The concepts and significance of trade

In international economics and international trade, terms of trade or TOT is (Price Exports)/(Price Imports). In layman's terms it means what quantity of imports can be purchased through the sale of a fixed quantity of exports. " Terms of trade" are sometimes used as a proxy for the relative social welfare of a country, but this heuristic is technically questionable and should be used with extreme caution. An improvement in a nation's terms of trade (the increase of the ratio) is good for that country in the sense that it can buy more imports for any given level of exports. The terms of trade is not affected by the exchange rate because a rise in the value of a country's currency simultaneously lowers domestic prices for both imports and exports.

Two country model CIE economics

In the simplified case of two countries and two commodities, terms of trade is defined as the ratio of the total export revenue[clarification needed] a country receives for its export commodity to the total import revenue it pays for its import commodity. In this case the imports of one country are the exports of the other country. For example, if a country exports 50 dollars worth of product in exchange for 100 dollars worth of imported product, that country's terms of trade are 50/100 = 0. 5. The terms of trade for the other country must be the reciprocal (100/50 = 2). When this number is falling, the country is said to have " deteriorating terms of trade". If multiplied by 100, these calculations can be expressed as a percentage (50% and 200% respectively). If a country's terms of trade fall from say 100% to 70% (from 1. 0 to 0. 7), it has experienced a 30% deterioration in its terms of trade. When doing longitudinal (time series) calculations, it is common to set a value for the base year[citation needed] to make interpretation of the results easier.

In basic Microeconomics, the terms of trade are usually set in the interval between the opportunity costs for the production of a given good of two countries.

Terms of trade is the ratio of a country’s export price index to its import price index, multiplied by 100

[edit]Multi-commodity multi-country model

In the more realistic case of many products exchanged between many countries, terms of trade can be calculated using a Laspeyres index. In this case, a nation’s terms of trade is the ratio of the Laspeyre price index of exports to the Laspeyre price index of imports. The Laspeyre export index is the current value of the base period exports divided by the base period value of the base period exports. Similarly, the Laspeyres import index is the current value of the base period imports divided by the base period value of the base period imports.

{{p_x^c, q_x^0}over{p_x^0, q_x^0}}

left/

{{p_m^c, q_m^0}over{p_m^0, q_m^0}}right.

Where

p_x^c= price of exports in the current period

q_x^0= quantity of exports in the base period

p_x^0= price of exports in the base period

p_m^c= price of imports in the current period

q_m^0= quantity of imports in the base period

p_m^0= price of imports in the base period

Basically: Export Price Over Import price times 100 If the percentage is over 100% then your economy is doing well (Capital Accumulation) If the percentage is under 100% then your economy is not going well (More money going out than coming in)

[edit]Limitations

Terms of trade should not be used as synonymous with social welfare, or even Pareto economic welfare. Terms of trade calculations do not tell us about the volume of the countries' exports, only relative changes between countries. To understand how a country's social utility changes, it is necessary to consider changes in the volume of trade, changes in productivity and resource allocation, and changes in capital flows.

In the real world of over 200 nations trading hundreds of thousands of products, terms of trade calculations can get very complex. Thus, the possibility of errors is significant.

Terms of Trade: Concepts and significance

Concepts

There are two concepts of a country's, or region's, terms of trade in common usage:

The `net barter terms of trade' (NBTT) are defined as the ratio of the prices (or unit values) of a country's, or region's, exports to the prices (or unit values) of its imports. When the phrase `terms of trade' is used without qualification it refers to the NBTT concept.

However, the NBTT is an incomplete indicator of the impact of changing market conditions on the trade balance of a country because it leaves out of account the influence of changes in trade volumes. This is rectified by the use of a second concept, `the income terms of trade' (ITT) which is defined as the NBTT multiplied by export volume. An alternative interpretation is that the ITT measures the purchasing power of exports in terms of importable goods and services.

Significance

Changes in a country's terms of trade can have important effects on its balance of payments and on its economic growth. A deterioration in the NBTT, for example, will worsen a country's trade balance — unless it is offset by an increase in export volume — so that in order to restore balance it will need to export more and/or import less. Since domestic investment in most developing countries depends heavily on imported capital equipment, spare parts, etc., any substantial cut in imports will hit investment and thereby restrict, or even reduce, economic growth. Conversely, a substantial improvement in a country's NBTT, or in its ITT, would allow it to expand imports, including imports of capital equipment, and thus lay a basis for continued, or accelerated, economic growth in the future.

The " Terms-Of-Trade" Concept

In the classical theory, the discussion of the role of variations in prices in the mechanism of adjustment of international balances relates not to relative variations in prices of identical commodities in different markets, but to relative variations in prices of different commodities in the same markets, and primarily to relative variations in prices as between export and import commodities. It concerns itself, therefore, with the effect of disturbances on what are now called the " terms of trade." Changes in the terms of trade were discussed, however, with reference to two essentially distinct though related problems; first, their role in the mechanism of adjustment and, second, their significance as measures of gain or loss from foreign trade. It is only the former of these problems that concerns us in this chapter. 1

The most familiar concept of the terms of trade measures these terms by the ratio of export prices to import prices, what Taussig has called the " net barter terms of trade," and I prefer to designate as the " commodity terms of trade." The classical economists, however, had also another concept of terms of trade, for which they tacitly accepted the commodity terms of trade as an accurate measure, so that they used the two concepts as quantitatively identical although logically distinct. This second concept, which I would designate as the " double factoral terms of trade," is the ratio between the quantities of the productive factors in the two countries necessary to produce quantities of product of equal value in foreign trade.

From Hume on, there was general agreement that some or all types of disturbances in international balances would result in changes in the terms of trade, and that these changes would contribute to the restoration of equilibrium. As has been shown, Hume held that a relative change in the quantity of money in one country as compared to other countries would result in a rise in the prices of its products relative to the prices of foreign products, until, as the result of the influence of this relative change in prices on the course of trade and on the flow of specie, the “ level of money” had again been equalized internationally. This was almost universally accepted doctrine during the next century. Thornton and Malthus claimed, with Wheatley and Ricardo dissenting, that a similar change in relative prices would occur and would operate to restore equilibrium in the balance of payments when it had been disturbed by a crop failure or the remittance of a subsidy, and this also came to receive wide acceptance, under the erroneous designation of the “ Ricardian theory.” Ricardo conceded, however, that there were some types of disturbance in an existing international equilibrium other than those originating in the currency which would affect the terms of trade, and he specified an original change in the relative demand of two countries for each other’s products and a tariff change as disturbances of this sort. 2 There is ground for distinguishing in this connection between different types of disturbances, and Ricardo’s distinctions have some measure of validity. In the account which follows of later treatments of the question, only the historically most important controversies are referred to.

Irish Absenteeism.-The economic consequences for Ireland of the absenteeism of Irish landlords was a burning issue in the eighteenth and nineteenth centuries and gave rise to extensive discussion. The Irish complaints against absenteeism often rested on mercantilist arguments to the effect that the remittance of the rents abroad represented an equivalent loss of specie to Ireland. The English classical economists, notably McCulloch, tended to be satisfied that when they had demonstrated that the remittances were ultimately transferred in the form of goods rather than in specie they had also demonstrated that absenteeism was not economically injurious to Ireland. An early instance of this argument follows:

When it is considered that, if in the natural order of things, undisturbed by such a measure as the restriction on specie, the remittances to absentees, by causing a balance of pecuniary intercourse against Ireland, would force an export from thence wherewith to pay it, and restore the level, it may be fairly concluded that the absentees, by bringing over their money to England, force the manufacture or produce to follow them, which, but for their coming, they would necessarily have caused to be used at home, the only difference is, that the produce or manufactures which their incomes naturally promote, would come to be consumed or used in England, in the stead of being consumed or used in Ireland; and thus the encouragement to the productive industry of Ireland may be said to operate in both cases … 3

Longfield4 introduced into the controversy the question of the effect of absenteeism on the Irish terms of trade, apparently for the first time in print. 5 He insisted that it was important to examine whether the increase in Irish exports resulting from absenteeism took place " in consequence of a diminished demand [for Irish products] at home, or an increased demand abroad," and claimed that the former was the case, because Irish landlords living abroad would not have the same demand for Irish commodities and services as would the same landlords if living in Ireland. In order to induce acceptance of the rents in goods instead of money, therefore, the Irish tenants would have to offer more goods to liquidate their indebtedness to absentee landlords than would be necessary if the landlords lived in Ireland, i. e., there would have to be a fall in the prices of Irish export products relative to the prices of imports. 6

Tariff Changes.-Torrens’s discussion of the effect of a tariff on the terms of trade has already been referred to. 7 In his basic illustration, Torrens assumed unit elasticities of demand for sugar and cloth in both countries, production of sugar only in Cuba and of cloth only in England, and production under conditions of constant costs for both countries, and he concluded that both the commodity and the factoral terms of trade would move in favor of Cuba, the tariff-levying country. His argument was on the whole received unsympathetically by most of the economists of his time, because it seemed to them to undermine the case for free trade. 8 But their criticisms, in so far as they were deserving of consideration at all, bore only on the conformity of the assumptions to real conditions. Of these criticisms, the most important was the argument by Merivale that if sugar could be produced in England as well as in Cuba, or if a third country which could produce sugar were brought into the hypothesis, the English elasticity of demand for Cuban sugar would be greatly increased, and the shift in the terms of trade in favor of Cuba would in consequence be much lessened in degree. 9 The only favorable comments on Torrens’s argument were by an anonymous writer in the Dublin University magazine, 10 who may perhaps have been Longfield, and by J. S. Mill, who made the publication of Torrens's The budget the occasion for the publication of his own Essays on some unsettled questions, which had been written some fifteen years before, and of which the first essay presented a similar argument as to the effect of import duties on the terms of trade