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Demystifying the Principles of Comparative Advantage

Implications for Developing Countries

The current Doha Round of trade talks was supposed to help the world's poor. However, a range of disagreements has stymied the negotiations, and the latest round of multilateral trade talks has made almost no progress. The objective of these talks, as of those in the past, is trade liberalization, based on the assumption that the best way to raise global living standards is to maximize free trade. The origin of this policy prescription is the "principle (sometimes referred to as a law) of comparative advantage," which is "one of the crown jewels of the economics profession . . . the principle has shaped the way economists view the world, and it serves as the basis for our profession's overwhelming support of free trade" (Rodrik 1998, 3). Indeed, "this is one of the most important and still unchallenged laws in economics" (Salvatore 1987, 17). And Krugman in his article "What do undergrads need to know about

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trade?" said it all: the principle of comparative advantage and nothing more. The rest is "pop internationalism" (Krugman 1993: 23).

For practical purposes and from a policy point of view, this principle entails (Shaikh 2003) the following: lowering of tariff and nontariff barriers and reduction or elimination of subsidies; adherence to World Trade Organization (WTO) rules on intellectual property rights, customs procedures, sanitary standards, and treatment of foreign investors; adherence to various tax reforms; adherence to labor market reforms; and adherence to policy reforms designed to provide social support for displaced workers and technological support for displaced businesses.

Since the late 1970s, economists have developed models of trade that rely on increasing returns and imperfect competition (Helpman and Krugman 1985). For purposes of our discussion, the most important policy conclusion gained from these new models of international trade is that governments can often improve on free-market outcomes (e.g., by imposing import tariffs or offering export subsidies). One problem with these models, however, is that they are complicated in their outcomes and provide few unambiguous conclusions. The truth is that the advantages of strategic trade that appear in the new trade theories seem to be very few, not to mention the difficulties in translating the theoretical results into practical policy (Krugman 1996: 23–24). For this reason, Krugman, one of the fathers of these models, has argued that: "There is still a case for free trade as a good policy, and as a useful target in the practical world of politics, but it can never be asserted as the policy that economic theory tells us is always right" (Krugman 1987: 132). Samuelson (1985: 15) also argued for free trade as a "tolerable compromise."

The purpose of this article is to offer a critical review of the theoretical underpinnings of this theory, with a view to better understanding the case for liberalization and its implications for discussions about growth and development. Certainly, today's widely argued case for globalization rests on this principle. It should be made clear, however, that we are not asking countries to disengage from international trade talks. Our claim is simply that the principle of comparative advantage is inadequate to explain

what we observe in the real world. Many economists' quasi-obsession with the principle of comparative advantage stems from the fact that behind it lies the idea that the market mechanism will balance trade, and that the gains from trade outweigh the adjustment costs. We term this view regarding the advantages of liberalizing trade as "pop liberalism," to contrast it with Krugman's. If international trade were based, for example, on having an absolute advantage, the conclusion would be that trade will not make all nations equally competitive, and, perhaps, some sort of managed trade, selective protection, tariffs, or export subsidies, could be considered.[1]

The Principle of Comparative Advantage

Standard explanations of trade start by citing Ricardo's principle of comparative advantage, that is, the idea that even if one nation is less efficient than another nation in the production of two commodities, there is still a basis for mutually beneficial trade. This is the idea that trade is based on the principle of comparative advantage. The first nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity in which it has a comparative advantage) and import the commodity in which its absolute disadvantage is greater (this is the commodity of its comparative disadvantage).[2]

After stating the "law of comparative advantage," the next step is to emphasize that both countries gain by specializing in the production and export of the commodity in which each country has a comparative advantage. A problem that arises here is that there is a *free-trade dogmatic interpretation* of the above result that argues that free trade makes "everybody" better off. In the words of Samuelson: "This simplistic statement is an oversimplification" (Samuelson 1985: 7). It can be said that free trade increases worldwide efficiency. Indeed, free trade puts the world out on the global production possibility frontier. This is Pareto optimal in the sense that any gain by one group could only be realized at the expense of another group's loss. However, trade theory does not say that an improvement in price competitiveness in country A makes people better off in that country. It also does

not say that such an improvement makes people outside country A better off. The only thing that is true is that the welfare of one of the two groups will improve; and that the group hurt can be more than compensated for by the group whose welfare has improved, for example, through unilateral transfers. Therefore, overall, the improvement in competitiveness can potentially benefit everybody. But these are very different statements from those under the dogmatic interpretation.[3]

The final step is to ask: how is it possible that if nation A has an absolute disadvantage in the production of both commodities with respect to nation B (i.e., it has higher unit labor requirements), there will still be a basis for mutually beneficial trade? The answer is that wages in A must be sufficiently lower than wages in B, so as to make the price of the good in which A has the comparative advantage (i.e., the lower disadvantage with respect to B) lower in A, and the price of the good in which A has the comparative disadvantage lower in B, when both commodities are expressed in terms of the currency of the other nation.

The above implies three things. First, wages are introduced in the analysis to move from absolute to comparative advantage. Then, the argument is that it is not enough to have lower wages or lower unit labor requirements. Comparative advantage depends on both relative productivities and relative wages. This leads to the notion of unit labor costs—the ratio of the wage rate to labor productivity. Thus, it is argued that the claim that a country needs to protect the high wages and standard of living of its workers against cheap labor, the so-called *sweatshop labor* argument, is a myth (Krugman and Obstfeld 1988, 25). Similarly faulty is the opposing argument that labor in the developing countries needs protection against more efficient labor from the developed countries. "These arguments are certainly inconsistent, and both are basically incorrect" (Salvatore 1987, 23). However, as Fagerberg (1988) noted, the approach to international competitiveness based on the comparison of unit labor costs "is incompatible with neoclassical equilibrium theory. In perfect competition, prices and quantities will always adjust, resources (including labor) being fully utilized and balance-of-payments equilibrium ensured. Thus, economists defending the

hypothesis of the detrimental effects of growing relative unit labor costs have always had to assume some degree of imperfect competition or disequilibrium" (Fagerberg 1988, 356).

Second, the argument implies that wages are determined by labor productivity. And third, that for comparison purposes, wage rates have to be converted into a common currency. Thus, how is balanced trade achieved in this framework? At a given exchange rate, it is possible that trade may be unbalanced because one product, after conversion, is too expensive and cannot be exported. Then the exchange rate will have to adjust. In the end, the argument goes, the exchange rate between the two currencies will eventually settle at the level that will result in balanced trade.

It is important to stress at this stage that the theory of comparative advantage is usually presented in two different forms. First, it is presented as a normative proposition about what should happen under free trade. The claim is made that under certain assumptions, trade is beneficial, because it enhances welfare. Second, it is presented as a positive statement about the actual tendencies (facts and behavior) of trade among nations. The former claims that free trade will automatically make all nations equally competitive in the world arena, *no matter how different their existing levels of development* (Shaikh 1996). The theory admits that such differences may initially produce trade patterns in which the strong dominate the weak. But it argues that if market forces are allowed to prevail, they will drive the real exchange rate to the level that will make trade balance among all countries. However, no such tendencies are discernible in real life. In the words of Cohen: "History has shown itself to be cruel in this respect. The idea that trade is a factor of self-fulfillment in all places and at all times is theoretically naïve and historically false" (Cohen 1998: 34).

In fact, the way economists today slip from how trade actually operates (positive economics) to how trade should operate (normative economics) is, in our view, an issue of serious concern (Shaikh 2003). This sloppiness leads to unsubstantiated claims about trade and its effects. Claims derived from models (positive statements) should be contested on empirical grounds, and value judgments should not be made out of them. Suppose country A

(e.g., China) is "cheaper" than country B (e.g., Thailand) (this means that China has an absolute advantage over its competitors). Then, this absolute cost advantage (and by default, the corresponding absolute cost disadvantage of the trading partner) is presented as a comparative cost advantage for both China and Thailand, in the sense that if each country exported to one another the good for which each has the relative advantage, there would be an overall gain. Initially, trade could be unbalanced, but eventually, the real exchange rate will move in the right direction and trade will balance. From here, the argument jumps, and one is told that countries should trade because they will be better off, and that the terms of trade will move so as to equilibrate trade.

The claim that trade is regulated by the principle of comparative advantage (and not by absolute advantage) is taken for granted and is supported by rather controversial and not definite and settled empirical evidence. In this sense, it is important to evaluate theory against reality. As indicated above, the theory argues that the terms of trade will automatically adjust until trade is balanced. This implies that within an acceptable time frame (perhaps a decade or so), this is what we should see. However, this is hardly what we observe in real life, and, in fact, trade imbalances are the norm (Davidson 1994; Harvey 1999). One way the time-horizon issue over which the theory is supposed to hold has been dealt with is by arguing that it is a long-run proposition. Shaikh (2003), citing work by Rogoff, indicated that the long run has been defined as meaning seventy-five years or longer. But, this leaves one unable to explain what happens during his professional lifetime.

Finally, nothing has been said so far about unemployment. This is because the principle of comparative advantage presumes full employment: there is no overall job loss generated by the process of specialization. At most, it is accepted that there is some transitional adjustment. Without this assumption, it is possible that the gains from trade can be outweighed by job losses. The real world is characterized by unemployment. The standard argument that free trade optimizes resource allocation depends on the assumption that resources are fully employed. However, if unemployment were to arise in the process of specialization and

resource allocation, the resource gains from specialization might be offset by resource losses from unemployment. Recall that the emphasis in the doctrine of comparative advantage is on the real economy, while the monetary consequences (via balance of payments) of trade for growth are ignored. If, on the other hand, the balance-of-payments does not self-equilibrate, unemployment may develop. The standard reply to this is that the economic case for gains from trade depends on the restructuring of national economies by the forces of trade (Rodrik 1998). That is, specialization requires restructuring. In the words of Rodrik: "the dislocations and distributional consequences produced by trade are the flip side of the efficiency gains. No pain, no gain! Globalization cannot be a source of all the wonderful things that its boosters often ascribe to it if not also responsible for many of the adverse effects to which its detractors point. On the other hand, if the distributional impacts have been small, the net gains have been small in all likelihood as well" (Rodrik 1998: 6).

The Perils and Pitfalls of the Theory of Comparative Advantage: Some Economic Myths That Everybody Should Be Aware of

At the time Ricardo wrote, he was right that England had a comparative advantage in making cloth and Portugal in making wine. But this was not the result of economics, and it did not prove the superiority of free trade (Magdoff 1978, chapter 5). History reveals that the comparative advantages of England and Portugal had their origin not so much in economics as in politics. "The comparative advantage that mattered was rooted not in soil or labor productivity, but in the superiority of British sea power and in Portugal's inability to hold on to its overseas empire without the protection of the British navy" (Magdoff 1978: 156). Magdoff described in detail the economic and political relationships between England and Portugal, going back to the fourteenth century. The fate of the two countries was sealed in a series of treaties agreed upon between the seventeenth and eighteenth centuries, when England, in exchange for its military help to Portugal to maintain

its colonies, imposed the conditions that enforced an international division of labor, "celebrated up to this day as a prime example of the virtues of objective and independent economic laws" (Magdoff 1978: 156). These treaties fostered Portugal's economic dependence on England by opening the door to English ships in Portugal and in Portugal's African and Indian territories. Moreover, they gave special privileges to English traders in Portugal and required that Portugal buy all its ships from England.

Portuguese dependence on England achieved its maximum through the Methuen Treaty of 1703. The background to this Treaty is as follows. During the last years of the seventeenth century, Portugal had developed a protectionist policy, which materialized in forbidding its people to wear foreign cloth. Simultaneously, Portugal had made successful efforts to stimulate the domestic manufacture of cloth. This negatively affected British manufacturers and merchants. At the same time, while British people preferred the lighter French wines to the heavier Portuguese wines, wars with France and France's own protectionist policies induced Britain to search for other sources of wine. Finally, gold had been discovered in Brazil. The Methuen Treaty stipulated that Portuguese restrictions on English cloth and woolen manufacture be lifted. In return, Britain guaranteed a lower tax on Portuguese wine than on French wine. The result was obvious: Portuguese cloth manufacture was strangled in its infancy. "Free trade" ruined Portuguese industry. Instead of developing a dynamic garment and textile industry, Portuguese capital flowed massively into wine making, even affecting investments in corn and other foodstuffs. On the other hand, England expanded its garment and textile industry, and the achievement of larger-scale production meant a reduction in costs. Indeed, English competitiveness in the sector increased. The discovery of gold in Brazil also played its role in these arrangements. In time, the Portuguese economy, with its lack of a well-developed manufacturing sector, became very dependent on England. While trade between the two nations increased, Portugal's imports of goods from England exceeded the latter's imports from Portugal. Moreover, a great share of ocean trade between the two nations was transported in English ships, thus intensifying

Portugal's unfavorable balance of payments. How was this settled? The gold mined in Brazil was used to settle Portugal's accounts with England. This had another effect: it helped London become the world's bullion market, and eventually helped London to take over the role of main financial market from Amsterdam. In other words, dominance in trade was closely related to dominance in financial markets.

This brief historical tour indicates that there is much more about the development of the theory of comparative advantage than standard textbooks tell. More important, perhaps, than the Ricardian example of trade between England and Portugal in historical perspective is the relation between England and Asia. In fact, Portugal—and to a lesser extent Spain—the Netherlands, and England, had successfully dominated the trade routes to the east. As noted recently by Pomeranz (2000), until around 1800, the living standards in the West, including England, were not very different from those in the East, particularly in China. In fact, if anything, trade with Asia—starting with the trade and silk routes dominated by Arab, Venetian, and Genoese merchants and going into the nineteenth century—was the result of Western demand for the more developed and sophisticated Eastern goods (e.g., silk, cotton textiles, species, porcelain, rugs, etc.). Further, Pomeranz (2000) showed that several measures of well-being demonstrate that China was ahead of Europe. Grain and sugar consumption was higher, as was caloric intake. Furthermore, wages were generally higher; in particular, Chinese textile workers received higher wages. More importantly, life expectancy measures show that China was not lagging behind. This is the inescapable conclusion one must derive from Maddison's (2000: 29–41) data.

The new emphasis on the similarities between Western Europe and China up to the late eighteenth and early nineteenth centuries is certainly important. However, the emphasis on similarities should not obscure the big difference associated with Western European dominance of long-distance trade. Tables 1 and 2 show that between the great discoveries and the Industrial Revolution, Western Europe maintained its importance in international trade, at around 50 percent, while Asia lost its competitive edge.

Table 1
Trade Patterns Circa 1500 (values expressed as a % of world trade)

Origin	Destination			
	Asia	Europe	Africa	World
Asia	29	20	1	50
Europe	14	30	1	45
Africa	2	2	1	5
World	45	52	3	100

Source: Ferrer 1996.

The dominance in long-distance trade reflects a more advanced naval technology and, more importantly, more developed weaponry (Landes 1998). Not only did Western Europe dominate the trade routes that connected it with Asia, but also Portuguese, Dutch, and British ships dominated a good part of intra-Asian trade. Between the great discoveries and the Industrial Revolution, the European share in total world trade increased—mostly because intra-Asian trade and intra-American trade were dominated by Europeans—while that of Asia decreased drastically. However, if Asia was not lagging behind technologically and Asia's living standards were close to those in the West, how did Asia lose its trade position?[4]

The analysis above leads us to conclude that comparative advantage was "historically created" as the result of colonialism, wars, nationalist rivalries, and military power. When England started specializing in manufacturing and industrial production, it had to find countries that were willing to import. Portugal was one of them, but it was a very small market. Other markets were needed. The other large and powerful countries of Europe were trying to catch up with Britain and were also developing their industrial base. "In practice, trade could occur only with countries that were under British rule. When India was flooded with British products, the result was total destruction of its industrial base" (Cohen 1998: 36). In the early nineteenth century, India was a net exporter of textiles, and its cottage industry was well developed. However, by the end of the century, three-fourths of the textiles consumed in

Table 2
Trade Patterns Circa 1800 (values expressed as a % of world trade)

Origin	Destination				
	Europe	Asia	America	Africa	World
Europe	20	8	10	2	40
Asia	15	15	—	—	30
America	15	—	5	—	20
Africa	1	2	6	2	10
World	51	24	21	4	100

Source: Ferrer 1996.

India were imported from England. "But the tragedy did not stop here" (Cohen 1998: 36). India produced wheat and other food crops. However, England preferred to import these from the United States, with the consequence that it left India with exports of cotton, jute, and indigo. This meant that India was forced to specialize in the cultivation of products that did not guarantee its own food supply. India saw itself facing famines, importing basic products, and, each time the world's state of affairs was unfavorable, not being able to afford to import food. Magdoff, quoting historian Carlo Cippola, summarized this state of affairs brilliantly:

> The story of the East India silks and calicoes that were imported into England and caused difficulty for the English textile industry is so well known that it does not need to be told here. It was fortunate for England that no Indian Ricardo arose to convince the English people that, according to the law of comparative costs, it would be advantageous for them to turn into shepherds, and to import from India all the textiles that were needed. Instead, England passed a series of acts designed to prevent importation of Indian textiles and some "goods results" were achieved. (Harry Magdoff, *Imperialism: From the Colonial Age to the Present* [New York; London: Monthly Review Press, 1978], 159)

There is one more anecdote to add (Cohen 1998: 36–37). The British discovered that the Indians were good at cultivating the poppy plant, for which the main market was nearby China. The Chinese authorities were aware of the terrible effects of opium and wanted

to forbid its trade. What did England do? It declared war on China in order to force open its ports to poppy imports. China had to give in, and opium was free to enter. Liberalism was enforced in most of what used to be called the Third World. Unequal treaties were signed between 1810 and 1850, mainly as a result of British pressure (Bairoch 1993: 41).[5] There are many other examples. The important conclusion is that the examples show that there is a correlation between the early deindustrialization of the Third World and the industrialization of the First World (Shaikh 2003).

Ricardo's discussion of comparative advantage is framed by his concern with the dynamic process of capital accumulation. The policy that Ricardo proposed was liberalization of grain imports, or more specifically, the repeal of the Corn Laws that had imposed a tariff barrier on the import of cheap grain from abroad as part of the mercantile system. Ricardo argued that superior lands should be available in infinite amounts not within Britain, but in the world, including on new continents. The repeal of the Corn Laws was a necessary condition to sustain modern economic growth that began with the Industrial Revolution. As such, Ricardo provided to the emerging bourgeois class a theoretical edge with which to fight the vested interests of landed aristocracy and gentry.

This is the historical context in which Ricardo included no more than a couple of pages on comparative advantage. Ricardo saw the incipient capitalist mode of production as the most advantageous for the creation of wealth and, thus, saw the importance of capitalists in this process. Ricardo was ruthless toward the English aristocracy, because it was siphoning the surplus due to the high prices of corn.[6] The solution was to import corn. When Ricardo set out the case against protection, he was supporting British economic interests.

The failure to understand Ricardo's theory of distribution has led people to misunderstand what was important to Ricardo about foreign trade. As Walsh indicated, "Ricardo did not invent the idea of comparative advantage, since it was current in his day, and in any case it did not bear on the case of foreign trade which dominated all his thinking: the influence of a low price of imported corn (a 'necessary') upon profits" (Walsh 1992: 15–16). It was obvious to

Ricardo that England had an absolute advantage in manufacturing. On the other hand, England had to cultivate corn on hillsides of very low quality. Ricardo reasoned that importing corn would lower the cost of the real wage, thus raising the rate of profit. In other words, Ricardo's analysis of the effect of importing corn, and in general of foreign trade, has to be understood in the context of the effects on the rate of profit and his theory of distribution. Neoclassical trade models, unfortunately, obscure these questions.

Finally, it is worth mentioning that the free trade agenda being pushed today is somehow awkward in light of the historical record and the role that managed trade played in the rise of the advanced world. Shaikh (2003) lucidly documented how today's developed countries adopted free trade only when they were already leading competitors in the world market, i.e., when it was to their economic advantage. The policies of the rich countries at the time included not only protectionism and state intervention, but also colonization, pillage, slavery, and the deliberate deindustrialization of the Third World. In simple terms, there are no examples of countries that have achieved strong growth rates of output and exports following wholesale liberalization policies.[7] In this vein, it is therefore disconcerting that developing countries are asked to transform their institutions into the ones that developed countries have now. But these are not the ones today's developed countries had when they were industrializing. As Shaikh (2003) indicated, in 1820, the United Kingdom did not have many of the most basic institutions that India has today.[8]

An Alternative View

Understanding the limitations of the principle of comparative advantage, and the historical context in which it was developed, allows us to analyze alternatives to it. If we admit that unemployment may be a relevant feature of the economy, and the possibility that the balance of payments becomes unstable, then trade patterns may depend on absolute advantage. The instability of international financial markets and the role of trade and industrial policy are then seen in another light.

It is curious that, in the context of a single nation, standard economic theory assumes that competition is ruled by the law of absolute advantage (or costs); that is, firms with the lower unit costs enjoy an absolute competitive advantage, which implies that customers buy from the firms that sell at lower prices (Shaikh 1996). Competition between countries, however, is ruled by comparative advantage. This is due to the existence of different national currencies. Trade adjustment is done through changes in the real exchange rate. Conventional trade theory argues that neither technological backwardness nor high costs are a disadvantage in international trade. Real exchange rates always move in such a way as to make all trading partners equally competitive so that no country will suffer persistent trade deficits or enjoy persistent trade surpluses. The trouble with all this is that it does not fit the facts. Why can it not be that international trade operate in essentially the same manner as national trade, that is, ruled by absolute costs, as Adam Smith argued, so that producers with lower unit costs will be able to cut prices and expand market shares at the expense of their rivals? In this case, producers with the lowest costs will be the ones able to drive the market price of products. Is it possible that international competition does not operate as an equalizer, and that, in fact, it rewards the low-cost producer, the same as does competition within a nation?

According to the conventional view, international financial markets are well-behaved. Capital flows smooth out the pains of balance of payments adjustment, which are resolved by changes in relative prices. Even if one admits changes in the level of activity, these are seen as temporary, because the economy eventually reaches the natural rate of growth. In fact, capital flows are often seen as the result of trade (real) imbalances and do not have a life of their own. That might, perhaps, have been a reasonable explanation of the functioning of international financial markets in the late eighteenth or early nineteenth centuries, when Hume and Ricardo wrote about the subject.[9] This view, however, is less appealing in the twenty-first century.

The recent wave of financial crises has revived the Keynesian view that international financial markets may very well be unstable

and prone to crises. For example, a country may receive inflows of capital as a result of the increasing confidence of international financial markets on its ability to grow—say, for example, that the main reason is a recent history of fast growth. The inflows of capital lead to an increase in imports, and to an appreciation of the domestic currency. Both effects tend to lead to a worsening of the trade account.[10] The trade deficit is not necessarily a bad outcome. If these inflows are used to buy machines and equipment and lead to higher investment and higher productivity, one would expect that exports in the future would more than compensate the initial deficits. In this case, the inflows would be sustainable, and there is nothing to worry about.

On the other hand, if the inflows are used for consumption, and there are no prospects of higher exports, then one might be in trouble. Also, the appreciation of the currency, caused by the capital inflows, may force competitive firms out of business. This hardly has anything to do with lack of comparative advantage, because the only reason for failure is an appreciated exchange rate. Often, countries in this situation would hike interest rates to attract capital flows and allow the trade deficits to continue for a while. This only makes things worse, because continuous inflows keep the exchange rate appreciated, and the high interest rates compress domestic investment. A trap of low growth and an unsustainable balance of payments are the results. The final crisis is usually triggered by some outside event that leads to capital flight and depreciation of the domestic currency.

Depreciation, however, is also contractionary. A depreciation means that those with debts in foreign currency (and usually revenues in domestic currency) have a prospect of a higher debt-servicing burden. Also, it is common to encounter a situation in which international debts are contracted short-term, while the revenues to pay them back have a long-term nature. Hence, the currency and term mismatches mean that debtors are bankrupted, leading to lower levels of activity, lower growth, and higher unemployment.[11] It is the contraction of output, and the consequent fall in imports, that helps adjust the balance of payments (e.g., what happened during the East Asian financial crisis). Debt

restructuring, unemployment, and lower rates of growth for long periods tend to follow.

In other words, international financial markets can make the balance of payments adjustment process quite painful. That was the reason why Keynes advocated capital controls during the Bretton Woods conference. It is also behind the argument put forward by Stiglitz (2002) that the two countries that escaped the Asian financial crisis were China and India, the two countries with the more comprehensive foreign exchange controls. Or, more dramatically, this is also the reason why *The Economist*—a bastion for defenders of free trade in goods, services, and capital flows for decades—has finally admitted regarding liberalization of capital flows that "the anti-globalists are on to something," and that in this light, "for some countries, imposing certain kinds of control on capital will be wiser than making no preparations at all" (Crook 2003: 4). Even Krugman (1998) has advocated capital controls in the face of severe balance of payments crises.

One may then ask: if capital flows have an important impact on the trade account, and countries may get into serious balance-of-payments crises, what then determines a country's pattern of specialization? Adam Smith, long ago, gave a reply that does not depend on the self-adjusting nature of the balance of payments. As is well known, for him, the wealth of nations depended on the division of labor (technical progress). And, the latter depends on the extent of the market.

Let us say that a certain economy maintains a relatively closed capital account. Hence, the country is protected from inflows of hot money that tend to leave when they are needed (e.g., China). In this economy—in particular, if domestic markets are relatively small—the search for foreign markets generates directly higher rates of production and output. More importantly, export orientation, which should not be confused with openness, by forcing the economy to work at near full capacity, promotes technical progress. As the saying goes, "necessity is the mother of invention." That is, economies under pressure of increasing demand need to create new processes of production, new forms of organization, and new products to be ahead of demand. The technical developments,

in turn, generate higher levels of output and income, which translate into a new expansion of demand, and a cumulative process of accumulation follows.[12]

According to this view, policies that promote full employment and demand growth are desirable, because they are self-reinforcing. One must note, however, that we presumed that the capital account tends to be relatively closed for the cumulative causation process to work. If that were not the case, then interest rates would be higher, on average, to attract capital flows and avoid capital flight, leading to negative consequences on costs. Also, another caveat is important: macroeconomic policies that promote full employment, as well as trade and industrial policies, may all help launch the cumulative process of accumulation, but those policies should not be equated with unmitigated protectionism. However, selective management of trade and industrial policies should not be ruled out, because developed countries used those instruments in the past.

Why Countries Care About Exports

Classical economists since Adam Smith excoriated the Mercantilist school of the sixteenth and seventeenth centuries for emphasizing the importance of exports over imports and the accumulation of foreign reserves in the form of coins and precious metals as a measure of a country's wealth and power (Buchholz 1999; Keynes 1936; Routh 1989). For the mercantilists, domestic prosperity was directly dependent on a competitive pursuit of markets and an appetite for precious metals. On the other hand, neoclassical economics argues that real wealth should be gauged by the standard of living of households, and that wealth must be measured from the viewpoint of a nation's consumers.[13]

The view from the street is that it is "better" for a country to run a trade surplus than a trade deficit, and there is no doubt that there is a peculiar advantage to a country in a favorable balance of trade, and grave danger in an unfavorable balance, particularly if it results in a loss of reserves. The reality is that countries like Japan, Germany, South Korea, Taipei, China, Singapore, or Hong Kong,

China are seen as successful precisely because they have run trade surpluses for years and accumulated massive foreign reserves. Today, China runs a positive trade balance and holds a record US$470 billion in foreign reserves (as of September 2004).[14]

Are these countries simply wrong in terms of economic theory, or is there a rationale for such behavior? The purpose of this section is to show that there is a rationale behind the popular view that countries prefer trade surpluses, and a reason why countries pursue them in real life. In this sense, the mercantilists were, after all, on to something. It is also worth mentioning that Keynes's (1936) chapter 23 of the *General Theory* is entirely dedicated to mercantilism, a chapter worth reading for it dispels a great deal of misunderstandings about what the mercantilists said and, perhaps more important, did not say. Keynes advocated protectionism whenever British interests made this advisable. During the Great Depression, Keynes rediscovered an element of *scientific truth* in the mercantilist postulates. At the time, Keynes viewed the gold standard as responsible for the prevalence of unemployment. Under this regime, there was no means to fight unemployment other than to try to attain an export surplus at the expense of the neighbors. Keynes' polices were aimed at attaining an optimum level of domestic employment in all countries. Keynes was aware that this was dangerous and not so simple. One may claim that Keynes overstated the theoretical sophistication of the mercantilists arguments. However, it is clear from his assessment that the opposite view—that makes mercantilists a bunch of greedy simpletons—is less accurate.

We turn now to a simple model that justifies why countries care about having trade surpluses and provides some justification for neomercantilist policies in a modern guise. The foregoing argument follows Kalecki (1991) and Blecker (1999). Kalecki started from the definitions (identities) of output from the demand and income sides. The first one is $Y = C + I + G + X - M$, where Y denotes output, C is private consumption, I is private investment, G is government expenditures, X denotes exports, and M denotes imports. Private consumption can be disaggregated into workers consumption (C_W) and capitalist consumption (C_K), i.e., $C + C_W$

+ C_K. The identity from the income side is $Y = P + W + T$, where P denotes after-tax profits, W is the wage bill, and T denotes taxes. Wages are either consumed (C_W) or saved (S_W), i.e., $W = C_W + S_W$. Combining these expressions, all of them identities, leads to an accounting identity for profits:

$$P = C_K + I - S_W + (G - T) + (X - M) \tag{1}$$

Expression (1) indicates that the profits that the owners of capital receive equal the sum of their own consumption and investment spending ($C_K + I$) less workers' savings (S_W) plus the government deficit ($G - T$) and the trade surplus ($X - M$). It must be emphasized that expression (1) is an identity, not a behavioral equation. In this sense, every economy must satisfy it *ex post*, i.e., no matter the behaviors of each variable on the right-hand side. In this sense, it can be viewed as a constraint on the economy.

Economists like Kalecki and Kaldor assumed that workers consume all their wages and, therefore, do not save ($S_W = 0$). With this in mind, expression (1) indicates, first, that capitalists get in the form of profits (P) what they spend on their own consumption (C_K) and private investment (I). Moreover, a trade surplus ($X - M$) or a government deficit ($G - T$) enables capitalists to earn "extra" profits in excess of their own expenditures. Why does a trade surplus add to capitalists' profits? A trade surplus represents the excess of national income over domestic expenditure (i.e., $Y - C - I - G$) due to the excess of exports over imports. This difference can be considered "extra" profits. On the other hand, a government deficit represents the excess of private-sector earnings over private-sector spending, financed by private lending to the government.

As already emphasized, expression (1) is an identity. However, Kalecki implied that there was causality from the right- to the left-hand side, that is, from the expenditures that generate profits to the amount of profits realized. To argue his point, Kalecki offered a simple model of profit determination. To this purpose, as noted above, he argued that worker's savings were a constant, often assumed zero. Therefore, $C_W = W$. Also, he specified the following function for capitalists' consumption:

$$C_K = c + \sigma P \tag{2}$$

that is, a linear function of profits (P), where σ denotes the capitalists' marginal propensity to consume out of profits. By substituting these two expressions for workers' and capitalists' consumption into expression (1), we obtain the solution for the equilibrium level of profits, namely:

$$P = \frac{c + I - S_W + (G - T) + (X - M)}{1 - \sigma} \tag{3}$$

It is obvious that expression (3), no longer an identity, is a multiplier formula with a profit multiplier of $1/(1 - \sigma)$, and with all the variables in the numerator taken as given or predetermined. The equilibrium level of profits occurs at the point where the demand for profits [the right-hand-side of expression (1), and where capitalists' consumption is given by Equation (2)] equals profit income (P). This equilibrium is stable as long as $\sigma < 1$.

Equation (3) can be transformed into a solution for total income (Y) using the identity for the profit share in national income that $\pi = P/Y$. This yields:

$$Y = \frac{C + I - S_W + (G - T) + (X - M)}{(1 - \sigma)\pi} \tag{4}$$

Behind these results, there are several important aspects worth commenting on. First, Equation (4) indicates that the equilibrium level of national income depends on its distribution between wages and profits via π. Second, Equation (4) shows that the level of national income is inversely related to the profit share. This is referred to as *stagnationism* or *underconsumptionism*, implying that a redistribution of income toward profits causes output to decline. Or, from the opposite point of view, economic expansion is "wage-led," in the sense that redistribution toward wages, i.e., increase in $(1 - \pi)$ leads to an increase in income. It must be emphasized that this important result follows from the fact that in this simple model, there is only one macroeconomic consequence

of a redistribution of income toward profits, namely, to raise the marginal propensity to save, which has a contractionary effect.[15] Third, equation (4) also indicates, assuming a given level of workers' savings and a given budget deficit, that an increase in the trade surplus $(X - M)$ shifts the demand for profit income as the higher trade surplus must be matched by higher capital outflows which must be financed out of higher profits. In equilibrium, the higher aggregate demand implied by the increase in the trade surplus generates additional sales of firms that increase their profits until a new equilibrium level of income profit (e.g., P′) is attained. How much is this increase in profits? From equation (3) it follows that

$$\Delta P = \frac{\Delta(X - M)}{1 - \sigma},$$

where under the assumption that $\sigma < 1$, $\Delta P > (X - M)$. This is because capitalists' consumption rises endogenously, which creates both additional demand for profit finance and extra aggregate demand (which induces the necessary profits).

The last point above implies that there exists a rational basis for countries to achieve and maintain trade surpluses for these tend to increase the profits of domestic firms. Certainly this model is very simple and, as pointed out in the note above, the result that there is an inverse relationship between the level of income and the profit share may change in a more complicated model. But at the same time, this simple model provides with some intuition as to why, in real life, countries pursue trade surpluses.

Consider again equation (4) above, which shows the inverse relationship between output and the profit share. If firms use a simple mark-up model where prices (p) are set according to a mark-up (τ) on wages (w) adjusted by productivity (Y/L), that is, $p = (1 + \tau)\ [w/(Y/L)]$, it implies that capital's share can be written as $\pi = \tau/(1 + \tau)$, referred by Kalecki as the degree of monopoly. Assume a situation where workers win large wage increases and firms respond by cutting their mark-ups, while still raising prices to some extent. Under these circumstances, we have to consider two offsetting

effects. First, the profit share π will fall. As income is redistributed to workers, that is, $(1-\pi)$ increases and these have a higher marginal propensity to consume than capitalists, equation (4) indicates that the multiplier $1/(1-\sigma)\pi$ will increase and, consequently, so will output. In other words: a higher degree of monopoly leads to a lower level of income. Second, as prices tend to increase through the mark-up mechanism, they will become less competitive in international markets, *ceteris paribus*, thus lowering the trade balance $(X - M)$ also in (4). This is the offsetting effect. This indicates that the overall result on output of a redistribution of income towards workers is ambiguous and depends on which of the two effects dominates.

Finally, note that in the simple model presented above, governments can capture foreign profits for domestic oligopolies directly through low wages or depreciated currencies without any need to intervene in the industrial structure by picking winners. This is quite different from the neoclassical literature based on models of strategic interaction between national oligopolies (Krugman 1987, 1996), where government would need incredible levels of information to choose the actual winners.

Conclusion

This final section summarizes what we know about trade and draws some implications:

(i) We know that free trade based on comparative advantage and free mobility of capital to allow the self-adjustment of the balance of payments can only work under very restrictive conditions. The consensus in the 1990s was that policies leading to the liberalization of trade were the only ones that were coherent according to economic theory, and, as a result, the only ones that intelligent people would defend. Only cranks would argue otherwise. However, a long tradition of dissent within the economic profession, and an overwhelming amount of empirical evidence, indicates otherwise.

(ii) Absolute advantage, determined ultimately by low costs of production and/or depreciated currencies, seems to be far more important than comparative advantage in the determination of trade patterns. Developing countries that pursue "neo-mercantilist" policies to enhance the competitive position of their firms may in fact be doing something rational, leading to higher rates of growth and higher levels of productivity that would imply higher living standards for their population. Also, the avalanche of financial crises in the 1990s, shows that the prescriptions of *pop liberals* were unfounded; and that balance of payments disequilibria are seldom benign and self-adjusting. Crises are cumulative and the costs of adjustment severe. The Asian crisis and the more recent one in Argentina make the point very clear.

(iii) Simply opening up the markets of a developing country exposes its businesses to powerful international competition, whether or not these firms are internationally competitive. International competition is not a great equalizer. If trade liberalization is not a panacea, how should developing countries try to proceed? History and competitive advantage theory suggest that the most appropriate procedure would be to consider trade liberalization in a selective manner, as individual industries become sufficiently competitive in the world market. This will be accomplished through a *social push*, along with clear standards and deadlines, as in the case of South Korea, and it may be necessary to protect industries that are modernizing (Shaikh 2003).

(iv) The above is not to imply that countries should resort to protection and direct intervention in foreign trade, except if used as temporary measures. An option that is often contemplated is suppression of wages. This may have a short-run positive impact, but unless it is tied to a plan of modernization whose target is to reduce the gap between national and international rates of growth of productivity will simply lead to an impoverishment of the

working population and to a deterioration of the functional distribution of income, compromising the social and political stability of the country. Modernization is the only true alternative. And this is achieved by raising the growth rate of productivity. This requires a clear program that would include the provision of improved levels of health care, primary education and physical infrastructure, essential for raising living standards.

Notes

1. John Williamson (1990) included trade liberalization—a move toward free trade—as one of his ten items of the so-called Washington Consensus that dominated economic policies in the developing world during the last decade.

2. It is important to distinguish between the Ricardian theory of comparative advantage (based on differences in labor requirements, but the model does not explain why differentials in productivity arise) and the Hecksher–Ohlin model of comparative advantage. The latter is based on differentials in factor endowments as an explanation for the determination of comparative advantage. Moreover, this model also analyzes the effect of international trade on the earnings of factors of production in the two trading nations.

3. Shortly before submitting the final version of this paper, we learned that a forthcoming issue of the *Journal of Economic Perspectives* will contain a paper by Professor Samuelson, in which he makes similar points and questions the alleged benefits (for *everyone*) of globalization. Unfortunately, we have not been able to see his paper.

4. Several technological innovations, such as the compass, the multimast boat, gunpowder, paper money, and the printing press, were, in fact, Chinese.

5. One of the main consequences of the forced liberalism of the Third World was late industrialization. Bairoch correctly pointed out that "there is no doubt that the Third World's compulsory economic liberalism in the nineteenth century is a major element in explaining the delay in its industrialization" (1993: 53).

6. Ricardo eventually became a Member of Parliament (MP) and was aligned with the so-called radicals. His political thinking was far more progressive than usually assumed. For a full discussion, see Milgate and Stimson (1991).

7. Japan and the East Asian newly industrialized countries (NICs) are the classic examples of successful development through the application of highly selective trade policies. On the other hand, Chile (1974–79), Mexico (1985–88), and Argentina (1991) followed wholesale liberalization. The results were outrageous. Liberalization not only wiped out weak sectors of the economy, but it also came at a great social cost.

8. See also Chang (2002).

9. That was not Ricardo's view, however. Marcuzzo and Rosselli (1986)

make a convincing case that Ricardo did not believe in Hume's specie-flow mechanism.

10. As one can see, in this view, the trade account is the result of decisions taken in the capital account of the balance of payments.

11. Banks are hit particularly strong. The result is what is often referred to as the twin crises (banking and balance of payments).

12. One should note that Krugman is not unaware of the notion of cumulative causation. In fact his work on economic geography delves into the topic favorably.

13. One should note that neomercantilist ideas survived the onslaught of the classical and neoclassical criticism. Alexander Hamilton, Friedrich List, the German Historical School, Raul Prebisch, and others, defended policies that resemble, in part, the mercantilist views.

14. Of course, it is legitimate to ask if maintaining such a high level of reserves is necessary and wise.

15. This result follows, because in this simple model, workers' savings, government deficit, investment, and trade surplus are exogenous. When these variables are endogenized, the inverse relationship between the level of income and the profit share becomes more complicated. In this case, the two variables may be positively related in some circumstances. Bhaduri and Marglin (1990) showed that, in the Kaleckian framework, there is room for a profit-led expansion. Some structuralist authors (Taylor 1991) claim that developed countries are characterized by profit-led regimes, while developing countries would be wage-led.

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