

Reassessing the Theory of Comparative Advantage

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This paper is a reassessment of the theory of comparative advantage and the policy of laissez-faire that has generally been built upon it. The method of analysis will be conceptual as the intent is to examine some of the more problematic assumptions and sometimes implicit preconceptions that underlie the model. In particular, it will be demonstrated that what often passes for a consistent and rigorous defence of free trade is neither. The paper ends with a plea for the re-introduction of a more historical and comparative approach to the trade policy debate.

It may well be that the classical theory represents the way in which we should like our Economy to behave. But to assume that it actually does so is to assume our difficulties away.

John Maynard Keynes

1. Introduction

By all accounts, professional economists are virtually unanimous in their support of the theory of comparative advantage and the policy of *laissez-faire* that follows more or less directly from it. Indeed, we have seen that support for the doctrine of free trade is virtually a condition for membership in the guild. As an example, the recent appointment of Laura D'Andrea Tyson to the Council of Economic Advisors was opposed by many economists on the grounds that she did not 'believe' in free trade. It is significant that the merits of her arguments were not generally known or addressed, only the 'outrageous' conclusions that she drew from it.¹

This paper will take another look at the theory of comparative advantage and the strength of the case for *laissez-faire* that is typically built upon it. The

¹ The shrill response to the appointment of Laura D'Andrea Tyson, a self-styled 'cautious protectionist', to the Council of Economic Advisors, is an example of the remarkable consensus that has emerged in the economics profession. For a consideration of this see Galbraith (1993). For the consensus of economists on the issue of free trade, see the poll data presented by Ruffin & Gregory (1990, p. 11). They report that 97% of economists believe that tariffs and quotas reduce 'general economic welfare'. I would also direct the reader's attention to a leading contemporary text, *International Economics*, which devotes two pages to theorists who challenge the veracity of the model of comparative advantage. In this book the three alternatives are labelled 'myths' (Krugman & Obstfeld, 1994, pp. 20–22).

method of analysis will be conceptual as the intent is to examine some of the more problematic assumptions and preconceptions that underlie the orthodox trade model. The essay will also trace out some implications of the model that are not always stressed in the standard presentations. In particular, it will be demonstrated that what is often thought to be a consistent defence of a policy of *laissez-faire* can break down in the event of a failed assumption. The essay will conclude by raising doubt as to whether the standard trade model is able to provide the insight required for an accurate analysis and formulation of trade policy in the modern world.

2. The Theory of Comparative Advantage

The theory of comparative advantage is one of the oldest and, judged by its widespread acceptance, one of the most successful theories in the history of economic doctrines. The essential attributes of the theory of comparative advantage are disarmingly simple and the implications that can be drawn from the model appear to be widely applicable. Specifically, comparative advantage draws upon the idea that specialization is efficient in order to establish forcefully the broader generalization that free trade must be in the best interest of all trading countries. In the words of one prominent neoclassical economist, 'There is a basic presumption that free and voluntary exchanges increase welfare, both within national borders and across national borders' (Aliber, 1994).

Unfortunately, Professor Aliber's 'basic presumption' is intellectually suspect. It may seem obvious, but it is nevertheless important to recall that, under a free trade regime, a country does not typically engage in the direct exchange of goods. Individuals and firms within a country participate in exchange relations with individuals and firms in other countries (Culbertson, 1985, pp. 8–9). This simple fact directly raises the possibility of a 'coordination failure' within the larger international market. If it is a host of individuals, rather than two countries, who are engaged in trade, it is reasonable to raise the following questions. What is the effect of trade on employment levels? What is the effect of trade on a country's distribution of income? Is the system subject to effective demand failures?

These issues are not typically addressed by the theory of comparative advantage. On the contrary, trade theory is thought to belong to the specialty of microeconomics and for that reason is not obliged to answer questions concerning employment and effective demand. Unfortunately, a failure to address questions does not assure us that such questions are ill-conceived.²

Given two countries with the same preferences, perfect competition in product and output markets, access to the same technologies, and an arbitrarily determined initial endowment of productive resources, the theory of comparative

² Mainstream trade theorists tend to think of the Ricardo, Ricardo–Viner, and Heckscher–Ohlin models of comparative advantage as profoundly different. However, I have not yet been convinced that the distinctions between the different versions of comparative advantage undermine the analysis. In cases of doubt the model that is in mind is the Heckscher–Ohlin model since that version of the comparative advantage model dominates the textbooks and might be thought to constitute the best candidate for the 'conventional wisdom' amongst economists.

advantage argues that trade will follow the relative productivity of commodity production within each of the two trading countries. This point is best illustrated by an example. Suppose two commodities exist; cars and televised potato chip advertising. If the United States is able to produce two cars for each advertisement and Mexico can produce three cars per advertisement, it follows that it would be more 'efficient' for the United States to produce television adverts and for Mexico to produce cars. In this case, the United States is said to have a 'comparative advantage' in adverts and Mexico is understood to have a 'comparative advantage' in car production. In this example, the ratio of productive capacities within a country drives the argument. It is the 'comparative advantage', not the 'absolute advantage', which determines the flow of tradable goods. This theorem is thought to hold in the case where wages within one country are much lower, or in the event that one country has the ability to produce a quantitatively larger amount of both goods.

Given this brief presentation it must be the case that trade will always benefit both parties. Indeed, it could not be otherwise. In our earlier example, the United States will experience a higher total income by specializing in ads and trading those ads in the Mexican market where they can obtain three cars for each ad. These 'gains from trade' are typically contrasted with the production patterns and level of income that would emerge if the United States were to refuse to trade and attempt to produce both goods at home. By presenting the argument in this manner, the idea that specialization is efficient is forcefully translated into the broader generalization that free trade must be in the best interest of both countries.

Now this model, while clear and, in its own way elegant, does—like most economic models—depend on a number of assumptions. A few die-hard positivists aside, most social scientists would agree that these assumptions must capture some aspect of reality, or at least not be flagrantly at variance with it, if the projections and policy prescriptions are to be valid. Let us now examine the accuracy and meaning of some of the key assumptions behind the theory of comparative advantage.

3. Problematic Assumptions Behind the Theory of Comparative Advantage

I will begin with a list of some of the often implicit assumptions that underlie the most widely employed model of comparative advantage. Some of these assumptions, such as perfect competition in the goods and product markets, constant returns to scale, identical technologies, costless exchange, equal numbers of goods and factors, and an equivalent set of tastes across all trading countries, will not be covered here (Leamer, 1994, p. 73). Rather, the following list is restricted to those assumptions that I have come to think of as the most damaging in the event that they fail in practice:

- no externalities, i.e. total private costs and total social costs are the same;
- free and costless mobility of capital and labour skills within a given country;
- full employment of all available capital and labour;

- trade between countries is always in balance;
- capital does not cross international borders;
- a fixed set of productive economic resources and technologies, including labour skills.

In the next six sections of this paper, I will address the importance of each of these assumptions by exploring the implications of their failure to hold in practice.

4. No Externalities

This assumption assures us that whatever costs or benefits are to be borne in the process of production are fully considered, and/or paid for, by the decision makers who wish to pursue a specific economic activity. Now, the most rudimentary understanding of the political process tells us that this is not always, or even typically, the case. Unfortunately, the basic trade model is not capable of handling issues such as the distribution of environmental costs. For this reason, those who work with this model are required to assume that such externalities are more or less evenly dispersed so that the model 'works' in a manner that is consistent with the assumption that all costs, including pollution damage, are borne by the actual producers of commodities with their explicit knowledge and consent. In such a case, economists would say that all costs are 'internalized' and thereby made the explicit basis of individual calculation by private actors.

Such an assumption attributes a degree of agency to a person or economic actor that is simply unrealistic. Specifically, a notion of 'free choice' implies alternatives. For instance, some wealthy Americans can afford to turn down relatively hazardous jobs and accept other jobs at lower pay. Can Mexican workers, in an economy which has lost approximately 35% of its income over the last ten years, do the same (Shaiken, 1993)? In such a case, can it reasonably be said that workers 'choose' to have such hazardous jobs? Is it a serious choice to be allowed to make the 'optimal decision' between starvation and poisoning on the job?

This argument is important in contexts well beyond its narrow application to the theory of trade. Indeed, it points to one of the weaker aspects of the neoclassical theory of exchange. This is its Lockean preconception that individuals (and nations) are fully constituted outside the market and voluntarily enter into all exchange relationships. In this sense, and only in this sense, can we conclude that market exchanges always leave participants better off. If, on the other hand, individuals and nations are actually dependent on the market for survival, this conclusion can become problematic (Levine, 1988, ch. 1; Lutz & Lux, 1988, ch. 2; Prasch, 1995).

5. Free Mobility of Capital and Labour within a Country

In keeping with its assumption of perfect competition the theory of comparative advantage typically assumes that resources are capable of being moved into

different lines of work with relative ease. In fact, it typically assumes no cost, or 'perfect', mobility of all resources including labour. Again, we know that this is hardly the case. Complex labour skills and expensive production facilities are both relatively immobile. When industries close, these skills are rarely 'redeployed'. In fact, they are generally lost. In other words, the value of firm- or task-specific skills drop to zero in the case of an industry closing.

Until recently, the professional mainstream of economics was not interested in the idea that a wide variety of labour skills could not be transferred between jobs. At long last, this professionally-induced blindness is beginning to ease. We now have reports from the proverbial 'rustbelt' that indicate that when skilled workers lose their jobs they generally are unable to obtain a wage in a new line of work that is comparable to the amount they earned in their previous employment (Jacobson *et al.*, 1993). Modern production skills tend to be job-specific and all too frequently firm-specific. The dilemma of job-specific human capital is amplified by the fact that retraining efforts do not seem to be very effective in returning laid-off workers to the labour force in other skilled positions (*The Economist*, 1994). Contrary to the world of trade theory, when a job is lost, so are the 'site specific' labour skills and high wages that accompanied it.

Proponents of liberalized trade are aware that their presumption as to the free mobility of labour and labour skills is counter-factual. As a result some of the more moderate proponents of the NAFTA agreement have called for resources to be made available for the retraining of workers in impacted industries (Morici, 1992). However, this is not the place to quibble over the amount of job loss that will be induced by a specific policy. The point at issue is to emphasize that these 'adjustment' costs are real and must be considered in any proposal to create a more open trade regime.³

Unfortunately it is still the case that many empirical estimates, and virtually all of the theoretical expositions of the so-called 'gains from trade', provide a low or zero weight to adjustment costs. Such presentations seem puzzling to the extent that they ignore the basic premise of neoclassical economic thinking, which emphasizes the theoretical primacy of trade-offs and choice. Consistency would demand that close and careful consideration be given to the costs of adjustment within the economy. Such costs will not be easy to quantify. Furthermore, they are unlikely to be the same across each and every particular historical instance. However, the fact that these losses are difficult to estimate is a poor foundation for a *de facto* estimate that they are zero and not to be counted in our estimates of the 'gains from trade'.

The acknowledgement that externalities and adjustment costs exist has

³ It is a remarkable artifact of the recent NAFTA debate that believers in comparative advantage, including economists who applaud the NAFTA agreement, are reluctant to discuss the quantity and type of labour that will be laid off. However, it follows from orthodox thinking that lay-offs will occur and industries will shut down with the advent of free trade. After all, according to the theory, the gains from trade are supposed to be derived from the ability of both trading countries to specialize. Specializing implies that some of the things that we do now will not be done in the future. So what is it that we will not do in the future? The oft-made claim that the benefits of free trade will be enormous while few jobs will be lost seems at best disingenuous and at worst dishonest.

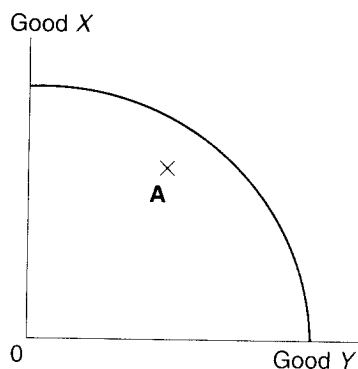


Fig. 1. Production possibilities frontier of an economy.

important ramifications for the debate that surrounds trade policy. At the very least it implies that the theory of comparative advantage can, at best, offer an empirical argument for a policy of free trade. Trade economists can argue that for a specific country at a specific time, the benefits of free trade outweigh the costs involved. In no way can an economist, on the basis of a theoretical discussion, claim that comparative advantage provides a proof that free trade is categorically the best policy. Failed assumptions, as outlined in Sections 4 and 5, indicate that any claims for the benefits of free trade are necessarily empirical. In the neoclassical theory the case for free trade is based on a trade-off, and there is no a priori way to measure the specific dimensions of the benefits and costs.

6. Full Employment of All Capital and Labour

The theory of comparative advantage requires that we compare the relative social costs of actual production processes to make an empirical case for free trade. However, this procedure runs into theoretical and measurement difficulties if there are underutilized but potentially productive resources available to the economy. In a situation of underutilization the actual trade-off or underlying rate of exchange between the production of various goods is theoretically undefined. In the case of unemployment or resource underutilization, market prices no longer reflect the economies' relative scarcities. It follows that in such cases the true social costs incurred in the production of various goods remain undefined.

Fig. 1 depicts the 'production possibilities frontier' of a hypothetical economy. At point A the productivity trade-off between sectors X and Y is theoretically and mathematically undefined because it is the case that more of both commodities can be produced at no social cost. The reason is that the production process would be employing what are, viewed from the perspective of the system as a whole, free inputs to production. It follows that the theory of comparative advantage depends on an implicit assumption of full employment. Standard presentations of the theory rarely acknowledge this assumption. The typical approach is to present the production possibilities frontier, calculate a

country's consumption possibilities frontier, and then begin a discussion of trade policy. Neoclassical trade theorists do not pause to ask whether full utilization is in fact true, and if the failure of this assumption is related to the choice of trade regime (Krugman & Obstfeld, 1994, ch. 1–3; Hazlitt, 1979, ch. XI).

Now, it is important to acknowledge that using this theory in the absence of fully defined costs might, at times, be a defensible approximation of the underlying reality. The question then, in such a case, is to determine how much unemployment is consistent with such an approximation. For example, it is doubtful that an assumption of full employment can be thought to approximate the economy as it existed during the Great Depression. But what of the level of unemployment experienced by the Third World throughout most of the period since the early 1970s? How about Europe in the 1990s? It should be clear from these questions that the theory gives us no guidance as to how we may formulate an estimate of 'close enough'. Again, the silence of trade theorists in this matter is significant. Without a reasoned argument to the contrary, there is only one defensible conclusion: we have been presented with a theory of trade that can, at best, be applied to one specific circumstance—that of full employment in both trading partners.

7. Trade between Countries is Always Balanced

In an important sense the theory of international trade is another instance of 'classical' thinking. It exists and has meaning in the context of a barter world wherein monetary and effective demand considerations do not exist (Keynes, 1933; Dillard, 1988). A corollary of this barter assumption is the conclusion that trade, whether domestic or international, is always balanced. As Joan Robinson has long observed, 'No explanation is offered for the assumption that the value of imports is equal to the value of exports for each country' (Robinson, 1974 [1930], p. 138). Since the Keynesian Revolution, economists have come to doubt the validity of such an assumption for a decentralized monetary economy.

Starting from a preconception that tends to conflate trade between countries with free individuals making a voluntary exchange through barter, and combining this abstraction with a studious application of the fallacy of composition, neoclassical trade economists have concluded that all nations are necessarily engaged in a relationship of free, and hence equal, exchange. After all, they argue, individuals who freely exchange would not intentionally do so if the exchange failed to improve their overall level of income and degree of final utility. 'Rational' actors enter the market with their prior endowment and, in the process of exchange, will either stay at that level or improve themselves. The neoclassical economist presumes that what they believe to hold for individuals must also be the case for an entire country. Moreover, it is not thought that it is necessary to argue for this preconception.

John Culbertson has argued against this overly simplified vision of international exchange. Culbertson argued that the decentralized nature of a 'free trade' regime, operating in conjunction with modern credit arrangements between modern decentralized economies, provides no a priori reason to believe that a country's trade will be in balance at any given moment in time, or even

over extended periods of time (Culbertson, 1984, pp. 117–121). Since the long run, with its promised trade balance, is always just over the hill, it follows that it is possible for a country to experience a sustained position of absolute advantage or disadvantage in its trade relationships. The reason for this result is the existence of credit, which allows individual firms within a country to import quantities of goods without having to immediately deliver an equivalent quantity or value of goods in exchange. Unfortunately it is possible that these ‘locally rational’ decisions may be irrational in the aggregate.

In making his point, Culbertson has identified an important error in conventional thinking. The standard theory claims that in the ‘long run’ exports must be offset by goods inflows (Hazlitt, 1979, ch. XII). But this does not tell us about the overall credit position of a given country at any given time. One reason is that there is no market for ‘aggregate credit’, only specific credit transactions between specific economic entities. The reality of international trade is that goods are flowing in and out of a country all of the time without any concern for an abstraction such as an intertemporal ‘budget constraint’. Decisions over what to import or export are made independently in different places by different sets of people. The end result, however, could have important implications for the overall level of effective demand and, in turn, the wage level which prevails at any moment in time. To suppose that the level of effective demand in a country remains constant and that all exports are automatically offset by imports of equal value can be seen as another bias introduced into economic thought by a commitment to ‘long run’ economic arguments which do not adequately consider how the adjustment process can adversely impact the structure of the economy and the level of incomes (Culbertson, 1984, pp. 48–49).

Culbertson’s counter-argument is closely related to Keynes’ concern for the level of aggregate demand (Keynes, [1936] 1964, p. 210). The fact that a firm exports to a country and receives payment in the form of a credit does not ensure that the creditor will instantly, or at any particular time, place an order for any specific commodity from the debtor country. Since businesses in a country depend on actual existent demand when making output decisions, all they can know is that they have experienced a fall in aggregate demand. Output, employment, and ultimately wages will then fall. Post-Keynesian economists have long understood that an intent by a creditor to place an order at some unspecified date will not drive today’s production decision.

The standard retort from the defenders of the barter concept is to assert that changes in the exchange rate will automatically ensure that the value of the goods that a country exports is offset by the value of the goods that it imports (Hazlitt, 1979, p. 86). However, it is not at all clear that financial markets work to bring about this balance in either the short or long run. Some economists have come to the conclusion that a model of a self-equilibrating process may fail to represent accurately the operations of foreign exchange markets (Tobin, 1978; Strange, 1986). For this reason, Culbertson’s critique, which mirrors Keynesian concerns for the overall level of effective demand, and its importance for incomes and current investment, merits careful consideration. The lesson is that trade issues have a macroeconomic dimension. By taking the view that the

specific process of adjustment matters, the emerging school of Structuralist Macroeconomists is able to incorporate the trade balance into a macroeconomic model. In this way, trade becomes more than a microeconomic issue. The balance of trade is now associated with the level and growth of income, the unemployment rate and changes in the price level (Kalecki, 1971, ch. 2; Minsky, 1986, ch. 7; Taylor, 1991).

8. Capital Does Not Cross International Borders

8.1. Capital Flows, Productivity and Income Distribution

When David Ricardo first articulated the theory of comparative advantage, capital flows did not constitute a significant issue. Ricardo could draw up his theory of comparative advantage in the absence of such concerns (Ricardo, 1817, ch. 7).⁴ Now, for better or for worse, we no longer live in the world as it was in the early nineteenth century. At this point in global history, international capital flows are enormous and as a result, Ricardo's theory of trade should be subject to revision or modification.

Not surprisingly, economists have argued that the bulk of capital flows are merely financial flows and that real capital movements are considerably slower. Neoclassical trade economists maintain that due to the nature of fixed assets, real capital may take much longer to shift locations. They argue that, at a minimum, one would have to wait for fixed assets to mature and depreciate before physical replacement would take place elsewhere.

There are two problems with this argument. First, the theory of comparative advantage does not incorporate time into its presentation. This is a fault to the extent that projections which estimate the gains to be obtained from liberalized trade are typically long term. Indeed, most estimates of the 'gains from trade' are of a comparative static variety. This implies that such studies are concerned with the level and mix of output that will prevail after a nation's productive resources are redeployed to their most efficient uses. However, such an exercise can only make sense if the model under investigation is a 'long-term' theory—one that allows for the mobility of physical capital. The point is that it is presumably just as time-consuming to switch a country's endowment of capital and technological skill into sectors where its comparative advantage is strongest as it is time-consuming for the same capital to actually move completely out of the country. This being the case, if it is legitimate for proponents of liberalized trade to discuss long-term gains from trade, it is equally legitimate for detractors to discuss the long-term impact of real capital leaving a given country.

⁴ This should not be viewed as a claim that Ricardo maintained a politically naïve 'free trade' position. *Realpolitik* informed Ricardo's actual trade proposals. "Ideally, he envisaged a totally free trade in corn, although he granted that in view of the widespread and severe distress, and taking into account the influence of landlords, it would be prudent to adopt interim protectionist measures which could be phased out gradually" (Peach, 1993, p. 100).

In the event that real capital should leave a country, we know, from the neoclassical theory of production, that workers working with less capital become less productive. We might say that, *ceteris paribus*, capital outflows matter to the extent that they lower a country's productivity. The reason is that domestic workers in both the capital- and labour-intensive industries will be working with less capital (remember that these trade models typically assume full employment and fully fungible labour and capital). In technical language, we would say that the capital-labour ratio has fallen. With less capital and the same number of workers, the output-per-worker ratio must also drop. Neoclassical distribution theory, which claims that the purchasing power of a worker's wage is equal to the marginal product of his or her labour, indicates that a fall in this measure of productivity must result in a lower real wage.

A second problem raised by the genuine possibility of capital mobility concerns the distribution of income. As mentioned, neoclassical trade theory typically assumes that profits from overseas operations will be returned to their country of origin, in this case the United States. On the basis of this assumption, it is concluded that the country as a *whole* will be better off with a consequently higher level of consumption (Markusen & Melvin, 1988, pp. 299, 313–314). But this is far from the case for every individual within that country. Even in the most optimistic case, one in which all overseas profits are repatriated, the result will be a change in the domestic distribution of income. It is certain that with repatriation, aggregate profits, and profits as a percentage of total income, will rise. Otherwise capital would never have been sent out of the country in the first place. In the meantime, despite the increase in the nation's wealth, those who earn their incomes from labour, both in the capital-intensive and labour-intensive industries, will see their productivity decline. This, in turn, will lead to a reduction in their real wage. Even in the case where a nation's capital is fully repatriated, working people are worse off for the experience.

While Markusen and Melvin may present a problematic model of capital flows, another prominent neoclassical text by Paul Krugman & Maurice Obstfeld simply sidesteps the relevant issues. They propose that a country's production possibilities curve can be redrawn so that it reflects two goods that they then label 'present' and 'future' consumption. This curve is labelled the 'Intertemporal Production Possibilities Frontier' (Krugman & Obstfeld, 1994, pp. 155–158, 169–172). In this model, a country simply 'chooses' the mix of present and future consumption that most satisfies its 'wants.'

Remarkably, Krugman & Obstfeld can think of no economically meaningful distinction between a country investing domestically and sending its capital overseas. In their presentation, there is no notion that the level of consumption in the first period and the expected level of consumption in the future period influence current levels of employment and/or the structure of the economy. Indeed, within this theory the structure of the economy is not addressed while full employment is ensured by assumption. Furthermore, Krugman & Obstfeld carefully avoid distribution issues by treating each country as a single consumer. The *implication* is that everyone within a country shares equally in the final result.

However, let us reflect further on this model of capital flows. Suppose all

consumers have the same utility function for additional income, and that furthermore, they experience diminishing marginal utility with additional increments to their income. While such an assumption is discouraged in neoclassical thinking, such a specification of the utility that can be derived from goods in general is not implausible (Galbraith, 1958, ch. 10). In such a case, let us suppose that we follow the example provided by Krugman & Obstfeld and assume that wealthy people send capital overseas in pursuit of higher profits. We will further assume that this capital is, along with all profits, repatriated in the second period. At that time the country is, taken as a whole, unquestionably richer. This being a two-period model, total 'future' consumption would rise by definition. Specifically, the consumption of wealthy capital-owners would fall slightly in the first period and rise by a substantial increment in the second period while the consumption of the non-capital-owning majority would fall by a smaller amount in both periods (since their marginal products, and hence their wages, fall in the absence of a portion of the nation's capital). In such a case the total utility experienced by a country could fall even as total consumption rises. Notice that the simple introduction of income distribution concerns into the Krugman & Obstfeld model illustrates that sending capital overseas is in fact conceptually distinct from domestic investment. Moreover, these changes may have an important effect on the welfare of a country's residents.

Again, the only conclusion that we can logically deduce, even while faithfully applying the techniques of the neoclassical school, is that, in the case where capital flows out of the country, the productivity of labour and real wages will fall. In the case of capital outflows, the neoclassical theory accurately explains the result that has been observed by critics who point to the 'deindustrialization' of the United States (Bluestone & Harrison, 1982). In the final analysis, the problem facing American workers may not be 'low productivity' or a lack of skills—it may be a simple lack of capital. Lower wages can, in theory, represent a 'cure' for this problem, but it does not follow that high wages were the cause of the initial disequilibrium. Trade economists should consider the possibility that it is capital mobility, not high wages and/or low productivity, that are the cause of the decline in incomes among American workers. For this reason, unions may be correct to perceive NAFTA, GATT, and other trade agreements as a threat to wage and living standards (Palley, 1994).

8.2. Capital Flows, Income Distribution and Effective Demand

As indicated above, neoclassical trade economists will argue that having capital move out of a country does not imply that that country is worse off. They agree that capital leaves a country if it is able to earn a higher return elsewhere. However, they wish simultaneously to maintain that the country will be wealthier when these higher returns are (by assumption) repatriated. The tendency to ignore the issues related to labour productivity and income distribution has already been addressed. However, there are other considerations involved.

One obvious concern is that the lost capital may not be repatriated. It may, in fact, be an increasingly antiquated notion of the goals and behaviour of international business to suppose that it has a loyalty to any particular country and, for this reason, feels an obligation to repatriate profits to the country in which the firm was originally incorporated (Reich, 1990, ch. 25; Barnett & Cavanagh, 1994). In the modern economy, multinational corporations have an increasingly diverse set of owners and workforces, are located in numerous parts of the globe, and are striving to maximize a worldwide profit margin. Profits from a US branch might be invested in Mexico, and in time those revenues may be used to open another factory in Singapore. Stockholders and employees are dispersed around the globe. It follows that a business success in one location or product line does not necessarily translate into reinvested profits or any other tangible returns to any specific part of the globe.

Another important dimension to the capital mobility issue is related to a preconception of neoclassical theory that implicitly envisions capital assets as physical objects to be obtained and deployed. In this view, every exchange is a form of barter and, after some algebra, every factor is paid the value of its marginal product. In this naturalistic model of economic activity, adequate aggregate demand is ensured by presumption (Dillard, 1988). However, it is more accurate to think of capital as wealth-generating assets that retain their value only as long as they can be profitably employed.

When profitability is thought of as a monetary or financial relationship, it does not have any special or specific relationship to the physical manifestation of an actual article of capital equipment. For instance, an export of capital can, through a fall in wages, induce a fall in effective demand. This decline in consumption has a feedback effect on the price of capital goods and the value of assets. This, in turn, may further depress expectations, investment, and the overall level of effective demand (Minsky, 1986, ch. 7). It follows that the level of demand in a country can be reduced by a relatively large and sustained trade deficit. The point is that trade theory has a macroeconomic dimension that is typically overlooked in policy discussions (Culbertson, 1984, pp. 48–49; Davidson, 1994, ch. 13).

It follows that one scenario that can emerge from a free trade regime is a prolonged stagnation due to a systemic failure of effective demand. This is the 'stagnationist' economy described in the work of Lance Taylor (1991, ch. 3). In a similar line of argument, Robert Blecker (1994) has argued for the existence of a causal relationship between capital mobility, trade flows, the stagnation of wages, and the observed slowing of economic growth within the United States.

The arguments advanced in this section suggest that it is difficult to be theoretically or practically complacent with regard to the issue of international capital mobility. In particular, the theory of comparative advantage provides an inadequate representation of the issues posed by the existence of large international capital flows. Comparative advantage was not designed to handle such issues, and it should be no surprise to discover that it fails to do so. For this reason, there are grounds to believe that nations and individuals who have exhibited a reluctance to embrace a more liberal worldwide trade regime may

have been correct in their assessment of the problem presented by capital mobility.

9. A Static and Stationary Set of Resources and Technologies Including Labour Skills

The Heckscher–Ohlin version of the theory of comparative advantage typically assumes that a country has a given set of productive resources, called ‘endowments’. It further presumes that both economies have a static set of technologies or, in what comes to the same thing, that they have access to the same set of changing technologies. This practice may or may not be adequate for a model that is primarily employed as a pedagogical device. However, this model is not, and has not been, solely employed as a teaching tool. It makes a substantive prediction about what will happen after the enactment of an important change in a nation’s trade policies, specifically from a reduction in a country’s degree of protection. However, a change in trade policy has downstream impacts which take place over an extended period of time. As we have seen, this ‘long run’ can be a considerable period of time, if the analysis is to include a significant redistribution of the productive capacity available to a given country.

No economy or society is accurately depicted, except in an accounting sense, as having a set of ‘given’ resources. Resources, which include a skilled labour force, are not given but developed over time. This reality equally applies to the case of resources that are commonly, and somewhat cavalierly, denoted ‘gifts of nature’. Those who work in, manage, or have any understanding of extractive industries are familiar with the effort required to develop a mine or clear productive farmland. To view such primary products as ‘given’ is to engage in an important categorical error. A more accurate argument would incorporate the reality that a country’s resource endowment is formed out of its specific historical experience with economic development.

The idea of a ‘given’ level of endowments has a distinct ‘naturalistic’ underpinning to it which adds to the overall misconception of how an economy develops over time. In this naturalistic metaphor it is the role of the marketplace to ‘discover’ the correct set of prices along with the quantity of output that should prevail at any given time (Levine, 1980, pp. 4–5). The notion is that the underlying endowments of an economy, and the industries that are best supported by them, need be identified and brought to the surface. This issue has been important in the literature of economic development theory and in recent discussions of the ‘transition to market economies’. The economist’s injunction to ‘get prices right’ implies that there is a lack of knowledge as to what the true underlying endowments of a country are. Economic theorists believe that this ‘veil’ can be effectively pierced by the price ‘signals’ of a free market but not as effectively by the government.

When critics of managed trade argue that the government cannot ‘pick the winners’, they are implicitly making a reference to this naturalistic idea of a single correct answer which needs to be calculated or identified. Since the neoclassical theory features a given set of resources, the best that the government can hope to do is to pick the same set of industries as would be chosen by an

'efficient' market. In no sense is it thought that the government can create a different set of endowments.⁵

In fact, it is not the government's job to *identify* potential endowments and thereby certain winners. Rather, the government's interest is in *creating* a set of 'endowments' by supporting certain rules of competition, types of organizations and ultimately, in this indirect manner, specific sets of industries (Lazonick, 1991; Johnson, 1993). Such industries will, in time, help to redefine the country's endowments, and thereby, the competitive position of the economy at some future date. In this alternative vision of the economic process, endowments are not 'out there' waiting to be identified and discovered. On the contrary, endowments are developed and then, in due time, exploited by the economy in the course of its evolution. This is a very different depiction of the theoretical problem at hand. Specifically, it visualizes the economic process in evolutionary rather than in static terms. With this change in vision, our understanding of the economic process is changed and, as a result, the appropriate policies for economic management must be reconsidered.

In response to the problem of economic and historical development, as opposed to resource allocation, interest has returned to what is known as 'strategic trade policy'. In this literature, the expressed policy goal is to pursue a strategy of 'dynamic comparative advantage'. The policy is directed at an improvement in the economic endowments possessed by a country. There is also a renewed concern for the types of economic organizations that may emerge and how these impact the overall efficiency of the economy (Lazonick, 1991; McGraw, 1992).

The understanding is that, over time, a given country can develop leading sectors and, in this manner, become more competitive due to conscious design rather than through luck or coincidence (Johnson, 1980). In particular, it is thought that being involved in advanced technological projects enables a country to obtain an advantage in achieving further technological advancements (Tyson, 1992). Industrial policy advocates are convinced that crucial technical advancements and learned efficiencies are developed within the work process (Hayes, 1981; Cohen & Zysman, 1987). That this is not a new idea in economics is clear from a consideration of the following quotation from Adam Smith.

In the first fire-engines, a boy was constantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of those boys, who loved to play with his companions, observed that, by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without his assistance and leave him at liberty to divert himself with his play fellows. (Smith, [1770] 1976, pp. 13–14)

Incremental and path-dependent change are important components of the totality of technical change. Moreover, these changes are endogenous to the economic

⁵ Notice that the discussion in the text is concerned with the government's capacity to create productive endowments through its actions. This is a separate issue from the capacity of government to aid the country's oligopolists in gathering the rents that are available in the case that imperfect competition should be in evidence in world trade (Brander, 1981; Smith, 1994).

system (Arthur, 1990). Working with a problem and confronting genuine obstacles ensures that unanticipated challenges and technical gaps are identified and addressed (Chandler, 1977; David, 1985; Cohen & Zysman, 1987; Lazonick, 1991). Rapid technical change is one advantage that a country obtains with a skilled labour force, especially a labour force with the ability, experience, motivation, and need to search for solutions to a myriad of production problems. This aspect of economic progress is frequently overlooked by economic models which assume the existence of a given set of technologies and a fully trained and competent labour force. From such premises, orthodox models 'conclude' (assume is more accurate) that the lowest cost form of production is already being employed. Ignoring the problems associated with the development of technology and advanced labour skills might have been possible in the post-war period when the technological superiority of American manufacturing seemed beyond question. However, such an approach now inhibits clear thinking. This dated assumption has prevented economists from conducting a search for the causes of the productivity problems that plague American industry. Technology can no longer be treated as an exogenous, fixed parameter in economic models.⁶

This concern for the nature of knowledge and how it is created and disseminated is not new to economics. In fact it was, and is, closely tied to the research programme of the school of Austrian economists. Work by Michael Polyani and Friedrich von Hayek emphasized the nature and importance of 'local knowledge' and considered how its existence could affect the construction of economic theories (Hayek, 1945; Polyani, 1964). Developing an improved understanding of the linkage between local knowledge, the producing organization, technical change, and economic growth will result in an improved understanding of the evolution of the economic system.⁷

If it is true that the production process is important to the innovation process, we have a very plausible argument as to why Japan has a more technologically dynamic economy than Kuwait. Moreover, developing and nurturing a competitive technological and manufacturing sector can be thought to be a legitimate goal of economic policy.⁸ Such changes can hope to improve the chances that favourable economic results occur. The issues involved in

⁶ Recently, beginning with Paul Romer (1986), the profession has found a renewed interest in the problems that increasing returns to scale pose for the standard answers that economics has provided to policy questions. Like so many of the more interesting ideas in economics, this discussion is not new. A concern with the problem of increasing returns dates back to Marshall (1920, Book V, ch. XII), Young (1928) and Sraffa (1926).

⁷ Some of these old lessons, which were widely understood and acknowledged at the beginning of the century have now been 'discovered' by the mainstream. Shrouded by the now familiar rhetoric of academic self-promotion the 'New International Economics' is now much discussed in the learned journals. However, this variant of neoclassicism suffers from the typically ahistorical and anti-institutional bias that is characteristic of the comparative advantage approach. The point is that, within an evolutionary system laws, organization and history do matter. The lessons that economic history has to offer cannot be replicated or supplemented through a dazzling exercise in a priori economic modelling.

⁸ Recently, these issues have also captured the interest of those who are concerned with the issue of national security (Luttwak, 1993; Sandholtz *et al.*, 1993).

creating an advantageous and sustainable comparative advantage in international trade cannot be addressed here. It will be sufficient to close with the observation that the set of economic resources possessed by a country at any given moment are not 'given' or deposited by 'nature', waiting to be uncovered. Productive capacity comes from the past history of an economy, and that history is the sum of the results of a series of past policy decisions as they interacted with private economic activities, economic institutions and market forces.

10. Concluding Remarks: history versus free trade

History provides us with few instances of a country developing to world economic prominence without first being able to create a vibrant domestic economy. In our era this means a manufacturing base. The United States is an important case study which supports this generalization.⁹ For most of its history, and especially during its rapid rise from 1860–1929, American industry developed behind relatively high tariffs combined with the once non-trivial economic barrier provided by two vast oceans. Indeed, some prominent historians have argued that the American Civil War was fought over competing views of the American economic system, which included the right and the ability of the industrializing North to force the agricultural South to live with high tariffs (Beard & Beard, 1927, pp. 36–38). Only in the twentieth century was American industry able to compete with European producers in the manufacture of high-volume low-cost goods (Taussig, 1923; Lake, 1988).

This prescription for trade success was imitated, even perfected, by Japan in the post second world war period when that country began to export small cars and relatively inexpensive manufactured items to the United States. Japanese economic success was, like the American example, accomplished behind relatively prohibitive protection, which typically took the form of a non-tariff structure. Protection ensured that Japanese firms would have the opportunity to become competitive prior to their entrance into the world market (Fallows, 1993; Johnson, 1980).

This positive experience with protectionist policies has been repeated in the recent example of South Korea. While Korea has been lauded as the paramount example of an export-oriented, free-market economy, it is the case that the country nurtured its industries behind a concerted government policy, which included extensive protection, artificially repressed wages, and strategic trade policies. These policies were maintained until planners felt that Korean industries were sufficiently prepared for global competition. Only at that point did the country take on an export orientation. While the strategy followed in Korea may have been long term, some important interpreters have argued that South Korea industrialized within the overall framework of a managed trade policy (Amsden, 1989; Dietz, 1992).

⁹ It is now more generally understood that the framers of early American economic policy were aware of this fact. See Bourgin (1989), Taussig (1923) and McGraw (1994). These issues were also apparent to European observers by the early part of the nineteenth century, the most prominent being List (1966, ch. IX). For a revisionist look at English trade policy, commonly supposed to be the single best example of industrialization under a free trade regime, see Nye (1991) and Elbaum (1990).

The historical lesson seems to be that the policy of 'free trade' is becoming less and less successful (Kuttner, 1991, ch. 8). Indeed, one is led to wonder if such a policy ever made sense for any country other than the world's dominant trading power (Krasner, 1976; Kindleberger, 1981, 1986, ch. 14; Gilpin, 1987). This historical lesson is supported by the conclusion that a policy of *laissez-faire* founded upon the theory of comparative advantage does not appear to be able to withstand an examination of its own foundations. Moreover, history has been most unkind to the policy prescriptions that flowed from such an argument. Perhaps it is time to move beyond the comfortable answers offered by a theory that claims to be universally true and begin to pay more attention to scholars who have done the difficult and arduous work of sorting through the messy and incomplete record afforded by economic and business history. At that time, we may return our attention to one of our profession's founding questions and begin to conduct '[a]n Inquiry into the Nature and Causes of the Wealth of Nations.'

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