ECONOMIC GROWTH CENTER

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CENTER DISCUSSION PAPER NO. 806

OUTWARD-ORIENTATION AND DEVELOPMENT: ARE REVISIONISTS RIGHT?

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September 1999

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Abstract

The costs of import substitution (IS) as a strategy for industrialization, which was deemed synonymous with economic development by many development economists of the fifties and sixties, were shown to be substantial in the influential and nuanced studies of the seventies and eighties under the auspices of OECD, NBER and World Bank. These studies played a critical role in shifting policies in several developing countries away from the IS strategy.

Recently there has been a proliferation of cross country regressions as a methodology of analysis of issues relating to growth, trade and other issues. Both proponents (e.g. Sachs and Warner (1995)) and opponents (Rodriguez and Rodrik (1999)) of the view that openness to trade is linked to higher growth have relied on such regressions. The paper systematically reviews the theoretical and empirical studies on such linkage. It rejects the cross-country regression methodology for reasons of their weak theoretical foundation, poor quality of their data base and their inappropriate econometric methodologies. It argues that the most compelling evidence on this issue can come only from careful case studies of policy regimes of individual entries such as those of OECD, NBER and World Bank. It concludes that the virtues of openness established in these nuanced in-depth studies remain unrefuted.

Key Words: Developing Countries, Economic Development, Economic Growth, International Trade, Openness, Import Substitution, Export Promotion, Cross-Country Regressions

JEL Classification Codes: E13, F11, F14, F43, 041, 057

OUTWARD-ORIENTATION AND DEVELOPMENT: ARE REVISIONISTS RIGHT?

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1. Introduction

Anne Krueger has been an influential thinker, researcher and policy advisor on economic development and its relationship with openness to international trade, investment and technology flows. Recently, in her presidential address (Krueger 1997) to the American Economic Association, aptly titled "Trade Policy and Development: How We Learn," she recalled that:

> "Ideas with regard to trade policy and economic development are among those that have changed radically. Then and now, it was recognized that trade policy was central to the overall design of policies for economic development. But in the early days, there was a broad consensus that trade policy should be based on import substitution...It was thought import substitution in manufactures would be synonymous with industrialization, which in turn was seen as the key to development."

She also noted how radically the different current thinking is by contrast. Thus, it is now widely accepted that:

> "growth prospects for developing countries are greatly enhanced through an outer-oriented trade regime and fairly uniform incentives (primarily through the exchange rate) for production across exporting and import substituting goods...It is generally believed that import substitution at

> a minimum outlived its usefulness and liberalization of trade is crucial for both industrialization and economic development. While other policy changes also are necessary, changing trade policy is among the essential ingredients if there is to be hope for improved economic performance" (p. 1).

There have always been dissenting voices among academics and policy makers on the virtues of global integration. One of the most celebrated among them was that of Keynes who, after eloquently lamenting the demise of the golden era of globalization at the start of the first world war, argued heretically for protection in the 1930s.[1]

Among development economists, Lance Taylor has been a persistent and articulate critic for several years. A more recent dissent comes from Dani Rodrik whose impact has been greater because he is seen as more mainstream than Taylor and because today any argument against the trade liberalization that has been sweeping across the world in the last quarter of a century has many listeners.

In particular, Rodriguez and Rodrik (1999), have reviewed recent empirical studies that strongly supported the consensus on the virtues of openness. They claim to have identified several weaknesses endemic to this literature, making them sceptical "that there is a strong negative relationship in data between trade barriers and economic growth, at least for levels of trade restrictions observed in practice." (p. 38) They further assert that "the search for such a

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[1]See, in particular, the discussion of this in Bhagwati (1994) and in Irwin (1996).

relationship is futile." This assertion follows also from their finding that in most models of a small open economy, "there should be no theoretical presumption in favor of finding [an] unambiguous negative relationship between trade barriers and growth rates in the types of cross-national data typically analyzed...moreover an increase in the growth rate of output is neither a necessary nor a sufficient condition for improvement in welfare" (p. 5).

Rodrik (1999), in a policy-oriented analysis, goes further than Rodriguez and Rodrik (1999):

> "First, openness by itself is not a reliable mechanism to generate sustained economic growth. Second, openness will likely exert pressures that widen income and wealth disparities within countries. Third, openness will leave countries vulnerable to external shocks that can trigger domestic conflicts and political upheavals" (pp. 13-14).
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> "The import substitution (IS) polices followed in much of the developing world until the 1980's were quite successful in some regards and their costs have been vastly exaggerated" (p. 64).
>
> "ISI worked rather well for about two decades. It brought unprecedented economic growth to scores of countries in Latin America, the Middle East, and North Africa, and even to some in Sub-Saharan Africa" (p. 99).
>
> "The evidence in favor of the small government/free trade orthodoxy is less than overwhelming. Investment and macroeconomic policies remain key. There is no magic formula for surmounting the challenges of economic growth. If there is, openness is not it" (p 141).
>
> "the economies that have done well in the post-war period have all succeeded through their own particular brand of heterodox policies. Macroeconomic stability and high investment rates have been common, but beyond that many details differ" (p. 47).

This is quite a handful of criticisms indeed. The implication (and that is exactly how Rodrik's work has been widely interpreted) certainly is that the postwar case for openness in trade policy, especially when linked to improved economic growth performance and in turn to improvement in welfare, is to be rejected. For sure, it does seem to militate against Krueger's views. We have decided therefore to evaluate the Rodrik-style arguments. Briefly stated, we find that they amount to little that policy makers need to worry about when recommending a policy of trade openness. We proceed essentially in two steps.

First, we will argue that the criticism that, in theory, there is no presumption that openness in trade (i.e. the Export Promoting, EP, strategy) will accelerate growth vis-a-vis the Import Substitution, IS, strategy, is both true and false.

At one level, Rodrik argues that the conventional belief among economists is that freer trade raises income once and for all but cannot raise its growth rate in a sustained fashion. But here he seems to fall victim to a common form of error: citing one popular model to argue that therefore we all believe only what is true in that model, or confining oneself to certain convenient parametric limits of the model to assert that this is what we must all regard as valid for policy

discussions based on that model.[2] Thus, in the present instance, the standard Solow model will work for Rodrik's assertion, but not the Harrod-Domar model if labour remains slack throughout. Nor, as we discuss below, will the Feldman-Mahalanobis putty-clay model.

At another level, there are countless arguments, and models, that can be built, and indeed have been built (including by us), which show that free trade will reduce current income and even growth compared to autarky if market failures are present. Bhagwati (1958) showed that growth under free trade may even lower welfare. This can happen if there are distortions in place as growth occurs. [Contrary to Rodrik's presumption, however, we have used this finding to argue several years ago <u>against</u> the IS strategy. For, as we argue below, one reason why the IS strategy has not worked well is that it used Quantitative Restrictions (QRs) and other trade barriers to attract foreign investment which, given the trade distortion, reduced the social

[2]Recent instances include the common use of the Stolper-Samuelson model to argue that trade hurts real wages. But, even in that model, complete specialization will lead to the possibility that real wages improve even if the price of labour-intensive goods falls. This is a possibility that is in fact very real since many labour-intensive goods are no longer produced in the rich countries. Yet another example is his (Rodrik, 1997) argument that the labour demand curve becomes flatter under free trade than under autarky. But Panagariya (1999) has shown decisively that this cannot be asserted even in the 2x2 and 3x2 models unless one makes special assumptions that Rodrik does not make.

returns and may even have created social losses![3]]

Sure enough, therefore, one can ingeniously construct anti-free-trade kinds of theorizing. But we must next ask the question: in formulating policy, do we view them as representing a "central tendency" in the real world or merely "pathologies"? These policy judgments cannot be avoided because otherwise one becomes a prisoner of the nihilistic view that "because anything can be logically shown, nothing can be empirically believed and acted upon."

We will return to this question below where we discuss the postwar empirical evidence on this question, arguing also that the cross-country regressions on which both Rodrik (who is skeptical of, if not hostile, to trade openness) and his foes such as Jeffrey Sachs (who cannot have enough of it) rely, are not the best tools for analyzing the problem of understanding the linkage between trade and growth. We will also argue that nuanced, in-depth analyses of country experiences in major OECD, NBER and IBRD projects during the 1960s and 1970s have shown plausibly, taking into account numerous country-specific factors, that trade does seem to create, even sustain, higher growth.

The danger of relying exclusively on cross-country regressions is manifest from Rodrik's remark that the best indicators of growth are macroeconomic stability and investment. For, without exception, the

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[3]See, for example, Brecher and Diaz Alejandro (1977) for a formal demonstration; and Bhagwati's NBER Synthesis volume (1978) for application of the argument to evaluation of IS strategy's demerits.

Soviet bloc countries that went steadily down before their collapse were marked by macroeconomic stability--a wit had remarked that Friedman and Marx were bedfellows--and by huge investment rates. Until the 1980's, India too had a stable macroeconomy and rising investment rates with an unusually poor growth record among developing countries.

There is no short-cut to hard thinking and yet harder and patient analysis of countries in depth: a technique of which Krueger has been a pioneer. In fact, it would be astonishing if these cross-country regressions were by themselves able to settle so easily these difficult issues: for, economics could then simply be handed over to unthinking robots. Alas, the reality is very different.

With these general remarks, we now proceed to our detailed analysis. Section 2 elaborates the familiar static and dynamic mechanisms through which openness influences economic performance including growth and welfare. We address the issue of trade-growth links in formal models, in particular whether freer trade can be expected to result in higher growth rates. We also emphasize the important distinction between openness of trade in goods and services and openness to foreign investment.

In Section 3 we first recapitulate the basic lessons on the adverse effects of IS strategy, as emerging (among other studies) from the NBER project directed by (Bhagwati and) Krueger and then state some of the more recent arguments for openness.

In Section 4 we turn to empirical evidence and to the Rodriguez-Rodrik critique of the recent findings supporting the growth-enhancing aspects of trade openness. We conclude that the early embrace of freer trade by Anne Krueger, and the general acceptance of this prescription today, cannot be faulted.

2. Openness, Growth and Welfare

It is illuminating to analyze the benefits of openness from two alternative perspectives: first from the traditional trade-theoretic viewpoint of the efficiency-enhancing role of free trade in a static context, and second from the perspective of growth accounting and intertemporal efficiency and welfare.

2.1. Static Efficiency of Free Trade

Foreign trade in goods and services offers yet another means, besides domestic technology, for obtaining goods and services for final use from domestic resource inputs. In autarky an economy's availability set, i.e. the set of vectors of goods and services available for final use, is the same as its production possibility set. But by using gainful trade to exchange goods and services produced at home for those produced abroad, the economy could add to its availability set under autarky. Also using trade an economy could augment its utility possibility set, that is, the set consisting of

vectors of utilities enjoyed by consumers of the economy obtained by distributing available vectors of goods and services among consumers.

The above arguments for openness point to the potential benefits of openness, leaving it to the nature of institutions in an economy to determine whether or not the potential is realized and in what measure. In contrast, the neoclassical case for free trade (FT) is based on institutional assumptions that include a market structure that is complete and a government that intervenes in the markets only to correct failures, if any, of the market. Under these assumptions, and others on technology and tastes, a competitive equilibrium (CE) under FT is a Pareto Optimum. More precisely, in such an equilibrium an economy would be productively efficient (i.e. it would operate on its production possibility frontier) and also distributionally efficient (i.e. it would be at a point on the utility possibility frontier).

Clearly the efficiency characteristics of FT could fail to hold if any of the institutional or other assumptions underlying them fail to hold. For example, if externalities in production or consumption lead to market failures, and the government fails to correct them optimally, or more generally, if there are domestic distortions, a FT competitive equilibrium need not be efficient.

By the same token, under some departures from FT, efficiency in production could still hold. For example, consider a small open economy that imposes a tariff on an importable. In the cum-tariff CE,

the economy would still be operating on its production possibility frontier and hence be productively efficient but it would be distributionally inefficient: there exists an equilibrium under FT that Pareto-dominates the cum-tariff CE. This important distinction, well-understood by trade-theorists, between production efficiency and (distributional or) welfare efficiency has to be kept in mind. An analogous distinction arises in a dynamic context between growth effects and intertemporal welfare effects of trade liberalization.

2.2. Openness, Growth and Intertemporal Welfare

The production efficiency and Pareto optimality of a FT competitive equilibrium for a small open economy can be shown, under similar assumptions, to hold in an intertemporal context by distinguishing commodities by the dates at which they are produced and consumed.

This said, the traditional growth accounting framework is more useful for discussing growth, which is a specific intertemporal phenomenon. In such a framework, the sources of growth are essentially three: growth in inputs of production; improvements in the efficiency of allocation of inputs across activities; and innovation that creates new products, new uses for existing products and brings about increases in the productivity of inputs. Openness to external trade, factor and technology flows has the potential to contribute to each of the sources

of growth.

Being open to trade allows the economy to exploit its comparative advantage, thereby enhancing the efficiency of the allocation of domestic resources. Being open to capital, labour and other factor flows, enables an economy to augment those of its sources which are scarce relative to the rest of the world and also to use relatively abundant resources elsewhere for a higher return. Such freedom of movement would also enhance the efficiency of resource use (static as well as intertemporal) in each nation and the world as a whole. Finally, through openness to technology and knowledge flows, the fruits of innovation anywhere in the world could become available everywhere.

However, even these insights, under the given assumptions, need to be properly understood. Thus, as we have known since the findings of the 1950's, static and dynamic efficiency in resource allocation does not mean that the economy will grow in free trade at an enhanced or even a positive rate in its steady-state equilibrium path. For example, in the absence of exogenously growing inputs, innovation and indefinite scale economies in production, and with the marginal return to any input declining to zero as its use increases indefinitely relative to others, there will be no steady state growth. If there is an input that grows exogenously at a steady rate, then output will grow at the same rate in the steady state as that of the exogenously growing input. This is indeed the case in the celebrated closed-economy growth

model of Solow (1956) with a fixed savings rate or in the optimal savings model of Cass (1965) and Koopmans (1965).

In these models, with the steady-state growth rate being exogenous, policy changes do not affect it. In the small-open-economy, two-sector version of the Cass-Koopmans style optimal growth model such as that of Srinivasan and Bhagwati (1980), the steady-state growth rate of the economy is the same (viz. the exogenous rate of growth of labour force) in autarky, and not lower than in free trade.

Nonetheless, it would be wrong to infer that, in all models, trade and growth will necessarily be unrelated. As is well-known (see Srinivasan (1995)), the insensitivity of the steady-state growth rate to policy, in particular to trade policy, in the Cass-Koopmans or Srinivasan-Bhagwati type models, arises from their strong assumption that the marginal product of capital inexorably declines to zero as the capital-labour ratio rises indefinitely. By contrast, in models such as the Harrod-Domar one-sector model or the Fel'dman (1928)-Mahalanobis (1955) two-sector model, the marginal product of capital is a constant with labour being in excess supply. As we reiterate briefly in the next sub-section, in these models which may apply to many labour-surplus developing economies, even the steady-state growth rate is sensitive to policy and trade policy does affect favorably the steady-state growth rate.

There is also a subtler distinction between intertemporal welfare,

i.e. welfare along a growth path from given initial conditions, and steady state welfare. As we pointed out long ago (Srinivasan and Bhagwati 1980), for a small open economy with no access to international borrowing or lending, it is possible that welfare is higher at each point of time in an autarky steady state as compared to a free trade steady state. Nonetheless intertemporal welfare (i.e. the discounted sum of the stream of utilities) is always higher in free trade, the reason being that in moving to free trade from an autarky steady state, the transitional gains outweigh the losses in the steady state.

A related distinction is between the level effect and the growth effect (i.e. the effect on growth rates) of trade policies. For simplicity, if we consider a small open economy producing traded goods, with world relative prices of these goods constant over time, with unchanging technology and no access to international capital markets, removing trade barriers will clearly raise the value of output (i.e. factor income) at world prices at each point in time, (and in the steady state assuming that the economy converges to one) if there is no change in the path of factor accumulation. This is the so-called level effect. Whether there will be a growth effect (i.e. whether there is any change in the economy's steady-state growth rate) and, if there is, whether it will be transitory or permanent depends both on the response of factor accumulation to the increase in income levels and whether the

marginal returns to factor accumulation eventually diminish to zero. We show in the next section that it is possible to have level effects with no permanent growth effects and to have both effects as well.

Next, it should be noted that market failures and distortions can undermine both efficiency and growth effects of trade policies. The General Theory of Distortions (Bhagwati 1971) tells us that, if other distortions are present in the economy, trade liberalization need not lead to "static" gains in the shape of a Pareto improvement. When it comes to the beneficial effects of growth, Bhagwati (1958, 1968a) showed equally that in the presence of distortions, growth under free trade could be immiserizing. By the same token, as Brecher and Diaz-Alejandro (1977) showed, foreign direct investment (FDI) that is attracted to a protected capital-intensive industry in a labour-abundant economy, will surely lead to a Pareto-inferior equilibrium as compared to an equilibrium with no such foreign investment and might lead to the same outcome if the expansion of the industry comes about through exogenous domestic investment.

Thus, if significant distortions are present when foreign trade (and investment) liberalization is undertaken, there is no presumption in theory that such liberalization would necessarily lead to a static Pareto improvement or to welfare-improving growth. But it is equally true that such static welfare gain and welfare-improving growth are not necessarily ruled out either.

Rodrik (1999), who essentially re-states some of these well-known propositions and insights, seems to suggest that the proponents of free trade are oblivious of these nuances and theoretical qualifications. The irony is that these nuances and qualifications have come from the theoretical writings of precisely economists such as ourselves who, in policy judgments, have opted progressively for freeing trade nonetheless for reasons which we will return to later in this paper.

2.3. Effects of Openness in Growth Models[4]

For the moment, however, we return (as promised) to reiterating the fact that it is wrong to assert that, in steady state, the growth rate cannot be affected by trade policy. Indeed, the starting point of some, though not all, of the recent contributions to growth theory is a misleading characterization of neoclassical growth theory of the 1960s and earlier as implying that a steady-state growth path always exists along which output grows at a rate equal to the exogenously specified rate of growth of labor force in efficiency units. Thus, in the absence of labor-augmenting technical progress, per capita income does not grow along the steady-state path. Policies that affect savings (investment) rates have only transient effects on the growth rate of per capita output though its steady-state level is affected.

Even a cursory reading of the literature is enough to convince the

[4]This section draws on Srinivasan (1999a, 1999b).

reader that neoclassical growth theorists were fully aware that a steady state need not exist and that per capita output can grow indefinitely even in the absence of technical progress provided the marginal product of capital is bounded away from zero by a sufficiently high positive number. Moreover, they showed that once one departs from the assumption that the marginal product of capital monotonically declines to zero as the capital-labor ratio increases indefinitely, for example if it initially rises and then falls, multiple steady-state growth paths are likely (only some of which are stable) and that the steady state to which a transition path converges would depend on initial conditions. Attempts at endogenizing technical progress were also made by theorists of the time.

It should not surprise anyone familiar with neoclassical growth theory therefore that the models in which the steady-state growth rate is not an exogenous constant could be used to generate growth effects from trade policy. Srinivasan (1999a, 1999b) has done precisely this, using successively the two-sector Fel'dman (1928)-Mahalanobis (1955) model and then the Cass (1965)-Koopmans (1965) neoclassical model of optimal growth in their open-economy versions.

Rodrik (1996) therefore is mistaken in arguing that, in traditional theory, trade liberalization does not have a long-run growth effect, unless he means by "traditional theory" any theory that confirms his statement.

2.4. Concluding Observations

Thus, in conclusion of this section, we must reiterate that no new theoretical argument against the linkage of open trade with growth rates is to be found in Rodrik's recent critiques. In fact, his arguments are a subset of the caveats that sophisticated trade theorists have advanced and, in fact, diffused to their students for a long time.

Indeed, even if one leaves the realm of graduate textbooks such as Bhagwati and Srinivasan (1983) and goes instead to the policy writings in the influential OECD, NBER and World Bank projects that played the critical role in shifting policies in several developing countries away from the IS strategy and in getting the World Bank to enforce trade reforms more fully, there is much evidence that the theoretical possibilities that could inversely relate growth to openness were not forgotten. Rather they were discounted, in light of the systematic in-depth and nuanced analyses of country experiences in projects, directed and written by economists who ranked among the leading trade and development economists of the time--among them, Ian Little, Tibor Scitovsky, Bela Balassa and Jere Behrman. Their political ideologies were spread along the entire spectrum and their economic views in many cases (including ours) evolved as a result of the research from a benign acceptance or mild skepticism of IS to a more enthusiastic embrace of EP.

Therefore, we reject the implied critique that the proponents of openness in trade such as ourselves are either unaware of the theoretical nuances and qualifications that can undermine the link between trade and growth--some of these reflecting our own work, as it happens--or have suffered from amnesia concerning them.[5]

The correct view of the matter is that the policy judgment that many of us were led to, in light of the many careful studies during the late 1960s through early 1980s, was that the EP strategy in practice was conducive to a significantly higher growth on a sustained basis, whereas the IS strategy produced, after an early IS period (what one of us has called Phase I) of often-government-stimulated investments in several countries, an unsustainable growth path. The really interesting empirical question seemed to be to track down why. I.e. (1) what ideas could we borrow from the huge theoretical literature on trade, efficiency and growth to explain this outcome, and (2) were there new ideas that these studies suggested concerning the process or route by which openness in trade seemed to benefit the EP countries' growth rates?[6] To give the readers of this essay a flavour, and Rodrik

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[5]This is not to say that some proponents of trade-growth linkage write, and get amply quoted even in magazines, as if no such nuances exist! But then Rodrik needs to say that, whereas these economists are wrong-headed, many others are not.

[6]These types of questions and analyses are to be found in the study of India by us for the NBER project, Bhagwati and Srinivasan (1975) and in Bhagwati's synthesis volume for that project, Bhagwati (1978).

a riposte, we now proceed to a short statement of what the findings on EP and IS strategies' relative merits were in these projects and associated writings.

3. Export Promotion (EP) and Import Substitution (IS) Strategies: Empirical Arguments and Evidence[7]

The question of the wisdom of adopting an export-promoting trade strategy has recurred in the history of the developing countries. Development economics was born in an atmosphere of export pessimism at the end of the World War II. By the late 1960s, however, the remarkable success of the few economies that pursued EP rather than IS policies swung the weight of academic opinion behind the EP strategy. Aiding this process were academic findings from several research projects which documented both these EP successes and the failures of the IS countries.

3.1. The Role of Export Pessimism

The export pessimism following the second world war, which had been a principal factor fueling the IS strategy, was to prove unjustified by unfolding reality. At the outset, between the conclusion of the General Agreement and Tariffs on Trade (GATT) in 1947 and the first oil shock in 1973, world exports grew at an unprecedented

[7]This section draws on Bhagwati (1988).

average rate of 8.8 percent per year. Although during the period of recovery from the first oil shock (1973-80) and from the second oil shock (1980-90), their growth rate fell to 4.4 percent and 4.3 percent respectively, it has since recovered to 7 percent during 1990-97 (GATT, World Trade, various reports, and World Bank, 1987, Table A.8). The total exports of developing countries grew by 4.9 and 4.7 percent per year on an average respectively during 1965-73 and 1973-80.

The key question that has remained at issue, therefore, is what has been called the "fallacy of composition": how can all, or most, developing countries become successful exporters simultaneously? Or, focusing on the successful Asian exporters, the question may be put: can the Asian export model be successfully exported to all? The suspicion still lingers that the success of a few was built on the failure of the many and that, if all had shifted to the EP strategy, none would have fared well. But this worry is unnecessary.

First, the fear that world trade would have to grow by leaps and bounds if most developing countries pursued an EP strategy is unwarranted. The pursuit of an EP strategy simply amounts to the adoption of a structure of incentives which does not discriminate against exports in favor of the home market. This does not imply that the resulting increases in trade-income ratios will be necessarily as dramatic as in the Far Eastern case.

Second, the share of developing countries in the markets for

manufactures in most industrial countries has been, and continues to be, small.

Third, a chief lesson of the postwar experience is that policy makers who seek to forecast exports typically understate export potential by understating the absorptive capacity of import markets. This comes largely from having to focus on known exports and partly from downward estimation biases when price elasticities for such exports are econometrically measured. Experience underlines the enormous capacity of wholly unforeseen markets to develop when incentives exist to make profits; "miscellaneous exports" often represent the source of spectacular gains when the bias against exports, typical of IS regimes, is removed.

Fourth, trade economists have increasingly appreciated the potential for intra-industry specialization as trade opportunities open. There is no reason to doubt that intra-industry trade in manufactures among developing countries and between them and the industrial countries can also develop significantly.

Fifth, if we reckon with the potential for trade between developing countries where policies can change to permit its increase, and the possibility of opening new sectors such as agriculture and services to freer trade, then the export possibilities are even more abundant than the preceding arguments.

Sixth, some developing countries, as they grow, often will transit

away from exporting labor-intensive goods, "making room" for exports of the same goods from other developing countries. Ross Garnaut (1996) has shown how Japan withdrew from such exports, "accommodating" newly growing such exports from the Four Tigers, the NICs, during the 1970s. In the 1980s, through 1994, Garnaut shows the same phenomenon; but now the NICs withdrew and accommodated the huge entry of China.

Finally, as countries exporting more take markets out of the pot, they also put their own markets into the pot (unless they accumulate surpluses). The view of markets being a zero-sum game is thus simply wrong.

Therefore, although the postwar export pessimism was unjustified, it provided a rationale for the adoption of inward-looking trade policies in many developing countries. In addition, trade restrictions were adopted to protect the industries that had grown up fortuitously in Latin America because World War II had provided artificial inducement to set up domestic capacities to produce interrupted supplies from traditional, competitive suppliers abroad. Often, chiefly in Latin America, there was also a reluctance to devalue. Combined with high rates of inflation, this caused continuously overvalued exchange rates that amounted to a *de facto* IS trade policy.

3.2 Reasons for the Success of EP

It is worth stressing again that the concept of EP or outward

orientation relates to trade incentives (direct trade policies or domestic or exchange rate policies that affect trade) but does not imply that the EP strategy countries must be equally outward-oriented in regard to their policies concerning foreign investment. Hong Kong and Singapore have been more favorable in their treatment of foreign investors than the great majority of the IS countries, but the historic growth of Japan, presumably as an EP country, was characterized by extremely selective control on the entry of foreign investment.

Logically and empirically, the two types of outward orientation, in trade and in foreign investment, are distinct phenomena, though whether one can exist efficiently without the other is an important question that has been raised in the literature and is surrounded by far more controversy than the narrower question of the desirability of an EP strategy in trade.

Also, it is necessary to emphasize that the problems associated with capital account convertibility and related freedom of short-term capital flows, as underlined most recently by the Asian financial crisis, have no necessary relationship to free trade's desirability, as noted in Bhagwati (1998a). Yet, in his recent article in The New Republic on fixing the world economy, Rodrik (1998) begins with the problems raised by the financial crisis and, in a non sequitur, goes on to argue that the trading regime needs a "global fix." This is, of course, a common method of false argumentation among anti-free-trade

activists such as Ralph Nader; but it is puzzling to find it in the policy writing of an economist of the considerable calibre of Rodrik.[8]

With the EP strategy then defined in terms of the incentive structure (for the definition most used, see Bhagwati (1978) and Krueger (1978))[9], the substantive conclusion that emerged from the major research projects was that the economic performance of the EP countries had been remarkably strong, although they had no one rooting for their success when development efforts were being initiated in the early 1950s. Here, as elsewhere, history turned up surprises.

In evaluating this outcome, we have to distinguish between two questions: (a) why should the EP strategy have been helpful in accelerating economic development, and (b) could the acceleration have been caused by factors other than the EP strategy? In answering these questions, the reflections emerging from the earlier-cited OECD and NBER projects are invaluable.[10]

Resource Allocation Efficiency. The first set of reasons for the

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[8]See also the Letter to the Editor by Bhagwati (1998b) on Rodrik in The New Republic.

[9]The EP strategy is one which more or less equates the effective exchange rates on exports, EER_x, and on imports, EER_m.

[10]It is odd that the young adversaries on the issue of openness in trade appear to be unfamiliar with these influential studies that deeply affected our thinking on the issue. Some of them must be equally unfamiliar with the literature on growth theory of the 50's and 60's; otherwise, it is hard to explain how the Harrod-Domar model of the earlier era has been rediscovered by them and named as the "AK" model!

success of the EP strategy relies on the fact that it brings incentives for domestic resource allocation closer to international opportunity costs and hence closer to what will generally produce efficient outcomes. This is true in the sense that there is no bias against exports and in favor of the home market (that is, EER_x . EER_m) under the EP strategy. Whereas under the IS strategy in practice the home market was substantially more profitable than the external market (that is, EER_m significantly exceeded EER_x). But it is also true in the sense that the IS countries seem to have generally had a chaotic dispersion of EERs among the different activities within export and import-competing activities as well. That is, the degree of IS goes far and the pattern of IS reflects widely divergent incentives. By contrast, the EP strategy does better both on degree (since EER_x . EER_m) and on pattern.

Why is the degree of bias so large and the pattern wrong under IS? The answer seems to lie in the way in which IS is often practiced and in the constraints that surround EP. Thus IS could, in principle, be contained to a modest excess of EER_m over EER_x. But typically IS arises in the context of overvalued exchange rates and associated exchange controls. So there is no way in which the excess of domestic over foreign prices is being tracked by government agencies in most cases, and the excesses of EER_m over EER_x simply go unnoticed. The non-transparency is fatal. By contrast, EP typically tends to constrain

itself to rough equality, and ultra-EP also seems to be moderate in practice, because policy-induced excesses of EER_x over EER_m often require subsidization that is constrained by budgetary problems.

In the same way, the pattern of EER_m can be terribly chaotic because exchange controls and QRS on trade will typically generate differential premiums and hence differential degrees of implied protection of thousands of import-competing activities. By contrast, the EP strategy will typically unify exchange rates, which avoids these problems and, when it relies on export subsidization, will usually be handled both with necessary transparency and with budgetary constraints that would then prevent wide dispersions in EERS.

The chaotic nature of differential incentives among diverse activities in IS regimes has been documented by estimates of ERPs, effective rates of protection, (though these estimates can be misleading in quantitative restrictions regimes where the import premiums may reflect effects of investment controls, indicating therefore resource denial rather than resource attraction to the high-premium and therefore, other things being equal, the high-ERP activities). The estimates of cross-sectional domestic resource costs (DRCS), which provide instead a guide to differential social returns to different activities, have also underlined these lessons.

Directly Unproductive Profit-Seeking and Rent-Seeking Activities.

Yet another important aspect of the different between EP and IS strategies is that IS regimes are more likely to trigger directly unproductive profit-seeing (DUP) activities (Bhagwati 1982). These activities, of which rent-seeking activities (Krueger 1974) are perhaps the most important subset, divert resources from productive use into unproductive but profitable lobbying to change policies or to evade them or to seek the revenues and rents they generate. The diversion of entrepreneurial energies and real resources into such unproductive activities tends to add to the conventionally measured losses from the high degree and chaotic pattern of IS.

Foreign Investment. IS regimes have tended to use domestic resources inefficiently in the ways that were just outlined; the same applies to the use of foreign resources. This is perhaps self-evident, but (as we noted earlier in Section 2.2) substantial theoretical work by Brecher and Diaz-Alejandro (1977), Uzawa (1969), Hamada (1974), Bhagwati (1973) and others has established that foreign investment that comes in over QRs and tariffs--the so-called tariff-jumping investment--is capable of immiserizing the recipient country under conditions that seem uncannily close to the conditions in the IS countries in the postwar decades. These conditions require capital flows into capital-intensive sectors in the protected activities. It is thus plausible that, if these inflows were not actually harmful, the social returns on them were at least low compared with what they would be in the EP

countries where the inflows were not tariff-jumping but rather aimed at world markets, in line with the EP strategy of the recipient countries.

In addition, Bhagwati (1978) has hypothesized that foreign investments into IS countries will tend to be self-limiting in the long run because they are aimed at the home market and therefore constrained by it. If so, and there seems to be some evidence consistent with this hypothesis in recent empirical analysis,[11] then IS countries could have been handicapped also by the lower amount of foreign investment flows and not just by their lower social productivity compared with the EP countries.

Gray Area Dynamic Effects. Although the arguments so far go a fair distance in enabling us to understand why the EP strategy does so well, dissatisfaction has continued to be expressed that these are arguments of static efficiency and that dynamic factors such as savings and innovations may well be favorable under an import-substituting trade strategy.

Of course, if what we are seeking to explain is the relative success of the EP countries with growth, this counter-argumentation makes little sense since, even if it were true, the favorable effects from these "gray area" sources of dynamic efficiency would seem to have been outweighed in practice by the static efficiency aspects. But the

[11]See Balasubramanyam and Salisu (1991) and Balasubramanyam, Salisu and Sapsford (1996).

counter-argumentation is not compelling anyway. Overall, it is not possible to claim that IS regimes enable a country to save more or less than EP regimes: the evidence in the NBER project, for instance, went both ways. Nor does it seem possible to maintain that EP or IS regimes are necessarily more innovative. It is possible to argue that EP regimes may lead to more competition and less-sheltered markets and hence more innovation. But equally, Schumpeterian arguments suggest that the opposite might also be true.

Again, in the matter of X-efficiency, the NBER Project led some of us to argue that it is plausible that firms under IS regimes should find themselves more frequently in sheltered and monopolistic environments than those under EP regimes. X-efficiency therefore ought to be greater under the EP regime. Nonetheless, this is a notoriously gray area where measurement has turned out to be elusive.

Rate of Investment. We may finally consider one particular "gray area" matter, which relates to the rate of (productive) investment and where we think that something definite can be said empirically. We would contend (Bhagwati 1996) that their EP strategy enabled the Far Eastern super-performers to sustain a higher inducement to invest, and hence higher investment rates (financed mainly by phenomenally high, often-policy-induced savings), compared to IS strategy countries, chiefly India, where the inducement to invest was constrained by the growth of the domestic market (which, in turn, essentially meant the

growth of the agricultural sector which, in practice, has rarely grown at more than 4% annually anywhere over a sustained period exceeding a decade).

Here, we disagree with the implication of Paul Krugman's contention that the Asian Economic miracle was not a miracle because it could be explained by extremely high rates of productive investment. The high rates of productive investment, sustained over a very substantial period, were themselves exceptional and were therefore a miracle in the sense of being off the charts. And, in criticism of Rodrik, they in turn reflected chiefly the EP strategy rather than any other plausible policy or accidental benefits from exogenous factors. Hence, Rodrik's contention that investment is correlated with growth, and not trade policy, ignores the fact that, at least in the case of the Four Tigers, the investment rates cannot be divorced from the trade policy these countries pursued. We have here yet another instance of the kind of folly that relying on cross-country regressions typically generates (as we argue more fully below).

4. Cross-Country Regressions: The RHS Warriors Engaged in Mutual Assured Destruction

So, we conclude from these nuanced studies in depth of several countries, in the OECD and NBER Projects in particular, in favour of trade openness. In fact, in our view, the most compelling evidence on

this issue can come only from careful case studies of policy regimes of individual countries, and we argue below against the current resort (by Sachs, Rodrik and others) to cross-country regressions as a reliable method of empirical argumentation.

In any policy evaluation exercise, there is of course a largely insurmountable methodological problem dealing with counterfactuals. What one would like to know is what would have happened if a country had a set of policies different from the one it actually followed. There are several empirical approaches for answering this question. If some countries changed policies, one could use data from the same countries before and after their policy change (the so-called "before and after" approach). Another approach is to compare the outcomes in countries which changed policies with those of a similar group of countries which did not (the so-called "control group" approach). Other approaches include versions of a difference-in-difference approach in which, one compares the difference in outcomes between countries which changed policies with the control group before the former changed policies with the difference after they changed policies, and simulations of the effects of a policy change in a country typically from an applied general equilibrium model. Each of these approaches has its own strengths and weaknesses, as is well known. Lastly there is the cross-country regression approach.

There has in fact been a proliferation recently of cross-country

regressions as a method of analysis of issues relating to growth, trade and indeed other issues. Typically the recent opponents (e.g. Rodrik) and proponents (e.g. Sachs and Warner) of the view that openness in trade is linked to higher growth are relying on such regressions to argue their respective cases. And, sadly, the media have cited such regressions as if they were "scientific" evidence based on sound theoretical foundations, on reliable and comparable (over time and across countries) data that are free of measurement errors and biases, and on the use of appropriate econometric tools.

Unfortunately there are reasons to be skeptical of the findings of most of these regressions for many reasons: their weak theoretical foundation, poor quality of their data base and inappropriate econometric methodologies. A typical regression of this genre will have some outcome variable (e.g. average growth rate over some period) on the left hand side (LHS) and a number of variables on the right hand side (RHS) that are viewed as determinants of or factors influencing the LHS variable, the direction of influence being viewed as going from RHS variables to the LHS variable. In the openness context, the RHS variables will include a proxy for openness, other possible systematic determinants of growth such as rates of investment including proxies for human capital investments or stocks, dummy variables to capture country-, region-, or period-specific factors, even including dummies for civil wars, coups and revolutions, religion of the majority of the

population, and a host of factors that are viewed as idiosyncratic influences on growth. There are a number of problems with the use of such regressions.

First of all, often though not always, the postulated relationship is not derived from any theoretical model. Even when it is, since economic theory rarely specifies the functional forms for the relationships, let alone the probability distribution of the stochastic error terms[12], the link in the econometric specification of the relationship between theory and the estimated regression is far more tenuous than is often realized. As such, to assert that some hypothesis (e.g. a positive relationship between growth and openness) is conclusively established or refuted by the regression is to claim too much.

Second, there is no reason to presume, even in theory, that the relationship is only from RHS variables to the LHS variable. If it runs both ways, then the LHS variable and a subset, if not all, of the RHS variables are jointly determined. The postulated regression is then one of a set of relationships characterizing the interrelationships among jointly determined variables. As such, unless

[12]Except in empirical studies such as, for example, those based on real business cycle models where it is integral to the model, the stochastic error term is added on to a purely deterministic theoretical equation, a practice that can be justified only if the RHS variable is the sum of its 'true' value and a stochastic measurement error.

treated econometrically in an appropriate way to take care of this simultaneity problem, parameters estimated from a single equation cannot be interpreted meaningfully. To be fair, a few careful empirical researchers do attempt to address the endogeneity of some of the RHS variables arising from simultaneity by using techniques of estimation other than ordinary least squares, such as two-stage least squares or instrumental variables. Nonetheless this remains an infrequent practice.

Third, many of the RHS variables often are not only poor empirical proxies for their theoretical counterparts but also subject to errors and biases of measurement. For example, defining a variable that captures the influence of a non-tariff barrier in a theoretical relationship and then finding a reasonable empirical proxy for it are not easy tasks. Measurement error in a RHS variable not only biases the estimate of its effect but also the effects of other RHS variables, the direction of bias not being predictable except in very simple situations. Also 'dummy' variables are best described as 'dumb' variables--they are introduced to capture the influence of factors (e.g. civil war, revolutions, coups) of which the analyst has often no clue.

Fourth, in the context of relationships that have a temporal as well as cross-sectional dimension, there is the well-known problem that the estimated impact from a cross-section of an RHS variable on the RHS

variable need not be the same as that from time-series data.

Fifth, it is highly unlikely that cross-country regressions, relying inevitably on simple proxies of critical explanatory variables such as trade policy, can really get reliably to the empirical reality of the trade-and-growth link in country experiences. In fact, even the LHS variable, the growth rate of GDP, needs to be handled with empirical and conceptual care. Not merely do we know that the estimated growth rates, and country rankings, are sensitive to whether one uses conventional or the Kravis-Heston-Summers estimates. But we also know that, from a welfare-theoretic viewpoint, there is a good case for re-evaluating growth rates of each country at <u>its</u> international prices, as suggested by Little-Scitovsky-Scott (1970) and analyzed in Bhagwati and Hansen (1973). When this is done, we know from studies by Bela Balassa and others that the high, early growth rates under IS strategy in countries such as Brazil get revised drastically downwards. But the crude regressions on growth and trade almost never face up to these difficulties which can be, and were often, faced squarely in nuanced and intensive country-studies.

Nonetheless, one might observe, as one of us did earlier (Srinivasan 1998, p. 2), that it is interesting and suggestive that vast numbers of such crude regression analyses have tended to be supportive of the notion that trade openness is associated with higher growth rates. Having observed that fact, we must still be wary of

drawing any firm conclusions from them, especially in light of our foregoing criticisms of such an approach.

In fact, while such regressions can be suggestive of new hypotheses and be valuable aids in thinking about the issue at hand, we would reiterate that great caution is needed in using them at all as plausible "scientific" support. This is particularly so since the regressions (and the conclusions based on them) are likely to be critically dependent on the period, sample of countries, and variables chosen. In fact, given these numerous choices, we can confidently expect that there are enough de facto degrees of freedom at an analyst's command to reverse any "findings" that another analyst using similar regression methods has arrived at. So, the squabbles among the foes and the friends of open trade, based on these crude cross-country regressions, amount to little more than "mutual assured destruction" by (or perhaps the MADness of) what we might characterize as the RHS warriors! But, as with all such wars, the fallout is really what we should object to.

For, the use of these cross-country regressions to argue the case for trade openness, when in fact nuanced and in-depth studies argue the case much more persuasively, is to lay open the case for trade openness to attacks such as those of Rodrik and therewith to create the illusion that the case for trade openness is illusory. It is ironic, for example, that The Economist, having for long given star billing to

Sachs (through Invited Articles by him, heavily reliant on such regressions) and to the Sachs-Warner and other cross-country regressions (reported by its reporters and editors) in its recent support of trade openness, devoted an entire Economics Focus Column recently to discussing Rodrik's attack on them.[13] Perhaps it might have done better to have taken note of its own folly in highlighting these crude attempts at supporting trade openness in the first place!

In conclusion, therefore, we are happy to side with Anne Krueger's take on the positive link between open trade and growth performance, having found Rodrik's recent critique to be unpersuasive.

[13]Fortunately, the Economics Focus Column ("The Neverending Question," July 3, 1999) ended with a paragraph saying that the case for trade openness was best based on the in-depth and nuanced country studies. Unfortunately, the major Projects of the OECD, NBER et. al. that had done precisely this during the 1960s and 1970s were not cited.

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