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TRADE LIBERALISATION AND ECONOMIC PERFORMANCE: AN OVERVIEW*

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This paper surveys the recent literature on trade liberalisation and economic growth. While there are serious methodological challenges and disagreements about the strength of the evidence, the most plausible conclusion is that liberalisation generally induces a temporary (but possibly long-lived) increase in growth. A major component of this is an increase in productivity. Part 2 stresses the importance of other factors in achieving growth, such as other policies, investment and institutions, but argues that many of these respond positively to trade liberalisation. It also considers the implementation of liberalisation and notes the benefits of simple and transparent trade regimes.

Trade liberalisation has been a prominent component of policy advice to developing countries for the last two decades. Among the benefits claimed to spring from it, economic growth is probably the most important. And yet economists continue to argue about, and conduct research on, the connection between them. This paper samples the resulting literature with a view to assessing the current state of the evidence that trade liberalisation enhances growth and identifying the key steps in actually reaping such benefits.

The paper comprises two parts. The first considers some of the empirical evidence linking trade liberalisation and openness to trade on the one hand with higher incomes and economic growth on the other. The evidence suggests that openness enhances growth, at least over the medium term, but the methodological problems preclude our being wholly certain. Cross-country studies face problems in defining and measuring openness, in identifying causation and in isolating the effects of trade liberalisation. Case-studies avoid some of these problems but cannot confidently be generalised. Attempts to model the links explicitly – specifically to relate productivity to openness – face similar problems of identification but on the whole provide a somewhat more convincing account of the benefits.

Part 2 considers explicitly the role of other policies and institutions in connecting openness and income. While trade liberalisation alone is unlikely to be sufficient to boost growth significantly, in two important dimensions – corruption and inflation – it appears to improve other policies. The paper then stresses the importance of investment – and hence of other policies affecting investment - in translating trade liberalisation into growth and the importance of institutions in permitting growth. I argue that openness can enhance institutional development, although not through the external imposition of institutions on unwilling

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developing country governments. The final sub-section of the paper briefly considers the implementation of trade liberalisation. It stresses the virtues of simple trade policy (e.g. uniform tariffs) as a means both of achieving transparency and predictability and of releasing skilled administrative and political resources for other tasks. I argue that while a binding commitment to liberalisation should not wait for other policies to be in place, the timing of liberalisation should recognise possible interaction with other policies.

Before starting, I should do a little terminological ground clearing. The received theory of economic growth is concerned with steady-state rates of growth. These are important conceptually but, in fact, are essentially unobservable. In practical terms, therefore, one should also consider long-term transitional growth-rates. If trade liberalisation shifts the economy onto a higher but parallel growth path actual growth rates exceed the steady-state rate while the change occurs. Given that policy reforms are typically phased-in over several years and that their effects can take decades to occur, it is difficult to tell such transitional rates from changes in steady-state rates empirically (Brock and Durlauf, 2001).

The treatment of trade liberalisation raises similar, but more tractable, issues. Conceptually it is important to distinguish openness to trade, a levels or state variable, from trade liberalisation, which refers to its change: in practice, however, they can be difficult to separate. Both should strictly be measured by policy stances but, since that is so complex, outcome measures are often used instead. I briefly allude to these issues below but illustrations of the empirical difficulties they raise can be found in Pritchett (1996) and Harrison (1996).

1. Trade Liberalisation and Growth: the Evidence

1.1. *Levels vs. Growth Rates*

The literature on trade and growth is rather casual about which of levels or changes it is referring to. The most obvious relationship is that from openness to the level of income. Simple theory predicts a positive relationship, at least if we can measure real income appropriately, although the situation becomes more complex once one allows for effects such as those on the capital, dynamic comparative advantage and agglomeration.[1] If there is such a relationship, taking first differences of it gives us one between trade liberalisation and the growth of income and, as noted above, this could actually be very long-lived.

More recent theory, has also explored whether openness could affect steady-state growth rates. Thus, for example, if greater competition or exposure to a larger set of ideas or technologies increased the rate of technical progress, it would permanently raise growth rates. This is an immensely attractive view of the world but one which is difficult to maintain empirically. Jones (1995), for example, argues that since the US growth rate has displayed no permanent changes over the period 1880–1987, one must conclude either that it cannot have been determined by

[1] Real GDP is a poor measure of the gains from trade. It misses the consumption gains and, by valuing output and pre-reform prices, under-estimates production gains.

factors that change substantially, such as trade policy or openness, or that changes in such factors have been just off-setting, which is not very credible.[2] More positively Hall and Jones (1997) argue that 'there is a great deal of empirical and theoretical work to suggest that the primary reason that countries grow at such different rates for decades at a time is *transition dynamics*' (italics in original, p. 173). Solow (2001) also makes the same point and it is the starting point for what follows.

1.2. *A Priori Reasoning*

If the growth effects of trade liberalisation are 'just' transitional dynamics, it is still worth asking how large they are likely to be. Suppose that the transition is spread over, say, twenty years, the issue is essentially what is the income gain due to liberalisation.

Simple Harberger triangles from a competitive model rarely identify losses from trade restrictions larger than 2% of GDP. These are far too small to produce significant changes in growth but there are several reasons for expecting more. Recognising some rectangles, as in Krueger's (1974) model of rent-seeking, considerably increases the static gains. Similarly, if we add imperfect competition to the model the consumption and production gains from trade reform will tend to increase. For example, in CGE modelling exercises, adding in increasing returns and large group monopolistic competition often more than doubles the estimated effects of trade reform (Francois *et al.*, 1996). If one assumes small group models of oligopoly – surely more appropriate to developing countries – the gains are usually larger still as rationalisation effects occur (Rodrik, 1988; Gasiorek *et al.*, 1992). Allowing investment and the capital stock to increase following the efficiency gains from trade liberalisation, as in Baldwin (1992), further doubles or trebles the estimated GDP effects (although not the welfare effects), see, for example, Francois *et al.* (1996) or Harrison *et al.* (1997).

According to Romer (1994) the principal effect of trade restrictions is to reduce the supply of intermediate goods to an economy. Recognising that this can have infra-marginal effects on productivity he argues that overlooking this effect leads to a several-fold under-estimate of the production penalty of protection. Romer's effect will show up in the data as a positive relationship between trade liberalisation and productivity and one can think of further reasons why opening trade may give a one-off boost to productivity – e.g. competition stimulating technology adoption and adaptation, or the elimination of x-inefficiency.

The upshot of all this is that, while eliminating Harberger triangles alone seems unlikely ever to boost transitional growth rates detectably, more sophisticated models of international trade do appear to promise gains that would be significant over two or three decades. One direct verification of this is Rutherford and Tarr (2002) who implement a 'Romeresque' model over a more-or-less infinite horizon.[3] They find that reducing a uniform 20% tariff to 10% increases the under-

[2] Jones finds the same constancy of growth in other OECD countries once he allows for a gradually subsiding post-world-war II catch-up.

[3] They model a 54 year horizon explicitly and set end conditions to reflect optimisation to infinity roughly.

lying steady-state growth rate of 2% p.a. to 2.6% p.a. over first decade and 2.2% p.a. over the first five decades. Even after these fifty years the annual growth rate is 2.1% p.a.

None of this modelling guarantees significant returns to trade liberalisation, but it does suggest that is worth looking for them empirically. Moreover, although Rutherford and Tarr's model contains only level effects and transitional dynamics, their very long duration suggests that it will be difficult to distinguish them from changes in steady-state growth rates empirically, especially in post-war data. Given that levels of openness reflect previous trade liberalisation (since all economies were pretty closed in 1945), it is easy to imagine empirical studies that link openness to observed growth rates even though over an infinite horizon it should have no such effect. For this reason in discussing the various results from this literature below I do not make much out of whether they relate openness or liberalisation to growth, although of course in principle it is a very important distinction.

1.3. *The Direct Evidence*

Over the 1990s the conviction that trade liberalisation or openness was good for growth was fostered by some visible and well-promoted cross-country studies, e.g. Dollar (1992), Sachs and Warner (1995), Edwards (1998) and Frankel and Romer (1999). These, however, received, and by and large deserved, pretty severe criticism from Rodriguez and Rodrik (2001), who argue, *inter alia*, that their measures of openness are flawed and their econometrics weak.

Establishing an empirical link between liberal trade and growth faces at least four difficulties – see Winters (2003). First, there is the definition of 'openness'. In the context of policy advice, it is most directly associated with a liberal trade regime (low tariffs, very few non-tariff barriers etc.) but in fact that is rarely the concept used in empirical work. Thus, for example, Dollar's (1992) results rely heavily on the volatility of the real exchange rate, while Sachs and Warner (1995) combine high tariff and non-tariff measures with high black market exchange rate premia, socialism and the monopolisation of exports to identify non-open economies. Pritchett (1996) shows the trade indicators are only poorly correlated with other indicators of openness, while Harrison (1996), Hanson and Harrison (1999) and Rodriguez and Rodrik (2001) show that most of Sachs and Warner's explanatory power comes from the non-trade components of their measure.[4]

Second, once one comes inside the boundary of near autarchy, measuring trade stances across countries is difficult. For example, even aggregating tariffs correctly is complex – see Anderson and Neary (1996), whose measure depends on imports being separable from domestic goods and services and on an assumed elasticity. Then one needs to measure and aggregate quantitative restrictions and make allowances for the effectiveness and predictability of enforcement and collection.

[4] The use of policy-measures equates trade liberalisation with laissez-faire, but for outcome measures, e.g. trade shares, openness might be induced or at least accompanied by considerable intervention, as, for example, is asserted to have applied in East Asia, e.g. Rodrik (1995, 1997).

Such measurement problems are less significant for panel data measuring changes in trade policy for a single country, although even here Anderson (1998) shows that different measures point in different directions. Nonetheless, Vamvakidis' (1999) results, based on a forty-year panel for over one hundred countries, are more convincing than those of purely cross-section studies. Vamvakidis concludes that multilateral liberalisations over the period 1950–89 were associated with increases in rates of growth, while discriminatory regional trading agreements were not.[5]

Third, causation is extremely difficult to establish. Does trade liberalisation result *in*, or *from*, economic growth? Frankel and Romer (1999) and Irwin and Tervio (2002) address this problem by examining the effects of the component of openness that is independent of economic growth. This is the part of bilateral trade flows that is explained by the genuinely exogenous variables: population, land area, borders and distances. This component appears to explain a significant proportion of the differences in income levels and growth performance between countries, and from this the authors cautiously suggest a general relationship running from increased trade to increased growth. The problem, however, as Rodriguez and Rodrik (2001) and Brock and Durlauf (2001) observe, is that such geographical variables could have effects on growth in their own right and that this alone could explain the significance of the instrumental estimate of trade constructed out of them. For example, geography may influence health, endowments or institutions, any one of which could affect growth. These concerns have, however, recently been answered by Frankel and Rose (2002) who repeat the instrumental variables approach of Frankel and Romer and show that the basic conclusion is robust to the inclusion of geographical and institutional variables in the growth equation. This suggests that openness does indeed play a role even after allowing for geography.[6]

Causation is a particular problem in studies that relate growth to openness measured directly – usually, these days, as $(exports + imports)/GDP$. Such openness could clearly be endogenous for both the export and the import share seem likely to vary with income levels. It could also be a threat even when one works with directly measured trade policy, such as average tariffs, for, at least in the short run, the pressure for protection increases as growth falters – see, for example, Bohara and Kaempfer (1991).

The fourth complication is that for liberal trade policies to have a long-lived effect on growth almost certainly requires their combination with other good policies such as those that encourage investment, allow effective conflict resolution and promote human capital accumulation. Unfortunately the linear regression model, which is standard to this literature, is not well equipped to identify the necessity of variables rather than their additivity in the growth process. Hints of the importance of these policies, however, can be found in exercises identifying the structural relationships through which openness effects growth. Thus, for

[5] Vamvakidis considers liberalisations only up to 1989 in order to leave enough post-reform data to identify growth effects.

[6] I return to this issue in Section 2.4 below.

example, Taylor (1998) and Wacziarg (2001) both find that investment is a key link and thus imply that poor investment policies could undermine the benefits of trade liberalisation.

I return to other policies below, but two methodological points might usefully be made at this stage. Brock and Durlauf (2001), in a fairly complex discussion of the the statistician's concept of exchangeability, argue that growth theory is too open to be adequately tested with the economists' traditional regression tools. There are too many potential variables and too little theory about model structure to allow classical inference to work. Moreover, they argue, the usual search for robustness – the significance and consistency in sign of a particular variable across a range of specifications – is futile if the true determinants of growth are, in fact, highly correlated. Rather, Brock and Durlauf suggest using policy-makers' objectives to identify the trade-offs between different types of error, and from this conducting specification searches and estimation in an explicitly decision-theoretical way, recognising the wide bounds of uncertainty. This is challenging advice, which has yet to be applied to the role of trade liberalisation in growth, but it is a salutary warning about just how cautious we should be about growth econometrics.

The second general observation comes from Baldwin (2002), who argues that the quest to isolate the effects of trade liberalisation on growth is misguided. He argues that trade liberalisation has never been advanced or implemented as an isolated policy so that the only useful question is how it fares as part of a package including, say, sound macro and fiscal policies. Baldwin concludes that, in this context, openness is a positive force for growth. There are clearly questions as to what such packages comprise and it is not difficult to invent examples in which the benefits of other policies are mis-attributed to trade policy. Nevertheless, that liberal trade policy generally has a role within effective stabilisation and structural packages seems hard to deny completely.

Despite the econometric difficulties of establishing beyond doubt from cross-sections that openness enhances growth, the weight of the evidence is quite clearly in that direction. Jones (2001) offers a measured assessment and one might also note the frequency with which some sort of openness measure proves important in broader studies of growth – e.g. Easterly and Levine (2001). Certainly, there is no coherent body of evidence that trade restrictions generally stimulate growth, as even Rodriguez and Rodrik concede. The question, then, is where else can we turn for evidence?

First, there is further evidence from detailed case studies of particular countries and/or growth events. Pritchett (2000) argues that these offer a more promising approach to empirical growth research than do cross-country regressions, and Srinivasan and Bhagwati (2001) chide the economics profession for forgetting these in their enthusiasm for the latter.[7] Case studies find a wide variety of causes and channels for growth, and frequently find openness at the very heart of the matter – see, for example, the NBER study summarised in Krueger (1978). As

[7] They argue that Rodriguez and Rodrik's strictures on the cross–country studies should not undermine one's confidence that openness enhances growth, because that view should never have been based on those studies in the first place.

before, however, the case for openness in general is stronger than that for trade liberalisation alone.

1.4. *The Indirect Evidence - Trade and Productivity*

Second, there is also indirect evidence that examines the steps in the causal relationship between trade liberalisation and growth. The main issue here is the effect on productivity. An influential cross-country analysis is Coe *et al.* (1997). Developing countries are assumed to get access to their OECD trading partners' stocks of knowledge (measured by accumulated investment in R & D) in proportion to their imports of capital goods from those partners. Thus import-weighted sums of industrial countries' knowledge stocks are constructed to reflect developing countries' access to foreign knowledge. Coe *et al.* find that, interacted with the importing country's openness, this measure has a statistically significant positive effect on the growth in total factor productivity (TFP).

While these results are instructive, Coe *et al.* do not formally test trade against other possible conduits for knowledge and Keller (1998, 2000) has suggested that their approach is no better than would be obtained from a random weighting of countries' knowledge stocks.[8] One way of reconciling these conflicting results is to relax the strong bilateralism in Coe *et al.*'s access to knowledge measure. The latter implies that the only way for, say, Bolivia to obtain French knowledge is to import equipment from France. But if the US imports from France (and so, by hypothesis, accesses French knowledge) then Bolivia's imports from the US should give it at least some access to French knowledge. Lumenga-Neso *et al.* (2001), who advance this explanation, show that recognising such indirect knowledge flows offers a better explanation of productivity growth than any of the earlier studies.

A second approach to the link between trade liberalisation and productivity is cross-sectoral studies for individual countries. Many of these have shown that reductions in trade barriers were followed by significant increases in productivity, generally because of increased import competition, see, for example, Hay (2001) and Ferriera and Rossi (2001) on Brazil, Jonsson and Subramanian (1999) on South Africa and Lee (1996) on Korea. Kim (2000), on the other hand, also on Korea, suggests that most of the apparent TFP advance is actually due to the compression of margins and to economies of scale. Import competition makes some contribution via these effects, and also directly on 'technology', but overall Kim argues that it was not the major force.

The sectoral studies relate a sector's TFP to its own trade barriers and thus imply that competition is the causal link. But for general liberalisations it is likely that barriers on imported inputs also fall and this could be equally important. At an aggregate and sectoral level Esfahani (1991) and Feenstra *et al.* (1997) suggest such a link, as do Tybout and Westbrook (1995) at the firm level. The last suggest, for Mexico over 1984–90, that there were strong gains from rationalisation (the shrinking or elimination of inefficient firms), that cheaper intermediates stimu-

[8] Coe and Hoffmaister (1999) have, however, challenged the randomness of Keller's 'random' weights.

lated productivity and that competition from imports stimulated technical efficiency (with the strongest effects in the industries that were already the most open).

Firm level data also allow us to test the perennial claim that exporting is the key to technological advance. While macro studies or case-studies have suggested links to productivity, enterprise level data have shown a much more nuanced picture. Bigsten *et al.* (1998) find positive stimuli from exports to productivity in Africa and Kraay (1997) is ambiguous for China; Tybout and Westbrook (1995) and Aw *et al.* (1999), however, find little evidence for them in Latin America and Asia, respectively. The fundamental problem is, again, one of causation: efficiency and exporting are highly correlated because efficient firms export.[9] Hence researchers must first identify this link (by carefully modelling the timing of changes in exports and productivity) if they are then to isolate the reverse one. Tybout (2000) suggests that the differences between his results and those on Africa and China may arise because data shortages obliged the latter pair to use much simpler dynamic structures than he used.

2. Trade Liberalisation and Other Policies

I return now to the substantive aspects of the interaction between trade liberalisation and other policies in generating economic growth. Liberal trade policies are likely to boost income in most circumstances, because they enlarge the set of opportunities for economic agents,[10] but a longer term effect on growth requires combination with other good policies as well. The latter point is regurarly made by the Bretton Woods institutions in their policy advice, although Mosley (2000) argues that their attempts to prove it have not been very successful.[11] This Section discusses several ways in which trade liberalisation and growth are linked via other policies and institutions, including the possibility that the latter are influenced by the trade stance, as Krueger (1978, 1990) argued long ago.

2.1. *Corruption*

Perhaps the most important dimension is corruption, although in truth there is much we have yet to understand about it. Ades and Di Tella (1997, 1999) show a clear cross-country connection between higher rents, stemming from things such as active industrial policy or low degrees of openness, and more corruption. The latter, in turn, reduces investment and medium-term growth. Wei (2000), however, suggests another reason for the corruption-openness link: open countries face greater losses from corruption than less open ones, because corruption impinges

[9] The same causation difficulty arises in interpreting the observation that where a region exports heavily, all firms are more productive: is it positive spill-overs or comparative advantage?.

[10] The main exception is in the presence of severe second-best complications.

[11] Mosley goes on to argue that growth responds positively to higher levels of effective protection (at least in poorer countries). Unfortunately, however, his empirics seem flawed. Effective protection is significant only when weighted by total factor productivity (TFP) growth, which is clearly likely to be correlated with growth itself.

disproportionately on foreign transactions. As a result they have greater incentives to develop better institutions. He finds evidence for this theory in two cross-country relationships. First, corruption is correlated with 'natural openness' (essentially the Frankel-Romer variable, which is exogenous) but not with 'residual openness' (the difference between actual and natural openness, which is probably related to policies). Second, more open countries pay their civil servants better, suggesting that they value better administration more highly (although there may be difficulties over the direction of causation here).

At a concrete level, trade policy can contribute significantly to the fight against corruption.[12] The most important aspects are the simplest: the less restrictive is trade policy, the lower are the incentives for corruption while simpler more transparent and non-discretionary policies reduce the scope for corruption. Thus if tariffs or other barriers exist there are important benefits to their being uniform, stable, and widely published. Uniformity over sources of imports is at least as important as uniformity over types of import, for the origin of a good is typically easier to falsify than its nature. The rules of origin that accompany preferential trading arrangements, are burdensome to the honest trader and a great opportunity for less honest ones.

A classic example of success in this dimension is Chile, which transformed its economic performance and its public administrative standards over two decades. Chile abolished QRs and reduced tariffs from very high and dispersed rates to a virtually uniform 10% over the period 1974–9. Moreover, although the economic crisis of the early 1980s led to dramatic increases in tariffs (up to 35% in 1984), uniformity was maintained and the various steps in their de-escalation pre-announced and faithfully implemented. Chile's subsequent growth performance was wholly unlike the rest of Latin America's. At a more general level, Gatti and Fisman (2000) makes the argument for tariff uniformity and shows that corruption in trade administration is positively associated with the variance of tariff rates across commodities.

2.2. *Inflation*

The other dimension of openness and policy on which we have evidence concerns inflation. Romer (1993) suggests that because real depreciation is more costly in open economies, such economies will be more careful to avoid it. That in turn makes them less likely to run the risks of excessive money creation and inflation. He finds that inflation is, indeed, lower for open economies.

2.3. *Investment Policy*

Investment is a likely route through which corruption and inflation reduce growth, but it also has other determinants. These lie at the centre of Rodrik's (1995, 1997) view that the Asian miracle was due to strong incentives to invest (policy or otherwise) which increased both imports of capital goods and the supply of exports

[12] See UNDP (1997) for a general treatment of corruption.

with which to pay for them. He argues that direct export incentives, via subsidies or devaluation, could not explain Korea's or Taiwan's export booms because they did not vary much over time.

It is not correct, however, to infer from this that openness did not matter. Srinivasan and Bhagwati (2001) note that openness (i.e. the ability to export for reasonable returns) was the *sine qua non* of investment because one needs to sell the output on large markets where it will not drive prices down. Similarly, if markets for imported capital equipment had not been open, the whole process would never have got underway. Thus Rodrik's is a more nuanced view of openness and growth than many, but not a fundamentally antipathetic one.

Investment rates appear to be a robust correlate of growth – see, for example, Levine and Renelt (1992) and Sala-i-Martin (1997) – and, as noted, Taylor (1998) and Wacziarg (2001) argue that it is the principal route through which trade liberalisation has been effective. Of course in the basic neo-classical (Solow) model growth is ultimately independent of investment but even it admits medium-term effects (and Wacziarg considers growth only over five year periods). Moreover, endogenous growth models and other classical models (Srinivasan, 1999) imply a direct growth bonus from investment.

The strength of the investment-growth link suggests the need to ensure that investment is both attractive and feasible if trade-induced growth is to occur. Thus issues such as property rights, peace and financial depth are likely to be necessary conditions for success. That warring economies do poorly is incontrovertible – see, for example, Easterly (2001) – while Crafts (2000) identifies the development of domestic institutions to ensure honest and effective financial intermediation as a high priority.

2.4. *Institutions for Growth*

It is now widely recognised that institutions play a pivotal role in economic growth and development. This sub-section briefly examines the interactions between institutions and openness. Early contributions identifying the centrality of institutions came from luminaries such as Douglass North and Mancur Olsen – see North (1990) and Olsen (1996) for summaries. However, in the context of openness and growth the main protagonist has been Rodrik.

Rodrik (1999*a, b*) represents the role of institutions as follows

$$\Delta growth = f[-external\ shock(latent\ social\ conflict/institutions\ of\ conflict\ management)]$$

External shocks are represented in a number of ways but most obviously by the change in the terms of trade; latent social conflict is measured by either income inequality or ethnic fractionalisation, and institutions of conflict management measured by democracy, the rule of law or public spending on social insurance.

This equation postulates that the change in growth is a function of the size of the shocks faced by an economy arbitrated by its ability to deal with them. Latent social conflict increases the burden of a negative shock, so that a shock reducing income directly by *x*% can cost several times that if it induces political conflict or stalemate in political management. Appropriate institutions, however, can greatly

reduce the multiplier, by allowing societies to make the necessary adjustments quickly and without costly side-squabbles. They have two roles in Rodrik's view. They ease the pain of adjustment, possibly spreading it out so that no section of society feels that it is bearing a disproportionate share and they legitimise decisions (implicit or explicit) that certain parts of society must bear costs, so that unavoidable costs can be borne without leading to social or political collapse. Rodrik's cross-section estimates suggest a slightly mixed story but overall he finds the expected relationships between the postulated variables and changes in economic growth between 1960–5 and 1975–89.

Rodrik (2000*b*) addresses the question of what institutions matter and how to achieve them. On the former he identifies five critical areas:

- Property rights – strictly control over property rather than legal rights *per se*;
- Regulatory institutions to correct externalities, information failures and market power – such as anti-trust bodies, banking supervision and, more controversially, co-ordination of major investment decisions, as Rodrik argues was provided by Korean and Taiwanese economic intervention;
- Institutions for macroeconomic stabilisation – e.g. a lender of last resort;
- Social Insurance – these are often transfer programmes but Rodrik argues that other institutions such as jobs-for-life can also play the same role; and
- Institutions to manage social conflict as discussed above.

On the issue of how to acquire institutions, Rodrik argues that there is no single optimal set of institutions. There are many ways of achieving the same objectives and the interactions between institutions mean that the package needs to be considered as a whole rather than piece by piece. He also argues that institutions will typically have to evolve locally by trial and error, even though this takes time and can involve mistakes.

Tests of the long-run effects of institutions include Hall and Jones (1997) and Acemoglu *et al.* (2001). The latter relate development over many decades to institutions but instrument the latter with countries' death rates among European settlers in colonial times. Where benign geography rendered these low enough to make long-term settlement viable, the Europeans imported their domestic institutions and prospered, e.g. in North America, Australasia and South Africa. Where, on the other hand, health hazards discouraged permanent settlement, institutions were exploitative and fragile and development has not occurred.

More recently, Rodrik *et al.* (2002) (RST) have argued that institutions far outperform geography and openness as explanations of real income per head and, indeed, that given institutions, openness has an (insignificantly) negative effect. They find, however, that openness partly explains the quality of institutions and so has a positive indirect effect on incomes. Its total effect, measured in terms of the effects of a one standard deviation change on income level, is about one-quarter of that of institutions. In all of this RST are careful to instrument openness and institutional quality to avoid the danger of their being determined by, rather than determining, growth.

RST measure institutional quality mainly by Kaufmann *et al.*'s (2002) composite index for the 'rule of law', which includes 'perceptions of the incidence of both

violent and non-violent crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts' (p. 6). They follow Acemoglu *et al.* (2001), however, by instrumenting this with colonial mortality, or, the shares of the population speaking a European language.

The interpretation of RST's results is quite subtle, as they, themselves, recognise. Perceptions are the key to investment behaviour, so the question of how to influence them is important. Openness apparently explains at least some of their variance and so could have an important signalling role. RST argue clearly that their theory is that institutional quality determines income and that it is, actually, quite variable through time. They stress that settler mortality is only an instrument, not, as Acemoglu *et al.* hint and Easterly and Levine (2001) assert, the driver of the results *per se*. Nonetheless, their empirical methodology leaves them explaining income levels by openness, which is variable through time and manipulable via policy, and colonial mortality and distance from the equator which are obviously not.

If one heeds Brock and Durlauf's advice and thinks about policy-makers' objectives, the implication of RST is to pursue openness vigorously, for it is the only thing in this model that can be manipulated and it is far from ineffective in its indirect effects. Certainly one would also want to pursue other means of improving institutions, but, as RST note, we have little idea how to do this and plenty of indications that doing so is difficult.

In developing institutions a critical issue is their legitimacy. Adopting foreign institutions can often be an efficient way of short-cutting the learning process that Rodrik writes of, and indeed good policy-making will always seek to learn from others' experience. The requirement, however, is that the institutions be sought as solutions to *locally identified* problems and be *adapted to local needs and conditions*. There is a world of difference between a society facing a problem and looking abroad for something to adapt to its own needs and an external force declaring that such-and-such an institution will be good for it.

At least part of the job of institutions is to codify solutions to distributional conflicts. Institutions help to ensure that the same rules apply through time, and thus make it easier for losers in 'issue A' to accept their losses because they believe that on future 'issue B' they will reap corresponding gains. But institutions can only assist in finding such solutions if, broadly speaking, they push in the direction in which society wishes to go anyway.

Although Rodrik (2000*a*) argues passionately that international financial institutions should not impose specific institutional structures on developing countries, he goes on to say that it is reasonable to insist on basic human rights and democracy. He adduces some evidence that while democracy has no significant effect on growth, it is associated with greater stability in growth, investment and consumption, better responses to negative shocks and more equal distributions of personal income and of rents between labour and capital. He concludes of democracy that '[i]f there is one area where institutional conditionality is both appropriate and of great economic value … this is it'.

I would make two caveats. First, while democracy may be laudable, it is not clear that the international community, let alone international financial institutions, have the right to insist on it. If, in Rodrik's phrase, democracy is a

'meta-institution', this would be meta-conditionality: it would be interference of the deepest kind, and it could undermine the legitimacy of governments and their willingness to interact with the international community at all.

Second, causality is important here as elsewhere. Clague *et al.* (1997) observe that the factors associated with lasting democracy – e.g. equality, racial harmony, clean bureaucracy – are also associated with better economic policy directly. They identify regime stability as an important dimension of the pro-growth environment and note that switches from democracy to autocracy tend to be associated with improving property rights (their touchstone of the institutional contribution to economic growth). In other words, while the call to democracy is doubtless uplifting and something one might encourage within countries, it is far from proven as a tool for the international community to wield in the search for economic development.

2.5. *Education*

Possibly top of any *a priori* list of the causes of economic growth is education, although simple exercises that include education variables in cross-country growth equations have frequently not provided convincing proof (e.g. Hanushek, 1995; Behrman, 1999). The role of education is multi-dimensional. It is likely to induce flexibility (education imparts transferable skills). It brings its own rewards in terms of productivity, so that increasing human capital will lead to increased output. Education also appears to have strong payoffs in terms of health and in social and political capital. Finally, it is almost certainly necessary to facilitate the absorption of new technologies – Abramovitz and David (1996). Since in the long run technology is the key to sustained growth – merely accumulating human or physical capital will eventually encounter diminishing returns – this argument is a key one. It is also crucial in the context of openness, for this too is often argued to operate primarily by opening up the economy to new technologies. Education is therefore likely to be another necessary concomitant policy if openness is to bring continuing and extensive, dynamic benefits.

A potentially important dimension of this question for developing countries is whether openness stimulates the demand for education or not. Simple Stolper-Samuelson theory would suggest that as a skill-scarce economy opens up, the returns to skill will decline and with them the incentives for education – see Wood and Ridao-Cano (1999), who find some suggestion of such a problem empirically. Extending the model, however, e.g. by allowing for multi-dimensional Stolper-Samuelson, endogenous growth with constant returns to R & D, or a skills-bias in tradables as opposed to non-tradables, could all restore a positive link between openness and the returns to education (see Arbache *et al.*, in this issue of the JOURNAL). In addition openness might permit more efficient educational technologies - either importing better techniques and equipment, or, for higher education, permitting education abroad, although the latter may raise worries about the brain drain.[13]

[13] See Commander *et al.* (2002) for a general account of recent work on the brain drain.

2.6. *The Practicalities of Liberalisation: Making Trade-offs*

The bulk of this paper has concerned the effects of trade liberalisation but in this final sub-section I turn very briefly to implementing a trade liberalisation. The list of concomitant policies discussed above is formidable but that does not necessarily imply that there are difficult trade-offs to be made. At a technical level, the effects of many of the policies are essentially additive to those of trade liberalisation and so require no trading off at all.

But this is not always true. One trade-off between trade liberalisation and other objectives can arise in the short run if too large a shock would lead to the complete collapse of a market. For example, local labour markets can seize up in the face of large-scale redundancies because natural mobility evaporates: incumbents cease to leave their jobs speculatively for fear of not finding another. This is essentially a matter of timing – perhaps of staggering the trade liberalisation, or ensuring that it does not co-incide with a negative macro shock.

Similarly, balance of payments effects may need addressing. Most trade liberalisations imply larger reductions in barriers to imports than to exports and hence at fixed exchange rates are likely to entail trade-deficits, as Santos-Paulino and Thirlwall (2003) find. The answer is a real depreciation but this, of course, has consequences for inflation and stabilisation. Hence trade-offs are required at least so far as timing is concerned if governments tackle stabilisation and trade reform simultaneously. Poland used depreciation to preserve the balance of trade and stimulate the tradables sector in the 1990s, as did Chile in the 1970s.

Failure to choose and maintain a realistic real exchange rate has been one of the main causes of the failure of trade liberalisations in developing countries according to Nash and Takacs (1998). The other was failure to address the fiscal consequences of tariff revenue losses. These are far from inevitable, especially if non-tariff barriers are converted into tariffs, exemptions are reduced and collections improved, but they can pose a problem for poorer countries in which trade taxes account for large proportions of total revenue. Time may be required to develop alternative sources of revenue, so, again trade-offs over timing may be necessary.

There are also potential political trade-offs. Societies can exhibit reform fatigue whereby they become resentful of too much, or too long a period of, change. In this case, it is necessary to fix priorities and a major problem becomes maintaining credibility. It is probably better to announce the whole package at the beginning but ensure that not everyone has to change at once. Then governments need to recruit the early movers into the coalition to keep the later ones moving.

Very similar is politician/bureaucratic fatigue. If reform requires constant monitoring or political promotion, it might overwhelm a finite bureaucracy or body-politic. The diffusion of effort across too many objectives is a well-known cause of failure both in business and in politics and this may be a constraint in many countries. One implication is to seek reforms that are simple to implement and maintain. In this regard, a uniform tariff has huge attractions: it is simple to administer and simple to defend from interest groups, and thus takes up very little official effort to maintain. The Chilean reform of the 1970s explicitly used tariff

uniformity as a buttress against lobbying and special interests – Edwards and Lederman (2001).

The major area in which administrative constraints bind, however, is in the various institutional reforms suggested above. Institutions take time to design technically and, given the importance of building up their legitimacy and ownership among the population, they also require a good deal of political time. Moreover, no one gets institutions right first time: they require continuing monitoring and adjustment. If, as I argue in the next paragraph, there are often advantages to proceeding on a broad front in order to maintain some semblance of fairness, institutional reforms are likely to require a long time and considerable official skill to achieve.

Political trade-offs also occur at a more micro level as governments have to build up support for their policies, even in the most repressive of dictatorships. Edwards and Lederman (2001) document how Chilean firms were compensated for trade reform by depreciation and by labour market reforms to reduce their costs, and how powerful agricultural interests had to be assuaged. Moreover, this is not just a matter of sordid log-rolling; it also resides in what Corden (1984) calls the 'Hicksian optimism', that although any single efficiency-enhancing reform will hurt someone, if you package enough of them together, their negative effects will be netted out and nearly everyone will gain. This is one of the major reasons for proceeding on a broad front.

3. Conclusion

This paper has documented the strong presumption that trade liberalisation contributes positively to economic performance. For a variety of reasons, the level of proof remains a little less than one might wish but the preponderance of evidence certainly favours that conclusion. Part of the benefits of trade liberalisation depends on other policies and institutions being supportive but there is also evidence that openness actually induces improvements in these dimensions. Given that trade liberalisation is administratively simple to implement – indeed a transparent and liberal policy releases administrative resources for other tasks – the case for making it part of a pro-growth policy cocktail is very strong.

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