

The Challenge of Reducing Subsidies and Trade Barriers

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Despite the net economic and social benefits of reducing most government subsidies and opening economies to trade, almost every national government intervenes in markets for goods and services in ways that distort international commerce. Those interventions have been reduced considerably over the past two decades, but many remain. Distortionary policies harm most the economies imposing them, but the worst of them (in agriculture and clothing) are particularly harmful to the world's poorest people. This paper focuses on how costly those anti-poor policies are, and examines possible strategies to reduce remaining distortions, including via the Doha Development Agenda of the World Trade Organization (WTO) and sub-global preferential reforms such as the Free Trade Area of the Americas (FTAA) initiative.

Arguments for Removing Trade Barriers

The standard comparative static analysis of national gains from international trade emphasises the economic benefits from production specialization and exchange so as to exploit comparative advantage in situations where a nation's costs of production and/or preferences differ from those in the rest of the world. Domestic industries become more productive as those with a comparative advantage expand by drawing resources from those previously protected or subsidized industries that grow slower or contract following reform. The static gains from trade tend to be greater as a share of national output the smaller the economy, particularly where economies of scale in production have not been fully exploited and where consumers (including firms importing intermediate inputs) value variety so that intra- as well as inter-industry trade can flourish.

To the standard comparative static analysis needs to be added links between trade and economic growth. Channels through which openness to trade can affect an economy's growth rate include the scale of the market when knowledge is embodied in the products traded, the degree of redundant knowledge creation that is avoided through openness, and the effect of knowledge spillovers. Economies that commit to less market intervention tend to attract more investment funds too, and greater competition spurs innovation (Aghion and Griffith 2005), leading to higher *rates* of capital accumulation and productivity growth (Lumenga-Neso, Olarreaga and Schiff 2005). Wacziarg and Welch (2003) show that countries that have liberalized their trade (raising their trade-to-GDP ratio by 5+ percentage points) have enjoyed 1.5 percentage points higher GDP growth compared with their pre-reform rate.

Opportunities for Reducing Subsidies and Trade Barriers

Among the more-feasible opportunities available today for encouraging trade negotiations to stimulate significant market opening, the most obvious is a non-

preferential legally binding partial trade liberalization following the WTO's current round of multilateral trade negotiations, the Doha Development Agenda (DDA).

A second type of trade negotiating opportunity involving a subset of the world's economies is a reciprocal preferential agreement. Efforts are also being made to negotiate a Free Trade Area of the Americas (FTAA), which potentially would bring together all the economies of North, Central and South America. This is by far the largest and most ambitious preferential agreement currently in prospect: it dwarfs the bilateral FTA negotiations the US and EU are each having with a range of other countries. It is examined both without and with the prospect of an EU-Mercosur FTA.

There is also the opportunity for high-income countries to offer least developed countries duty-free access to their markets, but this opportunity involves only a very small volume of global trade, so estimates of its benefits are not included.

Economic Benefits from Reducing Subsidies and Trade Barriers

Empirical comparative static studies of the economic welfare gains from multilateral trade liberalization typically generate positive gains for the world and for most participating countries. When economies of scale and monopolistic competition (IRS/MC) are assumed instead of constant returns to scale and perfect competition (CRS/PC), and when trade in not just goods but also services is liberalized, the estimates of potential gains can be increased several fold. Economists have also begun to examine the effects of lowering barriers to temporary labor movements across borders.

Table 1 reports estimates of the economic benefits associated with removing all trade barriers and agricultural subsidies. The AMV study (Anderson, Martin and van der Mensbrugghe 2006) provides the simplest scenario: global liberalization of just merchandise trade using the latest version of the World Bank's Linkage model, assuming constant returns to scale and perfect competition in all product and factor markets. The GTAP Version 6 database, which provides trade and protection data for 2001, is used in that study to generate a new baseline first for 2005 (allowing for recent policy changes including the completion of implementation of the Uruguay Round, the EU expansion to 25 members, and the accession of new members such as China and Taiwan to WTO), and to project the world economy forward a decade assuming no further trade policy reforms. This baseline for 2015 is then compared with how it would look after full adjustment following the removal of all countries' trade barriers and agricultural subsidies. The economic welfare gain is estimated to be US\$287 billion per year in 2001 dollars as of 2015 (and hence slightly more each year thereafter as the global economy expands). Of that, \$86 billion p.a. is estimated to accrue to developing countries. These are the lowest of the estimates summarized in Table 1.

The BKS study (Brown, Kiyota and Stern 2005) uses the Version 4 GTAP data base projected to 2005, but they embed it in the authors' static Michigan Model of World Production and Trade (www.ssp.umich.edu/rsie/model) to produce the highest of the surveyed estimates of global welfare gains from complete removal of trade barriers and agricultural subsidies: \$2417 billion p.a. This much larger estimate is the result of several features of this study: not having China and Taiwan's implementation of their WTO accession commitments in the baseline; the inclusion of increasing returns to scale and monopolistic competition (IRS/MC) for non-agricultural sectors and therefore product heterogeneity at the level of the firm rather

than the national industry; liberalization of services in addition to goods trade (with IRS/MC assumed for the huge services sector); and the inclusion in services liberalization of the opening to foreign direct investment. The latter boosts substantially the gains from services liberalization, which account for nearly two-thirds of this study's estimated total gains.

All other estimates of the gains from complete trade liberalization are between these two extremes. The HRT study (Harrison, Rutherford and Tarr 2002) uses much larger trade elasticities than other models and so gets a considerable gain even using a 1995 base. WBGEP (World Bank 2003) uses the World Bank's Linkage model to 2015. It assumes liberalization boosts factor productivity in each industry according to the extent of growth in the share of production exported by the industry. The case presented suggests the gains would be \$832 billion p.a. That model is also used by the World Bank in its study of the potential gains from international migration, drawing on a new bilateral migration and remittances database (WBGEP – see World Bank 2006). Even assuming that the flow of migrants from developing to OECD countries amounts to just a 3 percent boost in the latter's labor force, it estimates the global gains would amount to \$674 billion per year, most of which would be enjoyed by current citizens of developing countries (including those who migrate).

Implications for the Doha Round

Anderson, Martin and van der Mensbrugghe (2006) examine the options that have been canvassed in the Doha Round, and show that welfare gains from goods trade liberalization could range from a minimalist reform (in which no more is achieved other than the phase out of export subsidies and the reduction in agricultural tariff and domestic support binding overhang) to \$96 billion per year by 2015 (0.2 percent of GDP) if agricultural tariffs are cut by an average of about one-third and non-agricultural tariffs by one-half, or even to \$120 billion if developing countries fully engaged rather than cutting by only two-thirds as much as OECD countries. Since this is only for goods, this value of 0.2 percent globally (0.3 percent for developing countries) represents a conservative or lower bound estimate of possible comparative static gains from the DDA. As for an upper bound on comparative static gains, the results in Table 1 suggest it could be many times greater, depending on the extent to which services trade and investment is also liberalized and on the strength of influence of imperfect competition and economies of scale. We chose an upper bound of five times the lower bound, or 1.0 percent of GDP globally (1.4 percent for developing countries). We also assume that those gains will accrue fully after an eight-year phase-in period from 2008, prior to which the gains will begin in 2008 at one-eighth the full amount as of 2015 and rise by a further one-eighth each year until 2015.

There are dynamic gains from trade to consider in addition to those comparative static ones. The experiences of successful reformers such as Korea, China, India and Chile suggest trade opening immediately boosts GDP growth rates by several percentage points. A conservative estimate might be that reform boosts GDP growth rates – projected to 2015 by the World Bank (2006) to be 2.7 percent for developed countries and 4.6 percent for developing countries – by one-sixth for developed countries and one-third for developing countries, that is, to 3.1 and 6.1 percent, respectively and hence from 3.2 to 3.8 percent globally.

Comparison with just removing intra-American trade barriers

The negotiations to create a Free Trade Area of the Americas (FTAA) – the largest such FTA negotiations currently under way – have run into political problems so it is not clear if/when they might conclude. It is nonetheless worth considering that opportunity so as to point out that the potential global gains from such an FTA are only a small fraction of those obtainable from multilateral negotiation. Two studies that examine both multilateral reform and the FTAA are the BKS study and one by Harrison, Rutherford, Tarr and Gurgel (2004). BKS estimate the gains from the FTAA to be just one-twenty-fifth that from a full multilateral trade liberalization, and for the HRTG study the difference is even greater (although its gains are somewhat higher when its estimated benefits from adding an EU-Mercosur FTA are included on top of the FTAA). Hence even if several such large FTAs were to be agreed, their potential contribution to world welfare would remain only a fraction of what is potentially achievable via multilateral negotiations. Furthermore, these FTA studies take no account of the dampening effect of the rules of origin that almost invariably constrain the extent to which firms can take advantage of any FTA's removal of bilateral tariffs.

Economic Costs of Trade Reform

The above benefits from reform are not costless. Expenditure on negotiating, and on supporting policy think tanks and the like to develop and disseminate a convincing case for reform, would be needed. But more significant in many people's eyes are the private costs of adjustment for firms and workers, as reform forces some industries to downsize or close to allow others to expand (Matusz and Tarr 2000; Francois 2003). Those costs are ignored in the CGE models discussed above, where the aggregate level of employment is held constant. There are also social costs to consider. They include social safety net provisions in so far as such schemes are developed/drawn on by losers from reform (e.g., unemployment payments plus training grants to build up new skills so displaced workers can earn the same wage as before).

Those one-off costs, which need to be weighed against the non-stop flow of economic benefits from reform, tend to be smaller, the longer the phase-in period or smaller the tariff or subsidy cut per year (Furusawa and Lai 1999). The adjustment required also tends to be small when compared with the changes due to exchange rate fluctuations, technological improvements, preference shifts and other economic shocks and structural developments associated with normal economic growth (Anderson et al. 1997). In recent debates about trade and labor, analysts have not found a significant link between import expansion and increased unemployment. One example is a study of the four largest EU economies' imports from East Asia (Bentivogli and Pagano 1999). Another is a study of the UK footwear industry which found liberalizing that market would incur unemployment costs only in the first year, because of the high job turnover in that industry, and they were less than 1.5 percent of the estimated benefits from cutting that protection (Winters and Takacs 1991). For developing countries also the evidence seems to suggest low costs of adjustment, not least because trade reform typically causes a growth spurt (Krueger 1983). In a study of 13 liberalization efforts for nine developing countries, Michaely et al. (1991) found only one example where employment was not higher within a year.

So as not to exaggerate the net gains from trade reform, it is assumed here that there would be an adjustment period of eight years following the beginning of liberalization in 2008, and that in each of those years the adjustment costs would be 15 percent of the annual comparative static benefits as of 2015 (and zero thereafter) in the high case, and 5 percent in the low case when much less adjustment would be needed. That amounts to \$71 billion per year during 2008 to 2015 globally, of which \$24 billion is expended in developing countries, when expressed in 2005 US dollars by using the projection to 2015 of global GDP provided by the World Bank (2006).

Benefit/cost calculus

With these numbers fed into a spreadsheet, the range of net present value benefits and costs, using both 3 and 6 percent as the discount rate, are summarized in Table 2. The 'low gains' case refers to gains of just 0.2 percent of GDP while the 'high gains' case refers gains five times that lower benefit. In all cases the benefits are estimated to the year 2100. In present value terms the net benefit of the DDA ranges from \$9,000 billion to \$38,000 billion at the higher discount rate and about three times that at the lower discount rate. The costs range from \$130 billion to \$440 billion, but they are mostly private rather than government costs and are dwarfed by the benefits. The benefit/cost ratios are between 67 and 97 in the higher discount rate case and between 180 and 260 in the lower discount rate case. This is clearly a very high payoff activity, if only the political will to bring about a successful conclusion to the DDA can be found.

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Table 1: Comparative static estimates of economic welfare gains from full global liberalization of goods and services trade

Study	Market assumptions^a	Sectors liberalized	Baseline year (of EV welfare measure)	Welfare gain, non-OECD (US\$ billions)	Welfare gain, global (US\$ billions)	Year of currency (US dollars)
AMV (2006)	CRS/PC	Goods only	2015	142	287	2001
BKS (2005)	IRS/MC	Goods, services and FDI	1997	na	2417	1997
HRT (2002)	CRS/PC	Goods only	1995	100	456	1995
WBGEP (2003)	CRS/PC plus productivity boost	Goods only	2015	539	832	1997
WBGEP (2006)	CRS/PC	Labor migration	2025	623 ^b	674	2001

^a Constant returns to scale/perfect competition and increasing returns to scale/monopolistic competition/firm-level differentiated products.

^b Includes \$481 billion to new migrants who move to OECD countries and raise the labor force in the OECD by 3 percent.

Sources: Anderson, Martin and van der Mensbrugghe (2006); Brown, Kiyota and Stern (2005); Francois, van Meijl and van Tongeren (2005); and World Bank (2003, 2006).

Table 2: Summary of net present value (in 2005 dollars) of benefits and costs to 2100, and benefit/cost ratios, for liberalizing subsidies and trade barriers globally under the WTO's Doha Development Agenda

(US\$ billion)

(a) Costs and benefits (NPV 2005)

	3% discount rate				6% discount rate			
	Low gains		High gains		Low gains		High gains	
	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
World	27867	150	115320	442	9011	134	38338	396

(b) Benefit/cost ratios

	3% discount rate		6% discount rate	
	Low	High	Low	High
World	186	261	67	97

Source: Author's calculations based on assumptions in text.