DEMOCRACY AND DE FACTO EXCHANGE RATE REGIMES

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This paper explores the relationship between a country’s political regime type and its de facto exchange rate fixity. It argues that more democratic regimes should be associated with less de facto fixity because the median voter is likely to be a domestically oriented producer with a monetary preference for domestic policy autonomy, requiring more a more flexible exchange rate regime. Focusing on a broad sample of country-years in the post-Bretton Woods era defined by international capital mobility, the statistical results show that not only are more democratic regimes negatively associated with de facto fixity using three different operational measures for this dependent variable, but that this negative relationship gets stronger as the median voter is more likely to be a domestically oriented producer and as societal groups are more able to influence public policy.

1. INTRODUCTION

ARE MORE democratic regimes associated with more or less exchange rate stability? The existing theory and evidence on this research question is quite mixed. For example, Broz (2002) showed that more democratic governments tend to make less fixed exchange rate commitments. But given the observed gap between a government’s formal exchange rate commitments, or its de jure regime, and its actual exchange rate behavior, or its de facto regime, one simply cannot infer less exchange rate stability from a more flexible de jure regime (Levy-Yeyati and Sturzenegger, 2005; Reinhart and Rogoff, 2004; Shambaugh, 2004). Indeed, given evidence showing that more democratic countries have been associated with more stable economic growth and domestic prices (e.g. Quinn and Woolley, 2001; Satyanath and Subramanian, 2007), some have suggested that more democratic regimes should also be associated with more stable exchange rates, or a more fixed de facto regime. Consistent with this proposition, Alesina and Wagner (2006) showed that countries with “good” institutions, consistent with more democratic regimes, have achieved greater de facto exchange rate fixity than would be expected given their de jure regime.

In this paper, we offer an argument to explain why more democratic regimes should be associated with less, not more, exchange rate stability. Our argument combines Frieden’s (1991) sectoral framework for understanding societal monetary/exchange rate policy preferences with the median voter model (Downs, 1957). While all governments face some policy tradeoff between exchange rate stability and domestic monetary policy autonomy given international capital mobility (Fleming, 1962; Mundell, 1968), voter/electoral pressure pushes more democratic governments to resolve this tradeoff in favor of domestic monetary autonomy, leading to less de facto exchange rate fixity, because the median voter is likely to be a domestically oriented producer with a preference for this policy outcome.

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Using three different measures of de facto exchange rate fixity, we present statistical evidence showing that more democratic regimes have been associated with less exchange rate stability in the post-Bretton Woods era defined by international capital mobility. Consistent with our proposition that this negative relationship stems from the median voter’s preference for domestic monetary policy autonomy, we also present statistical evidence showing this democratic tendency toward less de facto fixity is associated with a larger share of domestically oriented producers and an increased ability of these groups to influence public policy outcomes.

This argument and evidence have some important implications for other research programs in political economy. First, they broaden our understanding about how macroeconomic outcomes vary in terms of political regime type. As mentioned above, previous research has shown that more democratic regimes have been able to achieve more stable economic growth, a policy outcome consistent with domestic monetary autonomy. Our evidence thus enlarges this picture by showing that they correspondingly achieve less exchange rate stability. Second, our research also helps deal with the problem faced by political economy scholars in explaining how societal policy preferences become state policy outcomes. While the field has some well-developed models of societal economic policy preferences (e.g. Frieden’s sectoral framework), it is often hard to translate private sector preferences into public policy outcomes. The argument advanced here shows why democratic institutions should systematically favor the larger sectors in the national economy, leading the government toward less de facto fixity consistent with the median voter’s preference for domestic monetary autonomy.

The remainder of our paper is structured in four parts. The first part reviews the existing literature that speaks, often indirectly, to how democracy might be linked to de facto exchange rate fixity. The second develops our theoretical argument explaining why more democratic regimes should be associated with less de facto fixity. The third section presents empirical evidence in support of our argument. The fourth section concludes.

2. THREE PERSPECTIVES ON DEMOCRACY AND EXCHANGE RATE FIXITY

2.1 Positive Relationship

As mentioned in the introduction, one can easily construct an argument to explain why more democratic governments should be positively associated with de facto exchange rate fixity. This argument begins with the idea that exchange rate stability – like other forms of macroeconomic stability including growth and domestic price stability – can be characterized as a public, or collective, good. This is a view commonly expressed in the macroeconomics literature (Bergsten et al., 1999; Camdessus, 1999; Meltzer, 2002; Wyplosz, 1999). It also forms part of the canon in international political economy where the research program on hegemonic stability theory treated “an open trading system and stable currency” as “collective goods” (Gilpin, 1987, p. 74). Consistent with this view, scholars studying regional and international monetary cooperation have treated exchange rate stability as the cooperative policy outcome (e.g. McNamara, 1998; Oatley, 1997), while the alternative of domestic monetary autonomy is seen as a defection from international cooperation (e.g. Simmons, 1996).

Inasmuch as exchange rate stability, or de facto fixity, can be reasonably treated as a public good, democracies should achieve more of it. Democracies have larger “selectores” and “winning coalitions” than autocracies, which makes private good provision an inefficient means for the former to remain in political power, although it may work well
for the latter (Bueno de Mesquita et al., 2003). For their political survival, democratic leaders must provide public goods, which may include exchange rate stability. In fact, there appears to be some empirical evidence to support the proposition that democracies achieve more de facto exchange rate fixity. Exploring the gap between a country’s de jure and de facto exchange rate regimes, Alesina and Wagner (2006) found that countries with “good institutions” achieve greater de facto fixity than suggested by their de jure exchange rate regime. In other words, these countries appear to overmanage their de jure exchange rate regime, realizing more-than-expected de facto fixity. The various measures used by these authors to capture the concept of good domestic institutions, including multiple indicators from BERI and the World Bank, are all shown to be positively correlated with democracy.

The problem with this public goods story to support a positive relationship between democracy and exchange rate stability is twofold. First, it can be misleading to treat fixed exchange rates as a public good, especially from the perspective of producer groups. While it is true that monetary/exchange rate policy choices have a distinct “public” character (Gowa, 1988), the choice for exchange rate stability is certainly not “good” for all producers in the national political–economy. Indeed, for the large segment of the national political–economy without cross-national business interests – namely import-competing producers and those in the non-tradable service sector (Frieden, 1991, p. 445) – exchange rate stability functions more as a public “bad” since this external policy goal can only be achieved with the loss of domestic monetary autonomy given international capital mobility.

Second, Alesina and Wagner’s finding that countries with good institutions achieve more de facto fixity than implied by their de jure exchange rate regimes may not be due to the fact that democracies actually achieve more de facto fixity than autocracies. Instead, it may simply stem from the fact that democracies tend to make de jure exchange rate commitments that are less fixed in character than autocracies. As Broz (2002) demonstrated, autocrats commit to more fixed de jure regimes, possibly because central bank independence as an alternative monetary commitment technology is ineffective at reducing inflation within autocracies given their opaque domestic political regime.

### 2.2 Negative Relationship

An alternative perspective on the relationship between democracy and de facto fixity is that the two variables should be negatively correlated. Indeed, one might reach this conclusion from Broz’s aforementioned evidence: democracies achieve less exchange rate stability simply because they are more reluctant than autocracies to make formal fixed exchange rate commitments.

While we will later make an argument that is supportive of a negative relationship between these two variables, it seems clear that Broz’s theory was not designed to explain actual exchange rate stability. On this point, Broz deliberately made an argument about exchange rate commitments (i.e. de jure exchange rate regimes) and was careful not to argue that autocracies actually achieve more de facto fixity than democracies. Indeed, his argument did not explicitly consider the external policy goal of exchange rate stability; instead it focused on how fixed exchange rate commitments could serve as an inflation anchor for governments to achieve domestic price stability, an internal policy goal. Furthermore, the data more recently assembled by Levy-Yeyati and Sturzenegger (2005), Reinhart and Rogoff (2004), and Shambaugh (2004) suggest that it would be hard to
sustain an argument that certain types of government obtain greater de facto fixity just because they make more fixed de jure commitments. These economists showed how many governments who make fixed exchange rate commitments have been either unwilling or unable to sustain those commitments. In short, a country’s de jure exchange rate regime is a very incomplete predictor of its de facto regime, the dependent variable of interest in this study.

One might also argue that more democratic governments should be associated with less de facto fixity based on the evidence related to exchange rate electoral cycles within democratic regimes (e.g. Cooper, 1971; Frankel, 2005; Frieden et al., 2001; Stein and Streb, 2004; Walter, 2006). This literature has shown that devaluations (a particular form of de facto exchange rate flexibility) can be very costly to democratic governments right before an election, but that newly elected governments often devalue after assuming office because the electoral pressure for fixity has disappeared. This logic by itself might suggest that the democracies should be associated with less fixed exchange rates because the political pressure for de facto fixity only appears right before an election, thus allowing them to maintain de facto flexibility for the rest of the electoral cycle.

While this electoral cycle literature is useful in explaining the temporal variation in de facto exchange rate fixity within a sample of democratic countries, it unfortunately makes no cross-sectional comparison between democratic and autocratic regimes. Indeed, to the extent that its logic can be extended to include autocratic governments, it seems to predict that democracies should be associated with more (not less) de facto fixity than autocracies. This prediction is based on the understanding that whatever the electoral pressure faced by democratic governments to maintain fixed exchange rates (as limited as it may be to pre-election periods), autocratic governments presumably face even less electoral pressure for exchange rate fixity, thus allowing them to maintain exchange rate flexibility in all periods (unlike democratic governments with incentives to maintain fixity in pre-electoral ones).

2.3 No Relationship

The null hypothesis is, of course, that a country’s level of democracy is uncorrelated with its de facto exchange rate regime. Indeed, Simmons and Hainmueller (2004) made this very argument after attempting to replicate several studies of de jure exchange rate regime choice (Bernhard and Leblang, 1999; Broz, 2002; Hallerberg, 2002). As Simmons and Hainmueller reported weak explanatory power for domestic institutional factors, including democracy, when using Reinhart and Rogoff’s (2004) data on de facto fixity, they concluded that a government’s actual exchange rate policy is dominated by international, and not by domestic, factors. They also challenged scholars who have advanced domestic institutional explanations for national exchange rate policy to make a stronger case for why their independent variables should help explain actual exchange rate policy, or de facto regimes. We now take up this challenge, focusing on domestic political regime type.

3. WHY DEMOCRACIES SHOULD ACHIEVE LESS DE FACTO FIXITY

Our argument explaining why democracies should be associated with less de facto exchange rate fixity than autocracies proceeds in two steps. First, with reference to the Mundell–Fleming framework, we explain why all governments face a policy tradeoff between exchange rate stability and domestic monetary autonomy in the post-Bretton
Woods era. Second, we show why more democratic governments face greater societal pressure to resolve this tradeoff in favor of domestic monetary autonomy.

3.1 Exchange Rate Stability vs. Domestic Monetary Autonomy

Our argument begins with the simple understanding that when capital is internationally mobile, governments face a basic policy tradeoff between exchange rate stability and domestic monetary policy autonomy (Fleming, 1962; Mundell, 1968). Exchange rate stability refers to the ability of national governments to keep their exchange rate fixed relative to some external benchmark (i.e. de facto fixity). Domestic monetary policy autonomy refers to the ability of national governments to direct their monetary policy instrument (i.e. the interest rate and/or the money supply) toward internal policy objectives, including economic growth and domestic price stability.

The extent of the tradeoff between exchange rate stability and domestic monetary policy autonomy depends on the amount of international capital mobility. If capital is completely restricted from moving across national borders, or if the national currency cannot be converted to other currency units, then there is no direct tradeoff between exchange rate stability and domestic monetary policy autonomy. Indeed, this is one expression of the so-called “Unholy Trinity” (Cohen, 1993): governments can have both exchange rate stability and domestic monetary policy autonomy if and only if they can completely stop all capital flows across their national borders. But if capital can flow, even partially, across their borders, then governments confront at least some tradeoff between exchange rate stability and domestic monetary policy autonomy.

One simple way to measure the amount of international capital mobility is to count the number of government restrictions imposed on financial flows in/out of their national economies. Measuring the extent of country–year capital openness, or the absence of financial restrictions, Quinn (1997) developed a 14-point scale with higher numbers indicating greater capital mobility. Broz (2002) later extended Quinn’s measure across a wide set of developing countries. In a sample of over 3,200 country–year observations from 1973 to 1995, the mean value of this capital openness measure was 7.3, indicating that the average national economy has been relatively open to financial flows in the post-Bretton Woods era. More importantly, the minimum value in this sample was 2.5, which means that no government was fully immune to the pressures associated with international capital mobility during this period. As Cohen wrote on this subject: “In practice . . . the Unholy Trinity reduces to a direct trade-off between exchange-rate stability and [monetary] policy autonomy.” The next step in our argument proceeds on this basis.

3.2 Democratic Preferences for Domestic Monetary Autonomy

The second step in our argument is based on the idea that governments set public policy, including monetary/exchange rate policy, based on some combination of voter pressure and financial contributions (Grossman and Helpman, 2001). Thus, governments

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1It is important to acknowledge that Quinn’s scale represents a de jure measure of international capital mobility. However, de facto measures like the Feldstein–Horioka saving–investment coefficients tell a similar story, although there are significant data limitations for using such a measure in the statistical models that follow. Consequently, we use this de jure measure of international capital mobility, which is available – thanks to Broz’s extensions – for a much larger sample of country-years. For a discussion of the data problems in calculating Feldstein–Horioka saving–investment coefficients, as well as the validity problems in using capital flows as a measure of de facto capital mobility, see Clark (2003, pp. 31–35).
are potentially subject to two types of societal pressure. The first comes from citizens who collectively express what might be called the “public interest” through the voter/electoral channel. The second comes from organized groups who want policy set according to their “private interest” and thus engage in lobbying through the special interest channel.

More democratic governments are clearly subject to both types of societal pressure, while autocratic governments (at the limit) are subject only to the second. Thus, a critical difference between the monetary/exchange rate policy set by more democratic governments concerns the electoral pressure that can applied by voters. Note that while we use the terms “electoral” or “voter” pressure, these terms do not imply that democratic governments only face this pressure right before a popular election. To the contrary, there is much evidence that voters, especially on economic issues, are retrospective in character (Fiorina, 1981), meaning that they cast their votes with consideration of past economic performance. This fact means that democratic governments must regularly (i.e. not only during pre-electoral periods) consider the economic policy preferences of the so-called “median voter” (Downs, 1957). If the potential median voter tends to prefer exchange rate stability, then one should expect to see more democratic governments work for greater de facto fixity. But if the potential median voter instead favors domestic monetary autonomy, then the expectation would be for more democratic governments to achieve less de facto fixity.

To understand societal pressures for/against exchange rate stability and domestic monetary autonomy, we make use of the sectoral framework developed by Frieden (1991) to predict the monetary/exchange rate policy preference of the median voter. His framework identified a political struggle between internationally oriented producers favoring exchange rate stability and domestically oriented producers preferring domestic monetary autonomy. Internationally oriented producers, including “export-oriented producers of tradable goods” and “international traders and investors,” are those whose economic activity crosses national borders. Given that these producers are not confined to the domestic economy and that exchange rate variability tends to have negative effects in terms of their cross-border business activities, these sectors prefer exchange rate stability over domestic monetary autonomy.

Conversely, domestically oriented producers, including “producers of non-tradable goods and services” and “import-competing producers of tradable goods for the domestic market,” are those whose production remains almost exclusively in the domestic economy. Given that most of their production does not cross national borders, these sectors become relatively indifferent to exchange rate stability. And since their production is intended for the national economy, their profits depend in large part on the strength of the domestic market, giving them a strong preference for domestic monetary autonomy.

In determining whether voter/electoral pressure on more democratic governments will generally come for greater exchange rate stability or more domestic monetary autonomy, it is useful to look at the relative size of these different producer groups in an effort to assess in what sector the median voter is likely to be located. Of the four sectors in Frieden’s framework, the largest by far is non-tradable producers. To demonstrate this

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2It is important to state clearly that Frieden’s framework is not a median voter model. It can only tell us what different producer groups prefer; our contribution is explaining how these producer preferences may (or may not) get translated into government policy.
fact, we begin with the conventional shortcut of treating services as effectively non-tradable (with agriculture, mining, and manufacturing as potentially tradable). As De Gregorio et al. (1994, p. 1231, emphasis added) showed, at least through the early 1990s, there is “little support for rapidly increasing service exports [as] suggested in some informal accounts. Rather, the aggregate results support the standard practice of treating manufactures as tradable and services as nontradable goods.” Proceeding on this basis, data on service sector size show that the average national economy in the post-Bretton Woods era has almost 50% of its gross domestic product (GDP) coming from the production of non-tradables. Thus, the other three producer groups in Frieden’s framework effectively share the other 50% of GDP, leaving non-tradables as the single largest producer group in the sectoral model. This fact alone makes it likely (although certainly not inevitable) that the median voter, at least as a producer, holds a policy preference for domestic monetary autonomy over exchange rate stability.

In fact, it becomes even more likely that the median voter holds a policy preference for domestic monetary autonomy when we consider the relative size of all domestically oriented producer groups as compared with the size of internationally oriented producer groups favoring more exchange rate stability. To assess the amount of domestically oriented production, one can simply subtract the export share of GDP from total production to identify the amount of production remaining in the domestic economy. This simple calculation shows that the average national economy in the post-Bretton Woods era has about 65% of its GDP devoted to domestic production, making it very likely that the median voter works as a domestically oriented producer and thus favors exchange rate flexibility to achieve domestic monetary autonomy.

### 3.3 Illustrative Case Examples

As an illustration of our basic logic that the right to vote in a democracy works to the political advantage of larger groups in society, namely those favoring flexible exchange

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3 The one exception is transportation, a service that these scholars treat as tradable with more than 10% of the production being exported. This compares to about 2% for the other services, including financial services. Even if we were to treat financial services as potentially tradable, this would have little effect on our contention that non-tradables represent the single largest sector in Frieden’s sectoral model because financial services tend to represent a relatively small share of total national production. For example, Great Britain has a national economy with a very high share of financial service production, yet it represents only about 10% of total production. Although we do not have precise data on the financial service share of GDP for most countries in our sample, its share would presumably be much smaller in most other countries, especially in lesser developed national economies.

4 Using more than 2,600 post-1973 country–year observations from the World Bank’s *World Development Indicators*, the mean service sector share of GDP is 0.49 with a median value of 0.50.

5 The median voter might also cast his/her vote as a consumer, but consumer preferences do not make any specific prediction in terms of the exchange rate regime. Thus, it becomes necessary to think of the median voter casting a vote as a producer, consistent with the logic on trade policy outcomes in Milner and Kubota (2005).

6 Services also tend to be the most labor intensive sector of the national economy (Kutscher and Mark, 1983). Thus, if we were able to measure services in terms of their employment share, rather than in terms of production share, non-tradables would likely become an even larger producer group and thus even more likely to include the median voter. Unfortunately, such employment data are only available for the advanced industrial economies.

7 Using more than 4,200 post-1973 country–year observations from the World Bank’s *World Development Indicators*, the mean share of GDP that is not exported is 0.65 with a median value of 0.71. It might be argued that these figures overstate the extent of non-tradable production based on the logic that larger countries tend to export less. But even if we exclude all the observations in the 75th percentile or greater in terms of GDP, the non-exported GDP share still has a mean value of 0.65 with a median value of 0.70.

8 We arrive at the same number (about 65% of production as non-tradable) if we subtract agriculture, mining, and manufacturing’s share of GDP (as the tradable sectors) from total production.
rates, we begin with Eichengreen’s (1996) economic history of exchange rate regimes. As he wrote about the exchange rate stability achieved during the pre-WWI Gold Standard, it was facilitated by the fact that participating governments could insulate themselves from societal pressure for domestic monetary autonomy. Since “the right to vote was limited, the common laborers who suffered most from hard times [associated with the lack of domestic monetary autonomy] were poorly positioned” to oppose fixed exchange rates. Conversely, the New Gold Standard during the interwar years failed to produce exchange rate stability because “[u]niversal male suffrage and the rise of trade unionism and parliamentary labor parties politicized monetary and fiscal policymaking” (Eichengreen, 1996, p. 4). Comparing these two historical eras (the pre-WWI Gold Standard and the post-WWI New Gold Standard), limited suffrage during the former period was associated with de facto fixity, while increased voting rights led to greater de facto flexibility during the latter period.

If one is looking for a more recent case example to illustrate how the median voter in a democratic political system is likely to vote for de facto flexibility, finding such a case example is greatly complicated by the fact that exchange rate regimes are not the only issue facing voters in the vast majority of democratic elections. Thus, backing out the median voter’s preference for or against de facto fixed exchange rates is very difficult when looking at votes for or against a particular candidate when that candidate has a position on many issues, including but not limited to domestic monetary autonomy and fixed exchange rates. But the recent euro referendums in Denmark (2000) and Sweden (2003) arguably offer “an unprecedented natural experiment” to illustrate the flexible exchange rate regime preferences of the median voter because they “represent the only occasions . . . when questions of exchange rate policy and national currency were put to a direct democratic vote” (Jupille and Leblang, 2007, p. 768). When given the chance to cast a direct vote uniquely in terms of the country’s exchange rate regime (with a “yes” vote indicating a preference to adopt the euro, consistent with a de facto fixed exchange rate and the loss of domestic monetary autonomy), more than 53% of the voters cast a “no” vote in Denmark’s referendum and more than 56% cast a “no” vote in the Sweden’s referendum. The decisive margin of defeat in both cases (by 6 percentage points in Denmark and by 12 percentage points in Sweden) offer a powerful illustration that when it comes to exchange rate regimes in the post-Bretton Woods era, the median voter has a preference for more flexibility to achieve domestic monetary autonomy.

If one is looking for some additional case evidence based on street protests or societal lobbying for exchange rate flexibility within more democratic political systems, it is important to understand that our argument would predict relatively few such protest/lobbying activities on behalf of flexible exchange rates because more democratic government should already be working toward this policy goal per the electoral/voter pressure for domestic monetary autonomy applied by the median voter. Indeed political activities such as protesting and lobbying are more consistent with societal pressure applied through the special interest channel (instead of through the voter/electoral channel). As Bearce (2003) argued in terms of lobbying activity and special interest pressure, citizens should not be expected to engage in these costly political activities when there are other less costly channels of political influence (namely voting) and when they are already obtaining their preferred policy outcomes (namely domestic monetary autonomy and de facto flexibility). Of course, there may be times when a democratic government is not achieving as much domestic monetary autonomy as desired by its
median voter. But it is only in this situation that one should expect to see lobbying and street protests on behalf of exchange rate flexibility.\(^9\)

### 3.4 Considering Counter-Arguments

In making an argument that concerns the large size of domestically oriented producers with preferences for domestic monetary autonomy, it becomes important to address two possible objections to our logic. The first concerns the specification of preferences in Frieden’s sectoral framework. The second concerns Olson’s large group problem.

In terms of Frieden’s sectoral framework, two arguments have appeared in the literature, disputing his specification of societal preferences with regards to the exchange rate stability/domestic monetary autonomy tradeoff under international capital mobility.\(^10\) First, some scholars have argued that many exporters do not have strong preferences for fixed exchange rates because they benefit from the currency depreciation often associated with a floating exchange rate regime (e.g. McNamara, 1998, pp. 33–37). Second, others have argued that international investors also do not have strong preferences for fixed exchange rates because they can easily hedge against undesirable currency movements (e.g. Oatley, 1997, p. 17).

While firm-level survey evidence tends to confirm the specification of preferences in Frieden’s sectoral model (Broz et al., 2008), neither of these criticisms – even if true – would undermine the basic logic of our argument since they do not dispute that domestically oriented producers hold stronger preferences for domestic monetary autonomy than for exchange rate stability. Indeed, to the extent that these criticisms are correct, then it becomes even more likely that the median voter is a producer preferring domestic monetary autonomy over exchange rate stability since one could add many workers in export-oriented sectors and certain international traders/investors to those who would vote for a more flexible exchange rate regime in order to obtain greater domestic monetary autonomy.

In terms of Olson’s (1971) large group problem, it is important to understand that the collective action problem applies more strongly to political activity associated with the special interest channel (i.e. group lobbying) than to the voter/electoral pressure channel (i.e. individual voting). This understanding is consistent with our argument that domestically oriented producers (due to their large size) are better equipped to influence democratic governments through voter/electoral pressure than through special interest pressure. This also helps explain why in more autocratic regimes, where producer groups lack the means to influence the government through voter/electoral pressure, the smaller set of internationally oriented producers should be better able to pressure the autocracy for more fixed exchange rates: the larger set of domestically oriented producers are subject to a greater collective action problem in terms of the special interest channel.

\(^9\)For case-study evidence that such societal pressure was forthcoming when democratic governments in the United States, France, Sweden, and Britain failed to achieve sufficient domestic monetary autonomy in the post-Bretton Woods era, see Aylott (2001), Beance (2007), Frieden (1994), and Thompson (1996).

\(^10\)It should be noted that there are also objections to Frieden’s specification of preferences on the other dimension in his sectoral framework: the preferred level of the exchange rate. Indeed, Walter (2008) offered an alternative framework for analyzing producer preference on this dimension based on their balance sheet and trade competitiveness. But it is hard for us to make use of Walter’s framework here because its predictions come in terms of the exchange rate level, but not in terms of de facto exchange rate regime, which is our dependent variable.
Having addressed these objections to our argument, we also want to make clear that our argument positing that more democratic regimes should be associated with less de facto fixity than autocracies is not a deterministic one. This is true for two reasons. First, in small very trade-open democracies, the median voter could certainly be someone who works in an internationally oriented sector and thus favors greater exchange rate stability. Indeed, in highly compact economic geographies, certain services that would ordinarily be non-tradable may become internationally tradable due to very low transportation costs across national borders. Thus, our argument does not deny that very trade-open democracies might achieve de facto fixed exchange rates, but it also predicts that this outcome should become less likely with a larger share of domestically oriented production, or as the median voter becomes more likely to be a domestically oriented producer with a monetary preference for more flexible exchange rates.

Second, our argument cannot be deterministic (and is only probabilistic) because of the special interest pressures also faced by democratic governments. As modeled by Grossman and Helpman (2001), democratic governments can be pulled away from the so-called “public” interest – in this case, domestic monetary autonomy – by special interest groups who make financial contributions to obtain particular private goods, including exchange rate stability. But as discussed earlier, autocratic governments are also subject to these special interest pressures. Indeed, one might even expect these special interest groups favoring de facto fixity to be more politically influential in more autocratic regimes since these less democratic governments do not face much or any countervailing electoral pressure from the median voter for domestic monetary autonomy. Consistent with the logic, we note that a political relationship between autocratic governments and internationally oriented business elites is well documented in the comparative politics literature (e.g. O'Donnell, 1979; Payne, 1994; Whitehead, 1989).

3.5 Testable Hypotheses

The argument presented above offers several testable hypotheses. The first hypothesis (H1) simply posits that more democratic regimes should be associated with less de facto exchange rate fixity. But since H1 only identifies the direction of association between democracy and de facto fixity and cannot identify the underlying causal story, we advance two additional hypotheses concerning our causal mechanisms. Our theory proposed that H1 should be true due to a combination of two factors: the large share of domestically oriented producers in the average national economy and greater political voice offered to this large group in more democratic regimes. Thus, our second hypothesis (H2) posits that the negative relationship between more democratic regimes and de facto exchange rate fixity should get stronger with a larger share of domestically oriented producers. Correspondingly, we advance a third hypothesis (H3): while a larger share of domestically oriented producers should be negatively correlated with de facto exchange rate fixity, this relationship should be stronger in more democratic regimes defined by greater societal political participation.

4. EMPIRICAL TESTS

4.1 Statistical Model

We test these hypotheses using a modified version of Broz’s (2002) statistical model of exchange rate regime choice. We use his model because it is well known in the
international political economy literature and because it has a number of desirable properties that we will discuss below. Broz modeled the country–year de jure regime, so we change the dependent variable to capture the theoretical concept of de facto exchange rate fixity. To operationalize this concept, we begin with the de facto fixity measure constructed by Levy-Yeyati and Sturzenegger. We will also use Reinhart and Rogoff’s, as well as Shambaugh’s, measures as robustness checks, but we treat the Levy-Yeyati and Sturzenegger (henceforth LYS) indicator as our preferred measure of de facto fixity for three related reasons.

First, the LYS measure was constructed purely in terms of actual exchange rate behavior, which is precisely what we want our dependent variable to capture. Their four-point de facto fixity scale (1 = flexible, 2 = dirty float, 3 = crawling peg, and 4 = fixed) clustered country–year units into these ordinal categories based on the behavior of three different monetary policy indicators: changes in the nominal exchange rate, the volatility of these changes, and the volatility of international reserves. Unlike LYS, Reinhart and Rogoff (henceforth RR) began with the official country declarations to the IMF – that is, they started with de jure exchange rate regimes – and then looked for deviations from this reported behavior focusing on “market-determined parallel exchange rates.”

Second, RR’s use of these parallel exchange rates presents a potential validity problem for our goal of measuring the government’s success in achieving exchange rate stability. As Shambaugh (2004, p. 318) wrote on this subject: “While this is quite useful for the study of trade flows or other variables that depend on exchange rate stability, this method is not as useful for [other] purposes because exchange rate commitments are made with respect to the official rate. Whether the parallel rate changes or not, the [government’s] constraint on monetary policy comes from stabilizing the official rate.” Third, while Shambaugh’s measure of de facto fixity has a desirable property in that his country–year classification was based on actual exchange rate behavior (whether or not a given exchange rate remained within a 2% band vs. the most significant external currency for the national economy in a given year), he did not consider the behavior of international reserves, an important monetary policy instrument used by governments to affect exchange rate stability. Furthermore, he also coded country–years on a dichotomous scale (either floating or fixed), thus reducing the amount of information in his de facto fixity measure as compared with the LYS alternative.

Our primary independent variable is Democracy, measured using country–year Polity scores (Gurr et al., 1990). As the most commonly used operational indicator for this theoretical concept, Polity scores are an aggregate index indicating the openness of domestic political institutions and their values range from −10 (most autocratic) to 10 (most democratic). Since democracy and economic development often proceed in tandem, Broz included the control variable Wealth, measuring country–year GDP per capita. This control variable helps ensure that the Democracy coefficient will capture our theorized political effect and not the impact of economic development, which should be absorbed by the Wealth term.

Other factors theoretically affect de facto exchange rate fixity besides just democracy and economic development. The optimal currency area (OCA) literature identified country size and economic openness as potential correlates of exchange rate regime choice, so we use Broz’s operational indicators for these two factors. Size measures the

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11 The one drawback in using the LYS dataset is that certain country–year observations could not be identified on their scale due to “one classification variable not available,” usually the indicator for international reserves.
log of country–year GDP, and Trade openness measures exports plus imports relative to GDP. To control for various financial market effects, the independent variables also include Financial openness, using Quinn’s aforementioned 14-point scale as updated by Broz, and the country–year logged Inflation differential relative to the world rate. This inflation control is also important because de facto fixity would not correspond to exchange rate stability without holding the inflation rate constant, as we do here. In addition, Broz’s specification includes International reserves, measured in months of imports, and Feasibility, which indicated the percent of countries in a given year with a fixed exchange rate commitment.

Finally, Broz also included a control variable for Government crises to account for political instability. 12 We highlight this term because of its importance in helping to distinguish our theoretical argument from an alternative explanation: democracies achieve less de facto fixity simply because they experience more political instability, or leadership turnover, than autocracies. Recent evidence (e.g. Leblang and Satyanath, 2006) is consistent with this relationship so it becomes important to absorb the effect of political instability in this term (Government crises) rather than in the Democracy coefficient.

Since our dependent variable is an ordinal scale using either the LYS or RR scales, we estimate our model as an ordered probit (when using Shambaugh’s dichotomous measure, we estimate a probit model). Since last year’s exchange rate regime may influence this year’s regime, we also include a lagged dependent variable (De facto fixity\textsubscript{it–1}). Including a lagged dependent variable should also deal with serial autocorrelation, although a standard test did not indicate that this was much of a problem. 13 To deal with panel heteroskedasticity, we calculate robust standard errors clustered on country. 14 Our statistical sample is a global one, consisting of all country–years in the post-Bretton Woods era for which complete data exist.

4.2 Testing H1

Our estimates of De facto fixity using the LYS measure are shown as model 1.1 in Table 1. Our first hypothesis simply predicted that the coefficient on the Democracy term should be negatively signed and statistically different from zero, which is indeed the result that we obtain using the LYS measure of de facto fixity. 15 To demonstrate the substantive significance of the Democracy coefficient, we calculated the predicted probability of a de facto fixed exchange rate (the highest value in the LYS-ordered scale) and also the predicted probability of a de facto flexible exchange rate (the lowest value in the LYS-ordered scale), while varying of independent variable of interest. These predicted

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12 We refer readers to Broz (2002, pp. 870–875) for more details about variable construction and source materials.

13 Based on Wooldridge’s serial autocorrelation test, implemented as xserial under Stata, one cannot reject the null hypothesis that there is no serial autocorrelation.

14 Panel heteroskedasticity is a complicated topic for ordered probit models since one cannot simply include country fixed effects, which would make the results highly inconsistent and unreliable (see Gould et al., 2003). An alternative strategy is to cluster the standard error by country, which was not done in Broz (2002). In following this strategy, the standard errors of most independent variables, including Democracy, get larger, and the coefficients thus appear less statistically significant. This means that we are presenting a relatively conservative estimate of the effect of domestic regime type given robust clustering by country.

15 Most other independent variables take on their expected signs, although few are statistically significant. This may result from the use of robust standard errors clustered on country. Without such clustering, both Wealth and Trade openness would be statistically significant with at least 90% confidence.
probabilities were obtained using Clarify with all other independent variables set at their mean value (Tomz et al., 2003).

As shown in Figure 1, the probability of a pure autocracy (Polity = −10) achieving a de facto fixed exchange rate is 63%, while the probability of a pure democracy (Polity = 10) achieving the same is only 40%. More important than these actual percentages is the change in probability over this range: a full autocracy is 58% more likely than a full democracy to achieve a de facto fixed exchange rate using model 1.1. As also shown in Figure 1, the probability of a pure democracy having a de facto flexible exchange rate regime is 27% as compared with only 11% for a pure autocracy. This means that a full democracy is 145% more likely than a full autocracy to have a de facto flexible exchange rate, helping to demonstrate that our results are substantively, and not just statistically, significant.

In order to demonstrate that this result is statistically robust, we also estimated models of de facto fixity using the RR indicator and Shambaugh’s measure.16 These results are reported as model 1.2 and 1.3, respectively, and they also show a statistically significant negative coefficient for the Democracy term, indicating that one can find a strong negative relationship between democracy and exchange rate stability using all three operational measures of our dependent variable.17

\[ \chi^2 = 296.52^{***} \]

\[ \text{Pseudo } R^2 = 0.21 \]

\[ N = 1,141 \]

\[ N = 1,339 \]

<table>
<thead>
<tr>
<th>LYS</th>
<th>RR</th>
<th>Shambaugh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagged DV</td>
<td>0.52 (0.04)***</td>
<td>1.38 (0.14)***</td>
</tr>
<tr>
<td>Democracy</td>
<td>−0.030 (0.007)***</td>
<td>−0.018 (0.006)***</td>
</tr>
<tr>
<td>Wealth</td>
<td>0.019 (0.018)</td>
<td>0.004 (0.009)</td>
</tr>
<tr>
<td>Size</td>
<td>−0.31 (0.09)***</td>
<td>−0.12 (0.06)**</td>
</tr>
<tr>
<td>Trade openness</td>
<td>0.20 (0.22)</td>
<td>−0.003 (0.106)</td>
</tr>
<tr>
<td>Inflation differential</td>
<td>0.02 (0.17)</td>
<td>0.73 (0.29)**</td>
</tr>
<tr>
<td>Financial openness</td>
<td>0.04 (0.03)</td>
<td>0.05 (0.03)**</td>
</tr>
<tr>
<td>International reserves</td>
<td>0.008 (0.019)</td>
<td>0.012 (0.013)</td>
</tr>
<tr>
<td>Feasibility</td>
<td>0.72 (0.44)*</td>
<td>−0.92 (0.35)***</td>
</tr>
<tr>
<td>Government crises</td>
<td>−0.03 (0.08)</td>
<td>−0.17 (0.08)**</td>
</tr>
</tbody>
</table>

Cell entries for models 1.1 and 1.2 are ordered probit coefficients with robust standard errors clustered on country in parentheses. Cell entries in model 1.3 are probit coefficients with robust standard errors clustered on country in parentheses. Cut points are not reported for space considerations. Statistical significance is indicated as follows:

\[ ^* p < 0.10, \quad ^{**} p < 0.05, \quad \text{and } ^{***} p < 0.01. \]

16To make the RR ordinal scale easier to compare with the previously used LYS ordinal scale measure, we inverted the RR scale so that larger values indicate greater exchange rate fixity (rather than flexibility).

17It is important to discuss the results for model 1.2 in more detail because they differ from those reported by Simmons and Hainmueller (2004), who also used Broz’s right-hand side specification to estimate a model of de facto fixity using the RR coarse grid and found no statistically significant effect for the Democracy term, although the coefficients generally had the expected negative sign. Our results differ due to a particular coding decision made by Simmons and Hainmueller, who treated as “missing” 225 country–year observations classified by Reinhart and Rogoff as “freely falling (includes hyperfloat).” Their argument for exclusion is that these categories are meaningless in terms of exchange rate policy choice: no government would deliberately choose a freely falling or hyperfloating currency, consistent with an annual inflation rate of at least 40%. We accept that
While the full set of statistical results are not reported here for space considerations, the results shown in Table 1 are robust to a variety of alternative model specifications. First, we obtain very similar results for all three models when using Freedom House’s measure of political rights as our Democracy indicator, replacing the Polity measure. This set of results should help assure readers that our results are also robust in terms of our primary independent variable.

Second, our results remain robust when we add a control variable for De jure fixity. These results help demonstrate that the negative relationship between Democracy and De facto fixity is not simply an artifact of more democratic governments being more reluctant than autocracies to make formal fixed exchange rate commitments per Broz (2002).

While this logic may be valid in certain contexts, but it ignores the exchange rate stability vs. domestic monetary autonomy tradeoff, which is central to our theoretical argument. If a government chooses domestic monetary autonomy leading to high inflation, then its classification into the freely falling/hyperfloat category directly follows from a deliberate policy choice: using the national monetary policy instrument purely for domestic purposes with no regard at all for the external policy goal of exchange rate stability. These observations thus contain information that is relevant to our theory, and so we included them in our statistical sample. In doing so, we obtained a statistically significant result for the Democracy term.

The full set of results discussed in these paragraphs is available upon request.

This political rights measure contains information about three subcategories with the first category having the most weight: (1) political pluralism and participation, (2) the electoral process, and (3) the functioning of government. Thus, while the Freedom House political rights measures is not exclusively a measure of the power of the median voter, it does capture the basic logic of greater societal political participation, much like the PARCOMP component of the Polity measure, which will be used in the next section of the paper.

This term was coded by Broz (2002) using the IMF official classification and served as the dependent variable in his model of exchange rate regimes.
Third, our results remain robust when we add a set of year fixed effects in order to proxy any missing “international” factors (Simmons and Hainmueller, 2004) that vary over time but not across units within the time period. Such factors include the characteristics of the international system at a given point in time, learning by actors based on a common international experience, and exogenous shocks which have similar effect on the units in a particular year.

4.3 Testing H2 and H3

While it is important to demonstrate support for H1, its “truth” does not bear directly on our causal story, although our causal story could not be true if there were not support for H1. Our causal story posited that more democratic regimes should be associated with less de facto fixity because the median voter in most societies/national economies is likely to be a domestically oriented producer with preferences for domestic monetary autonomy and that greater societal participation in more democratic regimes helps translate this monetary policy preference into actual government policy. Thus, we need to add variables to our model that more directly capture the two key features associated with our argument: (1) the relative size of societal groups favoring domestic monetary autonomy and (2) the ability of societal actors to influence public policy in more democratic regimes.

To capture the first feature, we created a variable labeled Domestic GDP share, which is measured as 1 minus the export share of GDP using data from the World Bank. Since the export share of GDP also forms part of Trade openness, we drop this control variable from our model due to strong collinearity with Domestic GDP share.²¹ Capturing the second feature is more challenging. One potential problem with the Polity measure of Democracy is that it includes several components measuring institutional constraints on the chief executive, which are not directly relevant to our causal argument about societal pressure. So in this subsection of the paper, we focus instead on the Polity component that most directly measures the ability of societal actors to influence public policy. This component, labeled PARCOMP, measures the competitiveness of societal participation, or the extent to which societal actors are able transmit their policy preferences to the state, on a 0–5 ordinal scale.²²

In model 2.1 in Table 2, we estimate a model of LYS de facto fixity, including these two new independent variables. The results show that both Domestic GDP share and PARCOMP take on the expected negative coefficients. The negative sign on Domestic GDP share indicates that there has been less de facto fixity in country–year observations associated with a larger share of domestically oriented producers. This result is consistent with our contention that the median voter tends to prefer this policy outcome since the median voter is more likely to be a domestically oriented producer as this variable takes on larger values. The negative coefficient on PARCOMP indicates that there has been less exchange rate stability in regimes where societal actors are better able to transmit their policy preferences to the state. This result is consistent with the understanding the observed negative relationship between democracy and de facto fixity is related to societal

²¹ The bivariate correlation between these two variables is −0.88.

²² The PARCOMP measure is available from http://www.cidcm.umd.edu/polity/. Since PARCOMP is a component of the broader Polity measure of Democracy, these two measures are highly collinear (with a bivariate correlation of 0.93), leading us to drop the Democracy term whenever PARCOMP is included as an independent variable.
pressure for this policy outcome, and not simply due to institutional constraints that prevent the chief executive from fixing the exchange rate.

Having demonstrated that these new two variables appear to capture the key features associated with our argument, we now turn to testing directly the second and third hypotheses advanced earlier. H2 posited that the negative coefficient for Domestic GDP share should get somewhat larger in political regimes defined by greater societal participation (i.e. larger values of PARCOMP). In other words, a larger societal bloc favoring less fixed exchange rates should have a greater negative effect on de facto fixity when they are better able to influence state policy outcomes. Conversely, when societal actors are less able to transmit their policy preferences to the state (i.e. smaller values of PARCOMP), the size of the domestically oriented producer bloc should matter less in terms of de facto fixity.

Likewise, H3 posited that the negative coefficient for PARCOMP should get somewhat larger with a greater share of domestically oriented producers (i.e. larger values of Domestic GDP share). Stated differently, ability of a societal group to pressure the state for less de facto fixity should increase as the societal group favoring this policy outcome gets larger consistent with our median voter logic. Conversely, even in regimes marked by greater societal participation, our argument would expect less societal pressure for more flexible exchange rates when the median voter is less likely to be a domestically oriented producer (i.e. smaller values of Domestic GDP share).

The results shown as model 2.2 in Table 2 are consistent with both H2 and H3. Given the interaction term, the marginal effect of Domestic GDP share now comes from two different coefficients (the Domestic GDP share constitutive term and the Domestic GDP share interaction term) and value of PARCOMP.23 Using the results from model 2.2, Table 3a provides the marginal effect of Domestic GDP share for each value of the ordinal PARCOMP measure. In regimes where societal groups cannot influence public policy

23On interpreting interaction results, see Brambor et al. (2006).
(i.e. \( \text{PARCOMP} = 0 \)), a larger group of domestically oriented producers has no statistically significant effect on De facto fixity. But as societal participation grows (i.e. larger values of \( \text{PARCOMP} \)), the marginal effect of Domestic GDP share gets stronger in the expected negative direction.

Likewise, the marginal effect of \( \text{PARCOMP} \) in model 2.2 in Table 2 is given by two coefficients (its constitutive and interaction terms) and value of Domestic GDP share. Table 3b provides the \( \text{PARCOMP} \) marginal effect at different percentile values for Domestic GDP share. Not only does its marginal effect get stronger in a negative direction as Domestic GDP share increases, \( \text{PARCOMP} \) only attains statistical significance \((p < 0.05)\) when Domestic GDP share is around 50%, consistent with our argument that this relationship is due to the political influence of the median voter.\(^{24}\)

Although not reported here for space considerations, the results in Table 2 are quite similar when we replace \( \text{PARCOMP} \) with the Freedom House political rights variable, which is also a measure of society’s potential ability to influence public policy (rather than a measure of institutional constraints on the state).\(^{25}\) A larger share of domestically oriented producers shows a statistically significant negative relationship with de facto fixity only for observations associated with more political rights. Likewise, a statistically significant negative relationship between more political rights and de facto fixity emerges only when the share of domestically oriented producers is greater than 50%.

\(^{24}\)Note that less than 25% of the observations have a value for Domestic GDP share that is less than 0.5, which further substantiates our earlier claim that the median voter is most societies is likely to have a stronger preference for domestic monetary autonomy than for exchange rate fixity.

\(^{25}\)This set of statistical results is also available upon request.
4.4 Alternative Explanations for the Democracy Result

Although we have just presented results bearing directly on our causal story (testing H2
and H3), it remains possible that some still omitted factor could have produced the ne-
gative relationship between De facto fixity and Democracy observed in Table 1 (consistent
with H1). First, it is possible that democracies achieve less de facto fixity simply because
they make less fixed exchange rate commitments per Broz (2002). A second possibility
concerns the electoral cycles within more democratic regimes, which were discussed in the
first section of the paper. Third, democracies may work less to achieve exchange rate
stability because they already have greater monetary credibility due to having more
advanced/richer national economies and/or more independent central banks.

So in this final empirical subsection of our paper, we will add to our base statistical
specification some additional control variables designed to capture these three possibly
omitted factors. With regards to the first factor (exchange rate commitments), we have
already discussed how the results in Table 1 remained robust when De jure fixity was
added to the model as a control variable, but we did not display the results. So model 4.1
in Table 4 now displays the result when using LYS De facto fixity as the dependent
variable. The results show that while there is a positive correlation between De jure fixity
and De facto fixity, this association does not wipe out the statistically significant negative
Democracy coefficient. In other words, one cannot explain the negative Democracy
association simply in terms of a democratic reluctance to make fixed exchange rate
commitments. In fact, our argument offers a different explanation than Broz (2002)
for why democracies tend to make less fixed exchange rate commitments than au-
tocracies: democratic governments know that they will have difficulty maintaining a fixed
commitment due to electoral pressure from the median voter with contrary preferences
for domestic monetary autonomy, so they avoid making such commitments in the first
place.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Additional Estimates of De Facto Fixity using LYS Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 4.1</td>
</tr>
<tr>
<td>Lagged DV</td>
<td>0.44 (0.04)***</td>
</tr>
<tr>
<td>Democracy</td>
<td>−0.020 (0.007)***</td>
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<tr>
<td>Wealth</td>
<td>0.0004 (0.0158)</td>
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<tr>
<td>Size</td>
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<tr>
<td>Trade openness</td>
<td>0.26 (0.21)</td>
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<tr>
<td>Inflation differential</td>
<td>0.18 (0.18)</td>
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<tr>
<td>Financial openness</td>
<td>0.06 (0.03)*</td>
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<tr>
<td>International reserves</td>
<td>0.0008 (0.0176)</td>
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<tr>
<td>Feasibility</td>
<td>0.20 (0.46)</td>
</tr>
<tr>
<td>Government crises</td>
<td>−0.08 (0.07)</td>
</tr>
<tr>
<td>De jure fixity</td>
<td>0.37 (0.06)***</td>
</tr>
<tr>
<td>Election</td>
<td>−0.05 (0.09)</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>374.03***</td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>0.24</td>
</tr>
<tr>
<td>N</td>
<td>1,141</td>
</tr>
</tbody>
</table>

Cell entries are ordered probit coefficients with robust standard errors clustered on country in parentheses. Cut points and individual year fixed effects are not reported for space considerations. Statistical significance is indicated as follows:
* $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.  

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To explore the second possibly omitted factor (electoral cycles within democracies), we add the new variable *Election*, coded as 1 for an election year (and 0 otherwise) to our model specification to see if our negative *Democracy* result was being driven by non-electoral (electoral) periods within more democratic regimes when the pressure for de facto fixity disappears (reappears) per the logic of the election cycle literature cited earlier. The results in model 4.2 in Table 4 show that the inclusion of the *Election* control has no effect on the *Democracy* coefficient and also that the *Election* control is statistically insignificant in the presence of *Democracy*. This first result (i.e. the significant *Democracy* coefficient) strongly suggests that the negative relationship between democracy and de facto fixity cannot be explained by electoral cycles within democracies just as we argued in the first section of the paper. The second result (i.e. the insignificant *Election* control) supports our earlier contention that the voter/electoral pressure applied on more democratic governments is relatively constant over time (consistent with the logic of retrospective voting on economic issues) and that electoral pressure in terms of the exchange rate regime does not simply appear during an election year and then disappear at other times.

With regards to the third factor (greater monetary credibility) in more democratic regimes, our model specification already controlled through the *Wealth* term for the fact that more democratic regimes also tend to be richer and more economically developed. But the specification did not control for the fact that more democratic regimes may also have greater central bank independence. Finding a valid measure of central bank independence, however, is notoriously difficult for a statistical sample that includes a wide cross-section of countries. On this point, Cukierman (1992) argued that the traditional legal measures of central bank independence commonly used for the advanced industrial democracies are not particularly valid for developing countries, especially when they have more autocratic political regimes. In place of the legal measures, he suggested an alternative measure focusing on the actual turnover of central bank governors based on the logic that higher turnover effectively indicates lower central bank independence, at least within this set of countries. Based on this logic, Sturm and de Haan (2001) coded a measure of central bank independence (*CBI*) which has coverage for developing countries only. But it is nonetheless worth examining our *Democracy* result while controlling for *CBI* in this developing country subsample because it includes both autocracies and democracies, while the developed country subsample contains only democracies.

The results presented as model 4.3 in Table 4 shows that the *Democracy* coefficient remains negative and statistically significant even when controlling for central bank independence in this smaller but substantively meaningful sample of cases. This result strongly indicates that the negative relationship between democracy and de facto fixity cannot be explained by the fact that democracies already have greater monetary credibility (and thus work less to achieve exchange rate stability) due to greater central bank independence. The results in this model also show the *CBI* variable to be statistically insignificant, suggesting that while there may be a negative relationship between central bank independence and de jure fixity (per Broz, 2002), *CBI* offers little explanatory power in terms of de facto exchange rate regimes.

5. CONCLUSION

This paper has argued that more democratic regimes should be associated with less de facto exchange rate fixity due to political pressure from the median voter for domestic monetary autonomy. The statistical results show that not only are more democratic
polities negatively associated with de facto exchange rate fixity using three different operational measures for this dependent variable, but that this negative relationship gets stronger as the median voter is more likely to be a domestically oriented producer and as the ability of such societal groups to influence public policy increases.

This argument and associated set of results have some important implications for at least two prominent political economy research programs. First, they contribute to the existing literature showing how macroeconomic outcomes vary in terms of political regime type. As mentioned in the introduction, previous research (e.g. Quinn and Woolley, 2001) has shown that more democratic regimes have been able to achieve more stable economic growth. Other scholars (e.g. Satyanath and Subramanian, 2007) have similarly demonstrated that more democratic regimes have been associated with more stable domestic prices, or lower inflation. Our evidence enlarges this picture by also showing that more democratic regimes tend to have less fixed, or more flexible, exchange rate regimes.

Indeed, there is a certain consistency about this set of macroeconomic outcomes: more stable domestic growth/prices with less stable exchange rates. Following the Mundell–Fleming framework, governments can either use their monetary policy instrument to achieve an internal policy goal (such as more stable growth/prices) or they can direct this instrument toward the external goal of exchange rate stability. To the extent that more democratic governments do more of the former (i.e. domestic monetary policy autonomy), they should also be expected to achieve less of the latter (i.e. external currency stability) given international capital mobility.

Second, the research in this paper helps resolve the problem faced by political economists in explaining how societal policy preferences get translated into state policy outcomes. While there are good models of societal economic policy preferences (e.g. Frieden’s sectoral framework), these preference models by themselves tell us almost nothing about how private preferences become (or fail to become) public policy outcomes. This paper makes this translation in terms of monetary policy, showing why democratic institutions should systematically favor the larger sectors in the national economy with preferences for domestic monetary autonomy, thus leading the government toward less de facto exchange rate fixity consistent with the median voter’s preference for this particular policy choice.

In this regard, our argument parallels the logic advanced by other scholars about the fiscal and trade policy choices made by more democratic and democratizing governments. As Garrett and Lange (1995, p. 645, emphasis added) wrote about democracy and fiscal policy: “democratic elections will always bias [fiscal] policy in favor of the less-productive [or larger] sectors, by virtue of the one-person-one-vote principle. The size of this bias will vary with the electoral rules, but democratic elections will always give more power to the nontradables sector.” Milner and Kubota (2005, p. 117) advanced a similar argument with regards to democracy and trade policy: “Democratization changes which groups political leaders must garner support from: political [electoral] competition within democracies induces leaders to appeal to new coalitions of voters and hence offer new policies to win their support.” In the case of monetary policy, the new of coalition of voters are those working in domestically oriented sectors and the new policy is domestic monetary autonomy, requiring de facto flexible exchange rates.

We now conclude by discussing some important future extensions to our theory about democracy, democratic institutions, and de facto exchange rate regimes. Given our research question, we necessarily focused on the differences between democracies and autocracies measured broadly. But we clearly recognize that there is important variation...
among democracies and also among autocracies. In this regard, future research on this subject should explore the variation within both democratic and autocracies samples. To this end, we offer some preliminary hypotheses, or conjectures, that follow from the theory presented here.

First, democracies differ in terms of their electoral institutions: some democracies operate using majoritarian electoral systems, while others use proportional representation (PR). To the extent that majoritarian electoral systems create greater political pressures to appeal to the median voter (which we have shown is likely to be a domestically oriented producer with preferences for domestic monetary autonomy) than do PR systems where parties can achieve political power without majority support, our theory would expect democratic governments in majoritarian systems to achieve even less de facto fixity than democratic governments in PR systems. However, some scholars have argued the contrary: PR governments do a more effective job in representing the interests of the median voter than do pluralist governments (Huber and Powell, 1994). This logic would suggest the alternative expectation that PR governments obtain less exchange rate stability than their majoritarian counterparts.

Second, democratic governments also differ in terms of their partisan orientation. In this regard, leftist governments tend to rely more than rightist government on political support from the labor-intensive service sector and workers in the import-competing manufacturing sector holding preferences for domestic monetary policy autonomy. Thus, we would expect that within a sample of democratic countries, leftist governments should achieve even less de facto exchange rate fixity than rightist governments. Focusing on a sample of OECD country–years, Bearce (2003) has already provided evidence consistent with this hypothesis, but it would be useful to explore the logic in a larger sample of democratic regimes.

Third, autocratic governments come in different types. Some autocracies control domestic prices (e.g. totalitarian regimes), while others permit market forces to operate to their political advantage (e.g. authoritarian regimes). We would expect that capitalist big business elites favoring exchange rate stability would have greater special interest influence in authoritarian regimes, although totalitarian regimes may also achieve a fair amount of de facto fixity through the use of capital controls consistent with their tendency to control domestic prices. We know of no existing research that has examined these conjectures about the variation within an autocratic sample, suggesting that they stand as important extensions to the research presented in this paper.

REFERENCES


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