

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”? 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, challenging the view that sees the exchange rate as a commitment device. Policymakers seem rather concerned with regime sustainability in the face of adverse economic and socio political fundamentals.

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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 regimes¹ 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 which is 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.² 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 that renege on a peg and those that “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.

¹See Fischer (2001).

²See also Hausmann et al. (2001).

Models in the Barro-Gordon tradition, that we label as *credibility view*, suggest that signalling commitment to tough policies is relatively more desirable when the potential inflation bias is more severe. Unfortunately, such tough policies 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 hence triggering speculative attacks (Bartolini and Drazen, 1997; Drazen, 1997; Drazen and Masson, 1994). As shown in Velasco and Neut (2004), tough policies may indeed raise inflation expectations. 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 provides a number of contributions to the existing literature. 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 us 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 factors which may constrain the policymaker’s actions. Among these, political variables play a key role. 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. Other contributions focused on broad dimensions such as the level of democracy (Leblang, 1999), the transparency of the political process (Broz, 2002), the quality of institutions and governance indicators (Alesina and Wagner, 2003). We prefer to focus on factors which are more closely related to the macroeconomic policy stance and to the choice of the exchange rate regime. To our knowledge, ours is the first systematic and comprehensive assessment of the role played by political variables in exchange rate regime choice.³

Third, we generalise, integrate and expand existing results by estimating a rich model specification on a large data-set of developing and advanced economies spanning from 1974 to 2000.

Our results strongly favour the consistency view. Indicators of sociopolitical risk and political fragmentation are positively related to the chances of observing a *de facto* float. Moreover, whenever a country is already *de facto* implementing a peg, the same factors makes it more likely that the peg will also be announced. The same result holds for indicators of financial fragility;

³Our work differs from and complements Levy-Yeyati et al. (2004), who test different theories of regime choice.

for instance countries heavily indebted in foreign currency are more likely to *de facto* peg and less likely to publicly announce it. Finally, in line with the predictions of the consistency view, we find that socio-political unrest and political fragmentation increase the chances that a promise to implement a peg will be broken.

The remainder of the paper is organised as follows. Section 2 discusses the channels underlying the two views. Section 3 describes the data set 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 which generally do not distinguish between *de jure* and *de facto* regimes. 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 indicates 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 argue that the credibility of announced policies crucially depends on the economic and socio-political environment (Bartolini and Drazen, 1997; Drazen, 1997; Drazen and Masson, 1994; Velasco and Neut, 2004). Under unfavourable 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 unemployment increase or to debt accumulation.

We investigate this fundamental controversy about the choice of the exchange rate regime. On the one hand, the regime should be consistent with the underlying economic and political conditions. We label this approach as *consistency view*. On the other hand, the regime should be exploited to impose

“invisible handcuffs” on the policymaker, tying his actions to a specific policy course. This approach, that we call *credibility view*, implies that the exchange rate regime is an instrument for governments to address credibility-deficits and dynamic inconsistency problems. Since they start from fundamentally different standpoints, 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 and which must be controlled for in the econometric analysis. They will be presented in section 3.

2.1 Economic channels

Liability dollarisation. Several recent contributions (Calvo and Reinhart, 2002; Hausmann et al., 2001; Aghion et al., 2003) have stressed the role of balance sheet effects on the choice of the exchange rate regime. The credibility view claims that liability dollarisation strengthens an announced peg by raising the cost of reneging on it. The consistency view reverses this argument, as the combination of liability dollarisation and exchange rate commitment generates lock in effects (Velasco and Neut, 2004). Therefore, when adverse shocks render the peg unsustainable, the delayed devaluation is amplified and may cause a financial meltdown.⁴ Moreover an announced peg could worsen financial fragility as the implicit insurance offered against exchange rate fluctuations could induce domestic agents to increase their share of foreign-currency denominated liabilities (Eichengreen and Hausmann, 1999). The consistency view also argues that countries with high liability dollarisation should be wary of a free float, as exchange rate volatility could exacerbate domestic financial fragility. For our purposes empirical research provides only preliminary evidence: Alesina and Wagner (2003); Levy-Yeyati et al. (2004); Poirson (2001) find that liability dollarisation is associated with *de facto* pegs, but does not investigate whether liability dollarisation affects the probability that *de facto* pegs are also announced.

Inflation. The credibility view emphasises the role of the exchange rate as a nominal anchor, particularly in countries where monetary institutions are weak. In this vein, fixed exchange rates should be adopted when persistently high rates of inflation erode the credibility of the monetary authority and alter-

⁴In this regard the Argentinian case is paradigmatic.

native stabilisation rules become unmanageable.⁵ By contrast the consistency view argues that high inflation countries should be careful in adopting a peg as the erosion of external competitiveness would eventually undermine the sustainability, and hence credibility, of the peg.⁶ The empirical evidence is mixed: Poirson (2001) supports the credibility model finding a positive relationship between inflation and fixed exchange rates.⁷ Rizzo (1998) finds instead that countries with lower inflation are more likely 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. In all these cases the familiar credibility vs consistency dilemma arises as political incentives make it more difficult to implement and sustain “tough” monetary policies. On the one hand, a peg should tie the hands of the policymaker and discipline political pressures. On the other hand, political weakness could undermine the credibility of a peg under adverse circumstances.

Electoral cycle. Alesina et al. (1997) and Drazen (2000) point out that by “tying monetary policy to the mast” (Agell et al., 1996) in electoral years, governments can signal their competence and credible commitment to sound macroeconomic management. However, when elections approach, stronger pressures towards a more expansionary policy mix make it more difficult for governments to sustain a peg. The 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. Blomberg et al. (2004) support the hypothesis that the probability of abandoning a peg increases in electoral periods. Finally, Leblang (2002) finds that the vulnerability of countries to speculative attacks tends to increase in the upcoming of elections.

Government turnover and socio-political unrest. A high probability of termination and/or widespread socio-political unrest shift the focus of policymakers towards short-term survival and increase uncertainty. This in turn reduces the credibility of stabilisation policies. Therefore, the credibility view calls for the adoption of a peg as a way to signal commitment, just like in the case of electoral cycle. Conversely, the consistency view suggests that a float should be adopted. The hypothesis that higher instability is associated with a float has received some empirical support. Mèon and Rizzo (2002) report that the

⁵See the literature on exchange rate based stabilisations (Calvo and Végh, 1999).

⁶See, among others, Driffill and Miller (1993).

⁷The result is limited only to the 1990s.

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. However Poirson (2001) finds no significant effects of government changes on the exchange rate regime.

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 requires more time and bargaining effort to complete the decision-making process. Models of legislative bargaining (see Baron (1991), Baron and Ferejohn (1989)) suggest that the need to achieve a compromise among different actors demands greater policy flexibility. Moreover fragmentation makes it more difficult to reverse policy decisions, increasing the option value of waiting before committing to a peg. These considerations point to a float as the consistent regime choice when fragmentation is high. The credibility view reverses this argument and calls for the adoption of a nominal anchor as a tool to impose discipline on domestic political actors. Empirical work on this field is relatively scarce. Leblang (1999) finds that in developing countries flexible exchange rates are associated with parliamentary fractionalisation. Moving from the assumption that electoral rules are the determinants of fragmentation, Bernhard and Leblang (1999) find that, in industrialised countries, proportional systems are associated with pegs.

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 160 countries from 1974 to 2000. Economic data are drawn from standard sources (IMF and World Bank). 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 data sources and variable construction. The *de jure* exchange rate regimes classification is taken from IMF “Annual Report on Exchange Arrangements and Exchange Restrictions” (various years). Two alternative classifications exist for *de facto* regimes. 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 latter classification, mainly because it avoids the use of unreliable data on international reserves. Nevertheless, we test the sensitivity of our results against the Levi-Yeyati and Sturzenegger's classification.

The choice of the estimation method requires some discussion. The use of panel data estimator would be problematic. Using a random effect estimator is not appropriate because we are investigating the almost entire population of countries and the sample cannot be considered as drawn from a large distribution. This leaves the possibility of using a fixed effect estimator which is, however, of little use in estimating variables that display limited variability over time. As we mainly focus on political variables that typically have small variations over time, we opted for the pooled OLS estimator.⁸ In doing so we implicitly assume that all the individual heterogeneity is captured by our political variables. In order to control for possible endogeneity, we lagged the variables, when needed (see the appendix).

3.2 Model specification

The right hand side of our equation includes the variables discussed in the previous section. In addition, we include some controls. These represent economic and political factors that, whilst not directly related to any of the two views, still play a relevant role in the choice of exchange rate arrangements.

3.2.1 Variable definition

Openness, size. OCA theories predict that the more open the economy is, the greater the trade-enhancing effect of fixed exchange rates. It then follows that there should be a positive association between openness to international trade and the propensity to peg. Yet, more open economies are more exposed to external shocks, and therefore benefit from exchange rate flexibility. Moreover the economic size of a country should negatively affect the likelihood of pegging as larger economies are generally more closed. Finally, fear of floating theories (Calvo and Reinhart, 2002) 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 (*sizetous*).

Trade concentration and economic volatility. Trade concentration exposes countries to external shocks and should therefore reduce the likelihood of ob-

⁸We included in the regression time dummies that are not reported in the tables for reasons of space.

serving a peg. Moreover one would expect indicators of economic volatility to be negatively related with the propensity to peg, because flexible exchange rates can be used to stabilise the economy. Trade concentration is measured as the share of export to the 3 largest partners (*shrtrade3*). We use two measures of economic volatility: volatility of investment over GDP (*vigdp*), and volatility of government expenditure over GDP (*vltgovexpdp*). Both measures proxy volatility by the standard deviation over time of the two variables.⁹

Financial development. Financially developed economies are expected to have more difficulties in keeping the exchange rate fixed (Obstfeld and Taylor, 2004). Fear of floating theories claim that more developed economies show greater ability to float (Calvo and Reinhart, 2002). Following the correlation between financial and economic development, 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 more difficult to maintain a peg. We proxy financial development with the ratio of quasi money over money (*qmm1*). As for capital account openness (*kaopen*), we employ two indicators: the first is constructed extracting the principal component from indicators derived from the 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 dollarisation. We proxy it with the ratio of foreign liabilities over money (*fl2m1*).

Inflation. We consider the lagged rate of inflation measured as a three year moving average (*avinfl*). We also control for high inflation countries with a dummy (*dinfl*) taking value 1 when the annual rate of inflation is above 40%.¹⁰

Electoral cycle. The dummy variable *legelec* takes 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 does not produce any change in the results.

Government turnover and socio-political instability. We use two indicators. The first one is the incumbent’s tenure in office, (*yearsoffc*; source DPI). As discussed by the government stability literature, longer tenure in office tends to be associated with a higher probability of observing a government change in the near future (Carmignani, 2002). Thus, higher values of *yearsoffc* denote higher expected government turnover. The literature measures government turnover also with the average number of government terminations in a given period or

⁹In the baseline specification we will use only *vigdp*, since *vltgovexpdp* is available only for a smaller sub-set of relatively richer countries.

¹⁰This is the standard World Bank definition of high inflation. For theoretical and empirical underpinnings of this threshold see Dornbusch and Fischer (1993) and Bruno and Easterly (1998).

with a dummy picking years of actual government change. We prefer *yearsoffc* because it is better suited to capture the expectation of a change and hence the associated degree of uncertainty, which 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.

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 reversing policy changes is more difficult because either the government or the president have looser control over the decision making process. Technically, the index is obtained as the principal component of three measures quantifying the number of veto players and hurdles in decision rules (see the appendix for more details). Persson and Tabellini (2004) point out that also constitutional rules 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.

Ideological preferences. The partisan business cycle literature¹¹ claims that right-wing governments should be more conservative in the use of macroeconomic policy as a countercyclical tool. 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 include the policymaker's ideological preferences as an additional control. The dummy variable *d_right* takes value 1 when the incumbent has a right-wing ideological orientation and zero otherwise (source DPI).¹²

Table 1 presents descriptive statistics, and table 2 shows the pairwise correlations that are reassuringly low.

4 Econometric results

The empirical analysis is composed of 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 corre-

¹¹The literature on this argument is vast; for an up to date survey see Persson and Tabellini (2001).

¹²Following 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.

lated 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.

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. the impossible trinity theorem), the capital account openness indicator (*kaopen*) is positively related to the propensity to peg.¹³ 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. Domestic financial market depth (*qmm1*) lowers the chances that the country pegs. This confirms the view that sustaining a peg is less likely when financial markets are relatively sophisticated.

Liability dollarisation. The positive and highly significant coefficient for *flm1* suggests that the higher risk of an adverse balance sheet effect makes countries more reluctant to float.

Inflation. Neither variable is significant. However, inflation is always significant when we run the regression without socio-political variables, suggesting that the inflation rate is to some extent 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 that governments value discretion 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 as 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

¹³The 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.

de facto regressions. Some variables lose significance, while others, notably *fl2m1*, *yrsoffc*, *system*, change sign. Such a sharp difference calls for a deeper investigation. Bearing in mind that, relatively to the variable “*de facto* pegs”, the variable “*de jure* pegs” excludes non announced *de facto* pegs and includes *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 *de facto* peg is also announced. 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 (table 5) we also estimate a best equation (table 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 a less fragmented political system.

Relatively to table 3 we note a sign reversal for two key variables: *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 defining the dependent variable as 1 if a country has both a *de jure* and a *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*). It seems that 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

This section 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 (Tables 8 and 9).

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*.

The indicator of capital account openness (*kaopen*) has a negative and significant sign. Taking into account the results presented in tables 3 and 7 we find that countries with highly integrated capital markets are more likely to adopt a peg and to publicly commit to it, and less likely to renege on their commitment. This could be explained by the attempt of many non industrialised countries to attract capital flows by integrating in the international financial markets and using a peg to stabilise expectations.

Turning to political variables, the coefficient on government turnover, socio-political unrest, and decision-making fragmentation are positive. In line with the consistency view governments who are subject to an adverse political environment find it more difficult to sustain the commitment to a peg.

Differently from the baseline equation the policymaker's ideology 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 and 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.¹⁴ 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 stick to an announced course of action. The coefficient on *yrsoffc* is negative reversing the result obtained in table 9, confirming the argument that a greater probability of termination induces government to implement discretionary policies. Finally right-wing governments 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 baseline regression. However the high inflation dummy has a reversed sign. Taking into

¹⁴These results are confirmed by our baseline regression where the two coefficient enter with the opposite sign.

account the baseline results, this suggests that high inflation countries either choose a (falling) flexible exchange rate, or choose to peg the rate in order to stabilise it. The signs on political variables are confirmed but *yrsoffc* loses significance.

Second we split the sample in two subperiods distinguishing between eighties and nineties. Again the results are broadly confirmed, 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.

Third, in table 13 we present the results of the baseline regression where we have also included a variable representing the volatility of government expenditure to GDP ratio (*vtgovexpgdp*). This 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, *vtgovexpgdp* 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.¹⁵ The main difference with respect to the baseline regression is that both inflation variables become significant with the expected sign (negative for *avinfl* and positive for the dummy for high inflation).

Fourth we have estimated the baseline model with Levy-Yeyati and Sturzenegger's (LYS) *de facto*. We obtain results which are different from table 3 and very similar to our results for *de jure* pegs (table 4). This is because the LYS and IMF classifications are relatively close. 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.

¹⁵Note 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 will 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	vigd	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									
vigd	-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 ²	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 ²	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

Variable	Coefficient	(Std. Err.)
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 ²	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 ²	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

Variable	Coefficient	(Std. Err.)
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)
<hr/>		
N	1378	
Log-likelihood	-560.644	
$\chi^2_{(15)}$	164.6	
Pseudo R ²	0.2063	
<hr/>		
Robust z errors		
Sample: all countries		
Dep. Var: 1 if <i>de facto</i> and <i>de jure</i> 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 ²	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)

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

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 ²	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 ²	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 ²	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

Variable	Coefficient	(Std. Err.)
sizetous	-2.869***	(0.596)
open.l	1.752***	(0.580)
shrtrade3.l	-1.836***	(0.662)
vltgovexgdp	14.138***	(4.911)
vlgdp	-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 ²	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 ²	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)

N	658
Log-likelihood	-372.447
$\chi^2_{(15)}$	53.715
Pseudo R ²	0.095

Robust z errors
Sample: all countries, 1990s
Dep. Var: 1 if *de facto* 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	Purgings	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