

Is Policy Ownership An Operational Concept?

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Abstract

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IMF lending is generally conditional on specified policies and outcomes. These conditions usually are negotiated compromises between policies initially favored by the Fund and by the country's authorities. In some cases the authorities might be satisfied enough with the outcome to take responsibility for it ("own" it) even though it was not their original preference. In other cases, they might accept the outcome only to obtain financing, in which case weak commitment might lead to poor implementation. This paper reviews the theoretical basis for the importance of ownership, summarizes what is known about its empirical effects, and suggests a strategy for strengthening it.

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I. Introduction

IMF lending to countries is generally conditional on the government and central bank carrying out specified policies and achieving specified outcomes. Some of these conditions might be prerequisites for an initial disbursement, while others will be requirements for subsequent drawings on a stand-by arrangement. In discussions of the appropriate conditions, IMF and country officials often disagree, sometimes diametrically. Economic programs supported by IMF resources usually are negotiated compromises between the policies initially favored by the Fund and those favored by the country's authorities. In some cases, having gone through this process of negotiation, the authorities might be reasonably happy with the outcome and may be said to "own" the program even though it was not their original preference. In other cases, they might be swallowing a bitter pill simply because it is the only way to get the IMF to cough up the money. This paper tackles two questions raised by the distinction between owned and imposed outcomes. Is the distinction empirically meaningful? If so, what can be done to operationalize it?

First, it is necessary to define policy ownership. Several definitions have been offered in the literature, but it is not easy to devise a definition that is empirically relevant. For a government to own a set of policies does not require that officials think up the policies by themselves, nor that the policies be independent of conditionality. What it does require is for the owner to appreciate the benefits of the policies and to accept responsibility for them.

Ownership may therefore be defined as in IMF (2001c):

Ownership is a willing assumption of responsibility for an agreed program of policies, by officials in a borrowing country who have the responsibility to formulate and carry out those policies, based on an understanding that the program is achievable and is in the country's own interest.

The first challenge in making this concept operational is that it is not directly observable. A judgment about the extent to which ownership is present is a judgment about the state of mind and degree of internal commitment on the part of the country's officials. Inferences can be drawn from behavior, but the evidence is unavoidably indirect and incomplete. If a government does not carry out a policy despite making a commitment to do so, weak ownership is only one of several possible causes. Circumstances might have changed and made a different policy preferable, key agencies may have lacked the administrative or technical capacity to implement the policy, or political conflicts may have arisen that prevented the government from acting.

A second challenge is that ownership is dynamic. The IMF lends to countries, but it negotiates with individuals in governments. Those individuals might at one stage be highly antagonistic to the idea of changing their policies, but that does not preclude the possibility that they will change their minds, nor that the lineup will change. An operational approach to ownership must include an analysis of processes of dialogue, negotiation, and signaling that could strengthen ownership over time.

A third challenge is that there are many potential owners. When a country requests financial assistance from the IMF, discussions on policy conditionality typically take place in the country between a staff mission team and a team of officials led by the finance minister. Officials from other ministries and the central bank may also be involved, and it is common for the head of government to be engaged to some extent. Nongovernmental organizations representing the interests of labor or industry or advocating policies favoring the poor, the environment, or other worthy causes under the banner of "civil society" might also participate in discussions and help draft policies. It is never the case that all of these participants will agree to a particular policy package. The critical mass of agreement at which country ownership is broad enough to be operationally meaningful may be very difficult to determine.

On a theoretical level, the relevance of policy ownership has been examined primarily in the context of agency models. If governments act on behalf of the country as a whole, it is straightforward to analyze welfare maximization as a function of preferences subject to constraints. If interests are heterogeneous and multiple parties influence the outcome, then a more complex game must be analyzed. Empirically, a key issue in the literature has been the relationship between external conditionality and domestic ownership in the ways they influence the ability or willingness of a country's authorities to carry out policy reforms. Those two aspects are taken up next.

II. OWNERSHIP AND ECONOMIC WELFARE

Lack of ownership is variously attributed to incongruities between the IMF's and member countries' objectives, to domestic divisions and heterogeneity within the recipient countries, and to lack of economic understanding by policymakers, the public, or the IMF. The key to sorting out these factors is to focus on the links between a recipient country's people, its government, and the goals being pursued by the Fund. Recent political economy models explore these links and provide useful insights into the relationships among ownership, conditionality, and welfare.

One fundamental purpose for which the IMF was created was to ameliorate the negative externalities that inappropriate national policies inflict on other countries. As stated in Article I of the Fund's charter, the purpose is to give members the "opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity." When that phrase was articulated, in 1944, the concern was that countries that were unable to finance a balance of payments deficit would be forced to contract domestic demand excessively (destructive of national prosperity) or devalue excessively, raise tariffs, or introduce exchange or trade restrictions (possibly destructive of

² Broad participation is an explicit goal in low-income countries that qualify for long-term financing on concessional terms from the Fund's Poverty Reduction and Growth Facility (PRGF).

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international prosperity). Financial assistance from the IMF would permit a more orderly adjustment. Subsequently, conditionality was introduced and refined to ensure that this orderly adjustment would occur. Even if governments of borrowing countries are perfectly maximizing the long-run welfare of the country, the broader international perspective of the Fund may result in conflict.

In addition, domestic political systems are imperfect. Governments have interests separate from those of the people at large, and information about what the people really want and what is best for them is limited.³ These imperfections open opportunities for the government to pursue its own interests and for special interest groups (SIGs) to influence the government. The political economy literature suggests two main channels through which interest groups influence the government. One is to contribute (make payments) to the government in return for desirable policy decisions. This is the usual assumption in the economics branch of the political economy literature, most notably in the work of Gene Grossman and Elhanan Helpman (1994, 2001). The other channel is for SIGs to inform the government about what impact different policies will have, the strength of support for a particular policy, etc. The political science branch of the political economy literature considers this channel to be more important than outright contributing. At any rate, interest groups play an important role in inhibiting ownership and should be accounted for in a model of the ownership/conditionality nexus.

The influence of SIGs on program ownership and implementation is well recognized in the academic literature and at the IMF. From the work of Mancur Olson (1982, 1993) we know that opposition to welfare-improving change arises endogenously in the reform process. This point is well illustrated by considering the consequences of providing infant industry protection (Dixit, 2001, p. 6). Typically the original intent behind tariffs is to provide domestic industries breathing room to become competitive in world markets and to provide the "infant governments" of countries with underdeveloped tax administrations with a convenient and effective tax vehicle. Yet, once in place tariffs often lead to the creation of ongoing lobbies favoring continued trade protection, with adverse consequences for resource allocation, economic growth, and public welfare. State enterprises and farms in transition

³ See Drazen (2000, especially Chapter 7) for an analysis of the role of conflicts of interest and heterogeneity in political economy issues in macroeconomics.

⁴ On the role of vested interests in blocking reforms, see IMF (2001c), Odling-Smee (2001), Havrylyshyn and Odling-Smee (2000), and Krueger (1974). Country ownership is discussed by Khan and Sharma (2001), IMF (2001c), and Dixit (2000).

⁵ The theory of special interest group influence in trade and structural policies is developed in Grossman and Helpman (1994, 2001) and Dixit, Grossman and Helpman (1997). Models in which lobbies resist the adoption of new technologies, resulting in depressed welfare and lower growth, are developed by Krusell and Rios-Rull (1996); Bridgman, Livshits and MacGee (2001); and Prescott and Parente (2000).

and developing countries provide another example of the power of organized lobbies to resist socially beneficial reforms. In many countries, these organizations were transformed by their managers into "rent-generating machines," diverting resources from producers or consumers for the exclusive benefit of small groups of politically connected people. Ominously, these special interests—including those controlling oil, natural resources and other wealth—sometimes turn against reforms even if they are pro-market in general, when they fear that their privileged positions and capacity to earn rents are under threat.⁶

These two dimensions of conflict, stemming from international and domestic sources of heterogeneity, require careful analysis if IMF-supported programs are to be appropriately designed. This requirement is particularly relevant when programs include major structural reforms, which inevitably have concentrated negative impacts on some sectors' interests. Recent political economy models allow us to analyze how SIGs may use their power to prevent a national consensus for reform from coalescing. This work also suggests ways for policymakers and the IMF to build ownership over time and to avoid the fragilities that sometimes characterize the process. The view of conditionality that emerges is one of a commitment device that reform-minded governments can effectively use to increase their leverage with domestic opponents and push through policies that might not otherwise be approved (Vreeland, 2000).

A. Common Agency Models

The political economy literature has recently turned to analyzing IFI lending and conditionality using as an organizing framework the theory of common agency (or multiprincipal games). The ownership implications of this framework may be illustrated by reference to two models. Allan Drazen (2001) considers government decision making in the presence of domestic veto players within government—a positive approach developed in political science to study policy making in different forms of political organization. Wolfgang Mayer and Alex Mourmouras (2002) analyze government policy choices in the presence of private SIGs using the menu auctions approach of trade theory and public finance. Both classes of models illustrate how competing domestic and international

⁶ Dalmazzo and de Blasio (2001) develop a formal model and conduct tests of the influence of firms controlling oil wealth.

⁷ The theory of veto players was developed by UCLA political scientist George Tsebelis in the mid-1990s. Tsebelis (2001a, 2001b) presents the theory and applies it to the European Union.

⁸ The basic reference on common agency theory and menu auctions is Bernheim and Whinston (1986). Grossman and Helpman (1994, 2001) and Dixit, Helpman and Grossman (1997) apply the theory to policy issues in international trade and public finance. Dixit (2001) draws implications.

considerations influence the cost-benefit calculations of policy makers in strategic (gametheoretic) settings.

The key to both approaches is that governments pursue multiple objectives, of which enhancing public welfare is only one. Narrower pursuits, such as the collection of political contributions, are also important Hence, policy choices reflect the concerns of diverse constituencies inside and outside of government. Within the public sector, the role of parliament, regional and local authorities, and other constitutional players is clearly important in implementing reforms. Outside government, the views of a multitude of domestic and international players must also be taken into consideration. Governments need to contend with active domestic SIGs representing the interests of labor and industry, as well as civil society and other domestic nongovernmental organizations. In addition, governments are influenced by bilateral donors and international agencies, including the IMF, the World Bank, the World Trade Organization, regional development banks, and the European Union.

In a political economy equilibrium, government decision-makers must strike a balance between these competing influences. The outcome can be described as the equilibrium of a noncooperative game⁹ involving the authorities, the IMF (or, more generally, an IFI), and the veto players or private SIGs. While the objectives of the IMF may diverge from those of its borrowers by being more long-run and international in scope, this does not lead to negative consequences for the country or the international community. Appropriately designed, conditionality can overcome domestic divisions and be effective despite less than full national ownership and the differences between IMF and country objectives.

In order for conditionality to be effective, it must be consistent with—indeed, be part of—the recipient country's domestic political economy equilibrium. This equilibrium is determined by the strategic interactions between the government and various collective or individual stakeholders in the public sector whose consent is needed for reforms to be implemented. The number and identity of these key players depends on the form of a country's constitution and political organization. In presidential systems, the legislature (one or two chambers) and the independently elected chief executive are veto players. In parliamentary systems, where the executive is selected by the parliament, veto players are the parliamentary parties (or their coalitions) whose agreement is required for policy changes to be implemented. In addition to these institutional and partisan veto players, other potential veto players are the courts or specific individuals, such as army officials.

⁹ As modeled, the game is technically noncooperative, but in practice the process of interaction is cooperative through repeated plays of the game.

¹⁰ In presidential systems the congress is the agenda setter since it makes take-it-or-leave it offers to the president. The president can accept that offer or veto the bill, in which case some qualified majority can overrule the veto.

The power and influence of veto players are shaped by the constitutional and institutional rules governing their interactions with the executive, including the procedures determining the interaction of the presidency and the legislature, the sequencing of moves, agenda control, and the rules of voting and vetoing in the legislature and the presidency. Awareness of these rules and procedures helps the IMF and other IFIs ensure that assistance programs will succeed. Moreover, in general, policy stability increases, and reforms that change the status quo are harder to achieve, the larger is the number of veto players in a political system and the greater is the ideological distance among veto players (Tsebelis, 2001a and 2001b). Hence, in determining the nature, sequencing, and timing of reforms, IMF-supported programs may need to take into account these and other details of political economy, including, for example, whether the president has line item veto power, absolute and qualified (super) majority rules, abstentions, filibusters, and the like.

Outside the government, the support or acquiescence of key private actors in recipient countries may also be important for the success of reforms. This is illustrated in the political contributions framework which, in contrast to veto player theory, abstracts from government heterogeneity and views the executive as a unitary actor subject to influence by private SIGs. Mayer and Mourmouras apply the political contribution framework to the relations between IFIs and their member governments. 11 The analytics of the model and the main results are presented in the Annex. In the basic solution of this model in which the IFI is not involved, the recipient country government is concerned with the impact of its choice of economic policy distortions on national welfare and political contributions, ignoring the externalities that its choices generate for the rest of the world. The policymaker's choice of economic policy distortions maximizes its objective function, which differs from national welfare by an amount equivalent to the political contributions it receives from an organized domestic interest group. In the domestic political equilibrium the government balances its marginal benefit from political contributions against the marginal damage to national welfare caused by higher distortions. The more vested interests benefit from distortions, or the less representative the government is, the higher will be the equilibrium level of policy distortions, which may generate large distortions to its neighbor's welfare or even the welfare of the international community as a whole if the country is systemically important.

The involvement of the IMF may improve the quality of policies when recipient governments are constrained by the influence of private SIGs. Mayer and Mourmouras derive a role for IFI involvement under specific (and plausible) assumptions about the sources of conflict of interest between the borrowing government and the IFI. At the root of the international dimension of conflict of interest is the assumption that the IFI is a public interest institution while, as discussed above, the recipient country government cares about domestic welfare but is also subject to influence by SIGs. Specifically, the Mayer-Mourmouras view of the IMF as

¹¹ Also, Lahiri and Raimondos-Møller (2000, 2001) have recently used the political contributions framework to study the interactions between donors and recipients in the presence of lobbies in the donor and recipient country.

a costless institution that maximizes a weighted sum of creditor and borrower country welfare is consistent with Thomas Willett's (2000) "soft core" public choice approach to modeling the IMF. Under this assumption, IMF conditionality is justified by cross-border externalities associated with wrong national policies. The influence of domestic SIGs on the policy choices of the recipient government is a second reason for IFI involvement. Even if a borrowing country is so small that its choices result in negligible cross-border externalities, IMF assistance and conditionality act as a countervailing force against the pernicious influence of domestic SIGs, enabling the government to select policies characterized by fewer distortions.¹²

The nature of conditionality attached to the Fund's financial assistance affects the degree of ownership in important ways. First, consider hypothetical loans (or grants) provided without a quid pro quo on adoption of different policies. Unconditional assistance is the least intrusive form of involvement by an international institution in the affairs of a sovereign nation and therefore maximizes government ownership of actual policies. It also improves welfare relative to the level attainable without assistance. But even if financing were provided without strings, it would alter the government's incentives. Because distortions normally reduce the effectiveness of aid, more aid raises the marginal damage of distortions on social welfare, resulting in improved choice of policies. If the Fund were to take into account the government's policy reaction function, it would choose an amount of assistance that puts the world economy on the highest welfare contour attainable given that assistance is provided unconditionally.

Unconditional lending, however, does not exhaust the gains from trade in the relationship between the Fund and the recipient government. More formally, the Mayer-Mourmouras model shows that unconditional aid does not maximize the joint welfare of the IFI and the recipient government; conditional lending improves policy outcomes relative to unconditional lending. But whereas this improvement results in more effective use of IFI resources, it is achieved at a price. As explained in the Annex, with conditional aid, the IFI is injected more deeply in the affairs of the recipient country since it must now make the magnitude of its assistance contingent on the government's choice of economic policies. In the language of game theory, the IFI becomes a second principal in a common agency problem in which the two principals—the IFI and the domestic interest group—jointly attempt to influence the government's choice of economic policies. In equilibrium, in addition to the domestic tangency condition discussed above, the marginal rates of substitution between disbursements and distortions must be the same for the IFI and the government. The international tangency condition demonstrates that the conditional assistance equilibrium is Pareto efficient while the equilibrium with unconditional assistance is not. But whereas the IFI and the world as a whole are better off providing assistance

¹² The model could be solved under other combinations of assumptions. For example, "hard core" public choice analyses sometimes view IFIs as budget maximizers (see Vaubel, 1996), or as subject to influence by financial or other SIGs in industrial countries.

conditionally, the government is better off with unconditional assistance. (The marginal effect of conditionality on the country's aggregate welfare is ambiguous in this model.)

B. State Capture

A key issue facing multilateral and bilateral official creditors is when to cut off sovereign lending in cases of pervasive government failures. In the political contributions model, state capture is usually assumed to be partial, in which case IFIs may continue working with recipient governments in spite of the presence of active interest groups opposing reforms. Continued IFI engagement is warranted as it results in improved welfare for the world economy. This result does not hold when government failure is complete and results in misappropriation of foreign assistance funds.

A good example of this approach is the model presented by Christopher Adam and Stephen O'Connell (1999), which assumes that the government is wholly dominated by a SIG that uses the state's coercive powers to redistribute resources to its members. 13 Donors allocate exogenous amounts of budgetary resources to domestic public spending and foreign aid so as to maximize a weighted sum of domestic and recipient country general welfare. The difference in objective functions between the unrepresentative government and the donor creates a conflict of interest. This resource allocation problem can be stated in terms of a set of indifference curves that describe the tradeoffs to the donor of different values of the aggregate tax rate and transfers to the favorite group (Adam and O'Connell, p. 23). The government imposes proportional taxes and spends on essential goods and services. It also may make lump-sum transfers to its favored group, but not if the group is a very large portion of the population. The government's indirect utility function depends on the tax rate and the aggregate transfer to the favored group. It sets these two parameters to maximize the welfare of the favorite group. But because it takes into account the reaction of the public to high tax rates, the tax rate is not confiscatory—a result reminiscent of the political economy equilibrium of the Meltzer-Richard (1981) model of taxation and redistribution. If the size of the favored group is above a threshold size, then the deadweight loss from raising taxes to effect transfers is too high to make the process worthwhile. In other words, a government need not be fully representative for explicit transfers to favored groups to be eliminated in equilibrium.

When the state is fully captured by special interests, aid resources intermediated through the government do not get channeled to tax reduction or other public welfare-improving uses. In these cases, unconditional aid would collapse. This can be seen by referring again to the

¹³ This assumption is also made by Boone (1996) and McGuire and Olson (1996). In practice, higher transfers to favorite groups may be manifested in inefficient and irrational composition of government expenditure, including favoritism in state employment, and inefficient and inequitable patterns of spending on government-provided services across regions.

Adam-O'Connell model. Although unconditional aid lowers the net public spending requirement, it is "wasted" in additional transfers to the favored group when the government is sufficiently unrepresentative. If the donor, which knows the type of the recipient country government, correctly anticipates this outcome and values alternative (domestic) uses of the aid resources sufficiently, it will provide no aid whatsoever. To avoid the collapse of aid, the government needs to be sufficiently representative: in this case, a small amount of aid will reduce the tax rate without initiating transfers.

A practical implication of the political-contributions approach is that the limitations of unconditional aid to unrepresentative governments can be alleviated through conditionality aimed at reducing distortions. Similarly to the models discussed above, the gains from external assistance can be represented by a contract curve representing the locus of tangencies of the indifference curves of the donor and the recipient—that is, the combinations of transfers to the favored group and the aggregate tax rate in the aid recipient country that leave each player on the same level of welfare. For given donor and recipient objective functions, the location of the equilibrium point on the contract curve after conditional aid allocations depends on the nature of the strategic interaction, whether it wastes resources, the relative bargaining powers or threat points of the two parties, etc. Conditionality prevents a collapse of aid when recipient governments are not sufficiently representative, reduces the distortionary tax rate, and achieves constrained Pareto-optimal allocations. If the donor has substantial bargaining power, aid is also accompanied by a reduction in the transfers to favored groups. In the opposite case, transfers to the favored group may actually increase.

Time inconsistency problems provide conditionality with an additional and quite important role. In practice, governments are unable to commit ex ante not to tax capital income. Since a capital levy on investment income involves a zero excess burden ex post, even a representative government will face incentives to tax the results of productive investment at prohibitive rates once investment is in place. Anticipating this, the private sector will invest even less in the productive technology than in the "commitment" equilibrium analyzed so far. Conditionality helps by making aid contingent on the adoption and maintenance of nonextortionary taxation policies that mimic the precommitment outcome.

A final aspect of intertemporal noncooperative games to consider is the possibility of spontaneous or induced evolution of cooperation between self-interested players. Unlike the two-period model analyzed by Adam and O'Connell, Avinash Dixit (2001) analyzes a model of indefinitely repeated interactions in a country with a divided polity. Two self-interested groups alternate in power according to an exogenous Markov transition probability matrix. The group controlling the government has the power to decide on the allocation of national resources. It could decide to use its capture of the state to grab as much for itself, or it could adopt a more cooperative stance and share resources with the other group. Because of the repeated nature of this interaction, groups have incentives to cooperate that do not exist in the one-shot game. Such self-enforcing inter-group cooperation is more likely the greater is each group's patience (i.e., the lower is each group's subjective rate of time preference) and the greater is each group's risk aversion. Cooperation is more likely the greater is the likelihood

of switch in power by either party. While some persistence in power is consistent with the emergence of spontaneous cooperation, such an outcome is made impossible if one or both groups have a highly persistent lock on power. Although Dixit does not discuss the implications of his model for foreign aid, an obvious inference is that conditional assistance has the capacity to strengthen the parties' incentives to cooperate.

C. Adaptation or Confrontation?

The models sketched out above all imply that the effectiveness of financial assistance from the IMF can be enhanced by conditionality, assuming that the conditions are appropriate in light of domestic realities. How, then, can the IMF achieve this happy outcome? In broad terms, the Fund has two options. First, so long as it does not compromise the safeguards for its financial resources, it can strive to adapt its conditionality to accommodate the domestic political constraints faced by governments. Alternatively, it can try to design or support programs that tackle the distortions caused or magnified by SIGs through additional conditionality. The dilemma between accommodation and directiveness is a classic issue in the foreign aid literature. 14 The choice of strategy requires careful judgments, which can only be made on a case-by-case basis. Starting in the mid-1980s, the IMF gradually shifted to a more directive approach, driven by concerns about inadequate results in past programs and poor governance and corruption in some recipient countries. The resulting intensification of the scope and detail of conditionality, though it probably succeeded on its own terms, has raised concerns both inside and outside the institution about the effects on domestic ownership of reforms. At present, the momentum is shifting toward a more accommodative stance: not to weaken conditionality but to raise the probability of successful implementation. The test of the effort to streamline and narrow the focus of conditionality will be whether borrowing countries effectively take up the challenge to design and implement their own policies within a broadly conceived strategy.

The desirability for Fund-supported programs to be tailored to countries' circumstances requires a rethinking of whether first-best programs—perhaps those favored by IMF staff—are optimal when subjected to the domestic political economy constraint. In practice, this might imply a need for the Fund and the international community to adopt a gradual approach to supporting efforts to loosen the domestic constraint. Fund-supported programs are much more likely to be interrupted in countries with a higher initial budget deficit, which is significantly positively correlated with the strength of special interests. ¹⁵ These findings

¹⁴ We are indebted to Pat Conway for bringing to our attention these hypotheses, which have a long history in economic development. The third alternative—to simply ignore SIGs—can be dismissed as it would likely lead to programs that were ill-suited to particular country conditions and hence more likely to fail.

¹⁵ Ivanova and others (2001) find that successful programs started with substantially smaller budget deficits (2.5 percent of GDP) as compared with unsuccessful ones (4.8 percent).

suggest that many program failures may be attributable to strong special interest groups—whether in the government, the parliament or the private sector—that prohibit broad ownership and block reforms. In "questionable ownership" cases in which the IMF is nonetheless determined to remain involved, an accommodating strategy would aim to build ownership by demonstrating the broad benefits of reforms, educating policymakers and the public, and gradually weakening the SIGs' hold over power and influence.

The connection between accommodation and gradualism requires some qualification. Gradualism will be inappropriate if pressure groups likely to oppose reforms are not organized (in Olson's (1965) terminology, these groups are latent) at the outset of the reform effort. In such cases, reforms should proceed quickly so as to not allow latent pressure groups time to get organized. If pressure groups are organized at the outset of the program, then gradualism may be a more appropriate strategy. To see this, consider the SIG's net welfare, defined as gross utility (or rents) derived from policy distortions, net of the contributions to the politicians required to bring them about. This welfare function is monotonic in the level of policy distortions. In other words, assume that SIGs are better off when distortions are high than when they are low. At an unchanged SIG political contribution schedule, each IFIsupported reform program would gradually erode the SIG's political influence. By allowing the government to select a political equilibrium involving fewer policy distortions, IFIsupported reforms that help assure the acquiescence of SIGs result in lower welfare for the lobbies' members, which might induce members to opt out of participating in the SIG and paying the dues necessary to sustain it over time. Moreover, since the optimal level of political contributions is increasing in the level of policy distortions, a decline in distortions—at an unchanged contribution schedule—will lead to fewer contributions by the SIG, which benefits the country as it lowers the realized level of political rents and corruption. Of course, opposing forces are also at work. At each play of the domestic political game, the SIGs must consider how much of a contribution to make to induce the government to choose an equilibrium in which their preferences are not ignored. It is conceivable that this would result in equilibrium SIG contributions that increase as policy distortions are reduced. It is an open question for future research to assess the conditions needed to bring about the virtuous cycle described here.

Another insight of common agency theory has to do with the tension regarding the policy instruments to achieve program goals. Tariffs, export taxes, and other inefficient policy tools are resisted by IFIs because they are detrimental to aggregate domestic and international welfare. Common agency theory, however, suggests that SIGs have good reasons to prefer such tools and are likely to put pressure on policymakers to maintain them. Key to understanding why special interests may prefer to use economically inefficient means of taxation and redistribution is the classical proposition in the normative theory of second best from public finance. This result (Diamond and Mirrlees, 1971) states that the government can achieve its socially optimal pattern of redistribution by taxing final goods only, even in second-best situations. Taxes and subsidies on intermediate inputs that distort production decisions are inefficient. In the common agency approach to public finance, however, the Diamond-Mirrlees result does not necessarily hold, simply because SIGs may prefer

inefficient policy instruments in order to increase the benefits from their political relationship with the government.¹⁶

Countries' incentives to opt for inefficient means of taxation and redistribution could be ameliorated by a country making commitments to international organizations (such as the IMF or the World Trade Organization) to eschew inefficient policy tools. Such decisions, however, are endogenous and require that the government's valuation of the benefits outweighs the short-run political costs. Alternatively, if the country is in a dire enough crisis, IFIs could confront the government with a take-it-or-leave-it proposal that proscribes inefficient policy instruments. But if domestic conditions are not dire, then more accommodative strategies may be needed.

III. OWNERSHIP AND CONDITIONALITY: EMPIRICAL EVIDENCE

Finding empirical support for the role of ownership, as noted in the introduction, is difficult because ownership cannot be directly observed or measured and because it is dynamic and often fragile. These features make assessment of program ownership a subjective exercise. The empirical literature has relied on case studies and econometric evidence that use proxies to evaluate the importance of ownership. While both approaches have well known limitations, together they present a convincing case that ownership is crucial for program implementation. The studies illustrate the obstacles to national ownership caused by domestic divisions owing to powerful interest groups inside or outside government, and political and electoral constraints, including from the possible short-term adverse impacts of reforms on vulnerable groups. The evidence also demonstrates what it takes to build durable coalitions that are successful in pushing reforms through, including dialogue, negotiation and decisive political leadership.

A number of case studies were developed for the external evaluation of the Fund's Enhanced Structural Adjustment Facility (ESAF) (Botchwey and others, 1998) and for the IMF's ongoing conditionality review (IMF, 2001c). Both groups of studies present an interesting variety of national experiences in developing ownership of reforms in Fund-supported programs. Some cases illustrate the numerous difficulties in establishing and maintaining a broad and deep enough level of domestic support for reform programs. Zimbabwe in the last 15 years is a case in point. Starting in the late 1980s and into the early part of the 1990s, the government was motivated to pursue economic policy reforms following its unfavorable previous experience. While policy advice and financial assistance from the Fund and other IFIs seemed to be helpful in these circumstances, national commitment to reforms was not

¹⁶ Dixit, Grossman and Helpman (1997) construct a positive model of taxation and redistribution in which SIGs prefer such inefficient tax instruments. As stated by Grossman and Helpman (2001, p. 279): "...the less economically efficient are the tools of redistributive politics, the better is the bargaining position of the organized interest groups vis-à-vis the policymaker."

deep-rooted. Program implementation and the effectiveness of international assistance were compromised soon after powerful groups in the business community, the government, and the universities asserted themselves actively against the reform process. The situation did not improve, and Zimbabwe sank into a deep crisis.

Some transition countries in the Commonwealth of Independent States (CIS) have also experienced repeated difficulties in achieving the political consensus needed to undertake much needed structural reforms throughout the 1990s. The experience of these countries provides a good example of the power of SIGs in blocking reforms. While the degree of commitment to macroeconomic stability was reasonable in the chaotic macroeconomic environment that followed the collapse of central planning, the governments in these countries were often divided on the advisability of the structural reform agendas of IMF-supported programs. Pro-reform coalitions, which included key economic officials in government, were supported by the Fund and other IFIs. IFI-supported programs in the CIS pushed hard to implement extensive reform agendas aimed to counter the influence of special interests. The modernization of the public finances and the rationalization of tax and expenditure policy and management were key in this regard. But while structural fiscal and other reforms have improved the situation, progress remained uneven. Program measures were sometimes reversed or not fully implemented, and the implementation of institutional and structural reforms proved to be one of the most difficult tasks in these countries. The incomplete structural reform agenda remains a key obstacle to private business growth and employment creation in some CIS countries.¹⁷

One critical reason why these reform efforts were not more successful was the ambivalence of the top political leaders and resistance by other senior politicians and government bureaucrats, who were influenced by enterprise and collective and state farm managers and other members of the *nomenklatura*. The anti-reform forces often joined ranks in the legislatures and were able in several instances to slow down, block, or reverse IFI-backed reforms. This alliance of private SIGs and conservative elements in the political leadership even managed in some instances to threaten capture of the state through their control of crucial sectors of the economy, their evasion or avoidance of taxation, and other privileges. While IFI-supported programs eventually resumed, they often included lengthy lists of prior actions and other measures aimed to restore failed reforms in previous programs, with limited success (see below).

¹⁷ As stated by Odling-Smee (2001), "Some countries in the region are stuck half-way along the transition process...Partial and halting reforms have allowed new (and sometimes old!) elites to gain control over productive assets, and they have then successfully used the state as a means to preserve their position by ensuring that they continue to receive privileges. This situation, which occurred to varying degrees in the countries of the region, had the most serious costs when it perpetuated an antiquated industrial structure and prevented the establishment and development of new businesses."

¹⁸ See, for example, Åslund (1999) and Hellman and Kaufmann (2001).

Some other cases provide evidence of how domestic political divisions can be overcome and what the Fund can do to help catalyze reforms. Uganda and Bulgaria are noteworthy examples. The Ugandan government gradually adopted more stable and market-oriented policies in the late 1980s, abolishing price controls, liberalizing the foreign exchange market, and privatizing state enterprises. These changes were implemented after a lengthy public debate and were supported by the Fund through its own financial assistance and catalytic effects, which facilitated additional aid from other creditors and donors. In Bulgaria, a protracted crisis that led to hyperinflation in 1997 was instrumental in overcoming the influence of special interests and creating the national consensus needed to back difficult structural reforms. Following the acute crisis, the authorities, backed by the entire political class represented in parliament, were much more willing to tackle the structural economic problems at the root of previous reform failures. The IMF and other donors provided external backing at the critical moment. The support of the international community combined with broad national ownership to result in a successful program that put the Bulgarian economy on a sound footing. Inclusive public debates sanctioned by the country's top leadership can be key to promoting broad ownership and effective program implementation. This is underscored by the positive experience of several successful home-grown reform programs that were implemented on government initiative indicate that. In addition to Uganda, these cases include Vietnam, Eritrea, Burkina Faso, and Mozambique.

In econometric studies, ownership is assessed indirectly by relating program success to indicators of political openness and unity (i.e., the absence of major obstacles to reform) and administrative capacity (i.e., the presence of an ability to formulate and implement the government's own program). This literature originally examined the impact of ownership indicators in the context of multilateral grants or long-term concessional loans. More recently, this methodology has been applied to multilateral official financing more generally. The key finding in all studies is that the effectiveness of IFI-supported programs depends systematically on a small number of domestic political economy indicators. Once these political economy conditions are taken into account, initial and external economic conditions or IFI effort do not seem to matter very much.

Two empirical studies are particularly revealing. The first, by the World Bank's Operations Evaluation Department (World Bank, 1999), examined a large number of projects supported by the Bank. It found that project outcomes (as measured by several objective and subjective indicators) were positively correlated with the government's commitment to each project. The second study, by David Dollar and Jakob Svensson (2000), used econometric methods appropriate for discrete choice variables to examine the causes of success or failure of about 200 Bank structural adjustment programs. ¹⁹ The Operations Evaluation Department had rated

¹⁹ These are examined in more detail in IMF (2001a), Annex I, and IMF (2001c). A third paper, by Burnside and Dollar (2000), examined relationships among aid, economic policies, and real growth in per capita GDP. It concluded that aid had a positive impact on growth in (continued)

about a third of these programs as unsuccessful. Dollar and Svensson related program outcomes to political economy indicators, donor inputs, and initial domestic and external economic conditions in a probit regression. Since donors are likely to expend more resources to salvage programs that are failing, the study carefully took into account—by means of instrumental variable techniques—the endogeneity of donor inputs. Dollar and Svensson found that domestic conditions conducive to reform were systematically related to program success. Programs were more successful in countries that were politically stable, not severely divided ethnically, and whose governments were democratic and had not been in power for long. On the other hand, once the endogeneity of Bank effort was taken into account, there seemed to be little independent relationship between program success and Bank inputs in preparing and monitoring programs.²⁰

Several recent studies at the IMF indicate that qualitatively similar conclusions apply to Fund-supported programs. Mauro Mecagni (1999) examined the causes behind major disruptions in about 30 ESAF programs. He showed that interruptions depended primarily on domestic factors and that program design could not have prevented these unfavorable outcomes. A staff study, IMF (2001a, 2001b), employed a newly constructed index of structural program implementation and found that the extent of implementation of structural conditionality was not related with the number of conditions in Fund-supported programs. Aleš Bulí and Soojin Moon (2002) studied the determinants of fiscal developments in countries after the expiration of their IMF-supported programs. They documented that medium-term fiscal prospects were driven by initial disequilibria and subsequent economic shocks. Structural conditionality, whether measured by interruptions, the number of conditions in programs, or their implementation record did not seem to matter at the margin. Alun Thomas (2002) examined the impact of imposing more prior actions for the success or failure of Fund-supported programs. He found that when political economy variables were controlled for, using more prior actions did not improve the implementation of Fundsupported programs. Valerie Mercer-Blackman and Anna Unigovskaya (2000) studied a sample of transition economies and found that program implementation was related to economic growth. They argued that these correlations were due to a third factor government commitment to reforms—that was positively related to both.

Another recent study (Ivanova and others, 2001) tested directly for the importance of domestic divisions in limiting ownership. These authors applied the Dollar and Svensson methodology to a sample of 170 Fund-supported programs, and tested for the direct influence

developing countries that have good fiscal, monetary, and trade policies but little effect in the presence of poor policies.

²⁰ As discussed in paragraph 26, and as emphasized by Dollar and Svensson, these results should not be interpreted to mean that conditionality is superfluous. Conditional external assistance is an effective commitment technology in countries where reform programs and the governments supporting them lack full credibility.

of divisions due to special interests on program prospects. Once again, when political economy variables were controlled for, Fund effort and conditionality and initial conditions did not seem to matter for program implementation. Several political economy variables related to domestic divisions affected program implementation. First, the strength of special interests in parliament was significant in almost all specifications: the more powerful special interest groups were in the parliament, the less likely it was that the Fund-supported program would succeed. Second, a high degree of political cohesion increased the probability of successful program implementation. This underscores that the interaction between the government and parliament is an important consideration when evaluating program ownership and the probability of program success. Third, too much or too little ethnic diversity was bad for reforms.²¹ Fourth, political instability negatively affected the probability of program success. Fifth, effective government bureaucracies tended to cushion the effect of political instability during times of government change. Sixth, the government's length of tenure did not seem to be a direct cause of program failure; and finally, democratically elected chief executives do not improve a program's chances of success once domestic political economy conditions were taken into account.²²

IV. AN ACTION PLAN FOR STRENGTHENING OWNERSHIP

Two broad lessons for enhancing ownership emerge from the review of the political economy literature. First, the IMF must understand the domestic political economy and to tailor the content of the reform programs it supports to these realities. Cookie-cutter approaches will not do. This point is, of course, well understood at the Fund. The institution has always been careful to take the individual situation of each country into account in the design of its policy and financing packages. But current efforts aim to apply best practices more systematically. Several aspects of this effort are described below.

A second lesson is that the IMF's process of interaction with borrowing countries matters for a program's national acceptance and eventual success. Achieving a critical mass of ownership in favor of reforms in the presence of a plethora of players with stakes in the outcomes requires a careful process of interaction and negotiation. As a result of the delicate nature of the domestic coalitions that must support a program, ownership of reforms is both dynamic and fragile—a lesson demonstrated by the case studies summarized above. While opposition to reforms from entrenched interests or a lack of ex ante measures to protect and

²¹ In a nutshell, too much diversity generates social conflict, while too little diversity generates inertia in policy making. The turning point varies between 43 percent to 51 percent, which is close to the estimates obtained by Dollar and Svensson for Bank-supported programs (44-49 percent).

²² Program implementation was also related to macroeconomic performance, both in terms of average changes in inflation, the ratio of reserves to imports and the real exchange rate.

compensate those temporarily hurt by reforms can weaken ownership and compromise program implementation, an effective dialogue between the IMF and the country's authorities and an effective process of public information can help build and sustain national ownership in the face of shocks and temporary setbacks.

On a practical level, enhancing ownership means designing the Fund's interactions with member countries so as to give as much flexibility and empowerment to the authorities as possible, maximizing ownership while adhering to the Fund's core objectives. Three specific aspects of this process may be noted. One is giving borrowers greater control over the agenda. The degree of ownership, the effectiveness of conditional assistance programs, and the distribution of the surplus from the political relationship between the IFIs and member governments depend on the timing, control of the agenda, the nature of the negotiation process, and the extent to which the IMF (rather than its membership) controls the use of its assistance funds. Another is to build a relationship of trust with authorities, in the context of ongoing regular surveillance and during negotiations on the use of Fund resources, and by promoting economic education and understanding. The Fund may also need to sell programs more effectively. Inadequate economic education could be overcome through public outreach and through promotion of economic literacy. A third aspect is to help nourish domestic coalitions for reform. Such coalitions (and those against reforms) are endogenous and evolve over time and help determine the domestic political economy balance. This balance could also be altered by aligning the Fund with "progressive" constituencies internationally (Birdsall, 2000).

As the review of the political economy literature illustrates, an important question for the Fund is how to interact with borrowers when ownership is in question or when time constraints limit time-intensive approaches to building ownership. One option is selectivity: where a threshold of ownership is not present, the Fund could limit its financial involvement but continue with surveillance, analytical work, and advice. Such an approach would strengthen the signaling value of conditionality and the Fund's catalytic function. Over time, economic education (including through the Fund's training programs) could result in better understanding of the Fund's positions. Lack of Fund support for incumbents who are against reforms would weaken their hand and strengthen domestic coalitions favoring reforms (including inside government). Clearly, greater selectivity and conditionality should be applied if domestic corruption is high and government intermediation of IFI assistance is inefficient. But the danger of carrying this approach too far is that it could inject the Fund into domestic political debates in ways that would be counter-productive and violate the principle of uniform treatment of members.

The Fund and other IFIs have already taken steps to ensure that their assistance programs provide benefits that extend beyond narrow interests in or out of government and reach the

²³ The aid effectiveness literature has reached similar conclusions. See Dollar and Svensson (2000).

broader public in recipient countries. The Fund and the world Bank have adopted broad participatory processes for the drafting of Poverty Reduction Strategy Papers (PRSPs) as the basis for lending to low-income countries. Possibilities for similar approaches in other borrowing countries are under discussion. These processes aim to enhance national ownership of reforms through broader public participation and improved self-monitoring. In addition, IFIs have responded to instances of corruption and misreporting by imposing stricter financial safeguards on central banks that are repositories of IFI resources. Strict monitoring by the Fund of the uses to which governments make of savings from debt relief under the Heavily Indebted Poor Countries (HIPC) initiative helps ensure that resources are used to increase pro-poor spending on public education and health. Development aid is channeled, where possible, through private suppliers in foreign countries through established public and transparent procurement methods that reduce the possibility of rent-seeking and corruption.

Looking ahead, several additional steps can be taken—and are currently being considered (IMF, 2001c)—to ensure that the Fund's financial assistance is deeply rooted in domestically owned programs.

- First, the Fund can insist that a country seeking financial assistance has a viable plan of its own for resolving its problems. For the Fund to provide an initial draft of letters of intent setting out policy intentions is efficient in a sense, but the practice may seriously undermine ownership.
- Second, when the Fund provides policy advice to countries in need of assistance, it should provide the authorities with as wide a range of options as possible. A feeling of being hemmed in by limited options from the Fund is one of the most frequently made complaints from governments of borrowing countries.
- Third, the Fund can promote flexibility in program design by basing its conditionality more on achievement of broad outcomes than on detailed policy actions ("outcomesbased conditionality") and by permitting more flexibility in the timing of disbursements linked to structural reforms ("floating tranches").
- Fourth, the Fund may need to broaden its capability to analyze issues of political economy, in addition to its highly regarded abilities at technical analysis. What forces are likely to block reforms, and how can coalitions for reform be reinforced?
- Fifth, the Fund could devote more effort to providing technical support for capacity building in developing countries.
- Sixth, the Fund can support country-led communications strategies outside the formal negotiation process, to promote understanding of the basis for reform programs in the countries concerned.
- Finally, systematic and thorough ex post reviews of why programs succeeded or failed can help generate a growing body of knowledge regarding the separate contributing roles of ownership, implementation capacity, technical program design, and other elements in the process.

To return to the question posed in the title of this paper: Is ownership an operational concept? On the surface, a negative answer might seem appropriate, if only because ownership is not

directly observable or measurable. But the larger message of this paper is that ownership is operationally important and may even be the most critical determinant of program success. That conclusion is supported by a host of theoretical models, and it is consistent with a sizeable body of indirect empirical evidence. If that premise is accepted, then the next logical question is what can be done to promote and enhance national ownership of reforms? Fundamentally, what case studies suggest is that ownership depends on processes. Engaging a wide range of officials, market participants, and civil society organizations at an early stage of the reform process is an element of program design that has taken on increasing importance in recent years and that must be given further prominence.

The IMF often must work under intense time pressure to complete program negotiations quickly enough to resolve crises and restore market confidence. In such circumstances, it is not surprising that the design of optimal economic policies to recommend to the authorities might take precedence over the time-consuming process of building a domestic consensus for reform. Nonetheless, one message emerges clearly from the theoretical models and empirical studies summarized above. Successful implementation of economic reforms—indeed, economic success—depends on national ownership, and ownership depends on successful processes in which every key participant is fully empowered.

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Annex: Vested Interests in a Positive Theory of IFI Conditionality

International and domestic conflicts of interest are at the root of ownership problems in reform programs supported by IFIs. Mayer and Mourmouras (2002) present a framework for thinking about the resolution of such conflicts. They model assistance by the International Monetary Fund and other international financial institutions using the menu auction approach developed by Bernheim and Whinston (1986) and applied to the political economy of trade by Helpman and Grossman (1994, 2001).

There are three players in the model: the incumbent government (G) in charge of economic decision-making, a domestic special interest group (SIG), and an international financial institution (the IMF). The SIG influences the incumbent's economic policy choices through its financial contributions to the government. These contributions are payments that do not enter the government's budget constraint. They are political payments that the incumbent values because they may be used to finance reelection campaigns or personal expenditures. The IMF is modeled as a benevolent institution that safeguards the welfare of creditor and recipient countries alike. It influences policies by providing conditional financial assistance to the government in support of economic reforms. This assistance is channeled in socially beneficial ways and its repayment is assured. In a politico-economic equilibrium, the government's economic policies are shaped by the strategic interaction of all three players.

National welfare after IMF assistance has been released but before it has been repaid (W) depends on the amount of assistance from the IMF (T) and the quality of economic policies ($\omega \ge 0$ is an index of policy distortions). IMF assistance raises welfare in the recipient country directly, but at a decreasing rate: $W_T > 0$ $W_{TT} < 0$. Higher economic policy distortions lower welfare at an increasing rate: $W_\omega < 0$, $W_{\omega\omega} < 0$. Greater distortions reduce the effectiveness of IMF assistance, $W_{T\omega} < 0$. If the rate of repayment of IMF funds is b, the present value of repayments of IMF loans is bT. Net national welfare, after a country has received and repaid IMF assistance, is then $Y(\omega, T) = W(\omega, T) - bT$.

The IMF maximizes net national welfare in the borrowing country and the rest of the world, or $I(\omega,T;\gamma,b)=\gamma Y(\omega,T)+Y^*(\omega,T)$. W^* is the rest of the world's welfare after the IFI's lending but before repayment; the term $Y^*(\omega,T)=W^*(\omega,T)+bT$ is net welfare in the rest of the world, after IMF loans have been disbursed and repaid; $\gamma \geq 0$ is the weight the IMF attaches to the national welfare of the borrowing country. Since IMF lending is financed by the rest of the world, donors incur financial costs by providing assistance, so that $W_T^*<0$ and $W_{TT}^*<0$. Recipient country policies may affect welfare in the rest of the world. If a country is "systemically" important, an increase in its policy distortions could affect welfare in the rest of the world: $W_{\omega}^*\leq 0$, $W_{\omega\omega}^*\leq 0$.

The government's objective function (G) depends on the general welfare of its people and political contributions from the SIG, $G(\omega,T) = C(\omega) + aY(\omega,T)$, where $C(\omega)$ is the

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contribution schedule which the lobby offers the government contingent on the adoption of distortionary policies and $a \ge 0$ is the government's concern for national welfare. The interest group's objective function is $V(\omega) = U(\omega) - C(\omega)$, where the lobby's welfare before contributions, $U(\omega)$, increases at a decreasing rate with the degree of distortions ($U_{\omega} > 0$ and $U_{\omega\omega} < 0$). In addition, $U_{\omega}(0) + aW_{\omega}(0,0) > 0$, which guarantees that the some distortions are present in the absence of IFI assistance. The lobby's equilibrium contribution is compensating: in response to an increase in policy distortions the lobby raises its contribution by an amount equal to the additional distortions' marginal utility: $U_{\omega}(\omega^{o}) = C_{\omega}^{o}(\omega^{o})$. See Helpman and Grossman (2001, p. 232 and p. 266).

The domestic and international conflicts of interest are captured, respectively, by the reality of SIG political contributions and the international externalities of government policy choices. While the recipient government balances the marginal benefit from political contributions against the marginal damage to national welfare caused by higher distortions, it ignores the systemic impacts of its actions. The IMF, on the other hand, internalizes the externalities of the government's policy choices on the world economy and offers assistance to tilt the recipient government's cost-benefit calculations. How effective IMF assistance is in achieving better policies depends on the process of interactions between the IMF and the government and between the government and domestic SIGs.

Formally, the strategic interaction between the government, the SIG and the IMF is modeled as a noncooperative, multi-stage game. Two types of equilibria are considered, corresponding to offers of unconditional and conditional assistance. Unconditional assistance is the least intrusive form of involvement by an international institution in the affairs of a sovereign nation and, as such, it maximizes government ownership. When assistance is provided without explicit policy conditions, the IMF does not make its offer contingent on the receiving government's pursuit of distortion-reducing economic policies. It does, however, take into account the government's reaction to the availability of unconditional assistance. Given these reactions, the Fund offers an amount of assistance that maximizes its utility. The political equilibrium with unconditional assistance is thus the outcome of a three-stage noncooperative game. In stage one, the IMF decides on the total amount of economic assistance. In stage two, the SIG chooses its contribution schedule. In stage three, the government selects the distortion-creating economic policies. The model is solved working backwards, by first focusing on stages two and three to determine the government's choice of ω in the presence of the influence-seeking SIG, given the amount of assistance made available by the IMF. In stage one, the IMF's choice of assistance is determined, given the government's policy response to alternative assistance levels.

Unconditional assistance does not mean the IMF can safely ignore domestic political realities. Efficiency in the allocation of its resources requires the Fund to be familiar with how the authorities react to assistance even if it is provided without strings and is channeled in socially beneficial ways. Varying the level of IMF assistance alters the government's incentives as it affects the marginal damage of distortions on national welfare. Specifically,

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in setting it level of unconditional assistance, the Fund must obtain information on how the recipient government's domestic political economy constraint $U_{\omega}(\omega^{o}) = -aW_{\omega}(\omega^{o}, T)$ is affected by assistance. This constraint always binds in equilibrium. Although social welfare is maximized by setting $\omega = 0$, the government chooses a positive value of the index of policy distortions, and this choice varies with the level of assistance. As an increase in assistance normally raises the marginal damage that distortions cause on social welfare, the government's reaction function is downward-sloping: higher assistance improves policies, or $d\omega^{o}/dT = -aW_{\omega T}(\omega^{o},T)/[U_{\omega\omega}(\omega^{o}) + aW_{\omega\omega}(\omega^{o})] < 0$. The locus of choices of economic policy distortions traced by varying the amount of assistance is the downward-sloping government reaction function RR (Figure 1). The slope of the reaction function depends on how much the government is concerned for general public's welfare and how detrimental distortions are to the effectiveness of assistance. If the IMF takes into account the government's policy reaction function, RR, it will choose an amount of assistance T_{o} that puts it on the highest attainable welfare contour, namely I_{o} at point B.

In practice, the Fund's offers of assistance are contingent on the incumbent government's pursuit of distortion-reducing economic policies. Conditional assistance turns the IMF into a principal in a common agency problem. The government's choice of economic policies is a subgame-perfect Nash equilibrium of a two-stage game between the government, the IMF and the SIG. In the first stage of the game, the IMF and the SIG set their compensating assistance and contribution schedule, respectively. In the second stage, the government selects the degree of policy distortions taking as given each principal's contribution schedule. Uniqueness of the equilibrium is guaranteed by selecting contribution and assistance schedules that are compensating. Compensating equilibria equate each principal's marginal benefit (cost in the case of the Fund) from additional distortions to its marginal cost in terms of additional contributions (assistance).

Compensating equilibria do not waste resources. In equilibrium the joint welfare of the government and the interest group and the government and the IMF is maximized. If this were not true, the lobby or the IMF could offer the government alternative contribution and assistance schedules that would be mutually beneficial. In equilibrium, the marginal rates of substitution of the IMF and the government must be equal resulting in an "international tangency condition" (point C in Figure 1) between the indifference curves of the IMF and the government. This tangency point pins down the government's choice of economic policy distortions and the IMF's assistance level. The equilibrium depends on all the "deep parameters" of preferences of the government, the SIG, and the IMF, including the magnitude of the marginal damage to the rest of the world from increased distortions, the weight of the borrowing country in the IMF's objective, and so on.

Two key questions are the aggregate effectiveness of conditionality and its impact on each player's welfare. These questions can be addressed by comparing the amount of IMF assistance, the resulting level of distortions, and the welfare effects of IMF assistance under the alternatives of conditional and unconditional assistance. Regarding the first question, the main result is that the conditional assistance equilibrium is Pareto efficient while the

equilibrium with unconditional assistance is not. At the international tangency condition, all mutually advantageous trades between the IMF and the recipient government have been exhausted, taking into account the reactions of the domestic SIG. But whereas the IFI is better off providing assistance conditionally, the government is better off with unconditional assistance. Note, however, that while conditionality results in more effective use of IFI resources, it is achieved at a price. With conditional assistance, the Fund is injected more deeply in the affairs of the recipient country as it becomes an *active* participant—a second principal—in the domestic political economy game.

The effectiveness of IMF assistance also depends on its *form*, whether loans or grants, as reflected in the value of 0 < b < 1. Raising the value of b amounts to a reduction in the rate of subsidization. MM show that conditional grants are the most effective form of assistance from the point of view of the IMF. Formally, $dI/db = T(W_T + W_T^*)/(W_T - b) < 0$ if $\gamma \ge 1$. If the IMF cares for the recipients at least as much as for the creditors, reducing the rate of subsidization raises policy distortions in the assisted countries. This result must be interpreted with some care. First, conditional grants are not "free". They are contingent on recipients achieving measurable results in reducing their policy distortions. No assistance is forthcoming if recipients deviate from agreed policies. Second, the result is derived in a perfect information, one-period model. It states that if the world lasted only one period, then the IMF's assistance would be most effective if it were provided in the most direct way. It is not likely to come out of a dynamic model of the "revolving nature of Fund resources" in which the IMF must maintain an adequate capital base and in which the identity of future borrowers is not the same as the identity of present borrowers.

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Figure 1. Equilibrium with Conditional and Unconditional IFI Assistance

