Trade Theory Status Quo Despite Krugman

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Paul Krugman's contribution in the development of "new" trade theory pushed the profession beyond the overly simplistic assumption of perfect competition. Since then, new trade theory has tended to be integrated and reconciled with traditional trade theory, undermining its deployment in support of successful strategic trade policy intervention.

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What is new in trade theory? What does the new trade theory (NTT) imply for the theory of economic development, and how, in turn, does it fit into the public debate over trade, trade liberalisation and development in developing countries? Paul Krugman receiving the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 2008 gives good reason to review the relevant currents in research, and how they influence policymaking. All too often, pundits and the economics profession have attempted to read political meaning into the Nobel. This time around, Krugman's outspoken criticism of the Bush administration and the end of the Bush era amplify the temptation to see "a shift to the left". In this brief essay, we review major developments in trade theory, including Krugman's contribution,[1] but conclude that there is a long way to go to make new trade theory relevant for developing countries.

The case for trade liberalisation rests on David Ricardo's theory of comparative advantage. Put forward in the early 19th century, he argued that England and Portugal could engage in the mutually beneficial exchange of cloth and wine – whatever the respective industries' prices and productivities. However, for this to hold true, exchange rates have to be flexibly responsive to changes in goods markets, full employment has to be maintained instantaneously, and factors have to be immobile, meaning neither labour nor capital crosses borders. Quite obviously, especially in developing countries with chronic underemployment and volatile capital flows, the latter two assumptions are generally not satisfied. Exchange rates, on the other hand, are now often flexible, but determined primarily in asset markets, where they respond to changes in expectations about future growth and interest rates.

Traditional Theory

According to the modern day version of the theory of comparative advantage, trade follows "factor endowments", a term referring to resources relatively abundantly available in a given country. The problem with this theory, called "Heckscher-Ohlin-Samuelson" (HOS) after its original proponents, is that it explains only a minor portion of world trade. In fact, an overwhelming share of trade flows involves "two-way trade", i e, the international exchange of goods and services between countries (and industries) with broadly similar endowments, productivity and real wages.

In order to explain such realities, Paul Krugman made use of the idea of consumer's love for variety. Dixit and Stiglitz (1977) wrote the seminal article on demand for variety. Usually, "utility" derives from consuming a particular product, such as a TV. Utility increases if you have a TV not only in the living room, but in the bedroom as well. With Dixit-Stiglitz preferences, however, consumers value having a choice of brands, models and accessories. For example, high-end consumers in Germany appreciate having a choice between the German BMW and the imported Lexus, and vice versa in Japan. The resulting trade flows represent intra-industry exchange between economies with similar endowments and hence conform with observed patterns. Krugman (1979, 1980) formulated a series of simple models that explained trade flows between similarly endowed countries, based on these Dixit-Stiglitz preferences.

Space for Policy

Krugman's papers were soon famous, and the quickly burgeoning literature soon became known as the NTT. In NTT, trade policy can be justified as tariffs and subsidies for strategically important, but still uncompetitive industries can increase welfare. Helpman and Krugman (1989) investigate the complex possible outcomes of strategic trade policy. Clearly, the standard conclusions of traditional theory were irrelevant. Krugman (1990) discusses cases where trade policy has diverse and often positive effects. Similarly, Markusen (2002) employs a new trade model that is clearly inconsistent with the one-size-fits-all, free-trade-is-always-better, traditional policy prescription.

Where does this trade policy space come from? The new trade literature

emphasises increasing returns to scale, especially in manufacturing, usually stemming from falling average costs. Think of start-up costs, similarly large for assembly lines in modern factories as for brand recognition campaigns in the case of web or financial services. Average “sunk costs” decrease with scale, meaning that the profitability of a project increases with the size of the market served. The benefits from trade then do not rest on static allocative improvements, but on dynamic expansion, induced by larger markets and greater specialisation. Government programmes – to set up facilities, to link producers and markets through infrastructure support, and, certainly not least, to provide subsidies and tariff protection – can help develop economic capacities and capabilities without the negative welfare implications claimed by traditional trade theory. Industrial country corporate giants lobbying for further market access in the South as well as developing country industries demanding temporary protection to become internationally competitive and thus viable certainly fit into this picture.

Such ideas are neither new nor limited to trade theory. Models of development and growth centred on the idea of increasing returns, particularly in manufacturing, can be found in Adam Smith, and more recently in Young (1928), Verdoorn (1949), Kaldor (1978) and Thirlwall (1980, 1992). Early in the 19th century, Alexander Hamilton and Friedrich List advanced the “infant industry” argument, according to which initially uncompetitive sectors ought to be protected and nourished.[2]

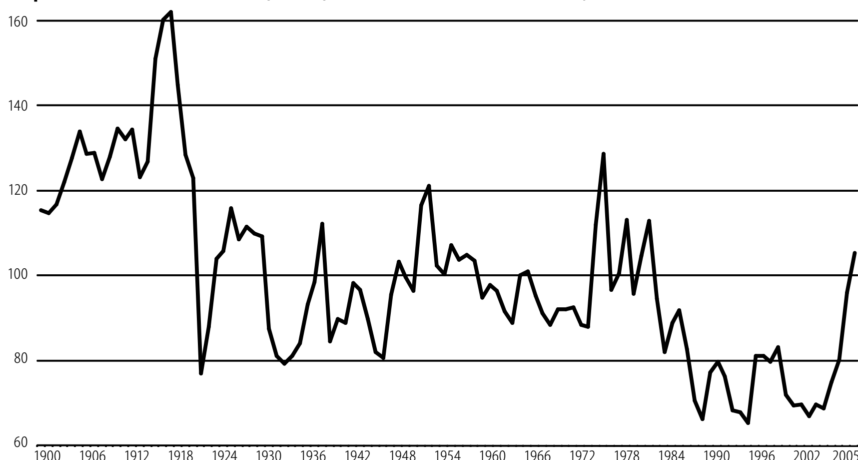
Krugman’s Ideas

However, Krugman’s ideas, apparently opening the door to how governments can shape a country’s development path through trade and industrial policy, were soon usurped by free trade and general equilibrium economists. The Nobel Prize committee, in a brief overview of his work, remarks that models resting on Krugman’s theoretical advances “are now routinely used, e g, by the World Bank in assessing the effects of the WTO rounds of trade liberalisation”.[3] In fact, these models have been widely criticised for overestimating potential gains from trade.[4] Moreover, recent advances in research, summarised in Bernard et al (2007), that build on Krugman’s work integrate traditional with NTT. Thus, the profession has largely steered clear of the potentially radical departure of Krugman’s ideas from traditional trade theory.

In summary, NTT provides fertile ground for further research and more innovative policymaking, and is immediately relevant to the real world, unlike traditional trade theory. However, the public debate continues to mostly revolve around traditional trade theory. In the following, we discuss the related issues of diversification of production and the falling terms of trade, assuming Ricardo, Heckscher and Ohlin had it right.

The gains developing countries can make from international specialisation in an “HOS world” are limited to backward activities – primary commodity extraction, agricultural production, and, possibly, low-skill, labour-intensive manufactures. Why should poor countries specialise in the export of mineral, or agricultural primary commodities, if economists generally see the greatest growth potential in dynamic modern activities such as manufactures and modern services?

Graph: Price Index of Commodities (Excl Oil) Relative to Prices of Manufactures, 1900-2007



Source: Ocampo and Parra (2006, 2008).

Further, static gains from international specialisation – primary activities in the South, “branded” secondary and tertiary activities in the North – are eroded by falling relative world prices. The story is fairly intuitive. Export prices for primary commodities (say, coffee) tend to decrease over longer time horizons relative to prices commanded by hi-tech manufactures (say, machinery). One reason for this is that for “unbranded” generic commodities, such as coffee beans, competition is much higher than for a BMW. Rents – higher profits for successful branding – are captured by the likes of Starbucks in the case of coffee, and BMW in the case of cars.

The trend of a secular decline of primary commodity prices, relative to manufactured goods’ prices, was first identified by Hans Singer and Raul Prebisch at the United Nations over half a century ago. Ocampo and Parra (2006, 2008) and the UN’s 2006 *World Economic and Social Survey* (chapter 3) show that even the recent boom (see the graph) in commodity prices did not reverse this long-term trend. The developing country periphery gains much less due to intense competition over the production of generic manufactures, while the developed country core captures rents from their high value added exports, the prices of which rise with technological advances. Not surprisingly, the prices of generics suggest low value added in the South compared to specific, high value added manufactures protected by strong intellectual property rights in the North.

Discrepancy

Accepting traditional trade theory condemns the South to low value added activities as trade liberalisation effectively prohibits it from supporting infant industries with greater developmental potential. Deraniyagala and Fine (2001) discuss the

differences between NTT and old trade policy in a critical survey. First, traditional comparative advantage trade theory offers static gains from specialisation, given a country's current position, whereas NTT leaves open the possibility for gains from increasing returns. Second, in traditional theory, industrial policy does more harm than good, whereas NTT leaves room for appropriate subsidies, tariffs and infrastructure investments. Why then does conventional wisdom – including the media, politicians and negotiators – simply take the static comparative advantage story at face value?

Macroeconomics

The issues considered so far are primarily microeconomic in nature. The founder of macroeconomics, of course, was John Maynard Keynes, and his landmark theory of aggregate demand has been developed to include international dimensions. Harrod, and later Thirlwall (1979), constructed a trade theory that explains, not unlike Keynes' (1936) theory of effective (domestic) demand, cross-border flows of goods and services as the result of the level (or rate of growth) of economic activity. Higher incomes in the US increase imports of, say, the Lexus, given their relative prices (and features) compared to Detroit cars. Importantly, relative prices are, to a considerable degree, determined by a macroeconomic asset price, the exchange rate. Conveniently, these theories can be integrated with financial markets (where exchange rates are viewed as asset prices), and with underemployment as well as factor mobility, particularly of capital. Inconveniently, such models produce much less gains from trade, and thus, are not drawn upon for free trade policy advocacy.

Furthermore, Kaldor and Thirwall integrate the aforementioned ideas on development – increasing returns and the relevance of manufacturing for creating value added – with a generally Keynesian perspective, according to which quantity adjustment and monetary factors matter, and thus overcome the crippling classical dichotomy of pure trade theory. Evaluated from this perspective, trade policy suggests that the potential gains of trade liberalisation may indeed be huge, but only if pursued from a robust existing industrial base, and complemented by selective industrial policy.

Conclusions

There is tremendous diversity in trade theories and models. Krugman's contribution was important, and pushed the profession beyond the overly simplistic assumption of perfect competition. Since then, NTT has tended to be integrated and reconciled with traditional trade theory, undermining its deployment in support of successful strategic trade policy intervention.

NOTES

1 Krugman's two key contributions were: (1) *new trade theory*, put forth in Krugman (1979), and (2) *economic geography*, put forth in Krugman (1991). The former is more relevant to the discussion here, so we do not discuss the latter.

2 See Shafaeddin on "Friedrich List and the infant industry argument", and other contributions in Jomo K S (2005), as well as Jomo and Reinert (2005). Other forceful restatements of this argument come from Reinert (2007), Chang (2007) and Amsden (2001).

3 See page 9, "Trade and Geography" available at www.nobelprice.org.

4 See Jomo K S and von Arnim (2008) and references therein.

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