ADVANCING SUBSIDY REFORMS:
TOWARDS A VIABLE POLICY PACKAGE

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EXECUTIVE SUMMARY

World subsidies may total some $800 billion, of which perhaps two-thirds occur in the developed economies of the OECD. Reforming subsidy regimes that damage the prospects for sustainable development is immensely complex. Simply calling for subsidy removal is unlikely to succeed. The complexity arises from the fact that subsidies are manifestations of rent-seeking, which, in turn is part of a wider category of unproductive activity in economic systems. Rent-seeking involves redirecting economic resources to special interest groups rather than using resources productively. Interest groups then use those resources to reinforce their privleged positions. Subsidy reform will inevitably conflict with those special interests. The idea that subsidy reform is a 'win-win' policy is therefore misleading – there will always be losers, even if they are undeserving losers. In many cases, the most harmful subsidies will be those that are least easy to remove.

Subsidy reform is therefore about dissipating rents, has to be part of a wider programme of macroeconomic and political reform. Subsidies are often linked to corruption, thus emphasising the difficulty of securing the political changes that are needed. Moreover, instituting democratic reform is not sufficient either: democratic societies have even larger subsidy regimes than less democratic societies. Political change has to be combined with economic reform. Some have advocated 'sudden shocks' whereby dramatic events are seized as an opportunity to institute reform. There is some evidence to suggest that if a crisis does occur, it may be best to implement subsidy reform along with other transitional measures in one large package. An alternative is to let the almost inevitable growth of subsidies produce economic bankruptcy, and then institute reform. But many societies have proved surprisingly resilient whilst sustaining extensive subsidy regimes, and the costs of waiting may not be acceptable anyway.

In the absence of crisis, a gradual approach is best. Policies need to be pre-announced and gradual subsidy reduction needs to be combined with careful public awareness campaigns and efforts at political transparency and accountability. Bilateral and multilateral lenders have a strong role to play, even though reforming subsidies as part of a conditionality package is still controversial. Reform almost inevitably involves privatisation since exposure to market forces is essential for rent dissipation. Nonetheless, reform is complex and its success if difficult to guarantee: for example, privatisation may simply shift rents from the public to the private sector. Subsidy regimes seem peculiarly resilient to change.

I THE ISSUE

While the removal or reduction of subsidies to economic activity have widely been countenanced as 'win-win' policies, the reality is that, while some considerable improvement has been achieved, subsidy removal is extremely difficult in practice. This difficulty of reform suggests that, while there may be net gains overall, there must be significant losers from reform, losers who have the ability to block reform measures. In the language of political theory, subsidy reform tends to be 'non-neutral' – those who lose are often capable of strong lobbies against the reform[1]. Subsidy reform is not therefore a straightforward win-win policy, but a complex issue of wider reform, incentive design and political will. After briefly reviewing the situation with respect to subsidies, this paper lists a 'menu' of policy options for reform. Whilst reform is possible, there should be no illusions that subsidies are institutionally deeply entrenched in most societies and the reform process will therefore be long and arduous.

II WHAT ARE SUBSIDIES?

Advancing the reform of subsidies has, unfortunately, to begin with the problem of defining subsidies. We take a *producer subsidy* to be any form of intervention which lowers the cost of production of a producer, or raises the price received by the producer, compared to the cost and price that would prevail in an undistorted market. This definition allows us to distinguish subsidies from interventions which raise market prices but where the increase in price does not accrue to the producer. All product taxes, such as sales taxes, VAT etc. raise prices but not for the benefit of the producer. The definition also takes account of the fact that subsidies often take the form of price guarantees, raising producer prices over the free market price, as is common with agricultural price support schemes, as well as cost-reducing measures. Finally, the definition embraces all transfers to producers, regardless of whether they are targeted on products or simply take the form of cash sums payable to producers. *Consumer subsidies* similarly lower the price that the consumer would pay if there was a free market in the commodity in question.

The problem with these definitions is the meaning of an 'undistorted' market. Few markets are genuinely competitive, and any element of monopoly will raises prices above their competitive level. So long as we keep the meaning of 'distorted' to mean 'distorted by government intervention' then the definition is fairly safe. It is usual to cite a *reference point* against which a prevailing price is measured. World prices, i.e. the prices that would or do prevail in a freely functioning world market, are usually taken as the reference point.

III HOW BIG ARE WORLD SUBSIDIES?

Table 1 records a 'best guess' at the scale of world subsidies. The picture is a rapidly changing one and subsidies in the developing and transitional world are being reduced rapidly as those economies attempt to become more 'open' in the context of world competition. Similarly, the

[1] Fernandez and Rodrik (1991) suggest that some reforms could have political support ex post, but that ex ante there is uncertainty about who the gainers and losers are. This uncertainty tends to result in an unwillingness to move from the status quo.

sources of information for estimating subsidies are not consistent and some subsidised sectors are not analysed[2]. Nonetheless, Table 1 is instructive.

TABLE 1 ABOUT HERE

First, even allowing for the fact that only some subsidies have been identified (for example, subsidies to forestry and to the non-energy industrial sector are excluded), we see that world subsidies could amount to over $600 billion per annum, and may be as much as $800 billion. To get some idea of the scale of these figures, the entire GNP of the world is about $25 trillion, so the subsidies amount to around 2.4% to 3.2% of world GNP.

Second, total official development assistance ('overseas aid') is about $60 billion per year, so that world subsidies are at least ten times this figure.

Third, the subsidies are largest in the rich countries of the world: the OECD countries account for 75% of the subsidies. One possible implication of this fact is that 'conditionality' in aid packages could be compromised in political terms: for OECD countries to insist on subsidy reform in the developing world invites the kind of response that has become familiar in international environmental agreements, namely that the rich countries should undertake their own reforms first.

Fourth, agricultural subsidies in the rich world dominate the picture. These tend to take the form of 'price support', i.e. guaranteed prices to farmers. The $362 billion agricultural subsidy in the OECD accounts for 1.4% of OECD GNP (OECD, 1999). Gross receipts to OECD farmers were some 59% above what they would have been at world prices. The European Union accounts for about 40%, $142 billion; Japan for about 15%, $56billion; and the USA for about 27%, $97billion. Only small fractions of this support go to agri-environmental schemes.

Fifth, subsidies to transport are extensive but often take the form of subsidies to public transport which will often have an environmental justification.

Sixth, subsidies to nuclear power are quite important in the developed world and perhaps amount to $9-15 billion p.a. World fisheries are subsidised by perhaps $20 billion. The fishery subsidy is perhaps the most stark since overfishing is reported in 80% of the world's fisheries.

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IV SUBSIDIES GOOD AND BAD FOR SUSTAINABLE DEVELOPMENT

A Distributional Concerns

One initial purpose of subsidies is to protect the poor. Thus, distributional fairness is the first case in which subsidies might be justified. However, even this case needs to be treated with some considerable caution. In the context of water supply, for example, where the 'protect the poor' argument is voiced very often, Briscoe (1997) points to the 'hydraulic law of subsidies'.

[2] Industrial subsidies to sectors other than agriculture and energy may be significant. For the UK experience and data, see Wren (1996). Industrial subsidies in the UK have declined dramatically, but even some newly privatised sectors still receive subsidies – e.g. over UK£1 billion is paid to Railtrack, the company responsible for railway track and associated infrastructure. The sheer scale of subsidies can be gleaned by considering the estimate some 20 years ago that US Federal subsidies amounted to $95 billion (Common Cause, 1980).

Since politicians interfere in water pricing, the effect is rarely one of protecting the poor but of actually placing them at further disadvantage. Below-cost tariffs result in losses for public water utilities who cannot then invest in proper services. The scramble for the supplies that are provided results in the better off securing supplies, and the poor often having to resort to high cost vendors of water. The subsidies themselves actually produce the failure to protect the poor, however their objective is first formulated. Similarly, agricultural input subsidies, often designed to counteract other discriminatory measures against agriculture in developing countries, tend to benefit larger farmers because of their greater access to the inputs in question (van Blarcom et al, 1993).

There are other more subtle ways in which subsidies ostensibly designed to help the poor may work against their own best interests. Housing subsidies tend to reinforce the poverty trap. In the UK, for example, the benefit paid to the unemployed is removed totally once employment is secured, effectively taxing away the marginal benefit of employment. The result has been substantial incentives to avoid employment, with a resulting complex and bureaucratic structure of work incentives having to be put in place (Kemp. 1998). Here the issue is perhaps more about the design of the subsidy rather than the fact of subsidisation, but the example reveals that ‘wrong’ subsidy design can worsen long run equity rather than reduce it.

B Environmental Concerns

Environmentally harmful effects of subsidies tend to come about because:

a) the subsidy causes too much production or harvesting of the subsidised product, and hence too much associated effects such as pollution or resource depletion;

b) governments have to find the money to use as subsidies and this will come from taxation or borrowing, causing macroeconomic problems, or, at the very least, diverting money from socially valuable uses such as health and education.;

c) overproduction caused by subsidies in the developed world has to be disposed of, and this may result in ‘dumping’ the excess production somewhere else, perhaps in developing countries, undermining their economies;

d) subsidies also divert resources away from higher value uses to low value uses, e.g. the Sacramento Valley in California has arid climate conditions, yet it grows rice based on heavily subsidised water and accounts for as much as 80% of California's water consumption;

e) subsidies mean that true costs of supply are not recovered, which means that the utilities supplying energy, water etc. may not have enough revenues to secure surpluses that they can invest in new supplies. This is why public utilities in many developing countries are often locked into a vicious circle of poor supply and have little or no money for new investments.

f) subsidies create ‘economic rents’ – money for doing nothing - and hence attract 'rent seekers'. Those who benefit from the rents will organise themselves to prevent the source of the rent being removed. The popular picture is that subsidies are designed to benefit the poor, so if the poor object to the rents being removed or reduced, many people would be sympathetic to their cause. In practice, precisely because the subsidies create rents, the rents tend to be appropriated by the more powerful sectors of society. Far from the subsidies benefiting the poor, they often benefit the better off who are skilled at organising lobbies to retain the subsidies. Those subsidies are the hardest to remove, yet are likely to be the ones where rent capture is most entrenched. Paradoxically, the easiest subsidies to remove are those that do benefit the poor since they are often powerless to resist the change in policy. Rent seeking - the search for opportunities where rents are created, often by legal restrictions such as bans or zoning of land use, but in this case by subsidies - is unproductive. It may keep lawyers and other lobbyists in business but it does little or nothing to enhance social wellbeing. Much agricultural subsidisation belongs in this category. For historical reasons, farmers tend to be quite powerful lobbyists. Taking their subsidies away therefore meets with strong resistance, whether in North America, Japan or Europe.

C Subsidies and technology

Subsidies can be justified in the context of stimulating technological change. Consider the example of renewable energy. Subsiding clean fuels will encourage their substitution for dirtier fuels, but could also lower the price of electricity overall, expanding the market. Both these effects could be made larger by the fact that renewable energy sources tend to be declining cost industries. While the market expansion effect could conceivably produce more pollution than previously, this seems very unlikely. The likely effect is that less pollution would be produced. Subsidies would also help renewable energy producers to reduce the risks inherent in not knowing precisely how costs will decline as output expands. Particular forms of subsidy are also attractive: the risks in renewable energy can only be reduced by capital investment, and this in turn suggests focusing subsidies on capital costs, e.g. via accelerated depreciation allowances. Van Blarcom et al. (1993) also suggest that targeted agricultural subsidies can stimulate technological change, as with high yielding crop varieties in India.

Like all subsidy justifications, the technological case has to be argued carefully. It is comparatively easy for the technology-stimulating rent to be shifted to others who are not the intended beneficiaries, with a consequent loss of the technology stimulus. But by focusing on new and clean technology, and by strong time-limits on the availability of the subsidy, the potential for abusing the arguments is minimised.

D Paying for environmental services

Another context where subsidies may be justified is by reforming their nature, away from paying for overproduction, towards paying for environmental services. This can be observed in the agricultural sector of rich countries where, at the margin, subsidy reform is producing payments for tree growing, hedgerow planting, protection of ecosystems and even non-production (set-aside). As will be discussed later, overall subsidy levels may not fall but the nature of the subsidy is reformed so as to achieve some environmental goods rather than environmental bads.

E Subsidies and corruption

One of the side effects of subsidies is the encouragement of corruption. This is because the process of rent seeking is likely to lead the beneficiaries of subsidies to exaggerate the basis on which they receive subsidies. The story is well known in the context of, say, housing support benefits but is also endemic to agricultural subsidies. Subsidy beneficiaries will be tempted to falsify statements about are farmed, crops planted and so on, and the less rigorous the inspection scheme the more likely they are to succeed in securing excess subsidies. Again, the activity of deceiving the authorities is unproductive, but it may also extend to bribing officials whose responsibility it is to monitor and enforce compliance with subsidy regulations. This was noted early on by Krueger (1974). Tullock (1980) noted that investment in rent seeking can be subject to increasing returns, further stimulating the process, a view confirmed in Murphy et al (1993). Moreover, rent seeking behaviour gives a high incentive for the *rentiers* to keep hold of the status quo from which they benefit so much. Hence subsidies and corruption are intimately linked, as Rose-Ackerman (1999) observes[3].

V THE PROCESS OF REFORM

The remainder of the paper addresses the issues of how, if they are judged detrimental to sustainable development, subsidies can be reformed. But first it is necessary to address a view that claims we may never be rid of subsidies.

A <u>The case is hopeless: abandon reform</u>

Cost-benefit studies of subsidy reform tend to show that subsidies rarely have a rational economic justification, either in terms of economic efficiency or in terms of equity. But rationality all too often does not determine policy. Rose-Ackerman (1999) notes two extremes of the management of self-interest within any society. The first is the idealised competitive market model of Adam Smith in which self-interest produces a globally efficient outcome. The second is war where individuals and groups compete violently for their share of the resource base of the economy. Whereas competitive is productive, war is totally unproductive since it destroys wealth and creates none. In between these extremes lies various mixtures of productive and unproductive activity. As noted above, unproductive activity emerges from 'rent seeking', i.e. the process of using time, effort and resources to secure a bigger share of the resource base for the rent-seeking individual or group (Krueger, 1974). Subsidies are effectively rents and thus attract rent seekers who create a 'special interest state' (Common Cause, 1980). To tackle subsidies effectively, it is argued, one has to tackle rent seeking behaviour. But according to some, one can never destroy rent seeking since it rooted in human self-interest, a motivation that is genetically powerful and unlikely to be changed dramatically.

The response to this gloomy view is that rent-seeking is indeed highly unlikely to go away. But rent seekers have to have rents to capture, and if the rents are not there they will be thwarted in their aims. The classic means of dissipating rents is to liberalise markets so that they become competitive, thus reducing rents. Against this, if the rents accrue to those in power, as is all too often the case, then government itself has no incentive to dissipate rents. Rents and rent seeking become perpetual, and this, no doubt, explains why so many corrupt societies survive. The answers then appears to lie in much grander realms, namely the whole process of generating participatory democracy such that (a) governments substitute some criterion of social welfare maximisation as their goal, and (b) those previously excluded from rent capture secure a 'voice' to counterbalance those who remain dedicated to rent capture: rent dissipation through

[3] In an effort to contain the problem, we do not discuss corruption in any detail. Much of the analysis of corruption can be placed in the context of principal-agent theory whereby the agent agrees to act in the interests of the principal: say the police force acts in the interests of the public at large. The issue is then one of devising incentives whereby the principal can get the agent to act in the principal's interests, a problem that arises because principal and agent possess different degrees of information (so-called 'asymmetric information'). For a discussion, see Brooks and Heijdra (1991).

countervailing power[4]. Ultimately, then, whatever the specific policies for subsidy reform, they are unlikely to work unless the much broader conditions of participatory democracy are in place.

The unnerving feature of Table 1, however, is that subsidies are biggest in the rich countries of the world, countries that already have universal participatory democracy. This suggests that even the whole process of democratisation is insufficient to reduce subsidies. We might conjecture that, while democracies have high subsidy levels, they are concentrated in a few sectors and must surely be declining over time as the pressure to dissipate rents grows. Table 1 does indeed show that subsidies are concentrated in the agricultural and energy sectors, although it is difficult to be sure of the extent of other industrial subsidies. But the time series evidence is mixed. Agricultural subsidies in the European Union, for example, are barely less now than they were in 1980, whereas energy subsidies have declined substantially but due, in the main, to reduced support for the coal industry in the UK Fossil fuel subsidies to R&D have declined systematically in the EU (Steele et al, 1999).

Overall, then, the reform package for subsidy removal has to include a two-part high-level process: political reform towards democracy, and a drive for market liberalisation once democracy is in place. The ambition embodied in this conclusion should not be underrated.

B Reform through crisis

Perhaps because of the view that rent creation and seeking are endemic to non-competitive economies, it is sometimes argued that the only real opportunity for radical reform of subsidies and other distortions is via an economic and political crisis (for example, see Drazen and Grilli, 1993). Weyland (1996) argues that, since individuals are more averse to losses than they are in favour of gains, crisis effectively puts them in a situation of taking risks. Or it may be the case that crisis simply presents an opportunity for change, with preferences for change being unchanged pre and post crisis.

Some evidence in support of the view that crisis accelerates change is contained in World Bank (1997) where it is shown that energy subsidies have declined dramatically in the last decade, but most noticeably in the former Soviet Union, the Economies in Transition and China – see Table 2. Nonetheless, it can be seen that energy subsidies have declined in all countries and there is an obvious contrast between the FSU and EITs on the one hand, where revolution has effectively occurred, and China where subsidy reductions are just as large and political change has been far more gradual. This suggests that crisis may be instrumental in bringing about change but it is not a necessary condition of desirable change.

TABLE 2 ABOUT HERE

Corrales (1997) similarly doubts the wisdom of 'waiting for a crisis' to implement reforms. First, he suggests that different countries may experience the same kind of crisis but each can react in different ways. Second, those reactions may include wholly undesirable features, e.g. profligate spending rather than fiscal austerity. There are, for example, just as many instances of perverse policy responses to hyperinflation as there are sound responses. Third, he argues that there is little guidance as to what constitutes the 'right kind of crisis' to generate desirable

[4] Sometimes called 'rent avoidance'.

reform. Some crises are just as likely to hasten the demise of reforming governments as they are autocratic and corrupt ones.

Shock therapy has, however, been used, notably in countries faced with the collapse of prior communist rule. Mongolia, for example, adopted a dramatic programme of privatisation, market liberalisation and incentives. The drawbacks of shock therapy include the chances that the public will not tolerate the short-term upheaval before reforms take effect, although much depends here on the prior culture of challenges to the state. In the case of Mongolia, there was little experience of political opposition, unlike the eastern European countries where dissidents had long voiced their concerns before the collapse of communism. Another, and perhaps critical drawback, is the need for the institutional capacity to manage the transition, for example the creation of effective local governments to manage a decentralised process (Collins and Nixson, 1993). In this respect, international technical and institution-building assistance is vital and arguably mores if the process is taking place rapidly and dramatically.

Macroeconomic crises in the 1980s were also the spur for governmental change and new governments have been the most active in undertaking structural adjustment, including subsidy reform (Krueger, 1992). Contrary to Corrales (1997), Krueger argues that only one country, Argentina, effectively failed to implement the reforms that were needed, although as she was writing five years before Corrales, some of the reform experiments were not capable of being judged by her. Nonetheless, even the reform process has problems in that the pendulum might swing too far the other way. Thus, most developing countries discriminate against the agricultural sector. The reform process usually tackles this discrimination, at least in part, but then risks going too far in responding to the resulting requests and pressure for favouritism. In Korea, for example, discrimination against agriculture turned into outright protection of the sector, usually with justifications that are reminiscent of European policy after the Second World War – the need to protect against cheap imports and to ensure food security. Even today, Korea has per capita agricultural subsidies above the OECD average (OECD, 1999). As Krueger (1992) notes, using producer subsidies to meet equity goals is inefficient and if consumers must be subsidised then direct subsidies to food purchases should be used.

Overall 'waiting for a crisis' appears a risky policy measure in terms of the unknown outcomes., although the experience of structural reform in the 1980s suggests that, on balance, new governments coming in on the back of macroeconomic crises may have been successful in their reforms. Where crises do occur, and the reforming government is minded to implement a clean slate policy quickly, the critical needs are for public support and, in countries where wholesale political change occurs, the development of new institutional capacity.

C Collapsing beneath their own weight

A variation on the crisis theme declares that, because rent seeking is a dynamic processes, rent seekers have incentives to expand subsidies to a level where, ultimately, the burden on taxpayers becomes so large the subsidy regime simply collapses. If true, the policy implication is again one of waiting for the inevitable demise of the system. There is perhaps more evidence to support this variation of the crisis theory. It is well known for example, that the gravest threat to the European Common Agricultural Policy is not pressure from within the existing EU-15 for reform of subsidies as they currently exist, but the likely effects of expanding the subsidy system to embrace the Accession Countries. Current total agricultural support within the EU-15 is some

$142 billion (OECD, 1999), or some $950 per EU-15 household[5]. Existing agricultural support in Poland, Hungary and the Czech Republic amounts to nearly $6 billion, but would of course become substantially higher on accession if support systems are not changed. Moreover, there would be a supply response as accession country farmers respond to the higher prices. Additional CAP costs of some $30 billion have been suggested, though some have argued that this is an exaggeration in light of recent international trade agreements (Buckwell et al, 1994). Whether a 20% increase in total cost is enough to cause the CAP to collapse under its own weight, is open to argument. Since there are some 30 million households in the six prospective entrants, the effect would be to maintain the household average contributions if costs were distributed equally across countries. But since they will not be, existing EU-15 households can expect an effective increase in tax burdens because of accession. The 'weight of the cost' argument has prompted 'Agenda 2000' under which intervention and support prices will be cut for cereals, beef and dairy sectors. But it remains the case that even under Agenda 2000, the vast bulk of transfers to the agricultural sector will remain in the form of production and income subsidies. That the CAP can survive in such a distorted and inefficient form despite all the efforts to revise it gives testimony to the difficulty of removing subsidies.

Tuck and Lindert (1996) detail the case of Tunisian food subsidies. These were established with ostensibly laudable aims; price stabilisation., protecting the poor, income redistribution and employment creation through subsidised real wages. Two major developments caused their collapse: (a) the leakage of subsidy benefits to higher income groups (reinforcing the caution in Section IV.a above), and (b) the high public finance cost. Early attempts at fairly sudden reform produced disastrous, with public riots occurring. A new approach combined several interesting features.

First, the subsidies were lowered gradually so that price increases also occurred gradually.

Second, since students were instrumental in the riots accompanying the early reforms, policy changes were announced in summer months when students were not at university.

Third, careful anticipatory statements were made so that the population was warned well in advance of actual price changes, enabling them to adapt where possible, or at least get used to the idea of price increases. It is interesting to note that the same policy has been adopted in some countries with respect to environmental taxation. Thus the UK's 'climate change levy' – effectively an energy tax – was announced in 1999 to take effect in 2001. 'Anticipatory' strategies can misfire, of course, since they also give losers the chance to assemble their lobbies to fight against the eventual price rise (as has happened with the climate change levy).

Fourth, the government adopted awareness campaigns with the explicit purpose of explaining why subsidy removal was essential. In the Tunisian case the focus was on the fiscal burden and what its reduction, in terms of subsidy payments, could mean for other public benefits.

Fifth, and an essential feature of any reform package, compensatory measures were provided for targeted groups. Some state allowances were raised for vulnerable groups and some wage rises were allowed for strategic groups. Effectively, the reforms 'bought off' some of the opposition through mitigatory measures.

[5] There are approximately 150 million households in EU-15.

Finally, a subtle approach to targeting the remaining subsidies was undertaken. Subsidies were targeted at 'inferior goods' i.e. goods that the poor would buy but the better off would not (e.g. a less well-refined brown sugar). The subsidy thus does not 'leak' to higher income groups. Markets in the more superior goods were liberalised so that the wealthier households diverted their expenditures away from the inferior goods and hence away from the subsidies.

The Tunisian example is a good one for illustrating the need for carefully constructed and gradual approaches to subsidy reform.

Subsidies may collapse not because the fiscal burden becomes too high but because the environmental resource that is affected by the subsidy itself becomes so scarce that reform is triggered. Water vendors in developing countries owe their existence to the physical scarcity of water and poor quality water from public or informal supplies. Briscoe (1997) notes that trading water rights grew in Australia not because of government initiatives but because of pressure from users who faced water scarcity. Again, it is a risky policy to wait for scarcity to force action: the human cost in the meantime could be considerable, not to mention the environmental damage that may be done, some of irreversible.

D Privatisation

Privatisation offers a means for subsidy reform since the dominant subsidies tend to be in the public sector. More broadly, the need to compete on the basis of market principles should dissipate economic rents and hence put pressure on any remaining subsidies. Privatisation not only enables the privatised sector to behave efficiently, but it also offers the chance for governments to become more efficient since they cease to be shackled by the responsibilities of nationalised industries and services (Ricupero, 1997).

The reality of privatisation is far more complex. In a review of experience of privatisation in Mexico and Chile, Glade (1989) notes that many of the rents previously available for exploitation under public sector regimes were squeezed out, but that some significant rents remained, notably in the financial sector. In the Chilean case the effect was to subsidise borrowing for those with close links to the relevant financial institutions. In the context of an increasingly overvalued currency, the banks borrowed abroad to finance highly leveraged operations undertaken by the companies they were associated with. Essentially, then, credit was subsidised by the overseas borrowing operation and the beneficiaries were those with privileged access – rent creation and rent seeking continued. Privatisation is often accompanied, perhaps paradoxically, by increased regulation of the privatised enterprises, a result of the state having to address external costs, such as pollution, but also because the state is unwilling to surrender all its controls and all the sources of rent-creation. Glade argues for 'substantive privatisation', i.e. removal of all, or as many as possible, political controls on the working of the market. Chile is cited as the example of a country where privatisation proceeded apace, Mexico as an example where the removal of controls was much slower. Overall, simply privatising corporations will not remove rents unless there are coincident macroeconomic reforms that remove state control over crucial macroeconomic variables. Only this wider package of macroeconomic and microeconomic reform can insure against the creation of new rents under privatisation.

Additionally, privatisation can simply swap public sector rents for private sector rents. Perhaps the greatest criticism of the UK's privatisation programme has been the underpricing of public sector assets at the point of sale, creating huge capital gains and profits that translate into 'fat cat' salaries and dividends, despite an elaborate system of price and investment regulation. The issue may reduce to which is a preferable location for the rents![6]

E Slowly, Slowly and Transparently

The Tunisian experience suggests that subsidy reform is best achieved on a gradual basis unless, of course, economic crisis does provide the opportunity for wholesale change. The gradual route has several advantages: subsidy beneficiaries have time to adjust and 'death by a thousand cuts' is usually preferred to sudden shocks. As noted above, the risk is that the rentiers have time to strengthen their lobby against the reform process. Where democratic government is in place, some public information procedures can help minimise the risk that lobbies gain strength rather than lose it through gradual reform. Familiar procedures include the registration of special interest donations to politicians and to political campaign funds, and limits on the size of such donations. It is surprising that simple measures of this kind have been fairly recent in highly developed democracies such s the United Kingdom. Politicians' interests in subsidised sectors similarly need to be monitored. Similarly, regular reviews of sectoral policies where subsidies exist are required, perhaps using cost-benefit analysis to assess their continued justification, along with 'incidence assessment' to see if the subsidies are reaching those originally targeted. More radical still would be the required publication by governments of the nature and scale of prevailing subsidies (de Moor and Calamari, 1997).

Anyone who has tried to measure the scale of subsidies will testify to the formidable difficulty of identifying what subsidies exist, let alone estimating their size. But a combination of detective work and public interest motivation should be sufficient to elicit many of the facts, as the recent explosion of publications trying to estimate the size of subsidies has shown (Kosmo, 1987; Pearce and Warford, 1993; de Moor and Calamari, 1997; OECD, 1998). Where governments refuse to act, others can therefore take on the burden of publicity and transparency. To date, no single non-government organisation has assumed the responsibility for estimating the scale of subsidies This may reflect the difficulty of financing the effort. OECD's regular reporting of agricultural subsidies in OECD countries, for example – the most detailed assessment if any subsidy regime - is a major financial undertaking (OECD, 1999).

Within the gradualist approach there is also scope for the gradual transformation of the subsidy targets. This policy involves not reducing the overall scale of subsidies, although that should remain a dominant aim, but redirecting the purpose of their payment. This process has already begun with agricultural support so that output-based payments have partly been substituted by area-based and other direct payments and, at the margin, payments are made for environmental services, including forgoing economic activity. Thus around $3 billion was paid to EU farmers in 1994 for set-aside schemes, and some millions of dollars are paid under the EU agri-environmental programme. As noted above, however, even this process of subsidy reform appears insignificant against the sheer scale of production and income support to the agricultural sector.

[6] The Ukraine halted its privatisation programme in 1994 due to concerns about the emerging corruption. One government official reportedly stated 'If you think privatisation is corrupt, try without it'. Quoted by Kaufman and Siegelbaum (1997).

F Being Pushed: the Role of Lending Agencies

The final instrument for reform is conditionality, the process of seeking economic reform as a condition of receiving a benefit, such as a loan. The major practitioners are the World Bank and the IMF, but bilateral donors increasingly include forms of conditionality, including now ethical policies. Loans and technical assistance may therefore be conditional not only on economic reform but on a transition to democracy. Conditionality has always been controversial (Reed, 1992, 1996). Designing the structural adjustment package in such a way that economic reform is achieved without serious impacts on the poor or on the environment is extremely difficult. Much of the problem concerns the usual need for short-term sacrifices in the interests of longer run stability and growth, a further manifestation of the inevitable trade offs that come with virtually any policy measure. The World Bank has reviewed its own experience and has produced useful guidelines on the design of packages of reform as they relate to the environment (Munasinghe and Cruz, 1995). One key feature, echoed in the previous discussion, is the need to integrate pricing reforms for subsidy removal with other macroeconomic adjustments: targeting one issue and one sector is unlikely to succeed.

The World Bank has also gone further and issued guidance to assist countries in tackling corruption (World Bank, 1997b). As Rose-Ackerman (1999) says, even publishing statements about corruption enables an issue previously brushed under the table to be faced openly and honestly.

VI CONCLUSIONS

The reform of subsidies that damage the prospects for sustainable development is a complex process. Most of the complexity arises from the fact that subsidies are manifestations of a wider category of unproductive activity in economic systems: i.e. rent seeking. Since rent seeking and capture is essentially a process of trying to maximise the transfer of resources to a group of special interests, subsidy reform will inevitably conflict with those special interests. Widespread discussion of subsidy reform as a 'win-win' policy is therefore misleading – there are always losers and, virtually by definition, the most harmful subsidies will be those that are least easy to remove.

The essentials of subsidy reform are therefore the essentials of dissipating rents. Tackling subsidies alone is therefore unlikely to solve the problem. What is required is that subsidy reform be part of a wider programme of macroeconomic reform and political reform. The links between subsidies and corruption underline the difficult of the securing the political changes that are needed. Moreover, it is not even a 'simple' matter of arguing that a democratic system will give rise to countervailing pressures that will provide 'voice' for those with an agenda of removing subsidies. Wholly democratic societies have even larger identifiable subsidy regimes than less democratic societies. The issue is therefore a delicate one of combining political change with economic reform. While the 'sudden shock' school of thought have many good insights into the process, sudden shocks rely on some catalytic event which cannot (usually) itself be manipulated by policy – the fall of communism, or macroeconomic crisis. Nonetheless, there is some evidence to suggest that if a crisis does occur, it may be best to implement subsidy reform along with other transitional measures in one large package. An alternative is to wait for things to get really bad, either because the subsidies effectively bankrupt the public finances, or because they induce natural resource change which triggers some other crisis, such as water famine or rampant disease. But many societies have proved surprisingly resilient whilst sustaining extensive subsidy regimes, and the costs of waiting may not be acceptable anyway.

Where the issue is not going to be forced by a crisis, the gradualist approach is best. Again, this has to consist of pre-announced policies and gradual subsidy reduction combined with careful public awareness campaigns and efforts at political transparency and accountability. Lending agencies have a strong role to play, even though reforming subsidies as part of a conditionality package is still controversial, especially for many environmentalists. Privatisation is likely to be part of the reform process since, in principle, exposure to market forces is essential for rent dissipation. But there are cautions on all policies: privatisation may create rents or simply transfer rents from the public to the private sector; many subsidies show a very marked reluctance to go away or even be reduced. Ultimately, subsidy removal is down to the scarcest resource of all – political will.

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Table 1 Estimates of World Subsidies ($ 10^9)

Sector	OECD	Non-OECD	World
Water			
Irrigation	2	20	22
Supply		28	28
Sanitation		5	5
Total Water	**(2)**	**(53)**	**(55)**
Energy			
Coal	}	}	}
Oil/products	} 10	} 62	}72
Gas	}	}	}
Electricity*	}	}	}
Nuclear	9 – 14	n.a	9-14
Total energy	**(19 - 24)**	**(62)**	**(81- 86)**
Agriculture			
Transfers	362	36	398
Fertiliser		>0	>0
Pesticides			
Total agriculture	**(362)**	**(36)**	**(398)**
Fisheries	→	→	14-21
Forestry			
Transport	55-174 (USA) 52 (Jap, Ger, UK)		107-226
Total	**490-614 +**	**151+**	**655-786**

Sources: water – Xie (1996), Energy – World Bank (1997), OECD (1996, 1998); Fisheries – Milazzo (1998) UNEP (1997); Transport – OECD (1998); Agriculture (World Bank, 1997), OECD (1999).

Table 2 **The Decline in Energy Subsidies 1990-1996**

Region	Percentage change in subsidies 1990/1 to 1995/6
Russia	-67%
Eastern Europe	-56%
China	-58%
Oil producers	-38%
Others	-58%
OECD	-21%
Total	-51%