A Subsidy Primer

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GSI Global Subsidies Initiative

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Preface and Acknowledgements

The International Institute for Sustainable Development's Global Subsidies Initiative (GSI) was launched at the end of 2005, just prior to the WTO Ministerial Conference in Hong Kong, China. Delegates to the WTO meeting had gathered from around the world to discuss a wide range of issues being negotiated as part of the Doha Round of multilateral trade talks, but topmost on their minds were subsidies. What to do about agricultural subsidies, and market access (tariff and non-tariff barriers), was, as always, the make-or-break issue. But also on the table were various proposals for sharply reducing subsidies to fisheries, and perhaps eventually developing new "disciplines" on subsidies affecting trade in services.

Yet despite the fact that subsidies have become a central issue on the international agenda, the available information on subsidies is both highly dispersed and highly technical. While many valuable contributions have been made over the years to the literature of subsidies, most have been in the form of scholarly articles or books written by and for economists or trade experts. These tended to be either monographs focused on the magnitude of subsidies or their effects, or popular diatribes aimed at ridiculing subsidies in particular countries.

For anybody approaching the subject anew, they would face a steep learning curve indeed. Subsidies are not difficult to understand, but because the terms and definitions used by individual policy communities differ, confusion is virtually guaranteed. What was needed, in brief, was a book that covered all the issues related to subsidies, yet was short enough and accessible enough to attain a wide readership. In producing this Subsidy Primer we are attempting to fulfill that need.

The structure of the book has been set out so that each topic is addressed on a single page. While every effort has been made to ensure accuracy and balance, no doubt some readers – particularly economists and trade lawyers – may find that certain details or elaborations have been left out. Others may find that some of the statements are too sweeping. If so, we encourage reader feedback and will endeavor to take it into consideration in any future revisions of the book.

Portions of this booklet draw on earlier work by the author, particularly two papers prepared for the World Conservation Union (IUCN) and the Pacific Economic Co-operation Council (PECC), for the former's 50th anniversary conference and the latter's workshop on fish subsidies, both of which took place in 1998. These papers have been subsequently published in proceedings, but remain obscure.

GETTING TO KNOW SUBSIDIES

Why Be Concerned about Subsidies?

Why should you, as a citizen, care about subsidies? After all, don't many subsidies serve useful purposes? Yes, they do. Subsidies enable children from poor families to attend higher education. They support research vital to developing new vaccines and predicting natural disasters. And they help unemployed people to learn new skills, or to relocate to areas with better job prospects.

But precisely because government expenditure is limited, citizens should care about subsidies if for no other reason than to ensure that they serve the public interest and not merely private ones. Nothing speaks louder about a government's actual intentions and activities than how it spends its money, your money.

A lawmaker may proclaim support for energy conservation, yet still vote for generous tax breaks to buyers of large, gas-guzzling vehicles. A president may lecture an international gathering on the importance of helping developing countries to export their way out of poverty, and later that same day approve a new subsidy that effectively blocks imports from those same countries.

The second reason to care about subsidies is that they can have profound and long-lasting effects on the economy, the distribution of income in society, and the environment, both at home and abroad. Subsidies have shaped the pattern and methods of agricultural production, even in countries that provide few or no farm subsidies. They have encouraged fishing fleets to search farther and deeper than ever before, aggravating the problem of over-fishing. They have fueled unsustainable energy production and consumption patterns.

And, most worryingly, they continue to do so.

Notes

What is a Subsidy?

The word subsidy is derived from the Latin word subsidium, which meant "support, assistance, aid, help, protection". In medieval times it referred to a payment made to the king. While the definition has since moved on from that, the habit of royalty accepting subsidies has not. Research carried out by FarmSubsidy.Org, for example, has shown that in 2004 the Queen of England and the Duke of Westminster each received half a million pounds sterling in farm subsidies, and Prince Albert of Monaco €287,000. Republics like France and the United States no longer have sovereign rulers, but some of their farmers live like kings, thanks to generous subsidies.

Nowadays, to most people, a subsidy means a payment from a government to a person or company. Many subsidies are indeed provided in that form, as grants or, more generically, direct payments. Grants are the elephants in the subsidy zoo: they are large and highly visible. But there are numerous other subsidy beasts which are better camouflaged, stealthier, and keep closer to the ground.

The only internationally agreed definitions of a subsidy are those of the United Nations Statistics Division, which is used for the purpose of constructing national accounts, and of the World Trade Organization (WTO), which is used for the purpose of regulating the use of subsidies that affect trade. The WTO definition is the more comprehensive of the two and can be summed up as follows: A subsidy is a financial contribution by a government, or agent of a government, that confers a benefit on its recipients.

There are many people in the world, particularly environmental economists, who would like to add to that definition. But for the purposes of this Primer it provides an adequate entry point to the topic.

Penetrating the Rhetoric of Subsidies

The English language offers a rich vocabulary for expressing the notion of subsidy. Familiarization with these synonyms is useful both for understanding the rhetoric of subsidies and for conducting literature and data searches.

State aids is the term used within the European Union for subsidies provided by its Member States. It is used also by some U.S. states. "Aid" by itself, because of its common association with foreign aid, is used less frequently than in the past to mean a domestic subsidy. Industry assistance is a more general term than subsidy, and can include low-cost general services, such as advice to small businesses on how to fill in their tax forms. Lawmakers like speaking of aid or assistance because the terms are subtly suggestive of short-term help or relief, even though the programmes involved may be long-running.

The word "support" has a precise meaning within the trade-policy community. The OECD, for example, refers to support when discussing its aggregate of subsidies and transfers to producers created through artificially high prices (i.e., market price support), the producer support equivalent, or PSE. Domestic support and aggregate measurement of support are terms used in reference to obligations under the WTO's Agreement on Agriculture.

In the political sphere, however, "support" is highly imprecise. When a government declares it "supports" a particular technology, industry, or sector, that "support" can mean anything from simple well wishes to suitcases of money.

Perhaps the most ambiguous euphemism for "subsidy" is incentive. That is because an incentive can be positive or negative. For example, use of a relatively clean form of energy can be stimulated either by a tax on more-polluting forms of energy, or through a subsidy to consumers of the cleaner energy. The budgetary implications of the two forms of incentive could not be more different.

The Notion of Specificity

One of the important distinctions used by economists and lawyers interested in the trade or competition effects of subsidies is between specific and non-specific subsidies. Specific subsidies go to particular groups of beneficiaries, as opposed to the population as a whole. A subsidy that is available only to cotton farmers is specific. A subsidy to supply flu vaccine for anybody who needs one is considered (by trade lawyers, at least) to be non-specific, because almost anybody can benefit from it. The notion of specificity provides a useful conceptual framework for considering whether a subsidy is likely to distort trade or competition. However, the distinction between a specific and general subsidy is not always easy to make.

Whether a subsidy is specific or general is less relevant to the question of whether a subsidy has adverse environmental effects. Some very general subsidies can have major environmental impacts. Roads and ports provide numerous economic benefits, but roads may also cut across and fragment wildlife habitat, and ports may damage estuaries or fishing grounds. Subsidies, to the extent they stimulate the construction and use of such physical infrastructure, can contribute to these damaging effects.

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THE EFFECTS OF SUBSIDIES

The Opportunity Cost of Subsidies

People who defend subsidies for particular sectors often highlight the goods or services that have been produced, or the new jobs created. What they do not normally acknowledge is that the benefits to society of that money, if it had been spent otherwise, or left in the pockets of taxpayers, might have been even greater.

Economists refer to the value of an expenditure in its highest alternative use as its "opportunity cost." The concept of opportunity cost is reasonably intuitive. At the household level, if a person spends $100 on a night on the town, that $100 is no longer available to buy necessities, like food. Similarly, if a government spends $100,000 on a bridge that few people will use, that money is not available to be spent on education, or health care, or any other government priority. Because of taxes and other feedback mechanism in an economy, the analogy between the government and a household is not perfect. But in the presence of a budget constraint, all spending decisions, at the margin, imply trade-offs.

Ideally, a government would strive to structure its expenditures so as to achieve a return to society that is roughly similar for each dollar spent. Subsidies can easily upset that balance.

Consider a hydro-electric project that also provides water to irrigate adjacent farmland. A cubic metre of water from its reservoir has a high value when it passes through turbines and generates electricity, but also to a farmer growing thirsty crops. Nevertheless, the incremental value of an additional cubic metre of water may well be much higher when used to generate electricity than to irrigate the farmer's crops. Policies – such as subsidies that allow the farmer to pump out the water from the reservoir at a very low cost, or that artificially increase the profitability of farming – will result in some of the water being diverted to its lower-value use. In that case, the economy as a whole generates a smaller surplus.

The Static Effects of Subsidies on Efficiency

Economists may not agree among themselves on the precise definition of a subsidy, but they do generally agree on their static, first-order effects. Theory shows that these depend on a number of factors, among which are the responsiveness of producers and consumers to changes in prices (what economists call the own-price elasticities of supply and demand), the form of the subsidy, the conditions attached to it, and how the subsidy interacts with other policies.

In general terms, elasticities of supply and demand determine to what extent the actual, economic incidence diverges from the intended impact incidence of a subsidy: in a seller's market, consumer subsidies will be shifted onward to producers, and vice-versa. Other policies can also influence outcomes, as when production quotas are imposed on the subsidised activities.

Critics often point to the economic distortions created by subsidies, especially subsidies that are used to promote specific sectors or industries. Generally, such subsidies tend to divert resources from more productive to less productive uses, thus reducing economic efficiency.

Those who take a more benign view argue that subsidies can serve redistributive goals, or can help to correct market failures. But, as the public-finance economist Ronald Gerritse once warned, subsides defended on such grounds "may have externalities that we did not bargain for." Indeed it is such second-order effects that have come under attack by environmental economists in recent years.

The Dynamic Effects of Subsidization

There is a tendency over time for the benefits from subsidy programmes to become capitalised into the least elastic factor of production. The economist Gordon Tullock labelled this phenomenon "the transitional gains trap". As Professor Tullock explains, the gains from subsidies tend to be transitional, accruing mainly to those who can immediately take advantage of a new scheme. Their successors end up paying higher prices for land, fishing licences, mineral rights, etcetera. As such, removing the subsidy thus risks imposing a transitional loss on the subsequent owners of these assets.

The beneficiaries of a subsidy can become entrapped in a social sense as well. This is especially the case when subsidies are used to support employment in rural industries, such as agriculture, fisheries and mining, which require specialised skills but not necessarily much formal education. The resulting low mobility of the affected labour force itself becomes a barrier to policy reform, increasing subsidy dependency, and making structural adjustment all the more traumatic when it finally does come.

Subsidies that are linked to particular technologies can have profound, long-term effects on dynamic efficiency. Many energy-related subsidies (and regulations) have been of this sort. The more prescriptive they are, and the less targeted at the achievement of policy outcomes, the greater the opportunities for distortions and unintended consequences. The challenge for policymakers is to achieve a balance between the benefits of stimulating R&D and innovation, while not forcing technological responses to economic and environmental forces down irreversible paths. Once governments had invested billions of dollars supporting the development of civilian nuclear power, for example, there was a strong impetus to continue with the original designs. A similar phenomenon can be seen in the development of corn-based ethanol in North America, where even if costs fall for making ethanol from cellulosic feedstock, the dominant feedstock will likely remain corn (maize) for many years to come.

The Distribution of Subsidies

Many subsidies are defended as benefiting disadvantaged groups, or groups that politicians like to make us believe are disadvantaged. Some do that, but even those that do benefit disadvantaged groups often benefit richer people or companies even more.

Perversely, the distributive consequences of subsidies are often precisely the opposite of what the framers of the policies intended. Most countries that subsidise farmers or fishers profess to be looking out for the small owner-operator. Yet, by design, subsidies that are tied to outputs or inputs tend to favour larger producing units. Recently, for example, the Environmental Working Group, an American non-profit organization, counted up all the direct payments made by the U.S. Government to farmers between 1994 and 2005 and found that ten percent of subsidy recipients collected 73 percent of all subsidies, amounting to $120.5 billion Analyses of agricultural support programmes in other countries appear to lend credence to the 80:20 rule – the impression that 80% of support goes to 20% of the beneficiaries.

The conduit between a government and the intended recipient of a subsidy is often more like an open sluice than a pipeline, with plenty of opportunities for others to dip into the stream before it reaches its final destination. Any subsidies that are linked to the production of a good or services require the recipient to spend money on inputs used in producing that good or service. For example, if a farmer is paid by the government to grow corn, she will first have to spend some of that money on seeds, fertilizers, pesticides and fuel for the tractor. What is left as an increase in income may be only 20% or 25% of the cost to the government.

Economists call the ratio between what ends up in the pockets of the target group and what the government spends the transfer efficiency of the subsidy. Subsidies for the purchase of inputs, by lowering the producer's costs, can have a fairly high transfer efficiency, but only if the supply is not limited. If the seller of the subsidized good is a monopoly, or there is a finite supply of the input, the subsidy will mainly enrich the input provider.

Effects on the Environment

Governments do not set out intentionally to damage the environment just for the sake of it. They may not care very much about the environmental consequences of the activities they support, but that is not quite the same thing. Rather, when people speak of "environmentally harmful subsidies" they generally mean subsidies that support production, transport or consumption that ends up damaging the environment. The environmental consequences of subsidies to extractive industries are closely linked to the activity being subsidized, like fishing or logging.

Subsidies to promote offshore fishing are a commonly cited example of environmentally harmful subsidies, with support that increases fishing capacity (e.g., subsidies toward constructing new boats) linked to the depletion of important fishery stocks. In other industries, subsidies that promote consumption or production have led to higher volumes of waste or emissions. For example, irrigation subsidies often encourage crops that are farmed intensively, which in turn leads to higher levels of fertilizer use than would occur otherwise. Moreover, irrigation subsidies can lead to the under pricing of irrigated water, which in turn fosters the overuse and inefficient use of water.

While many subsidies have unintended negative consequences on the environment, well designed subsidies can be beneficial when they work to mitigate an environmental problem. In the context of fisheries, for instance, these would include subsidies to management programs that help ensure that fisheries resources are appropriately managed and that regulations are enforced, or to research and development (R&D) designed to promote less environmentally destructive forms of fish catching and processing.

The Political Economy of Subsidies

Given the various shortcomings of subsidies, why do governments keep resorting to them?

One basic problem is that, although governments are often motivated to provide subsidies in order to benefit specific groups of people – or, more specifically, voters – they rarely like to be seen doing it through such blatant devices as direct income payments. Activities or things ("merit goods") tend to get subsidised rather than people.

The tendency to subsidize things, instead of helping people directly, contributes to the second, and related, problem, which the economist Gordon Tullock labeled "the transitional gains trap". This refers to the tendency over time for benefits flowing from subsidy programmes to increase the value of associated fixed assets, like land or dairy quotas. Removing the subsidy thus risks imposing a transitional loss on the subsequent owners of these assets.

Subsidies themselves create a pool of money out of which recipients can influence the very political process that channels money to them in the first place. In many instances subsidies redistribute wealth from a large number of unknowing contributors to a smaller number of beneficiaries. The latter lobby vigorously to defend their handouts; the former seldom bother, or are empowered, to prevent them.

Finally, the bureaucracy itself can present an obstacle. Government ministries rarely admit to having a vested interest in the continuation of the support programmes they administer, but it is hard to imagine total disinterest being the norm. More subtly, the bureaucratization process often feeds a pervasive notion that the subsidised activity forms part of the natural order of things. Subsidies thus metamorphosize into entitlements, and any attempt to curb them becomes politically hazardous.

SUBSIDY TYPES

Grants and other Direct Payments

The most basic form of a subsidy, and the one that still defines a subsidy in some dictionaries, is a cash payment or grant. Although few grants are paid out in currency any more (most are paid via cheque or bank transfer), it is still common to refer to them as "cash" grants, payments or subsidies.

Normally, a grant refers to a time-limited payment, either in connection with a specific investment, or to enable an individual, company or organization to cover some or all of its general costs, or costs of undertaking a specific activity, such as research.

Other direct payments may be linked to the volume of production or sales. In previous centuries, and still in Australia, these types of subsidies were called bounties. They are far from archaic, however. In some states of the United States, for example, companies producing liquid biofuels receive direct subsidies for every gallon of ethanol they produce.

Cash payments to producers are also sometimes linked to prices. The main form is a deficiency payment, which makes up the difference between a target price for a good (typically an agricultural commodity) and the actual price received in the market.

Various cash subsidies are paid to workers. Canada, for example, provides targeted wage subsidies to assist individuals to prepare for, obtain and maintain employment. Many countries provide grants in order to encourage people who are out of work to undergo training in new skills, or to relocate.

Consumers also benefit from direct payments or vouchers, particularly for the purchase of necessities, like food, medicine or heating fuels. Alternatively, a government may regulate the consumer price for a good or service, and instead pay a subsidy to the supplier of that good or service, to cover its losses.

Market Price Support

Transfers of money to producers are typically divided into two broad categories: those provided at a cost to government, such as grants and tax concessions, and those provided through the market as a result of policies that raise prices artificially. The latter, called market price support (MPS), may derive from a domestic price interventions (for example, a minimum-price policy), and is usually supported by foreign trade barriers such as a tariff or quantitative restriction on imports. The OECD defines MPS formally (for agriculture) as "an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures creating a gap between domestic producer prices and reference prices of a specific agricultural commodity measured at the farm-gate level."

MPS is an element that is included in many studies of support to particular goods or sectors, and is added together with other subsidies to yield an estimate of total support.

The concept of market price support is simple enough. By maintaining an import tariff on a good, for example, a government raises the price of that good above what it could sell at in the absence of the tariff. From the producers' standpoint, the revenues they will receive would be similar to those they would receive were the government instead to pay them an equivalent premium per unit produced. The main difference is that MPS raises domestic prices, and may therefore dampen demand compared with a budget-financed price premium, especially if there are close substitutes that, as a result of raising the price of the targeted good, become relatively cheaper. In such situations, such as for coal for power generation, governments have sometimes solved the problem of changed relative prices by constraining the ability of consumers to shift to the competing product.

From the government's perspective, the advantage of providing support indirectly, through a market intervention, is that it is less transparent, and the transfers do not appear in its budget. Rather than taxpayers, consumers bear the burden. For this reason, MPS is considered by economists to be one of the most market-distorting forms of support provided through government policies. Unfortunately, it is also still one of the largest elements of total support, especially in agriculture.

Tax Concessions

In countries with well-developed tax systems, subsidies provided by reducing companies' tax burdens are commonplace. Examples include tax exemptions (when a tax is not paid), tax credits (which reduce a tax otherwise due), tax deferrals (which delay the payment of a tax) and a host of other instruments. In common language these preferential tax treatments are called tax breaks or tax concessions; public-finance economists refer to them as tax expenditures. They should not, however, be confused with general tax reductions.

Generally, when a government provides a tax break its budget is affected in much the same way as if it had spent some of its own money. The exception is a tax credit, which is worth more to a corporate recipient (and costs a government more) than a direct payment of an equivalent nominal value, as a direct payment raises a company's taxable income and therefore is itself taxable.

Besides adding complexity to tax systems, tax concessions are often criticized by economists as being less transparent than grants, and more resistant to change. Several national governments, and even a few sub-national governments, produce annual tax expenditure budgets. But the information contained in these "budgets" is often reported at a highly aggregate level. Information on the value of tax breaks received by particular industries or companies is usually much more difficult to lay one's hands on.

When creating a new tax break, lawmakers sometimes set a limit on how long it may be used. But many tax breaks, once incorporated into the tax code, continue indefinitely. In contrast with a grant or similar subsidy, which has to be re-approved with each budget cycle, a tax break usually requires an active decision by lawmakers to eliminate it.

In-kind Subsidies

The phrase "in-kind" means provided in a form other than money. Typical in-kind benefits provided by governments are subsidized housing, specific infrastructure (like a road servicing a single mine or factory), the services required to maintain that infrastructure, and various services to help exporters. They may be considered subsidies if they involve expenditure (or foregone revenue) by a government and they confer a specific benefit on the recipient. However, government provision of general infrastructure – e.g., highways and ports – is often excluded from the definition of an in-kind subsidy, as is the case in the WTO's general agreement on subsidies, the Agreement on Subsidies and Countervailing Measures.

The value of an in-kind benefit depends on the price charged for the resource, good or service. When a government undercharges for something, the unit subsidy is usually considered equal to the difference between the price paid and the market price. When it charges a market price, the transaction is considered commercial, and not a subsidy. Often, however, the government is a monopoly supplier of a good or service – i.e., there is no private market against which the government's prices can be compared – which increases significantly the difficulty of determining whether a subsidy is involved.

One important variant of an in-kind subsidy is privileged access to a government-owned or controlled natural resource. Primary industries benefit greatly from such access – e.g., to public lands for mining or grazing livestock, to state forests for logging, to rivers for irrigation, and to foreign seas (through so-called "access agreements") for fishing – for free or at a below-market price. International disputes over the subsidy element of privileged access to natural resources have been among the most contentious and long-running.

Cross Subsidies

A cross subsidy is a market transfer induced by discriminatory pricing practices within the scope of the same enterprise or agency. Typically it exists when a government-owned enterprise, such as a public utility, uses revenues collected in one market segment to reduce prices charged for goods in another. Some definitions also include similar practices carried out by private firms, as when an integrated airline allocates part of the costs of its activities in a highly contested geographical or product market (e.g., the transport of freight) to another market (e.g., passenger transport) that is better able to bear those costs. For example, some airports cross-subsidize costs associated with serving airline passengers through sales on duty-free goods.

One of the most common forms of cross subsidy is that between consumers of electricity and consumers of irrigation water. Managers of large hydro-electric works that store and channel water for irrigation as well as generate electricity have to decide how to allocate the costs that are common to both activities (notably, the construction and maintenance of the dam and reservoir) between farmers and buyers of electricity. Government regulations will often dictate that an even smaller portion of the costs be allocated to irrigation than would be efficient according to established pricing principles.

Not all instances of price discrimination are evidence of cross subsidies, however. For example, differences in the volume (if there are economies of scale in delivery) and interruptibility of service, among other factors, can lead to different price schedules for different classes of customers.

Credit Subsidies and Government Guarantees

Many subsidies that have budgetary implications – that is, can create financial obligations for governments in the long run – never actually appear in budgetary statements. These "hidden" subsidies are common whenever a government takes on the role of a banker or insurer to a company or industry.

When a government loans money to a company at a lower rate of interest than a commercial bank would offer, or requires less collateral to back up its loan, defers repayment or allows for a longer period to pay off the loan, the company saves money.

Governments also sometimes guarantee loans taken out by companies or individuals through commercial banks. That means that the government assumes the risk of default on the loan, rather than the bank, which in turn means that the bank can offer the borrower more favourable lending terms, such as a lower rate of interest.

Governments also serve as an insurer of last resort for private investments. All OECD governments with nuclear power plants, for example, are signatories to an agreement that limits the financial liability of power-plant owners in the event of a catastrophic accident. Similarly, many governments would be stuck with part of the bill following the failure of a large hydro-electric dam. For this type of support, years may pass before a government incurs any actual costs. But when an accident does occur, the financial burden (not to mention human cost) can be huge.

Hybrid Subsidies

Economic systems can be likened to ecological systems. In the steaming jungle that defines the borderland between private industry and government, camouflage and parasitism are common adaptive responses to competition. Subsidy hybrids, particularly instruments that exploit the tax system to lower the costs of private investment, are an inevitable result of those evolutionary forces.

At the base of the evolutionary ladder are tax-free government bonds. A bond is a financial instrument that promises its holder a fixed annual dividend over a specified period of time, typically 10 to 20 years. National governments issue bonds to help finance their general activities. Municipalities, sub-national governments and their agencies (e.g., air-pollution control districts) also issue bonds, more commonly tied to specific projects, like water-treatment plants. The dividends paid to holders of such bonds are not taxed. Since tax-free status raises the net return on investment, particularly for bond holders in high marginal income-tax brackets, the bonds can offer a lower rate of interest than would have to be offered to buyers of private, commercial bonds in the same risk category.

Tax-free bonds are used also in some places to finance private investment: a corporation borrows money from a private lender, the bond buyer, which is issued by a public authority to become tax free.

Higher up the evolutionary ladder are instruments like tax increment financing (TIF), a peculiar form of subsidy found in the United States. Tax-increment financing enables a city to split off future additional property tax revenues associated with a designated development and to provide a loan to the company undertaking that development, using the future incremental tax revenues as collateral. In effect, this revenue stream is diverted away from normal property tax uses, such as the funding of schools, and into the TIF district.

Derivative Subsidies

Subsidies have a tendency to beget other subsidies. Some of these are described below:

Sympathetic support: When support is used to influence the direction of technological developments, it often does so in a manner designed to benefit domestic producers. Many examples of this can be found in the energy sector, such as when governments support the construction of coal-fired "demonstration" power plants that are dependent on coal from high-cost domestic mines rather than on imported coal, or for biofuel refineries that use domestic feedstocks.

Compensatory or countervailing support: When support leads to higher input prices for downstream consumers, especially those that derive a significant proportion of their sales from exports, compensation is often provided in order to keep them buying domestically produced raw materials. Subsidies to food processing industries and to biofuel producers are common examples.

Subsidy clusters: As the subsidy expert, Doug Koplow, has observed, when support – or failure to consider opportunity costs – leads to lower prices for natural resources, a chain reaction can take place, whereby new investment occurs to take advantage of the cheap input. Often, downstream consumers receive additional incentives from governments to do so. Hence aluminium plants are attracted to major hydroelectric projects, which are then followed by airframe manufacturers, and so forth.

Taken together, these derivative subsidy forms lend support to the notion that bad subsidies tend to chase out good ones – what the agricultural economist C. Ford Runge has called "Gresham's law of subsidies". Political economy also suggests that the "good" subsidies will over time be politically outmanoeuvred by the established groups to redirect public spending to themselves.

Subsidies through Government Procurement

The WTO Agreement on Subsidies and Countervailing Measures (ASCM) recognizes that a subsidy can exist when a government purchases goods "and a benefit is thereby conferred." The benefits the drafters of the ASCM had in mind were those resulting from purchases that take place under circumstances that do not accurately reflect normal market transactions.

Governments practice preferential purchasing routinely, expressly favouring domestic over foreign suppliers of similar-quality goods – e.g., by paying domestic suppliers higher prices or offering special financing arrangements. The conflict of interest faced by governments is understandable. They are expected by taxpayers to be savvy buyers, but are also under constant pressure to support domestic producers.

The magnitude of government procurement is enormous. A study from 2002 estimated that each year OECD countries spend $4.7 trillion procuring goods and services, particularly for state-run health services, public works, and the military. Much of these purchases are made at market prices, but it is believed that a significant fraction of them include an element of subsidy.

The WTO has been trying to establish ground rules for government procurement since the 1980s. The latest rules are set out in the Agreement on Government Procurement (AGP), signed in 1994. Being a "plurilateral" agreement it applies only to its signatories, which are mainly OECD economies. By establishing recommended procedures for tendering, negotiating and awarding government contracts, it outlines a desirable system of government procurement. However, monitoring and enforcement of the AGP is weak, and there are many ways in which governments can bypass its disciplines, such as by excluding certain types of purchases (e.g., for the military) or setting thresholds – higher than the lower limits contained in the Agreement itself – below which the AGP does not apply.

Notes

THE MATERIALS AND TOOLS OF SUBSIDY ANALYSIS

Basic Data

Ultimately, all subsidy analysis depends on data, and most of these data are collected and provided (not necessarily published) by governments. The usual primary source for expenditure data is government financial statements. Some government departments also helpfully prepare summary tables on expenditure under programmes for which they are responsible.

Another source of information is national accounts. While the data in national accounts capture only a subset of budgetary subsidies (no tax expenditures), the background reports for them can be enlightening. Canada, for example, as part of its annual national accounts exercise, publishes the names of companies or individuals receiving C$ 100,000 or more under a particular programme in a given year.

But many forms of subsidies, particularly tax breaks and credit subsidies, do not make it into the official accounts. According to experts at the World Bank, only about a dozen countries regularly report estimates of tax expenditures. The U.S. Government publishes two sets of estimates of the tax expenditure of federal tax breaks, but only for tax expenditures worth US$ 50 million or more a year.

Information on subsidies at more local levels of government, which can be crucial in influencing investments in plants and buildings, is much harder to find, in part because the packages of incentives are unique to each recipient. In the United States, a few States (e.g., Illinois, North Carolina and Minnesota) now make some information on corporate subsidies available on the Web. The European Commission requires that its Member States notify new "state aid" programmes. This information also can now be accessed via the Internet.

Non-governmental organizations and journalists have been successful in some countries in extracting subsidy data from governments that previously had not been made public. So-called "Freedom of Information" laws have been critical in this regard.

Sectoral Subsidy Accounts

The bulk of what the world knows about the amounts and types of subsidies provided to specific sectors and sub-sectors comes mainly from intergovernmental organizations, such as the OECD.

The values of subsidies, or of support more widely, provided by OECD countries derive mostly from the OECD itself, or in the case of coal (until 2001) from the OECD's sister organization, the International Energy Agency (IEA). Estimates for the rest of the world come mainly from various one-off efforts by analysts working for the World Bank, the International Monetary Fund or one of the United Nations agencies, the IEA and from a few dedicated individuals.

As a result, when researchers combine the aggregate estimates from the sectoral accounts into global estimates of subsidies they are combining numbers based on different starting assumptions, different estimation methods, different policy coverage and even different time periods. Some normalization could be attained with a more careful approach to aggregation than some have used in past studies, although the level of comparability between these accounts is nowhere near that for corporate financial accounting.

Large computerized models and their ilk

In recent years, sophisticated economic tools have been brought into service to help understand the effects of subsidies, particularly agricultural subsidies, on trade and welfare at the global level and within individual countries or groups of countries. Most of the large-scale efforts to date – by the World Bank, the OECD, the Institut national de la recherche agronomique (INRA), the Carnegie Endowment, and a few independent analysts – have involved the use of computerized general equilibrium (CGE) models.

Although the specification of these models differ, they all share the same source of their information on subsidies: the database of the GTAP (Global Trade Analysis Project) consortium. The GTAP database, in turn, draws on data generated by the OECD (relating to its own member countries' farm support) and by WTO Members in their notifications of domestic support.

An important caveat of any recent CGE-based analyses that purport to examine the effects of "subsidy reform" on trade and welfare is that they consider only a sub-set of subsidies, namely subsidies to primary agriculture. Because the databases used for these models do not contain information on subsidies to energy, manufacturing, transport or even fisheries, the effects of such subsidies, or their reform, are not analyzed.

Most of the effects of trade reform that these models measure, therefore, are driven by changes in border measures, namely tariffs and tariff-rate quotas. When it is reported that only a small percentage of the benefits of multilateral trade liberalization generally, or from a specific trade deal, would stem from the elimination or reduction of subsidies, it is vital to understand that the outputs of the models largely reflect their inputs, at least as regards subsidies.

Notes

INTERNATIONAL DISCIPLINES ON SUBSIDIES

Trade and Subsidy Regulation

Governments may differ in their readiness to use subsidies, but almost all agree that subsidies provided by trading partners are a bad thing if they artificially strengthen the competitiveness of the partner's industry.

Countries have been trying to control subsidy-driven competition affecting commerce within their borders for centuries. The U.S. Supreme Court, for example, has on numerous occasions invoked the Commerce Clause of the U.S. Constitution (Article I, Section 8) to strike down subsidies that favor local businesses over competitors from other states. The six countries that formed the European Coal and Steel Community – the precursor to the European Union – expressly abolished and prohibited all "subsidies or state assistance, or special charges" in the 1951 Treaty that created the ECSC. Exemptions from that rule later became routine, but that these countries even attempted such a mutual prohibition is significant.

To deal with subsidization beyond their borders, some countries also set up procedures for keeping out other countries' subsidized goods. This they did initially by either restricting imports or levying additional duties on top of the tariffs normally charged on all imports of the product. Nowadays these so-called "countervailing duties", or CVDs, are the only border measures allowed in response to subsidized imports, and are supposed to be set at a level equal to the estimated unit (i.e., per weight or volume) subsidy. CVDs are set unilaterally, however, and until the WTO Agreement on Subsidies and Countervailing Measures (ASCM) came into being, providing guidelines, there were few constraints on their use.

The WTO Agreement on Subsidies and Countervailing Measures (ASCM)

The ASCM, which came into force in 1995, established rules not only on how and when CVDs could be applied, but also on what kinds of potentially trade-distorting subsidies would be allowed, and what remedies were available to countries that felt they had been adversely affected by another country's subsidies.

Only two kinds of subsidies are prohibited by the ASCM (Article 2): export subsidies, and subsidies contingent upon the use of a domestically produced over imported goods. All other "specific subsidies", which are subsidies that benefit only particular companies or industries, are allowed, but actionable. "Actionable" means that if adverse effects can be demonstrated, the affected country can take one of several actions.

If the main concern of the complaining Member (the WTO does not use the word "country") is displacement of goods sold in its own market as a result of a non-prohibited subsidy, that Member may apply a countervailing duty. If the complaining Member's main concern is displacement of its exports in the subsidizing Member, or in a third country, by a prohibited or actionable subsidy, it may seek remedies through the WTO.

The Agreement on Agriculture: an overview

The WTO's Agreement on Agriculture (AoA) was negotiated in the 1986–94 Uruguay Round of multilateral trade negotiations and marked a significant first step towards bringing agricultural subsidies ("domestic support" in the language of the AoA) under international disciplines. Specific commitments set out in the AoA were implemented over a six-year period (10 years for developing countries), starting in 1995.

The AoA differs from the ASCM in several important respects. For one, it allows export subsidies for agricultural products, though these had to be reduced. (By contrast, the ASCM prohibits export subsidies.) Second, it requires Members to reduce other trade-distorting subsidies provided to agriculture.

Under the AoA, subsidies are grouped into "boxes": amber, blue and green. Amber-box support (see next page) is subject to limits expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which combines all supports for specified products, together with supports that are not for specific products, into one single figure.

WTO Members agreed to initiate negotiations for continuing the agricultural reform process one year before the end of the implementation period, i.e. by the end of 1999. These talks were incorporated into the Doha Round of multilateral trade negotiations, which began in earnest in 2002.

Considerable progress was made over the next two years, leading to an agreement at the end of July 2004 on a framework for concluding the negotiations. The trade talks then turned to modalities – the specific targets, formulas and timetables for reducing trade-distorting domestic support and trade barriers, and eliminating export subsidies. By the middle of 2006, however, a core group of WTO member countries – the United States, the European Union (EU), Brazil, India, Australia, and Japan – still could not iron out their differences over the modalities. On 24 July 2006 the WTO's Director General announced the indefinite suspension of further negotiations. Talks have since resumed; however, WTO Members remain some distance from reaching an agreement.

The Agreement on Agriculture: the boxes

Agricultural subsidies are grouped in one of three boxes (green, blue or amber) at the WTO, depending on the degree to which they distort trade. Green box subsidies are permitted because they are deemed to cause minimal trade distortion, and typically include those to research and development (R&D), environmental protection and animal welfare. Blue box subsidies are also permitted, but on the condition that they must not lead to increased production.

Meanwhile, all domestic support considered to distort production and trade (with some exceptions) falls into the amber box, which is defined in Article 6 of the AoA as all forms of domestic support except that placed in the blue and green boxes. Included in the amber box are measures to support prices, and subsidies directly related to production quantities. Amber-box support is subject to limits expressed in terms of a "Total Aggregate Measurement of Support" (Total AMS) which combines all supports for specified products, together with supports that are not for specific products, into one single figure.

Whether subsidies deserve to be placed in the green or blue box, rather than the amber box, is sometimes a matter of contention at the WTO. Within the current negotiations, many developing country members have expressed concern over "box-shifting": the movement of subsidies from the amber to the blue box without significant changes in the nature of the subsidy. The G-20, a group of 20 developing country WTO members, has pushed for rules that would help ensure that amber box subsidies are completely transformed before gaining access to the blue box.

The General Agreement on Trade in Service (GATS)

Services encompass activities as diverse as air transport, banking, tourism, telecommunications, and the treatment of wastewater. Governments often provide subsidies to the providers of these services through grants (e.g., for the construction of hotels), subsidies in-kind (e.g., airports), concessional financing, and tax breaks.

When trade negotiators began drafting a General Agreement on Trade in Services (GATS), at the beginning of the Uruguay Round of multilateral trade negotiations, they were well aware that subsidies could distort trade in services, and some wanted to create new disciplines to avoid such trade-distorting effects. At the close of the Uruguay Round, however, the negotiators were unable to reach agreement on even the desirability, much less the substantive content, of any disciplines.

Subsidies to services therefore remained unfinished business at the WTO, part of the Council on Services' "built-in agenda" for follow-on negotiations. These commenced in 1996 and in 2001 were subsumed under the broader Doha Round of multilateral trade negotiations.

Progress on these negotiations has been slow. As of the beginning of 2007, negotiators had not even agreed on the definition of a subsidy. The WTO Secretariat itself has suggested using the ASCM definition of a subsidy as a starting point, but some WTO Members are nervous that it may contain unforeseen traps. Further complicating the discussions are the different "modes" in which trade in services takes place.

For the time being, therefore, WTO Members' subsidy practices affecting services remain subject only to the GATS' general obligations, notably its most-favoured nation (non-discrimination) and national treatment obligations. The latter applies only in service sectors to which countries have scheduled (i.e., formally declared) liberalization commitments. Basically, national treatment requires that a subsidy provided to domestic service suppliers also be accessible to foreign service suppliers.

Dispute Settlement at the WTO

All WTO Members are obligated to implement the subsidy provisions of the WTO Agreements. But they are also the initial judges of the best way to implement them. No multilateral mechanism exists to determine whether a particular subsidy is prohibited, actionable or not. For that, and other disputes, the WTO's Dispute Settlement Mechanism was created.

Disputes are expected to be the exception rather than the norm. Dispute settlement is cumbersome, requiring a domestic process to determine adverse effects, followed by a demanding WTO process that will typically include both a panel and an Appellate Body phase. Nonetheless, there have been a significant number of disputes concerning the ASCM since 1995. The AoA included a "peace clause" that provided that most disputes would not be initiated during a six-year transition period, which expired at the end of 2003.

Dispute settlement at the WTO proceeds in stages, starting with a request for consultations between the disputing parties. If a mutually agreed solution is not reached within 60 days (30 days if it involves an alleged prohibited subsidy), any party may refer the matter to the WTO's Dispute Settlement Body (DSB).

The next step is the formation of a panel. If the panel accepts to review the matter it conducts formal hearings, culminating in the submission of a final report. The report is then accepted by all, or appealed by one of the parties. If the Appellate Body determines that the subsidy has resulted in adverse effects to the interests of another, the Member granting or maintaining the subsidy must "take appropriate steps to remove the adverse effects", or simply withdraw the subsidy. If the Member does not conform within six months from the date when the DSB adopts the panel report or the Appellate Body report, and in the absence of agreement on compensation, the DSB shall grant authorization to the complaining Member to take countermeasures. These are to be "commensurate with the degree and nature of the adverse effects determined to exist, unless the DSB decides by consensus to reject the request."

Soft Law on Subsidies

The WTO and the IMF are not the only multilateral institutions that have attempted to influence how national governments use subsidies.

Several multilateral environmental agreements (MEAs), such as the Convention on Biological Diversity, have tried to draw more attention to the effects that subsidies have on the environmental assets that they are charged with protecting. The need for subsidy reform in respect of agriculture, fisheries and energy was also highlighted at the 2002 Johannesburg World Summit on Sustainable Development.

Yet none have dared so far to consider more than studying the problem or issuing exhortatory statements on the matter, or calling for more spending on "green" subsidies.

With the Kyoto Protocol having now come into force, the problem of subsidies to energy is likely to become more than just an idle debating point. The Kyotol Protocol, alone among MEAs, establishes a general obligation to take measures ("in accordance with national circumstances") to phase out market imperfections, like "subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention" (Article 2.1(a)). While substantial margin for manoeuvre is granted to each signatory, it is likely that subsidies will increasingly come to the fore. And not only subsidies to fossil fuels: as the world market for biofuels and renewable-energy technologies expands, countries will start to look much closer at the kinds of infant-industry and domestic-supply promoting subsidies so favored by proponents of renewable energy.

Notes

CIVIL SOCIETY AND SUBSIDIES

Private Efforts to Control the Abuse of Subsidies

Criticism of subsidy abuse is closely tied with freedom of speech. Rulers have been doling out taxpayer money to favoured beneficiaries, or wasting it on lavish lifestyles or grandiose projects, for millennia. People feel safe in questioning government expenditures only if they know they will not be put in jail, or worse, for doing so.

Domestic criticism of subsidies has traditionally come from four quarters: opposition political parties, liberal economists, non-beneficiary producers, and taxpayer organizations. Political parties and producers can be fickle in their opposition to subsidy abuse, however. By contrast, the resources and the organization of the beneficiaries of subsidies tends to grow over time. Short-term bursts of public outrage against particular subsidies are usually ineffectual; the offending programmes simply get renamed or cloaked in the latest policy fashion.

Fortunately, a new voice has been added to the chorus of subsidy sceptics: that of environmentalists. As awareness of the harm that subsidies can cause for the environment, and for sustainable development more generally, has increased, so have the number of non-governmental organizations who are taking an interest in subsidies.

Among the first to raise alarm bells was the World Resources Institute, over subsidized energy. Groups such as the Environmental Working Group, which has become a powerful force for the reform of agricultural subsidies in the United States, and the World Wildlife Fund, which has been highly effective in its efforts to prod governments into forging an agreement at the WTO that would sharply reduce global subsidies to fishing, have joined the fray. The following pages list some examples of current campaigns.

Green Scissors (USA)

Since 1994, the Green Scissors Campaign, led by three non-governmental organizations, Friends of the Earth, Taxpayers for Common Sense and U.S. Public Interest Research Group, has been working with the U.S. Congress and various administrations to end environmentally harmful and wasteful spending. Working to breach party lines, the Green Scissors Campaign has helped cut more the $26 billion in environmental wasteful programs from the federal budget.

The Green Scissors Campaign highlights programs for reform in six sectors: agriculture, energy, international and military programs, public lands, transportation and water. Each year between 1999 and 2004 it has published an annual *Green Scissors Report*, targeting environmentally harmful and wasteful spending in the federal budget. For example, Green Scissors takes credit for helping to reform the royalties that oil companies pay the US federal government for the drilling they do on public lands, so that they better reflect market prices.

In recent years it has shifted its campaign to individual states, starting with California, Maryland and Virginia.

Farmsubsidy.org (Europe)

Farmsubsidy.org is a project coordinated by the Danish International Center for Analytical Reporting (DICAR) and EU Transparency, a non-profit organisation in the UK. Formed in 2005, it is working to obtain detailed data relating to payments and recipients of farm subsidies in every EU member state and make this data available in a way that is useful to European citizens.

Subsidies paid to farmers and others under the European Union's Common Agricultural Policy amount to over €40 billion a year – more than 40% of European Union's entire annual budget, or around €100 a year for each EU citizen.

By publicizing data on subsidies on its website, Farmsubsidy.org aims to help European citizens become better informed and contribute to a constructive public discourse about farm subsidies in the EU. To undertake its work, the project has brought together a diverse group of journalists, analysts and campaigners who share a belief in increasing the transparency of the Common Agricultural Policy. While those involved in the project may hold their own opinions about the Common Agricultural Policy, Farmsubsidy.org has no common position other than the need for greater transparency.

The network has successfully pushed governments to reveal the recipients of farm subsidies in Denmark, Latvia, The Netherlands, Slovakia, Slovenia and Sweden. But the struggle continues: some European governments have so far refused to release information on subsidy recipients, or have provided incomplete data.

International Budget Project (International)

The International Budget Project was formed within the U.S.-based Center on Budget and Policy Priorities in 1997 to nurture the growth of civil society capacity to analyze and influence government budget processes, institutions and outcomes. The IBP works closely with organizations that focus on the impact of the budget on poor and low-income people in developing countries or new democracies. The overarching aim of the project is to make budget systems more responsive to the needs of society and, accordingly, to make these systems more transparent and accountable to the public.

To achieve its aims, the IBP works with individual civil society organizations that are developing or strengthening dedicated capacity to engage in public budgeting, through training, research, and re-granting activities; encourages these civil society budget groups to work together and to learn from each other; and helps to raise the profile of budget work in the international community and to promote private, public and multilateral donor investment in civil society budget work.

One of IBP's major projects, The Open Government Initiative, has rated some 59 governments according to the transparency and accountability of their budgets. IBP also produces a range of manuals and resources to help citizens gain access to and understand their public budgets.

Sources and Suggested Readings

Preface

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Notes