

Lifting the veil on perverse subsidies

Many government subsidies serve useful purposes, but others adversely affect the economy and the environment. A forthcoming report suggests that governments could profit from scrapping such 'perverse' subsidies.

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When the leaders of the eight leading industrialized nations meet in Birmingham, England, in May for their annual G8 summit, they might ponder an issue that has been given little attention in the councils of power but is an important factor in the global economy. It is the issue of 'perverse' subsidies — subsidies that are adverse in the long run to both the economy and the environment.

A prime example currently in the news is the German government's support for coal-mining. So huge are the subsidies, DM12.2 billion (US\$6.7 billion) a year, or DM142,000 per miner per year, that it would be economically more efficient to close all the mines and send the workers home on full pay for the rest of their lives. There would be benefits too for the environment: less coal pollution, such as acid rain and global warming.

Perverse subsidies are prominent in five leading sectors: agriculture, fossil fuels and nuclear energy, road transport, water and fisheries. Subsidies for agriculture foster overloading of croplands, leading to erosion of topsoil, pollution from synthetic fertilizers and pesticides, and release of greenhouse gases. Subsidies for fossil fuels aggravate pollution effects of acid rain, smog and global warming. Subsidies for road transport promote pollution at local, national and global levels, including excessive road building and loss of landscape. Subsidies for water encourage misuse and overuse of supplies that are increasingly scarce. And subsidies for fisheries support overharvesting of depleted fish stocks. Not only do these environmental ills have economic costs, but the subsidies hinder the efficiency of economies overall^{1–3}.

This is not to say that subsidies cannot serve many useful purposes. They can overcome deficiencies of the marketplace, support disadvantaged sections of society and promote environmentally friendly technologies. We sometimes need a bit of positive distortion, otherwise we might never get as much as we want of, for example, non-polluting and renewable sources of energy (particularly when fossil fuels with their many ills are often subsidized ten times more). The same applies to recycling, agricultural set-asides and other subsidies beneficial to the environment and the economy alike.

Hidden subsidies

Subsidies come in many shapes and sizes. They range from financial transfers to opportunity costs, and can be direct or indi-



Incentive to overfish: the global fisheries catch is subsidized to the tune of \$22 billion a year.

rect, overt or covert. In addition to subsidies of conventional and formal type, there is a host of implicit subsidies, especially in the form of environmental externalities. For example, car drivers pollute everyone's atmosphere without compensating everyone, so they effectively gain a benefit at everyone's expense. Much the same applies when farmers spray pesticides which then extend their toxic effects into everyone's ecosystems. These activities should count as implicit subsidies in both spirit and substance, even though they are not dispensed by a government department with appropriate paperwork. They are economically distorting and socially inequitable, as well as environmentally harmful.

Environmental externalities are widespread, important and growing fast. Global soil erosion levies unintended costs on society of about \$150 billion per year⁴, and pesticides harm society's interests to the extent of at least \$100 billion per year⁵; these two items alone mean that such hidden subsidies are almost as large as the formal subsidies in agriculture. In Costa Rica, the depletion of soils, forests and fisheries results in a reduction of 25–30% in potential economic growth⁶.

Despite their importance and the huge literature on them, formal subsidies, let alone implicit ones, are often difficult to document. What little information is available tends to be incomplete, imprecise and inconsistent. Governments are reluctant to admit that they hand out subsidies of myriad sorts in munificent amounts. Still less do they want to concede that some could be ill-conceived, out of date, politically dubious or off target. And in many instances governments do not compile records on such contentious issues. So data are often patchy, suggesting that many estimates are underestimates.

If it is hard to assess subsidies overall, it is still more difficult to estimate perverse subsidies comprehensively. But here I present the findings of a forthcoming report¹ that attempts to do just that. The findings are to be viewed as conservative and cautious. But it is worthwhile trying to provide rough estimates so that political leaders, policy-makers and the public can be appraised of the scale of these damaging subsidies.

The scale of the problem

Table 1 shows that subsidies in five leading sectors are estimated to total around \$1,900 billion per year, and perverse subsidies \$1,450 billion. Plainly, perverse subsidies can exert a highly distorting effect on the global economy of \$29 trillion and greatly harm our environment. On both counts, they foster unsustainable development. Ironically the total of almost \$1.5 trillion is two-and-a-half times the Rio Earth summit's budget for sustainable development, a sum governments claimed could not be found.

The OECD (Organization for Economic Cooperation and Development) countries account for two-thirds of all subsidies and an even larger share of perverse subsidies; the United States accounts for more than a fifth of perverse subsidies; and road transport alone accounts for 48% of all subsidies and 44% of perverse subsidies.

The total for perverse subsidies may seem unduly large, but remember that many environmental externalities (including global warming, which could prove to be as big as all the rest put together) are either underestimated or omitted owing to lack of documentation of economic costs. In just the road transport sector, environmental externalities could account for \$1 trillion worldwide⁷ out of total sector costs of \$2 trillion a year⁸.

So what are the leading instances of these

Table 1 Subsidies (billions of dollars per year)

Sector	Conventional subsidy	Environmental externality	Total (range)	Perverse subsidies (range)
Agriculture	325	250	575	460 (390-520)
Fossil fuels and nuclear energy	145	-	145	110
Road transport	558	359	917 (798-1,041)	639
Water	60	175	235	220
Fisheries	22	-	22	22
Total	1,110	785	1,895	1,450

Conventional subsidies include established and readily recognized subsidies, including both direct financial transfers and indirect supports such as tax credits. Some of the estimates are supported by ranges (see text). In some instances, ranges are not included owing to insufficient agreement. Data are too patchy and disparate to allow even a reasonably agreed value of the environmental externalities for fossil fuels and nuclear energy.

perverse subsidies? First, the global ocean fisheries catch — well above sustainable yield — is annually worth more than \$100 billion at the dockside, whereupon it is sold for some \$80 billion, the shortfall made up with government subsidies. This results in the commercial extinction of major fisheries, as well as the bankruptcy of fishing businesses and much unemployment⁹. Second, one US government agency heavily subsidizes irrigation for crops that another agency pays farmers not to grow.

Third, also in the United States, petrol is now cheaper than bottled water, and several other aspects of US road transport are similarly priced artificially low, all thanks to extensive subsidies. The unpaid costs of road transport are at least \$464 billion per year, or \$1,700 per head of population. Hidden subsidies for oil by default create an energy policy that is the opposite of the government's stated priorities: for instance, they prolong the risky dependence on foreign supplies, especially from the Persian Gulf, and discourage investment in new, cleaner technologies such as hyper-cars and other revolutionary forms of energy efficiency¹⁰.

The annual total of perverse subsidies is larger than all but the five largest national economies, and is larger than the top 12 corporations' annual sales. It is more than twice global military spending per year, and three times the annual cash income of the 1.3 billion poorest people.

Even worse are the indirect costs to economies. Perverse subsidies push up the costs of government, inducing higher taxes (higher prices as well), and aggravating governments' budget deficits; divert government funds from better opportunities for fiscal support; undermine investment decisions and reduce pressure for businesses to become more efficient; tend to benefit the few at the expense of the many, and the rich at the expense of the poor; and foster environmental degradation in many forms, which, apart from their intrinsic harm, act as a further brake on economies.

If perverse subsidies were reduced, there would be a double dividend. First, there would be an end to the obstacles they impose on sustainable development. Second, there

would be a huge stock of funds — on a scale unlikely to become available through any other source — for sustainable development. In the case of the United States, for instance, they would amount to more than \$300 billion, or more than the Pentagon budget and two-and-a-half times the federal deficit. If just half of the perverse subsidies were to be phased out, just half of the funds released would enable most governments to abolish their budget deficits at a stroke, to reorder their fiscal priorities fundamentally, and to restore environments more vigorously than through any other single measure.

Finding a solution

The political climate for the reform of perverse subsidies is probably better than it has been for decades. Many governments are espousing the marketplace economy with its reduced government intervention; and many governments face fiscal constraints that give them further incentive to reduce subsidies. This applies particularly to the 'transition economies'. Fortunately, several governments have greatly reduced or even abolished some of their perverse subsidies, thus supplying a helpful precedent.

New Zealand has eliminated virtually all its agricultural subsidies since the early 1980s, even though — or perhaps because — its economy is more dependent on agriculture than that of most OECD countries. Today there are more farmers in New Zealand than when the subsidy phase-out began. Several Latin American countries, notably Chile and Argentina, have recently cut their agricultural subsidies.

Russia has reduced its fossil-fuel subsidies from \$29 billion in 1990-91 to \$9 billion in 1995-96; China has cut its subsidy from \$25 billion to \$10 billion; and similar drastic reductions have been made in India, Poland and Belgium¹¹.

Since the mid-1980s, Bangladesh and several other Asian countries have recognized that excessive application of nitrogenous fertilizers, encouraged by extravagant subsidies, are economically wasteful (decline in marginal benefits) and highly polluting (eutrophication of waterways and threats to supplies of drinking water). Pakistan has

reduced its fertilizer subsidies from \$178 million to \$2 million per year, Bangladesh from \$56 million to zero, and the Philippines from \$48 million to zero¹².

Policy openings abound. Governments can ride the strong tide of 'marketplace-ism'. Resistance to subsidies also stems from the growing privatization ethos. India's subsidies total more than 14% of its gross domestic product (GDP), yet the government wishes to reduce its fiscal deficit to under 4% of GDP, providing motivation to cut subsidies drastically.

These formidable opportunities are matched by formidable obstacles. Special-interest groups often feel so addicted to their 'entitlements' that they recoil from talk of cutting perverse subsidies. They find allies in bureaucratic roadblocks and institutional inertia. There is uncertainty about how the reduction of perverse subsidies, however rational in principle, will work out in practice; for instance, will it mean that businesses lose out to competitors abroad?

There are various ways of overcoming these obstacles. Governments could formulate alternative policies that target the same subsidy objectives better, while also compensating losers; develop a policy strategy that encourages subsidy removal by, say, reducing government controls generally and freeing up the economy to marketplace discipline; or introduce 'sunset' provisions that require surviving subsidies to be rejustified periodically, thus avoiding entrenchment.

All these measures can be reinforced by making perverse subsidies more transparent, especially their economic and environmental effects and their costs to taxpayers and consumers¹³. A US citizen pays taxes of at least \$2,000 a year to fund perverse subsidies, and pays almost another \$2,000 through increased costs for consumer goods and through environmental degradation. □

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