Forum Series on the Role of Institutions in Promoting Economic Growth

Confronting the Institutional Obstacles to Trade Liberalization and its Benefits to SMEs

NIE options for reform and donor support

CLIFFORD ZINNES AND OMAR AZFAR

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Forum 3
An Application of the HPI Approach to a USAID Programmatic Area

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Forum 3: an HPI Application to a USAID Programmatic Area

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Abstract

The history of economic development has been closely intertwined with that of a country's trade orientation. The fashion has ebbed and flowed regarding a more open economy, most recently in the guise of the virtues of globalization. Economists have extolled the (theoretical) justifications for freer trade and, currently, much movement is seen in the arena of WTO accession and the creation of regional, free-trade areas. Nevertheless, vocal criticisms remain, among them the unequal distribution of gains and losses as well as the likelihood of negative externalities to the commons (urban pressures, the environment, and natural resource depletion).

We take the view, which we base on a companion paper (Nugent 2002), that the disconnect between theory and outcome centers on inadequate attention to the institutional aspects of trade liberalization. Following the HPI (Harnessing the Power of Incentives) methodology developed for USAID in Zinnes and Bolaky (2002), we categorize these into three phases, pre-reform political will, reform implementation, and post-reform sectoral responses. We argue that unless the key obstacles impeding *each* of these three areas are addressed, the benefits of trade liberalization will be at best stunted and incomplete. This places into a new, *positive* light the policies of many countries hitherto viewed as simply protectionist or anti-trade. We see this result for trade reform as analogous to what Zinnes *et al.* (2001) found for "big-bang" privatization in the transition economies: a threshold level of institutional quality is required for the benefits of the reform.

Using this orientation and following the HPI methodology, we take advantage of recent insights from the so called new institutional economics (Azfar 2002) to analyze six, key, institutional obstacles to the benefits of freer trade as identified by Nugent (2002) as having impacts and consequences for SMEs. Based on this analysis, we propose options for institutional reform and the associated initial conditions likely to be required in order for them to be effective. We then explore the role that USAID might play throughout its aid programming cycle to facilitate the identification and resolution of these institutional obstacles.

The present paper also has a second purpose, namely, to illustrate how to apply the HPI framework to a USAID programmatic area, in this case trade liberalization, so as to identify concrete opportunities for institutional development assistance.

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The history of economic development has been closely intertwined with that of a country's trade orientation. The fashion has ebbed and flowed regarding a more open economy, most recently in the guise of the virtues of globalization. Economists have extolled the justifications for freer trade (Smith 1776; Ricardo 1821; Olin 1933; Johnson 1965; Bhagwati 1988; Balassa 1989, Michaely *et al.* 1991; Edwards 1993; Irwin 2002) and the theory of comparative advantage is considered on of the great insights of economics.[1] Currently, much movement is seen in the arena of WTO accession and the creation of regional, free-trade areas[2]. Nevertheless, vocal criticisms remain (Daly 1996), among them the unequal distribution of gains and losses as well as the likelihood of negative externalities to the commons (urban pressures, the environment, and natural resource depletion).

Based on a companion review of the trials and tribulations of trade liberalization over the last 50 years (Nugent 2002), we take the view that the disconnect between theory and outcomes centers on inadequate attention to the institutional aspects of trade liberalization. Following the HPI (Harnessing the Power of Incentives) methodology developed for USAID in Zinnes and Bolaky (2002), we categorize these obstacles into three categories (phases), pre-reform political will, reform implementation, and post-reform sectoral responses. We argue that unless the key obstacles impeding each of these three areas are addressed, the benefits of trade liberalization will be at best stunted and incomplete.

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[1] There are notable exceptions, though these are based on such issues as the potential for strategic trade policy (Krugman 1990) and political economy (Rodrik 1997).

[2] See Feenstra (1998). Recent examples include NAFTA, The EU, FTAA, APEC, MERCOSUR, CAFCA, and CARCOM.

Serendipitously, there has been a recent flourishing of insights from the so called new institutional economics (Aoki 2001; Furubotn and Richter 1997; Bates 1995; Greif 1997; Martens *et al.* 2002; North 1990 Tirole 1997; Weingast 1993; Williamson 1985, 1996), which we believe to be of great relevance to understanding the obstacles of trade liberalization. Using this orientation and following the HPI methodology, we take advantage of recent insights from the so called new institutional economics (Azfar 2002) to analyze the six, key, institutional obstacles to the benefits of freer trade as identified by Nugent (2002) as having impacts and consequences for SMEs. These include (i) SME obstacles to capturing the gains from increased domestic and international market access, (ii) the government's inability to commit to future implementation, (iii) resistance from owners of asset-specific capital, (iv) an inappropriate legal, regulatory and judicial (LRJ) environment, (v) fears of negative externalities to the commons (urban, environment, natural resources), and (vi) economic obstacles to the private sector's response to trade liberalization. As shown in Table 1, these six obstacles cover the three categories of the HPI typology.

Table 1: A HPI typology of obstacles to realizing broad-based benefits from trade liberalization.

		HPI Obstacle Category		
No.	*Obstacle**	*Pre-reform*	*Reform implementation*	*Post-reform response*
1	Market structure impediments to SME access to domestic and international markets	X		X
2	Government's inability to commit to future implementation	X	X	
3	Resistance from owners of asset-specific capital	X	X	
4	Inappropriate LRJ environment			X
5	Fears of negative externalities to commons	X		X
6	Economic obstacles to the private sector's response			X

*Identified in Nugent (2002)

A second useful way to characterize the obstacles we have selected is to consider how they might influence the three diverse groups created by trade liberalization and upon whose actions the success of the reform ultimately depends. These include the direct losers and winners, and those indirectly affected as a result of the impact of externalities. Here we see that obstacles 2 and 3 refer to the concerns of the direct losers. Obstacles 1, 4, and 6 address the prospective winners. Finally, obstacles 2, 4, and 5 refer to issues of those concerned with the impact of any negative externalities (though, evidently not interested in the impacts of the *positive* externalities).

Based on this analysis, we propose options for institutional reform and identify the associated initial conditions likely to be required in order for the former to be effective. We then explore the role that USAID might play to facilitate the government's identification and resolution of these institutional obstacles.

While we certainly hope that the insights gained herein win converts to the NIE approach to trade liberalization, the present paper also has a second goal. It seeks to illustrate how to apply the HPI framework to a USAID programmatic area – in this case, trade liberalization – so as to identify concrete opportunities for institutional development assistance. This is particularly important since the HPI framework was explicitly developed to provide USAID with a practical way of integrating NIE-based tools into the key points of the activity identification and preparation decision-making process.

1. SME obstacles to domestic and international market access gains

SMEs often have limited ability to respond to the reduction of formal trade restrictions in international markets. Indeed, SMEs may not even be able to take advantage of increased opportunities in domestic markets that follow from liberalization. The liberalization of trade regimes are not systematically followed by expansion in the SME sector measured by either output or employment. The sharp transitional costs felt by closing industries and agricultural sectors create problems with the political sustainability of reform and, to the extent news spreads internationally, with reform in other countries.

1.1 An NIE analysis of the obstacle

The weak output and employment response is due in part to the fact that SMEs do not have well established reputations which would reassure foreigners that they are reliable business counterparts. A simple NIE story is that a game between a western buyer and a developing country SME seller results in a "no trade" equilibrium because neither side trusts the other to make good on the promise to provide quality goods or pay the amount due as the second move. (In formal terms we can show that the good ["pay up", "provide quality goods"] equilibrium is not a Nash equilibrium no matter who moves first). To a lesser extent these concerns even apply to "new" domestic markets.

In some countries middlemen intermediate between SMEs and foreign buyers. If they are few enough in number, middlemen can interact so often on each side of the market that both buyers and sellers trust them. This is especially true if there is a single middleman, in this case the prospect of being denied access to the market in the future would deter both the buyer and the seller from deviating from the good "pay supplier, supply high quality product" equilibrium. However, a monopsonistic/monopolistic middleman is also likely to capture the gains from trade. This would be especially true if SMEs did not know the value of the goods they were producing in foreign markets. In this case the middleman could expropriate both monopoly and information rents. SMEs might trade through a middleman but would be denied access to the gains from trade. These gains are not just denied in the short term (static losses) but in the longer term (dynamically). This is because these gains are exactly the "excess" profits that would normally trigger entry in the upstream, productive sector.[3] Thus, the gains are both limited in quantity as well as in dispersion across the population. We consider solutions to these problems.

1.2 Options for institutional reform

In the case of intermediating between SMEs and foreign markets, if the market is segmented with the intermediary firms having sole access to certain geographical areas and SMEs don't know the final goods prices in foreign markets then almost all the gains from trade will accrue to the intermediary firms and developed country retailers rather than small enterprises in developing countries.

As we are interested in improving access to the gains from trade to a broader class of people than the narrow international elite, it may be worth examining the efficiency and equity properties of the following institutional reforms. These reforms follow from NIE insights that improvements in information flows improve outcomes and that changes in bargaining power affect the distribution of rents between players.

a. Intermediation by a private firm as done currently with no knowledge of foreign prices. (Frequent current practice)

[3] Of course, one cannot not rule out entry in the downstream monopoly/monopsony segment.

b. Intermediation by private firm but with a dissemination of prices in foreign markets to local producers (perhaps in a community meeting).
c. Creating a "cooperative" of SMEs (like a labor union) to bargain with the large private exporting firm.
d. b and c combined
e. Introducing an NGO to compete with the private firm. "Fair trade" organizations do some of this.
f. Introducing a "cooperative" owned collectively by the SMEs to compete with the private exporting firm
g. Encouraging local government to compete with the private firm in the export market.

Interventions e, f and g above can be tried even if there is no existing private firm exporting (of course it won't be "competition" but we can assess the impact of an NGO starting to intermediate in the export market). These interventions could also be tried if the aim were to increase the market activities in distant domestic markets (in other towns, for example).

While there is potential for improvement, there is also the possibility for harm. For instance if the intermediary market does not remain monopolistic, the cost of "defections" (i.e., producing substandard goods) may fall with a collective loss of reputation for the village. For instance some studies of micro-lending have found that increase in competition between different micro-lenders can reduce the costs of failing to pay a loan to one micro-lender as the borrower can borrow from other micro-lenders in the future. Occasionally this reduces repayment rates.

1.3 Implications for USAID activities

In the previous section we discussed the various interventions a donor could try. Donors could subsidize the creation of NGOs or cooperatives that competed with, bargained with, or side-stepped large private firms, or donors could provide information on market prices for goods. Donors could also use various contracting mechanisms to provide this support, cooperative agreements with NGOs, seed grants for cooperatives or even subsidies to private firms in return for higher prices for producers.

It is unclear *ex ante* which of the above interventions would be the most effective. The correct response for USAID or any other donor would therefore be to try several different kinds of interventions using a method that allows us to determine what works best and then try this in a broader program. The key methodological innovation here is the collection of information on outputs measured from surveying the users of donor provided services. In other words, one of the important pathologies of aid is the broken feedback loop between recipients and those funding and directing the activity (Martens, Mummert Murrell and Seabright 2001). The survey based information we collect will close this broken feedback loop and improve the delivery of aid.

Often evaluations are done by service providers or by USAID staff, in these cases the lack of knowledge and objectivity can interfere with the assessment of aid programs. This has two unfortunate effects. First, USAID does not know whether private firms, NGOs or cooperatives should intermediate between SMEs and foreign buyers (or to be a little more sophisticated, what the optimal form of intermediation is in which economic and institutional environments). Second, it is sub-optimal and possibly even counter-productive to provide incentives based on such imperfect and manipulative measures and the self assessments of service providers.

Both these problems can be remedied to some extent by the collection of information from users. This can include:

- *Subjective assessment:* Users' assessment of services
- *Economic assessment:* Changes in economic outcomes following donor intervention, i.e., changes to export output, domestic sales, employment, wages, broken down by gender and poverty if appropriate
- *Political economy assessment:* Changes in the political support for reform. If the aim of the reform program is to increase the political support for free trade then this can be directly assessed. Respondents could be asked both whether they support reform, and what they've done to make this known to legislators and other policy makers.

To reiterate, the key idea here is that the actual quality and effectiveness of a program can be assessed far more usefully by getting assessments from the users of programs that the usual practice of getting the perhaps self-serving assessments of providers. This helps us both to learn what works and what doesn't and to align the incentives of donor agency staff and service providers.

2. Government's inability to commit to future implementation

A principle source of institution failure stems from a government's inability to credibly commit to a future action. This is *not* a problem of finding sufficient funding. Since the theoretical net gains from trade are generally considered large and positive (especially if the negative externalities can be ameliorated), those who gain should be more than able to compensate the losers. If all losers would be compensated, if the funding to maintain strengthened regulatory agencies could be maintained to prevent a worsening of externalities, and if anti-competitive market structures would be liberated and the oligopolists compensated, who would oppose trade liberalization or the success of its implementation? Unfortunately, even if the government genuinely intended to make good on such commitments, there are not generally the institutional mechanisms available to it to do so or, more accurately, to *credibly commit* to do so. The outcome is one of economic inefficiency.

The need for credible commitment influences several of the obstacles in Table 1 both *ex ante* and *ex post* of the reforms. An example of the former would relate to whether the government would amass the political will necessary to initiate the reform; an example of the latter would refer to whether the government would have the financial, technical and administrative capacity to do so, assuming it wanted to.

In what follows, we examine through the lens of institutional economics (Azfar 2002) the underlying institution failures leading to the outcomes just described. Based on NIE, we propose several alternative institutional reforms that would allow a country to harness the power of incentives (Zinnes *et al.* 2002) to identify concrete commitment mechanisms to improve the likelihood that government promises would be viewed as credible (time-consistent). Based on such mechanisms it is more likely that the government will be able to co-opt many of the groups opposing trade liberalization, with a win-win outcome for all. This section ends with a discussion of ways in which USAID might be able to support the search and the implementation of the appropriate institutional reform solution.

2.1 An NIE analysis of the obstacle

This institutional failure may be succinctly illustrated through the use of a simple normal-form game, as in Figure 1. Consider a government which expects a trade liberalization campaign to cost $1 million and, if it wins, the fiscal commitments required to compensate damaged parties to cost \$10 million. Moreover, let us assume that SMEs would generate an additional \$100 million in value added under the trade liberalization *if* the government keeps to its promises. Otherwise, if the government does not make good on its commitments, the SMEs not only fail to generate the \$100 million of value added but they are subject to worsening competitiveness conditions, which costs them an additional \$20 million of lost value added. If the SMEs oppose reform, they expend \$5 million of effort. The order of play is that the government pushes for trade liberalization, SMEs either support or oppose it, and, only if the former is accorded does trade liberalization occur, in which case the government decides whether to keep its pre-reform service commitments. The SMEs then experience the associated increase or decrease in their value added.

This game has only one (Nash) equilibrium, that of the SMEs opposing reform and the government (intent on) breaking its promises.[4] To see that this outcome is inefficient, note that, from a social perspective, the greatest value added (\$89 million) results from the SMEs' support for the reform and the government's keeping its promises. Instead, the country loses \$6 million.

Figure 1: Game-theoretic illustration of the economic losses from a lack of government credible conmmitment**.**

<table>
<tr><td></td><td></td><td colspan="2">SME owners</td></tr>
<tr><td></td><td></td><td>Support reform</td><td>Oppose reform</td></tr>
<tr><td rowspan="2">Government</td><td>Keep promise</td><td>$100 million
-$11 million</td><td>-$5 million
-$1 million</td></tr>
<tr><td>Break promise</td><td>-$20 million
-$1 million</td><td>-$5 million
-$1 million</td></tr>
</table>

Order of play: Government pushes for trade liberalization, which consumes funds. SMEs either support or oppose it. In the former case, trade liberalization occurs; in the latter (which costs SMEs \$5 million to resist), it does not occur.

As Greif *et al.* (1998) and Weingast (1995) show, commitment games are in fact much more complicated than we have illustrated here. Of particular note is the latter's emphasis on the role of "legitimacy". In fact Zinnes and McPherson (2003, forthcoming) show how the need for legitimacy can even affect a country's long-run growth path. We hypothesize that one conse-

[4] The actual absolute values of the gains and losses in the payoff matrix are not important, only their relative size, compared to the player's other payoffs.

quence of the need for legitimacy in reform is that following through on the commitment is more important for those being appeased than having its results achieve great success.

2.2 Options for institutional reform

The optimal way to engender credible commitment will heavily depend on the cultural and legal environment of the country (Grindle, *et al.* 1991; Greif *et al.* 1994). Here we offer several generic types of devices which, if adapted to the specifics of the case, may satisfy the concern. They comprise mechanisms to communicate intent, deliver benefits, and tie one's hands to prevent *ex post* reversal.

"Talk the talk; walk the walk!". A necessary condition for commitment is to appear committed. While this may sound obvious, it is seldom followed. This is a standard signaling problem. At the risk of over-simplification, the overall idea can be illustrated by considering the case where there are two types of government, shirkers and doers. To "walk the walk" of a doer, the government must undertake actions that are costly for a shirker but not for a doer. Thus, investment in the prep for "doing" is something that would not be profitable for a shirking.

With this in mind, the government should begin by consulting with all potential stakeholders. Too often a reform is simply announced for fear that if done otherwise, the opposition will have time to mount a successful blockage. Doing this, however, creates exactly the opposite signals of one who is credibly committed to make the reform a win-win change. If there are no losers, why make the reform a surprise *fait accompli*? Rather, the government should realize that reform takes time and that in a democracy consensus must be built up. Finally, loser representation should exist on the oversight institutions providing the governance for any compensation or trade adjustment schemes (including those presented below).

This latter point is related to another strategic question for reform design, namely, whether to carry the reform out quickly or gradually. This question contains two parts, one related to the political path toward the promulgation of the requisite legislation and the other regarding the implementation of the legislation itself. A famous saying during the transition to a market economy in Poland was that "you can't cross an abyss in two leaps". The well known economist, Jeffrey Sachs has also counseled that a slow implementation requires an extended time for the winners – the reformers' eventual allies – to discover who they are; meanwhile the losers, who may be relatively fewer and with more concentrated stake, learn who they are immediately.

The distinction we make here is not that the implementation need proceed slowly but that it may require time to achieve adequate political consensus. Our argument is that trade liberalization may fail if the supporting institutions are not in place. Building institutions is a protracted process, often requiring three-to-five years. Most governments, therefore, are not statutorily in power long enough to stay the course to the end.[5] This raises the specter that the "opposition" parties may follow and rescind the reform, with all the associated externalities such reversals entail. Thus, in the case of trade liberalization it is likely that the more appropriate course is to gain a consensus from the start, rather than invoking a surprise.

"*Just do it!*". The simplest way to commit to an action is to *do it first*. Thus, for example, rather than promising to establish a social safety net or retraining program for those dislocated by trade liberalization, set them up first. Moreover, they should be sustainable (see next point).

Create a sustainable delivery mechanism. Characteristics common to credible programs or other actions to compensate losers are independence, autonomy, and, above all, sustainability. Let us consider each in turn. An independent program is one immune from political interference. This is important to convince losers that the benefits from the program will not be diverted to simply the politically well connected. Program autonomy is important to convince losers that the staffing, salaries and management will be adequate to provide the quantity and quality of services promised.

Finally and most importantly, a sustainable program is one whose financing is assured. There are two ways to address this concern, loan financing and self-financing. Each one creates an earmarked fund to ensure financial adequacy. The loan concept we present below. Self-financing may be accomplished with user fees (e.g., a surcharge on gasoline or other good with inelastic demand[6]) or through earmarking from a sustainable revenue source, e.g., an import surcharge or duty.[7] Additionally, an insurance-type scheme may be administratively feasible whereby a stable fee base is established upon which to levy a fee to finance the trade adjustment assistance. Mandatory insurance may carry greater legitimacy than involuntary taxes.

[5] And dictators are *ex ante* never certain when their time will be up.
[6] Ideally, the charge would be on a good most consumed by the direct beneficiaries of trade liberalization and least consumed by the short-term losers. It is important to create a sense of fairness and of sharing the "gain and pain".
[7] As long as the average *net* rates of tariffs are falling, the addition of a new surcharge is not contrary to the spirit of trade liberalization.

Buy it up front. While not mutually exclusive to self-financing, private bank, multilateral development bank, or donor loans to establish a trade adjustment fund may aid in establishing credibility. The latter two have the benefit that their funds disbursement may be set to be contingent with the provision of beneficiaries serviced. This prevents the funds from being diverted.[8] Of course, a more radical solution here would be for the government to literally take out an assurance (performance) bond. Not only could such a device be used to guarantee trade adjustment assistance, it could be used to pre-commit to trade liberalization itself when the schedule of reforms is purposefully gradualist in order to allow the supporting, institutional complementary reforms to become operational first.[9] What is key here is that the government can establish credible commitment by being seen to "purchase" the compensation scheme up front.

Targeted but indirect compensation. Typical forms of compensation for losers of reform are retraining or unemployment insurance. Additional benefits may assist in the political economy of reform. Examples include improvements in education and healthcare. Again, these can be established in advance of the reform or in the same legislation which mandates the trade liberalization schedule in the first place. What is important is that these alternative forms of compensation succeed in reaching the expected short-term losers, with the minimum leakage to unnecessary compensation of trade liberalization winners.

Terminal conditions and closure. In order not to create organizational beasts that take on a life of their own after their original intent has been achieved, it is important that any proactive subsidy scheme, direct or indirect, should be introduced with its own termination and closure conditions. Referred to as "sunset provisions", these should address at least two concerns, namely, that the schemes are finite-lived and that they include governance mechanisms to ensure appropriate dimensionality. They should specify the concrete, easily and transparently verified conditions upon which the scheme is no longer necessary (e.g., when trade adjustment has occurred) and a mandatory time frame and frequency for assessment. Similarly, explicit provisions should be included to ensure that the size of the fund is neither too large nor too small to

[8] Of course, this does not prevent what Collier (2002) refers to as fund substitution, whereby a dollar of donor assistance simply frees up and allows the government to redirect budgetary resources elsewhere, with the result that net funding does not increase. In the present case, however, either no budgetary funding would be envisioned in the first place or, if it is, donor funds could be of the matching type, e.g., 2-dollars of loan for 1 dollar of budgetary contribution.

[9] One design issue here is how to adequately specify the limited number of "escape" clauses, i.e., those situations of (presumably) *force major* in which exogenous and large unforeseen shocks prevent the government from making good on its pre-commitment to trade liberalization.

fulfill the legislative mandate. This in turn requires an explicit algorithm to ensure that the real value of the contributions and the real value of benefits – and process to assess them – are properly dimensioned.

2.3 Implications for USAID activities

To facilitate the government's task of credible commitment, there are three areas that USAID can direct its attention.

Explaining the rules of the game. Through policy advising that is integrally connected to other trade liberalization support, USAID should assist the government to understand the importance of credible commitment and the broad options available to achieve it, some of which have been described above.

Option selection. USAID may wish to provide technical assistance to identify who the likely losers and winners as well as what the probable key, negative, short-term impacts are from the particular type of trade liberalization being considered. It then might help in the identification of which compensation options might be most appropriate, given the likely concerns and opposition to trade liberalization. It then may wish to provide technical assistance to design of the specific options selected.

Implementation support. For the compensation options selected, USAID may wish to support with technical assistance or with financing or grants the implementation of the compensation schemes.

3. Resistance from owners of asset-specific capital

Economics teaches us that unanticipated policy changes are inefficient, since investors cannot take their consequences into account. Thus, investment is made that may no longer be optimal and may even be loss-making, given the changes in relative prices that the policy change instigates. Here the policy change triggers an instantaneous capital loss. It is thus quite understandable that owners of such assets are a source of strong resistance to any policy change. Moreover, with a little thought it is clear that surprise policy changes can affect not just investors but also households, labor skills and idiosyncratic knowledge, and even public sector officials.

In what follows, we examine the cause of these outcomes in terms of institutional economics (NIE). Then, based on NIE, we propose several alternative institutional reforms that would allow a country to harness the power of incentives (Zinnes *et al.* 2002) to compensate the losers whose assets have been materially depreciated from trade liberalization. In this way it is more likely that the government will be able to co-opt many of the groups opposing trade liberalization, with a win-win outcome for all. This section ends with a discussion the implications for USAID, which are of two kinds. First, we consider whether the problem of asset specificity may occur *within* USAID, thereby influencing the effectiveness of its interventions. Then we discuss ways in which USAID might be able to support the search and the implementation of the appropriate institutional reform solution.

3.1 An NIE analysis of the obstacle

The key attribute of the investment is not that once made it creates a fixed asset, but the degree to which the asset has an alternative use (i.e., how "sunk" it is). At one extreme might be a desktop computer. If an SME moves or goes bankrupt, the owner can easily sell the computer, losing only the transaction costs of finding a buying (and perhaps the risk premium, where the warranty has expired or is not transferable). At the other extreme is a machine tool that only produces one type of molded component. If the consumers of the component either stop making the model in which the component belongs or switch to a cheaper import, then the machine tool has no value; indeed it may have a *negative* value if it must be carried off and junked.

While the degree of asset-specificity may vary, for the present purposes, we will classify asset-specific investment as being of one of three mutually exclusive types. Physical capital refers to plant and equipment, the former, generally having a salvage value while the latter possibly being sunk. Human capital, referring to the information and skill acquisition associated with the pre-reform relative prices, may be among the most serious costs – and therefore social costs – of the reform. Because of individual bounded rationality constraints, these capital losses are probably sunk costs. For example a farmer may not easily become a garment worker and if she does, the former knowledge may be of limited use. Third, there is a loss of social capital. The networks and contacts made as well as the positions held generated social (career?) capital, which may be sunk and even lead to immediate pecuniary losses. For example, if a customs inspector bought her job, she will still need to repay the debt since the reform may stop the flow of returns. This type of inter-agent debt is reminiscent of the inter-firm arrears seen in the transition economies.

Clearly the problem is that, while a policy may be changed at the stroke of a pen, the time required to recoup the stream of returns upon which the asset price is valued may be quite protracted.

A different NIE problem, namely, adverse selection surfaces when one considers the design of compensation schemes. In particular, if the government offers a benefit then it wants to be certain that the beneficiary is within the population targeted for compensation. Ideally, the nature of the benefit would cause only the targeted population to self-select to receive it. One example might be retraining, which requires the beneficiary's time as a joint input. At the other extreme would be a cash transfer, which would elicit interest from trade liberalization winners and losers alike.

3.2 Options for institutional reform

There are basically two alternative institutional approaches to address this class of obstacle, advance notice and compensation. While in practice both approaches should probably be used together, for ease of discourse we describe each one separately. Moreover, for each approach, we examine several institutional variants.

Advance notice/gradualism. Were policy reform announced sufficiently far in advance so that all extant, asset-specific investments would have had time to generate a fair rate of return, there would be little resistance to it.[10] In practice this is not possible, as governments and world events change too quickly to implement policies with such delays. A more feasible alternative, therefore, is to begin the reform in a timely manner but announce the *schedule* for the phase-in of policy implementation. Examples of such approaches are the phase-out of non-tariff barriers and the ratcheting down of average tariff rates. The challenge with the gradualist approach is whether the government can convince the private sector that it is committed to follow through with the schedule of changes. We discuss the problem of credible commitment in section 2.

Compensation. The design of compensation must address several aspects, including to whom, how much, and, most critically, through what mechanism. Since these many of these issues have already been described in section 2, here we will merely add a number of options. In practice a government's strategy often segments the population into four categories, winners (sometimes further broken into those who know they are and those that don't), losers, illegiti-

[10] In fact, in theory any "news" will affect current-period returns.

mates, and those to ignore. For the winners who don't realize they are, a strategy of information dissemination is prudent while for those who do know who they are the options proposed in section 6 are sufficient.

To those not "hurt" by reform, compensation to losers seems to be an extraneous subsidy for programs that rarely work. This misses the point. The immediate goal of compensation is not the directly implement economic growth-generating activities, but to remove political obstacles that might block such activities in the first place.[11] Moreover, the best compensation is dual functional, namely, it diffuses opposition to reform *and* it facilitates the movement of productive resources into the newly competitive sectors.

For those in public sector organizations likely to be downsized or closed as a result of a policy orientation of openness, several options are possible.[12] Public sector workers can be reallocated to the new institutions required to support trade liberalization or the trade adjustment schemes to be implemented. Alternatively, funding may be used for early retirement and for redundancy payments.

Turning to asset-specific private sector investment, sunk-cost human capital may be compensated via retraining, and unemployment insurance. Schemes for compensating physical capital which is sunk may be better treated as part of programs to facilitate the reallocation of capital to the newly competitive sectors as described in section 6. Thus, business loan and grant programs may be the best way to go. Here, the asset-specific capital may become an advantage if these financing programs accept such capital as valid collateral. We also believe that there is scope for adapting the microfinance mechanisms of dynamic incentives and joint liability devices of peer selection and monitoring to SME loans and grant programs.[13]

Next, there are those who are losers but whose claims are not generally considered by society to merit compensation. An example of such "illegitimate" loser might be a customs inspector who "purchased" their job so as to have the "right" to extract bribes from traders.

[11] See the related discussion at the end of section 2.1.

[12] There are potentially two sources of asset-specificity here, idiosyncratic training for the position at hand and private side payments made to "purchase" the position in order to be able to extract bribes. Since in many countries these side payments are even expected as ways to "top up" civil service salaries, they need to be taken in account when establishing the size of compensation.

[13] At first blush a preference for grants over loans may seem anathema to theory of incentive alignment. However, once one recognizes that the transaction costs of monitoring small loans are large, it is easier to see why grants may be preferable from an NIE standpoint. Nevertheless, in the text we propose peer mechanisms to improve the effectiveness of either mechanism.

There are two views on how to treatment these cases. One is to marginalize them by endeavoring to expose the social illegitimacy of their claims (which often are publicly presented in a more socially acceptable guise). The other is the school of "Realpolitik", which advises that the goal is to implement the reform, not to pass judgments. While in practice we tend to side on the latter view, we prefer to stress the importance of the perceived legitimacy of the reform. Compensating the illegitimates whose resistance might place the reform at risk seems sensible as long as one does not call into question the legitimacy of the full reform package in doing so.

The fourth category contains those (presumably losers) to ignore, perhaps because they are a small group or otherwise politically powerless. While the cost of reaching every conceivable loser is likely to be uneconomic, one should keep in mind, given that we are arguing that trade liberalization may take years to implement, that a powerless opposition group today may be the majority party tomorrow.

3.3 Implications for USAID activities

To support the government's efforts to overcome resistance by asset-specific opponents of trade liberalization, there are three areas that USAID can direct its attention.

Explaining the rules of the game. Through policy advising that is integrally connected to other trade liberalization support, USAID should assist the government to understand the importance of diffusing resistance by owners of asset-specific capital. USAID should also assist in helping the government to identify the broad options available to achieve it, some of which have been described above.

Option selection. USAID may wish to provide technical assistance to identify the sectors and factors that the likely lose and to gain from trade liberalization. It then might help in the identification of which compensation options might be most appropriate, given the likely concerns and opposition to trade liberalization. It then may wish to provide technical assistance to design of the specific options selected. High on the list are those efforts described above, which target the establishment of programs to compensate losers, to facilitate the reallocation of salvageable asset-specific capital to the newly competitive sectors, and to co-finance financial facilitation mechanisms.

It is imperative, however, that USAID assistance not be seen as the "purchase price" of trade liberalization. If the government does not clearly "own" the reform, then it is simply not likely to succeed, not to mention convince the recalcitrant losers that they will also gain.

Implementation support. For the resistance-reducing options selected, USAID may wish to provide technical or financial assistance to facilitate the implementation of the compensation schemes already described.

4. Inappropriate LRJ environment

4.1 An NIE analysis of the obstacle

One of the principal insights of the new institutional economics is that one of the primary causes of continued poverty across the world is governments either interfering in market activities or failing to provide market augmenting institutions (North 1983, 1990, Olson 1996, 2000). Both sins of commission (too much red tape) and sins of omission (failure to enforce contracts between private parties) can retard commerce. This has been persuasively argued in the historical context by North, Olson and others and shown in econometric cross country analysis (Knack and Keefer 1995). As an increasing amount of authority is devolved to local governments, failures of government at the local level are also becoming important.

To take a concrete example of the sins of commission that there are too many regulations, sometimes contradictory that prevent commerce following liberalization – there are even reports that in some places in Brazil central and local fire regulations contradict each other so businessmen must fall foul of one or the other! Following liberalization competition with other countries might make it impossible to continue production at a profit and industries might disappear.

An example of sins of omission may be, that following liberalization, local manufacturers have difficulty penetrating foreign markets because foreign buyers don't believe they will honor their contracts and suspect that legal remedies will de facto not be available. Similarly manufacturers may not be able to get access to credit for retooling aimed at shifting production following comparative advantage. In the discussion of obstacle 1 above we examined some ways that institutional reform focusing on the development of informal institutions like networks and cooperatives could overcome these obstacles, here we focus on combating these obstacles by encouraging the development of formal institutions.

In some countries like Indonesia local governments are even enacting regulations that prevent inter-jurisdictional trade within the country. This is particularly pernicious in NIE terms because not only does it negative efficiency consequences, but it also reduces the incentives of the local governments to provide market-augmenting services.

4.2 Options for Institutional Reform

Depending on the nature of the pathology several different options for institutional reform suggest themselves.

If the major pathology is that there is too much red tape, i.e., too many regulations interfere with commerce, then the solution may be to reduce the regulatory burden. Note that the proposed solution is not to eliminate regulations but rather to make them simpler and consistent. In the example given above the proposed solution would not be to not have fire regulations but rather to have consistent ones (or just one regulation).

If however the major pathology is that the state can't be relied upon to enforce laws and contracts, then the solution would be to improve the quality of law enforcement, perhaps by improving capacity or otherwise improving the efficiency of providing justice. One way to do this would be to reform the process of granting adjournments which is the cause of long delays in judicial systems in South Asia and elsewhere. Other reforms often undertaken by USAID are the reform of commercial laws and the creation of systems of private arbitration.

In terms of improving the incentives of local governments to provide the appropriate LRJ environment, the optimal institutional reform might be to

a. ensure the mobility of goods and factors across jurisdictions
b. provide timely and precise information about the LRJ environment in different jurisdictions.
c. help local governments learn from successful reform experiments in other localities

Note that the design of the first of these points, ensuring the free movement of goods and factors, is complicated as it overlaps with issues of environmental and other regulations. If local governments are allowed to set their own environmental standards they might use these to favor products made in their own jurisdictions. Point 2, the provision of information about institutional quality, is already done across countries by investor rating agencies but it is possibly cost-effective even at the sub-national level for some large developing countries.

4.3 Implications for USAID activities

USAID and other donors can undertake several activities to help the process of institutional reform.

Some activities can be focused on capacity building. Judges can be trained; court judgments computerized and transmitted to build case law jurists can draw upon. USAID can also offer assistance in the drafting of laws. This could either be the widespread practice of advising governments on reforming commercial laws, or the relatively new and more challenging – but probably more worthwhile – practice of helping countries improve the rule of law. One such example could be help in drafting rules that prevent frivolous adjournments which cause interminable delays in judgments (Koehling 2001 has found that Indian states where court systems are clogged and have long delays have slower rates of growth and poverty reduction than states with more smoothly functioning courts). Other examples could be help in enforcing freedom of information (FOI) laws like IRIS's current program in Georgia.

Another possible institutional innovation is the creation of a local government rating agency. Typically this would take some seed money as experts are trained in such evaluations. Like cross-country rankings the best way to do the rankings of local governments would be some combination of surveys – typically of businessmen – and in dept studies of each sub-national government. Once the system is set up it could be self-financing because private companies might be wiling to pay for these rankings, and the marginal costs of creating these rankings once the expertise has been built up would not be that high. Indeed, in NIE terms, the market discipline imposed by the need to sell these rankings may help ensure they are accurate.

Another possible donor intervention could be the systematic collection of information on localities that try new reforms and the dissemination of this information to other localities. One of the major arguments for decentralized government in the United States is the idea of "experimental federalism", the idea that decentralization can improve governance because some brave states can try experiments which if successful can be tried elsewhere (Oates 1999), or stated more eloquently as "the states are the laboratories of government". Developing countries however often lack the academic infrastructure and media attention to learn the right lessons from such experiments. One possible intervention for USAID might be to sponsor studies that help developing learn the right lessons from these experiments and workshops for the dissemination of these lessons. In NIE terms the analysis and dissemination of information on reform experiments would reduce informational asymmetries and hence the transaction costs of the process of reform, thus making reform more likely and more successful.

5. Fears of negative externalities to the commons

One of the most vociferous concerns of both domestic and international opponents to trade liberalization relates, (at least) in the short run, to the likely negative externalities from the expansion of domestic production due to the increase in demand from foreign markets. These impacts are especially manifest in three areas, each of which having a disproportionate impact on the quality of life of the lower deciles of society.

First, they create additional stresses to the urban environments, as migration to cities and industrial zones places greater demands on the already taxed transport, water and sanitation, and power grids. Here the poor suffer most from infrequent and run-down transport infrastructure. The poor are least able to afford or find suitable substitutes for low-quality water and dysfunctional sanitation delivery. Finally, the poor typically have the least access to power and heating grids and, where demand raises prices, are the least able to afford service tariffs.

Second, to the (frequent) extent to which exports are intensive in the use of natural resources (including land via agriculture), an expansion of production may lead to an increased consumption of the country's natural resource base. If the appropriate regulatory controls are not in place, the rents from the natural resource base are not likely to be maximized (Vincent 1996). Even if they are, if the government spends these rents unwisely (e.g., on consumption rather than investment)[14], then additional natural resource extraction may still be uneconomic. Likewise, for example, when poor regulatory oversight leads to deforestation, subsequent landslides and flooding tend to impact most heavily on the poor. Irrigation services as well hydropower can also be adversely affected. Finally, deforestation can adversely affect ground water quality, leading to impacts on ecosystems (including biodiversity), often a source of (future?) tourist revenues. Note that SMEs themselves play a significant role in illegal felling (Vincent 2002).

Third, expansion of production generates more water, air, and solid waste pollution, leading to a likely further degradation of environmental assets. Here we mention only a few examples. Expansion of SME ceramic-related activities increases particulate matter levels. Expansion

[14] Vogelsang *et al.* (19xx) show that a dollar of benefits from government expenditure typically requires an additional $1.20 in revenue collection, making such expenditure very uneconomic.

of SME animal husbandry leads to increased concentrations of nitrogen in ground water. Increases in the number of cement plants in response to trade-driven growth in construction start-ups increase PM-10 airborne concentrations. Expansion of SME agriculture can increase the use (and cost of regulatory control) of fertilizer, which, as a non-point-source pollutant, adds to surface water body BOD loads. Because the poor are most likely to be outside pollution sources as well as live near solid waste sights and to consume untreated water such degradation tends to impose a disproportionate reduction in the quality of life for the poor. Needless to say, there are also transboundary pollutant impacts, though these externalities are truly outside the government's view.

Ironically, what we see is that SMEs may be both a cause and a recipient of trade-induced externalities. As illegal loggers or non-compliant polluters, they contribute to the externality load. As potential value adders, were there to be more secure property rights they become reforesters, recyclers, private laboratory providers, land managers, rubber growers, mangrove farmers, coral reef grazers, and even carbon sequesters.

Each of these externalities, however, owes itself to an increase in demand for a regulated good or service where such regulation is already frightfully wanting. It therefore seems quite justifiable that reasonable people would harbor fears that the government has neither the political will nor financial, technical and administrative capacity to limit the likely negative externalities from increased trade. In what follows, we call upon the theoretical insights (Azfar 2002) recently developed in the field of institutional economics (NIE) to examine the underlying institution failures leading to the outcomes just described. Based on NIE, we propose several alternative institutional reforms that would allow a country to harness the power of incentives (Zinnes *et al.* 2002) to credibly internalize the gamut of negative externalities which trade liberalization might exacerbate. This section ends with a discussion of ways in which USAID might be able to support the search and the implementation of the appropriate institutional reform solution.

5.1 An NIE analysis of the obstacle

We see this obstacle as actually comprising two distinct institutional challenges. The first is whether the government could feasibly (from an administrative, financial, and technology perspective) implement the institutional reforms to internalize the externalities of trade liberalization, given it wanted to carrying them out. The second is one of credible commitment. Even if the government had the capacity to feasibly carry out a series of institutional reforms to assuage fears of damage from production externalities, would it have the incentive to do so once trade liberalization was initiated? Since we deal with the question of credible commitment in section 2, we concentrate here on what we see as the main source of these externalities, transaction costs.[15] These are perhaps more useful to analyze in terms of three manifestations: information failure, collective action failure, and weak governance. Though the discussion which follows refers to the government *qua* regulator (e.g., of water quality), it applies equally to the government as a policy maker (e.g., manager of exchange rates), a fiscal unit (e.g., tax collector), and a provider of services (e.g., education or road networks)

<u>Information failure</u>. This comes in two forms, lack of knowledge (e.g., that PM-10 particulates lead to cardio-pulmonary illness) and asymmetric information (e.g., "voters" not knowing the level of PM-10 in the air, but the polluters do). A similar situation exists for natural resources. There may be a lack of knowledge (that resource extraction, processing or transport)[16] can damage physical infrastructure, human health, and the environment) or an information asymmetry (e.g., viz. the amount of extraction occurring or the size of the resource rents lost).

<u>Collective action failure</u>. Often due to coordination failure or a lack of *ex ante* governance, this problem relates to how affected parties or prospective beneficiaries deal with the transaction costs related to overcoming a lack of trust and cooperation so as to be able to share the costs of information acquisition (where knowledge is missing) or to act more efficiently or effectively upon the information they already possess. This failure can occur from missing or dysfunctional institutions running the gamut from the household through to national government. It can include missing or weak trade associations, political parties, or other Putnam-like (1995) organizations comprising civil society.

<u>Weak governance structures</u>. Clearly, it is not enough to have information or collective action lead to the creation of institutions with mandates to manage the commons and ensure the excludability, benefits capture, and alienability of private property. Once these institutions are established, poor institutional design (including oversight) and the existence of principal-agent

[15] There is the possibility that these may not always be separable. When and where this is the case, as well as what the implications are for the analysis, will be investigated during the next phase of our research and reported during Forum 4.

[16] Examples here include fisheries depletion, deforestation, open-pit mining, sediment ponds, smelting, refining, transport of coal and other energy products.

problems (often related to the former) can mean that the interests of those with a stake in the effective functioning of these institutions are not protected. Equally problematic is that these institutions do not have the twin governance mechanisms of information disclosure (e.g., decision-making transparency) or voice (e.g., public participation), both of which can limit the damage of principal-agent incentive misalignment.

These weaknesses compromise the very heart of any regulatory system because they limit the independence (freedom from political meddling) and accountability (of the regulator to the stakeholder) of the system. These make it near impossible for the regulatory agency to manage two, seemingly contradictory – though essential – characteristics of an effective regulatory agency.[17] First the agency must be able to credibly commit to a set of regulatory rules so that the object of regulation responds with asset-specific investment and compliant behavior. Second, the agency must be able to exercise regulatory discretion, which is necessary to resolve the inevitable future occurrences of residual uncertainties inherent in incomplete contracts.

These three manifestations of transaction costs lead to several concrete consequences, which in turn cause the impacts we expect to observe and generate the fears leading to the withholding of political support.

Insecure property rights. This insecurity affects both private property and the commons. Viz. the former, the process of economic growth requires a transformation of how private property is upheld. It requires a shift from personal ("self-help") and informal (discretionary adjudication by the local chief) mechanisms to formal due-process institutions. Formal institutions require an information base, e.g., a land cadastre or collateral registry, which is often incomplete or nonexistent in aid recipient countries. Worse, if the formalization of rights assignment is not done properly, the formal property rights regime can conflict with ancestral claims and communal ownership. The process of the transition to a formal regime, therefore, may undermine the existing regime, causing the ensuing "system" to perform *worse* than that which it replaces. Viz. the commons, information failure, coordination failure among affected parties, and weak (*ex post*) governance of the regulatory apparatus combine to result in the poor management of natural assets (watershed services, parks, forests, biological diversity), the environmental media, and population health.

[17] In fact, there are several other essential characteristics for an effective regulatory agency. See Smith (1997).

These problems are aggregated at the level of implementation. Aid recipient countries often lack a regulatory system capable of monitoring and enforcement as well as a court system capable of ensuring due process and enforcing civil liability. While this is not the place to debate the supposed tradeoff between economic growth and sustainable development (see Panayotou 1998), a commonly heard concern is that such protection of natural and environmental assets is a luxury that a country fighting poverty can ill afford. This may simply be an information cascade stemming from the information failure described above. Countless studies (e.g., Dixon 1994; Whittington *et al.* 1996) show that the *economic* (albeit social) return to such investments as watershed protection and control of SO_2 and particulate emissions dwarf those made in rivalrous (private) goods. Moreover, these studies rigorously conclude that, where the poor are allowed to choose, they reveal a high willingness to pay for such services as potable water.

<u>Financial effects</u>. There are several financially-related causes and effects of regulatory system performance, of which we mention but a few. First, most regulatory agencies fall administratively under the executive branch of government. Therefore, both their operational and capital budgets are subject to parliamentary appropriation and oversight. This invariably leads to erratic and under-funded regulatory budgets, making infrastructure improvements in support of critical monitoring and enforcement activities infrequent and haphazard at best. Similarly, agency placement in the government typically requires that staff salaries be subject to the general civil service codes. Unfortunately, this can conflict with another essential characteristic of agency performance, namely, the quality of expertise in the regulatory agency.[18]

A second source of financial problems that influence regulatory effectiveness relates to the non-economic objectives imposed on an agency, the most legitimate one perhaps being distributional. A common manifestation of this conflict is the government's use of cross-subsidization to pay for subsidizing target groups within society. Water-abundant regions may pay the same raw water price as water-scarce ones. Ignoring the direct impact on economic efficiency and, ultimately, on the very target population of concern that results from distorting the price of this key economic input, there are other consequences that further reduce the effectiveness of the government agency. Briefly, the use of cross-subsidization can limit the government's ability to

[18] It is frequently underappreciated just how specialized the expertise needs to be in a line agency. This is all the more true under an effective legal system, where regulations bite. In particular, when the costs of compliance are large, the private sector is willing to spend significant amounts of expertise to avoid (or at least "interpret") its obligations. Without equally competent specialists, it may be difficult for a regulatory agency to enforce its mandate.

utilize private-sector franchise providers for public services and infrastructure (Joskow 1996). Cross-subsidization typically lowers the effectiveness of oversight agencies – and civil society – to ensure agency accountability. Finally, cross-subsidization compromises the allocative efficiency of public expenditure since, instead of parliament allocating expenditure (including subsidies) across explicit alternatives subject to a budget constraint, the cross-subsidized expenditure is hidden.

A third impediment to effective management of natural assets and critical physical infrastructure (e.g., for water and sewerage) relates to how the provider – whether a publicly owned utility or a privatized monopoly of an infrastructure facility bottleneck – is paid. At the risk of simplification, the entity either collects a fee (generally set by the regulator) directly from the beneficiary or receives *ex post* compensation out of an earmarked extra-budgetary fund (or even out of the general budget). While both systems in theory are feasible, in practice two problems emerge. First – and this is linked to the matter of cross-subsidization above, there is a deep aversion worldwide to setting the fees for public services and use of the commons at a level to ensure full-cost recovery. Even when governments use full-cost pricing it is to pay for recurrent costs (e.g., staff) and almost never to recover capital costs (which often, sadly, applies to maintenance, as well). The predictable result is a vicious cycle of degraded service performance followed by higher rates of non-payment by the user, followed by lower funding and further service degradation. Finally, in practice, the indirect method of payment breaks the accountability loop between the service provider and the beneficiary.[19]

<u>*Jurisdictional effects*</u>. We have already mentioned how a lack of government attention or support to long-lived albeit informal common pool management regimes frequently compromises the resource (Ostrom *et al.* 1993). There are additional jurisdictional dimensions to consider related to institutional performance. We briefly mention four, which we classify as political, geographic, sectoral, and functional. On the political side, the key design characteristic for institutional performance relates to the level of centralization and devolution, both on expenditure side and the revenue side (Holmes 1995). On the geographic side we point out that in the case of natural resources and the environment the area that includes the externality should coin-

[19] A related issue here is the "power" of the incentive regime. A fixed fee to the private sector provider provides a higher-powered incentive than an incentive scheme in which the government shares the costs (Laffont and Tirole 1993). In the former, all the cost savings go to the provider, creating a stronger efficiency incentive.

cide with the boundaries of the relevant regulatory jurisdiction, e.g., the river basin for water management (Zinnes 1998).

The sectoral side refers to the breadth of the definition of the sector. Consider two classes of examples. Should the forestry department be inside the ministry of agriculture? Should the water utility (which may receive its funding based on the *quantity* of water sold) also be responsible for ensuring water *quality* (which, ecologically, is often inversely related to water quantity)? Should the water department be inside the ministry of environment? These illustrate the proverbial "fox-in-henhouse" case.[20] Should there be a ministry of transport or, rather, an agency for ports, an agency for roads, etc.? This design issue is critical for several reasons.[21] First, in a developing country expertise may be scarce and, with under-funded regulatory budgets, such personnel may need to be shared to be efficient. Second, a more sectorally diverse regulator is less likely to be "captured" than one which is narrowly focused. Thirdly and lastly, a single-purpose agency can be more responsive to providers and beneficiaries alike.

Finally, on the functional side, one question relates to the incentive problems in the assignment of functional responsibilities for the regulation of a sector or provision of a service. This confronts the issue of balancing the informational transaction costs of having functions split across administrative units versus the improvement of accountability separating oversight from the activity itself. For example, should the port authority have its own department of concession management or should the government as a whole have a concession agency? A second question for functional efficiency is cost. For example, should a local environmental protection agency (EPAs) have its own in-house laboratory? Should it contract out the service? Or should several local EPAs share one laboratory?

5.2 Options for institutional reform

Management of the commons is one of the most difficult institutional challenges of economic development and success will not come overnight. However, since much of the capital for investing in the modern sector must come from the natural resource base (Panayotou 1998), its continued protection, management, and *exploitation* are critical. Trade liberalization can have a posi-

[20] This is sometimes referred to as "the poacher and the gamekeeper". The idea is that it is probably not a good idea to have a fox protecting a henhouse or a poacher employed as the gamekeeper.

[21] Our purpose here is purely illustrative. We have no pretensions of being comprehensive. See Viscusi *et al.* (2000) for the latter.

tive and negative effect on these processes. First, demand from international markets provides the best chance of obtaining the maximum resource rents from any given level of exploitation. This is important for the more valuable a resource is, the more its owners will want to take care of it. Higher rents will also encourage SME entry into the exploitative sectors, increasing both the access to the gains from trade as well as the costs of regulatory inspection and monitoring. Second, where international investors are involved, they offer access to management, harvest, and extraction technologies that are more environmentally friendly. Third, the increasing demand in OECD markets for environmentally sustainable production provides information, learning, and feedback for local harvester, extractors, and producers.

Unfortunately, the first of these arguments can lead to a negative impact for the case of the commons unless adequate institutions are in place. This does not mean trade liberalization must await a *fully* operational protection regime, since trade liberalization can also bring substantial benefits. But it does mean that certain institutional preconditions should be in place first and a process of institutional upgrading should be initiated in conjunction with the trade reforms. Toward this end NIE suggests that the main focus of complementary reform consist of several components including ensuring clear property rights, information dissemination (public awareness), voice (public participation and stakeholder empowerment), sustainable financing (of regulation agencies and of public services; demand management with full-cost pricing), use of competition, agency skill upgrading, performance-based regulatory discretion, collective action, reduced transaction cost permitting, and product differentiation (e.g., certification of outputs).[22] Let us examine these in turn.

Ensuring clear property rights. NIE focuses on incentives. Incentives require stakes in the outcome. Ownership is the *sin qua non* of incentive alignment. Therefore, reform should place great attention on improving the clarity and security of otherwise informal property rights regimes (De Soto 2001). One example is land titling. Another example (for in countries where state-owned enterprises have generated extensive past environmental damage) is the importance of attaching the environmental liabilities as well as its assets to the object of sale in privatizations.

[22] Our purpose here is to be illustrative, not comprehensive.

Information dissemination. Beyond clear and secure property rights, it behooves policy makers to educate the electorate in the economic, health and ecological costs of damage from economic activity in order to create local political pressure for the internalization of its externalities. While public awareness campaigns are useful, it is not enough to simply ensure that data are broadly available; they must be presented in an easy way for the population (with bounded rationality) to interpret without incurring high transaction costs. Perhaps the most exciting example of this has been shown in Indonesia (Wheeler *et al.* 1998), where a firm's environmental performance is rated using a five-color coding system, which the firms display. In this way, the average consumer can quickly recognize where the firm stands. Indonesia's program is voluntary. In a county in Romania, however, the local EPA actually publishes the environmental performance of firms within its jurisdiction in the local newspaper.

Tietenberg (2000) goes further to illustrate how voluntary disclosure might be considered the "third-wave" of regulatory instruments (after "command-and-control" and economic instruments). He shows how a company's treatment of labor, the environment, and other anti-social behavior can carry adverse consequences, raising its costs in labor and capital markets while reducing demand in product markets. The implications of these insights have yet to be fully explored. Part of the problem is conflict of interest: a government does not want to reduce the (export) sales or raise the costs of its firms.

Opportunities for voice. Once provided with the knowledge, the information, and a way to interpret it, the next requirement is that the public have a channel to exercise its "voice" in policy. Unlike industrial or agricultural policy, public participation is often *de facto* and, surprisingly, *de jure* absent from decision-making related to the commons. This dramatically raises the cost of management of natural assets, since a country is typically too big for the regulator to monitor it all alone. Moreover, stakeholders have a lot of asymmetric information unavailable to the regulator. Thus, stakeholder empowerment can both improve the democratic functioning of society while simultaneously improving the effectiveness of the regulatory system.

Unfortunately, public participation with regard to permitting takes additional time. The trick is to design a permitting system that balances the benefits of public participation with its costs. We return to this point below.

Sustainable financing. Perhaps the most flagrant manifestation of the principal-agent problem concerning the protection of natural assets is the under-funding of regulatory mandates (assuming there are any in the first place). This translates into ill-equipped facilities, under-dimensioned personnel, and under-skilled (and *ipso facto*, under-paid) staff. Putting aside opportunities for corruption, even the most dedicated staff are unable to fulfill the demands placed on the agency. Thus, sustainable financing is the *de minimus* requirement for institutional reform. Since the general budget is not a reliable source of financing, we believe that regulatory services should have user fees (and, therefore, an earmarked fund).[23] This also accords with the notion that use of the commons, like any other good or service, should be paid for.

A related problem is the under-pricing (or zero-pricing) of municipal public services such as solid waste, potable water delivery, sewerage, flood protection, as well as transport infrastructure, to name but a few. This is frequently based upon two mistaken beliefs. One is that life-dependent inputs such as water, which everyone knows is "free" – it falls from the sky – should be delivered without charge. The second is that the poor cannot afford these critical services so they should be subsidized.[24] The absence of full-cost pricing results in a chronic under-funding of the physical structures as well as their operations and maintenance. Worse, the pricing at below cost prevents any possibility of demand management. Moreover, this leads to rationing or some other manifestation of reduced service quality. Ironically, it is the poor who are least able to afford avoidance or other substituting strategies (e.g., bottled water).

Agency skill upgrading. As should be clear from our discussion above, may of the positions within a regulatory agency require high levels of expertise. These are both scarce to begin with in a developing country as well as impossible to attract into an agency subject to the generally low salaries of the civil service. Thus, even a sustainable and properly dimensioned source of financing is insufficient. Regulatory autonomy and expertise acquisition requires a separate civil service code for regulatory authorities.

We should also point out that donor-driven training programs are probably *not* an example of an NIE-inspired activity. This is based on confusion as to the source of its need. Donors generally think the lack of training is either due to an inability to pay or a lack of supply of trainers. In fact, the most common reason for a lack of training is that, frankly, training is not a good investment. This is because there is no demand for trained experts at a wage that would

[23] Such an instrument may require a change in the public finance or local public finance laws.

[24] A variant of this is that the poor do not have the willingness to pay for these services and therefore the state must provide these "merit" goods.

make the training investment pay-off. The better (NIE) intervention would be to increase the demand for expertise. We return to this theme in subsection 5.3.

Performance-based regulatory management. Paying higher salaries unfortunately is no guarantee of improved performance in countries plagued with traditions of corruption and patronage. Nor are agency autonomy (which includes freedom to set higher salaries) and independence (which includes greater discretion in decision-making and in human resource management) sufficient for effective regulation and credible government commitment (critical for investment compliance). These must be coupled with a system of accountability. We therefore propose the adoption of performance-based regulatory management. This, however, requires separating the monitoring functions from the inspection and enforcement functions of the agency. This, in fact, is already done in many countries' water sector, where the water utility and the water regulator are separate entities. A similar system exists in many countries' mining and mineral extraction sectors, with the environmental agency assuming the role of monitor (quality) and the sector ministry regulating quantity (often via a concession).

Collective action. Returning to the theme of the regulator being unable to monitor all, an effective way to compensate is to empower stakeholders. We do not elaborate here but we would propose greater use of (read, legal support for) institutional forms that internalize externalities. Examples include river basin commissions, irrigation systems associations, and community forestry management.

Product differentiation. A potentially beneficial market-assisting intervention may be for the government to support signaling and reputational mechanisms to reduce the transaction costs of business exchange. Of course, prior to proactive steps, the government should carry out a transaction cost analysis of where existing *government-induced* obstacles are. This corresponds to the now famous "red-tape" type of analysis. Once these errors of commission are being addressed the government may consider more administratively complicated support.

One example would be to establish or support a private sector initiative to establish a certification program of environmental experts for auditing (EA) and impact assessment (EIA).[25] In parallel with legislation requiring their use in permitting, this intervention can kick-start a

[25] A similar technique could be applied to health and occupational safety.

demand and supply of the expertise required to implement programs to protect and manage natural assets.

A second example is the government support, either alone or in conjunction with the private sector, of an initiative to establish an international reputation. This may be in the form of a product certification, such as sustainable timber, process certification, such as child-free labor, or as a service certification, such as being an eco-friendly destination (e.g., Costa Rica).

Use of competition. Perhaps one of the most exciting areas to explore is the use of competition to improve both reform effectiveness and efficiency at the same time. At its most simple, the government could create markets, such as one for scrap. An example would be scrap tire recycling.[26] At the next level of complexity is to contract out regulatory and public service delivery services. Examples here include water and municipal waste infrastructure concessions on the one hand and the competitive out-sourcing of laboratory services for local environmental protection agencies. In the case where the output market is a monopoly (e.g., the raw water utility) competition can still be engendered on the input side through the use of "yardstick" competition, where feasible. At the most administratively challenging is to create "race-to-the-top competition across regulatory or legislative jurisdictions (decentralization). An example here would be to set up institutional incentives so to encourage participating municipalities to improve their business environment as a way of attracting a greater share of domestic investment or new foreign direct investment. IRIS has developed such a program in Romania (Clement 19xx).

Lowering the transaction costs of permitting. Regulations are institutions and comprise a set of rules-of-the-game and an enforcement mechanism. While the focus of the enabling environment is on the removal of regulation in the interest of transaction cost reduction, regulation is *not* bad for business *per se*. Only regulation whose net-of-compliance benefits are negative should be removed *per se*. Of those which remain, cost-effective alternatives may be investtigated. In both cases one should make the distinction between the objective of the regulation and the quality of its implementation. A poor score on the latter is not *prima facie* evidence of the former.

A good example of these statements is the case of permitting (e.g., water, health, labor, environmental, fire, etc.). Since these regulations were often seen as rent-seeking opportunities

[26] This also addresses a fuel scarcity issue (Zinnes 1998b).

instead of coordination devices, their scope was generally excessively inclusive, especially given the administrative resources available in the responsible governmental agency. Consider several options here. First, staff-strapped agencies may employ the device of "presumptive" permitting to reduce the bottleneck associated with permitting.[27] Second, (and as implied in the previous footnote), the permitting agency should develop a strategic orientation to permitting, i.e., one that maximizes expected compliance for a given level of human and financial effort. Finally and again probably to maximize rent-seeking opportunities, permitting agencies often have overlapping jurisdictional competencies as well as redundant requirements. Mangrove swamps in Thailand, for example, are within the jurisdictional purview of the Harbor Agency, the Department of Environment within the Ministry of Science and Technology, the Ministry of Forestry, the Ministry of Agriculture, and the National Parks Agency. Many of their permitting requirements are the same, as are the paths of their inspections, such as they are. Not only does this radically raise the cost of economic activities in the swamps, but it increases the regulatory cost on the government. Here as in elsewhere, a strong case can be made for comprehensive media permitting.

5.3 Implications for USAID activities

To support the government's efforts to overcome resistance by those opposed to trade liberalization based on fears of degradation of the commons, there are three areas that USAID can direct its attention.

Explaining the rules of the game. Through policy advising that is integrally connected to other trade liberalization support, USAID should assist the government to understand the importance of implementing institutional and policy mechanisms to internalize production externalities expected from the increase in domestic output. USAID should also assist in helping the government to identify the broad options available to achieve it, some of which have been described above.

Option selection. USAID may wish to provide technical assistance to identify the geographic zones and factors that are set to receive the brunt of the externalities. It then might help in the identification of which of the avoidance options described above might be most appropriate,

[27] At its simplest, firms or the self-employed may presume they are exempt from permitting if they are not engaged in proscribed activities or sectors. At a second level of sophistication, this arrangement would places the legal liability for filing a permit on the applicant, who must decide whether the issuing agency would have required a permit had the applicant submitted an application. A third variation is that when a firm files a permit application, if no response is received within a preset length of time, they are presumed permitted.

given the concerns voiced by the opponents to trade liberalization. It then may wish to provide technical assistance to design the specific options selected. In each of these cases, USAID may wish to fund the requisite background studies. As stressed in several of the sections in this paper, USAID should urge the government to enlist the participation of those most vocal in their fears of externality damage. This takes advantage of their idiosyncratic knowledge as well as diffuses their opposition.

It is imperative, however, that USAID assistance not be seen as the "purchase price" of trade liberalization. If the government does not clearly "own" the reform, then it is simply not likely to succeed, not to mention convince the recalcitrant losers that they will also gain.

Implementation support. For the resistance-reducing options selected, USAID may wish to provide technical or financial assistance to facilitate the implementation of the compensation schemes already described.

6. Transitional rigidities in the public and private sector's response

6.1 An NIE analysis of the obstacle

Change creates uncertainty and uncertainty creates transaction costs. In a neo-classical world we would expect factors of production, including people, to smoothly move into activities decreed by the laws of comparative advantage. In the actual world however, many people, especially the marginalized, lack the knowledge and resources to easily make this transition. People might not know about potentially profitable activities, even if they do know about these opportunities they may lack the technical expertise to actually undertake them, and even if they had the necessary expertise, they may lack the financial resources to equip themselves for these newfound activities. The lack of finance is itself related to informational imperfections which dissuade lenders from lending to strangers. Finally, even if agents have some resources, they may be unwilling "to bet it all" on a new venture in changing times, even on activities which are profitable in expected value.

6.2 Options for institutional reform

NIE suggests several solutions to these problems, mostly aimed at reducing uncertainties and sometimes at reducing the costs of these uncertainties. NIE principles are involved in both choosing the reform itself and in designing the details of reform, e.g. evaluations and incentives for service providers.

One basic activity that can help people adjust to changing times is training. Small manufacturers and small farmers may both need to be retrained for new activities. Managers and farmers both need to learn about new production techniques and new markets. Farmers may also need to learn new crop rotation patterns etc. to prevent sharp declines in the quality of the farmland. This training can be assessed in different ways. We can get satisfaction ratings from users, test the students on acquired knowledge or most ambitiously examine whether students have changed the way they conduct business as a consequence of the training.

Training may also be needed by public officials who don't fully understand their new roles. For instance trade reform may open up productive opportunities in new sectors, where product and production standards have to be maintained. Adherence to such standards is important in "the new trade environment" for two reasons. First it is required by the WTO, second because consumers in developed countries, especially Europe, are increasingly concerned about them, and failure to meet these requirements may lead to losses in market share.

One form of training which might be particularly effective is training based on demonstration projects. First, whether its retraining apple farmers to grow bananas, or retraining public officials about new product and process standards, it is often easiest to convince students of the effectiveness of an activity if its been tried before, preferably in their own country. Second, demonstration projects help in the design and fine-tuning of training programs. Third, demonstration projects, where a group of farmers or small manufacturers have been successfully trained to the point that they can now be successful in the market, provide us with a crop of potential trainers, i.e., a demonstration project has the fortunate by product of a group of trainers who for reasons of language, credibility and cost, might make more effective teachers than ex-pats. For all these reasons it might make sense to conduct a small scale program first, learn lessons from it and them offer training at a broader level.

Following trade reform, many private sector actors lack the resources to start new activities. In part this is due to informational uncertainties on the trustworthiness of borrowers and the profitability of the projects they would undertake. In particular borrowers with limited liability may want to undertake risky investments of negative net present value as their own losses are limited by liability. Two well known institutional remedies for this are group lending and equity finance. Each however cannot be simply applied to SMEs.

Equity finance involves gains and losses being shared by the manager-agent and the investor-owner in proportion to their initial investment. This if properly done would also prevent managers from undertaking risky, negative-expected-value investments. The problem with equity finance however is that profits are difficult to measure, in part due to poor accounting standards. Furthermore, the imperfect corporate law of many countries allows managers to dispossess owners. Improvements in these institutions as mentioned in obstacle 4 are critical for reform to be successful.

Group lending appears to function well in simple environments where borrowers each undertake the same activity and are known to each other. In such an environment a group of borrowers wouldn't let in a new member who would undertake a risky project and would report any of their own members who tried to undertake a risky investment. However at the level of SMEs such group lending may not be appropriate (Madajewicz 1998). The optimal set of activities that SMEs should undertake may be less homogenous and therefore group members may be less qualified to judge whether an activity being undertaken by another group member has an acceptable level of risk. In general because the more risk averse members have de facto veto power, or because the gains from an investment accrue to one person but the losses – denied access to credit – to all others who have a veto power, many risky activities of positive expected value would not be undertaken. Especially in times of change, when almost all activities are risky this may be paralyzing – we examine a similar point next in the context of insurance markets.

Traditionally social insurance, especially unemployment insurance is viewed as a source of blunting incentives and reducing economic activity. However, in times of change, with an abundance of risk averse and credit constrained agents, insurance may actually help risk taking and innovation. The problem is the design of insurance schemes so they maintain the incentives for innovation and success. Thus while insurance must be provided to encourage the risk averse to innovate, it must also not be complete to maintain incentives for success. There are may interesting issues in the design of such insurance schemes which could form the basis of one of the research proposals in Zinnes and Azfar (2002).

6.3 Implications for USAID activities

USAID can help private and public actors in several ways to actually make the adjustments that are needed for gains from trade. In broad terms the categories for such help are technical and financial assistance.

USAID can help sponsor the development of training programs, for businessmen, farmers and public officials to help them deal with the new regime. USAID could also sponsor project evaluations, using user surveys, direct assessments of learning, and assessments of changes in real world's activities as a result of the training program. These evaluations themselves have two purposes. First they help USAID – and perhaps as importantly aid skeptics at the US Treasury and elsewhere – assess project effectives. Second, they provide USAID with information on the basis of which AID can provide incentives for service providers, and indeed its own staff. Conducting the evaluations can provide the basis for one of the research proposals for the remainder of the Forums project.

USAID can also fund training programs in certain localities or sectors, sponsor a study of these programs, and use this information to demonstrate the –hopefully!- effectiveness of the program. Such an evaluation could also form the basis of a research activity described in the companion paper (Zinnes and Azfar 2002).

On insurance USAID could sponsor a program for SMEs that made them less fearful of uncharted markets. Such an activity of course is somewhat uncharted for USAID itself and it may be prudent to sponsor a hard-headed study of the design of such an insurance scheme and an early evaluation before diving in too deep.

On finance USAID can sponsor a program to subsidize group-lending based financing to SMEs or equity financing for SMEs. However as there are non-trivial concerns about both these options some prior study and an evaluation at an early stage may be called for.

7. Drawing out the institutional lessons

Since we have covered a broad swath of terrain, it is useful to draw together some of the cross-cutting insights for reform as well as implications for USAID action.

7.1 Options for institutional reform

Perhaps at the highest level of generality, one underlying, if disturbing, lesson from the analysis of the obstacles above is that it is probably prudent to do much institutional reform *before* making initiating major changes in the trade environment. While this may sound far-removed from the Washington Consensus, in fact other respected economists (e.g., Hausmann and Rodrik 2002), having analyzed the development of "star" economies such as Korea, China, and Mauritius, come to a similar conclusion. Moreover, as these latter three countries demonstrate, the exact nature of the institutional supports to trade liberalization has been idiosyncratic as it has been counter-neoclassical. Korea, with its directed credit, China, with its violation of intellectual property rights, large state-owned enterprise sector, and multi-tiered exchange rate, and Mauritius with its export-processing zones have all gone against the neoclassical prescription of liberalization. As these individualistic responses do illustrate, however, is that the institutional framework within which trade liberalization occurs is highly country-specific, i.e., sensitive to local conditions. What it does *not* illustrate is the converse, namely, that intrusive government *per se* is a sufficient condition for successful trade liberalization.

7.2 Implications for USAID activities

We find the scope of effective USAID action is less as a pair of extra hands to increase the amount of activity within a given sector, but as a supporter of (i) innovation and experimentation themselves, (ii) adaptation of successful innovation, and (iii) dissemination of lessons from innovation. We thus find ourselves following Collier (2002), who sees the role of the donor as a catalyst for demonstration activities. This support may be with technical assistance or with financial assistance, as dictated by the institutional nature of the problem. It may also be to assist in such a way as to strengthen the credibility of the reform agenda along the lines outlined in the earlier sections.

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