

Testimony before the Trade Deficit Review Commission

September 9, 1999

Francisco Rodriguez

Department of Economics

University of Maryland

College Park, MD 20742

Rodrig-f@econ.umd.edu

301-405-3480

Can activist trade policy help to reduce the U.S. trade deficit? Is it desirable to use it to that end? Many policy analysts believe that, even though a reduction of the nation's trade deficit is desirable, an appeal to trade restrictions in order to do so can have more harmful than positive effects. Indeed, it is often suggested that this is a typical case where the cure may be worse than the disease. If the U.S. imposes trade restrictions in an attempt to lower its trade deficit, it is claimed, the ensuing retaliation by other countries and the negative efficiency effects of such measures would bring down American productivity and competitiveness substantially. The end effect may be to significantly lower the nation's welfare. Therefore many analysts rule out trade restrictions as a policy alternative to bring down the nation's trade deficit.

In my testimony, I wish concentrate on one particular yet relevant aspect of the discussion on the U.S. trade deficit, and it is this presumed negative efficiency effects of trade policy. Recent research by Dani Rodrik at Harvard University and myself has

questioned whether such effects actually exist. In particular, we have studied the cross-country evidence regarding the link between trade policy and economic growth and have found that there is no evidence of a relationship – positive or negative – between trade barriers and economic growth. We do not argue that protection raises growth levels – just that it does not seem to lower them. Therefore its usefulness as a policy initiative must be judged on its merits in terms of solving specific economic problems such as the U.S. trade deficit; their use must not be ruled out because of presumed yet empirically disputable efficiency effects.

The belief that trade barriers harm economic growth is widely held today among economists and policymakers. But what is the empirical evidence supporting this belief? Proponents of free trade often refer to a number of studies that have used cross-national data to establish a strong empirical link between trade policy and economic growth. Barriers to international trade, these studies conclude, are negatively correlated with economic growth once other relevant characteristics of countries are taken into account. For example, after running a battery of cross-country regressions of productivity growth on several openness indicators, Sebastian Edwards asserts that the results suggest “with tremendous consistency that there is a significant positive relationship between openness and productivity growth.” In another recent paper Xavier Sala-i-Martin shows that an indicator of openness borrowed from the work of Andrew Warner and Jeffrey Sachs is among the variables more consistently and significantly related to economic growth.’

¹ *Economic Journal*, 108, March 1998.

² “I Just Ran Two Million Regressions,” *American Economic Review* 87(2), May 1997.

In a recent paper³, we have argued that despite the results of these studies, there is little if any evidence that lower policy-induced barriers to trade are related to economic growth in the cross-country data. We have undertaken an exhaustive analysis of what we judge to be the most influential works in the field and argue that they suffer from severe methodological problems. We show that commonly the indicators of openness used in the literature are poor indicators of trade policy and are highly correlated with other measures of bad economic performance. We also show that the findings of these papers are often highly sensible to questionable methodological choices.

Our main point may be grasped by noting the following, commonly overlooked fact: there is no significant correlation between import tariffs and economic growth, nor between non-tariff barriers and economic growth. This finding is reproduced in Figures 1 and 2, where we show the correlation between economic growth and these indicators (after controlling for the level of income and GDP per capita). Some remarkably strong economic performers over the post-war period, such as Tunisia and Colombia, have had very restrictive trade regimes. But other countries with extremely liberal trade regimes, like Venezuela and Haiti, have experienced dismal economic outcomes. We have confirmed this finding – that tariffs and quotas are not related to the level of economic growth – across a wide range of time periods and alternative explanatory variables.

How then is it the case that there exists such a vast literature claiming exactly the opposite from what Figures 1 and 2 show? After acknowledging the poor correlation between some trade policy indicators and economic growth, many papers in the recent literature have pointed to substantial shortcomings in the tariff and non-tariff barrier data,

³ “Trade Policy and Economic Growth: A Skeptic’s Guide to the Cross-National Evidence,” CEPR Discussion Paper 2 143.

and have attempted to construct alternative indices that capture other aspects and effects of trade policy.

One example of this style of research is the paper by Jeffrey Sachs and Andrew Warner, “Economic Reform and the Process of Global **Integration**.”⁴ In this heavily cited paper the authors construct an openness index that takes account not only tariffs and non-tariff barriers but also other indicators of policy-induced trade barriers. In particular, these authors use in their openness indicator, in addition to tariffs and non-tariff barriers, (i) an indicator of whether the economy was socialist or not (ii) a measure of the existence of a state monopoly of exports, and (iii) a measure of the difference between the official exchange rate and the one that operates on the black market. Using these five variables, Sachs and Warner construct a policy variable that has a strong negative correlation with economic growth.

In our analysis of the Sachs-Warner results, we found that there were two variables that accounted for nearly all of the effect of their openness indicator on economic growth: the state monopoly of exports indicator, and the black market premium variable. But how much these variables pick up about trade policy is highly questionable. The state monopoly of exports variable is just an indicator of whether a country had an export marketing board in its main export commodity. The variable is taken from a 1994 World Bank study of African economies undergoing World Bank sponsored structural adjustment programs at the end of the eighties. Therefore, it does not rate as closed economies that had a state monopoly of exports but were not in Africa (such as Indonesia) nor economies that were in Africa but were not under structural adjustment during the late eighties (such as Mauritius). However, Africa during the period of study

was the slowest growing region in the world, and countries that undergo structural adjustment usually do so in response to poor growth performance. It seems likely that the state monopoly of exports variable captures mostly the negative effects of being in Africa and under structural adjustment, rather than any concrete effect of state export monopolies on economic growth. A similar problem is present with the black market premium variable: countries that have high levels of black market premia often do so as a result of exacerbated macroeconomic and political distortions. Indeed, of the 48 economies which Sachs and Warner rate as closed because of their high black market premia, 40 had one or more of the following characteristics: average inflation from 1975-1990 higher than 10%, debt/GDP ratio greater than 125% in 1985, a terms of trade decline of over 20%, an institutional quality index lower than 5 (on a scale of 1 to 10), or involvement in a war. The effect of the black market premium on growth proves highly sensible to whether these other variables are controlled for or not, suggesting that it may be telling us very little about the effect of trade policy per se.

Another attempt to construct an alternative openness indicator is David Dollar's 1992 article "Outward Oriented Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-85." Instead of constructing an openness indicator based on information on trade policies, Dollar constructs a price-based index. In particular, he rates an economy as having greater trade distortions if its internal prices are high relative to international price levels. Dollar's reasoning is that import restrictions affect resource allocation by raising the domestic price level of an imported good relative to its international level, discouraging domestic consumption and stimulating domestic production.

⁴ *Brooking Papers on Economic Activity 1995: 1, 1-118.*

However, Dollar's index is conceptually flawed. While it is true that import restrictions raise domestic price levels, import restrictions are not the only way of restricting trade. Many countries have indeed used *export* restrictions to achieve the same aim. But export restrictions do the opposite to internal prices than import restrictions: they lower them, because export restrictions work by discouraging production for export and encouraging domestic consumption. However, Dollar's index measures countries with export restrictions as being *more* not less outward oriented.

Aside from this theoretical flaw, we found evidence that the effect of Dollar's index on economic growth is sensitive to the precise specifications of his regressions. Indeed, the index's effect on growth is remarkably fragile to the introduction of alternative explanatory variables.

The existence of questions about the appropriateness of alternative indices for capturing the effect of openness on growth has led some researchers to focus on the general robustness of the findings. In particular, authors such as Sebastian Edwards have argued that, even if the effect of particular openness indicators on growth is not statistically significant, a finding that the overwhelming majority of openness indicators are positively related to economic growth should allow us to infer that trade barriers are harmful for growth. In his 1998 paper "Openness, Productivity and Growth: What Do We Really Know?"⁵ Edwards presents nineteen productivity growth regressions that use different openness indicators as explanatory variables as well as alternative econometric methodologies. He finds that in eighteen out of nineteen cases, the trade policy variables have the expected sign (indicating that greater barriers are harmful to growth), with the coefficient being statistically significant in eleven cases.

However, we have found that Edwards' results are particularly sensible to questionable econometric assumptions. In particular, Edwards' regressions assume that poor countries' data is less reliable than rich countries'. This is a sensible assumption, but the particular estimate Edwards uses of the magnitude of the differences in quality is not. For example, Edwards assumes that U.S. growth data is eight times as reliable as Ethiopian data. This assumption implies that if we observe Ethiopian growth over a ten-year period as averaging 4%, there is a 16% probability that it was actually lower than – 2%, and a 16% probability that it was higher than 10%. It is hard to think of a reason to be doing cross-country regression studies on a sample of primarily poor countries if we believe that their data is this uninformative.

We find that replacing Edwards' assumption about the magnitudes of the differences in quality among his variables by more reasonable numbers does away with his results. In fact, using more appropriate controls for quality differences we find that in 1/3 of his regressions the results indicate a positive effect of trade barriers on growth. Furthermore, many of the indicators that have a significant effect on economic growth do so only because of questionable assumptions about what variables can be assumed not to have a direct effect on economic growth.

The last paper that we discuss in depth is an article by Dan Ben-David called "Equalizing Exchange: Trade Liberalization and Income Convergence."⁶ The approach of this paper is quite different from that of the other works we review because it is based on a specific historical event – European Economic Integration – and it does not use regression analysis. Rather than concentrate on the effect of trade policy on growth, Ben-

⁷ *Economic Journal*, 108, March 1998, 383-398.

⁶ *Quarterly Journal of Economics*, 108(3), 1993.

David asks whether trade liberalization leads to a reduction in income disparities across countries. In particular, he picks one striking case of convergence in incomes -- that which occurred among the original members of the European Community in the postwar period -- and argues that it can be traced to their efforts to liberalize trade among themselves. In particular, he argues that income convergence among EEC countries can be attributed to trade liberalization because (i) it occurs precisely when trade is liberalized and is thus not the continuation of a long-run trend (ii) it is not present in other European economies, and (iii) it does not occur in other regions of the world which did not liberalize trade.

However, we show -- in great part based on new data which Ben-David did not have access to when he wrote his paper -- that there is a long-run trend of convergence in European incomes that spans most of the twentieth century. We also show that even countries which were not members of the European Community nor of EFTA were also converging to the incomes of other European countries. These two facts suggest that some factor or combination of factors not related to trade policy in Europe caused the convergence. Furthermore, we show that it is easy to find examples of cases of closed sets of contiguous economies that converged (Latin America from the 1920s to the 1980s) or of open economies that diverged (Latin America in the 1990s, East Asia from 1960 to 1988).

In sum, we find little evidence in any of these papers (nor in other work which we also discuss) that there is a systematic relationship between trade policy and economic growth. We are in fact skeptical that there is a general, unambiguous relationship

between these variables waiting to be discovered. We suspect that the relationship is a contingent one, depending on a host of country and external characteristics.

This belief should not be surprising to those familiar with the new endogenous growth theory. This view of growth has emphasized the effect of economic policies on innovation and the production of knowledge. It has suggested that particular groups of industries are likely to generate important externalities that are fundamental for sustaining long-run economic growth. Whether trade openness is conducive to greater economic growth in the models of the new growth theory is dependent on whether openness leads an economy to specialize in the goods whose production generates these external effects. Letting the forces of comparative advantage operate may be destructive of an economy's long-term growth prospects if these forces act to suppress emergent knowledge-intensive activities which can contribute to the economy's technological progress.

Our work should not be read as a call for a resumption of protectionist policies. We have shown that there is no evidence of a negative relationship between activist trade policy and economic growth. This is very different from finding a positive relationship, which we do not. What the evidence does suggest is the possibility that certain countries may – given specific conditions – not benefit from trade openness. Therefore, it also suggests that a more open and measured policy debate on trade policy within **countries** should focus on whether the conditions that can lead trade openness – or trade restrictions – to be conducive to greater economic growth are present or not. In the case of the United States, this debate should be carried out through discussions of the specific effects of trade barriers -- and other policy alternatives – on imports, exports, savings and

investment, and not with references to the disputable general efficiency effects of these policies.