggests that governments would pick a float. Nevertheless, to the extent that they want achieve macro-economic stability, governments might decide to choose a peg (particularly in its hardest forms). This will indeed restrain them from reverting to discretionary policy and inflation surprises. It will also signal their commitment, thus compensating the credibility-deficit that emerges because of the unstable political environment. To sum up, *with unstable political conditions (that is, expected government termination and significant socio-political unrest), the consistency view predicts the adoption of a float; the credibility view instead indicates that even in those unstable circumstances government might decide to choose a peg.*

The hypothesis that higher instability is associated with a float has received some empirical support. Mèon and Rizzo (2002) report that the average number of government changes in a political system is positively correlated with the probability of adopting a flexible arrangement. Berger et al. (2000) focus on indicators of social unrest, such as the number of revolutions, assassinations and strikes, and find that governments facing greater unrest tend to adopt a float. Conversely, Poirson (2001) finds no significant effects of government changes on the exchange rate regime.<sup>8</sup>

*Institutional arrangements concerning the decision-making process.* Institutional arrangements contribute to determining the veto-powers, checks and balances, potential bottlenecks and stalemates that fragment the decision-making process. Fragmentation has in turn a twofold impact.

First, in a more fragmented setting, more time and bargaining are required to complete the decision-making process. However, once a decision is made, it will be more difficult to reverse it. Greater scope for bargaining and the need to achieve a compromise among different actors demand greater policy flexibility, as suggested by models of legislative bargaining (see Baron (1991), Baron and Ferejohn (1989)). Moreover, the difficulty to reverse a decision increases the risk for the government to have its own hands tied by a peg. These considerations point to a float as the consistent regime choice when fragmentation is high.

Second, higher fragmentation might reduce government survival and hence increase the expected probability of a government termination. If this is effectively the case, then, similarly to what happens in the case of political instability, credibility consideration indicate a peg as the regime to be chosen. Therefore, *the consistency view predicts that institutional arrangements lead-*

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<sup>8</sup>This result however is obtained for a relatively small sample of countries observed over a time horizon of only nine years.

*ing to greater fragmentation of the decision-making process should be associated with the adoption of a floating regime; the credibility model instead predicts that a peg should be adopted when decision-making is more fragmented.*

Empirical work on the role of institutions has largely focused on dimensions other than the fractionalisation of decision-making process. Alesina and Wagner (2003) provide an extensive analysis of the link between institutions and exchange rate regimes, but they mostly focus on quality issues (i.e. regulatory quality, rule of law, business climate indicators). They treat the fractionalisation of the political spectrum as a component of overall country’s political risk. They find that lower quality institutions make it more difficult to maintain a peg, whilst countries with good institutions display some fear of floating. Another strand of the literature has focused on broad institutional indicators, such as the level of democracy and the transparency of the political process. Leblang (1999) finds that more democratic developing countries are generally more likely to adopt flexible regimes. In a large panel of countries Broz (2002) finds that the degree of transparency of the commitment strategy acts as a substitute for the transparency of the political system; for this reason autocratic regimes are associated with fixed regimes.

Finally, few contributions do look at broad measures of parliamentary fractionalisation. Leblang (1999) finds that in a sample of developing countries flexible exchange rates are more likely to be adopted the higher the degree of parliamentary fractionalisation. However, moving from the assumption that electoral rules are the determinants of fragmentation, some papers have tested whether proportional systems are more likely to adopt a float. In particular Bernhard and Leblang (1999), over a sample of 20 industrialised countries, find that proportional systems are associated with fixed regimes.

## **3 Methodology, data-set and variables**

### **3.1 The empirical model**

To perform our analysis, we use a large data-set covering economic and political data for 167 countries from 1974 to 2000. Economic data are drawn from standard sources (IMF and World Bank) as well as standard definitions are employed. Political data are taken mainly from the Database of Political Institutions (DPI), the Cross-National Time-Series Data Archive (CNTS), and Polity IV data set. The appendix provides a precise description of the source of the data and variable construction. Exchange rate regime classification is taken from the IMF (“Annual Report on Exchange Arrangements and Exchange Restrictions”, various years) for the *de jure* classification, and from

Reinhart and Rogoff (2004) for the *de facto* classification (see further discussion below). Some descriptive statistics on the variables used are presented in table 1. Table 2 shows the pairwise correlations that are all reassuringly low suggesting a limited risk of multicollinearity. In order to control for possible endogeneity, we lagged the variables, when needed (see the appendix).

We estimate a logit model using pooled OLS.<sup>9</sup> This methodological choice is motivated by the fact that the use of panel data estimators would be problematic in this study. Since we are investigating almost the entire population of countries, using a random effect estimator is not appropriate as the sample cannot be considered as drawn from a large distribution. This leaves the possibility of using a fixed effect estimator which however is well known to have problems in estimating variables that display little or no variability over time. Since the focus of this work is on political variables that typically vary very little over time, we opted for the pooled OLS estimator.<sup>10</sup>

In order to code the dependent variable we need a *de facto* classification of exchange rate regimes. There are two well known classification available in the literature. Levy-Yeyati and Sturzenegger (2002) adopt a statistical approach using cluster analysis on the volatility of exchange rate and reserves. Reinhart and Rogoff (2004) use a “natural” classification inferring the *de facto* regime from parallel market exchange rates. In this paper we use the Reinhart Rogoff’s classification, principally because it has the advantage of avoiding the use of data on international reserves that are well known to suffer from reliability problems.<sup>11</sup> Nevertheless, we test the sensitivity of our results against the Levi-Yeyati and Sturzenegger’s classification.

### 3.2 Model specification

The right hand side of our equation includes the variables that represent the economic and political channels discussed in the previous section. The estimated coefficients on those variables will allow us to evaluate the empirical relevance of the two views. In addition, we include some control variables. These represent economic and political factors that, whilst not being directly related to any of the two view, might still play a relevant role in the choice of exchange rate arrangements. Controls are chosen on the basis of findings reported in the previous literature.

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<sup>9</sup>We included in the regression time dummies that are not reported in the tables for reasons of space.

<sup>10</sup>In doing so we implicitly assume that all the individual heterogeneity is captured by our political variables.

<sup>11</sup>Although the purpose of this paper is not to determine which is the “best” classification of *de facto* regimes.

### 3.2.1 Variable definition

*Openness, size, trade concentration and economic volatility.* OCA theories predict that the more open the economy is, the greater the benefits from the trade enhancing effect of fixed exchange rates will be. Hence, there should be a positive association between openness to international trade and the propensity to peg. Moreover, because larger economies are generally more closed, then the economic size of a country should negatively affect the likelihood of pegging the exchange rate. Yet, more open economies are more exposed to economic volatility induced by external shocks, and this might in turn make a peg difficult to sustain. Since flexible exchange rates can be used to absorb the excess volatility, one would expect indicators of economic volatility to be negatively related with the propensity to peg. Moreover, because it reduces opportunities for diversification in the face of external shocks, a higher degree of trade concentration should also reduce the likelihood of pegging. Finally, fear of floating theories point to exchange rate volatility as a channel through which more open economies import price volatility (depending on the degree of pass through). In this case, countries might adopt a fixed exchange rate to shut down this channel of volatility.

We measure trade openness as imports + exports /2GDP (*open*). Economic size is defined as the ratio between the country GDP to US GDP (*sizeous*). Trade concentration is measured as the share of export to the 3 largest partners (*shrtrade3*). Finally, we use two measures of economic volatility: volatility of investment over gdp (*vigdp*), and volatility of government expenditure over gdp (*vltgovepgdp*). Both measures proxy volatility by the standard deviation over time of the relevant variables (investment and government expenditure). As discussed below, in the baseline specification we will use only *vigdp*, since *vltgovepgdp* is available only for a smaller sub-set of relatively richer countries.

*Financial development.* Financially developed economies are expected to have more difficulties in keeping the exchange rate fixed, hence they should be more likely to adopt a float (Obstfeld and Taylor, 2004). A similar prediction arises from theories of fear of floating, where economies at a more advanced stage of economic development, display stronger tendency to float (Calvo and Reinhart, 2002). Then, since financial development tends to occur together with economic development, the implication is that financial depth should reduce the propensity to peg. A related argument is that capital account openness should be associated with a float, as high capital mobility makes it is more difficult to maintain a peg.

We proxy financial development by the ratio of quasi money over money (*qmm1*). As for capital account openness (*kopen*), we employ two indicators: the first is constructed using principal component analysis from IMF Exchange

rate restrictions, following the methodology by Chinn and Ito (2002); the second is a dummy taking value of 1 if capital account restrictions are present.

*Liability dollarization.* The role of liability dollarization and its effects on the regime choice have been discussed in Section 2 in the context of the consistency vs. credibility controversy. Empirically, it will be proxied with the ratio of foreign liabilities over money (*fl2m1*).

*Inflation.* Inflation has also been discussed in the context of the two competing views. We argue that the consistency view should be relevant when the rate of inflation is above a certain threshold (the exchange rate becomes a valuable nominal anchor if the monetary authority is unable to stabilise the inflation rate). We therefore use two variables: *avinfl* is the average rate of inflation and *dinfl* is a dummy variable taking value 1 when the annual rate of inflation is above 40% (which is the standard World Bank definition of high inflation).<sup>12</sup>

The *electoral cycle* is captured through a dummy variable *legelec* taking value 1 in electoral years and zero otherwise (Source DPI). The dummy is coded considering legislative elections. However, re-coding it to include also executive elections (in countries where these are regularly held) does not produce any change in the empirical results.

*Government turnover and socio-political instability* are accounted for by two indicators. The first one is the incumbent's tenure in office, (*yearsoffc*; source DPI). As discussed in the government stability literature, longer tenure in office tends to be associated with a higher probability of a government change in the near future (see Carmignani, 2002). Thus, higher values of *yearsoffc* denote higher expected government turnover. Some previous research made use of the average number of government terminations in a given period or a dummy picking years of actual government change to represent turnover. We prefer *yearsoffc* because it is better suited to capture the expectation of a change and hence the associated degree of uncertainty, which is what drives the political channel. The second indicator is an aggregate index of socio-political instability, (*sprisk2*; source CNTS). This is obtained as the principal component of several indicators of social instability: assassinations, general strikes, guerrilla warfare, purges, riots, revolutions, anti-government demonstrations.

With respect to *institutional arrangements*, the variable *pcapol* measures the checks and balances incorporated in the institutional system (source DPI, Polity IV). Higher values correspond to a situation where decision making is less under the control of just one actor (i.e. the government or the president) and hence there are more constraints on policy changes. Technically, the in-

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<sup>12</sup>For theoretical and empirical underpinnings of this threshold see Dornbusch and Fischer (1993) and Bruno and Easterly (1998)

dex is obtained as the principal components of three disaggregate measures quantifying the number of veto players and the extent of executive constraints in decision rules (see the appendix for more details). Moreover, as recently pointed out by Persson and Tabellini (2004), constitutional rules also contribute to shaping political bargaining and hence economic policy outcomes. We capture these effects through a second institutional variable, *system*, which isolates three main typologies of political regimes: parliamentary, assembly-elected and presidential (source: DPI). In our interpretation, higher values of *system* correspond to more fragmented political processes.

Electoral cycle, political instability and institutional arrangements are all relevant in the context of the controversy between consistency and credibility view. In addition to them, we will include in our regression as a control variable the *ideology of governments*. In fact, the empirical evidence on the partisan business cycle<sup>13</sup> shows that (i) the ideological preferences of governments affect monetary and fiscal policy instruments and (ii) the location of countries on the inflation-unemployment trade-off to some extent depends on whether the governments is left-wing or right-wing. In this respect, ideology could affect the degree of discretion that governments are willing to retain over macroeconomic policy and hence the choice of the exchange rate regime. We therefore define a dummy variable *d\_right* taking value 1 when the incumbent has a right-wing ideological orientation and zero otherwise (source DPI). Following the literature in this area, the dummy is coded from country's information on the location of governments/parties on a left-right policy scale. A dummy is preferred to using point estimates because those latter are subject to greater measurement errors.

## 4 Econometric results

We divide the empirical analysis in two parts. First, we look at how political and economic variables affect the likelihood of observing *de facto* or *de jure* pegs. Second, we investigate which political and economic factors are correlated to the observed differences between *de jure* and *de facto* regimes. This basically amounts to investigating the determinants of broken promises.

### 4.1 The choice of the exchange rate regime

Table 3 reports the results for the baseline regression. The dependent variable is coded 1 for *de facto* regimes. Consider *economic variables* first.

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<sup>13</sup>The literature on this argument is vast; for an up to date survey see Persson and Tabellini (2001).

*Openness, size, trade concentration and economic volatility indicators.* A country is less likely to adopt a fixed exchange rate if it is relatively large and closed, if its external trade is concentrated, and if the business cycle is more volatile. This suggests that what matters for the choice of the exchange rate regime is the exposure to external shocks.

*Financial depth indicators.* In contrast with conventional wisdom (i.e. impossible trinity theories), the capital account openness indicator (*kaopen*) is positively related to the propensity to peg.<sup>14</sup> The interpretation of this result crucially lies in the difference between *de jure* and *de facto* regimes; we will discuss this issue more thoroughly below. The positive and highly significant coefficient for the liability dollarisation proxy (*flm1*) suggests that the higher risk of an adverse balance sheet effect lowers makes countries more reluctant to peg. Domestic financial market depth (*qmm1*) lowers the chances that the country pegs. This confirms the view that sustaining a peg is more difficult when financial markets are relatively sophisticated.

*Inflation,* neither variable is significant. However as we will see in the next sections, when we include in the regression the volatility of government expenditure over GDP, the inflation variables become both significant with the expected sign (negative for *avinfl* and positive for the dummy for high inflation). More importantly when we run the regression without socio-political variables inflation is always significant; this suggests that for the choice of a peg the inflation rate is endogenous to the institutional and political environment.

*Political variables;* expected government turnover (*yrsoffc*) and socio-political unrest (*sprisk2*) reduce the likelihood of adopting a *de facto* peg. The negative coefficient on *legelec* indicates a discretionary use of monetary policy to raise consensus in the upcoming of elections. Institutional arrangements are also statistically significant. Both coefficients on *pcapol* and *system* are negative. Thus more fragmented policymaking calls for a float probably because greater discretion makes it easier to settle conflicts among agents involved in the decision-making process. Finally the non significance of *d.right* suggests that political determinants of exchange rate regime choice are fundamentally non ideological.

Table 4 presents results for the baseline regression with the official *de jure* classification. There are indeed striking differences between *de jure* and the *de facto* regressions. Some variables lose significance, while others, notably *fl2m1* *yrsoffc*, *system*, change sign. Such sharp difference call for a deeper investigation. Bearing in mind that, relatively to *de facto* pegs, *de jure* pegs

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<sup>14</sup>The result is robust to changes in the specification: we have in fact substituted *kaopen* with a dummy that identify capital controls (taken from Ghosh et al. (2002)) getting a negative and highly significant coefficient confirming the result of our regression.

exclude non announced *de facto* pegs and include *de jure* pegs that are not implemented in practice, in what follows we investigate the reasons why:

- Only a subset of those who implement a *de facto* peg, also publicly announce it.
- A country announces a peg and actually implements it.
- A promise to either float or peg is broken.

## 4.2 Why do countries announce and implement a peg?

In tables 5 and 6 we analyse the probability that a country that implements a peg also announces it. We therefore restrict the sample to include only countries with a *de facto* peg and code the dependent variable as 1 for *de jure* pegs. Since the theoretical underpinnings of exchange rate regime choice do not provide an immediate interpretation for this observed behaviour, in addition to the baseline equation (5) we also estimate a best equation (6). This is obtained by recursive elimination of variables that add insignificant explanatory power to the model.

Among the *de facto* peggers, the chances that the regime is announced increase if countries are relatively small, have a lower liability dollarisation, are less prone to social political risk, have an upcoming election and have a less fragmented political system.

Relatively to table 3 we note a sign reversal for two key variables, i.e. *fl2m1* and *legelec*. With regard to liability dollarisation this result proves that higher risk of an adverse balance sheet effect induce countries to prefer a peg, but also to fear a public commitment to it. With regard to *legelec* we know from the previous paragraph that, with upcoming elections, governments generally prefer floating as this gives them more freedom in the discretionary use of economic policy for electoral purposes. However, if for other reasons a peg is already established *de facto*, then governments will have an incentive to announce it in order to reap the benefits from signalling their commitment.

Greater political uncertainty and a more fragmented decision making system (*sprisk2*, *pcapol*, *system*) make it less likely to announce a peg even if the country is already adopting it *de facto*. In fact the fragmentation of policy-making makes it more difficult to revert previously made decisions. In this sense, governments that do not want to tie their hands might decide not to make announcements about pegging the exchange rate.

To complete the evidence, we also estimate a model on the full sample of countries and define the dependent variable as 1 if a country has both *de jure* and *de facto* peg. Table 7 reports the results for the baseline specification.

These confirm our previous findings. There is however the striking anomaly of foreign liabilities (*fl2m1*). Therefore countries are weary of publicly committing to a peg if they are at risk of a balance sheet effect in case of devaluation.

In the light of the controversy between consistency and credibility, the results obtained so far unambiguously support the consistency view. The case of foreign liabilities dollarisation is illuminating; in fact the risk of an adverse balance sheet effect makes countries weary of exchange rate flexibility, but also more reluctant to publicly commit to a peg. Moreover indicators of political instability and inefficiency show that unstable countries are reluctant to both adopt and commit to an exchange rate peg.

### 4.3 Broken promises

The next body of evidence looks at how political factors affect the likelihood that a government will announce a regime and then follow a different one, that is we study the determinants of broken promises. Again, since we do not have an immediate theoretical interpretation, we estimate best equations in addition to baseline equations. In the following we will comment only best equation results.

#### 4.3.1 Broken fix

First, we consider *broken fix promises*, that is countries announcing a *de jure* fix and following *de facto* another regime.

Devaluations are more costly when economies are open, as imported inflation becomes relatively more important, and have a high share of dollarised liabilities, as the adverse balance sheet effect is stronger. In fact the probability to break a peg decreases with *open* and *fl2m1*.

With regard to the indicator of capital account openness, so far we have found that countries with highly integrated capital markets are more likely to adopt a peg (see table 3) and to publicly commit to it (table 7). This result is akin to the finding in Levy-Yeyati et al. (2004) and is probably explained by the attempt of many non industrialised countries to attract capital flows by integrating in the international financial markets and stabilising expectations by committing to a peg. For these countries it is more difficult to renege on the peg.

Turning to political variables government turnover, socio-political unrest, and decision-making fragmentation make it all more likely to break the promise to peg, as shown by the positive coefficients on *sprisk2*, *yrsoffc*, *system*. In fact, even though political uncertainty and fragmentation generally call for a float (as discussed above), governments might still decide to announce a peg in the

attempt to gain anti-inflationary credibility or as a part of a cheating strategy. However, the unstable political conditions will make it more costly to comply and hence governments will eventually renege on their announcements and revert to a *de facto* peg.

Differently from baseline equations, the ideology of the policymakers now matters: the *d\_right* coefficient is negative. Even though right-wing governments do not exhibit any systematic regime preference, their relative concern for the inflationary consequences of a devaluation, makes them less likely to renege.

### 4.3.2 Broken flex

We now consider broken promises among countries that are *de jure* flexible. The dependent variable *brokenflex* is essentially a dummy for *fear of floating*. Tables 10-11 show the results for the baseline and best equations.

More open economies fear a float as for them volatility is costly; however external trade concentration strengthens commitment to a float as the economy is more exposed to asymmetric shocks.<sup>15</sup> Dollarised countries are more likely to display fear of floating confirming the findings of Calvo and Reinhart (2002).

Turning to politics, governments facing socio-politically unstable conditions fear floating, as denoted by the positive coefficient on *sprisk2*. Taking into account the results in table 9 we find that social instability unambiguously raises the chances that a promise is broken, confirming the intuition that under these circumstances it is more difficult for governments to implement stable policies. The coefficient on *yrsoffc* is negative reversing the result obtained in table 9. Therefore government that face a greater probability of termination are more inclined to implement discretionary policies. Finally right-wing government are more likely to renege on the promises to float (positive coefficient on *d\_right*); again this is consistent with the greater weight these governments attach to inflation stabilisation.

## 4.4 Robustness checks

Our results survived a number of robustness checks.

First we have defined the dependent variable as a trichotomous variable that identifies fixed, intermediate and floating exchange rate regimes (the variable is ordered with increasing degree of fixity). This allowed us to estimate an ordered logit model. Table 12 presents the results of the baseline regression for an ordered logit. Economic controls yield the same results as under the

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<sup>15</sup>These results are confirmed by our baseline regression where the two coefficient enter with the opposite sign.

baseline regression. However the high inflation dummy has a reversed sign. Taking into account the result of the logit regression this suggests that high inflation countries either choose a (falling) flexible exchange rate, or choose to peg the rate in order to stabilise it. Political factors are all confirmed but for *yrsoffc* which retains the sign but loses significance.

Next we have split the sample in two subperiods distinguishing between eighties and nineties. Again the results are broadly persistent, even though the marginal impact of political variables in the '90s tends to be smaller than in the '80s. This could suggest that the strength of the link between politics and exchange rate regimes decreased over time. Alternatively, the difference between the two decades could be due to a composition effect. In fact, our sample in the nineties includes several transition economies that are not present in the eighties. Further investigation on this issue is certainly an interesting avenue of future research.

In table 13 we present the results of the baseline regression in which we have included also a variable that represents the volatility of government expenditure over GDP. As it can be noted from the table, the inclusion of the variable adds some explanatory power to the model but at the cost of a significant loss in observations (almost 1/3 in the baseline regression). In fact, *vltgoveexpgdp* is available only for a smaller group of relatively richer countries and this is the reason why we decide not to include in the baseline model.<sup>16</sup>

We have also tried to estimate the baseline using Levy-Yeyati and Sturzenegger's (LYS) *de facto* classification obtaining results that are very similar to *de jure* regression. This is because the two classifications are very similar. In more than 2/3 of the cases the two classifications are identical and when we pass from a trichotomous to a dichotomous classification (that is when we consider a dummy taking value of 1 for a *de facto* peg and 0 otherwise) the mismatch is reduced to 20%. This would cast doubts on the reliability of estimates when investigating sub regimes. On the other hand the Reinhart Rogoff's classification does not suffer from these problems as it offers more observations when investigating the differences between *de jure* and *de facto* regimes.

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<sup>16</sup>Note that the volatility of government expenditure over GDP (see below table 13) is positively related with the likelihood of pegging. If the volatility of fiscal policy reflects the volatility of the business cycle, then this result contrast with volatility of investment. A possible interpretation is that countries that use the fiscal tool more heavily have a less stringent need for monetary stabilisation hence they are more likely to *de facto* peg. This explanation however is partially opposed by Kaminsky et al. (2004) who show that emerging countries often use fiscal policy procyclically. Further research on this issue is certainly needed.

## 5 Concluding remarks

In this paper we show that the exchange rate regime is chosen consistently with a set of underlying economic and socio-political conditions. In particular socio-political variables explain not only the regime choice, but also why some regimes are announced and why they are either sustained thereafter or reneged upon.

This should not come as a surprise. Political economy models have taught us that government's preferences and political incentives are crucial in shaping macroeconomic policies. The empirical evidence presented in this paper challenges the standard view that sees the exchange rate as a commitment device. In choosing the exchange rate regime, policymakers seem to be concerned with the sustainability of the regime. This is a wise approach as adverse economic and socio political fundamentals raise the chances that regime choices be reversed.

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# Appendix

Table 1: Descriptive stats: all countries

Var.	Mean	SD. Dev	Min	25	50	75	Max	N.Obs.
avinfl	0.17	0.35	-0.20	0.04	0.09	0.15	4.28	3719
fl2m1	0.86	1.06	0.02	0.22	0.50	1.06	7.23	3472
kaopen	0.01	1.52	-1.79	-1.09	-0.06	1.25	2.66	3478
legelec	0.18	0.38	0.00	0.00	0.00	0.00	1.00	4236
open	0.39	0.23	0.05	0.22	0.33	0.51	1.39	4354
pcapol	0.00	1.37	-3.78	-1.06	-0.79	1.31	6.97	3658
qmm1	1.50	1.18	0.08	0.54	1.17	2.25	5.61	3918
shrtrade3	0.51	0.14	0.26	0.40	0.49	0.61	0.87	3302
sizetous	0.02	0.10	0.00	0.00	0.00	0.01	1.00	4384
sprisk2	0.01	1.49	-0.72	-0.72	-0.72	0.21	17.02	4475
system	0.80	0.88	0.00	0.00	0.00	2.00	2.00	4078
vigdp	0.02	0.02	0.00	0.01	0.02	0.03	0.10	3863
vltgovexgdp	0.02	0.02	0.00	0.01	0.02	0.03	0.10	2428
yrsoffc	7.52	7.58	1.00	2.00	4.00	11.00	46.00	4085

Table 2: Pairwise correlations between relevant variables

	sizetous	open	shrtrade3	vltgovexgdp	vigdp	fl2m1	qmm1	kaopen	avinfl	sprisk2	legelec	yrsoffc	pcapol
sizetous	1.000												
open	-0.219	1.000											
shrtrade3	-0.202	0.156	1.000										
vltgovexgdp	-0.159	0.206	-0.018	1.000									
vigdp	-0.154	0.199	0.104	0.245	1.000								
fl2m1	-0.036	0.127	-0.120	0.069	0.004	1.000							
qmm1	0.119	0.182	-0.086	-0.121	-0.025	0.247	1.000						
kaopen	0.269	0.243	-0.101	-0.064	-0.108	0.164	0.394	1.000					
avinfl	-0.053	-0.123	-0.062	0.216	0.095	0.169	-0.078	-0.177	1.000				
sprisk2	0.068	-0.257	-0.100	-0.118	-0.080	-0.004	-0.007	-0.111	0.077	1.000			
legelec	0.068	-0.036	-0.031	-0.055	-0.018	0.019	0.046	0.040	-0.008	0.016	1.000		
yrsoffc	-0.103	0.106	-0.002	0.099	0.081	-0.013	-0.122	-0.049	-0.070	-0.110	-0.028	1.000	
pcapol	0.281	0.028	-0.160	-0.218	-0.156	0.130	0.382	0.311	-0.068	0.018	0.171	-0.351	1.000
system	0.088	0.140	-0.102	-0.061	-0.140	0.117	0.323	0.246	-0.191	-0.038	0.085	-0.224	0.570

Table 3: Baseline regression

Variable	Coefficient	(Std. Err.)
sizetous	-2.998***	(0.593)
open.l	1.342***	(0.453)
shrtrade3.l	-1.323**	(0.530)
vigdp	-11.783**	(4.964)
fl2m1.l	0.328***	(0.080)
qmm1.l	-0.340***	(0.070)
kaopen	0.497***	(0.058)
dinfl2	0.058	(0.591)
avinfl	-1.377	(1.111)
d.right	-0.058	(0.140)
sprisk2	-0.294***	(0.082)
legelec	-0.362**	(0.160)
yrsoffc	-0.016*	(0.009)
pcapol	-0.302***	(0.086)
system	-0.385***	(0.098)
Intercept	0.713*	(0.377)
<hr/>		
N	1381	
Log-likelihood	-707.054	
$\chi^2_{(15)}$	163.254	
Pseudo R <sup>2</sup>	0.156	
<hr/>		
Robust z errors		
Sample: all countries		
Dep. Var: 1 if <i>de facto</i> fix		
Significance levels : * : 10% ** : 5% *** : 1%		

Table 4: Baseline de jure

Variable	Coefficient	(Std. Err.)
sizetous	-18.790***	(4.181)
open1	0.204	(0.462)
shrtrade31	-0.046	(0.444)
vigdp	3.792	(3.996)
fl2m11	-0.391***	(0.078)
qmm11	-0.089	(0.066)
kaopen	-0.077	(0.052)
dinfl2	-0.102	(0.337)
avinfl	-0.155	(0.454)
d_right	-0.130	(0.133)
sprisk2	-0.324***	(0.059)
legelec	-0.034	(0.145)
yrsoffc	0.027***	(0.009)
pcapol	-0.417***	(0.069)
system	0.228***	(0.088)
Intercept	0.442	(0.315)
<hr/>		
N	1496	
Log-likelihood	-812.642	
$\chi^2_{(15)}$	243.719	
Pseudo R <sup>2</sup>	0.214	
<hr/>		
Robust z errors		
Sample: all countries		
Dep. Var: 1 if <i>de jure</i> fix.		
Significance levels : * : 10% ** : 5% *** : 1%		

Table 5: De jure fix among those who have a de facto fix

<b>Variable</b>	<b>Coefficient</b>	<b>(Std. Err.)</b>
sizetous	-20.436**	(10.108)
open_l	0.431	(1.174)
shrtrade3_l	1.143	(1.548)
vigdp	-0.637	(11.196)
fl2m1_l	-0.455***	(0.157)
qmm1_l	0.042	(0.135)
kaopen	0.215	(0.161)
dinfl2	1.580	(1.696)
avinfl	-0.294	(1.047)
d_right	-0.292	(0.337)
sprisk2	-0.195	(0.179)
legelec	0.709*	(0.371)
yrsoffc	0.024	(0.020)
pcapol	-0.493**	(0.220)
system	-0.683***	(0.257)
Intercept	1.733**	(0.851)

  

N	408
Log-likelihood	-148.658
$\chi^2_{(15)}$	140.861
Pseudo R <sup>2</sup>	0.398

Robust z errors  
Sample: countries with *de facto* fix  
Dep. Var: 1 if *de jure* fix  
Significance levels : \* : 10%    \*\* : 5%    \*\*\* : 1%

Table 6: De jure among de facto, best equation

Variable	Coefficient	(Std. Err.)
sizetous	-19.930**	(8.729)
fl2m1_l	-0.672***	(0.142)
sprisk2	-0.223*	(0.130)
legelec	0.764**	(0.374)
pcapol	-0.389**	(0.151)
system	-0.625***	(0.206)
Intercept	3.144***	(0.240)

  

N	695
Log-likelihood	-197.48
$\chi^2_{(6)}$	160.686
Pseudo R <sup>2</sup>	0.413

Robust z errors  
Sample: countries with *de facto* fix  
Dep. Var: 1 if *de jure* fix  
Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 7: De jure and de facto

<b>Variable</b>	<b>Coefficient</b>	<b>(Std. Err.)</b>
sizetous	-10.362**	(4.308)
open1	1.015**	(0.504)
shrtrade31	-1.305**	(0.574)
vigdp	-5.368	(4.922)
fl2m11	-0.037	(0.080)
qmm11	-0.308***	(0.100)
kaopen	0.565***	(0.068)
dinfl2	0.498	(0.679)
avinfl	-1.338	(1.336)
d_right	-0.017	(0.168)
sprisk2	-0.422***	(0.124)
legelec	-0.166	(0.187)
yrsoffc	-0.017*	(0.009)
pcapol	-0.503***	(0.083)
system	-0.647***	(0.130)
Intercept	0.624	(0.452)

  

N	1378
Log-likelihood	-560.644
$\chi^2_{(15)}$	164.6
Pseudo R <sup>2</sup>	0.2063

Robust z errors  
Sample: all countries  
Dep. Var: 1 if *de facto* and *de jure* fix  
Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 8: Broken promises among de jure fix

Variable	Coefficient	(Std. Err.)
sizetous	-7.460	(9.593)
open1	-1.243	(0.839)
shrtrade31	-0.426	(0.745)
vigdp	15.695**	(7.688)
fl2m11	-0.704***	(0.204)
qmm11	0.468***	(0.138)
kaopen	-1.196***	(0.132)
dinfl2	1.209	(0.752)
avinfl	0.110	(0.881)
d_right	-0.153	(0.219)
sprisk2	0.184	(0.139)
legelec	0.331	(0.240)
yrsoffc	0.022*	(0.012)
pcapol	0.285**	(0.135)
system	1.274***	(0.228)
Intercept	-1.047*	(0.601)

  

N	622
Log-likelihood	-314.637
$\chi^2_{(15)}$	111.321
Pseudo R <sup>2</sup>	0.267

Robust z errors

Sample: countries who have a *de jure* fix

Dep. Var: 1 if *de facto* regime is not a fix

Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 9: Broken promises among de jure fix: best equation

Variable	Coefficient	(Std. Err.)
open_l	-2.182***	(0.450)
fl2m1_l	-0.196*	(0.115)
qmm1_l	0.270***	(0.090)
kaopen	-0.873***	(0.102)
d_right	-0.324*	(0.173)
sprisk2	0.205*	(0.111)
yrsoffc	0.019**	(0.009)
system	0.779***	(0.139)
Intercept	-0.156	(0.210)

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N	882
Log-likelihood	-504.544
$\chi^2_{(8)}$	109.301
Pseudo R <sup>2</sup>	0.171

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Robust z errors  
Sample: countries who have a *de jure* fix  
Dep. Var: 1 if *de facto* regime is not a fix  
Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 10: Broken promises among de jure flex

Variable	Coefficient	(Std. Err.)
sizetous	-3.964***	(1.114)
open_l	10.380**	(4.055)
shrtrade3_l	-6.896***	(2.434)
vigdp	19.701	(20.452)
fl2m1_l	0.424**	(0.210)
qmm1_l	0.229	(0.290)
kaopen	-0.189	(0.165)
dinfl2	0.811	(1.875)
avinfl	0.381	(0.855)
d_right	1.642***	(0.508)
sprisk2	0.867**	(0.343)
legelec	-0.545	(0.463)
yrsoffc	-0.097**	(0.047)
pcapol	-0.162	(0.328)
system	-0.509*	(0.264)
Intercept	1.647	(1.061)

  

N	236
Log-likelihood	-73.502
$\chi^2_{(15)}$	57.306
Pseudo R <sup>2</sup>	0.471

Robust z errors  
Sample: countries who have a *de jure* flex  
Dep. Var: 1 if *de facto* regime is not a flex  
Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 11: Broken promises among de jure flex: best equation

Variable	Coefficient	(Std. Err.)
sizetous	-3.675***	(0.849)
open1	7.537***	(2.456)
shrtrade31	-3.890**	(1.695)
fl2m11	0.403**	(0.200)
d_right	2.084***	(0.511)
sprisk2	0.809***	(0.306)
yrsoffc	-0.054*	(0.033)
Intercept	0.539	(0.681)

  

N	278
Log-likelihood	-92.722
$\chi^2_{(7)}$	33.099
Pseudo R <sup>2</sup>	0.400

Robust z errors  
Sample: countries who have a *de jure* flex  
Dep. Var: 1 if *de facto* regime is not a flex  
Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Table 12: Baseline ordered logit

Variable	Coefficient	(Std. Err.)
sizetous	-4.559***	(0.541)
open_l	2.064***	(0.435)
shrtrade3_l	-1.116**	(0.453)
vigdp	-15.763***	(4.479)
fl2m1_l	0.144**	(0.071)
qmm1_l	-0.210***	(0.053)
kaopen	0.325***	(0.047)
dinfl2	-1.699***	(0.447)
avinfl	-0.773	(0.663)
d_right	-0.075	(0.118)
sprisk2	-0.091**	(0.037)
legelec	-0.350***	(0.125)
yrsoffc	-0.004	(0.008)
pcapol	-0.198***	(0.075)
system	-0.203***	(0.076)
_cut1	-3.160***	(0.336)
_cut2	-0.232	(0.313)
<hr/>		
N	1365	
Log-likelihood	-1185.869	
$\chi^2_{(15)}$	271.946	
Pseudo R <sup>2</sup>	0.138	
<hr/>		
Robust z errors		
Sample: all countries		
Dep. Var: <i>de facto</i> regime: 1 flex, 2 if intermediate, 3 if fix		
Significance levels : * : 10% ** : 5% *** : 1%		

Table 13: Baseline regression with govexp

<b>Variable</b>	<b>Coefficient</b>	<b>(Std. Err.)</b>
sizetous	-2.869***	(0.596)
open.l	1.752***	(0.580)
shrtrade3.l	-1.836***	(0.662)
vltgovexgdp	14.138***	(4.911)
vigdp	-22.333***	(8.010)
fl2m1.l	0.320***	(0.086)
qmm1.l	-0.182**	(0.072)
kaopen	0.416***	(0.071)
dinfl2	1.114*	(0.588)
avinfl	-5.050***	(1.469)
d.right	-0.286	(0.179)
sprisk2	-0.157**	(0.078)
legelec	-0.388**	(0.193)
yrsoffc	-0.035***	(0.010)
pcapol	-0.284**	(0.116)
system	-0.470***	(0.121)
Intercept	0.932**	(0.457)
<hr/>		
N	1062	
Log-likelihood	-495.21	
$\chi^2_{(16)}$	123.118	
Pseudo R <sup>2</sup>	0.162	
<hr/>		
Robust z errors		
Sample: all countries		
Dep. Var: 1 if <i>de facto</i> fix		
Significance levels : * : 10% ** : 5% *** : 1%		

Table 14: Baseline eighties

Variable	Coefficient	(Std. Err.)
sizetous	-4.965*	(2.790)
open_l	2.469**	(1.050)
shrtrade3_l	-1.338	(0.965)
vigdp	-25.104**	(11.216)
fl2m1_l	0.542***	(0.144)
qmm1_l	-0.434***	(0.165)
kaopen	0.755***	(0.151)
dinfl2	0.646	(1.428)
avinfl	-4.094	(4.590)
d_right	-0.474	(0.329)
sprisk2	-0.836***	(0.200)
legelec	-0.672**	(0.321)
yrsoffc	-0.033**	(0.016)
pcapol	-0.397*	(0.232)
system	-0.802***	(0.231)
Intercept	1.102	(0.928)

  

N	512
Log-likelihood	-191.767
$\chi^2_{(15)}$	72.022
Pseudo R <sup>2</sup>	0.306

Robust z errors  
Sample: all countries, 1980s  
Dep. Var: 1 if *de facto* fix  
Significance levels : \* : 10%    \*\* : 5%    \*\*\* : 1%

Table 15: Baseline nineties

Variable	Coefficient	(Std. Err.)
sizetous	-2.409***	(0.768)
open1	-0.453	(0.649)
shrtrade31	-0.604	(0.756)
vigdp	-15.800*	(8.218)
fl2m11	0.418***	(0.120)
qmm11	-0.231***	(0.085)
kaopen	0.292***	(0.075)
dinfl2	0.223	(0.454)
avinfl	-0.587	(0.547)
d_right	0.238	(0.197)
sprisk2	-0.264***	(0.097)
legelec	-0.153	(0.207)
yrsoffc	-0.002	(0.012)
pcapol	-0.216**	(0.106)
system	-0.167	(0.120)
Intercept	0.259	(0.485)
<hr/>		
N	658	
Log-likelihood	-372.447	
$\chi^2_{(15)}$	53.715	
Pseudo R <sup>2</sup>	0.095	
<hr/>		
Robust z errors		
Sample: all countries, 1990s		
Dep. Var: 1 if <i>de facto</i> fix		
Significance levels : * : 10% ** : 5% *** : 1%		

## Economic Variables

Variable	Description	Source
avinfl	average inflation, 3 years moving average	IFS line 64
dinfl2	dummy for high inflation countries (inflation rate above 40% per year)	IFS
M1	money	IFS line 34
fl2m1	Foreign liabilities over money (lagged)	IFS line 16c + line 26c
kaopen	capital account openness index	authors' calculation based on Chinn and Ito (2001)
open	openness (lagged), imports + exports/2gdp	WDI
qmm1	quasi money over money (lagged)	IFS, line 35/line 34
shrtrade3	share of trade with the 3 largest export partners (lagged)	IMF DTS
sizetous	gdp as a share of US gdp	WDI
vigdp	volatility of investment over gdp, 3 years moving standard deviation	IFS, line 93e / line 99b
vltgovexgdp	volatility of government expenditure over gdp, 3 years moving standard deviation	IFS, line 82 / line 99b

## Political Variables

Variable	Description	Source
yrsoffc	Years the incumbent administration has been in office	DPI
system	Typology of political system	DPI
Ass	Assassinations	CNTS archive
Genstr	General Strikes	CNTS archive
Guerwar	Guerrilla Warfare	CNTS archive
Purg	Purg	CNTS archive
Riots	Riots	CNTS archive
Revol	Revolutions	CNTS archive
Agdem	Anti-Government Demonstrations	CNTS archive
sprisk2	index of socio political risk, first principal component of: Ass, Genstr, Guerwar, Purg, Riots, Revol, Agdem	Authors' calculation
dright	dummy for right wing governments	DPI and authors' calculations
legelec	dummy for legislative election	DPI and authors' calculations
xconst	Executive Constraints (Decision Rules)	POLITY IV
polconv	A New Measure of Credible Commitment	source: Witold Henisz
checks	Number of veto players	DPI
pcapol	index of political risk: first principal component over xconst, checks, polconv	Authors' calculations