

From Great Depression to Great Recession

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Abstract: As beggar-thy-neighbor policies contributed to the Great Depression, so did Destructive Trade contribute to, if not cause, the Great Recession. At the heart of the argument is the fact that modern policy-makers believe in free trade based on comparative advantage, neglecting the fact that with extremely wide exogenous wage differentials, free trade turns into destructive trade. Second-best type solutions must be sought.

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In the context of international trade theory and policy, the Great Depression offers us a significant point of departure. The great depression which the policy makers of that time tried to avoid or at least to moderate through protective trade measures—later referred to as the beggar-thy-neighbor policies—stood as the initial stimulus for a lot of economists' thinking. And like the error of the protective policies, it leads us eighty years later to other erroneous thinking which engendered not only the Great Recession but also major world maladjustments and crises of today.

Seen through the eyes and experiences of many of us who were graduate students of Professors Samuelson and Kindleberger at MIT more than half a century ago, studying the general equilibrium neoclassical analysis of smooth and differentiable unit homogeneous technologies, the error of the beggar-thy-neighbor policy became quite evident. So was the Pareto-optimality of free international trade and the validity of the Heckscher-Ohlin^[2] and the Stolper-Samuelson^[5] laws or theorems. The same type of analysis led to the theory of factor price equalization implied by the Heckscher-Ohlin theory. In an equally abstract-but-elegant approach, this writer derived generalizations of the factor proportions theory in his *Kyklos* contribution^[6].

But of that contribution, generalizing the H-O approach to many factors of production and possibly to many countries and many products, this writer is not overly proud, because it relies on the assumption of factor price equalization; and we are living in a world of poverty and misery – that is, near zero wages and labor incomes – of the majority of humankind. And this conclusion can blind many an observer or abstract mathematical theorist, especially those who are called to responsible policy-making positions.

Correspondingly, the purpose of this study is four-fold. First, to say a few words about the formal technical nature of this trade analysis. Second, to look at some of the principal empirical results corresponding to the formal theoretical work. Third, to try to subject to critical evaluation the impact of the more realistic and observable facts and data of international trade. And fourth, to show the possible effects – some dramatic – on the current global situation and policy.

1. Theoretical Critique of Trade Theory

Our basic tenet is that any theory which tries to explain real world phenomena must be based on assumptions and/or analytical tools which are realistic or at least correspond closely to the real world conditions. If this condition is not fulfilled, the validity of the theory as an explanatory tool must be rejected, or at least carefully questioned. And this critical evaluation can then lead us to possible alterations of our understanding of reality.

Thus we can in general terms look at the tools and assumptions of the formal theory of comparative advantage as it is based on the theory of factor proportions. Remembering the analysis as it was presented to us as graduate students, the theoretical world was described as consisting of fixed and fully employed supplies of factors of production, capital and labor. These factors of production were postulated as identical in two (or more) trading countries, fully employed and immobile between the countries: this then defined the two box diagrams of the analysis. In what follows we will not only evaluate critically the assumptions of the theory but also establish the basis for our subsequent discussion, based on the agreed-on more realistic assumptions, in studying the principal conclusions about the trading and policy world we live in.

Probably the most realistic assumption of the trade theory *status quo ante* is the immobility of the labor factor among countries. However, the assumption of full employment no longer can be accepted as realistic, because we know that in the real world this is not so: indeed the level of employment can become one of the variables of adjustment of a comparative study. At the same time, as in the traditional theory of trade, all labor is taken as a homogeneous factor of production, its actual productivity depending on the nature of technology.

Technology itself seems to be a major stumbling block of traditional theory. The postulate of a smooth and differentiable technology subject to constant returns to scale, from the point of view of the trade analysis, seems to be more of a consolation to a mathematical economist than something real. It must be realized that modern technologies involve hundreds if not thousands of designers, implementers, et cetera, and it is impossible to think of isoquants composed of an infinity of technology points – real or theoretical, each calling for such multiple human expertise. Rather it seems to me that technology must be abstracted as single Leontief-type input-output points; and technical progress – or changing the positions of such points – is in reality a movement supported again by the multiple human supports, influenced by general forces of invention combined with factor and product pricing.

Obviously under such more realistic conditions, any factor price equalization becomes technically very difficult to conceive of. Nonetheless, respecting existing theory and literature the phenomenon of equalization, under certain conditions, must be accepted. In fact the generalization of the *Kyklos* contribution^[6] does rely on such equalization of factor prices.

Continuing with our critical discussion of technology, we must accept the usual assumptions of single and fully transferable technology, together with capital, around the world. In fact, the modern state of globalization makes that assumption quite realistic.

Another and perhaps the most significant tenet of traditional trade theory is precisely the claim of factor price equalization (under certain conditions) which implies that the prices of factors of productions are endogenous within the system, that is, determined as part of the world trading solution. It is this notion that bothered Prof. Jaroslav Vanek ever since he wrote the *Kyklos* article, realizing not only that factor prices are not equalized and endogenous, but that they are exogenous and dramatically *not equalized* especially when it comes to human labor. And later on, in time and in terms of this writing, this concern of Prof. Jaroslav Vanek led him to the theory and reality of Destructive Trade to which we will turn later in this discussion.

2. Testing the Theory and the Real World

On our itinerary from Great Depression to Great Recession, we ought to look briefly at the theory of comparative advantage and factor proportions in the context of the real world. Here the theory of factor proportions has been tested by many: in the present context, we cannot do justice to the work of others. However, two important points must be made, because they are somewhat new or bring additional light on some results very well known to the economics profession. The two points concern the well known Leontief paradox and the extension to more than two factors of production, along the lines of the generalization of the *Kyklos* paper^[6].

Some fifty years ago the Leontief paradox^[3] became a significant point of discussion among economists. Professor Leontief undertook testing of the factors of production theory of trade using his well known input-output system of analysis, based on some nearly two hundred sectors of the American economy. His approach involved two factors of production, capital and labor, and because he did not have data for countries outside of the United States, he made the import side of his analysis be represented by the import-competing sectors of domestic economy.

His “startling” and “paradoxical” result was that our exports are relatively labor intensive and imports relatively capital intensive. The normal expectation was that the United States –after the Second World War – was relatively capital endowed and thus that our exports should be capital intensive. As Leontief himself suggested, this unexpected result can be imputable to a third factor of production, natural resources.

This is also confirmed by the present writer in a study on *The Natural Resource Content of U. S. Foreign Trade 1870-1955*^[8]. The study uses implicitly the Heckscher-Ohlin theorem over a long period of time and shows the dramatic structural change of our natural resource endowment. Perhaps of equal significance is the fact that actually two types of natural resources are considered, significantly distinct in their impact on our foreign trade. The two types are renewable natural resource endowments, such as agriculture on the one hand; and on the other, non-renewable resources such as energy sources and mineral raw materials. The structure of relative exports and imports of the former, over the eighty year period, declines far less significantly (index from about 180 down to about 50); a corresponding index for nonrenewable resources declines from about 600 to about 60, indicating our dramatic dependence on foreign nonrenewable resources.

A static observation for 1947, for which input-output data were available, also confirms the natural resource thesis about the impact of natural resources on the structure of our foreign trade. “The ratios between exports and competitive imports requirements of labor, capital and natural resources compare as follows: 1.07 : 0.83 : 0.54” [8, p.133]. The strong relative export deficiency in natural resources which are highly complementary with the use of capital in production tends to promote labor to the position of relatively more significant labor requirements in exports.

These results which are crudely matching the *Kyklos* theory of multiple factors of production (here capital, labor, renewable resources and non-renewable resources) show that factor complementarities in production can alter the *a priori* expectations based on the Heckscher-Ohlin prediction.

But it is time now to turn to the most unexpected real world expectations of the factor proportions and comparative advantage theory. This is what we refer to as the Destructive Trade phenomenon.

3. Defining and Applying the Theory of Destructive Trade

Those who promoted NAFTA in the past or those who currently expect that comparative advantage will greatly contribute, through creation of exports, to creation of jobs in the United States may want to reconsider their arguments. To begin with, we ought to return to the more realistic assumptions and conditions of today's world as discussed in section I above. Specifically and most realistically we ought to return to the fact that there is no factor price equalization in the world of today, especially when it comes to labor prices among the advanced economies on the one hand and the rest of the world on the other, in particular the developing countries.

Among the latter, let us use China as a representative economy, not only because its size but also because it is playing such a significant role in its trading relations with the United States. This will also permit us to speak more concretely about our trade and economic situation of recent years, including our American and the global great recession of 2008/9.

The exact measurements of world factor prices – or labor wages – are not essential for our analysis, but they can be represented by a symbolic number of one thousand per cent differential between the average wage rates in the United States or the advanced developed world and the developing world.

In a theoretical model under the realistic conditions of section I, with zero transportation costs and single technology being applied and available anywhere in the world it can be concluded, under capitalist profit maximization and globalization, that anything that is transportable and calls for inputs of labor must be produced in China, a low-wage country or low-wage part of the world; and to the extent that there is demand for such goods – and even human services – in the United States, such goods or services will be imported to this country and not produced domestically.

While observation of our domestic markets shows that almost everything manufactured is produced in China, there will be exceptions where our demand requires domestic production. But the theory of destructive trade here outlined, which deprives our American workers of lots of jobs – manufacturing everything that is transportable – indicates a significant central tendency, and in the long run a tendency of gradual intensification.

And nothing guarantees that the jobs which are lost will be recuperated in other sectors of the economy, the sectors involving non-transportable goods and services. Thus it becomes clear that automatic market solutions will not produce an optimal solution for the American economy. Transposed into the theoretical context which is in the origin of our inquiry, we are facing a situation of sub-optimality of the Lipsey and Lancaster^[4] second best type. Indeed, the guarantee of all perfect market conditions, with some markets not in equilibrium – specifically the exogenous one thousand per cent differential – does not guarantee an optimal solution. And this is at the heart of the destructive trade theory: if everything that is transportable must be produced in China, job creation in the United States must – and does – suffer.

Another dramatic implication of the destructive trade which moves lots of American jobs to China is that the “admirable” growth and gains of the Chinese economy are to a large extent imputable to the stimulus that we have provided for that economy over past decades. Realizing that the Chinese economy is about one-third that of the United States, imports of trillions over time constitute an enormous stimulus compared to our recent – temporary – stimulus of a fraction of a trillion, in a three times larger economy.

Thus it can be said that our theory of destructive trade “permits” domestic employment and production only (or primarily) in the non-transported goods industries, such as building, construction, hamburger and food-serving activities, or government goods and services, including armaments and the military -- precisely sectors which have flourished in recent years or decades.

It must also be realized that even our export sectors in many cases involve exports of by definition transportable goods – and these also are subject to the destructive trade syndrome, because they also can be produced with labor one thousand per cent less costly abroad. American designs or patents can be profitably exported to China for production there with much lower labor costs, for domestic consumption – or indeed for export from China.

There is another argument pointing in the same direction. Suppose that some innovative venture capitalist would like to start production of a new product in the United States. Through a force of rational expectations based on the knowledge that wages and costs are far lower in China, he might be discouraged or move his project abroad. Again this force will discourage employment in the United States. In the *Economist* of May 1, 2010, p.77, actually a decline in venture capital registrations is recorded for recent years.

The implication of all this is that our American labor suffers, while production with low-cost labor provides enormous profits – or rents of arbitrage – for those who control the capital and production, whether American or Chinese. This is then a powerful force of symbiosis for the global industries. And one of the key effects of the situation is that China holds financial assets of the order of two trillion dollars, at least half of it in the form of dollar debentures of the United States.

There is a good example of recent vintage depicting the problem of our potential transportable exports and giving us additional insights – as well as my personal sadness as an automobile driver. A few months ago the Volvo automobile enterprise was sold to China by our Ford corporation, for 1.8 billion dollars, having been acquired by Ford for over five billion some years ago. Thus the depression of recent years affecting Ford, linked to the gains of China, provided China with an additional windfall related to the Volvo transaction. The Chinese now will drive one of the best automobiles in the world, or export it back to us in the west; so to speak, on the backs and hardships of western labor. And this kind of situation can be easily reproduced on much larger scale, realizing that it cost China around one-tenth of one per cent of its foreign financial reserves.

4. Destructive Trade and the Great Recession

We now come to the meaning of the title of my paper: the great recession. That the real world of international trade looks very much like the prediction drawn from the theory of destructive trade there is no doubt! But in my view, the recent events of American and world economic policy and the great recession also confirm the theory's validity. The forces of a hoped-for stabilization of the "Bush decade" had to explode in the end leading to the great recession – and there is little hope that these forces will provide us with stability in the future.

Under the deflationary pressures in the American economy around the beginning of the Bush decade, it was necessary to counteract the effect of destructive trade. Precisely, this was done through tax cuts for all but especially for the rich, support of the non-transported sectors, and stimulus to consumption. These were attained through low interest rates and overall capital accessibility. At the center of it all was the building and construction sector, with sub-prime mortgage rates, toxic securities, derivative solutions and consumer credit expansion. In addition during the decade substantial government budget deficits were used to stimulate the economy, expanding overall public debt by several trillions, to reach levels nearing the GNP by 2010. The real rate of interest, i. e. nominal rates minus the rate of inflation, hovered around zero during that decade and is now holding the head of the federal reserve in a subzero real rate liquidity trap.

All this had to explode in the end, with millions of households owing far more than the value of their homes, with under-occupied "ghost" condominium skyscrapers "decorating" the beaches of Florida and many similar effects of an overexpansion of potential supply in excess of the demand.

One of the “fathers” of the new toxic approaches a decade ago, now advising the President, is the person promising millions of new jobs to our workers through expansion of exports. That is hoping for policies based on the – in my view discredited – theses of comparative advantage, instead of those of the destructive trade conclusions.

5. Postscript

Obviously this analysis – if accepted – would call for new policy approaches by those who have the necessary power to reconstitute stability and hope to our workers’ families. It would be pretentious to outline the necessary steps. I would just say that an institution such as the World Trade Organization and all that surrounds it and which wants to promote free trade globalization on the basis of the theory of comparative advantage should become less ambitious and adopt the spirit of the GATT, that is, the General Agreement on Tariffs and Trade, seeking socially optimal combinations of the two T’s. Of some use in the theoretical domain could be the not well known study on the *General Equilibrium of International Discrimination*^[7].

More than half a century ago a commission of experts—Professors Haberler, Meade, Tinbergen and Campos--was appointed by the director of the GATT organization to evaluate and make recommendations concerning the global trade situation in the spirit of GATT^[1]. The recommendation of the Haberler report then was to help the “underdog,” that is, the poor countries of the world. The same policy recommendation would be appropriate today, but the underdog to be helped now is the unemployed and the poor of the United States. As probably the only survivor of that working group – its working and drafting secretary – this writer would like to remember these great economists of the times gone by and recommend drawing on their wisdom.

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