Title: The Political Economy of Monetary Institutions: An Introduction

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Abstract: Since the collapse of the Bretton Woods monetary system in the early 1970s, countries have experimented with a variety of monetary institutions, including alternative exchange rate arrangements and different levels of central bank independence. Political economists have analyzed the choice of these institutions, emphasizing their role in resolving both the time consistency problem and dilemmas created by an open macroeconomy. This “first generation” work, however, suffers from a central limitation: it studies exchange rate regimes and central bank institutions in isolation from one another, without investigating how one monetary institution affects the costs and benefits of the other. By contrast, the papers in this volume analyze the choice of exchange rate regime and central bank independence together and, in so doing, represent a “second generation” of research on the determinants of monetary institutions. The papers incorporate both economic and political factors in explaining the choice of monetary institutions, investigating how political institutions, democratic processes, and political party competition affect the balance between economic and distributional policy objectives.
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Why do national governments choose the monetary institutions they do? While this question has long interested political economists, previous literature on the topic suffers from a central limitation: the choices of exchange rate regime and central bank independence have been analyzed in isolation from one another. This is surprising given the fact that prominent arguments from this literature portray these institutions as solutions to the same problem – the time inconsistency of monetary policy.

The time inconsistent nature of monetary policy reflects the fact that policymakers have an incentive to announce low inflation policies and then renege on those pledges in order to achieve short-term improvements in real economic outcomes—growth and employment. Since rational asset-holders anticipate this behavior, attempts to create inflationary surprises will be frustrated, producing no additional growth and higher inflation. Fixed exchange rates and central bank independence both insulate monetary policy from the direct control of those actors thought to have the greatest incentive to increase growth through ex post opportunism – incumbent politicians. Consequently, central bank independence and fixed exchange rates (in a world of mobile capital) have each been held out as ways of increasing the credibility of ex ante policy announcements and, thereby, reducing the inflationary bias of monetary policy.

The argument that these institutions are chosen as a response to the same economic problem, however, raises some issues about how we analyze the determinants of monetary institutions. First, it is unclear whether central bank independence and fixed exchange rates should be viewed as institutional substitutes, where the presence of one negates the need for another, or institutional complements, where each reinforces the effect of the other. Modeling the choice of one monetary commitment without an explicit consideration of the costs and benefits of the other does not shed light on this important question.
Second, the credibility framework cannot explain the wide variety of monetary commitments that nations have adopted over the past thirty years. That is, even if these institutions were an unproblematic solution to the inflationary bias in monetary policy, we still need to explain how nations choose between these two solutions. Each monetary commitment is likely to entail sacrificing other desired ends in order to reduce the inflationary bias of monetary policy. We need to develop explanations that account for the factors that influence the opportunity costs of adopting these institutional fixes.

Third, it may be the case that the time consistency framework does not capture how political actors evaluate the costs and benefits of different monetary arrangements. The choice of these institutions may have less to do with fighting inflation than with the desire to redistribute income to powerful constituents, assemble an electoral coalition, increase the durability of cabinets, or engineer economic expansions around elections.

The contributors to this volume respond to these challenges. The authors explicitly analyze the choice of both exchange rate regime and central bank institutions together. They emphasize how political factors, such as electoral, partisan, or sectoral pressures, influence the combination of monetary institutions that governments adopt. They seek to determine how politics conditions the opportunity costs of different configurations of monetary commitments. Finally, the contributors not only build on the time consistency framework, but also confront its assumptions and implications, giving us a better understanding of the motivations of different actors in the process of choosing monetary commitments. These papers, consequently, represent a “second generation” of research on the political determinants of the choice of monetary institutions.

In this Introduction, we first summarize the range of institutional outcomes to be explained, highlighting those factors that would be difficult to explain from a pure time inconsistency
framework. In the second section, we review the logic of time inconsistency and its relationship to the institutions at hand in more detail. In the third section, we discuss “first generation” explanations for these outcomes and highlight ways in which the contributors to this volume gain explanatory advantages by analyzing both sets of institutions concurrently.

MONETARY INSTITUTIONS SINCE BRETTON WOODS

Over the past 30 years, countries have pursued a variety of monetary arrangements and commitments. These experiments involve two distinct types of monetary institutions: central banks and exchange rate regimes. Central banks are the bureaucratic institutions charged with managing the supply of credit to the economy. The institutional structure of central banks – that is, their degree of independence from direct government control – varies across systems and over time. When a central bank is completely “dependent,” its institutional structure permits the government to determine monetary policy directly. With a fully independent central bank, by contrast, the government delegates monetary policy to an agent – typically the central bank’s governing board – and is restricted by statute from interfering with the agent’s freedom of action in the monetary domain.

Countries have also pursued a variety of exchange rate arrangements, ranging from a purely floating exchange rate system, where market forces determine currency values, to an irrevocable exchange rate peg or common currency between countries. While exchange rate regimes are usually distinguished by the degree of flexibility in the arrangement (from a free float to a immutable fix), regime choice also involves a delegation decision not unlike that which governments face when setting the level of central bank independence. When a nation fixes its currency’s value to that of another nation it is, to a large extent, delegating monetary policy to a
foreign central bank. The pegging nation not only forgoes exchange rate flexibility as a policy
tool but it also subordinates its monetary policy to that of the foreign central bank.

Notwithstanding important differences between the two institutions, exchange rate pegs and
central bank independence can be thought of as alternative forms of monetary delegation.
Indeed, as we discuss below, a purely economic logic of monetary delegation, derived from the
problem of time inconsistent policy pronouncements, applies with roughly equal force to both
central bank independence and pegging.

In practice, countries often adopt intermediate institutions that fall between the extremes:
cases of completely independent or dependent central banks are as rare as cases of pure floating
or perfectly fixed exchange rate regimes. Political economists have employed a variety of
methods to measure the level of central bank independence and the degree of flexibility in
exchange rate arrangements. The most common indicators are based on formal or legal
characteristics. With central bank independence, this typically entails an examination of central
bank statutes, with an emphasis on restrictions of the government’s policy influence. Common
legal indicators of independence include procedures for the appointment, term duration, and
dismissal of central bank directors; budgetary autonomy for the central bank; government veto
power over monetary policy; explicit policy goals; performance incentives for bank directors;
limitations on monetary financing of budget deficits; and control over monetary instruments
(Alesina 1988; Alesina and Summers 1993; Burdekin and Willett 1991; Cukierman 1992;
Cukierman, Webb, and Neyapti 1992; Eijffinger and de Haan 1996; Grilli, Masciandaro, and
Tabellini 1991). Most indices combine these factors to produce a one-dimensional scale of
central bank independence. Although each scale emphasizes slightly different factors, they are
in relative agreement about the ranking of central bank independence across systems (Eijffinger and de Haan 1996).

Indicators of exchange rate arrangements are also frequently based on nations’ formal commitments, as reported to, or observed by, the International Monetary Fund (IMF). As with CBI, these arrangements fall along a continuum. The IMF’s *Exchange Arrangements and Exchange Restrictions* recognizes no less than nine different types of exchange rate regimes, varying according to the degree of flexibility in the arrangement.

Formal and legal measures, though readily observable, may not capture a nation’s actual institutional commitments. For example, a statutorily independent central bank may be subject to extensive informal pressures from government. Recognition of this problem has propelled research on the “behavioral” independence of central banks and on the actual adherence to exchange rate commitments. Cukierman (1992), for example, developed a behavioral measure of central bank independence based on the average term of office of central bank governors. According to his logic, a high “turnover rate” in central bank leadership reflects an absence of independence. However, a number of scholars have pointed out that a subservient central banker might be able to stay in office forever.

With respect to exchange rate regimes, there also appears to be a gap between formal commitments and the extent to which these commitments are honored in practice. Many countries that purport to float intervene heavily on foreign exchange markets (Calvo and Reinhart 2001). Likewise, many countries that formally maintain fixed regimes do in fact make frequent adjustments to exchange parities (Obstfeld and Rogoff 1995). Although the measurement of actual monetary commitments remains a problem, available data indicate that countries’ commitments are extremely varied, both across countries and over time. This holds
for levels of CBI, the propensity to fix exchange rates, and various combinations of these two institutions. We now some stylized facts that remain unexplained from a simple time inconsistency perspective.

**The Variation of Central Bank Independence**

From a naively benevolent view of government decision-making, one might expect little variation in central bank independence (CBI). If CBI yields universally desired outcomes, it should be adopted by all nations. The available evidence suggests that it is not. Table 1 provides rankings of legal central bank independence for 72 countries for the 1950 – 1989 period, based on the Cukierman, Webb, and Neyapti (1992) scale, the most comprehensive and widely used scale. Column 1 provides summary statistics for the full sample while Columns 2 and 3 divide the sample into developing and developed countries respectively. It is immediately obvious that there is enormous variation in levels of formal CBI in this period. Among developed countries, the central banks of Germany and Spain are, respectively, the most and least independent central banks. Iceland is positioned at the median of the developed country sample. There is also evidence of substantial variance in legal CBI in the developing world. The outcomes range from minimal legal independence in Poland to Egypt, the developing country with the most independent central bank. Figure 1 presents the distribution of central bank independence for the developed and developing sub-samples. While there is a wide range of central bank independence in both sub-samples, the developing countries tend to be clustered around the center of the scale more than the developed countries.

1 See the discussion of this and other scales in Eijffinger and de Haan 1996.
While the cross-national variance in central bank independence exhibited between 1950 and 1989 is considerable, changes in central bank independence in this period were not very common. Less than half the countries in the Cukierman, Webb, and Neyapti sample experienced a change in legal independence during the period. Of the countries that reformed their central bank laws, 12 underwent a net decrease in central bank independence while 13 countries increased the independence of their central banks. Furthermore, the magnitude of average decreases was about as large as the magnitude of average increases (between 7 and 8 points on the legal index respectively). Consequently, there is little evidence of a trend toward greater independence in the period between 1950 and 1989, an outcome that might be expected if benevolent governments came to recognize the social welfare advantages of the institution.

More recently, however, such a trend may be underway. Although indicies of CBI have not been systematically updated, many countries have moved to increase the independence of their central banks since the early 1990s. Among the industrial democracies, Italy and New Zealand made the earliest moves to grant their central banks more independence. The Maastricht Treaty required members of the European Union to grant their central banks formal independence as a precondition to participating in Economic and Monetary Union (EMU). France, Belgium, Spain and other member-states quickly complied with this obligation. Outside the Euro-zone, Britain (1997) and Japan (1998) also increased the independence of their central banks.

The reform trend also seems to extend beyond the industrial democracies. Cukierman, Miller, and Neyapti (2001) document high levels of legal independence in 26 former social economies after post-transition reforms. Column 4 of Table 1 provides some illustrative comparisons of outcomes in transition economies. Note that the median case (Kyrgyz Republic)
has a higher degree of legal independence (.52) than the Federal Reserve — widely considered one of the most independent central banks in the world. Indeed, eight of these newly created central banks “possess levels of aggregate legal independence which exceeds that of the highly independent Bundesbank during the 1980s” (Cukierman, Miller, and Neyapti 2001, 4).

While legal independence measures for the 1990s in other regions are not readily available, Maxfield (1997) reports regional averages that suggest that the increase in central bank independence is not unique to Eastern Europe. The regional averages for Latin America and Western Europe, for example, are .55 and .46 respectively (1997, 51). If the central banks of the former Soviet states are any indication, however, the apparent recent trend toward central bank independence does not necessarily constitute cross-national convergence on a particular institutional form. As Figure 2 illustrates, while the level of independence in the former Soviet states is relatively high, there is still considerable cross-national variance in the degree of independence. Given that central bank independence has become a nearly ubiquitous policy prescription for economists, international agencies, and policymakers interested in improving economic performance, this variation requires explanation. In addition, the potential gap between legal and behavioral independence suggests that it is important to try to determine whether these recent increases in independence result in equilibrium institutions by examining the conditions associated with central bank independence in the recent past.

**The Variation of Exchange Rate Regimes**

At the end of World War II, Allied leaders established a variety of international monetary institutions to promote global economic prosperity and international stability. At the heart of these institutions was a fixed exchange rate system, where participating nations pegged their exchange rate to the U.S. dollar. The United States, in turn, pledged to redeem gold for dollars at
the rate of $35 an ounce. The “Bretton Woods” system worked well in the 1950s, as the U.S. injected liquidity into the world economy and promoted economic recovery. But strains appeared in the 1960s, reflecting both the gold overhang – U.S. gold reserves were inadequate to cover all the dollars circulating in the world economy – and lax American macroeconomic policies. European nations and Japan bridled under the regime since it tied their monetary conditions to the inflationary policies of the United States. In the early 1970s, the system collapsed as the U.S. declared it would no longer honor its commitment to exchange dollars for gold.

The breakdown of the Bretton Woods system ushered in an era of unprecedented variety in exchange rate regimes. The currencies of the largest industrial economies (the United States, Germany, Japan, and Britain) floated against each other and several medium-sized developed countries also floated independently (e.g., Canada, Switzerland, Australia, New Zealand). In contrast, European nations quickly attempted to limit exchange rate variability within Europe, first pursuing exchange rate cooperation under the European Exchange Arrangement (Snake) and later, in the European Monetary System (EMS). At the same time, some European countries outside the EMS – for example, Austria, Sweden – maintained tight pegs to the Deutsche mark. Through the 1980s, the EMS hardened into a quasi-fixed exchange rate regime for European Union member states. In 1991, EU member states signed the Maastricht Treaty, committing themselves to the adoption of a single currency by 1999.

For developing countries and, later, the transition economies of the former Soviet Union, a mixture of exchange rate regimes has prevailed, with a growing tendency for many of these countries to adopt flexible exchange rate arrangements. Mexico, Brazil, and several Asian economies shifted toward floating exchange rates to deal with the complications of an open
capital account. In contrast, other Latin American countries rigidly tied their currencies to the U.S. dollar. Argentina, for instance, established a currency board that forces domestic monetary policy to follow in lockstep the policies of the U.S. Federal Reserve. Ecuador and El Salvador have gone so far as to adopt the U.S. dollar as their national currencies—an extreme case of delegation to a foreign monetary authority.

Figure 3 shows the distribution of formal exchange rate commitments over time, as reported by the IMF. About sixty percent of the 167 countries in this sample have had fixed exchange rates since 1973. In the industrial democracies, the propensity to fix has been fairly constant while in the developing world, the trend is toward flexible exchange rates. This trend may itself obscure important regional differences. While there is a decreased propensity to peg in recent years in Latin America, Asia, Africa, and former Soviet States, countries in the Caribbean, Middle East, or the Pacific Islands have maintained fixed exchange rate regimes.²

Further, many countries have experimented with different exchange rate arrangements across time. While many countries had fixed exchange rates for the entire sample period and other countries never made such a commitment, it was also common for countries to go on and off a peg. Figure 4 shows that the share of time a country spent with a fixed exchange rate varies considerably across countries. While the majority of countries spent the entire observation period with a commitment to a fixed exchange rate and a fair number of countries are coded as having a “flexible” exchange rate for the entire period, many countries maintained a fixed exchange rate arrangement for only a part of the of the post-Bretton Woods period and a substantial number went without a peg for the entire period.

² It is likely that the continued propensity to peg the exchange rate in these regions is due to Optimal Currency Area (OCA) considerations. For more on the OCA framework, see below.
The Combination of Monetary Commitments

While there is considerable variation in the choice of individual monetary institutions, the central focus of this volume is to explain the combination of monetary institutions chosen. If central bank independence and fixed exchange rates represent solutions to the problem of time inconsistency in monetary policy, one might expect some type of correlation in the propensity to adopt these institutions. For example, if these institutions are substitutes, countries that have chosen one commitment mechanism may be less inclined to adopt the other. On the other hand, if each of these institutions mitigates, but does not definitively solve, the time inconsistency problem, we might expect countries that had one commitment mechanism to also choose the other. In the former case, we would expect the adoption of these institutions to be negatively correlated; in the latter we would expect them to be positively correlated. In fact, variations in the pattern of monetary commitments support neither case.

Table 2 provides a sense of this variation in a sample of 76 countries since 1973. Just a cursory glance at the table shows the combination of monetary institutions varies widely. Countries with a dependent central bank have allowed the exchange rate to float throughout much of the period (e.g., the U.K. or Brazil) and have fixed the exchange rate for long periods (e.g., Sweden or Thailand). Countries that delegated policy to an independent central bank have also pursued a variety of exchange rate options: Switzerland, the United States, Mexico, and South Africa have floating exchange rates while Austria, the Netherlands, Taiwan, and Malaysia pegged their exchange rates for long periods of the sample. The numbers in the cells represent the number of countries that fell into each category. The figures indicate the combination of monetary commitments is distributed almost equally across all four categories.
Table 2 is a cross-sectional snapshot of the combination of monetary institutions. There is also considerable inter-temporal variation in the paths of monetary reform across countries. That is, countries have moved from one set of monetary institutions to a different combination of monetary institutions in a variety of patterns and at very different times. A few examples will illustrate these different processes. During the 1970s and 1980s, Britain had a dependent central bank and a floating exchange rate; the Conservative government declined to join the EMS when it was founded in 1979. After renewed inflation in the late 1980s, Britain experimented with fixed exchange rates by joining the EMS in 1990. That commitment, however, soon became untenable and Britain was forced to allow the pound to float after the September 1992 currency crisis. In 1997, British politicians granted the Bank of England substantially more autonomy in setting interest rate policy. Starting from a similar combination of monetary institutions in the 1970s, France followed a different path. France was a founding member of the EMS. As that exchange rate commitment hardened in the 1980s, France moved to support the single currency and also granted its central bank independence in 1993.

While substantial declines in legal CBI have been exceedingly rare in recent years, an examination of turnover rates in developing countries suggests that it would be wrong to infer that there has been a worldwide increase in de facto independence. For example, South Korea, which frequently floated its currency, and Egypt, which frequently maintained a peg, both exhibit evidence of a decline in central bank independence during the 1980s. Both of the countries had turnover rates well below the developing country median in the earlier period but in the 1980s, changing central bank heads about once every 2 (Korea) or 3 years (Egypt). In contrast, Greece, which has allowed its currency to float for much of the period, and Honduras,
which maintain a peg for almost the entire period, cut their turnover rates in half in the same period - doubling the "life expectancy" of the central bank head.

Such variance in outcomes is difficult to explain if these institutions are implemented simply as a mechanism for producing universally desired economic outcomes. The combination of the different reforms remains a puzzle to be explained. Why do some countries choose both CBI and fixed exchange rates? Why do some countries adopt neither commitment device? Of those countries that do adopt a single commitment device, what explains why some countries choose an external constraint, while others choose a domestic one? In the following section, we review economic explanations for the choice of monetary institutions, emphasizing that these questions cannot be adequately addressed unless the analyst is willing to examine both institutions simultaneously. In one way or another, each contribution to this volume attempts to do just that.

THE ECONOMICS OF MONETARY INSTITUTIONS

An established literature examines the benefits and costs of monetary institutions from the perspective of a benevolent social planner. However, normative analyses of central bank and exchange rate institutions have evolved as largely separate fields of study, resulting in a two highly specialized and distinct literatures on optimal monetary institutions. In this section, we abstract from the differences to illustrate the common theoretical elements that bind the literatures together. In so doing, we make a case for treating the two institutions as jointly determined.

Time Inconsistency and the Logic of Delegation

The maintenance of price stability is one of the core desiderata of normative macroeconomics because price instability (high inflation and inflation variability) generates a variety of welfare reducing distortions (Garfinkel 1989). A surprising result in modern macroeconomics is that even benevolent social planners have difficulty producing price stability
when they have direct control of monetary policy. The reason is grounded in the *time inconsistency problem*, as described by Kydland and Prescott (1977) and Barro and Gordon (1983).

Dynamic inconsistency arises when a policy announced for some future period is no longer optimal when it is time to implement the policy. The problem occurs in monetary policy when policy is set with discretion and wages and prices are not fully flexible. Under these conditions, a policymaker may try to fool private actors by inflicting an inflationary surprise after these actors have locked into wage and price contracts on the basis of expectations of low future inflation. The policymaker's incentive to do so *ex post* lies in her preference for raising output and employment above its natural level, which is possible at least temporarily when wages and prices are sticky. Failure to do so would not be rational given the utility function of the policymaker. However, when private agents are equally rational and forward-looking, they anticipate this incentive and take it into account when forming their *ex ante* inflationary expectations. Rational expectations thus introduce an inflationary bias into wage bargaining and price setting at the earlier stage of the game. Consequently, when the policymaker adopts surprise inflation, the equilibrium outcome is higher inflation but not higher output and employment. Frustrated in the effort to engineer a boost in output, the best the policymaker can hope for is to attain a low inflation goal. But to do so requires a credible commitment to refraining from the attempt to stimulate output after wages and prices are set.

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3 The “natural” rate of employment is the rate that would occur in the absence of monetary disturbances. The Non-Accelerating Inflation Rate of Unemployment (NAIRU) is a related concept. Monetary surprises may have temporary “real” effects – i.e., effects on output and employment – when the inflation generated exceeds the nominal growth fixed in wage-setters’ and price-setters’ contracts.
Delegation schemes of various sorts constitute important institutional devices to enhance credibility. Delegating monetary policy to an independent central bank staffed with officials that are more averse to inflation than the government can be a source of credibility (Rogoff 1985, Neumann 1991). If the private sector believes that the central banker is conservative (i.e., places a greater weight on low inflation than on output and employment) and independent of government (i.e., cannot be pressured to depart from its preannounced policy of low inflation), then inflationary expectations are kept in check and actual inflation is on average lower and more stable than in the discretionary equilibrium.

Delegating monetary policy to a conservative foreign central bank via a pegged exchange rate is another way to enhance credibility. While the traditional case for stable exchange rates hinges on the benefits of increased foreign trade and investment (see below), recent analyses tend to place more emphasis on credibility issues and the role of fixed regimes in stabilizing inflation expectations (e.g. Canavan and Tommasi 1997, Giavazzi and Pagano 1988). With roots in the rational expectations literature, this work builds on the same time inconsistency problem described above. Pegging the exchange rate to the currency of a low inflation nation provides a strong constraint on the conduct of domestic monetary policy, thereby enhancing the credibility of the government’s commitment to price stability (Mishkin 1999). With a fixed regime, monetary policy must be subordinated to the requirements of maintaining the peg, effectively “tying the hands” (eliminating the discretion) of the domestic policymakers. By pegging, the nation adopts the monetary policy of the foreign central bank, and in so doing “borrows” its credibility to supplement its own. Both forms of institutional delegation can in theory help
resolve the time inconsistency problem.\textsuperscript{4} But this alone does not explain the conditions under which these institutions are chosen because both institutions require trade-offs between increased price stability and other economic policy goals. In light of these trade-offs, the choice of these institutions is a political question - even if the primary motivation is to solve the technocratic sounding problem of time-inconsistent monetary policy.

One important trade-off shared by both institutions is between \textit{credibility} and \textit{flexibility}. In principal, central bank independence and pegged exchange rates can each be effective in enhancing the credibility of governments' commitment to low inflation. This is an important benefit to national welfare, but the benefit comes with a reduction in the capacity of policymakers to stabilize the domestic economy. Delegation to a conservative central bank, for example, forces a trade-off between lower inflation and output stabilization: the more conservative the central banker, the less she stabilizes output in the face of unanticipated disturbances, especially supply shocks like oil crises (e.g. Lohmann 1992). Indeed, a central bank can be too conservative in fighting inflation, causing excessive volatility in economic activity (Debelle and Fischer 1994). But efforts to increase the flexibility of monetary policy may compromise the very credibility of the central bank's commitment to low inflation. This is because wage-setters have difficulty disentangling a "legitimate" stabilization effort from an act of opportunism, given the wide array of factors that affect money demand and velocity and the

\textsuperscript{4} Empirically, the evidence is stronger with respect to the credibility effects of fixed exchange rates. Ghosh et al (1997) analyzed 136 countries over a 30-year period and found that pegging is indeed associated with lower inflation. The evidence on the effect of central bank independence on inflation is less consistent (de Haan and Kooi 2000, Eijffinger and de Haan 1996). These inconsistent findings may be due to the fact that the effectiveness of central bank independence in lowering inflation is conditioned by the political environment in which it is found – a theme developed systematically in this volume.
various lags through which monetary policy is transmitted to the economy. Though various solutions to the problem have been proposed, the trade-off remains an important consideration in delegating policy to a domestic central bank.5

Pegging the exchange rate poses a similar trade-off. To gain the benefits of greater credibility, governments must sacrifice their capacity to run an independent monetary policy. The “unholy trinity” principle explains that where capital is internationally mobile, a fixed rate and monetary independence are not simultaneously attainable (Mundell 1962, 1963). Instead, a country must give up one of three goals: exchange rate stability, monetary independence, or financial market integration. When capital is mobile internationally, domestic interest rates cannot long differ from world interest rates, as capital flows induced by arbitrage opportunities quickly eliminate the differential. A fixed exchange rate with international capital mobility renders monetary policy ineffective, meaning that there is no leeway to use monetary policy for purposes of demand management or balance of payments adjustment. This constraint poses a trade-off between the competing values of credibility and flexibility not unlike that which arises with central bank independence.

5 In Lohmann (1992), the government, at a cost, can overrule the conservative central banker. This accountability produces a superior policy in which the central banker responds more strongly to large shocks than to small ones. This partially resolves the trade-off problem because it leaves room for policy to perform a stabilization role. In a similar vein, Walsh (1993) shows that a “contract” between the government and the central bank tying the central banker's remuneration to inflation performance can attain efficiency. The contract removes the inflationary bias of policy but still allows the central banker's counter-cyclical policy to be optimally active. The incentive for political principals to enforce such a contract, however, remains open to question.
Exchange Rate Commitments and Optimal Currency Areas

Fixing the exchange rate can be a substantial benefit for economies that have had difficulty controlling inflation. Exchange rate stability can also yield gains for economies that are heavily internationalized. This is the principal insight of the Optimal Currency Area (OCA) approach to exchange rate regime choice. From this perspective, the main advantage of a fixed rate regime is to lower the exchange rate risk and transactions costs that can impede international trade and investment (Mundell 1961, McKinnon 1962, Kenen 1969). Volatile exchange rates create uncertainty about international transactions, adding a risk premium to the costs of goods and assets traded across borders. While it is possible to hedge against this risk in derivatives markets, hedging invariably involves costs that increase with the duration of the transaction. And recent experience indicates that there is a great deal of unexplained volatility on currency markets, which makes hedging particularly difficult for small countries’ currencies. By opting to stabilize the currency, a government can reduce or eliminate exchange rate risk, and so encourage greater trade and investment – a desirable objective quite distinct from the credibility gains of pegging. Going the next step to a currency union does away with the remaining transactions costs, providing an even stronger impetus to economic integration.\(^6\)

But what unites the credibility and the OCA approaches is the elemental trade-off in economic goals: pegging means foregoing domestic monetary flexibility. Achieving exchange rate stability at the expense of such flexibility can be a substantial cost for countries that face

\(^6\) Time-series studies of the relationship between exchange rate volatility and trade or investment typically find small, weak negative effects (Frankel 1995). However, much stronger effects are evident in cross-sectional evaluations: countries that share a common currency (or have a long-term peg) trade more than three times as much as comparable countries that have separate currencies (Rose 2000).
severe shocks to which monetary policy might be the appropriate response. Indeed, the advantages of floating reduce to the single crucially important property that it allows a government to have its own independent monetary policy. Under a full float, demand and supply for domestic currency against foreign currency are balanced in the market. There is no obligation or necessity for the central bank to intervene. Therefore, domestic monetary aggregates do not need to be affected by external flows, and a monetary policy can be pursued which is independent of, and does not need to have regard to, monetary policy in other countries. This policy autonomy is valuable since it provides flexibility to accommodate foreign and domestic shocks, including changes in the external terms of trade and interest rates. More generally, floating allows monetary policy to be set autonomously, as deemed appropriate in the domestic context (e.g., for stabilization purposes), and the exchange rate becomes a residual, following whatever path is consistent with the stabilization policy.

A related advantage of floating is that it allows the exchange rate to be used as a policy tool. This flexibility is valuable when real appreciation, caused by inertial inflation or rapid capital inflows, harms international competitiveness and threatens to generate a balance of payments crisis – a common syndrome in developing and transition economies that use a fixed exchange rate as a nominal anchor for credibility purposes (Edwards and Savastano 1999). When residual inflation generates an inflation differential between the pegging country and the anchor, it induces a real appreciation that, in the absence of compensating productivity gains, leads to balance of payments problems. A more flexible regime allows policymakers to adjust the nominal exchange rate to ensure the competitiveness of the tradable goods sector. However, the more flexible the regime, the smaller the credibility gains. The trade-off between credibility and
From the perspective of welfare economics, which institution is best for a particular country is largely a matter of the economic characteristics of the country. The trade-off between credibility and flexibility is a central concern of many papers in this volume. Unraveling the relative explanatory importance of these considerations in certain contexts poses a theoretical puzzle: why do some countries opt to delegate domestically to a conservative central bank while others utilize pegs to a foreign currency (or some other fixed regime) for credibility purposes? OCA considerations relate only to exchange rate regime choice and raise the caution that credibility is not the only, or perhaps not even the most important, factor influencing the choice of monetary institutions. Indeed, for very small, highly trade-dependent economies such as the island nations of the Caribbean, the decision to peg is not only determined by OCA considerations but also by the regions of the EMU do not satisfy OCA criteria and no one suggests that Argentina belongs in such factors. Yet for economies that are neither so small nor so open that pegging is the obvious currency union with the United States. Credibility motivations evidently swamp OCA considerations in certain contexts.

From Table 3 summarizes the relevant trade-offs as they relate to delegation via central bank independence and fixed exchange rates. The credibility-flexibility trade-off underpins the social welfare approach to both central banking and exchange rate institutions. This trade-off poses a theoretical puzzle: why do some countries opt to delegate domestically to a conservative central bank while others utilize pegs to a foreign currency (or some other fixed regime) for credibility purposes? OCA considerations relate only to exchange rate regime choice and raise the caution that credibility is not the only, or perhaps not even the most important, factor influencing the choice of monetary institutions. Indeed, for very small, highly trade-dependent economies such as the island nations of the Caribbean, the decision to peg is not only determined by OCA considerations but also by the regions of the EMU do not satisfy OCA criteria and no one suggests that Argentina belongs in such factors. Yet for economies that are neither so small nor so open that pegging is the obvious currency union with the United States. Credibility motivations evidently swamp OCA considerations in certain contexts.

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steeper in countries with a greater exposure to output shocks. The trade-off between exchange rate stability and trade shocks will be steepest in economies that depend heavily on trade in a small number of goods markets. Since large numbers of countries with similar economic characteristics have chosen different combinations of monetary institutions, however, such an explanation is unsatisfying. Consequently, the papers in this volume stress the ways political factors influence the choice and combination of institutions. Some do so by emphasizing the ways the economic trade-offs discussed above are politically and institutionally conditioned. Others relax the assumption that institutions are chosen by a benevolent social planner and argue that they are chosen for primarily political reasons, but are conditioned by factors highlighted by the time consistency or OCA frameworks.

THE POLITICAL ECONOMY OF MONETARY INSTITUTIONS

The economic logic of monetary delegation (and the OCA approach) is explicitly apolitical. That is, the classic time inconsistency problem is analyzed from the perspective of a benevolent planner whose objectives coincide with maximizing social welfare. While this makes for a "hard case" for the existence of time inconsistency problems, it also makes the decision to adopt an institutional fix trivial. Benevolent social planners would obviously adopt an institution that allows them to overcome the problem. But political actors who possess goals that need not be consistent with the good of society make decisions about monetary policy institutions. An approach that departs from the benevolent social planner assumption is appropriate if we are to understand the political incentives and constraints that shape governments’ decisions on monetary institutions.

Political economy arguments to explain the choice of monetary institutions have fallen into two broad classes: those that focus on policy suppliers – politicians and political parties – and
those that focus on policy demanders – interest groups, economic sectors, and voters. Within each of these approaches, political economists have developed a number of mechanisms to explain either central bank independence or the exchange rate regime. But almost without exception, analysts have chosen to examine the choice of these institutions in isolation. Whether the focus has been on policy suppliers or policy demanders, political economists have not explored the conditional or concurrent choice of these two institutions.

In this section, we briefly review these first generation approaches to the choice of monetary institutions. We also demonstrate how the contributions of this volume highlight and extend these different approaches. While each contribution emphasizes a different mechanism to explain the pattern of monetary commitments, they all explicitly consider the simultaneous choice of central bank independence and exchange rate regime.

**Policy Suppliers and the Choice of Monetary Commitments**

Politicians in office obviously do not have to delegate monetary policy authority to a conservative central bank, domestic or foreign. When they do so, it is because delegation serves their purposes. The credibility/flexibility trade-off provides a simple framework for analyzing how politicians weigh the benefits and costs of granting more independence to a central bank (e.g. Cukierman 1994). Delegation to an independent and inflation-averse central bank at home or abroad serves as a commitment device to circumvent the time inconsistency problem and resulting inflationary bias. The most prominent cost is that the government in office loses monetary policy flexibility. The incumbent government has less capacity to engage in stabilization policy via monetary instruments.

When politicians consider this trade-off, they do so within constraints imposed by their political environment. Four arguments potentially link the incentives of policy suppliers to
exchange rate regimes and central bank independence: welfare gains, policymaking capabilities, electoral opportunism, and government partisanship.\(^7\)

**Social Welfare Benefits**

One strand of literature suggests that monetary commitments will provide greater social welfare gains where politicians are unable to pursue responsible monetary and fiscal policies. In situations where governments face pressures to adopt lax macroeconomic policies, the value of these monetary commitments—in terms of superior economic outcomes—is higher. As a result, politicians who face inflationary pressures will be more likely to adopt a fixed exchange rate as a nominal anchor (Flood and Isard 1989; Giavazzi and Pagano 1988; Rogoff 1985) or an independent central bank (Franzese 1999; de Haan and Van’t Hag 1995; Alesina 1988; Cukierman 1992).\(^8\) This type of argument suggests that countries with weak and unstable governments will be more likely to adopt monetary commitments, since these governments are

\(^7\) A fifth set of arguments contends that political actors recognize how monetary commitments can lock in the policy preferences of the enacting coalition, tying the hands of future politicians (McCubbins, Noll, and Weingast 1989). Lohmann (1994), for instance, argues that political parties were engaged in a “turf battle” during the Bundesbank’s founding, trying to choose institutions that would protect their ability to affect policy in the future. Goodman (1991) argues that politicians will choose and independent central bank to insulate policy from future opposition governments, especially from parties with a high-inflation policy program. These types of arguments imply a government will choose a monetary commitment if subsequent governments are likely to possess different policy priorities. In systems where policy change is incremental across governments, politicians have fewer incentives to make an institutional commitment since they can trust subsequent governments to pursue similar policies. None of the papers in the volume approach the choice of monetary institutions from this perspective.

\(^8\) Other research indicates that the macroeconomic consequences of monetary commitments depend on labor market organization (Hall and Franzese 1998; Franzese 1999; Franzese 2000; Iversen 1999; Soskice and Iversen 1998). According to the literature, monetary commitments reduce inflation most where wage bargaining is least coordinated. These commitments tend to increase unemployment, but at a diminishing rate where wage bargaining is more highly coordinated. These arguments suggest that the overall benefits of a monetary commitment may be greatest when wage bargaining is moderately coordinated.
unable to carry-out stabilization programs (Alesina 1987: Cukierman 1992). High public debt and high levels of unemployment also increase the inflationary pressures on governments and, according to this logic, increase the propensity to adopt monetary commitments. Tests of these hypotheses produce only mixed results. Using a sample of the industrial democracies, De Haan and Van’t Hag (1996), for example, find no relationship between central bank independence and government turnover, public debt, or the equilibrium employment rate.

In this volume, Franzese uses this type of approach to analyze the relative impact of different combinations of monetary commitments on inflation performance given different partisan, electoral, and institutional configurations. Using a theoretically informed convex-combinatorial statistical model on a sample of 21 industrial democracies, he demonstrates that the anti-inflationary impact of these commitments varies according to the partisan character of the government, the openness of the economy and other domestic inflationary pressures. The results suggest that exchange rate pegs limit a government’s discretion over monetary policy more than an independent central bank, but these findings depend critically on the institutional environment. Interestingly, Franzese concludes that politicians adopt fixed exchange rates and independent central banks precisely when these commitments have the least-impact on inflationary outcomes. Instead, governments that emphasize price stability as a policy objective will choose these commitments as mechanisms to lock-in low inflation policies.

Political Capacity

A second set of arguments focuses on the policymaking capabilities of the government to explain monetary commitments: policymakers will not adopt a monetary institution unless they have the ability to ensure the success of that commitment. With a fixed exchange rate, weak or
unstable governments may lack the ability to implement the difficult domestic adjustments necessary often necessary to sustain a fixed exchange rate (Eichengreen 1992; Simmons 1994). Strong, durable governments are able to pursue the policies required to maintain the exchange rate and, therefore, are more likely to adopt an exchange rate commitment. Note that this argument challenges welfare gains reasoning about the conditions under which an exchange rate commitment is likely to be adopted.

Related arguments suggest that politicians will adopt an independent central bank only where they can credibly commit to maintaining that institutional arrangement. Since the existence of many veto players in the policy process will help prevent politicians from overturning the policy actions of an independent central bank, these arguments suggest that independent central banks will be more likely in systems with many veto players. Since central bank independence can be overturned easily in systems with few veto players (Moser 1999), politicians will be less likely to pay the short-term costs of adopting an independent central bank.

In the current volume, the papers by Hallerberg and Keefer and Stasavage make extensive use of the veto-player framework. Keefer and Stasavage are interested primarily in the question of the effect of veto players on the credibility of monetary commitments. They argue that delegation to an independent central bank will be more credible than low inflation policy pronouncements when multiple governmental veto players are present. Any low inflation policy implemented by an independent central bank can be over-ridden by a single veto player. In contrast, some low inflation policies may survive the displeasure of a subset of political principles if at least one veto player prefers the banks’ policy to the policy that would enacted by a government with discretionary power over monetary policy. Keefer and Stasavage argue that this logic does not extend to exchange rate commitments because the policy outcome expected
under a peg to a low inflation currency is likely to be seen as prohibitively austere by even the most hawkish domestic actors. Instead, they argue that exchange rate pegs reduce inflation because they help solve the problem of asymmetric information in monetary policy.

**Hallerberg** also emphasizes the role of veto players in the choice of monetary commitments, but he is not primarily interested in their effect on the credibility of commitments. Instead, he argues that the existence of veto players influences the identifiability and controllability of monetary and fiscal policy. Identifiability and controllability are important because they determine whether incumbents will choose to use monetary or fiscal policy for electoral purposes, which – in a world of mobile capital – influences their assessments of the various possible combinations of exchange rate regime and the degree of central bank independence. For example, Hallerberg argues that the existence of sub-national veto players in federal systems makes controlling fiscal policy difficult. As a consequence actors in these systems will shun pegged exchange rates in an attempt to preserve monetary policy autonomy. Conversely, the divisibility of fiscal policy makes it more attractive than monetary policy as a political instrument in the hands of multiparty coalitions. Consequently, governments comprised of many partisan veto players are more likely to peg the exchange rate than single party governments. This last result is consistent with Bernhard and Leblang’s (1999) finding of a link between proportional representation and an increased propensity to peg, but is potentially at odds with Keefer and Stasavage’s (this volume) assertion that increasing the number of veto players appears to decrease the credibility of pegged exchange rates.

**Political Opportunism**

A standard assumption in political science is that politicians and parties are office-seeking; that they desire to remain in office. Politicians, then, may use monetary policy surprises to
generate temporary expansions in employment and growth just prior to an election (Nordhaus 1975). Delegating monetary policy to an independent central bank or fixing the exchange rate, however, limits politicians’ discretion over monetary policy. Indeed, Clark and Reichert (1998) find that these monetary commitments limit opportunistic political business cycles (see also Clark and Hallerberg 2000). \footnote{Lohmann (1998), however, finds evidence of political business cycles in Germany, once she controls for the partisan composition of the central bank’s governing board.}

Drawing on these insights, political economists have argued that the “electoral value” of monetary policy will shape the choice of monetary institutions. Where the control of monetary policy may strongly shape electoral outcomes, politicians will be less likely to sacrifice flexibility by adopting an independent central bank or a fixed exchange rate. The electoral value of monetary policy will reflect the time horizon of politicians (Goodman 1991; Cukierman and Webb 1995) or the configuration of domestic political institutions (Bernhard and Leblang 1999). According to Bernhard and Leblang, in systems where the costs of losing an election are high or if small shifts in voter support can lead to large swings in the distribution of seats, politicians will be reluctant to give up control over any policy instrument that can help them win elections. Consequently, they will be less likely to adopt a fixed exchange rate (or, by implication, an independent central bank). In systems where the costs of being in opposition are lower or where a small loss in votes does not necessarily lead to exclusion from government, politicians may be more likely to adopt a monetary commitment.

Clark’s contribution to this volume draws on the role of electoral motivations in the choice of monetary institutions. Unlike previous arguments in this vein, he notes that survival-maximizing incumbents can use fiscal policy, as well as monetary policy, to manipulate the
economy for electoral purposes. Further, he shows that the ability of politicians to control each of these policy instruments depends crucially on both the level of central bank independence and the nature of the exchange rate regime. Using this framework, he demonstrates that granting the central bank more independence compromises the electoralist goals of incumbents only if the exchange rate is flexible. Further, he claims that pegging the exchange rate does not affect the electoral goals of incumbents. In this case, an incumbent can substitute fiscal policy for monetary policy to engineer pre-electoral expansions.

Government Partisanship

Another set of arguments examines how government partisanship affects the choice of monetary commitments. According to the partisanship literature, parties have different policy objectives, which reflect the interests of their key supporters (Alesina and Sachs 1989; Hibbs 1987; Havrilesky 1987). Left parties appeal to the working class and, thus, emphasize employment and wealth redistribution as policy goals. Reflecting business and middle class interests, Right parties are more concerned with controlling inflation. Assuming that an independent central bank and an exchange rate peg provide enhanced anti-inflation credibility, the most straightforward link implies that Right parties will be more likely to support these commitments (see, for example, Goodman 1991 on central banks; Simmons 1994; Oatley 1997 on exchange rate commitments). In contrast, other authors turn this logic on its head. Left parties may recognize that they lack anti-inflation credibility and, in turn, favor monetary commitments as a way to demonstrate their commitment to responsible economic policies (Mileis-Ferritti 1995; Garrett 1995). Since Right parties already have a reputation for price stability, they have little need to support these monetary commitments to gain credibility and prefer to see discretionary monetary policy remain a grounds for political competition with the
Clark (this volume) examines the relative propensities of Left and Right governments with respect to the choice of the combination of monetary institutions.

Tests of the partisan arguments on the choice of monetary commitments have produced only mixed results. Bernhard (1998) finds no relationship between partisanship and the cross-national variation of central bank independence in the 1970s and 1980s. Moreover, both right and left parties have initiated central bank reform in the 1980s and 1990s (Bernhard 2002). A number of authors find that Left parties were more likely to support exchange commitments, both during the interwar year (Simmons 1994; Eichengreen 1992) and in the EMS experience (Garrett 1995; Oatley 1997). Another study of OECD countries in the post-Bretton Woods period, however, found no relationship between partisanship and exchange rate regime choice (Bernhard and Leblang 1999).

More recent arguments about the relationship between political institutions and monetary commitments have emphasized how these commitments can help political parties assemble and maintain electoral, legislative, and governing coalitions—regardless of their partisanship. A fixed exchange rate provides a focal point for constituents and parties with diverse interests over economic and monetary policy (Bernhard and Leblang 1999). Such a commitment is a “transparent” policy rule—it can be observed at any time and is not subject to the long lags inherent in obtaining inflation and money supply data from the government (Aghelvi, Khan, and Montiel 1991; Bernhard 2002; Broz this volume). Similarly, an independent central bank can provide credible information about the state of the economy and the future course of economic policy (Fair 1979; Havrilesky 1994; Heisenberg 1998). Political parties can use the political credibility of an independent central bank to appeal to constituents with diverse policy preferences and to prevent any intra-party disputes over monetary policy from precipitating a
cabinet collapse (Bernhard 2002). These types of arguments suggest that monetary commitments will be more likely in systems where political parties must maintain diverse electoral and legislative coalitions.

The contribution by Bernhard and Leblang provides a test of this argument. The authors contend that increased economic openness in the industrial democracies has heightened the potential for intra-party conflicts over economic and monetary policy, hurting the ability of parties to remain in office. Monetary commitments can help manage these policy conflicts and keep parties in office. They test the effect of central bank independence and exchange rate commitments on cabinet durability in sixteen parliamentary democracies. The results indicate that these monetary institutions can increase cabinet durability, especially for coalition governments.

Policy Demanders and the Choice of Monetary Commitments

The second approach to explaining the variation in monetary institutions focuses on policy demanders: sectoral interests; interest groups; voters. This approach is premised on the idea that monetary institutions have distributional implications—what is optimal for a country as a whole may not be optimal for particular groups within a country. These distributional consequences of these institutions, therefore, represent part of the explanation of their causes.

Anti-Inflation Interests

The array of anti-inflation interests in society might include retirees on non-indexed fixed incomes, institutional bondholders, elements of the financial sector, and even the mass public in situations where hyperinflation or sustained high inflation remains part of the collective consciousness (Hibbs 1982, 1985; Issing 1993). Posen (1995), for instance, argues that the demands and organization of such societal interests will determine the level of central bank
independence. He contends that central banks will take a strong anti-inflation stance only when there is a coalition of interests politically capable of protecting it. The behavior of the central bank depends on the existence of a coalition of inflation hawks in society politically capable of supporting the central bank when it faces informal (non-statutory) pressures to inflate. There is some support for the hypothesis that central banks are more independent in countries where anti-inflationary social interests are powerful (Posen 1995, de Haan and Van ’t Hag 1995).

Broz’s argument (this volume) about the choice of monetary institutions echoes a similar logic. He begins with the assumption that all societies contain low-inflation constituencies; what varies is the extent to which these actors are able to verify a government’s commitment to a credibility-enhancing monetary institution. In democracies, low-inflation actors are relatively free to monitor governmental activities, which enhances the credibility of a monetary commitment. But in autocracies, the lack of political system openness undermines the monitoring capabilities of inflation-hawks; governmental promises are less verifiable and, therefore, less credible. Given that monetary commitments also differ in terms of verifiability (e.g. Frankel 2000), Broz expects credibility-seeking autocratic governments to opt for fixed exchange rates because fixed rates offer what autocratic promises lack: verifiability. Democracies, by contrast, are more likely to adopt legal central bank independence, the less verifiable commitment, because anti-inflationary interests have the capacity to detect and punish informal (non-legislative) governmental efforts to violate the independence of the monetary authority. The choice of monetary institutions, therefore, is conditioned by the structure of political institutions.

Note that the argument shares some aspects of the Political Capacity approach outlined above: governments chose monetary institutions with an eye toward their effectiveness in
resolving the time inconsistency problem. Broz’s contribution, however, comes in illustrating the links between political system characteristics, the incentives and actions of demand-side social actors, and the effectiveness of alternative monetary institutions.

**Economic Sectors**

Other authors emphasize the distributional consequences across economic sectors to account for different monetary commitments. In an influential article, Frieden (1991) identifies how social groups align on the trade-off between global integration and monetary policy flexibility in the choice of exchange rate regime. Groups heavily involved in foreign trade and investment (producers of exportables, foreign direct and portfolio investors, and international merchants) should favor fixed exchange rates, since currency volatility makes their business riskier and more costly. By contrast, groups whose economic activity is confined to the domestic economy benefit from a floating regime due to the monetary flexibility that floating allows. Producers in the nontradables sector (e.g., services, construction, transport) belong in this camp because they are largely insulated from foreign markets but are highly sensitive to domestic macroeconomic conditions.

Building on this argument, **Frieden** develops a specialized, demand-side account of exchange rate regime choice in his contribution. His case is the movement toward monetary integration by member states of the European Union. Frieden argues that the trade-off between greater trade and investment (SW cell in Table 3, above) and lost currency flexibility (SE cell) was critical in animating interest groups on the issue of stabilizing European exchange rates. With modest refinements to his earlier arguments, Frieden posits that cross-border investors and exporters of specialized manufactured goods should be strong advocates of fixed rates; importer competers, on the other hand, should oppose fixing since this sector suffers from the loss of
ability to adjust currency values to enhance competitiveness. Frieden takes pains to develop reasonable proxies for his interest group variables so as to test the argument statistically – an important achievement given the difficulty of measuring group preferences and political influence.

Frieden’s contribution extends beyond this new quantitative evidence as his approach represents an explicit challenge to the credibility arguments that dominate the rest of this volume (as well as to the OCA arguments that are common in the literature on Europe). Regime choice, Frieden cautions, may have more to do with trade and investment than purely monetary goals, which are emphasized by our other authors working from the time inconsistency perspective.

CONCLUSION

We have sought to accomplish three goals in this chapter. First we described the range of institutional outcomes that the contributors of the volume hope to explain. Since the break up of Bretton Woods, countries have been confronted with the choice of both whether to peg their exchange rate and the degree of independence to grant their central banks. Choices along these two dimensions produce four ideal typical regimes (Table 2), and countries in both the developed and developing world have sustained institutional combinations that approximate each of these ideal types.

Second, we reviewed the argument that pegged exchange rates and central bank independence represent alternative solutions to the problem of time inconsistent monetary policy. We argue that while time inconsistency is certainly a key factor in the choice of monetary institutions, the wide variety of combinations of monetary institutions observed cannot be simply explained as technological solutions to the inflationary bias inherent in discretionary monetary
policy. Why are monetary commitment “technologies” not universally adopted? And if they were, what would determine which solution would be chosen in a particular context?

Finally, we have sought to summarize the answers provided to these questions by the contributors to this volume. Briefly, the authors in this volume argue that the particular context incumbents find themselves in influences the extent to which a) they are induced to pursue goals that compete with price stabilization; or b) they are inhibited from successfully implementing monetary commitments. Electoral, partisan, (Clark) or sectoral (Frieden) pressures may loom larger than price stabilization amongst the goals of incumbents. Political institutions may inhibit or facilitate the ability of incumbents to convey credible commitments to central bank independence or pegged exchange rates (Keefer and Stasavage, Broz). In addition, political institutions may condition the extent to which electoral (Hallerberg) and partisan (Bernhard and Leblang) pressures compete with price stabilization in the minds of incumbents.

In sum, the papers in this volume argue that even if adopting pegged exchange rates or granting central bank independence is desirable because it reduces the inflationary bias of discretionary policy, an explanation of the range of observed institutional outcomes requires an inquiry into the price paid for their adoption. In particular, since fixed exchange rates and central bank independence are potential substitutes, it is vital that we gain an understanding of their relative prices. For this reason, the contributions to this volume simultaneously consider the determinants of both types of monetary commitments.

In his conclusion to this volume, Freeman highlights important features of the papers and sets an agenda for a “third generation” of research into the politics of monetary commitments. Freeman notes that the contributions to the volume share a common assumption about the important role of monetary technocracy in shaping economic performance. As a
whole, he argues that the volume begins to show how democratic institutions can be designed to “create and protect” a sphere for socially benign technocratic expertise in the management of monetary policy. That is, the papers show how democracy “fits” with allegedly “undemocratic” monetary commitments. He argues that the papers in the volume represent a significant contribution in that they emphasize the interaction of political and economic forces in theoretically sophisticated and nuanced ways. At the same time, however, Freeman challenges the field of international political economy to start work on a new generation of theoretical models and empirical tests that will uncover new facts about the relationship between democratic processes, institutions, and economic performance. This new generation of research should encompass work on the microfoundations of economic and political equilibria, the development of a broader understanding of the welfare criteria used to evaluate institutional arrangements, and a deeper analysis of the economic consequences of political information.

The papers in this volume do not produce a consensus regarding the factors that determine the choice of monetary institutions. While the contributors agree that political factors are crucial, important differences remain about the precise mechanisms by which politics affects the choice of monetary institutions. Readers will need to evaluate the logic and evidence for the competing claims made here. It is the hope of the authors that the work presented here is a consolidation, rather than the culmination, of a program for theoretically informed, empirically grounded research on the determinants of monetary institutions.
References


Figure 1: Distribution of Legal Indices of Central Bank Independence in Developed and Developing Countries

Source: Cukierman, Webb, & Neyapti, 1992
Figure 2: Distribution of Legal Central Bank Independence in 26 Former Soviet Economies

Source: Cukierman, Miller, and Neyapti 2001.
Figure 3: Percentage of Countries adhering to Fixed Exchange Rates

Source: Ghosh et.al. 1997
Figure 4: Share of Time on Fixed Exchange Rates in 23 Developed and 143 Developing Countries, Distribution of National Averages (1970-1989)

Developed Countries

Developing Countries

Table 1: Cross-National Comparison of Legal Central Bank Independence (1950-89).

<table>
<thead>
<tr>
<th></th>
<th>All Countries</th>
<th>Developing Countries</th>
<th>Developed Countries</th>
<th>Transition Economies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Index of Legal Independence</td>
<td>Country</td>
<td>Index of Legal Independence</td>
<td>Country</td>
</tr>
<tr>
<td>Max.</td>
<td>.69</td>
<td>Egypt .505</td>
<td>Germany .69</td>
<td>Estonia</td>
</tr>
<tr>
<td>Upper quartile</td>
<td>Ireland, Phillipines, Turkey,</td>
<td>.43</td>
<td>Argentina, Lebanon, Ethiopia</td>
<td>.40</td>
</tr>
<tr>
<td>Median</td>
<td>Australia, Ghana .36</td>
<td>Chile, Malaysia, Venezuela .36</td>
<td>Iceland .34</td>
<td>Kyrgyz Republic</td>
</tr>
<tr>
<td>Lower Quartile</td>
<td>Hungary .25</td>
<td>South Africa .25</td>
<td>Italy .25</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Min.</td>
<td>.12</td>
<td>Poland .12</td>
<td>Morocco, Spain .14</td>
<td>Azerbaijan</td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td>49</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0.34</td>
<td>.33</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>(.12)</td>
<td>(.10)</td>
<td>(.16)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Columns 1-3 same as Figure 1. Column 4 same as Figure 2.
Table 2: Monetary Regimes after 1973

<table>
<thead>
<tr>
<th>Central Bank Independence</th>
<th>Below Median</th>
<th>Above Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Above Median</strong></td>
<td>Switzerland, United States, Mexico, South Africa</td>
<td>Austria, Netherlands, Taiwan, Malaysia</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>(22.2%)</td>
<td>(26.4%)</td>
</tr>
<tr>
<td><strong>Below Median</strong></td>
<td>United Kingdom, Japan, Brazil, South Korea</td>
<td>Belgium, Sweden, Venezuela, Thailand</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>(27.8)</td>
<td>(23.6)</td>
</tr>
</tbody>
</table>

Countries were classified as "above median" in central bank independence if they were below the developing country sample median in turnover rate or above the developed country sample median in legal independence. Countries were classified as above the sample median (.60) in share of time with a pegged exchange rate. Numbers in cell represent the number of countries and, in parentheses, the share of countries in a data set that is the intersection of the Cukierman, Webb, and Neyapti and Wolfe data sets.
### Table 3: Welfare Effects of Alternative Monetary Delegation Schemes

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Bank Independence</strong></td>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>?? Credibility ? Lower Inflation</td>
<td>?? Monetary Inflexibility ?</td>
</tr>
<tr>
<td></td>
<td>Less Stabilization</td>
</tr>
<tr>
<td><strong>Fixed Exchange Rates</strong></td>
<td></td>
</tr>
<tr>
<td>?? Credibility ? Lower Inflation</td>
<td></td>
</tr>
<tr>
<td>?? Exchange Rate Stability ? More Trade and Capital Flows (OCA approach)</td>
<td>?? Exchange Rate Inflexibility ?</td>
</tr>
<tr>
<td></td>
<td>Difficulties with Competitiveness</td>
</tr>
</tbody>
</table>