Kicking Away the Logic

Free Trade is Neither the Question

Nor the Answer for Development

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Since the 1980s, neoliberal belief in free trade has come to be the orthodoxy in international economics. This orthodoxy has been translated into policy advice, particularly for developing countries, for which trade liberalization has become a major policy objective. Over the past decade or so, there have been several theoretical and empirical challenges to this belief in the efficiency and equity of free trade. However, while the orthodoxy in trade policy has undergone some revisions since the late 1990s, the conviction that free trade promotes growth and prosperity remains steadfast. In particular, Prasch (1996) finds that support for free trade among academic economists in the United States is, astonishingly, as high as 97 per cent. This has allowed Anne Krueger (1997), a leading proponent of the Washington Consensus from the World Bank in the 1980s and from the International Monetary Fund (IMF) in the new millennium, to declare that a case for anything other than free trade marks the esoteric mischief-making of abstract economic theory far removed from economic realities. Such are the terms in which the ideologues of *laissez faire* contrast their virtual world (Carrier and Miller, eds 1998) with that of their critics. The latter merely seek to acknowledge the realities of imperfect competition, static and dynamic economies of scale, intra-affiliate trade by multinational corporations and, hence, doubts about the unambiguous virtues of free trade, especially in light of the historical experience of the successfully industrialized countries.

A later section of this chapter takes up these issues in the context of 'effective protection rate', the key concept used to analyse, measure and reform trade policy. The concept is shown to be fundamentally flawed because of its dependence on the unrealistic assumptions of perfect competition, full employment, etc. When we measure and seek to reduce the effective protection rate, we are including all the effects of imperfect competition, etc., but proceeding as if they did not exist. The effective protection rate offers no guide to policy.

Such insights are supported by the earlier, more general discussion of trade theory, empirics and policy. The next section examines the theoretical and empirical cases for free trade as a stimulus to development. The cases are found to be riddled with flaws, and it is shown that the claim that free trade is good for development is unproven. The same applies to the more recent view that poverty

alleviation is enhanced by trade liberalization. Like other issues that have come on to the developmental agenda, free trade (as with other neoliberal *mantras*) offers a universal panacea.

The third section takes up developments within the new trade theory, which is itself becoming a not-so-new orthodoxy. The main conclusion to be derived from the new trade theory is that sector-specific conditions are paramount in determining the impact of trade policy, particularly the nature and incidence of market imperfections. Less recognized, but equally important, is trade policy's interaction with other elements of industrial policy – those dealing with skills, technology, spin-off linkages, competition, access to finance, etc. – favouring infant industry and import-substituting stances.

Two inescapable conclusions emerge from our review. First, general propositions concerning trade policy are misplaced. Attention must be devoted to country- and sector-specific conditions. Second, trade policy cannot be satisfactorily broached independently of other elements of policy. In effect, reducing tariffs by rote is a form of economic lobotomy – slash and see what happens. As a corollary to these propositions, some light is shed on the commitment to free trade. If forced, inappropriately, to pitch policy at the general and isolated level of trade reform by itself, there is an instinctive reaction to rely on the market in an intellectual environment of neoliberalism. To proceed otherwise would require our two conclusions to be confronted – the need to situate trade in relation to other policy, and in the context of specific countries and sectors. In other words, closing the door on trade policy is the first and foremost defence against more comprehensive, effective, and targeted trade and industrial policy that has proven indispensable in earlier paths to development.

Trade and Development: The Conventional Wisdom

The orthodox approach to international trade is based on the proposition that free trade promotes economic growth and global prosperity. The neoliberal resurgence in international economics since the early 1980s gave almost axiomatic status to the virtues of free trade, a view that is now the conventional wisdom. Belief in free trade was an essential part of the 'Washington Consensus' propagated by the neoliberal resurgence. This orthodox position on international trade and trade policy consists of several propositions on the benefits of free trade: optimizing global resource allocation; maximizing consumer welfare; increasing productivity growth and promoting economic growth. In contrast, government intervention in trade policy is generally presented as distortionary, reducing welfare and growth. Thus, countries with liberal trade regimes supposedly grow faster than countries with 'closed' regimes, while trade liberalization, by lowering tariffs and non-tariff barriers, should be the focus of trade policy.

Neoliberal trade policy in the 1980s supposedly responded to the economic collapse of developing countries which, until then, had followed protectionist import substitution policies. Orthodox trade economists blamed poor performance on interventionist trade policy. This interpretation was influenced

by important empirical studies of trade protection that highlighted the magni-
tude of static inefficiencies in import substitution regimes (Balassa 1988; Little,
Scitovsky and Scott 1970). As noted by Rodrik (2001), however, there are several
problems with this. Many developing countries experienced satisfactory rates of
economic growth under protection until around the mid-1970s, with some Sub-
Saharan African countries being among the fastest growing developing coun-
tries. Productivity growth in some import substitution regimes, especially in Latin
America, was also robust. While developing countries did experience serious
economic downturns after the mid-1970s, this is better explained by external
shocks (in particular, the 1973 oil price hike) and the inability to adjust macro-
economic policy to cope with these shocks. To attribute the growth collapse of
the late 1970s to trade policy alone, therefore, involves confusing macroeco-
nomic or other failures with trade policy failure.

Although the Washington Consensus has undergone some revisions since
the late 1990s, faith in the efficacy of free trade still remains largely unques-
tioned (Deraniyagala 2001). The prevailing neoliberal view on trade policy –
also referred to as the 'standard enlightened view' (Rodrik 2001) – augments
earlier propositions with a newer set of trade policy reforms. Trade policy reform
is no longer confined to tariff reduction, but also includes extensive institutional,
legal and political reform. This approach is clearly reflected in the objectives of
the international organization that coordinates global trade policy, the World
Trade Organization (WTO). The WTO seeks to bring about international harmo-
nization of institutional, regulatory and legal standards through a variety of
agreements and standards. Trade policy, therefore, now extends to issues previ-
ously considered to be beyond the realm of international trade, such as domestic
investment, intellectual property and legal reform. The central and defining fea-
ture of the revised orthodox view, however, remains the belief that free trade and
global integration are the best ways to promote growth and development, and to
reduce poverty.

The orthodox case for openness in trade policy emphasizes positive
effects on growth, productivity and poverty. Below, we examine the theoretical
and empirical bases of these propositions.

Trade and Growth

Several theoretical arguments are used to support the predictions that
openness boosts economic growth and that more open economies grow faster
than closed ones. Free trade is seen as leading to both static and dynamic gains,
with the latter more significant than the former. Static, 'once-and-for-all' gains
from trade arise as resources shift from inefficient to efficient sectors following
the dismantling of trade restrictions. It is acknowledged, however, that the mag-
nitude of these static gains is small (Bhagwati and Srinivasan 1975). The growth-
enhancing effects of openness, therefore, essentially arise from the dynamic gains.
A variety of arguments relating to the dynamic gains from free trade are evident

in the literature. Many of them, however, hinge on arbitrary assumptions and have been shown to be theoretically fragile (Rodrik 1995; Deraniyagala and Fine 2001; Lall and Latsch 1999). We examine a few of these arguments below.

Static welfare gains from trade have been increased by incorporating political economy issues, in particular, rent-seeking. It is argued that the resource costs of trade interventions are multiplied several-fold by rent-seeking (Krueger 1974). Freer trade regimes are seen to boost economic growth by reducing rents and increasing resources available for growth. The issue of whether trade liberalization inevitably limits rent-seeking, however, has received little analysis. While some estimates show the magnitude of rent-seeking costs under protection to be large (Gallagher 1991), their accuracy has been questioned (Ocampo and Taylor 1998).

Increasing returns to scale are frequently cited as an important source of dynamic gains from trade liberalization. The creation of a neutral trade regime is purported to encourage exporting and participation in world markets, allowing firms to produce higher output levels and to benefit from scale economies. This, in turn, boosts overall economic growth rates. This argument, however, is based on the assumption that liberalization will necessarily expand activities subject to increasing returns (Rodrik 1995). If scale economies are concentrated in protected sectors that decline after liberalization, dynamic gains from trade will not materialize (Deraniyagala and Fine 2001).

Many theoretical arguments relating to openness and growth are, therefore, contingent on specific assumptions and conditions, indicating that the positive causal link between openness and growth may be the exception rather than the norm. Partly for this reason, much of the debate on openness and growth has been largely empirical. Such country-level research on liberalization and growth consists of cross-section 'before and after' studies (Greenaway, Morgan and Wright 1997), 'with and without' studies (Mosley, Harrigan and Toye 1991; World Bank 1990), and country-specific time-series analysis (Papageorgiou, Michaeley and Choksi, eds 1991; Greenaway and Sapsford 1994; Onafowora, Owoye and Nyatepe–Coo 1996). In general, many of these studies suggest that the effects of liberalization on growth are ambiguous and complex; while some groups of countries show an improvement in growth (as well as other indicators such as investment), others show a marked deterioration. Recent attempts to provide a more consistent analysis, using panel data and alternative measures of liberalization, suggest a J curve-type effect of liberalization on per capita GDP growth (Greenaway, Morgan and Wright 1998). Here, again, the alternative models provide very different estimates of the long-run effects on growth (with the pay-off ranging from 2 per cent to 46 per cent!), indicating the limitations of capturing complicated growth effects using cross-country, single equation growth regressions.

In the 1990s, the orthodox position on trade liberalization claimed strong support from a few highly influential cross-country econometric studies that

estimated the effects of trade policy and economic growth (Dollar and Kraay 2000). These studies claimed to show a significant positive causal link between trade openness and economic growth. However, problems with econometrics and data have resulted in some damning critiques (Rodriguez and Rodrik 2001). At best, much of this empirical literature seeking to investigate the effects of shifts in trade policy (towards liberalization) develops a model from which a reduced form is estimated. At worst, simple regressions are run on some index of economic performance against some index of openness, although the best and worst often coincide in practice. Therefore, much of the cross-country work is plagued by measurement problems, with many measures of trade openness reflecting trade volume rather than trade policy orientation. The direction of causality is also difficult to establish, given the strong likelihood of faster growth leading to increased trade. It is also difficult to isolate the effects of trade policy on growth, given the numerous other potential influences.

Contrary to the claims of the neoliberal camp, therefore, empirical support for the argument that free trade boosts economic growth remains inconclusive. The orthodox belief in the growth-enhancing potential of free trade, however, remains undiminished. As Winters, McCulloch and McKay (2002: 10) note in their comprehensive review of empirical research on trade and growth, 'the attraction of simple generalizations has seduced much of the profession into taking their results seriously'.

Trade and Productivity

The case for free trade has also focused on identifying the specific channels by which trade affects long-term economic growth. A central focus is on productivity growth. It is claimed that trade liberalization will lead to faster productivity growth, particularly in manufacturing, but also in agriculture. Given that the static gains from liberalization are acknowledged to be negligible, productivity growth is seen as the key mechanism by which liberalization boosts growth. A closer examination of these claims, however, shows them to be theoretically and empirically inconclusive.

Long-term productivity gains are seen to ensue from the correction of the anti-competition bias of protection that discourages cost-cutting technological change. In much of the orthodox literature, however, the precise mechanisms by which trade liberalization promotes technological change and productivity are never spelt out, largely because orthodox theory is silent on the issue of the more proximate causes and sources of technological change and productivity increase. While static resource allocations gains occur within standard trade models such as the canonical Heckscher–Ohlin model, these static gains are simply assumed to translate into long-term productivity growth (Lall and Latsch 1999), and no theoretical tools are used to model this process. Some proponents of liberalization argue that increased levels of competition are sufficient to promote productivity-enhancing technological change across all sectors (Balassa

1988). Such simplistic propositions ignore alternative models which indicate that innovative activity is sometimes promoted by oligopolistic market structures (Deraniyagala and Fine 2001).

A substantial body of empirical literature has investigated the effects of trade policy and openness on total factor productivity (TFP) and efficiency at the industry and firm level. Evidence from these studies, however, is inconclusive. Some early empirical exercises found a negative (but weak) correlation between import substitution and productivity growth (Nishimizu and Robinson 1984). Others showed TFP growth rates to be high in highly protected industrial sectors (Waverman and Murphy 1992), while continuing and accelerating TFP growth rates in periods of both high and low protection have also been reported. High levels of import penetration have also been found to be associated with low rates of productivity growth (Nishimizu and Page 1991). Given the varying country coverage of these studies, the different industrial sectors included, and the varying definitions of liberalization and openness used, attempting to provide a rigorous net balance of the evidence would serve little purpose. Some key weaknesses of these industry-level studies, however, must be noted. None of them discriminates between the effects of trade policy and macro-policy choices and it is, therefore, difficult to attribute causality to trade policy itself. Many of them also fail to control adequately for other influences on productivity growth. In particular, the failure to control for industry effects is especially problematic.

The firm-level literature circumvents the need to control for industry effects, but still fails to establish a direct causal link between trade liberalization and improved economic performance. Some studies find support for the conjecture that efficiency levels are the highest among industries experiencing the largest declines in protection (Tybout, de Melo and Corbo 1991). Other studies have found exporting firms to be more efficient than their domestically oriented counterparts (Haddad 1993; Aw and Batra 1998), and have attributed this result to the positive learning effects that accrue from contact with foreign buyers.

There are three major weaknesses with this firm-level literature. Firstly, most studies examine one-time changes in the *level* of efficiency and, hence, their findings are consistent with the claim that trade liberalization generates static gains. They do not, however, provide conclusive evidence relating to dynamic, long-term improvements in firm-level efficiency. Secondly, they fail to establish the causal links between trade policy, export orientation and efficiency. For instance, the literature on exporting generally does not ask whether the direction of causality runs from exporting to efficiency or vice versa. Finally, much of this research fails to shed light on the various channels through which trade liberalization might affect productivity and efficiency in changing populations of heterogeneous firms (in innovating or not, small or large, public or private, exporting or importing, etc.).

The dynamic gains from liberalization are supposed to accrue largely from technology upgradation but few empirical studies have directly examined

the technological response to liberalization at the firm level. One group of stud-
ies has examined the relationship between technology imports and domestic tech-
nological effort. Both Basant (1993) and Fikkert (1993) found that domestic R&D
and foreign technology were substitutes in the case of India. Braga and Wilmore
(1991) and Katrak (1997) examined whether improved access to imports increased
the extent of 'absorptive' R&D (that is, undertaken not to generate new techno-
logies but to enable firms to keep abreast of existing new technologies) at the
firm level. They reported a positive but weak association between measures of
technology imports and absorptive R&D. For most developing countries, how-
ever, informal technological efforts are more relevant than formal R&D, but the
links between trade policy and such informal technological activity have rarely
been explicitly examined. Some exceptions (Deraniyagala and Semboja 1999;
Latsch and Robinson 1999) have examined the technological response to liberal-
ization in Sub-Saharan African countries, finding very little evidence of wide-
spread technology upgrading following import liberalization, with most firms
hesitant or unable to invest in new technologies in the face of very intense import
competition.

Trade liberalization is also said to bring productivity growth to the agri-
cultural sector. Agriculture is seen as disadvantaged by protection of the import
substitution urban sector. Agricultural prices are depressed as the inter-sectoral
terms of trade are distorted in favour of the urban sector. Trade policy reform is
seen as correcting this and providing improved incentives for agriculture (Win-
ters 2000). Agricultural prices are expected to rise at the border following trade
liberalization, with agricultural productivity and output also increasing. Output
growth is supposedly influenced by improved access to new technologies follow-
ing trade policy reform.

Again, many of these arguments do not stand up to empirical scrutiny.
Empirical studies indicate that higher agricultural prices may not always have a
positive effect on productivity and output growth (Weeks 1997). Farmers may
not be responsive to price changes. This is especially true when commercializa-
tion of the agricultural sector is limited. Even when agriculture is commercial-
ized, whether or not farmers change technology and raise output in response to
higher prices will partly depend on what happens to input prices. If input prices
rise more than output prices, positive output effects will not be forthcoming.

In general terms, then, there is little in the existing empirical research
on trade liberalization to suggest that trade policy itself is an important and
unambiguous determinant of productivity increase, either in manufacturing or in
agriculture. This does not, however, seem to diminish claims about the positive
effects of openness on productivity. Many orthodox analysts simply proceed by
assuming the existence of a positive causal link. For instance, Edwards (1993: 3)
assumes that 'more open economies are more efficient in absorbing exogenously
generated innovations', while Thomas and Nash (1991: 9) claim that there 'is an
empirically established correlation between outward orientation and growth of
total factor productivity in an industry'.

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Trade and Poverty Reduction

Since the 1990s, the orthodox approach to trade has strongly empha-sized the claim that greater openness fosters poverty reduction. Trade and pov-erty are linked through economic growth, and faster economic growth following trade liberalization is thought to be poverty-reducing. Although growth could be inegalitarian, higher levels of income from higher growth, in turn the conse-quence of greater openness, are believed to offset any worsening in (relative) income distribution (Winters, McCulloch and McKay 2002; Bruno, Squire and Ravallion 1995). Again, however, the orthodox research on trade and poverty has been marked by theoretical inconsistencies and empirical flaws, as was also evident in much of the neoliberal literature on international trade.

Some mechanisms by which openness translates into poverty reduction have been identified. Creating a neutral trade regime is supposed to increase labour-intensive production in many developing countries, thus increasing the demand for labour and unskilled employment. This, together with potential upward pressure on unskilled wages, could lead to a reduction in the incidence of poverty. Whether this leads to a fall in poverty would, however, depend on whether incomes for unskilled workers rise above the poverty line. Further, there is the possibility that the most intensively used labour in export sectors may be rela-tively skilled by developing country standards. If the relatively skilled are under-represented among the poor (as is likely to be the case), a fall in poverty is unlikely.

Agricultural growth following trade liberalization is also seen by ortho-dox trade economists as poverty-reducing as it is expected to translate into a lower incidence of rural poverty. However, as noted earlier, the expected agricul-tural supply response to improved price incentives may not be forthcoming. Fur-thermore, even if a small group of farmers responds to price rises by expanding output, poor farmers may be left out of this process (if they are engaged in subsistence farming with little disposable surplus) and the positive effect on rural poverty will be small. Trade policy reform is also predicted to induce a switch from subsistence agriculture to cash crops, bringing increased incomes for the poor (Winters 2000). There could, however, be other effects that counteract this. If cash crop prices are subject to fluctuations, farmers may not be willing to bear increased risk and the output of cash crops may not increase. The effects of liberalization on poverty will also depend on whether the rural poor are largely net sellers or buyers of agricultural produce, especially food. If the majority of the poor are net buyers of food, a rise in food prices could lead to increased poverty.

Trade openness is also argued to reduce poverty via its effects on corrup-tion and rent-seeking (Krueger 1998). The neoliberal assumption that rent-seeking falls after trade liberalization leads to the claim that resources for pov-erty reduction will be greater following reform. Apart from the problems with the assumption of a fall in rent-seeking, it is important to note that the resource and revenue implications of trade policy reform are more complex than this.

Openness can sometimes constrain poverty reduction efforts if it constrains the ability of governments to increase revenue by taxing mobile factors such as capital (Rodrik 2000). Trade liberalization can also affect poverty indirectly via its impact on trade taxes. In the very early stages of liberalization, revenue collected from trade taxes may, in fact, rise as a country moves from quantitative restrictions to fairly high-level tariffs. Subsequently, however, revenue will fall with the average level of tariffs. This fall in revenues is seen as constraining government expenditure on poverty reduction. As Winters (2000) points out, however, this link is not immutable but must certainly be borne in mind when analysing the effects of openness on poverty.

Since the early 1990s, cross-country econometric work has been highly influential in propagating positive links between trade, growth and poverty reduction. Some studies (for example, Dollar and Kraay 2000; White and Anderson 2001; Lundeberg and Squire 2001) are particularly noteworthy in their conclusion that 'globalizers' perform better in terms of growth and poverty reduction than 'non-globalizers'. Again, however, the limitations of this research have been noted by many analysts (Rodrik 2000). The econometric estimations are highly sensitive to the inclusion/exclusion of specific countries, while the data on poverty are subject to large measurement errors. There is also likely to be a problem with causality, with poverty reduction promoting growth rather than vice versa. This leads Rodrik (ibid.: 5) to conclude that the 'authors' statements regarding the benefits of trade liberalization on poverty have to be seen as statements based on faith rather than evidence'.

The conceptual and empirical literature on trade and poverty has become vast. One conclusion to emerge from an evaluation of this literature is that the effect of liberalization on poverty is likely to be complex. It will depend on a host of factors – including the profile of the poor in a country, the structure of production and consumption, the effects of other reforms, and so on. It is difficult, therefore, to conclude that trade liberalization and openness unambiguously result in a reduction of poverty.

New Trade Theory and the Implications for Trade Policy

Within trade theory, the conclusion that free trade is optimal is derived from the Heckscher–Ohlin model, which, under highly restrictive assumptions, shows that optimal resource allocation can be achieved by the liberalization of all trade restrictions. Over the past two decades, however, these conclusions and assumptions have been questioned by a huge body of 'new trade theories', which address the complexities of international trade, and show that deviations from free trade can often enhance growth and welfare (Krugman 1984; Eaton and Grossman 1986; Grossman and Helpman 1991). As will emerge from much of the discussion that follows, the recent trade literature has, within the confines of an evolving neoclassical theory of market imperfections, made great attempts to address at least some of the realities of trade. Despite this, its conclusions have been largely over-ruled by the forward march of support for trade liberalization.

New trade theory is now entering middle age, having been established in the 1980s (Ethier 1982; Krugman 1984, 1986; Brander and Spencer 1985; Eaton and Grossman 1986; Grossman and Horn 1988; Grossman and Helpman 1991). Essentially, even if in a more sophisticated way and with a fuller range of factors, the corresponding debate over trade policy simply revisits 'infant industry' arguments, while complementing previous discussion with 'political economy' factors. To some extent, it is simply old wine in new bottles, but it also incorporates and complements several innovations within neoclassical economics, which we now consider in turn.

Scale Economies and Imperfect Competition

The increasing returns to scale used to justify protection have been complemented by a range of other market imperfections. These include informational asymmetries and imperfections that inform so much of recent innovation within mainstream microeconomics, which is itself usually seamlessly transformed into understandings of the workings of the economy as a whole.

Inevitably, corresponding models involve consideration of strategic behaviour by all agents, firms as well as governments, so that the new trade theory, secondly, also draws upon the new industrial economics. This can involve game theory, inter-temporal optimization and issues of time consistency or credibility, especially for government policy (the possibility of its changing policy commitments after the private sector has committed itself to investment on the basis of policy promises, anticipation of which deters that investment). Ohyama and Jones (1995), for example, consider optimal technology choice over time. With adjustment costs, their model allows for one country to deliberately fall behind another so that, with adjustment costs, leaping ahead in the future becomes less expensive. It becomes possible to explain both falling behind, catch-up and leapfrogging. Thus, Durkin (1997) shows that pursuit of comparative advantage can itself lead to inefficiency in producing technological progress. In models involving strategic behaviour, results differ, depending upon stylized assumptions about the sorts of competition (and oligopolistic behaviour) and economic factors considered, the policy instruments that governments are allowed to deploy, and the sequencing of decision-making. Bhattacharjea (1995) finds that both strategic industrial policy (on entry/exit) and tariffs are necessary under imperfect competition at home and abroad, and endogenous market structure. Fuerst and Kim (1997) take account of heterogeneity in costs functions with trade policy, affecting the distribution of production across (more or less efficient) firms within countries as well as across countries.

As is evident, more or less any model of oligopoly and market imperfections can be projected on to the trade arena. These models are highly diverse, given the underlying factors and assumptions over which they range. But what they all tend to share in common is the result that strategic trade policy is justified and, in addition, that it should be complemented by other forms of policy (or should take a variety of forms). Such a conclusion should not come as a surprise.

For, it is presumably only by accident that free trade will be optimal in the presence of market imperfections, and, further, the more the imperfections, the more the instruments we need to deal with them. Given the diversity of the models, it also follows that interventions will need to be selective and country/sector-specific, depending upon the type and strength of market imperfections involved.

The relevance of these models to developing countries has been debated (Lucas 1988; Bardhan 1995; Ruttan 1998). While some strategic models with oligopolistic players dominating world markets may be of limited relevance to low-income developing countries (Stewart 1991), arguments for intervention based on scale economies and imperfect competition are widespread in developing countries, rendering these theories especially relevant for them (Helleiner 1992). Empirical evidence indicates that imperfect competition is indeed rampant (Lee 1992), although the evidence on scale economies is much more limited.

Of course, the standard neoliberal response to these models is to claim that government has neither the knowledge nor the ability to be selective in its policy interventions. It is argued that policy interventions will result in directly unproductive subsidy-seeking behaviour by private firms and that the informational requirements for such interventions may be huge, especially in developing countries. Statements such as 'the history of developing countries is littered with proof of misguided and excessive government interventions' are made with little consideration of whether selective interventions have been successful in any country, and of the conditions for such success.

The supposedly large informational requirements are one reason why the analytical thrust of trade theory in justifying interventionist trade policy has been rejected, even by those at the forefront of the theory. Yet, the literature is itself well-suited to handle such issues since it has drawn upon the economics of imperfect and asymmetric information. If governments are less well-informed (and less able) than the private sector, does it follow they should do nothing? The answer is resoundingly in the negative, and should not come as a surprise. For, the implication is that we should leave the generals and the military industrial complex to make defence policy, since they know more about waging war and the true costs and capabilities of weapons!

Clearly, as in any principal agent problem, there is a trade-off between (lesser) knowledge and (others') motives. Brainard and Martimort (1997: 56) address the issue directly, and their conclusion is striking: 'Attainment of the informationally constrained social optimum requires a complicated menu of contracts combining per-unit subsidies and lump-sum transfers.' Even more remarkable is the conclusion reached by Creane (1998), to the effect that policy-makers may be better off and justified in using trade policy, the *less* information they have. It is not, however, necessary to engage in trade theory to see why this conclusion arises in the context of imperfect competition. For a monopolist who wishes to exercise product discrimination, customers (including countries contemplating trade policy) must have the knowledge to discriminate products

(as is recognized in practice by advertising, irrespective of whether or not 'genuine' differences are involved). Without this, monopolists may be forced to rely upon a more Pareto-efficient but less profitable strategy, and be unable to exploit product discrimination. Nor is this some esoteric point in the context of development where, both for welfare and growth, economies are better served by supply to a cheap mass market than to a more profitable elite.

Resonance with New Growth Theory

Apart from strategic behaviour and market imperfections, the new trade theory draws upon or, more exactly, contributes to, or is integrated with the new growth theory, which is also essentially based upon market imperfections (see the chapter on 'New Growth Theory'). Despite the link between endogenous growth theory and market imperfections, and the presumption that the growth rate could be improved by government policy to induce a higher savings rate and/or to incorporate externalities, much of the literature has favoured trade liberalization.

In their classic work, Grossman and Helpman (1991) showed how international trade opens channels that facilitate the transmission of technological information, promotes competition and entrepreneurial effort, and increases the size of the market in which innovative firms operate. In their model, however, countries can gain as well as lose from trade. Countries with developed technology sectors and high levels of human capital may gain relative to countries with large supplies of unskilled labour (ibid.: 237–38).

Drawing on these insights, one group of models mainly emphasized the role of capital goods imports in promoting economic growth, with trade liberalization having generally positive effects (Coe, Helpman and Hoffmaister 1995; Lee 1995; Pissarides 1997). These models were based on technology spill-overs, where these spill-overs are generally proportional to imports. Imported capital goods embody information about new technologies, and developing country producers exposed to this information are seen as more likely to innovate. In some models, innovation is directed at imitation, while in others, R&D activities are directed towards learning how to use and absorb imported technology. Romer (1992) described these processes as 'using ideas' (as opposed to 'producing ideas'), while Pack (1992), following Gerschenkron (1962), saw them essentially as a free dividend for being a late-comer. Many of these models implied that developing countries will devote increased amounts of resources to R&D following trade liberalization.

These models made an important contribution by focusing attention on the non-convexities involved in the process of diffusion and adoption of new goods and technologies in a developing country. Many of them, however, suffered from an inaccurate conceptualization of technology. Most of the models were based on an assumption of 'blueprint technology' – that is, technology can be perfectly codified and easily transferred. Their positive conclusions about trade liberalization and 'learning from trading' can be reversed when the definition of technology is changed and refined. Keller (1996) argued that the all-

inclusive notion of technology (information, hardware and capabilities) used in most models is misleading, and, instead, differentiated between technology embodied in capital goods and capabilities (or 'absorptive capacity'). Using a Rivera–Batiz and Romer (1991)-type endogenous growth model, he showed that the productivity and growth effects of increased access to foreign capital goods will be shortlived unless absorptive capacity increases at a more rapid rate than during the period prior to trade reform. In the long run, the rate of growth of output is forced down to the rate of human capital growth. Similarly, van de Klundert and Smulders (1996) allow for technology spill-overs between North and South, but the latter's low level of high-tech production limits learning by doing. In the light of recent evidence that increased openness leads to less investment in human capital at the secondary and tertiary levels (Wood and Ridao–Cano 1999), all this implies that the gains for developing countries from access to technology imports can be limited.

Models dealing with convergence also provided few robust conclusions, with convergence or divergence depending upon how openly competitive international trade is. Lau and Wan (1994) argued that trade is necessary but not sufficient for poorer countries to converge. Middle-income countries will be able to accrue the benefits of catch-up since the costs of doing so declines with growth, whereas the poorest countries will experience a widening income gap.

In general, while models linking trade and growth provided few unambiguous results, one robust conclusion to emerge was that the more asymmetric the trading countries, the more likely growth effects are to be asymmetric. This raises the real possibility that developing countries may lose out from trade as their innovative sectors are crowded out due to intense competition, or because low levels of capabilities prevent them from realizing the benefits of technology spill-overs. In these models, the gains from trade are largest for countries at similar levels of development.

Political Economy Arguments

The marriage between new trade and growth theories serves to render each more complex. In addition, they also tend to share a particularly underdeveloped notion of what constitutes a nation. Indeed, in conformity with long-standing traditions in trade theory, the nation is simply a special individual, usually with both benevolent goals (social welfare) and special powers (policy). A simple step is taken to progress beyond such simplicity once account is taken of internal influences upon government policy, thereby incorporating an additional factor in new trade theory, that of political economy in general and rent-seeking in particular.

Rodrik and Fouroutan (1998), for example, debated whether trade liberalization has stalled in Africa because of a combination of distributional and informational problems (who anticipates consequences, and who gains or loses from trade reform, including proposed compensation for adjustment to employers and/or employees). Fung (1995) examined the redistribution between capital

and labour as rents are shifted and shared with change in trade policy in the presence of oligopoly. In a model of electoral competition, Riezman and Wilson (1997) found that limits on the number of donors and the amounts of donations by interest groups can lead to inefficiency in the making of trade policy.

Most important, though, in the political economy of trade policy have been rent-seeking arguments. It is as if all of the arguments in favour of anything other than free trade can be set aside. For, to act upon their prescriptions is to solicit unproductive rent-seeking in pursuit of self-serving trade policy. Here, however, there is a major problem. If there are underlying economic and political interests in favour of trade policy, why would they allow trade liberalization to proceed? And, if they have no choice, might they not engage in even more costly forms of pursuing their advantage?

Selective Intervention in Practice

While the theoretical justification for interventionist trade policy provided by new trade theories has been rejected, both by the orthodox camp and by some theorists at the forefront of the new trade theories, empirically based research indicates that selective interventions in trade and industrial policies have been essential ingredients for rapid growth in a range of countries. The role of protection in early industrialization in western Europe has been well documented (see Chang 2003 for a recent review). In addition, detailed empirical studies of the East Asian newly industrializing countries (NICs) have documented the role of strategic trade interventions in promoting manufacturing growth, technology upgrading as well as industrial deepening (Wade 1990; Lall 2003). These studies showed selective trade and industrial policies to have been instrumental in achieving international competitiveness. The policies involved identifying new areas of competitiveness, providing trade protection for these sectors, and creating the relevant endowments and skills needed for dynamism in domestic and export markets. Trade policies in these countries did not follow the principle of comparative advantage but deliberately sought to create new areas of competitiveness. One of the best known examples, of course, is the case of Pohang Steel, which the Korean government created and nurtured under infant industry protection. While this was strongly opposed by orthodox economists and policy-makers (such as the World Bank) at the time, on the grounds that Korea had no comparative advantage in steel, Pohang is now the world's most efficient steelmaker (Lall 2003), and has spawned a range of spin-off activities, from car- and ship-building to microelectronics.

Taking Issue with Effective Protection

As indicated in the discussion so far, free trade has become an article of faith among academic economists in general, and for neoliberal policy-making in particular, *despite* the theoretical and empirical evidence to the contrary that has been casually dismissed as mischief-making. In practice, the policy counterpart of such free trade principles has been tariff reform (inevitably reduction).

The need for, and measurement of, changes in the *system* of protection have been attached to what has been known as the effective protection rate (EPR). The nominal tariff on an *output* does not indicate the extent to which it is protected or cushioned against competition, because there may also be tariffs on *inputs* that increase costs or production. Without going into details, the EPR takes this into account sector by sector. On this basis, as Greenaway and Milner (2003: 444) reported, 'the initial work on effective protection stimulated a literature which quite simply exploded'. However, they also found 'that the concept has had such an influence and been estimated so extensively is, for some, surprising on the grounds that it is "fatally flawed"' (ibid.: 441). It is our purpose here to expose these flaws of EPR measures and to assess their deadly significance.

The problems in using measures of EPRs are three-fold. First, is there a sound theoretical basis for measuring EPRs, especially in the context of policy-making? Second, how well can EPRs be calculated in practice? Third, are the anticipated (beneficial) effects of shifting (lowering) EPRs liable to materialize? The following discussion deals with these issues in turn, although they do overlap and inform one another.

The theoretical assumptions on which EPRs are measured have long been recognized to be highly restrictive. In particular, changes in the tariff structure will bring about shifts in economic activity, as is intended. Levels and proportions of inputs and outputs will change with shifts in tariff structure across the whole economy. In other words, the same EPR levels for two different sectors can be associated with entirely different potential for change across the economy, depending upon demand and supply elasticities of response to tariff reform. In a general equilibrium context, this gives rise to what is known as the substitution problem. For example, in a three-sector general equilibrium model with substitutability in production, introduction of the third, non-traded sector to complement the import and export sectors suffices to undermine conventional measures of EPRs.

The substitution problem arises out of the comparative statics of measuring EPRs. It is essentially an equilibrium measure and is undermined by general equilibrium considerations in moving from one equilibrium to another in response to change in tariff structure. A distinct problem but one also related to changing conditions of production, if not comparative statics, is that concerning productivity increase and its relationship to trade. As recognized in new growth and trade theories, productivity can be affected by the level of and openness to trade. Two opposite effects can be discerned as archetypal, the empirical incidence of which cannot be determined by theoretical speculation. Reserving domestic markets for domestic producers or promoting exports can induce productivity increase on the basis of dynamic economies of scale and scope. To the contrary, trade liberalization can also induce productivity increase through the greater availability and cheapness of imported inputs.[1] It would not appear to make sense to discuss trade reform and EPRs separate from, and prior to, supply-side

measures, and other factors and effects associated with productivity increase. In short, the comparative statics method for calculation of EPRs simply sets aside both exogenous and endogenous sources of supply-side change, even though these ought to be the object of policy of which trade policy is an interactive aspect.

A further theoretical reservation concerning the measurement of EPRs is the assumption of perfect competition upon which it is based. For such an assumption, the patterns of trade observed throughout the world would be anomalous since economies would specialize in their well-defined sectors of comparative advantage. Trade of the same commodities in both directions simply could not occur between countries. Yet, it is endemic, especially within the developed world. Accordingly, even in an orthodox approach, trade theory must be modified to account for the impact of market imperfections, without which observed trade patterns are impossible. An immediate implication, however, is that EPRs, calculated as if the world and domestic economies were perfectly competitive, are unacceptable.

There are, then, overwhelming conceptual and theoretical issues even in defining levels of EPRs. These are compounded by, and reflected in, practical and empirical difficulties. This is not just a matter of more and better data being available, but the rarefied assumptions needed to *define* EPRs mean that data, however good, cannot correspond to the concept being measured. Very careful account, for example, needs to be taken of the role played by the capital stock and investment. As is recognized in the literature, EPRs should be worked out net of depreciation allowances, and distinctions must be drawn between X-inefficiency in the use of capital (underutilization and ineffective use of capacity) and the cost of capital (usually interpreted as the interest rate).[2] High interest rates, an old or dated capital stock and substantial excess capacity, are all liable to result in unduly high measures of EPRs, as these factors would all reduce competitiveness. But we live in a world removed from perfect competition where there is excess capacity and a rhythm of economic, rather than physical, depreciation.

In addition, indirectly related to the treatment of capital is the variation in the riskiness of investment across sectors. A higher tariff on inputs, for example, implies more capital will be advanced until a return accrues with sales. This distorts the impact of tariffs across otherwise equivalent sectors through making riskier investments less attractive. An entirely different practical issue in measuring EPRs is the use of world prices as a reference point. These can be inappropriate in the case of heavy internal transport charges, for example, with the impact of this non-tradeable being crucial, as are other internal factors besides tariffs, such as domestic taxes and subsidies, that might affect the wedge between domestic and world prices.

Not surprisingly, then, EPRs measure all the divergencies of the economy from a perfectly competitive partial equilibrium.[3] But put aside the conceptual and practical problems of accurately defining and measuring EPRs. How well do

they serve as a guide to policy by suggesting outcomes that ought to be pursued for their beneficial effects or complemented by other policies to moderate their ill-effects? Implicit in the earlier discussion, and what ought to be made explicit in the policy debate, is that such policy analysis is crucially dependent upon the use of counter-factuals – what would happen in the absence of tariff changes, what would happen with them? Hence the impact of tariff reform is deduced. Now, all the points already made greatly undermine the counter-factual basis upon which EPRs are calculated. What they show is that the economy does not work in the way suggested by the restrictive assumptions made.

By the same token, the inferred comparative static impacts are unaccept-able even if the calculated EPRs are well-defined and empirically accurate in some sense – an impossible eventuality, since exactly the same conditions that distort the calculation of EPRs also suggest that they should *not* be used as a sim-ple, *exclusive* or *independent* object of policy. For example, much trade is inter-nal to multinational enterprises, involving movement of products between affiliates engaging in transfer pricing. Such considerations imply that there is a role for tariffs, which depend, in part, upon how competitive the domestic markets within which multinationals operate are (Itagaki 1983). Similarly, irrespective of the presence of multinationals, imperfect competition may be endemic with varia-tions in the quality of output and intra-industry trade (making EPRs difficult to measure because of the need to disentangle the gap between world and domestic prices according to the role of quality, oligopoly, tariffs, etc.).

A slightly different way of illustrating these and other points is by refer-ence to the formula for the EPR itself. As a *ratio* of value added at domestic prices to that at world prices, it is necessarily *scale-independent*. It makes no difference how large or small is the absolute level of economic activity con-cerned. This could be large-scale steel or small-scale clothing. The very simpli-city of the formula demonstrates that it has no direct concern for dynamic and static economies of scale and scope, excess capacity, capital–labour intensity, market structure, presence of multinationals, skill requirements of the labour force and management, developments in world markets, product differentiation and quality, commercial risk, age structure of capital stock, etc. Quite apart from failing to incorporate these factors in its definition, the EPR is inappropri-ately measured by exclusion of these and other factors, such as the differential impact of non-tradeables, and the substitution between capital and labour in production in response to changing input prices. In this light, it is inconceivable how EPRs can be justifiably used as the basis for industrial policy-making, of which trade policy is an integral part. Doubts must be equally strong over its usefulness for measuring macroeconomic impacts on employment, inflation and growth, as it is used as an independent variable in regressions.

In short, it is erroneous to presume that shifts in effective rates of protec-tion act in a relatively uniform, linear fashion within economic sectors, simply serving to shift output marginally in unambiguous directions in response to the

induced raising or lowering of prices. This takes no account of the competitive structure of industries and the role of strategic behaviour (by both domestic and foreign firms), for which differential pricing in export and domestic markets can be crucial in the presence of economies of scale and scope, and market imperfections. At best, the models underlying the calculation and use of EPRs offer very poor guides to anything other than a summary of extrapolated, but questionable, marginal changes in the economy, which are unable to pick up critical collapses in sectors that result from shifting disadvantage in protection, and/or strategic withdrawal or entry by dominant domestic and importing foreign firms, respectively.

Concluding Remarks

A number of conclusions follow from this discussion. First, free or freer trade is heavily favoured by the economics profession. Second, the thrust of theoretical and empirical literature is far from supportive of such postures. Third, the use of measures of effective protection is totally fallacious, and grounded in a virtual economy that departs significantly from the realities of both developing and developed countries. Finally, to the extent that the neoliberal consensus has promoted trade liberalization, it has done a double disservice, both by undermining interventionist trade policy and by its integration with other policy areas.

The implementation of trade liberalization policies and their effects are highly contingent on historical and political factors specific to individual countries. The experience of trade liberalization in developing countries over the past two decades shows that a uniform set of trade policies can have divergent effects on key indicators such as growth and poverty. The promotion of trade liberalization by the neoliberal consensus has done little to deepen our understanding of country-specific historical and political economy factors that make the outcome of any trade policy complex and hard to predict.

There are two important respects, then, in which Krueger's dismissal of new trade theory, unless it supports her conclusions, is apposite. Firstly, with the incorporation of market imperfections, the models become flexible enough, so that sufficiently sophisticated theory can support any conclusion, regardless of the facts. Secondly, then, it is time to get real – to ensure that trade theory and policy conform to, rather than diverge from, the factors that determine trade performance and its consequences. It is here that the old and, to a large if lesser extent, the new trade theory are deficient. For, the most important reality they overlook is that every industrialization, from Britain to the East Asian NICs, has depended upon protection to a greater or lesser extent. There may now be more than one model of trade but the myth that only one free trade policy fits all is at odds with historical experience. It must be rejected for a more rounded, grounded, targeted and effective policy perspective focused on selective protection in conjunction with other factors and policies.

Notes

[1] See Venables (1996: 179): 'It may be the case that trade liberalization triggers a dramatic expansion of output and possibly also a reduction in imports. This arises as import liberalization lowers costs in downstream industries, expanding their output, and triggering a "big push" of industrialization.'

[2] See Ettori (1992) for a full discussion with application to India.

[3] A stunning illustration of the lack of realism involved in calculating EPRs is provided by the World Bank's (1995) study for Mozambique. It provides a table of EPRs for eighteen products, the simple average for which is +47 per cent. In addition, however, it provides corresponding calculations for what these rates have the potential to be in view of large-scale non-payment of duties by importers, that is, smuggling. In this light, the average EPR becomes −131 per cent!

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