

# EUI WORKING PAPERS

RSCAS No. 2005/06



U.S. Policy, IMF Financing Arrangements,  
and the Coercive Diffusion of Capital Account  
Liberalization to Emerging Markets

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**EUROPEAN UNIVERSITY INSTITUTE**

Robert Schuman Centre for Advanced Studies  
Transatlantic Programme Series

**EUROPEAN UNIVERSITY INSTITUTE, FLORENCE**  
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EUI Working Paper **RSCAS** No. 2005/06  
**BADIA FIESOLANA, SAN DOMENICO DI FIESOLE (FI)**

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ISSN 1028-3625

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Printed in Italy in March 2005  
European University Institute  
Badia Fiesolana

I – 50016 San Domenico di Fiesole (FI)  
Italy

<http://www.iue.it/RSCAS/Publications/>

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## **Abstract**

Why did a number of emerging markets liberalize controls over capital movements in the late 1980s through the Asian financial crisis? While previous accounts highlight a number of key factors, they each assume that policymakers make policy choices independently of the policy choices made by external actors, such as by other states or international organizations. In other words, the literature on capital account liberalization has largely neglected the possibility of diffusion. By contrast, I argue that capital account policy decisions can be understood, in part, as a policy choice influenced by external actors, particularly the United States and the International Monetary Fund. Relying on the literature on policy diffusion and interdependence, I highlight a number of yet unexamined sources of leverage for promotion of liberalization by external actors. Using time-series cross-sectional data on 34 countries from 1983 to 1995, I provide the first systematic test of the influence of external actors on capital account policy decisions in emerging markets. The results provide evidence that external actors do influence the decision to liberalize in emerging markets. In particular, the results suggest that U.S. policymakers are able to exploit asymmetries in their security and trade relationships with other states as well as their influence within the IMF to promote liberalization in emerging markets.

## **Keywords**

Neoliberalism, Capital Controls, Power, Norms.

## Introduction

In the previous two decades a large number of emerging markets liberalized controls over international capital movements and financial intermediation. This process of capital account liberalization across emerging markets occurred despite questions about the efficiency gains from such a policy choice (Eichengreen 2002; Edison *et al.* 2002; Prawad *et al.* 2003). What explains these policy choices?

Existing theories of capital account liberalization highlight a number of factors that may influence these policy choices. These theories tend to highlight the role played by the pressures of international financial markets (Bryant 1987; Goodman and Pauly 1993; Andrews 1994; Garrett 2000; Baines 2002), interest group competition (Frieden 1991; Sobel 1994; Haggard and Maxfield 1996), and domestic political institutions (Pauly 1988; Quinn 2000; Kastner and Rector 2003; Li and Smith 2002a, 2003). While providing useful insights, these theories have produced a somewhat limited understanding of how policy choices are made in emerging markets. In particular, these theories largely view the decision-making process as an independent one (Simmons *et al.* 2003:9).<sup>1</sup> The prevailing theories each assume that policymakers—reacting to the specific conditions they encounter within their national polity—make policy choices independently of the policy choices made by external actors, such as by other states or international organizations. In other words, the literature on capital account liberalization has largely neglected the possibility of diffusion.

Given that a number of researchers (Stallings 1992; Lukauskas and Minushkin 2000; Cohen 2003; Stiglitz 2002; Kirshner 2003) suggest that external actors may have played an active role in promoting capital account liberalization in emerging markets, this neglect is particularly surprising. To the extent that researchers do consider external actors, they largely fail to systematically test for their influence, adopting a somewhat narrow emphasis by focusing solely on the role played by the International Monetary Fund (IMF) and U.S. influence within it (Brune *et al.* 2001; Li 2003). Quite surprisingly, the few empirical studies that do examine the influence of external actors tend to cast doubt on the influence they have on capital account policy decision.<sup>2</sup>

By contrast, I argue that capital account policy decisions can be understood, in part, as a policy choice influenced by external actors, particularly the U.S. and the IMF. U.S. policymakers have promoted capital account liberalization in other countries since the early 1970s. To promote this policy abroad U.S. policymakers have at their disposal a number of sources of leverage over other countries. These sources of leverage are not limited to U.S. influence within the IMF, but also include yet unexamined U.S. security, trade, aid, and financial relationships with other countries. By exploiting the asymmetries in these relationships as well as their influence within the IMF, I argue that U.S. policymakers may pressure policymakers in emerging markets to liberalize, resulting in the diffusion of this policy choice.

Using time-series cross-sectional data on 34 countries from 1983 to 1995, I provide the first systematic test of the influence of external actors on capital account policy decisions in emerging markets. The results provide evidence that external actors do influence the decision to liberalize in emerging markets. In particular, the results suggest that U.S. policymakers are able to exploit asymmetries in their security and trade relationships with other states as well as their influence within the IMF to promote capital account liberalization in emerging markets.

The remainder of the paper is organized as follows. In the first section, I discuss the evolution of U.S. and IMF policy on capital account liberalization since the Second World War. The second section reviews the theoretical perspectives on diffusion, placing particular emphasis on the role that external actors play in actively promoting policy choices. I then sketch the potential role of U.S. and IMF influence on capital

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1 For notable exceptions, see Chwieroth (2003a, 2003b) and Brune and Guisinger (2003).

2 Brune *et al.* (2001) and Brune and Guisinger (2003) report no significant relationship between IMF lending and capital account policy. Li (2003) reports a negative effect.

account liberalization in emerging markets. The third section discusses the sample, data, and methodology used to test for the influence of external actors. The fourth section discusses the results of the statistical analysis. The final section examines the theoretical and practical implications of the findings.

## U.S. and IMF Policy on Capital Account Liberalization

U.S. policymakers did not begin to promote capital account liberalization until the early 1970s. Prior to this period, U.S. policy tended to encourage or tolerate capital controls in other countries. Reflecting the dominance of U.S. power and embedded liberal norms near the end of the Second World War (Ruggie 1983; Ikenberry 1992; Helleiner 1994), the Articles of Agreement of the IMF gave member states the explicit right to implement capital controls and IMF policy was designed in such a manner as to encourage their use.<sup>3</sup>

While the U.S. choose not employ capital controls, from the end of the Second World War to 1963, the economies of Western Europe and Japan made their slow move toward liberalization. Helleiner (1994, 2003a, 2003b) shows that this was *not* a period in which the U.S. used its power to force the Europeans or developing countries toward liberalization. Rather, U.S. policy during this time tended to take a more accommodative approach to capital controls in other countries (Randall 1954; Helleiner 1994; Kaplan and Schleiminger 1989; Loriaux 1991).<sup>4</sup> In some instances, U.S. policymakers actively encouraged their use. In the early post-war years, Helleiner (2003a, 2003b) documents how many developing countries—particularly those within the U.S. sphere of influence—were encouraged to implement capital controls.<sup>5</sup>

As a response to continuing balance of payments problems, U.S. policymakers implemented capital controls in 1963. These capital controls were intensified in 1964 and 1965. Continued acceptance of the capital controls in other countries was evident in the 1967 *Economic Report of the President*, which justified the use of capital controls on the grounds that the free flow of capital was not providing an optimal distribution of the world's savings (U.S. Government 1967). Despite their support of the Euromarket—a network of banks and financial institutions that conduct intermediation in foreign currencies—U.S. policymakers remained accommodative of capital controls in other countries. In fact, governments that did liberalize controls over capital movements—such as West Germany—did so largely on their own accord and not at the behest of U.S. policymakers (Bark and Cress 1989:206-207).

Following the suspension of the convertibility of the U.S. dollar to gold in 1971, U.S. policy toward capital controls in other countries changed from one of accommodation to one of hostility. In the preliminary discussions to reform the international monetary system in the early 1970s, the U.S. became the first state to push for broad acceptance of liberalization.<sup>6</sup> While the Western Europeans—led by the French—continued to press for the use of capital controls, the U.S. now sought to discuss the abandonment of controls altogether and announced it would dismantle its own controls by December 1974 (De Vries 1985a: 18,125,136-137,167,192; 1985b:48,50).<sup>7</sup> U.S. policymakers argued

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3 Article 6-3 explicitly gave states the right to institute capital controls: 'Members shall exercise such controls as are necessary to regulate international capital movements' (Horsefield 1969c:194). The IMF could not require countries to impose controls, but it could 'request' them to do so in the case of large or sustained capital outflows. If the countries refused to cooperate with the IMF's request, the IMF would deny use of its resources to finance the imbalances caused by capital outflows (Article 6-1a).

4 A notable exception was the use of a loan in the initial months following the Second World War to pressure the British government to liberalize capital controls. This attempt to rapidly move the British to convertibility failed due to speculative capital movements.

5 In the former British and French colonies, however, capital controls were generally not employed to regulate capital flows between countries within, respectively, the sterling area and the CFA franc zone, but were applied to capital flows from and to countries outside these areas (Helleiner 2003a, 2003b).

6 In the language of Finnemore and Sikkink (1998), the U.S. became the 'norm leader'—the 'critical mass' of the first state(s) to adopt and push for broad acceptance of a particular policy.

7 The U.S. actually abolished its controls even earlier, in January 1974.

that capital account liberalization would encourage ‘the growth of international trade’ and increase ‘the economic well-being of developed and developing countries’ (De Vries 1985c:47).

In 1972, at the inaugural meeting of the Committee of 20 (C-20)—the group of policymakers drawn from the IMF’s Executive Board to negotiate reform of the international monetary system—the new U.S. Treasury Secretary George Schultz outlined the U.S. opposition to capital controls for the first time (De Vries 1985b:167; IMF 1972:41). The new U.S. position was also reflected in the 1973 *Economic Report of the President*, which contrasted quite dramatically with the report issued just six years earlier. The report stated that ‘controls on capital transactions for balance-of-payments purposes *should not be encouraged and certainly not be required* in lieu of other measures of adjustment, nor should they become the means of maintaining an undervalued or overvalued exchange rate’ (U.S. Government 1973:128, emphasis added).

The reform negotiations, however, ultimately led to victory for the U.S. position. The U.S. victory in the international monetary system reform negotiations was confirmed both in the 1974 *Outline of Reform* agreed by the C-20—which in the aftermath of the negotiations became the primary advisory body called the Interim Committee<sup>8</sup>—and the final agreements reached in the 1976 annual meetings in Jamaica where the Articles of Agreement of the IMF were amended. Instead of prescribing obligatory capital controls, the Outline noted that the IMF would promote such a strategy as only one of many policies available (De Vries 1985c:167).<sup>9</sup> At the insistence of U.S. policymakers, provisions were included to limit the use of controls (De Vries 1985b:170). The U.S. also partially achieved its objective of giving the IMF the authority to discourage member countries from using capital controls to manipulate their balance of payments. A compromise was reached whereby the IMF would be permitted to advocate both liberalization and the use of controls. Thus, for the first time in its history the IMF would be authorized to promote liberalization of the capital account in its interactions with member states.

At the Jamaica meetings, reform of the international monetary system was institutionalized in the second amendment to the Articles of Agreement of the IMF. One important change was made to the newly amended Article 4-1, which now stated that ‘the essential purpose of the international monetary system is to provide a framework that facilitates the exchange of goods, services, *and capital* among countries’ (De Vries 1985b:381-382, emphasis added). These changes clearly reflected the U.S. effort to facilitate the free movement of capital.

The promotion by the IMF of the free movement of capital was further confirmed by a 1977 decision of its Executive Board of member states. Among the developments that might indicate a need for discussion with a member by the IMF staff, the decision identified ‘the introduction or substantial modification for balance of payments purposes of restrictions on, or incentives for, the inflow or outflow of capital’ (IMF 1994:11). This decision further encouraged the shift in the IMF toward promoting capital account liberalization.

By the mid-1980s the IMF was an active proponent of capital account liberalization and a number of advanced market economies had moved to liberalized capital accounts.<sup>10</sup> In its publications, the IMF first turned a critical eye toward controls in 1984. An IMF report (IMF 1984:54) that year claimed that capital controls ‘have had less salutary effects on domestic economic performance’. IMF staff reports throughout the remainder of the 1980s stressed the benefits of liberalization and the costs of controls (IMF 1985:13, 1986:102; Watson *et al.* 1986:9; IMF 1987:89). A 1988 IMF report (IMF 1988:35) concluded: ‘What appears to be required in present circumstances, therefore, is a continuation of recent trends [liberalization] in those countries where most progress has been made, together with a more

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8 The International Monetary and Financial Committee subsequently replaced the Interim Committee in September 1999.

9 Other options included in the Outline included, ‘arrangements to finance and offset [capital flows], [...] harmonization of monetary policies, [...] prompt adjustment of inappropriate par values, use of wide margins, and the adoption of floating rates in particular situations’ (De Vries 1985b:170).

10 For accounts of this process in advanced market economies, see Pauly (1988); Loriaux (1991); Helleiner (1994); and Sobel (1994).



vigorous attitude on existing rigidities in countries where financial competition is still relatively restrained'. More directly, another IMF report (Quirk and Evans 1995:6) pointed out that '[...] from the mid-1980s the focus shifted toward encouraging the adoption of full capital convertibility'.

In the early 1990s, several reports by the IMF staff continued to extol the benefits of liberalization (Allen *et al.* 1990:12,13; IMF 1992:28; Mussa *et al.* 1994:3). During this period, the IMF's staff also conducted several studies in response to concern over the surge of capital inflows to emerging markets (IMF 1992; 1993; Schadler *et al.* 1993). The conclusions reached by these studies are perhaps best summarized by a 1993 IMF staff paper (Schadler *et al.* 1993:1, emphasis added): 'The conventional wisdom on policies to contain the destabilizing effects of inflows is clear: [...] avoid [...] capital controls'.<sup>11</sup>

Following the Mexican peso crisis in the mid-1990s, the IMF's views on capital controls did not largely change.<sup>12</sup> In the aftermath of the peso crisis, one IMF report (Folkert-Landau and Ito 1995:27) stated: '[...] comprehensive restrictions on capital flows can be highly distorting and their effectiveness tends to erode over time. Capital controls on outflows are generally viewed as confiscatory taxes and, if applied during periods of exchange market stress, may aggravate a crisis of confidence'. Other IMF research papers at the time presented similar warnings (Quirk and Evans 1995:4; Khan and Reinhart 1995:28).

In its interactions with policymakers from developing countries, according to a 1995 IMF research paper (Quirk and Evans 1995:22), the IMF approached the issue of controls on a case-by-case basis; however, the IMF 'generally welcomed the liberalization of restrictions on capital account transactions [...] while generally discouraging the tightening of controls over capital movements'. The IMF research paper (Quirk and Evans 1995:6) speaks of 'a general distaste for controls as a way of addressing balance of payments difficulties'. This general push for liberalization in developing countries was confirmed in a recent interview of a former head of the IMF's research department who stated: 'There were so many obstacles to capital-market integration that it was hard to err on the side of pushing countries to liberalize too much'.<sup>13</sup>

The promotion of capital account liberalization by the U.S. and the IMF gained momentum in 1994-95 when the IMF's managing director floated the idea in a series of speeches to the Executive Board of revising the IMF's Articles of Agreement to promote that end. In October 1994, the IMF's Interim Committee welcomed the trend toward capital account liberalization and encouraged members to remove impediments to capital flows. In a key decision in April 1995, the Executive Board amended their 1977 decision and now took into account more explicitly the importance of free capital flows (Quirk and Evans 1995:1,5).

In the period just prior to the Asian financial crisis—beginning in Thailand in July 1997—the IMF staff continued to promote liberalization in a number of their reports (IMF 1996:62; 1997:93,116; Folkerts-Landau *et al.* 1997:51). Despite recognition by the IMF's staff of the problems associated with premature liberalization—particularly in the absence of a strong prudential supervisory and regulatory framework (IMF 1992:28; 1993:79-80; 1996:57,151; 1997:88,116; Khan and Reinhart 1995:28, 29)—the IMF maintained efforts to push for liberalization. In fact, Rogoff has stated: 'Admittedly, in its routine surveillance missions, prior to the Asian crisis, the IMF may have sometimes tilted too far toward benign neglect as countries prematurely liberalized markets for short-term capital movements, before the internal regulatory structure was in place to handle them'.<sup>14</sup>

Between April and October 1997, efforts to promote capital account liberalization as a global norm reached their peak. In April 1997, the Interim Committee announced that it was to embark on a fundamental revision of the IMF's Articles of Agreement 'to make the promotion of capital account

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11 See also Schadler *et al.* 1993:4, 19; IMF 1992:40; 1993:40, 79-80; Mathieson and Rojas-Suarez 1993:2, 19.

12 For some exceptions, see Quirk and Evans 1995:4, 6, 22-23; Folkerts-Landau and Ito 1995:27, 108; Khan and Reinhart 1995:29.

13 *N.Y. Times Magazine* 18 August 2002, 50.

14 *The Economist*, 3 August 2002, 64.

liberalization a specific purpose of the IMF and give it jurisdiction over capital movements'.<sup>15</sup> The revision would require members to commit themselves to liberalization as a goal.<sup>16</sup>

The initial events of the Asian crisis in Thailand did little to dampen enthusiasm for the proposed amendments. Indeed, at the Interim Committee's September meetings that same year the commitment to the amendments was reaffirmed.<sup>17</sup> The subsequent spread of the crisis, however, to Korea, Indonesia, and then to Brazil and Russia greatly dampened the enthusiasm for liberalization at the IMF as well as within academic circles. The events in Asia and elsewhere led the IMF to suspend consideration of the amendment indefinitely.

Although in the wake of the Asian crisis none of the IMF staff openly express doubt concerning the benefits of liberalization (Kirshner 2003b:275), there have been some suggestions that temporary taxes might be appropriate (Adams *et al.* 1999:76,79,92,99,101,150; IMF 1999:83,87; Eichengreen and Mussa 1998:2-3,29; Ariyoshi *et al.* 2000; Mussa *et al.* 2000:30-31).<sup>18</sup> Along these lines, the former head of the IMF's research department recently conceded, '[...] the role of limited and temporary capital controls, especially for economies at intermediate levels of financial development, needs further study'.<sup>19</sup> The current first deputy managing director at the IMF—the second highest management position—has gone so far as to give formal support for the use of controls in crisis situations (Krueger 2001). The current managing director has also stated recently that the IMF is now more cautious about encouraging members to liberalize.<sup>20</sup> Ultimately, as suggested by a recent IMF report (IMF 2001c:170), the IMF staff now appears to share the view that 'For those countries that are not involved—or only partially involved—in global capital markets, capital account liberalization should remain the ultimate goal, but the pace at which it can be achieved will vary significantly'.

However, U.S. policymakers continue to promote liberalization. When Malaysia introduced capital controls in response to the Asian crisis, some U.S. policymakers 'quietly expressed the hope' that the introduction of such policy measures 'would fail so spectacularly that the smoldering ruins of the Malaysian economy would act as a caution to other countries'.<sup>21</sup> Summarizing U.S. policymakers' views on capital controls, then-Deputy Treasury Secretary Lawrence Summers stated, 'Such measures represent substantial intrusions on freedom. They make unsustainable policy errors more tempting. They repel new capital inflows'.<sup>22</sup> The 2004 *Economic Report of the President* suggests that U.S. policymakers continue to support capital account liberalization abroad (U.S. Government 2004:245-247). Recently negotiated trade agreements with Singapore and Chile—both of which contained provisions regulating the use of capital controls—confirm that U.S. policymakers remain committed to this stance.

### Coercive Diffusion: Interdependence and IMF Conditionality

The literature on policy diffusion and interdependence offer a useful means for theorizing about the role external actors played in promoting capital account liberalization in emerging markets. Policy diffusion may be understood as an interdependent process of decision-making whereby the policies adopted by an external actor influence the probability that the same or similar policy will be adopted in a given country. Policy diffusion is thus a dynamic process whereby policy decisions in one country are

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15 *IMF Survey* 12 May 1997.

16 *Ibid.*

17 *IMF Survey* 6 October 1997.

18 An increasing number of members of the academic community also have suggested the use of capital controls (Wade 1998; Wade and Verenso 1998; Bhagwati 1998; Krugman 1998; Eichengreen 1999; Verenso and Rochon 2000; Williamson 2000; Cohen 2003).

19 *The Economist*, 3 August 2002:64.

20 *Financial Times* 11 September 2002.

21 *New York Times* 9 September 1998.

22 Remarks by Lawrence Summers at the Cato Institute's 16th annual Monetary Conference, 22 October 1998, Washington, D.C.

systematically conditioned by prior policy decisions in external actors. The processes through which policies diffuse encompass a broad range of mechanisms, including coercion, professionalization, network externalities, rational learning, competition, emulation, and cognitive shortcuts and heuristics (Dimaggio and Powell, 1991; Meyer *et al.* 1987 Simmons *et al.* 2003; Orenstein 2003; Weyland 2003). However, this paper limits its scope to the influence of one of these mechanisms—coercion.<sup>23</sup>

In their seminal research on diffusion, Dimaggio and Powell (1991) refer to the exertion of pressures for similar policies by states and other external actors as *coercive isomorphism*. This view of diffusion attributes the adoption of similar policies in disparate settings to active pressures emanating from external actors. In this view, powerful external actors—states or international organizations (or states operating through international organizations) actively promote a policy by using incentives and inducements to pressure and entice policymakers to adopt a particular policy. By placing emphasis on the role of states, this view of policy diffusion closely resembles the view espoused by realists in international relations theory (Ikenberry and Kupchan 1990; Krasner 1995/96; Mearsheimer 1994/95, 2001). Powerful states push for particular policies within their sphere of influence and international organizations (or states operating through international organizations) push for particular policies among their member states.

Empirical research shows that coercion by external actors is critical for understanding policy diffusion in number of issue areas outside of political economy, including decolonization (Strang 1990) and environmental policies (Frank *et al.* 2000). Within political economy, studies document how Latin American tariff reform policies (Biglaiser and Brown 2003) and the adoption of independent central banks (McNamara and Castro 2003) demonstrate patterns of coercion by external actors. However, the literature on the political economy of capital account liberalization has largely failed to systematically examine the role that coercion may play in this policy choice. Instead, it has adopted a somewhat narrow focus on the role that IMF conditionality plays, ignoring the vast array of sources of leverage that are offered to powerful states through the various networks of interdependencies that exist between them and less powerful states.

With contemporary globalization, states have become even more interdependent with one another for trade, credit, investment, and security. These interdependencies enlarge the spheres of influence over which powerful states may promote their preferred policies and expand the possibilities for coercive isomorphism. The literature on interdependence has long recognized that these interdependent relationships between states are rarely symmetrical (Hirschman 1945; Keohane and Nye 2000; Waltz 1979). In terms of this asymmetry, the key variable influencing the degree of leverage one state has over another is the extent to which one state is sensitive to conditions or policies in another. Sensitivity may be understood as the degree to which conditions or policies in one state are affected positively or negatively by conditions or policies in another. A state is sensitive if it is unable to avoid the influence of the conditions or policies of another state within the existing network of transactions. A state is said to become vulnerable when it is unable to overcome this influence except at an extremely high cost to itself.

Interdependence thus creates opportunities for less sensitive states to manipulate these relationships to their own advantage. By exploiting asymmetries in these interdependent relationships, states with more power (less sensitive to a given state for trade, credit, investment flows and/or provision of security) in the international system can shape the policies adopted by countries that are less powerful (more sensitive to a given state for trade, credit, investment flows and/or provision of security) (Gilpin 1987, 2001). These interdependent relationships thus provide powerful sources of leverage for powerful states to pressure policymakers in other states to adopt their preferred policies.

At least three types of interdependencies seem critical for understanding the influence of external actors on capital account policy decisions in emerging-markets. Security interdependencies constitute

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23 For studies on the influence of professionalization and emulation on capital account liberalization, see Chwieroth (2003b) and Brune and Guisinger (2003), respectively.

one type relationship that may have bearing on capital account policy decisions.<sup>24</sup> This important relationship, however, is often neglected in studies of economic policy choices more generally (Strange 1987:566; Jervis 1998:990-991) and capital account policy choices in particular. Many researchers caution against this neglect, noting its importance for policy choices. As Strange notes (1987:566), 'Always in the background [of economic policy decisions], there is the contrast between the provision of security by the United States defense forces and the dependence of its partners upon it'. Echoing this view is Kirshner (2003b:269) who observes, 'security concerns clearly must be part of any explanation of choices about money'.

Stasavage (2003) shows the importance of examining security relationships for understanding financial and monetary policy choices in his study of the French government's role in sustaining the CFA Franc Zone. Similarly, Trachtenberg (1999:303, 369-379) shows how U.S. policymakers exploited European security dependence to promote their preferred policies. Along these lines, Gavin (2003:200-201; 205-213) notes how the threat by U.S. policymakers to withdraw U.S. military personnel from Western Europe was instrumental in winning the West German government's support for the creation of a new international reserve asset (Special Drawing Rights) in 1965 and a pledge by the Bundesbank to continue to hold dollars in 1967. Therefore, one might expect the greater a country depends on another for its security, the more leverage the less dependent country has over the more dependent country to promote its preferred policies. Thus, I hypothesize:

**H1: Countries with dependent security relationships with the United States are more likely to liberalize their capital accounts.**

Trade interdependencies may also constitute another type of relationship that provides external actors a source of leverage over capital account policy decisions. Countries that have a relatively high level of trade are potentially vulnerable to external pressures from states that are their key export markets or sources of critical imports. Consequently, these dependent states have a strong incentive to adopt policies favored by their more powerful trading partners in order to assure themselves of continued access to export markets and critical imports. Haggard and Maxfield (1996:59) and Lukauskas and Minushkin (2000:713) both identify U.S. trade negotiations with South Korea as the key mechanism through which capital account policy was liberalized in the early 1990s. Wade and Veneroso (1998) note that U.S. policymakers often employ trade negotiations to pressure governments to remove capital controls. In the context of negotiations with Mexico over NAFTA, Lukauskas and Minushkin (2000:710) suggest that U.S. pressure was influential in the decision to allow foreign intermediaries greater access to the domestic markets. In recent trade negotiations with Singapore and Chile U.S. policymakers explicitly linked restrictions on the use of capital controls to access to preferential trading arrangements.<sup>25</sup> In the current negotiations on the Free Trade Area of the Americas (FTAA), U.S. policymakers are pushing for the inclusion for rules governing investment flows. Finally, U.S. policymakers also sought to expand the liberalization of capital by promoting the Multilateral Agreement on Investment (Smythe 2000:79). As such, I hypothesize that:

**H2: Countries with dependent trade relationships with the United States are more likely to liberalize their capital accounts.**

A third relationship possibly providing leverage to external actors over capital account policy decisions is financial interdependence. Less advanced countries are potentially vulnerable to external pressures because of their need for access to foreign aid, credit and investment to finance development

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24 Emphasizing the opposite causal direction, Kirshner (1995) shows how monetary interdependence can be exploited to promote security objectives.

25 *New York Times* 9 January 2003:C3 and 17 January 2003:C19.

or balance of payments deficits.<sup>26</sup> Therefore, these dependent states are faced with pressures to adopt policies favoured by their powerful financiers in order to assure themselves of continued access to finance. Strange (1987, 1994) notes how U.S. leverage over other countries is enhanced by its dominant position in terms of supplying development aid, credit, investment abroad. Case study evidence also tends to support this view. In the immediate post-war period, the U.S. government conditioned the provision of a loan to the British on a commitment to capital account liberalization. There is also evidence U.S. policymakers exploited U.S. financial power to promote capital account liberalization in Western Europe, Japan, and Mexico in the mid-1970s and early 1980s (Helleiner 1994:112-115; 175-183). However, there is also growing case study evidence suggesting that economic aid cannot be used as a tool to pressure countries to adopt policy reforms (Berg 1990:9; Nelson and England 1993:94; Gordon 1992:37; Killick 1998). Therefore, dependence of U.S. economic aid may not necessarily be an effective source of leverage.

Other researchers cite U.S. influence at the IMF as a key conduit through which the preferred policies of U.S. policymakers are diffused (Stallings 1992; Lukauskas and Minushkin 2000; Cohen 2003; Stiglitz 2002; Kirshner 2003). As the leading contributor to the IMF's pool of financial resource, the U.S. has a great deal of influence over decisions made by the IMF's Executive Board—the main decision-making body that must approve all financing arrangements. The U.S. has veto authority over all decisions requiring a super majority, such as increasing a country's required contribution to the IMF (its 'quota'), amending the Articles of Agreement, or selling gold reserves. Even though a simple majority approves financing arrangements, some researchers (Thacker 1999:41-42; Kahler 1990) argue that it approximates a super majority rule. Executive Board proposals rarely take positions that are opposed by U.S. policymakers and members who speak out against the U.S. do so at their own peril, since the U.S. can veto favoured programs in retaliation.

The logic behind the view focusing on U.S. influence on IMF financing arrangements and their effect on capital account liberalization is straightforward. Countries in economic crises need financing from the IMF because they are in no position to raise the finance they need in private capital markets.<sup>27</sup> The IMF—driven by its economic criteria and U.S. influence—then approves a financing arrangement.<sup>28</sup> In return, the IMF conditions its provision of financial support on policy reforms it deems desirable—one of policies presumably being capital account liberalization.

Case study (Cohen 1985:715, 722; Killick 1998:74) and quantitative evidence (Thacker 1999; Stone 2003; Oatley and Yackee 2000; Oatley 2002; Barro and Lee 2002; Broz and Hawes 2003; Dreher and Jensen 2003) provide strong support for the view stressing U.S. influence on IMF lending. Also supporting this view is evidence that capital account liberalization was a condition included in a number of the IMF's financing arrangements in the 1980s and 1990s (IMF 2001a, 2001b; Dreher 2002; Gould 2003). There is also some evidence that the U.S. Treasury played a key role in pushing the IMF to include capital account liberalization as condition for lending to South Korea during the Asian financial crisis (Kirshner 2003b). An IMF financing arrangement mandating liberalization also played some part in the Mexican government's decision to liberalize controls at the beginning of the debt crisis (Maxfield 1990:152-153). These lines of argument imply three hypotheses:

**H3: Countries with dependent aid relationships with the United States are more likely to liberalize their capital accounts.**

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26 Advanced market economies may also become dependent on external actors for credit. The U.S. current account deficit leaves U.S. policymakers particularly vulnerable to the investment decisions of foreign investors and central banks. However, the U.S. has the luxury of (currently) being able to finance its deficit in its own currency.

27 See also Vreeland (2003).

28 The literature on capital account liberalization that has examined U.S. influence within the IMF assumes that this influence is critical without testing whether this is the case, see Li (2003). I return this empirical issue below.

**H4: Countries with dependent financial relationships with the United States are more likely to liberalize their capital accounts.**

**H5: Countries subject to IMF financing arrangements are more likely to liberalize their capital accounts.**

## **Sample, Methodology, and Data**

### *Sample*

These hypotheses may be tested empirically. The sample used to test the hypothesis comprises yearly data on 34 emerging market economies from 1983 to 1995.<sup>29</sup> The specific countries and time frame for study were determined by data availability. Emerging markets were chosen as the population for study for two reasons. One reason is that most of the studies on capital account liberalization tend to concentrate on advanced market economies, leaving the factors influencing decisions in developing countries less well understood. Another reason is that despite the view of some researchers that U.S. influence and IMF conditionality should influence the decision to liberalize, no empirical studies have yet been able to uncover this finding. By examining a wider range of sources of leverage available to U.S. policymakers as well as factors influencing IMF financing arrangements, I seek to put this view to a more systematic test.

### *Methods*

Since the data used to test these hypotheses is time-series cross-sectional data, one must deal with the issues of heteroskedasticity and temporal dependence in the error term (Baltagi 1995; Hsiao 2003). To deal with these issues, I estimate models that use robust standard errors clustered over countries. This type of standard error is robust to heteroskedasticity and temporal dependence (Rogers 1993; Williams 2000). A lagged dependent variable is also included to deal with the temporal dependence.<sup>30</sup>

Testing for the influence of U.S. leverage and IMF financing arrangements on capital account policy is somewhat challenging. The issue is that participation in IMF financing arrangements is not random.<sup>31</sup> Policymakers contemplate the costs and benefits of participating in such financing arrangements and accepting the conditions mandated by the IMF. If governments enter into financing arrangements according to some systematic pattern then conditions of countries that participate in such arrangements are different from those that do not. The result is that selection into arrangements is not random and any parameters from statistical analysis will be biased without taking this process into account.

This paper uses methods developed by researchers to take into account this selection process (Baum *et al.* 2002; Hayashi 2000:206-213, 226-227; Greene 2003:787-789). As discussed below, two measures of the influence of IMF financing arrangements are utilized—one dichotomous, one continuous. These two different types of measures require different estimation procedures. For the dichotomous measure, I use a treatment effects model using full maximum-likelihood. The treatment effects model examines the effect of a variable influenced by selection processes (IMF financing arrangements) on the dependent variable (capital account openness), conditional on two sets of

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29 The countries in the sample include: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Egypt, El Salvador, Ghana, Guatemala, Haiti, Honduras, India, Indonesia, Israel, Jordan, Republic of Korea, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Sri Lanka, Thailand, Tunisia, Turkey, Uruguay, Venezuela.

30 There are also substantive reasons to include a lagged dependent variable. Public policies are often path-dependent and show inertia (Gilpin 2000:39-40). For evidence on inertia in capital account policy decisions, see Li and Smith (2002a, 2003) and Chwieroth (2003b).

31 This problem is well-documented in the literature on IMF financing arrangements. For recent discussions, see Vreeland (2003:chpt3) and Stone (2003:chpt3).

regressors. Two equations are thus estimated. One equation examines the variables influencing selection into IMF financing arrangements. Another equation assesses the effect of IMF financing arrangements on capital account policy, taking into account the variables influencing selection and regressors effecting capital account policy.

For the continuous measures of the influence of IMF financing arrangements, I use two different estimators to ensure robustness: the instrumental variable two-stage least squares (2SLS) and two-step efficient generalized method of moments (GMM) estimators. These estimators use a first-stage equation to create instruments to account for the selection process. These instruments are then included in the second-stage equation with other regressors to account for the policy outcome. The GMM estimator is robust to the presence of heteroskedasticity of unknown form and together with standard errors clustered over countries, is robust to within country serial correlation over time (Wooldridge 2002:193). The GMM estimator is more efficient than the instrumental 2SLS estimator.<sup>32</sup>

### *Data*

In this subsection I describe the data and the manner in which the dependent and independent variables are operationalized. All data are lagged two years except the variables measuring IMF influence and the lagged dependent variable.<sup>33</sup>

#### *Dependent variable*

*Capital account openness.* Measures of the dependent variable, capital account openness, can be divided into two broad categories: outcome-based measures and rule-based measures. The former measures openness in a manner similar to trade openness (IMF 2001c). This indicator measures openness as portfolio and direct investment assets and liabilities as a proportion of GDP (Lane and Milesi-Ferretti 1999). Though this indicator is certain to capture openness at any given point, yearly changes are also likely to reflect factors other than changes in openness (e.g. equity market booms/busts). Outcome-based measures of openness are thus not employed in this research.

Turning to rule-based measures, researchers are offered six alternatives. Four of these alternatives (Quinn and Inclan 1997, Gastanaga *et al.* 1998; Brune *et al.* 2001; Nitithanprapas *et al.* 2002) present graded measures of openness, indicating the intensity of capital controls. Despite the appeal of these measures, restrictions their authors impose (Quinn and Inclan 1997; Brune *et al.* 2001) and the limited time frame another offers (Nitithanprapas *et al.* 2002) do not allow for their use. Edison and Warnock (2001) offer a publicly available alternative, measuring the proportion of equities available to foreigners. This measure, however, has a limited time frame (1989-1999) and fails to capture all of the important aspects of the capital account. A fifth option that a number of researchers adopt (Epstein and Schor 1992; Alesina *et al.* 1994; Leblang 1997; Milesi-Ferretti 1998; Simmons and Elkins 2003) relies on a 0/1 dummy variable produced by the IMF indicating whether the capital account is open. Though this measure is publicly available, it fails to indicate the intensity of capital controls.

Given these problems, this paper relies on the data Gastanaga *et al.* (1998) provide. Gastanaga *et al.* offer data on the degree of capital account openness by coding various issues of the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)*. The measure covers five

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32 All three models were estimated in STATA7 with commands TREATREG and IVREG2, with robust, cluster (country) option.

33 It often takes up to two years for policy to be implemented in response to changes in economic conditions (Brune and Guisinger 2003:26). However, the IMF's influence on policy change should be more immediate. If policymakers fear being cut off from future IMF lending due to non-compliance, then policy change should be implemented rapidly. The IMF staff conduct quarterly reviews on policy to ensure compliance with conditionality. Similarly, if compliance with conditions and liberalization is an efficient policy because of potential 'catalytic effects' (or it is perceived to be so), then one would expect policymakers to move quickly to capture these (perceived) benefits.

separate dimensions of the capital account: inward foreign direct investment (FDI), outward FDI, inward portfolio flows, outward portfolio flows, and financial intermediation. Restrictions on each of these dimensions are coded on a scale ranging from zero to two, where the former indicates complete closure and the latter complete openness. Scores on each of these dimensions are then aggregated to produce an index ranging from zero to ten, with higher values indicating greater openness.

### *Independent variables*

I employ several variables to test for the effect of U.S. leverage over a given country on capital account policy decisions. These variables measure the degree to which a country is sensitive to U.S. influence along the three relationships discussed earlier: security, trade, and finance. The greater the extent to which a government is sensitive to U.S. security, trade, or financial policy, the more leverage the U.S. should have over that country's policies. Given U.S. preferences for capital account liberalization, this leverage should translate into greater capital account openness.

Sensitivity to U.S. leverage is a function of the relative importance of security, trade, and finance to a country and the relative importance of the U.S. in each of these areas. For example, a country that is relatively less dependent on trade will be less sensitive to U.S. pressures to liberalize even if the U.S. accounts for a large proportion of that country's trade. Similarly, a country with a relatively lower level of military expenditure is less likely to be sensitive to U.S. pressure even if U.S. military aid accounts for a large proportion of that country's military expenditures. Therefore, each measure of U.S. leverage in a given area over a country also includes a component indicating the relative importance of that area to policymakers in that country.

In terms of security relationships, governments are likely to be sensitive to the demands of U.S. policymakers when they spend a relatively higher amount on military expenditures and when they depend on U.S. military aid to finance these expenditures. I use a given country's military expenditures as a proportion of GDP multiplied by U.S. military aid as a proportion of given country's military expenditures to capture this security sensitivity.<sup>34</sup> The military aid data cover the International Military Education Training (IMET) Programs and Deliveries and the Foreign Military Financing Program. These data are from the Federation of American Scientists Arms Sales Monitoring Project and the World Bank's *World Development Indicators* CD-ROM. I expect this coefficient to be positive.

For trade relationships, governments are likely sensitive to the demands of U.S. policymakers when they are dependent on trade and on U.S. imports for sources of supply and U.S. markets to export. To assess the influence of trade dependence on the U.S., I include a measure of a given country's total trade as a proportion of GDP multiplied by trade with the U.S. as a proportion of total trade. These data are from the IMF's *Direction of Trade* CD-ROM. I expect the coefficients to be positive.

Governments are also likely sensitive to the demands of U.S. policymakers when they are dependent on the U.S. as a source of aid, investment, or credit. To test for the influence of sensitivity to U.S. aid flows I include total economic aid as proportion of GDP multiplied by U.S. economic aid as a proportion of total economic aid. These data include Total Gross Official Development Assistance (ODA) and Official Assistance (OA) and are from the OECD's *Statistical Compendium* CD-ROM. I expect this coefficient to be positive.

A given country's sensitivity to U.S. investment flows is measured by total inward foreign direct investment (FDI) as a proportion of GDP multiplied by U.S. FDI as a proportion of total inward FDI.<sup>35</sup> I measure a given country's sensitivity to U.S. credit flows as total commercial bank lending as a proportion of GDP multiplied by U.S. commercial bank lending as a proportion of total commercial

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34 Tests using number of U.S. military personnel stationed in a given country produced insignificant results.

35 Data on U.S. foreign direct investment is available from Strom Thacker's website, see <http://www.bu.edu/sthacker/data.html>. Thanks to Geoffrey Garrett for sharing the total foreign direct investment data.



bank lending. These data are provided by the Bank for International Settlements.<sup>36</sup> Both coefficients are expected to be positive.

Finally, I also include two alternative measures of the influence of IMF financing arrangements. One variable is dichotomous, coded 1 if a country is in an IMF financing arrangement and 0 otherwise. These data are from Vreeland (2003). Another variable comprises outstanding obligations to the IMF as a proportion of GDP. These data are from the World Bank's *World Development Indicators* CD-ROM. Positive coefficients are expected for both measures.

### *Control variables*

A standard set of control variables is employed from the literature on capital account liberalization.

*Technological determinism.* Some scholars suggest that capital account liberalization is more likely as international financial integration increases (Bryant 1987; Goodman and Pauly 1993; Andrews 1994; Garrett 2000; Baines 2002). In this view, which may be labelled the *technological determinist approach*, as financial markets become more integrated, it becomes increasingly difficult for any individual government to maintain effective capital controls. These systemic pressures constrain decision-makers toward policies that reduce or remove capital controls. Since data on the total size of international capital markets are not available, Leblang (1997) relies on the yearly totals in international borrowing by all countries in the form of international bonds and loans measured in \$US billion. A similar strategy is followed here. The data are from the OECD's (1996) *International Capital Market Statistics* and supplemented by the OECD's (various years) *Financial Statistics Monthly—Part 1 Section 1: International Markets*. The expectation derived from this approach is that increasing levels of international financial integration should be positively associated with liberalization.

*Economic pluralist approach.* Another group of scholars claims that capital account liberalization is the result of competition among economic interests (Frieden 1991; Sobel 1994; Haggard and Maxfield 1996). This approach, which may be labelled the *economic pluralist approach*, highlights a number of variables for analysis and is thus operationalized by four different variables. Following convention, trade (exports plus imports) as a proportion of GDP measures the extent to which a particular society demands more open policies. The coefficient for this variable is expected to be positive. These data are from the World Bank's *World Development Indicators* CD-ROM.

*Domestic institutionalist approach.* Another approach, which may be labeled the *domestic institutionalist approach*, focuses on how institutions block, refract, and mitigate the effects of the demands of interest groups (Pauly 1988; Alesina *et al.* 1994; Henning 1994; Verdier 1998, 2003; Kastner and Rector 2003). A number of these studies include a measure of democracy in their analysis, but with mixed results (Milesi-Ferretti 1998; Simmons and Elkins 2003; Quinn 2000; Brune *et al.* 2001; Brune and Guisinger 2003; Quinn and Toyoda 2002; Li and Smith 2003; Li 2003).<sup>37</sup> Quinn (2000) suggests democracies liberalize because of the growth and volatility benefits that capital account liberalization produces.<sup>38</sup> On the other hand, Brune *et al.* (2001) contend that democracy and democratization lead to capital account liberalization because democracy gives more clout to groups that benefit from liberalization. Brune *et al.* (2001:22) also argue that in the developing world 'democratization has often carried with it considerable neo-liberal ideological fervor' with the obvious consequences for liberalization. By contrast, Li and Smith (2003) emphasize the policy autonomy advantage that consolidated democracies have over transitional democracies. They claim that governments in

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36 See [http://www.bis.org/pub/hcsv0304/hanx9c\\_us.csv](http://www.bis.org/pub/hcsv0304/hanx9c_us.csv).

37 While Quinn (2000), Quinn and Toyoda (2002), Brune *et al.* (2001), and Brune and Guisinger (2003) find positive and significant effects for democracy, Milesi-Ferretti (1998), Simmons and Elkins (2003), and Li (2003) find none. Li and Smith (2003) report a negative and significant effect for democracy.

38 For some contrary evidence, see the survey by Eichengreen (2002), Edison *et al.* (2002); and Prawad *et al.* (2003).

consolidated democracies are more insulated from societal pressures than transitional ones and thus are able to implement their preference for controls. For the purposes of this analysis, democracy is measured by a dichotomous measure, coded 1 if a country is a democracy and 0 otherwise. These data are provided by Przeworski *et al.* (2000). A positive or negative coefficient is expected for the democracy variable.

*Economic control variables.* Three economic control variables that are widely featured in the literature on capital account liberalization are also included. Supportive of the logic of the Mundell-Fleming approach, several researchers find that countries with fixed exchange rate regimes are more likely to impose controls (Alesina *et al.* 1994; Leblang 1997; Milesi-Ferretti 1998; Brune *et al.* 2001; Brune and Guisinger 2003; Li 2003; Li and Smith 2002a, 2003). Assuming governments prefer monetary policy autonomy, then countries with fixed exchange rates must surrender capital mobility by imposing controls. A dummy variable following Leblang (1999) was constructed from the IMF's *AREAER*, where fixed exchange rate regimes are coded as one and other regimes as zero, and included in the analysis.

Perhaps one of the more robust findings in the literature on capital account liberalization is the positive association between liberalization and per capita income (Leblang 1997; Milesi-Ferretti 1998; Brune *et al.* 2001; Li 2003; Simmons and Elkins 2003). This finding has been interpreted in a number of ways from the degree of integration of the trade and financial sector in the world economy (Leblang 1997) to the efficacy of the tax system (Milesi-Ferretti 1998) to the sophistication of a state's financial markets (Milesi-Ferretti 1998; Brune *et al.* 2001). Per capita income, measured in \$US hundreds, is thus included in the analysis and a positive coefficient is expected.

Finally, countries with low domestic savings rates may need to open their capital accounts to attract investment (Brune *et al.* 2001). Alternatively, a country with low domestic savings rates may rely on capital controls—outflows in particular—as part of a development strategy to channel domestic savings into domestic investment (Eichengreen 2001). Gross domestic savings as a proportion of GDP is thus included in the analysis to control for these possibilities. Data for per capita income and gross domestic savings are from the World Bank's *World Development Indicators* CD-ROM.

### ***Selection Variables***

A test of the view that U.S. policymakers shaped capital account policy decisions in emerging markets via their influence within the IMF should assess whether U.S. policymakers actually influence IMF lending decisions. However, existing tests of this view have failed to do so, either neglecting to model the selection process entirely (Brune *et al.* 2001; Brune and Guisinger 2003) or focusing solely on the economic conditions influencing lending decisions (Li 2003). There is growing quantitative evidence demonstrating that U.S. policymakers do influence IMF lending decisions (Thacker 1999; Stone 2003; Oatley and Yackee 2000, 2002; Barro and Lee 2002; Broz and Hawes 2003). Therefore, an adequate test of the view stressing U.S. influence should include indicators measuring U.S. influence on IMF lending decisions in the selection equation. To provide support for this view, the evidence should indicate that indicators measuring U.S. influence do affect IMF lending decisions. I therefore include such measures.

Several researchers (Oatley and Yackee 2000, 2002; Broz and Hawes 2003) show that the degree of U.S. commercial bank exposure to a given country influences the likelihood of IMF lending. These researchers argue that U.S. commercial banks lobby U.S. policymakers to lend to countries who risk defaulting on their loans. Data for U.S. commercial bank exposure in a given country is measured by the foreign loans by U.S. banks to a given country as a proportion of the total amount lent by those banks to all foreign countries for that year. The data are provided by the Bank for International Settlements.<sup>39</sup> A positive coefficient is expected.

Other researchers show that U.S. foreign policy interests influence IMF lending decisions (Thacker 1999; Barro and Lee 2002; Stone 2003). In this view, U.S. policymakers are said to use their influence

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39 See [http://www.bis.org/pub/hcsv0304/hanx9c\\_us.csv](http://www.bis.org/pub/hcsv0304/hanx9c_us.csv).

within the IMF to promote lending to its allies. I use two indicators to test for the influence of U.S. foreign policy interests. One indicator, measured in \$US millions, is total U.S. economic aid to a particular country. These data are from the OECD's *Statistical Compendium* CD-ROM. Another indicator, also measured in \$U.S. millions, is total U.S. military aid to a particular country. The data are from the Federation of American Scientists Arms Sales Monitoring Project. Positive coefficients are expected for both variables.<sup>40</sup>

A standard set of variables is also included from the literature on IMF programs to model the selection process. In general, IMF lending appears to be associated with macroeconomic characteristics of countries facing external imbalances and thus falling under the IMF's mandate for lending (Bird 1996). I thus include measures indicating the level of foreign reserves in terms of monthly imports and the current account balance as a proportion of GDP. These data are from the World Bank's *World Development Indicators* CD-ROM. Negative coefficients are expected for both variables.

Vreeland (2003) shows that a number of other economic variables shape IMF lending decisions. He argues that some governments enter IMF financing arrangements to have fiscal discipline imposed upon them. Countries that have relatively large fiscal deficits are thus expected to more likely to enter IMF financing arrangements. He also argues that 'rejection costs' for the government—the economic cost imposed by creditors and investors to policymakers for rejecting an IMF financing arrangements—are influential. In this view, governments that are sensitive to the decisions of creditors and investors will face higher 'rejection costs'. Governments are sensitive to creditors when debt service is high and sensitive to investors when real investment is low. Data on budget balance as a proportion of GDP and debt service as a proportion of GDP are from the World Bank's *World Development Indicators* CD-ROM. Data on real investment as a proportion of GDP are from the Penn World Tables 5.6. Negative coefficients are expected for the budget balance and the real investment variables. A positive coefficient is expected for the debt service variable.

Vreeland also demonstrates that 'sovereignty costs' for the government—the domestic political cost to policymakers for accepting IMF conditions on policy—influence IMF lending decisions. He suggests that such costs are reduced when a country has an extensive history of IMF financing arrangements and when many other countries are under IMF arrangements. I thus include measures of both variables. The former is measured by the cumulative number of years a given country has been under an IMF financing arrangement and the latter by the total number of countries in a given year under an IMF financing arrangement.<sup>41</sup> The total number of countries in a given year under an IMF financing arrangement may also reflect bureaucratic incentives for budget-maximization (Vaubel 1991). Positive coefficients are expected for both variables.

## Empirical Results and Discussion

Table 1 contains the results from the selection equation for the treatment effects model using full maximum-likelihood. These results are critical for assessing whether U.S. policymakers influence IMF lending decisions.<sup>42</sup>

The results from Table 1 provide strong evidence to support this proposition. Governments that receive higher levels of U.S. economic aid are found to be more likely to receive IMF financing arrangements. If governments that receive higher levels of U.S. economic aid can be viewed as political significant countries to U.S. policymakers (Stone 2003), then one can interpret this result to suggest that U.S. policymakers

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40 Other researchers (Thacker 1999; Barro and Lee 2002) rely on United Nations General Assembly voting patterns to indicate U.S. allies. Tests using such a measure produced insignificant results for the variable.

41 Thanks to James Vreeland for sharing these data.

42 Since the 2SLS and GMM estimators use all the exogenous regressors in the selection and outcome equations to generate instruments to control for non-random selection, the results from these models are not relevant to test this proposition.

push the IMF to lend such countries. This finding is also consistent with those researchers who suggest that U.S. foreign policy interests, in part, drive IMF lending (Thacker 1999; Barro and Lee 2002).

**Table 1. Covariates of IMF Financing Arrangements in Emerging Markets, 1983-1995**

U.S. Commercial Bank Exposure	2.842 (1.894)
U.S. Economic Aid	<b>.0125***</b> <b>(.0046)</b>
U.S. Military Aid	-.0005 (.0007)
Foreign Reserves / Imports	<b>-.1840***</b> <b>(.0438)</b>
Current Account Balance / GDP	<b>-.0922***</b> <b>(.0307)</b>
Budget Balance / GDP	.0389 (.0338)
Real Domestic Investment /GDP	<b>-.1568***</b> <b>(.0345)</b>
Number Under	.0168 (.0115)
Years Under	-.0271 (.0169)
Constant	<b>3.331***</b> <b>1.293</b>
Observations	220

Robust standard errors in parentheses.

Two-tailed Test: \*Significant at .10, \*\*Significant at .05, \*\*\* Significant at .01.

Countries facing external imbalances, and thus falling under the IMF's mandate for lending, also are more likely to receive financing arrangements. Countries with lower levels of reserves and higher current account deficits are found to be more likely to receive financing arrangements. Level of real investment—a possible indicator of a country's sensitivity to investors (Vreeland 2003)—is also found to be positively associated with IMF lending. The remaining variables are insignificant.

Taken together, these results provide suggestive evidence that U.S. policymakers influence IMF lending decisions. In particular, U.S. policymakers seem to push the IMF to lend to favor countries deemed politically significant. Recent evidence also suggests that U.S. policymakers do influence the terms of conditionality given to member states (Dreher and Jensen 2003). If U.S. policymakers can influence IMF lending decisions and shape the form of conditionality, then it suggests that IMF conditionality could be used as a source of leverage to push for capital account liberalization. I now turn to the evidence evaluating this hypothesis as well as the others.

Table 2 contains the results from the three models described earlier. Column one contains the results from the treatment effects model using full maximum-likelihood. The second column reports the results from the instrumental variable 2SLS estimator. The third column presents the results from the two-step efficient GMM estimator. Diagnostic tests performed on these models provide confidence in the statistical result. For the treatment effects model, a Wald test rejects the null hypothesis that the selection process into IMF financing arrangements is not correlated with decisions about capital account policy.<sup>43</sup> Hansen-Sargan tests for the 2SLS and GMM estimators fail to reject the null hypothesis that the instruments controlling for selection should be included for the model.<sup>44</sup> In general, the results from the models are quite similar.

Turning first to the hypothesis emphasizing security relationships with the U.S, the evidence from all three models provides strong support for this proposition. In all models the coefficient is signed as expected and significant. The results in all three columns suggest that higher levels of security sensitivity with the U.S. increase the degree of leverage available to U.S. policymakers to promote capital account liberalization. A one unit increase in a country's sensitivity to U.S. military aid increases capital account openness by over one point on Gastanaga et al's ten-point index in the treatment effects model and almost two points in the 2SLS and GMM models. To put it differently, the impact of such an increase is to decrease the intensity of a country's capital controls by amount ranging from 12 to 19 percent.

Sensitivity to U.S. trade policy also seems to be a source of leverage for the U.S. to promote capital account liberalization. Both the 2SLS and GMM models indicate that higher levels of trade sensitivity with the U.S. increase the likelihood of liberalization. This evidence is consistent with the case study evidence highlighting the use of trade negotiations by U.S. policymakers to promote capital account liberalization in emerging markets (Haggard and Maxfield 1996:59; Lukauskas and Minushkin 2000: 710, 713).

In terms of financial relationships with the U.S., the results indicate sensitivity to U.S. credit and investment flows do not seem to provide U.S. policymakers with leverage over capital account policy decisions. Contradicting expectations, sensitivity to U.S. economic aid is found to decrease the likelihood of liberalization. However, these findings are consistent with a growing case study literature indicating foreign aid cannot be utilized as a tool to pressure for policy reforms (Berg 1990:9; Nelson and England 1993:94; Gordon 1992:37; Killick 1998).

As for the influence of IMF lending, the results point in two directions. On the one hand, the dichotomous variable of IMF influence—indicating whether a country has an active financing arrangement—is positively and significantly related to capital account liberalization. On the other hand, while positively related to liberalization, the continuous measures of IMF influence—measuring the level of outstanding obligations to the IMF—are insignificant. These results suggest that the influence of IMF financing arrangements is not a function of the size of the loan and its relative importance for a country. Rather, it suggests that IMF influence on capital account policy is a function simply whether a country is actively under an arrangement.

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43 The result is  $\chi^2(1) = 5.30$ ,  $p < .05$ .

44 The results are  $\chi^2(9) = 10.33$ ,  $p = .3244$  for both models.

**Table 2. Covariates of Capital Account Liberalization in Emerging Markets, 1983-1995**

	Treatment Effects	2SLS	GMM
U.S. Military Aid Sensitivity	<b>1.177*</b> (.6259)	<b>1.877*</b> (1.095)	<b>1.905**</b> (.8765)
U.S. Trade Sensitivity	.0214 (.0176)	<b>.0321**</b> (.0149)	<b>.0317***</b> (.0115)
U.S. Economic Aid Sensitivity	<b>-.0007*</b> (.0004)	<b>-.0007*</b> (.0004)	<b>-.0007**</b> (.0003)
U.S. FDI Sensitivity	.0026 (.0064)	.0066 (.0057)	.0066 (.0044)
U.S. Commercial Bank Loan Sensitivity	-.9295 (1.878)	-.8605 (2.077)	-.3409 (1.261)
IMF Financing Arrangement	<b>1.252***</b> (.4579)		
IMF Obligations / GDP		6.935 (12.433)	6.916 (9.027)
Total Global International Borrowing	<b>.0013*</b> (.0007)	<b>.0013*</b> (.0007)	<b>.0011*</b> (.0006)
Trade / GDP	.0055 (.0034)	.0014 (.0031)	.0012 (.0024)
GDP Per Capita	<b>-.0116*</b> (.0064)	-.0089 (.0067)	-.0052 (.0047)
Democracy	.2224 (.1860)	.1999 (.1928)	.2853 (.1700)
Fixed Exchange Rate	.3249 (.2585)	.1700 (.2287)	.0556 (.1830)
Gross Domestic Savings / GDP	<b>.0496**</b> (.0199)	<b>.0335**</b> (.0170)	<b>.0293**</b> (.0143)
Capital Account Policy t-1	<b>.8505***</b> (.0385)	<b>.8584***</b> (.0318)	<b>.8812***</b> (.0271)
Observations	220	220	220

Robust standard errors in parentheses.

Two-tailed Test: \* Significant at .10, \*\* Significant at .05, \*\*\* Significant at .01.

With regard to the control variables, the findings are varied. For the technological determinism approach, the expectation is that higher levels of international financial integration increase the likelihood of a government implementing higher levels of openness. The coefficient on the international borrowing variable is signed as expected and statistically significant in all three models. This finding is consistent with Leblang's (1997) study, which uncovers similar results and provides support to those stressing the role of technological improvements (Bryant 1987; Goodman and Pauly 1993; Andrews 1994; Garrett 2000; Baines 2002).

The results provide no support to the economic pluralist or domestic institutionalist approaches. Contradicting other studies (Frieden 1991; Goodman and Pauly 1993; Sobel 1994; Haggard and Maxfield 1996; Brune *et al.* 2001; Li and Smith 2002b), higher levels of trade integration are not found to be related to capital account liberalization. Democracy is also not significantly related to liberalization.<sup>45</sup> Of the remaining controls variables only GDP per capita, gross domestic savings as a proportion of GDP, and the lagged dependent variable are significant in any of the models.

Surprisingly and contradicting earlier studies (Leblang 1997; Milesi-Ferretti 1998; Simmons and Elkins 2003; Brune *et al.* 2001; Li 2003), higher levels of wealth are shown to increase the likelihood of controls. An explanation for this finding may lie in Milesi-Ferretti's (1998) contention that wealth also serves as a proxy for the sophistication of the tax system. Countries with poor tax collection systems have an incentive to impose controls in order to tax capital and extract revenue via seigniorage. If increased wealth does not lead to a more sophisticated taxation system—Mexico, Brazil and Argentina are certainly examples of this—then one would not expect increased wealth to lead to liberalization. Supporting Eichengreen (2001), the results in all three models suggest that countries with lower levels of savings are found to be more likely to rely on capital controls. Capital account policy is also found to show inertia in all three models (Li and Smith 2002a, 2003).

## Conclusion

This paper hypothesizes that capital account decisions in emerging markets can be understood, in part, as a policy choice influenced by external actors, particularly the U.S. and the IMF. In particular, I argue that U.S. policymakers use a number of sources of leverage at their disposal to pressure policymakers in emerging markets to liberalize. To assess these arguments, I provide the first systematic test of U.S. influence on capital account policy decisions. The findings from this test largely support this argument and have important theoretical and practical implications.

On a theoretical level, the evidence presented here suggests that despite the enhanced influence of non-state actors in diffusing policies (Keck and Sikkink 1998; Finnemore 1996, Haas 1992), a focus on states as agents of policy diffusion remains fruitful. The evidence provided indicates that U.S. policymakers were able to exploit asymmetries in their security and trade relationships with emerging markets as well as their influence within the IMF to promote the diffusion of capital account liberalization. The evidence helps deepen our understanding of capital account liberalization, in particular, and policy diffusion, more generally. However, while the quantitative evidence provided speaks to the question of how policies diffuse, it is unable to generate answers to questions about why policymakers choose to adopt particular policies. Future research on the role of external actors on capital account policy decisions should use case study methods to move in this direction.<sup>46</sup> Finally, though it has been neglected somewhat in recent research, the evidence also does suggest that strategic interests and power play a key role in the international financial system (Strange 1994; Gilpin 2001; Jervis 1998).

The evidence pertaining specifically to IMF lending also has important implications. It suggests that although international institutions may possess some autonomy (Barnett and Finnemore 1999), they

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45 The results do not change when I use the POLITY IV indicator for democracy.

46 For more on this point for certain types of diffusion studies, see Orenstein (2003).

also remain to some extent instruments of national foreign policy (Mearsheimer 1994/95). On the other hand, the evidence also indicates that international institutions can modify the policy choices adopted by their member states (Keohane 1984; Martin and Simmons 1998; Simmons and Martin 2002).

On the practical side, this research provides evidence that enables policymakers to better evaluate the costs and benefits of U.S. participation in international institutions as well as the consequences of U.S. influence on these institutions. As the Bush administration's initial hostility toward the IMF and the collapse of multilateral trade talks in Cancun suggest, there are obvious costs of U.S. participation in the IMF and multilateral organizations more generally.<sup>47</sup> Some critics argue that IMF conditionality is simply ineffective and therefore wasteful (Meltzer 2000:7,8,43; Stiglitz 2002).

Evidence from this research contributes to our understanding of whether U.S. strategic interests are promoted better by participation in international institutions—such as the IMF—or through bilateral arrangements. The evidence shows that the IMF, its conditionality, and bilateral arrangements all remain key conduits for promoting U.S. interests and conditionality is not as ineffective as some claim.

However, there may be drawbacks to U.S. influence for policymakers. If U.S. interests drive IMF lending, the issue then arises as to the consequences of such influence. Poorly managed international institutions not only can be ineffective, but also destabilize the international system (Gallarotti 1991). Therefore, perhaps counterintuitively, if U.S. interests drive IMF lending, then these interests might ultimately be threatened if they lead to poor management and destabilization of the international system.

Additionally, by determining access to loans and by the policy conditions it attaches to its lending arrangements, the IMF clearly exercises some authority over states. As the protests against the IMF in several countries attest, there is much opposition to the policies promoted by the IMF.<sup>48</sup> Evidence from this research suggests that the IMF's authority is in part exercised on behalf of the U.S. Although it is unclear exactly why policymakers comply with IMF conditionality, the evidence here suggests that it does lead countries to adopt policies promoted by U.S. policymakers. The promotion of the interests of a given state by the IMF has important consequences for governing the world economy. In particular, the risk is that if these interests are then imposed upon the weak, even though they have little role in their selection, the political legitimacy of the IMF will eventually be eroded, heightening the level of backlash against the IMF and impeding policy coordination (Pauly 1997, 1999).<sup>49</sup>

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47 In June 2001, then Treasury Secretary Paul O'Neal claimed, '[T]he IMF, the World Bank and the regional development banks have spent hundreds of billions of dollars to reduce poverty and address financial crises around the globe [...] Visit some of the poorest nations in the world and you will see that we have too little to show for it' (U.S. Treasury Press Release PO-449, 27 June 2001). The current round of multilateral trade talks—labeled the Doha round and taking place under the aegis of the World Trade Organization (WTO)—broke down over differences between the U.S., the European Union, and a group of developing countries. In response, U.S. Trade Representative Robert Zoellick stated, 'For over two years, the US has pushed to open markets globally, in our hemisphere, and with sub-regions or individual countries. As WTO members ponder the future, the US will not wait: we will move towards free trade with can-do countries' (*Financial Times* 22 September 2003).

48 Examples of protests against the Fund are too numerous to list, but for recent examples, see the case of Argentina (*The Economist* 9 August 2003:29).

49 The collapse of the Doha round of WTO negotiations and stalled efforts to promote the FTAA—both partially as a result of opposition to the promotion of new rules governing investment by U.S. policymakers—suggest that this backlash might not be limited to just the IMF.



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