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COURSE NAME	International trade and trade policies

International trade and Investments

International trade is exchange of capital, goods, and services across international borders or territorie In most countries, it represents a significant share of gross domestic product (GDP). While international trade has been present throughout much of history (see Silk Road, Amber Road), its economic, social, and political importance has been on the rise in recent centuries. advanced transportation, Industrialization, globalization, multinational corporations, and outsourcing are all having a major impact on the international trade system. Increasing international trade is crucial to the continuance of globalization. International trade is a major source of economic revenue for any nation that is considered a world power. Without international trade, nations would be limited to the goods and services produced within their own borders.

International trade is in principle not different from domestic trade as the motivation and the behavior of parties involved in a trade does not change fundamentally depending on whether trade is across a border or not. The main difference is that international trade is typically more costly than domestic trade. The reason is that a border typically imposes additional costs such as tariffs, time costs due to border delays and costs associated with country differences such as language, the legal system or a different culture.

International trade uses a variety of currencies, the most important of which are held as foreign reserves by governments and central banks. Here the percentage of global cumulative reserves held for each currency between 1995 and 2005 are shown: the US dollar is the most sought-after currency, with the Euro in strong demand as well.

Another difference between domestic and international trade is that factors of production such as capital and labor are typically more mobile within a country than across countries. Thus international trade is mostly restricted to trade in goods and services, and only to a lesser extent to trade in capital, labor or other factors of production. Then trade in goods and services can serve as a substitute for trade in factors of production. Instead of importing the factor of production a country can import goods that make intensive use of the factor of production and are thus embodying the respective factor. An example is the import of labor-intensive goods by the United States from China. Instead of importing Chinese labor the United States is importing goods from China that were produced with Chinese labor. International trade is also a branch of economics, which, together with international finance, forms the larger branch of international economics.

Models used to predict trade patterns

Several different models have been proposed to predict patterns of trade and to analyze the effects of trade policies such as tariffs.

Ricardian model

The Ricardian model focuses on comparative advantage and is perhaps the most important concept in international trade theory. In a Ricardian model, countries specialize in producing what they produce best. Unlike other models, the Ricardian framework predicts that countries will fully specialize instead of producing a broad array of goods. Also, the Ricardian model does not directly consider factor endowments, such as the relative amounts of labor and capital within a country. The main merit of Ricardian model is that it assumes technology differences between countries. The Ricardian model makes the following assumptions:

- 1. Labor is the only primary input to production (labor is considered to be the ultimate source of value).
- 2. Constant Marginal Product of Labor (MPL) (Labor productivity is constant, constant returns to scale, and simple technology.)
- 3. Limited amount of labor in the economy
- 4. Labor is perfectly mobile among sectors but not internationally.
- 5. Perfect competition (price-takers).

The Ricardian model measures in the short-run, therefore technology differs internationally. This supports the fact that countries follow their comparative advantage and allows for specialization.

Modern development of the Ricardian model

The Ricardian trade model was studied by Graham, Jones, McKenzie and others. All the theories excluded intermediate goods, or traded input goods such as materials and capital goods. McKenzie(1954), Jones(1961) and Samuelson(2001)emphasised that condiderable gains from trade would be lost once intermediate goods were excluded from trade. In a famous comment McKenzie 1954 pointed that "A moment's consideration will convince one that Lancashire would be unlikely to produce cotton cloth if the cotton had to be grown in England.

Recently, the theory was extended to the case that includes traded intermediates. Thus the "labor only" assumption (#1 above) was removed from the theory. Thus the new Ricardian theory, or the Ricardo-Sraffa model, as it is sometimes named, theoretically includes capital goods such as machines and materials, which are traded across countries. In the time of global trade, this assumption is much more realistic than the Heckscher-Ohlin model, which

assumes that capital is fixed inside the country and does not move internatioally.

Heckscher-Ohlin model

Heckscher-Ohlin model

The Heckscher-Ohlin model was produced as an alternative to the Ricardian model of basic comparative advantage. Despite its greater complexity it did not prove much more accurate in its predictions. However from a theoretical point of view it did provide an elegant solution by incorporating the neoclassical price mechanism into international trade theory.

The theory argues that the pattern of international trade is determined by differences in factor endowments. It predicts that countries will export those goods that make intensive use of locally abundant factors and will import goods that make intensive use of factors that are locally scarce. Empirical problems with the H-O model, known as the Leontief paradox, were exposed in empirical tests by Wassily Leontief who found that the United States tended to export labor intensive goods despite having a capital abundance.

The H-O model makes the following core assumptions:

- 1. Labor and capital flow freely between sectors
- 2. The production of shoes is labor intensive and computers is capital intensive
- 3. The amount of labor and capital in two countries differ (difference in endowments)
- 4. free trade
- 5. technology is the same across countries (long-term)
- 6. Tastes are the same.

The problem with the H-O theory is that it excludes the trade of capital goods (including materials and fuels). In the H-O theory, labor and capital are fixed entities endowed to each country. In a modern economy, capital goods are traded internationally. Gains from trade of intermediate goods are considerable, as it was emphasized by Samuelson (2001). In the early 1900s an international trade theory called factor proportions theory emerged by two Swedish economists, Eli Heckscher and Bertil Ohlin. This theory is also called the Heckscher-Ohlin theory. The Heckscher-Ohlin theory stresses that countries should produce and export goods that require resources (factors) that are abundant and import goods that require resources in short supply. This theory differs from the theories of comparative advantage and absolute advantage since these theory focuses on the productivity of the production process for a particular good. On the contrary, the Heckscher-Ohlin theory states that a country should specialise production and export using the factors

that are most abundant, and thus the cheapest. Not produce, as earlier theories stated, the goods it produces most efficiently.

Reality and Applicability of the Heckscher-Ohlin Model

The Heckscher-Ohlin theory is preferred to the Ricardo theory by many economists, because it makes fewer simplifying assumptions. In 1953, Wassily Leontief published a study, where he tested the validity of the Heckscher-Ohlin theory The study showed that the U.S was more abundant in capital compared to other countries, therefore the U.S would export capital- intensive goods and import labour-intensive goods. Leontief found out that the U.S's export was less capital intensive than import.

After the appearance of Leontief's paradox, many researchers tried to save the Heckscher-Ohlin theory, either by new methods of measurement, or either by new interpretations. Leamer emphasized that Leontief did not interpret HO theory properly and claimed that with a right interpretation paradox did not occur. Brecher and Choudri found that, if Leamer was right, the American workers consumption per head should be lower than the workers world average consumption.

Many other trials followed but most of them failed. Many of famous textbook writers, including Krugman and Obstfeld and Bowen, Hollander and Viane, are negative about the validity of H-O model. After examining the long history of empirical research, Bowen, Hollander and Viane concluded: "Recent tests of the factor abundance theory [H-O theory and its developed form into many-commodity and many-factor case] that directly examine the H-O-V equations also indicate the rejection of the theory."Heckscher-Ohlin theory is not well adapted to the analyze South-North trade problems. The assumptions of HO are less realistic with respect to N-S than N-N (or S-S) trade. Income differences between North and South is the one that third world cares most. The factor price equalization [a consequence of HO theory] has not shown much sign of realization. HO model assumes identical production functions between countries. This is highly unrealistic. Technological gap between developed and developing countries is the main concern of the poor countries.

Specific factors model

In this model, labor mobility between industries is possible while capital is immobile between industries in the short-run. Thus, this model can be interpreted as a 'short run' version of the Heckscher-Ohlin model. The specific factors name refers to the given that in the short-run, specific factors of production such as physical capital are not easily transferable between industries. The theory suggests that if there is an increase in the price of a good, the owners of the factor of production specific to that good will profit in real terms. Additionally, owners of opposing specific factors of production (i.e.

labor and capital) are likely to have opposing agendas when lobbying for controls over immigration of labor. Conversely, both owners of capital and labor profit in real terms from an increase in the capital endowment. This model is ideal for particular industries. This model is ideal for understanding income distribution but awkward for discussing the pattern of trade.

New Trade Theory

New Trade theory tries to explain several facts about trade, which the two main models above have difficulty with. These include the fact that most trade is between countries with similar factor endowment and productivity levels, and the large amount of multinational production(i.e.foreign direct investment) which exists. In one example of this framework, the economy exhibits monopolistic competition and increasing returns to scale.

Gravity model

Gravity model of trade

The Gravity model of trade presents a more empirical analysis of trading patterns rather than the more theoretical models discussed above. The gravity model, in its basic form, predicts trade based on the distance between countries and the interaction of the countries' economic sizes. The model mimics the Newtonian law of gravity which also considers distance and physical size between two objects. The model has been proven to be empirically strong through econometric analysis. Other factors such as income level, diplomatic relationships between countries, and trade policies are also included in expanded versions of the model.

Regulation for international trade

This belief became the dominant thinking among western nations since then. In the years since the Second World War, controversial multilateral treaties like the General Agreement on Tariffs and Trade (GATT) and World Trade Organization have attempted to create a globally regulated trade structure. These trade agreements have often resulted in protest and discontent with claims of unfair trade that is not mutually beneficial.

Free trade is usually most strongly supported by the most economically powerful nations, though they often engage in selective protectionism for those industries which are strategically important such as the protective tariffs applied to agriculture by the United States and Europe. The Netherlands and the United Kingdom were both strong advocates of free trade when they were economically dominant, today the United States, the United Kingdom, Australia and Japan are its greatest proponents. However, many other countries (such as India, China and Russia) are increasingly becoming advocates of free trade as

they become more economically powerful themselves. As tariff levels fall there is also an increasing willingness to negotiate non tariff measures, including foreign direct investment, procurement and trade facilitation. The latter looks at the transaction cost associated with meeting trade and customs procedures.

Traditionally agricultural interests are usually in favor of free trade while manufacturing sectors often support protectionism. This has changed somewhat in recent years, however. In fact, agricultural lobbies, particularly in the United States, Europe and Japan, are chiefly responsible for particular rules in the major international trade treaties which allow for more protectionist measures in agriculture than for most other The regulation of international trade is done through the World Trade Organization at the global level, and through several other regional arrangements such as MERCOSUR in South America, the North American Free Trade Agreement (NAFTA) between the United States, Canada and Mexico, and the European Union between 27 independent states. The 2005 Buenos Aires talks on the planned establishment of the Free Trade Area of the Americas (FTAA) failed largely because of opposition from the populations of Latin American nations. Similar agreements such as the Multilateral Agreement on Investment (MAI) have also failed in recent years.

goods and services.

During recessions there is often strong domestic pressure to increase tariffs to protect domestic industries. This occurred around the world during the Great Depression. Many economists have attempted to portray tariffs as the underlining reason behind the collapse in world trade that many believe seriously deepened the depression.

Risk in international trade

Companies doing business across international borders face many of the same risks as would normally be evident in strictly domestic transactions. For

example, Buyer insolvency (purchaser cannot pay);

- Non-acceptance (buyer rejects goods as different from the agreed upon specifications);
- Credit risk (allowing the buyer to take possession of goods prior to payment);
- Regulatory risk (e.g., a change in rules that prevents the transaction);
- Intervention (governmental action to prevent a transaction being completed);
- Political risk (change in leadership interfering with transactions or prices); and
- War and Acts of God.

In addition, international trade also faces the risk of unfavorable exchange rate movements (and, the potential benefit of favorable movements).

2. Borders

Borders define geographic boundaries of political entities or legal jurisdictions, such as governments, states or sub national administrative divisions. They may foster the setting up of buffer zones. Some borders are fully or partially controlled, and may be crossed legally only at designated border checkpoints.

Definitions of borders

In the past many borders were not clearly defined lines, but were neutral zones called marchlands. This has been reflected in recent times with the neutral zones that were set up along part of Saudi Arabia's borders with Kuwait and Iraq (however, these zones no longer exist). In modern times the concept of a marchland has been replaced by that of the clearly defined and demarcated border. For the purposes of border control, airports and seaports are also classed as borders. Most countries have some form of border control to restrict or limit the movement of people, animals, plants, and goods into or out of the country. Under international law, each country is generally permitted to define the conditions which have to be met by a person to legally cross its borders by its own laws, and to prevent persons from crossing its border when this happens in violation of those laws.

In order to cross borders, the presentation of passports and visas or other appropriate forms of identity document is required by some legal orders. To stay or work within a country's borders aliens (foreign persons) may need special immigration documents or permits that authorize them to do so.

Moving goods across a border often requires the payment of excise tax, often collected by customs officials. Animals (and occasionally humans) moving across borders may need to go into quarantine to prevent the spread of exotic or infectious diseases. Most countries prohibit carrying illegal drugs or endangered animals across their borders. Moving goods, animals or people illegally across a border, without declaring them, seeking permission, or deliberately evading official inspection constitutes smuggling.

Border economics

The presence of borders often fosters certain economic features or anomalies. Wherever two jurisdictions come into contact, special economic opportunities arise for border 5trade. Smuggling provides a classic case; contrariwise, a border region may flourish on the provision of excise or of import–export services — legal or quasi-legal, corrupt or corruption-free. Different regulations on either side of a border may encourage services to position themselves at or

near that border: thus the provision of pornography, of prostitution, of alcohol and/or of narcotics may cluster around borders, city limits, county lines, ports and airports. In a more planned and official context, Special Economic Zones (SEZs) often tend to cluster near borders or ports.

Human economic traffic across borders (apart from kidnapping), may involve mass commuting between workplaces and residential settlements. The removal of internal barriers to commerce, as in France after the French Revolution or in Europe since the 1940s, de-emphasizes border-based economic activity and fosters free trade. Euro regions are similar official structures built around commuting across borders.

International finance

International finance is the branch of economics that studies the dynamics of exchange rates, foreign investment, and how these affect international trade. It also studies international projects, international investments and capital flows, and trade deficits. It includes the study of futures, options and currency swaps. Together with international trade theory, international finance is also a branch of international economics.

Some of the theories which are important in international finance include the Mundell-Fleming model, the optimum currency area (OCA) theory, as well as the purchasing power parity (PPP) theory. Moreover, whereas international trade theory makes use of mostly microeconomic methods and theories, international finance theory makes use of predominantly intermediate and advanced macroeconomic methods and concepts.

International economics is concerned with the effects upon economic activity of international differences in productive resources and consumer preferences and the institutions that affect them. It seeks to explain the patterns and consequences of transactions and interactions between the inhabitants of different countries, including trade, investment and migration.

- **International trade** studies goods-and-services flows across international boundaries from supply-and-demand factors, economic integration, and policy variables such as tariff rates and trade quotas.
- **International finance** studies the flow of capital across international financial markets, and the effects of these movements on exchange rates.
- International monetary economics and macroeconomics studies money and macro flows across countries.

International trade

Scope and methodology

The economic theory of international trade differs from the remainder of economic theory mainly because of the comparatively limited international mobility of the capital and labour [8]. In that respect, it would appear to differ in degree rather than in principle from the trade between remote regions in one country. Thus the methodology of international trade economics differs little from that of the remainder of economics. However, the direction of academic research on the subject has been influenced by the fact that governments have often sought to impose restrictions upon international trade, and the motive for the development of trade theory has often been a wish to determine the consequences of such restrictions.

The branch of trade theory which is conventionally categorized as "classical" consists mainly of the application of deductive logic, originating with Ricardo's Theory of *Comparative Advantage* and developing into a range of theorems that depend for their practical value upon the realism of their postulates. "Modern" trade theory, on the other hand, depends mainly upon *empirical analysis*.

Classical theory

The law of comparative advantage provides a logical explanation of international trade as the rational consequence of the comparative advantages that arise from inter-regional differences - regardless of how those differences arise. Since its exposition by John Stuart Mill the techniques of neo-classical economics have been applied to it to model the patterns of trade that would result from various postulated sources of comparative advantage. However, extremely restrictive (and often unrealistic) assumptions have had to be adopted in order to make the problem amenable to theoretical analysis. The best-known of the resulting models, the Heckscher-Ohlin theorem (H-O) depends upon the assumptions of no international differences of technology, productivity, or consumer preferences; no obstacles to pure competition or free trade and no scale economies. On those assumptions, it derives a model of the trade patterns that would arise solely from international differences in the relative abundance of labour and capital (referred to as factor endowments). The resulting theorem states that, on those assumptions, a country with a relative abundance of capital would export capital-intensive products and import labour-intensive products. The theorem proved to be of very limited predictive value, as was demonstrated by what came to be known as the "Leontief Paradox" (the discovery that, despite its capital-rich factor endowment, America was exporting labour-intensive products and importing capital-intensive products) Nevertheless the theoretical techniques (and many of the assumptions) used in deriving the H-O model were subsequently used to derive further theorems. The Stolper-Samuelson theorem, which is often described as a corollary of the H-O theorem, was an early example. In its most general form it states that if the price of a good rises (falls) then the price of the factor used intensively in that industry will also rise (fall) while the price of the other factor will fall (rise). In the international trade context for which it was

devised it means that trade lowers the real wage of the scarce factor of production, and protection from trade raises it. Another corollary of the H-O theorem is Samuelson's factor price equalisation theorem which states that as trade between countries tends to equalise their product prices, it tends also to equalise the prices paid to their factors of production. Those theories have sometimes been taken to mean that trade between an industrialised country and a developing country would lower the wages of the unskilled in the industrialised country. (But, as noted below, that conclusion depends upon the unlikely assumption that productivity is the same in the two countries). Large numbers of learned papers have been produced in attempts to elaborate on the H-O and Stolper-Samuelson theorems, and while many of them are considered to provide valuable insights, they have seldom proved to be directly applicable to the task of explaining trade patterns.)

Modern theory

Modern trade theory moves away from the restrictive assumptions of the H-O theorem and explores the effects upon trade of a range of factors, including technology and scale economies. It makes extensive use of econometrics to identify from the available statistics, the contribution of particular factors among the many different factors that affect trade. The contribution of differences of technology have been evaluated in several such studies. The temporary advantage arising from a country's development of a new technology is seen as contributory factor in one study Other researchers have found research and development expenditure, patents issued, and the availability of skilled labor, to be indicators of the technological leadership that enables some countries to produce a flow of such technological innovations, and have found that technology leaders tend to export hi-tech products to others and receive imports of more standard products from them. Another econometric study also established a correlation between country size and the share of exports made up of goods in the production of which there are scale economies. It is further suggested in that study that internationally-traded goods fall into three categories, each with a different type of comparative advantage:

- goods that are produced by the extraction and routine processing
 of available natural resources such as coal, oil and wheat, for
 which developing countries often have an advantage compared
 with other types of production which might be referred to as
 "Ricardo goods":
- low-technology goods, such as textiles and steel, that tend to migrate to countries with appropriate factor endowments - which might be referred to as "Heckscher-Ohlin goods"; and,
- high-technology goods and high scale-economy goods, such as computers and aeroplanes, for which the comparative advantage arises from the availability of R&D resources and specific skills and the proximity to large sophisticated markets.

The effects of international trade

Gains

There is a strong presumption that any exchange that is freely undertaken will benefit both parties, but that does not exclude the possibility that it may be harmful to others. However (on assumptions that included constant returns and competitive conditions) Paul Samuelson has proved that it will always be possible for the gainers from international trade to compensate the losers. Moreover, in that proof, Samuelson did not take account of the gains to others resulting from wider consumer choice, from the international specialisation of productive activities - and consequent economies of scale, and from the transmission of the benefits of technological innovation. An OECD study has suggested that there are further dynamic gains resulting from better resource allocation, deepening specialisation, increasing returns to R&D, and technology spillover. The authors found the evidence concerning growth rates to be mixed, but that there is strong evidence that a 1 per cent increase in openness to trade increases the level of GDP per capita by between 0.9 per cent and 2.0 per cent . They suggested that much of the gain arises from the growth of the most productive firms at the expense of the less productive. Those findings and others have contributed to a broad consensus among economists that trade confers very substantial net benefits, and that government restrictions upon trade are generally damaging.

Factor price equalization

Nevertheless there have been widespread misgivings about the effects of international trade upon wage earners in developed countries. Samuelson's factor price equalisation theorem indicates that, if productivity were the same in both countries, the effect of trade would be to bring about equality in wage rates. As noted above, that theorem is sometimes taken to mean that trade between an industrialised country and a developing country would lower the wages of the unskilled in the industrialised country. However, it is unreasonable to assume that productivity would be the same in a low-wage developing country as in a high-wage developed country. A 1999 study has found international differences in wage rates to be approximately matched by corresponding differences in productivity. (Such discrepancies that remained were probably the result of over-valuation or under-valuation of exchange rates, or of inflexibilities in labour markets.) It has been argued that, although there may sometimes be short-term pressures on wage rates in the developed countries, competition between employers in developing countries can be expected eventually to bring wages into line with their employees' marginal products. Any remaining international wage differences would then be the result of productivity differences, so that there would be no difference between unit labour costs in developing and developed countries, and no downward pressure on wages in the developed countries.

Terms of trade

There has also been concern that international trade could operate against the interests of developing countries. Influential studies published in 1950 by the Argentine economist Raul Prebisch and the British economist Hans Singer suggested that there is a tendency for the prices of agricultural products to fall relative to the prices of manufactured goods; turning the terms of trade against the developing countries and producing an unintended transfer of wealth from them to the developing countries. Their findings have been confirmed by a number of subsequent studies, although it has been suggested that the effect may be due to quality bias in the index numbers used or to the possession of market power by manufacturers . The Prebisch/Singer findings remain controversial, but they were used at the time - and have been used subsequently - to suggest that the developing countries should erect barriers against manufactured imports in order to nurture their own "infant industries" and so reduce their need to export agricultural products. The arguments for and against such a policy are similar to those concerning the protection of infant industries in general.

Infant industries

The term "infant industry" is used to denote a new industry which has prospects of becoming profitable in the long-term, but which would be unable to survive in the face of competition from imported goods. That is a situation that can occur because time is needed either to achieve potential economies of scale, or to acquire potential learning curve economies. Successful identification of such a situation followed by the temporary imposition of a barrier against imports can, in principle, produce substantial benefits to the country that applies it - a policy known as "import substitution industrialization". Whether such policies succeed depends upon governments' skills in picking winners, and there might reasonably be expected to be both successes and failures. It has been claimed that North Korea's automobile industry owes its existence to initial protection against imports, but a study of infant industry protection in Turkey reveals the absence of any association between productivity gains and degree of protection, such as might be expected of a successful import substitution policy. . Another study provides descriptive evidence suggesting that attempts at import substitution industrialisation since the 1970s have usually failed, but the empirical evidence on the question has been contradictory and inconclusive. It has been argued that the case against import substitution industrialization is not that it is bound to fail, but that subsidies and tax incentives do the job better]. It has also been pointed out that, in any case, trade restrictions could not be expected to correct the domestic market imperfections that often hamper the development of infant industries

Trade policies

Economists' findings about the benefits of trade have often been rejected by government policy-makers, who have frequently sought to protect domestic industries against foreign competition by erecting barriers, such as tariffs and quotas, against imports. Average tariff levels of around 15 per cent in the late 19th century rose to about 30 percent in the 1930s, following the passage in the United States of the Smoot-Hawley Act. Mainly as the result of international agreements under the auspices of the General Agreement on Tariffs and Trade (GATT) and subsequently the World Trade Organisation (WTO), average tariff levels were progressively reduced to about 7 per cent during the second half of the 20th century, and some other trade restrictions were also removed. The restrictions that remain are nevertheless of major economic importance: among other estimates the World Bank estimated in 2004 that the removal of all trade restrictions would yield benefits of over \$500 billion a year by 2015. The largest of the remaining trade-distorting policies are those concerning agriculture. In the OECD countries government payments account for 30 per cent of farmers' receipts and tariffs of over 100 per cent are common OECD economists estimate that cutting all agricultural tariffs and subsidies by 50% would set off a chain reaction in realignments of production and consumption patterns that would add an extra \$26 billion to annual world income.

Quotas prompt foreign suppliers to raise their prices toward the domestic level of the importing country. That relieves some of the competitive pressure on domestic suppliers, and both they and the foreign suppliers gain at the expense of a loss to consumers, and to the domestic economy, in addition to which there is a deadweight loss to the world economy. When quotas were banned under the rules of the General Agreement on Tariffs and Trade (GATT), the United States, Britain and the European Union made use of equivalent arrangements known as voluntary restraint agreements (VRAs) or voluntary export restraints (VERs) which were negotiated with the governments of exporting countries (mainly Japan) - until they too were banned. Tariffs have been considered to be less harmful than quotas, although it can be shown that their welfare effects differ only when there are significant upward or downward trends in imports. Governments also impose a wide range of non-tariff barriers that are similar in effect to quotas, some of which are subject to WTO agreements A recent example has been the application of the precautionary principle to exclude innovatory products.

International Finance

Scope and methodology

The economics of international finance do not differ in principle from the economics of international trade but there are significant differences of emphasis. The practice of international finance tends to involve greater uncertainties and risks because the assets that are traded are claims to flows

of returns that often extend many years into the future. Markets in financial assets tend to be more volatile than markets in goods and services because decisions are more often revised and more rapidly put into effect. There is the share presumption that a transaction that is freely undertaken will benefit both parties, but there is a much greater danger that it will be harmful to others. For example, mismanagement of mortgage lending in the United States led in 2008 to banking failures and credit shortages in other developed countries, and sudden reversals of international flows of capital have often led to damaging financial crises in developing countries. And, because of the incidence of rapid change, the methodology of *comparative statics* has fewer applications than in the theory of international trade, and *empirical analysis* is more widely employed. Also, the consensus among economists concerning its principal issues is narrower and more open to controversy than is the consensus about international trade.

Exchange rates and capital mobility

A major change in the organisation of international finance occurred in the latter years of the twentieth century, and economists are still debating its implications. At the end of the second world war the national signatories to the Bretton Woods Agreement had agreed to maintain their currencies each at a fixed exchange rate with the United States dollar, and the United States government had undertaken to buy gold on demand at a fixed rate of \$35 per ounce. In support of those commitments, most signatory nations had maintained strict control over their nationals' use of foreign exchange and upon their dealings in international financial assets. But in 1971 the United States government announced that it was suspending the convertibility of the dollar, and there followed a progressive transition to the current regime of floating exchange rates in which most governments no longer attempt to control their exchange rates or to impose controls upon access to foreign currencies or upon access to international financial markets. The behavior of the international financial system was transformed. Exchange rates became very volatile and there was an extended series of damaging financial crises. One study estimated that by the end of the twentieth century there had been 112 banking crises in 93 countries, another that there had been 26 banking crises, 86 currency crises and 27 mixed banking and currency crises - many times more than in the previous post-war years.

The outcome was not what had been expected. In making an influential case for flexible exchange rates in the 1950s, Milton Friedman had claimed that if there were any resulting instability, it would mainly be the consequence of macroeconomic instability but an empirical analysis in 1999 found no apparent connection Economists began to wonder whether the expected advantages of freeing financial markets from government intervention were in fact being realized .Neoclassical theory had led them to expect capital to flow from the capital-rich developed economies to the capital-poor developing countries -

because the returns to capital there would be higher. Flows of financial capital would tend to increase the level of investment in the developing countries by reducing their costs of capital, and the direct investment of physical capital would tend to promote specialization and the transfer of skills and technology. However, theoretical considerations alone cannot determine the balance between those benefits and the costs of volatility, and the question has had to be tackled by empirical analysis. A 2006 International Monetary Fund working paper offers a summary of the empirical evidence. The authors found little evidence either of the benefits of the liberalization of capital movements, or of claims that it is responsible for the spate of financial crises. They suggest that net benefits can be achieved by countries that are able to meet threshold conditions of financial competence but that for others, the benefits are likely to be delayed, and vulnerability to interruptions of capital flows is likely to be increased.

Policies and Institutions

Although the majority of developed countries now have "floating" exchange rates, some of them - together with many developing countries - maintain exchange rates that are nominally "fixed", usually with the US dollar or the euro. The adoption of a fixed rate requires intervention in the foreign exchange market by the country's central bank, and is usually accompanied by a degree of control over its citizens' access to international markets. A controversial case in point is the policy of the Chinese government who had, until 2005, maintained the renminbi at a fixed rate to the dollar, but have since "pegged" it to a basket of currencies. It is frequently alleged that in doing so they are deliberately holding its value lower than if it were allowed to float (but there is evidence to the contrary. Some governments have abandoned their national currencies in favour of the common currency of a currency area such as the "eurozone" and some, such as Denmark, have retained their national currencies but have pegged them at a fixed rate to an adjacent common currency. On an international scale, the economic policies promoted by the International Monetary Fund (IMF) have had a major influence, especially upon the developing countries. The IMF was set up in 1944 to encourage international cooperation on monetary matters, to stabilise exchange rates and create an international payments system. Its principal activity is the payment of loans to help member countries to overcome balance of payments problems, mainly by restoring their depleted currency reserves. Their loans are, however, conditional upon the introduction of economic measures by recipient governments that are considered by the Fund's economists to provide conditions favourable to recovery. Their recommended economic policies are broadly those that have been adopted in the United States and the other major developed countries (known as the "Washington Consensus") and have often included the removal of all restrictions upon incoming investment. The Fund has been severely criticised by Joseph Stiglitz and others for what they consider to be the inappropriate enforcement of those policies and for failing to

warn recipient countries of the dangers that can arise from the volatility of capital movements.

International financial stability

From the time of the Great Depression onwards, regulators and their economic advisors have been aware that economic and financial crises can spread rapidly from country to country, and that financial crises can have serious economic consequences. For many decades, that awareness led governments to impose strict controls over the activities and conduct of banks and other credit agencies, but in the 1980s many governments pursued a policy of deregulation in the belief that the resulting efficiency gains would outweigh any systemic risks. The extensive financial innovations that followed are described in the article on financial economics. One of their effects has been greatly to increase the international inter-connectedness of the financial markets and to create an international financial system with the characteristics known in control theory as "complex-interactive". The stability of such a system is difficult to analyze because there are many possible failure sequences. The internationallysystemic crises that followed included the equity crash of October 1987, the Japanese asset price collapse of the 1990s the Asian financial crisis of 1997the Russian government default of 1998 (which brought down the Long-Term Capital Management hedge fund) and the 2007-8 sub-prime mortgages crisis. The symptoms have generally included collapses in asset prices, increases in risk premiums, and general reductions in liquidity. Measures designed to reduce the vulnerability of the international financial system have been put forward by several international institutions. The Bank for International Settlements made two successive recommendations (Basel I and Basel II concerning the regulation of banks, and a coordinating group of regulating authorities, and the Financial Stability Forum, that was set up in 1999 to identify and address the weaknesses in the system, has put forward some proposals in an interim report.

Free trade

Free trade is a type of trade policy that allows traders to act and transact without interference from government. According to the law of comparative advantage the policy permits trading partners mutual gains from trade of goods and services.

Under a free trade policy, prices are a reflection of true supply and demand, and are the sole determinant of resource allocation. Free trade differs from other forms of trade policy where the allocation of goods and services amongst trading countries are determined by artificial prices that do not reflect the true nature of supply and demand. These artificial prices are the result of protectionist trade policies, whereby governments intervene in the market through price adjustments and supply restrictions. Such government

interventions generally increase the cost of goods and services to both consumers and producers.

Interventions include subsidies, taxes and tariffs, non-tariff barriers, such as regulatory legislation and quotas, and even inter-government managed trade agreements such as the North American Free Trade Agreement (NAFTA) and Central America Free Trade Agreement (CAFTA) (contrary to their formal titles) and any governmental market intervention resulting in artificial prices that do not reflect the principles of supply and demand.

Most states conduct trade polices that are to a lesser or greater degree protectionist. One ubiquitous protectionist policy employed by states comes in the form agricultural subsidies whereby countries attempt to protect their agricultural industries from outside competition by creating artificial low prices for their agricultural goods.

Free trade agreements are a key element of customs unions and free trade areas. The details and differences of these agreements are covered in their respective articles.

In literature

The value of free trade was first observed and documented by Adam Smith in his magnum opus, The Wealth of Nations, in 1776. Later, David Ricardo made a case for free trade by presenting specialized an economic proof featuring a single factor of production with constant productivity of labor in two goods, but with relative productivity between the goods different across two countries.] Ricardo's model demonstrated the benefits of trading via specialization—states could acquire more than their labor alone would permit them to produce. This basic model ultimately led to the formation of one of the fundamental laws of economics: The Law of Comparative Advantage. The Law of Comparative Advantage states that each member in a group of trading partners should specialize in and produce the goods in which they possess lowest opportunity costs relative to other trading partners. This specialization permits trading partners to then exchange their goods produced as a function of specialization. Under a policy of free trade, trade via specialization maximizes labor, wealth and quantity of goods produce, exceeding what an equal number of autarkic states could produce.

Features of free trade

Free trade implies the following features

- trade of goods without taxes (including tariffs) or other trade barriers (e.g., quotas on imports or subsidies for producers)
- trade in services without taxes or other trade barriers

- The absence of "trade-distorting" policies (such as taxes, subsidies, regulations, or laws) that give some firms, households, or factors of production an advantage over others
- Free access to markets
- Free access to market information
- Inability of firms to distort markets through government-imposed monopoly or oligopoly power
- The free movement of labor between and within countries
- The free movement of capital between and within countries

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The United States and free trade

Trade in colonial America was regulated by the British mercantile system through the Acts of Trade and Navigation. Until the 1760s, few colonists openly advocated for free trade, in part because regulations were not strictly enforced—New England was famous for smuggling—but also because colonial merchants did not want to compete with foreign goods and shipping. According to historian Oliver Dickerson, a desire for free trade was not one of the causes of the American Revolution. "The idea that the basic mercantile practices of the eighteenth century were wrong," wrote Dickerson, "was not a part of the thinking of the Revolutionary leaders Free trade came to what would become the United States as a result of American Revolutionary War, when the British Parliament issued the Prohibitory Act, blockading colonial ports. The Continental Congress responded bv effectively declaring independence, opening American ports to foreign trade on April 6, 1776. According to historian John W. Tyler, "Free trade had been forced on the Americans, like it or not."

The 1st U.S. Secretary of the Treasury, Alexander Hamilton, advocated tariffs to help protect infant industries in his "Report on Manufactures." This was a minority position, however, which the "Jeffersonians" strongly opposed for the most part. Later, in the 19th century, statesmen such as Senator Henry Clay continued Hamilton's themes within the Whig Party under the name "American System." The opposition Democratic Party contested several elections throughout the 1830s, 1840s, and 1850s in part over the issue of the tariff and protection of industry. The Democratic Party favored moderate tariffs used for government revenue only, while the Whig's favored higher protective tariffs to protect favored industries. The economist Henry Charles Carey became a leading proponent of the "American System" of economics. This mercantilist "American System" was opposed by the Democratic Party of Andrew Jackson, Martin Van Buren, James K. Polk, Franklin Pierce, and James Buchanan.

The fledgling Republican Party led by Abraham Lincoln, who called himself a "Henry Clay tariff Whig," strongly opposed free trade and implemented at 44

percent tariff during the Civil War in part to pay for railroad subsidies, the war effort, and to protect favored industries. President William McKinley stated the United States' stance under the Republican Party (which won every election for President until 1912, except the two non-consecutive terms of Grover Cleveland) as thus:

"Under free trade the trader is the master and the producer the slave. Protection is but the law of nature, the law of self-preservation, of self-development, of securing the highest and best destiny of the race of man. [It is said] that protection is immoral.... Why, if protection builds up and elevates 63,000,000 [the U.S. population] of people, the influence of those 63,000,000 of people elevates the rest of the world. We cannot take a step in the pathway of progress without benefitting mankind everywhere. Well, they say, 'Buy where you can buy the cheapest'.... Of course, that applies to labor as to everything else. Let me give you a maxim that is a thousand times better than that, and it is the protection maxim: 'Buy where you can pay the easiest.' And that spot of earth is where labor wins its highest rewards."

On the other side:

The growing Free Trade Movement sought an end to the tariffs and corruption in state and federal governments by every means available to them, leading to several outcomes. The first and most important was the rise of the Democratic Party with Grover Cleveland at its helm. The next most important were the rise of the "Mugwumps" within the Republican party. For many Jeffersonian radicals, neither went far enough or sufficiently effective in their efforts and looked for alternatives. The first major movement of the radical Jeffersonians evolved from the insights of a young journalist and firebrand, Henry George. - Kenneth R. Gregg, George Mason University History News Network

The tariff and support of protection to support the growth of infrastructure and industrialization of the nation became a leading tenet of the Republican Party thereafter until the Eisenhower administration and the onset of the Cold War, when the Democratic and Republican parties switched positions.

In the 1930s, the US adopted the protectionist Hawley-Smoot Tariff Act which raised rates to all time highs beyond the Lincoln levels, which many economists believe exacerbated the Great Depression. Europe, which had less protectionism at the time, had largely come out of the depression while the US remained mired in the depression. Franklin D. Roosevelt resorted to Hamilton's earlier formula of tariff Reciprocity coupled with subsidy to industry which went unbroken until the 1970s when protectionism was reduced after the Kennedy Round of trade talks in the late sixties.

Since the end of World War II, in part due to industrial supremacy and the onset of the Cold War, the U.S. government has become one of the most

consistent proponents of reduced tariff barriers and free trade, having helped establish the General Agreement on Tariffs and Trade (GATT) and later the World Trade Organization (WTO); although it had rejected an earlier version in the 1950s (International Trade Organization or ITO). Since the 1970s U.S. government has negotiated numerous managed trade agreements, such as the North American Free Trade Agreement (NAFTA) in the 1990s, the Dominican Republic-Central America Free Trade Agreement (CAFTA) in 2006, and a number of bilateral agreements (such as with Jordan).

Current status

Status of WTO negotiations: members (including dual-representation with the European Union) Draft Working Party Report or Factual Summary adopted Goods and/or Services offers submitted Memorandum on Foreign Trade Regime submitted observer, negotiations to start later or no Memorandum on FTR submitted frozen procedures or no negotiations in the last 3 years no official interaction with the WTO

Most (but not all) countries in the world are members of the World Trade Organization (see map), which limits in certain ways but does not eliminate tariffs and other trade barriers. Most countries are also members of regional free trade areas (see map) which lower trade barriers among participating countries.

Most countries prohibit foreign airlines from cabotage (transporting passengers between two domestic locations), and foreign landing rights are generally restricted, but open skies agreements have become more common.

Notable contemporary trade barriers include ongoing tariffs, import quotas, sanctions and embargoes, currency manipulation of the Chinese yuan with respect to the U.S. dollar, agricultural subsidies in developed countries, and buy American laws.

Economics of free trade

Economic models

Two simple ways to understand the potential benefits of free trade are through David Ricardo's theory of comparative advantage and by analyzing the impact of a tariff or import quota.

The pink regions are the net loss to society caused by the existence of the tariff.

A simple economic analysis using the law of supply and demand and the economic effects of a tax can be used to show the theoretical benefits of free trade.[10]

The chart at the right analyzes the effect of the imposition of an import tariff on some imaginary good. Prior to the tariff, the price of the good in the world market (and hence in the domestic market) is P. The tariff increases the domestic price to P. The higher price causes domestic production to increase from Q^{S1} to Q^{S2} and causes domestic consumption to decline from Q^{C1} to Q^{C2}. This has three main effects on societal welfare. Consumers are made worse off because the consumer surplus (green region) becomes smaller. Producers are better off because the producer surplus (yellow region) is made larger. The government also has additional tax revenue (blue region). However, the loss to consumers is greater than the gains by producers and the government. The magnitude of this societal loss is shown by the two pink triangles. Removing the tariff and having free trade would be a net gain for society.

An almost identical analysis of this tariff from the perspective of a net producing country yields parallel results. From that country's perspective, the tariff leaves producers worse off and consumers better off, but the net loss to producers is larger than the benefit to consumers (there is no tax revenue in this case because the country being analyzed is not collecting the tariff). Under similar analysis, export tariffs, import quotas, and export quotas all yield nearly identical results. Sometimes consumers are better off and producers worse off, and sometimes consumers are worse off and producers are better off, but the imposition of trade restrictions causes a net loss to society because the losses from trade restrictions are larger than the gains from trade restrictions. Free trade creates winners and losers, but theory and empirical evidence show that the size of the winnings from free trade are larger than the losses.

Trade diversion

According to mainstream economic theory, global free trade is a net benefit to society, but the selective application of free trade agreements to some countries and tariffs on others can sometimes lead to economic inefficiency through the process of trade diversion. It is economically efficient for a good to be produced by the country which is the lowest cost producer, but this will not always take place if a high cost producer has a free trade agreement while the low cost producer faces a high tariff. Applying free trade to the high cost producer (and not the low cost producer as well) can lead to trade diversion and a net economic loss. This is why many economists place such high importance on negotiations for global tariff reductions, such as the Doha Round.

Opinion of economists

The literature analysing the economics of free trade is extremely rich with extensive work having been done on the theoretical and empirical effects. Though it creates winners and losers, the broad consensus among members of the economics profession in the U.S. is that free trade is a large and unambiguous net gain for society. In a 2006 survey of American economists

(83 responders), "87.5% agree that the U.S. should eliminate remaining tariffs and other barriers to trade" and "90.1% disagree with the suggestion that the U.S. should restrict employers from outsourcing work to foreign countries." Quoting Harvard economics professor N. Gregory Mankiw, "Few propositions command as much consensus among professional economists as that open world trade increases economic growth and raises living standards." Nonetheless, quoting Prof. Peter Soderbaum of Malardalen University, Sweden, "This neoclassical trade theory focuses on one dimension, i.e., the price at which a commodity can be delivered and is extremely narrow in cutting off a large number of other considerations about impacts on employment in different parts of the world, about environmental impacts and on culture." Most free traders would agree that there are winners and losers from free trade, but argue that this is not a reason to argue against free trade, because free trade is supposed to bring overall gain due to idea that the winners have gained enough to make up for the losses of the losers and then some. Chang argues otherwise, saying that the economy could shrink as a result, and that some people being worse off due to trade displacement without recourse to welfare assistance to find a better job (as might be expected in poor countries) is not acceptable.In an assessment of the literature on the theory and empirical research relating to the benefits of free trade, Sonali Deraniyagala and Ben Fine found that much of the work was flawed, and concluded that the extent to which free trade benefits economic development is unknown Theoretical arguments are largely dependent upon specific empirical assumptions which may or may not hold true. In the empirical literature, many studies suggest the relationship is ambiguous, and the data and econometrics underlying a set of empirical papers showing positive results have been critiqued. The best of these papers use a simplified model, and the worst involve the regression of an index of economic performance on an index of openness to trade, with a mix of these two approaches common. In some cases, Deraniyagala and Fine claim, these indexes of openness actually reflect trade volume rather than policy orientation. They also observe that it is difficult to disentangle the effects of reverse causality and numerous exogenous variables.

In *Kicking Away the Ladder*, Ha-Joon Chang reviews the history of free trade policies and economic growth, and notes that many of the now-industrialized countries had significant barriers to trade throughout their history. Protectionism under the auspices of the infant industry argument (related to import substitution industrialization), was first pursued by Alexander Hamilton in the 1790s in opposition to the admonition of Adam Smith, who advised that the United States focus on agriculture, where it had a comparative advantage. In the 1840s Friedrich List, known as the father of the infant industry argument, advocated the infant industry argument for Germany. Chang's research shows that the United States and Britain, sometimes considered to be the homes of free trade policy, were aggressive protectionists. Britain did end its protectionism when it achieved technological superiority in the late 1850s with the repeal of the Corn Laws, but tariffs on manufactured products had

returned to 23% by 1950. The United States maintained weighted average tariffs on manufactured products of approximately 40-50% up until the 1950s, augmented by the natural protectionism of high transportation costs in the 1800s The most consistent practitioners of free trade have been Switzerland, the Netherlands, and to a lesser degree Belgium.

Chang describes the export-oriented industrialization policies of the Asian Tigers as "far more sophisticated and fine-tuned than their historical equivalents".

American intellectual Noam Chomsky argues that David Ricardo's theory of comparative advantage, often offered to promote free trade, assumes that capital is more or less immobile and labor highly mobile, but today these assumptions have been reversed in practice.

Opposition

The relative costs, benefits and beneficiaries of free trade are debated by academics, governments and interest groups. A number of arguments for and against in the ongoing public debate can be seen in the free trade debate article.

Arguments for protectionism fall into the economic category (trade hurts the economy) or the moral category (the effects of trade might help the economy, but have ill effects in other areas). The moral category is wide, including concerns of income inequality, environmental degradation, supporting child labor and sweatshops, race to the bottom, wage slavery, accentuating poverty in poor countries, harming national defense, and forcing cultural change.

Free trade is often opposed by domestic industries that would have their profits and market share reduced by lower prices for imported goods. For example, if United States tariffs on imported sugar were reduced, U.S. sugar producers would receive lower prices and profits, while U.S. sugar consumers would spend less for the same amount of sugar because of those same lower prices. Economics says that consumers would necessarily gain more than producers would lose. Since each of those few domestic sugar producers would lose a lot while each of a great number of consumers would gain only a little, domestic producers are more likely to mobilize against the lifting of tariffs. More generally, producers often favor domestic subsidies and tariffs on imports in their home countries, while objecting to subsidies and tariffs in their export markets.

Socialists frequently oppose free trade on the ground that it allows maximum exploitation of workers by capital. For example, Karl Marx wrote in *The Communist Manifesto*, "The bourgeoisie... has set up that single, unconscionable freedom -- Free Trade. In one word, for exploitation, veiled by

religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation."

"Free trade" is opposed by many anti-globalization groups, based on their assertion that free trade agreements generally do not increase the economic freedom of the poor, and frequently make them poor These opponents see free trade deals as being materially harmful to the common people, whether these agreements are really for free trade or for government-managed trade. Nevertheless, if the deals are essentially for government-managed trade, arguing against them is not a direct argument against free trade *per se*. For example, it is argued that it would be wrong to let subsidized corn from the U.S. into Mexico freely under NAFTA at prices well below production cost (dumping) because of its ruinous effects to Mexican farmers. Of course, such subsidies violate free trade, so this argument is not actually against the principle of free trade, but rather its selective implementation.

Latin America performed poorly since tariff cuts in 1980s and 1990s, compared to protectionist China and Southeast Asia According to Samuelson, it is wrong to assume a necessary surplus of winnings over losings The paper, "Will inventions A or B lower or raise the new market-clearing real wage rates that sustain high-to-full employment" condemned "economists' over-simple complacency about globalization" and said that workers don't always win. Some economists try to emphasize that trade barriers should exist to help poor nations build domestic industries and give rich nations time to retrain workers.

Ecuadorian President Rafael Correa has denounced the "sophistry of free trade" in an introduction he wrote for a book titled *The Hidden Face of Free Trade Accords*, written in part by Correa's current Energy Minister Alberto Acosta. Citing as his source the book *Kicking Away the Ladder*, written by Ha-Joon Chang, Correa identified the difference between an "American system" opposed to a "British System" of free trade. The latter, he says, was explicitly viewed by the Americans as "part of the British imperialist system." According to Correa, Chang showed that it was Treasury Secretary Alexander Hamilton, and not Friedrich List, who was the first to present a systematic argument defending industrial protectionism.

The following alternatives for free trade are proposed balanced trade, fair trade, protectionism and Tobin tax.

Promotors

On April 1st, 2009, The Freedom to Trade Coalition an initiative of the International Policy Network and the Atlas Economic Research Foundation, comprising over 76 civil society organisation from 48 countries - launched an open letter calling on all governments to eliminate trade barrieres. Signatories include Nobel Prize winning economist Vernon Smith, former US Secretary of

State George Shultz, former Prime Minste of Estonia Mart Laar, former Kremlin chief economist Andrei Illarionov and many other eminent economists, philosophers and other academics. In total, over 3,000 people have so far signed the letter including over 1,000 academics.

Warning of the dangers of resurgent protectionism, the letter observes: "Protectionism creates poverty, not prosperity. Protectionism doesn't even "protect" domestic jobs or indistries; it destroy them, by harming export industries and industries that rely on imports to make their goods. Raising loval prices of steel by "protecting" local steel companies just raises the cost of producing cars and the many other goods made with steel. Protectionism is a fool's game"

The Freedom to Trade coalition has also committed itself to monitoring the actions of government around the world.

Comparative advantage

In economics, the **law of comparative advantage** refers to the ability of a party (an individual, a firm, or a country) to produce a particular good or service at a lower opportunity cost than another party. It is the ability to produce a product most efficiently given all the other products that could be produced. It can be contrasted with absolute advantage which refers to the ability of a party to produce a particular good at a lower absolute cost than another.

Comparative advantage explains how trade can create value for both parties even when one can produce all goods with fewer resources than the other. The net benefits of such an outcome are called gains from trade.

Origins of the theory

Comparative advantage was first described by Robert Torrens in 1815 in an essay on the Corn Laws. He concluded it was to England's advantage to trade with Portugal in return for grain, even though it might be possible to produce that grain more cheaply in England than Portugal.

However the term is usually attributed to David Ricardo who explained it in his 1817 book *On the Principles of Political Economy and Taxation* in an example involving England and Portugal. In Portugal it is possible to produce both wine and cloth with less labor than it would take to produce the same quantities in England. However the *relative costs* of producing those two goods are different in the two countries. In England it is very hard to produce wine, and only moderately difficult to produce cloth. In Portugal both are easy to produce.

Therefore while it is cheaper to produce cloth in Portugal than England, it is cheaper still for Portugal to produce excess wine, and trade that for English cloth. Conversely England benefits from this trade because its cost for producing cloth has not changed but it can now get wine at a lower price, closer to the cost of cloth. The conclusion drawn is that each country can gain by specializing in the good where it has comparative advantage, and trading that good for the other.

Examples

The following hypothetical examples explain the reasoning behind the theory. In Example 2 all assumptions are italicized for easy reference, and some are explained at the end of the example.

Example 1

Two men live alone on an isolated island. To survive they must undertake a few basic economic activities like water carrying, fishing, cooking and shelter construction and maintenance. The first man is young, strong, and educated. He is also, faster, better, more productive at everything. He has an absolute advantage in all activities. The second man is old, weak, and uneducated. He has an absolute disadvantage in all economic activities. In some activities the difference between the two is great; in others it is small.

Despite the fact that the younger man has absolute advantage in all activities, it is not in the interest of either of them to work in isolation since they both can benefit from specialization and exchange. If the two men divide the work according to comparative advantage then the young man will specialize in tasks at which he is most productive, while the older man will concentrate on tasks where his productivity is only a little less than that of the young man. Such an arrangement will increase total production for a given amount of labor supplied by both men and it will benefit both of them.

Example 2

Suppose there are two countries of equal size, **Northland** and **Southland**, that both produce and consume two goods, **Food** and **Clothes**. The productive capacities and efficiencies of the countries are such that if both countries devoted all their resources to Food production, output would be as follows:

Northland: 100 tonnesSouthland: 400 tonnes

If all the resources of the countries were allocated to the production of Clothes, output would be:

Northland: 100 tonnesSouthland: 200 tonnes

Assuming each has constant opportunity costs of production between the two products and both economies have full employment at all times. All factors of production are mobile within the countries between clothing and food industries, but are immobile between the countries. The price mechanism must be working to provide perfect competition.

Southland has an absolute advantage over Northland in the production of Food and Clothing. There seems to be no mutual benefit in trade between the economies, as Southland is more efficient at producing both products. The **opportunity costs** shows otherwise. Northland's opportunity cost of producing one tonne of Food is one tonne of Clothes and vice versa. Southland's opportunity cost of one tonne of Food is 0.5 tonne of Clothes. The opportunity cost of one tonne of Clothes is 2 tonnes of Food. Southland has a comparative advantage in food production, because of its lower opportunity cost of production with respect to Northland. Northland has a comparative advantage over Southland in the production of clothes, the opportunity cost of which is higher in Southland with respect to Food than in Northland.

To show these different opportunity costs lead to mutual benefit if the countries specialize production and trade, consider the countries produce and consume only domestically. The volumes are:

This example includes no formulation of the preferences of consumers in the two economies which would allow the determination of the international exchange rate of Clothes and Food. Given the production capabilities of each country, in order for trade to be worthwhile Northland requires a price of at least one tonne of Food in exchange for one tonne of Clothes; and Southland requires at least one tonne of Clothes for two tonnes of Food. The exchange price will be somewhere between the two. The remainder of the example works with an international trading price of one tonne of Food for 2/3 tonne of Clothes.

If both specialize in the goods in which they have comparative advantage, their outputs will be:

World production of food increased. Clothing production remained the same. Using the exchange rate of one tonne of Food for 2/3 tonne of Clothes, Northland and Southland are able to trade to yield the following level of consumption:

Northland traded 50 tonnes of Clothing for 75 tonnes of Food. Both benefited, and now consume at points outside their production possibility frontiers.

Assumptions in Example 2

- **Two countries, two goods** the theory is no different for larger numbers of countries and goods, but the principles are clearer and the argument easier to follow in this simpler case.
- **Equal size economies** again, this is a simplification to produce a clearer example.
- **Full employment** if one or other of the economies has less than full employment of factors of production, then this excess capacity must usually be used up before the comparative advantage reasoning can be applied.
- **Constant opportunity costs** a more realistic treatment of opportunity costs the reasoning is broadly the same, but specialization of production can only be taken to the point at which the opportunity costs in the two countries become equal. This does not invalidate the principles of comparative advantage, but it does limit the magnitude of the benefit.
- Perfect mobility of factors of production within countries this is necessary to allow production to be switched without cost. In real economies this cost will be incurred: capital will be tied up in plant (sewing machines are not sowing machines) and labour will need to be retrained and relocated. This is why it is sometimes argued that 'nascent industries' should be protected from fully liberalised international trade during the period in which a high cost of entry into the market (capital equipment, training) is being paid for.
- Immobility of factors of production between countries why are there different rates of productivity? The modern version of comparative advantage (developed in the early twentieth century by the Swedish economists Eli Heckscher and Bertil Ohlin) attributes these differences to differences in nations' factor endowments. A nation will have comparative advantage in producing the good that uses intensively the factor it produces abundantly. For example: suppose the US has a relative abundance of capital and India has a relative abundance of labor. Suppose further that cars are capital intensive to produce, while cloth is labor intensive. Then the US will have a comparative advantage in making cars, and India will have a comparative advantage in making cloth. If there is international factor mobility this can change nations' relative factor abundance. The principle of comparative advantage still applies, but who has the advantage in what can change.
- **Negligible Transport Cost** Cost is not a cause of concern when countries decided to trade. It is ignored and not factored in.
- Assume that half the resources are used to produce each good in each country. This takes place before specialization
- Perfect competition this is a standard assumption that allows perfectly efficient allocation of productive resources in an idealized free market.

Example 3

The economist Paul Samuelson provided another well known example in his *Economics*. Suppose that in a particular city the best lawyer happens also to be the best secretary, that is he would be the most productive lawyer and he would also be the best secretary in town. However, if this lawyer focused on the task of being an attorney and, instead of pursuing both occupations at once, employed a secretary, both the output of the lawyer and the secretary would increase.

Effects on the economy

Conditions that maximize comparative advantage do not automatically resolve trade deficits. In fact, in many real world examples where comparative advantage is attainable may in fact require a trade deficit. For example, the amount of goods produced can be maximized, yet it may involve a net transfer of wealth from one country to the other, often because economic agents have widely different rates of saving.

As the markets change over time, the ratio of goods produced by one country versus another variously changes while maintaining the benefits of comparative advantage. This can cause national currencies to accumulate into bank deposits in foreign countries where a separate currency is used.

Macroeconomic monetary policy is often adapted to address the depletion of a nation's currency from domestic hands by the issuance of more money, leading to a wide range of historical successes and failures.

Criticism

Free mobility of capital in a globalized world

Ricardo explicitly bases his argument on an assumed immobility of capital:

"... if capital freely flowed towards those countries where it could be most profitably employed, there could be no difference in the rate of profit, and no other difference in the real or labor price of commodities, than the additional quantity of labor required to convey them to the various markets where they were to be sold."

He explains why from his point of view (anno 1817) this is a reasonable assumption: "Experience, however, shows, that the fancied or real insecurity of capital, when not under the immediate control of its owner, together with the natural disinclination which every man has to quit the country of his birth and connexions, and entrust himself with all his habits fixed, to a strange government and new laws, checks the emigration of capital."

Some scholars, notably Herman Daly, an American ecological economist and professor at the School of Public Policy of University of Maryland, have voiced concern over the applicability of Ricardo's theory of comparative advantage in light of a perceived increase in the mobility of capital: "International trade (governed by comparative advantage) becomes, with the introduction of free capital mobility, interregional trade (governed by Absolute advantage)."

Protectionism

Protectionism is the economic policy of restraining trade between states, through methods such as tariffs on imported goods, restrictive quotas, and a variety of other restrictive government regulations designed to discourage imports, and prevent foreign take-over of local markets and companies. This policy is closely aligned with anti-globalization, and contrasts with free trade, where government barriers to trade are kept to a minimum. The term is mostly used in the context of economics, where **protectionism** refers to policies or doctrines which protect businesses and workers within a country by restricting or regulating trade with foreign nations.

Protectionism in the United States

Free trade and protectionism are regional issues. Free trade in America is the policy of economics developed by American slave holding states and protectionism is a northern, manufacturing issue. Although not as animating an issue as slavery, differences in trade between the two regions contributed to the Civil War and remain a point of national difference even today.

Historically, southern slave holding states, because of their low cost manual labor, had little perceived need for mechanization, and supported having the right to purchase manufactured goods from any nation. Thus they called themselves free traders.

Northern states, on the other hand, sought to develop a manufacturing capacity, and successfully raised tariffs to allow nascent Northern manufacturers to compete with their more efficient British competitors. Beginning with 1st U.S. Secretary of the Treasury Alexander Hamilton's "Report on Manufactures", in which he advocated tariffs to help protect infant industries, including bounties (subsidies) derived in part from those tariffs, the United States was the leading nation opposed to "free trade" theory. Throughout the 19th century, leading U.S. statesmen, including Senator Henry Clay, continued Hamilton's themes within the Whig Party under the name "American System."

The opposed Southern Democratic Party contested several elections throughout the 1830s, 1840s, and 1850s in part over the issue of the tariff and protection

of industry. However, Southern Democrats were never as strong in the US House as the more populated North. The Northern Whigs sought and got higher protective tariffs, over the bitter resistance of the South. One Southern state precipitated what was called the nullification crisis over the issue of tariffs, arguing that states had the right to ignore federal laws. Mostly over the issue of abolition and other scandals, the Whigs would ultimately collapse, leaving a void into which the fledgling Republican Party, led by Abraham Lincoln, would fill. Lincoln, who called himself a "Henry Clay tariff Whig", strongly opposed free trade. He implemented a 44 percent tariff during the Civil War in part to pay for the building of the Union-Pacific Railroad, the war effort, and to protect American industry.

This support for Northern industry was ultimately successful. By President Lincoln's term, the northern manufacturing states had ten times the GDP of the South. Armed with this economic advantage, the North was easily able to defeat the South by starving the South of weapons through a near total blockade, while at the same time was able to supply its own army with everything from heavy artillery to repeating Henry rifles.

With the North winning the Civil War, Republican dominance was assured over the Democrats. Republicans continued to dominate American politics until around the early 20th century. President William McKinley stated the United States' stance under the Republican Party as thus:

"Under free trade the trader is the master and the producer the slave. Protection is but the law of nature, the law of self-preservation, of self-development, of securing the highest and best destiny of the race of man. [It is said] that protection is immoral.... Why, if protection builds up and elevates 63,000,000 [the U.S. population] of people, the influence of those 63,000,000 of people elevates the rest of the world. We cannot take a step in the pathway of progress without benefiting mankind everywhere. Well, they say, 'Buy where you can buy the cheapest'.... Of course, that applies to labor as to everything else. Let me give you a maxim that is a thousand times better than that, and it is the protection maxim: 'Buy where you can pay the easiest.' And that spot of earth is where labor wins its highest rewards."

Southern Democrats gradually rebuilt their party, and allied themselves with Northern Progressives. They had many differences but both were staunchly opposed to the great corporate trusts that had built up, and Republican corruption was endemic. This marriage of convenience to face a common enemy reinvigorated the Democratic Party, which catapulted back into power. Northern Progressives sought free trade to undermine the power base of Republicans - Woodrow Wilson would admit as much in a speech to Congress. A brief resurgence by Republicans in the 1920s was disastrous for them. Woodrow Wilson's ideological understudy, Franklin Roosevelt, would

essentially blame the Great Depression upon the protectionist policies exemplified by the previous Republican President, Herbert Hoover.

The Democratic Party would continue to advance free trade, to appeal to its southern wing, carefully balancing a growing voice among its labor side for restraint. Free trade were among the postwar goals of the Allies in World War II, and many rounds of discussions and treaties would gradually advance this cause. Having been stuck with the blame for the Great Depression, Republicans would gradually become zealots of free trade, a position they retain to this day.

In the 1960s, the Democratic Party lost its Southern base as it, in concert with northern Republicans, passed numerous Civil Rights reforms. The Republican party leveraged its free trade zealotry, along with a tacit disapproval of civil rights reforms, to gain those Southern Votes. Thus, the Republican Party, traded regions with the Democratic Party. Ironically, having supported free trade so vocally in response to having been labeled as Herbert Hoover instigators of the Great Depression, Republicans, in the election of 2008, found themselves condemned for not being protectionist.

Protectionist policies

A variety of policies can be used to achieve protectionist goals. These include:

- 1. Tariffs: Typically, tariffs (or taxes) are imposed on imported goods. Tariff rates usually vary according to the type of goods imported. Import tariffs will increase the cost to importers, and increase the price of imported goods in the local markets, thus lowering the quantity of goods imported. Tariffs may also be imposed on exports, and in an economy with floating exchange rates, export tariffs have similar effects as import tariffs. However, since export tariffs are often perceived as 'hurting' local industries, while import tariffs are perceived as 'helping' local industries, export tariffs are seldom implemented.
- 2. *Import quotas*: To reduce the quantity and therefore increase the market price of imported goods. The economic effects of an import quota is similar to that of a tariff, except that the tax revenue gain from a tariff will instead be distributed to those who receive import licenses. Economists often suggest that import licenses be auctioned to the highest bidder, or that import quotas be replaced by an equivalent tariff.
- 3. Administrative Barriers: Countries are sometimes accused of using their various administrative rules (eg. regarding food safety, environmental standards, electrical safety, etc.) as a way to introduce barriers to imports.
- 4. *Anti-dumping legislation* Supporters of anti-dumping laws argue that they prevent "dumping" of cheaper foreign goods that would cause local firms

- to close down. However, in practice, anti-dumping laws are usually used to impose trade tariffs on foreign exporters.
- 5. *Direct Subsidies*: Government subsidies (in the form of lump-sum payments or cheap loans) are sometimes given to local firms that cannot compete well against foreign imports. These subsidies are purported to "protect" local jobs, and to help local firms adjust to the world markets.
- 6. Export Subsidies: Export subsidies are often used by governments to increase exports. Export subsidies are the opposite of export tariffs, exporters are paid a percentage of the value of their exports. Export subsidies increase the amount of trade, and in a country with floating exchange rates, have effects similar to import subsidies.
- 7. Exchange Rate manipulation: A government may intervene in the foreign exchange market to lower the value of its currency by selling its currency in the foreign exchange market. Doing so will raise the cost of imports and lower the cost of exports, leading to an improvement in its trade balance. However, such a policy is only effective in the short run, as it will most likely lead to inflation in the country, which will in turn raise the cost of exports, and reduce the relative price of imports.

De facto protectionism

In the modern trade arena many other initiatives besides tariffs have been called protectionist. For example, some commentators, such as Jagdish Bhagwati, see developed countries efforts in imposing their own labor or environmental standards as protectionism. Also, the imposition of restrictive certification procedures on imports are seen in this light.

Further, others point out that free trade agreements often have protectionist provisions such as intellectual property, copyright, and patent restrictions that benefit large corporations. These provisions restrict trade in music, movies, drugs, software, and other manufactured items to high cost producers with quotas from low cost producers set to zero

Arguments for protectionism

Opponents of free trade often argue that the comparative advantage argument for free trade has lost its legitimacy in a globally integrated world—in which capital is free to move internationally. Herman Daly, a leading voice in the discipline of ecological economics, emphasizes that although Ricardo's theory of comparative advantage is one of the most elegant theories in economics, its application to the present day is illogical: "Free capital mobility totally undercuts Ricardo's comparative advantage argument for free trade in goods, because that argument is explicitly and essentially premised on capital (and other factors) being immobile between nations. Under the new globalization regime, capital tends simply to flow to wherever costs are lowest—that is, to pursue absolute advantage."

Protectionists fault the free trade model as being reverse protectionism in disguise, that of using tax policy to protect foreign manufacturers from domestic competition. By ruling out revenue tariffs on foreign products, government must fully rely on domestic taxation to provide its revenue, which falls disproportionately on domestic manufacturing. As Paul Craig Roberts notes: "[Foreign discrimination of US products] is reinforced by the US tax system, which imposes no appreciable tax burden on foreign goods and services sold in the US but imposes a heavy tax burden on US producers of goods and services regardless of whether they are sold within the US or exported to other countries."

Infant industry argument

: Infant industry argument

Some proponents of protectionism claim that imposing tariffs that help protect newly founded infant industries allows those domestic industries to grow and become self-sufficient within the international economy once they reach a reasonable size.

Arguments against protectionism

Protectionism is frequently criticized as harming the people it is meant to help. Nearly all mainstream economists instead support free trade. Economic theory, under the principle of comparative advantage, shows that the gains from free trade outweigh any losses as free trade creates more jobs than it destroys because it allows countries to specialize in the production of goods and services in which they have a comparative advantage. Protectionism results in deadweight loss; this loss to overall welfare gives no-one any benefit, unlike in a free market, where there is no such total loss. According to economist Stephen P. Magee, the benefits of free trade outweigh the losses by as much as 100 to 1.

Most economists, including Nobel prize winners Milton Friedman and Paul Krugman, believe that free trade helps workers in developing countries, even though they are not subject to the stringent health and labor standards of developed countries. This is because "the growth of manufacturing — and of the myriad of other jobs that the new export sector creates — has a ripple effect throughout the economy" that creates competition among producers, lifting wages and living conditions. Economists have suggested that those who support protectionism ostensibly to further the interests of third world workers are in fact being disingenuous, seeking only to protect jobs in developed countries. Additionally, workers in the third world only accept jobs if they are the best on offer, as all mutually consensual exchanges must be of benefit to both sides, else they wouldn't be entered into freely. That they accept low-

paying jobs from first world companies shows that their other employment prospects are worse.

Alan Greenspan, former chair of the American Federal Reserve, has criticized protectionist proposals as leading "to an atrophy of our competitive ability. ... If the protectionist route is followed, newer, more efficient industries will have less scope to expand, and overall output and economic welfare will suffer."

Protectionism has also been accused of being one of the major causes of war. Proponents of this theory point to the constant warfare in the 17th and 18th centuries among European countries whose governments were predominantly mercantilist and protectionist, the American Revolution, which came about primarily due to British tariffs and taxes, as well as the protective policies preceding both World War I and World War II. According to Frederic Bastiat, "When goods cannot cross borders, armies will."

Current world trends

Since the end of World War II, it has been the stated policy of most First World countries to eliminate protectionism through free trade policies enforced by international treaties and organizations such as the World Trade Organization. Certain policies of First World governments have been criticized as protectionist, however, such as the Common Agricultural Policyin the European Union and proposed "Buy American" provisions in economic recovery packages in the United States.

The current round of trade talks by the World Trade Organization is the Doha Development Round and the last session of talks in Geneva, Switzerland led to an impassé. The leaders' statement in the G20 meeting in London in early 2009 included a promise to continue the Doha Round.

Economic integration

Economic integration is a term used to describe how different aspects between economies are integrated. The basics of this theory were written by the Hungarian Economist Béla Balassa in the 1960s. As economic integration increases, the barriers of trade between markets diminishes. The most integrated economy today, between independent nations, is the European Union and its euro zone.

Economist Fritz Machlup traces the origin of the term 'economic integration' to a group of five economists writing in the 1940s, including Wilhelm Röpke, Ludwig von Mises and Friedrich von Hayek. Economic integration was a foundational plank of US foreign policy after World War II

The degree of economic integration can be categorized into six stages:

- 1. Preferential trading area
- 2. Free trade area
- 3. Customs union
- 4. Common market
- 5. Economic and monetary union
- 6. Complete economic integration

Economic integration also tends to precede political integration. In fact, Balassa believed that supranational common markets, with their free movement of economic factors across national borders, naturally generate demand for further integration, not only economically (via monetary unions) but also politically--and, thus, that economic communities naturally evolve into political unions over time.

Trade creation

Trade creation is an economic term related to international economics in which trade is created by the formation of a customs union.

Occurrence of Trade Creation

When a customs union is formed, the member nations establish a free trade area amongst themselves and a common external tariff on non-member nations. As a result, the member nations establish greater trading ties between themselves now that protectionist barriers such as tariffs, quotas, and non-tariff barriers such as subsidies have been eliminated. The result is an increase in trade among member nations in the good or service of each nation's comparative advantage.

Downside of Trade Creation

The creation of trade is important to the nation entering the customs union in that increased specialization may hurt other industries. Arguments for protectionism, such as the infant industry argument, national defense, outsourcing, and issues with health and safety regulations are brought to mind. However, customs unions are typically formed with friendly nations, eliminating the national defense argument, and in the long run serves to create more jobs and output due to specialization.

Trade diversion

Trade diversion is an economic term related to international economics in which trade is diverted from a more efficient exporter towards a less efficient one by the formation of a free trade agreement.

Occurrence

When a country applies the same tariff to all nations, it will always import from the most efficient producer, since the more efficient nation will provide the goods at a lower price. With the establishment of a bilateral or regional free trade agreement, that may not be the case. If the agreement is signed with a less-efficient nation, it may well be that their products become cheaper in the importing market than those from the more-efficient nation, since there are taxes for only one of them. Consequently, after the establishment of the agreement, the importing country would acquire products from a higher-cost producer, instead of the low-cost producer from which it was importing until then. In other words, this would cause a trade diversion.

Term

The term was coined by Jacob Viner in *The Customs Union Issue* in 1950. In its literal meaning the term was however incomplete, as it failed to capture all welfare effects of discriminatory tariff liberalization, and it was not useful when it came to non-tariff barriers. Economists have however dealt with this incompleteness in two ways. Either they stretched the original meaning to cover all welfare effects, or they introduced new terms like trade expansion or internal versus external trade creation.

Downside

Diverted trade may hurt the non-member nation economically and politically and create a strained relationship between the two nations. The decreased output of the good or service traded from one nation with a high comparative advantage to a nation of lower comparative advantage works against creating more efficiency and therefore more overall surplus. It is widely believed by economists that trade diversion is harmful to consumers.

Example

An example of trade diversion is the UK's import of lamb, before Britain joined the EU most lamb imports came from New Zealand, the cheapest lamb producer, however when Britain joined the EU the common external tariff made it more expensive to import lamb from New Zealand than countries inside the union, thus France became the majority exporter of lamb to the UK. Trade was diverted from New Zealand, and created between France and the UK. Balance of trade

Balance of trade

The **balance of trade** (or *net exports*, sometimes symbolized as *NX*) is the difference between the monetary value of exports and imports of output in an economy over a certain period. It is the relationship between a nation's imports and exports. A favourable balance of trade is known as a **trade surplus** and

consists of exporting more than is imported; an unfavourable balance of trade is known as a **trade deficit** or, informally, a trade gap. The balance of trade is sometimes divided into a goods and a services balance.

Definition

The balance of trade forms part of the current account, which includes other transactions such as income from the international investment position as well as international aid. If the current account is in surplus, the country's net international asset position increases correspondingly. Equally, a deficit decreases the net international asset position.

The trade balance is identical to the difference between a country's output and its domestic demand (the difference between what goods a country produces and how many goods it buys from abroad; this does not include money respent on foreign stocks, nor does it factor the concept of importing goods to produce for the domestic market).

Measuring the balance of trade can be problematic because of problems with recording and collecting data. As an illustration of this problem, when official data for all the world's countries are added up, exports exceed imports by a few percent; it appears the world is running a positive balance of trade with itself. This cannot be true, because all transactions involve an equal credit or debit in the account of each nation. The discrepancy is widely believed to be explained by transactions intended to launder money or evade taxes, smuggling and other visibility problems. However, especially for developed countries, accuracy is likely.

Factors that can affect the balance of trade include:

- The cost of production (land, labor, capital, taxes, incentives, etc.) in the exporting economy vis-à-vis those in the importing economy;
- The cost and availability of raw materials, intermediate goods and other inputs;
- Exchange rate movements;
- Multilateral, bilateral and unilateral taxes or restrictions on trade;
- Non-tariff barriers such as environmental, health or safety standards;
- The availability of adequate foreign exchange with which to pay for imports; and
- Prices of goods manufactured at home (influenced by the responsiveness of supply)

In addition, the trade balance is likely to differ across the business cycle. In export led growth (such as oil and early industrial goods), the balance of trade will improve during an economic expansion. However, with domestic demand

led growth (as in the United States and Australia) the trade balance will worsen at the same stage in the business cycle.

Since the mid 1980s, United States has had a growing deficit in tradeable goods, especially with Asian nations (China and Japan) which now hold large sums of U.S debt that has funded the consumption. The U.S. has a trade surplus with nations such as Australia and Canada. The issue of trade deficits can be complex. Trade deficits generated in tradeable goods such as manufactured goods or software may impact domestic employment to different degrees than trade deficits in raw materials.

Economies such as Canada, Japan, and Germany which have savings surpluses, typically run trade surpluses. China, a high growth economy, has tended to run trade surpluses. A higher savings rate generally corresponds to a trade surplus. Correspondingly, the United States with its lower savings rate has tended to run high trade deficits, especially with Asian nations.

Views on economic impact

Economists are sometimes divided on the economic impact of the trade deficit.

Conditions where trade deficits may be considered harmful

Those who ignore the effects of long run trade deficits may be confusing David Ricardo's principle of comparative advantage with Adam Smith's principle of absolute advantage, specifically ignoring the latter. The economist Paul Craig Roberts notes that the comparative advantage principles developed by David Ricardo do not hold where the factors of production are internationally mobile, a phenomenon described by economist Stephen S. Roach, where one country exploits the cheap labor of another, would be a case of absolute advantage that is not mutually beneficial. Detiorating U.S. net international investment position (NIIP) has caused concern among economists over the effects of outsourcing and high U.S. trade deficits over the long-run.

Since the stagflation of the 1970s, the U.S. economy has been characterized by slower GDP growth. In 1985, the U.S. began its growing trade deficit with China. Over the long run, nations with trade surpluses tend also to have a savings surplus. The U.S. has been plagued by persistently lower savings rates than its trading partners which tend to have trade surpluses. Germany, France, Japan, and Canada have maintained higher savings rates than the U.S. over the long run. Some economists believe that GDP and employment can be dragged down by an over-large deficit over the long run. Wealth-producing primary sector jobs in the U.S. such as those in manufacturing and computer software have often been replaced by much lower paying wealth-consuming jobs such those in retail and government in the service sector when the economy recovered from recessions. Some economists contend that the U.S. is

borrowing to fund consumption of imports while accumulating unsustainable amounts of debt.

In 2006, the primary economic concerns centered around: high national debt (\$9 trillion), high non-bank corporate debt (\$9 trillion), high mortgage debt (\$9 trillion), high financial institution debt (\$12 trillion), high unfunded Medicare liability (\$30 trillion), high unfunded Social Security liability (\$12 trillion), high external debt (amount owed to foreign lenders) and a serious deterioration in the United States net international investment position (NIIP) (-24% of GDP), high trade deficits, and a rise in illegal immigration.

These issues have raised concerns among economists and unfunded liabilities were mentioned as a serious problem facing the United States in the President's 2006 State of the Union address. On June 26 2009, Jeff Immelt, the CEO of General Electric, called for the United States to increase its manufacturing base employment to 20% of the workforce, commenting that the U.S. has outsourced too much in some areas and can no longer rely on the financial sector and consumer spending to drive demand.

Conditions where trade imbalances may not be harmful

Small trade imbalances are generally not considered to be harmful to either the importing or exporting economy. However, when a national trade imbalance expands beyond prudence (generally thought to be several percent of GDP, for several years), adjustments tend to occur. While unsustainable imbalances may persist for long periods (cf, Singapore and New Zealand's surpluses and deficits, respectively), the distortions likely to be caused by large flows of wealth out of one economy and into another tend to become intolerable.

In simple terms, trade deficits are paid for out of foreign exchange reserves, and may continue until such reserves are depleted. At such a point, the importer can no longer continue to purchase more than is sold abroad. This is likely to have exchange rate implications: a sharp loss of value in the deficit economy's exchange rate with the surplus economy's currency will change the relative price of tradable goods, and facilitate a return to balance or (more likely) an over-shooting into surplus the other direction.

More complexly, an economy may be unable to export enough goods to pay for its imports, but is able to find funds elsewhere. Service exports, for example, are more than sufficient to pay for Hong Kong's domestic goods export shortfall. In poorer countries, foreign aid may fill the gap while in rapidly developing economies a capital account surplus often off-sets a current-account deficit. Finally, there are some economies where transfers from nationals working abroad contribute significantly to paying for imports. The Philippines, Bangladesh and Mexico are examples of transfer-rich economies.

Milton Friedman on trade deficits

In the 1980s, Milton Friedman, the Nobel Prize-winning economist and father of Monetarism, contended that some of the concerns of trade deficits are unfair criticisms in an attempt to push macroeconomic policies favorable to exporting industries.

Prof. Friedman argued that trade deficits are not necessarily important as high exports raise the value of the currency, reducing aforementioned exports, and vise versa for imports, thus naturally removing trade deficits not due to investment. Milton Friedman's son, David D. Friedman, shares this view and cites the comparative advantage concepts of David Ricardo. In the late 1970s and early 1980s, the U.S. had experienced high inflation and Friedman's policy positions tended to defend the stronger dollar at that time. He stated his belief that these trade deficits were not necessarily harmful to the economy at the time since the currency comes back to the country (country A sells to country B, country B sells to country C who buys from country A, but the trade deficit only includes A and B). However, it may be in one form or another including the possible tradeoff of foreign control of assets. In his view, the "worst case scenario" of the currency never returning to the country of origin was actually the best possible outcome: the country actually purchased its goods by exchanging them for pieces of cheaply-made paper. As Friedman put it, this would be the same result as if the exporting country burned the dollars it earned, never returning it to market circulation. This position is a more refined version of the theorem first discovered by David Hume. Hume argued that England could not permanently gain from exports, because hoarding gold (i.e., currency) would make gold more plentiful in England; therefore, the prices of English goods would rise, making them less attractive exports and making foreign goods more attractive imports. In this way, countries' trade balances would balance out.

Friedman believed that deficits would be corrected by free markets as floating currency rates rise or fall with time to encourage or discourage imports in favor of the exports, reversing again in favor of imports as the currency gains strength. In the real world, a potential difficulty is that currency markets are far from a free market, with government and central banks being major players, and this is unlikely to change within the foreseeable future. Nevertheless, recent developments have shown that the global economy is undergoing a fundamental shift. For many years the U.S. has bore world has lent and sold. However, as Friedman predicted, this paradigm appears to be changing.

As of October 2007, the U.S. dollar weakened against the euro, British pound, and many other currencies. For instance, the euro hit \$1.42 in October 2007, the strongest it has been since its birth in 1999. Against this backdrop, American exporters are finding quite favorable overseas markets for their

products and U.S. consumers are responding to their general housing slowdown by slowing their spending. Furthermore, China, the Middle East, central Europe and Africa are absorbing more of the world's imports which in the end may result in a world economy that is more evenly balanced. All of this could well add up to a major readjustment of the U.S. trade deficit, which as a percentage of GDP, began in 1991.

Friedman and other economists have pointed out that a large trade deficit (importation of goods) signals that the country's currency is strong and desirable. To Friedman, a trade deficit simply meant that consumers had opportunity to purchase and enjoy more goods at lower prices; conversely, a trade surplus implied that a country was exporting goods its own citizens did not get to consume or enjoy, while paying high prices for the goods they actually received.

Friedman contended that the structure of the balance of payments was misleading. In an interview with Charlie Rose, he stated that "on the books" the US is a net borrower of funds, using those funds to pay for goods and services. He essentially claimed that the foreign assets were not carried on the books at their higher, truer value.

Friedman presented his analysis of the balance of trade in *Free to Choose*, widely considered his most significant popular work.

Warren Buffett on trade deficits

The successful American businessman and investor Warren Buffett was quoted in the Associated Press (January 20, 2006) as saying "The U.S trade deficit is a bigger threat to the domestic economy than either the federal budget deficit or consumer debt and could lead to political turmoil... Right now, the rest of the world owns \$3 trillion more of us than we own of them."

John Maynard Keynes on the balance of trade

In the last few years of his life, John Maynard Keynes was much preoccupied with the question of balance in international trade. He was the leader of the British delegation to the United Nations Monetary and Financial Conference in 1944 that established the Bretton Woods system of international currency management.

He was the principal author of a proposal—the so-called Keynes Plan—for an International Clearing Union. The two governing principles of the plan were that the problem of settling outstanding balances should be solved by 'creating' additional 'international money', and that debtor and creditor should be treated almost alike as disturbers of equilibrium. In the event, though, the plans were

rejected, in part because "American opinion was naturally reluctant to accept the principal of equality of treatment so novel in debtor-creditor relationships".

His view, supported by many economists and commentators at the time, was that creditor nations may be just as responsible as debtor nations for disequilibrium in exchanges and that both should be under an obligation to bring trade back into a state of balance. Failure for them to do so could have serious consequences. In the words of Geoffrey Crowther, then editor of The Economist, "If the economic relationships between nations are not, by one means or another, brought fairly close to balance, then there is no set of financial arrangements that can rescue the world from the impoverishing results of chaos."

These ideas were informed by events prior to the Great Depression when—in the opinion of Keynes and others—international lending, primarily by the United States, exceeded the capacity of sound investment and so got diverted into non-productive and speculative uses, which in turn invited default and a sudden stop to the process of lending.

Influenced by Keynes, economics texts in the immediate post-war period put a significant emphasis on balance in trade. For example, the second edition of the popular introductory textbook, *An Outline of Money*, devoted the last three of its ten chapters to questions of foreign exchange management and in particular the 'problem of balance'. However, in more recent years, since the end of the Bretton Woods system in 1971, with the increasing influence of Monetarist schools of thought in the 1980s, and particularly in the face of large sustained trade imbalances, these concerns—and particularly concerns about the destabilising affects of large trade surpluses—have largely disappeared from mainstream economics discourse and Keynes' insights have slipped from view, they are receiving some attention again in the wake of the financial crisis of 2007–2009.

Physical balance of trade

Monetary balance of trade is different from physical balance of trade (which is expressed in amount of raw materials). Developed countries usually import a lot of primary raw materials from developing countries at low prices. Often, these materials are then converted into finished products, and a significant amount of value is added. Although for instance the EU (as well as many other developed countries) has a balanced monetary balance of trade, its physical trade balance (especially with developing countries) is negative, meaning that a lot less material is exported than imported.

Balance of payments

In economics, the **balance of payments**, (or **BOP**) measures the payments that flow between any individual country and all other countries. It is used to summarize all international economic transactions for that country during a specific time period, usually a year. The BOP is determined by the country's exports and imports of goods, services, and financial capital, as well as financial transfers. It reflects all payments and liabilities to foreigners (debits) and all payments and obligations received from foreigners (credits). Balance of payments is one of the major indicators of a country's status in international trade, with net capital outflow.

The balance, like other accounting statements, is prepared in a single currency, usually the domestic. Foreign assets and flows are valued at the exchange rate of the time of transaction.

IMF definition

The IMF definition: "Balance of Payments is a statistical statement that summarizes transactions between residents and nonresidents during a period." The balance of payments comprises the current account and the capital account (or the financial account). "Together, these accounts balance in the sense that the sum of the entries is conceptually zero."

- The **current account** consists of the **goods and services account**, the primary income account and the secondary income account.
- The **capital account** is much smaller than the other two and consists primarily of debt forgiveness and assets from migrants coming to or leaving the country.
- The **financial account** consists of asset inflows and outflows, such as international purchases of stocks, bonds and real estate.

Balance of payments identity

The balance of payments identity states that:

Current Account = Capital Account + Financial Account + Net Errors and Omissions

This is a convention of double entry accounting, where all debit entries must be booked along with corresponding credit entries such that the net of the Current Account will have a corresponding net of the Capital and Financial Accounts:

$$X + K_i = M + K_o$$

where:

- X = exports
- M = imports
- K_i = capital inflows
- K_o = capital outflows

Rearranging, we have:

$$(X - M) = K_o - K_i$$

yielding the BOP identity.

The basic principle behind the identity is that a country can only consume more than it can produce (a current account deficit) if it is supplied capital from abroad (a capital account surplus).

Mercantile thought prefers a so-called balance of payments surplus where the net current account is in surplus or, more specifically, a positive balance of trade.

A **balance of payments equilibrium** is defined as a condition where the sum of debits and credits from the current account and the capital and financial accounts equal to zero; in other words, equilibrium is where

Current account
$$+$$
 (Capital and financial accounts) $= 0$

This is a condition where there are no changes in Official Reserves. When there is no change in Official Reserves, the balance of payments may also be stated as follows:

Current account = -(Capital and financial accounts)

or:

Current account deficit (or surplus) = Capital and financial account surplus (or

Canada's Balance of Payments currently satisfies this criterion. It is the only large monetary authority with no Changes in Reserves.

History

Historically these flows simply were not carefully measured due to difficulty in measurement, and the flow proceeded in many commodities and currencies without restriction, clearing being a matter of judgment by individual private

banks and the governments that licensed them to operate. Mercantilism was a theory that took special notice of the balance of payments and sought simply to monopolize gold, in part to keep it out of the hands of potential military opponents (a large "war chest" being a prerequisite to start a war, whereupon much trade would be embargoed) but mostly upon the theory that large domestic gold supplies will provide lower interest rates. This theory has not withstood the test of facts.

As mercantilism gave way to classical economics, and private currencies were taxed out of existence, the market systems were later regulated in the 19th century by the gold standard which linked central banks by a convention to redeem "hard currency" in gold. After World War II this system was replaced by the Bretton Woods institutions (the International Monetary Fund and Bank for International Settlements) which pegged currency of participating nations to the US dollar and German mark, which was redeemable nominally in gold. In the 1970s this redemption ceased, leaving the system with respect to the United States without a formal base, yet the peg to the Mark somewhat remained. Strangely, since leaving the gold standard and abandoning interference with Dollar foreign exchange, the surplus in the Income Account has decayed exponentially, and has remained negligible as a percentage of total debits or credits for decades. Some consider the system today to be based on oil, a universally desirable commodity due to the dependence of so much infrastructural capital on oil supply; however, no central bank stocks reserves of crude oil. Since OPEC oil transacts in US dollars, and most major currencies are subject to sudden large changes in price due to unstable central banks, the US dollar remains a reserve currency, but is increasingly challenged by the euro, and to a small degree the pound.

The United States has been running a current account deficit since the early 1980s. The U.S. current account deficit has grown considerably in recent years, reaching record high levels in 2006 both in absolute terms (\$758 billion) and as a fraction of GDP (6%).

Criticism

According to Murray Rothbard:

"Fortunately, the absurdity of worrying about the balance of payments is made evident by focusing on inter-state trade. For nobody worries about the balance of payments between New York and New Jersey, or, for that matter, between Manhattan and Brooklyn, because there are no customs officials recording such trade and such balances.

Trade facilitation.

Trade facilitation looks at how procedures and controls governing the movement of goods across national borders can be improved to reduce associated cost burdens and maximise efficiency while safeguarding legitimate regulatory objectives. Business costs may be a direct function of collecting information and submitting declarations or an indirect consequence of border checks in the form of delays and associated time penalties, forgone business opportunities and reduced competitiveness.

Understanding and use of the term "trade facilitation" varies in the literature and amongst practitioners. "Trade facilitation" is largely used by institutions which seek to improve the regulatory interface between government bodies and traders at national borders. The WTO, in an online training package, once defined trade facilitation as: "The simplification and harmonisation of international trade procedures" where trade procedures are the "activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade".

In defining the term, many trade facilitation proponents will also make reference to trade finance and the procedures applicable for making payments (e.g. via a commercial banks). For example UN/CEFACT defines trade facilitation as "the simplification, standardization and harmonization of procedures and associated information flows required to move goods from seller to buyer and to make payment".

Occasionally, the term trade facilitation is extended to address a wider agenda in economic development and trade to include: the improvement of transport infrastructure, the removal of government corruption, the modernization of customs administration, the removal of other non-tariff trade barriers, as well as export marketing and promotion.

Examples of regulatory activity in international trade

Fiscal: Collection of customs duties, excise duties and other indirect taxes; payment mechanisms

Safety and security: Security and anti smuggling controls; dangerous goods; vehicle checks; immigration and visa formalities

Environment and health: Phytosanitary, veterinary and hygiene controls; health and safety measures; CITES controls; ships' waste

Consumer protection: Product testing; labelling; conformity checks with marketing standards (e.g. fruit and vegetables)

Trade policy: Administration of quota restrictions; export refunds

Topics and issues in trade facilitation

Trade facilitation has its intellectual roots in the fields of logistics and supply chain management. Trade facilitation looks at operational improvements at the interface between business and government and associated transaction costs. Trade facilitation has become a key feature in supply chain security and customs modernisation programmes. Within the context of economic development it has also come to prominence in the Doha Development Round. However, it is an equally prominent feature in unilateral and bilateral initiatives that seek to improve the trade environment and enhance business competitiveness. Reference to trade facilitation is sometimes also made in the context of "better regulation". Some organisations promoting trade facilitation will emphasis the cutting of red tape in international trade as their main objective. Propagated ideas and concepts to reforming trade and customs procedures generally resonate around the following themes:

- Simple rules and procedures
- Avoidance of duplication
- Memoranda of Understanding (MoUs)
- Alignment of procedures and adherence to international conventions
- Trade consultation
- Transparent and operable rules and procedures
- Accommodation of business practices
- Operational flexibility
- Public-service standards and performance measures
- Mechanisms for corrections and appeals
- Fair and consistent enforcement
- Proportionality of legislation and control to risk
- Time-release measures
- Risk management and trader authorisations
- Standardisation of documents and electronic data requirements
- Automation
- International electronic exchange of trade data
- Single Window System

International trade law

International trade law includes the appropriate rules and customs for handling trade between countries or between private companies across borders. Over the past twenty years, it has become one of the fastest growing areas of international law.

Overview

International trade law should be distinguished from the broader field of international economic law. The latter could be said to encompass not only WTO law, but also law governing the international monetary system and currency regulation, as well as the law of international development.

The body of rules for transnational trade in the 21st century derives from medieval commercial laws called the *lex mercatoria* and *lex maritima* — respectively, "the law for merchants on land" and "the law for merchants on sea." Modern trade law (extending beyond bilateral treaties) began shortly after the Second World War, with the negotiation of a multilateral treaty to deal with trade in goods: the General Agreement on Tariffs and Trade (GATT).

International trade law is based on theories of economic liberalism developed in Europe and later the United States from the 18th century onwards.

World Trade Organization

In 1995, the World Trade Organization, a formal international organization to regulate trade, was established. It is the most important development in the history of international trade law.

The purposes and structure of the organization is governed by the *Agreement Establishing The World Trade Organization*, also known as the "Marrakesh Agreement". It does not specify the actual rules that govern international trade in specific areas. These are found in separate treaties, annexed to the Marrakesh Agreement.

Trade in goods

The GATT has been the backbone of international trade law throughout most of the twentieth century. It contains rules relating to "unfair" trading practices — dumping and subsidies.

Trade and Human Rights

The World Trade Organisation Trade Related Intellectual Property Rights (TRIPS) agreement required signatory nations to raise intellectual property rights (also known as intellectual monopoloy privileges. This arguably has had a negative impact on access to essential medicines in some nations.

Dispute settlement

Since there are no international governing judges (2004) the means of dispute resolution is determined by jurisdiction. Each individual country hears cases that are brought before them. Governments choose to be party to a dispute. And private citizens determine jurisdiction by the Forum Clause in their contract.

Besides forum, another factor in international disputes is the rate of exchange. With currency fluctuation ascending and descending over years, a lack of Commerce Clause can jeopardize trade between parties when one party becomes unjustly enriched through natural market fluctuations. By listing the rate of exchange expected over the contract life, parties can provide for changes in the market through reassessment of contract or division of exchange rate fluctuations.

Dumping (pricing policy)

In economics, "dumping" can refer to any kind of predatory pricing. However, the word is now generally used only in the context of international trade law, where dumping is defined as the act of a manufacturer in one country exporting a product to another country at a price which is either below the price it charges in its home market or is below its costs of production. The term has a negative connotation, but advocates of free markets see "dumping" as beneficial for consumers and believe that protectionism to prevent it would have net negative consequences. Advocates for workers and laborers however, believe that safeguarding businesses against predatory practices, such as dumping, help alleviate some of the harsher consequences of free trade between economies at different stages of development (see protectionism). The Bolkestein directive, for example, was accused in Europe of being a form of "social dumping," as it favored competition between workers, as exemplified by the Polish Plumber stereotype. While there are very few examples of a national scale dumping that succeeded in producing a national-level monopoly, there are several examples of dumping that produced a monopoly in regional markets for certain industries. Ron Chenow points to the example of regional oil monopolies in Titan: The Life of John D. Rockefeller, Sr. where Rockefeller receives a message from Colonel Thompson outlining an approved strategy where oil in one market, Cincinnati, would be sold at or below cost to drive competition's profits down and force them to exit the market. In another area where other independent businesses were already driven out, namely in Chicago, prices would be increased by a quarter. A standard technical definition of dumping is the act of charging a lower price for a good in a foreign market than one charges for the same good in a domestic market. This is often referred to as selling at less than "fair value." Under the World Trade Organization (WTO) Agreement, dumping is condemned (but is not prohibited)

if it causes or threatens to cause material injury to a domestic industry in the importing country.

Remedies and penalties

In United States, domestic firms can file an antidumping petition under the regulations determined by the United States Department of Commerce, which determines "less than fair value" and the International Trade Commission, which determines "injury". These proceedings operate on a timetable governed by U.S. law. The Department of Commerce has regularly found that products have been sold at less than fair value in U.S. markets. If the domestic industry is able to establish that it is being injured by the dumping, then antidumping duties are imposed on goods imported from the dumpers' country at a percentage rate calculated to counteract the dumping margin.

Related to antidumping duties are "countervailing duties." The difference is that countervailing duties seek to offset injurious subsidization while antidumping duties offset injurious dumping.

Some commentators have noted that domestic protectionism, and lack of knowledge regarding foreign cost of production, lead to the unpredictable institutional process surrounding investigation. Members of the WTO can file complaints against anti-dumping measures.

Anti-dumping actions

Legal issues

If a company exports a product at a price lower than the price it normally charges on its own home market, it is said to be "dumping" the product. Opinions differ as to whether or not this is unfair competition, but many governments take action against dumping in order to defend their domestic industries. The WTO agreement does not pass judgment. Its focus is on how governments can or cannot react to dumping—it disciplines anti-dumping actions, and it is often called the "Anti-Dumping Agreement". (This focuses only on the reaction to dumping contrasts with the approach of the Subsidies & Countervailing Measures Agreement.)

The legal definitions are more precise, but broadly speaking the WTO agreement allows governments to act against dumping where there is genuine ("material") injury to the competing domestic industry. In order to do that the government has to be able to show that dumping is taking place, calculate the

extent of dumping (how much lower the export price is compared to the exporter's home market price), and show that the dumping is causing injury or threatening to do so.

Definitions and degrees of dumping

While permitted by the WTO, General Agreement on Tariffs and Trade (GATT) (Article VI) allows countries the option of taking action against dumping. The Anti-Dumping Agreement clarifies and expands Article VI, and the two operate together. They allow countries to act in a way that would normally break the GATT principles of binding a tariff and not discriminating between trading partners—typically anti-dumping action means charging extra import duty on the particular product from the particular exporting country in order to bring its price closer to the "normal value" or to remove the injury to domestic industry in the importing country.

There are many different ways of calculating whether a particular product is being dumped heavily or only lightly. The agreement narrows down the range of possible options. It provides three methods to calculate a product's "normal value". The main one is based on the price in the exporter's domestic market. When this cannot be used, two alternatives are available—the price charged by the exporter in another country, or a calculation based on the combination of the exporter's production costs, other expenses and normal profit margins. And the agreement also specifies how a fair comparison can be made between the export price and what would be a normal price.

Calculating the extent of dumping on a product is not enough. Anti-dumping measures can only be applied if the dumping is hurting the industry in the importing country. Therefore, a detailed investigation has to be conducted according to specified rules first. The investigation must evaluate all relevant economic factors that have a bearing on the state of the industry in question. If the investigation shows dumping is taking place and domestic industry is being hurt, the exporting company can undertake to raise its price to an agreed level in order to avoid anti-dumping import duty.

Procedures in investigation and litigation

Detailed procedures are set out on how anti-dumping cases are to be initiated, how the investigations are to be conducted, and the conditions for ensuring that all interested parties are given an opportunity to present evidence. Anti-dumping measures must expire five years after the date of imposition, unless a review shows that ending the measure would lead to injury.

Anti-dumping investigations are to end immediately in cases where the authorities determine that the margin of dumping is, *de minimis*, or insignificantly small (defined as less than 2% of the export price of the

product). Other conditions are also set. For example, the investigations also have to end if the volume of dumped imports is negligible (i.e., if the volume from one country is less than 3% of total imports of that product—although investigations can proceed if several countries, each supplying less than 3% of the imports, together account for 7% or more of total imports). The agreement says member countries must inform the Committee on Anti-Dumping Practices about all preliminary and final anti-dumping actions, promptly and in detail. They must also report on all investigations twice a year. When differences arise, members are encouraged to consult each other. They can also use the WTO's dispute settlement procedure.

Actions in the European Union

European Union anti-dumping is under the purview of the European Council. It is governed by European Council regulation 384/96. However, implementation of anti-dumping actions (trade defence actions) is taken after voting by various committees with member state representation.

The bureaucratic entity responsible for advising member states on antidumping actions is the Directorate General Trade (DG Trade), based in Brussels. Community industry can apply to have an anti-dumping investigation begin. DG Trade first investigates the standing of the complainants. If they are found to represent at least 25% of community industry, the investigation will probably begin. The process is guided by quite specific guidance in the regulations. The DG Trade will make a recommendation to a committee known as the Anti-Dumping Advisory Committee, on which each member state has one vote. Member states abstaining will be treated as if they voted in favour of industrial protection, a voting system which has come under considerable criticism

As is implied by the criterion for beginning an investigation, EU anti-dumping actions are primarily considered part of a "trade defence" portfolio. Consumer interests and non-industry related interests ("community interests") are not emphasized during an investigation. An investigation typically looks for damage caused by dumping to community producers, and the level of tariff set is based on the damage done to community producers by dumping.

If consensus is not found, the decision goes to the European Council.

If imposed, duties last for five years theoretically. In practice they last at least a year longer, because expiry reviews are usually initiated at the end of the five years, and during the review process the status-quo is maintained.

Chinese economic situation

The dumping investigation essentially compares domestic prices of the accused dumping nation with prices of the imported product on the European market. However, several rules are applied to the data before the dumping margin is calculated. Most contentious is the concept of "analogue market". Some exporting nations are not granted "Market Economy Status" by the EU: China is a prime example. In such cases, the DG Trade is prevented from using domestic prices as the fair measure of the domestic price. A particular exporting industry may also lose market status if the DG Trade concludes that this industry receives government assistance. Other tests applied include the application of international accounting standards and bankruptcy laws.

The consequences of not being granted market economy status have a big impact on the investigation. For example, if China is accused of dumping widgets, the basic approach is to consider the price of widgets in China against the price of Chinese widgets in Europe. But China does not have market economy status, so Chinese domestic prices can not be used as the reference. Instead, the DG Trade must decide upon an analogue market: a market which does have market economy status, and which is similar enough to China. Brazil and Mexico have been used, but the USA is a popular analogue market. In this case, the price of widgets in the USA is regarded as the substitute for the price of widgets in China. This process of choosing an analogue market is subject to the influence of the complainant, which has led to some criticism that it is an inherent bias in the process.

However, China is one of the countries that has the cheapest labourforce. Criticizims have argued that it is quite unreasonable to compare China's goods price to the USA's as analogue. China is now developing to a more free and open market, unlike its planned-economy in the early 60s, the market in China is more willing to embrace the global competition. It is thus required to improve its market regulations and conquer the free trade barriers to improve the situation and produce a properly judged pricing level to assess the "dumping" behavior.

Agricultural support and dumping

European Union and Common Agricultural Policy

The Common Agricultural Policy of the European Union has often been accused of dumping though significant reforms were made as part of the Agreement on Agriculture at the Uruguay round of GATT negotiations in 1992 and in subsequent incremental reforms, notably the Luxembourg Agreement in 2003. Initially the CAP sought to increase European agricultural production and provide support to European farmers through a process of market intervention whereby a special fund - the European Agricultural Guidance and Guarantee Fund (EAGGF) - would buy up surplus agricultural produce if the price fell below a certain centrally determined level (the intervention level).

Through this measure European farmers were given a 'guaranteed' price for their produce when sold in the European community. In addition to this internal measure a system of export reimbursements ensured that European produce sold outside of the European community would sell at or below world prices at no detriment to the European producer. This policy was heavily criticized as distorting world trade and since 1992 the policy has moved away from market intervention and towards direct payments to farmers regardless of production (a process of "decoupling"). Furthermore the payments are generally dependent on the farmer fulfilling certain environmental or animal welfare requirements so as to encourage responsible, sustainable farming in what is termed 'multifunctional' agricultural subsidies - that is, the social, environmental and other benefits from subsidies that do not include a simple increase in production.

Multinational corporation

A multinational corporation (MNC) or transnational corporation (TNC), also called multinational enterprise (MNE) is a corporation or enterprise that manages production or delivers services in more than one country. It can also be referred to as an *international corporation*.

The first modern MNC is generally thought to be the Poor Knights of Christ and the Temple of Solomon, first endorsed by the pope in 1129. The key element of transnational corporations was present even back then: the British East India Company and Dutch East India Company were operating in different countries than the ones where they had their headquarters. Nowadays many corporations have offices, branches or manufacturing plants in different countries than where their original and main headquarter is located. This is the very definition of a transnational corporation. Having multiple operation points that all respond to one headquarter.

This often results in very powerful corporations that have budgets that exceed some national GDPs. Multinational corporations can have a powerful influence in local economies as well as the world economy and play an important role in international relations and globalization. The presence of such powerful players in the world economy is reason for much controversy.

Market imperfections

It may seem strange that a corporation can decide to do business in a different country, where it doesn't know the laws, local customs or business practices. Why is it not more efficient to combine assets of value overseas with local

factors of production at lower costs by renting or selling them to local investors?

One reason is that the use of the market for coordinating the behaviour of agents located in different countries is less efficient than coordinating them by a multinational enterprise as an institution. The additional costs caused by the entrance in foreign markets are of less interest for the local enterprise. According to Hymer, Kindleberger and Caves, the existence of MNEs is reasoned by structural market imperfections for final products. In Hymer's example, there are considered two firms as monopolists in their own market and isolated from competition by transportation costs and other tariff and nontariff barriers. If these costs decrease, both are forced to competition; which will reduce their profits. The firms can maximize their joint income by a merger or acquisition which will lower the competition in the shared market. Due to the transformation of two separated companies into one MNE the pecuniary externalities are going to be internalized. However, this doesn't mean that there is an improvement for the society. This could also be the case if there are few substitutes or limited licenses in a foreign market. The consolidation is often established by acquisition, merger or the vertical integration of the potential licensee into overseas manufacturing. This makes it easy for the MNE to enforce price discrimination schemes in various countries. Therefore Humyer considered the emergence of multinational firms as "an (negative) instrument for restraining competition between firms of different nations". Market imperfections had been considered by Hymer as structural and caused by the deviations from perfect competition in the final product markets. Further reasons are originated from the control of proprietary technology and distribution systems, scale economies, privileged access to inputs and product differentiation. In the absence of these factors, market are fully efficient. The transaction costs theories of MNEs had been developed simultaneously and independently by McManus (1972), Buckley & Casson (1976), Brown (1976) and Hennart (1977, 1982). All these authors claimed that market imperfections are inherent conditions in markets and MNEs are institutions which try to bypass these imperfections. The imperfections in markets are natural as the neoclassical assumptions like full knowledge and enforcement don't exist in real markets.

International power

Tax competition

Multinational corporations have played an important role in globalization. Countries and sometimes subnational regions must compete against one another for the establishment of MNC facilities, and the subsequent tax revenue, employment, and economic activity. To compete, countries and regional political districts sometimes offer incentives to MNCs such as tax breaks, pledges of governmental assistance or improved infrastructure, or lax

environmental and labor standards enforcement. This process of becoming more attractive to foreign investment can be characterized as a race to the bottom, a push towards greater autonomy for corporate bodies, or both.

However, some scholars for instance the Columbia economist Jagdish Bhagwati, have argued that multinationals are engaged in a 'race to the top.' While multinationals certainly regard a low tax burden or low labor costs as an element of comparative advantage, there is no evidence to suggest that MNCs deliberately avail themselves of lax environmental regulation or poor labour standards. As Bhagwati has pointed out, MNC profits are tied to operational efficiency, which includes a high degree of standardization. Thus, MNCs are likely to tailor production processes in all of their operations in conformity to those jurisdictions where they operate (which will almost always include one or more of the US, Japan or EU) which has the most rigorous standards. As for labor costs, while MNCs clearly pay workers in, e.g. Vietnam, much less than they would in the US (though it is worth noting that higher American productivity—linked to technology—means that any comparison is tricky, since in America the same company would probably hire far fewer people and automate whatever process they performed in Vietnam with manual labour), it is also the case that they tend to pay a premium of between 10% and 100% on local labor rates. Finally, depending on the nature of the MNC, investment in any country reflects a desire for a long-term return. Costs associated with establishing plant, training workers, etc., can be very high; once established in a jurisdiction, therefore, many MNCs are quite vulnerable to predatory practices such as, e.g., expropriation, sudden contract renegotiation, the arbitrary withdrawal or compulsory purchase of unnecessary 'licenses,' etc. Thus, both the negotiating power of MNCs and the supposed 'race to the bottom' may be overstated, while the substantial benefits which MNCs bring (tax revenues aside) are often understated.

Market withdrawal

Because of their size, multinationals can have a significant impact on government policy, primarily through the threat of market withdrawal. For example, in an effort to reduce health care costs, some countries have tried to force pharmaceutical companies to license their patented drugs to local competitors for a very low fee, thereby artificially lowering the price. When faced with that threat, multinational pharmaceutical firms have simply withdrawn from the market, which often leads to limited availability of advanced drugs. In these cases, governments have been forced to back down from their efforts. Similar corporate and government confrontations have occurred when governments tried to force MNCs to make their intellectual property public in an effort to gain technology for local entrepreneurs. When companies are faced with the option of losing a core competitive technological advantage or withdrawing from a national market, they may choose the latter. This withdrawal often causes governments to change policy. Countries that

have been the most successful in this type of confrontation with multinational corporations are large countries such as United States and Brazil , which have viable indigenous market competitors.

Lobbying

Multinational corporate lobbying is directed at a range of business concerns, from tariff structures to environmental regulations. There is no unified multinational perspective on any of these issues. Companies that have invested heavily in pollution control mechanisms may lobby for very tough environmental standards in an effort to force non-compliant competitors into a weaker position. Corporations lobby tariffs to restrict competition of foreign industries. For every tariff category that one multinational wants to have reduced, there is another multinational that wants the tariff raised. Even within the U.S. auto industry, the fraction of a company's imported components will vary, so some firms favor tighter import restrictions, while others favor looser ones. Says Ely Oliveira, Manager Director of the MCT/IR: This is very serious and is very hard and takes a lot of work for the owner.

Multinational corporations such as Wal-mart and McDonald's benefit from government zoning laws, to create barriers to entry.

Many industries such as General Electric and Boeing lobby the government to receive subsidies to preserve their monopoly.

Patents

Many multinational corporations hold patents to prevent competitors from arising. For example, Adidas holds patents on shoe designs, Siemens A.G. holds many patents on equipment and infrastructure and Microsoft benefits from software patents The pharmaceutical companies lobby international agreements to enforce patent laws on others.

Government power

In addition to efforts by multinational corporations to affect governments, there is much government action intended to affect corporate behavior. The threat of nationalization (forcing a company to sell its local assets to the government or to other local nationals) or changes in local business laws and regulations can limit a multinational's power. These issues become of increasing importance because of the emergence of MNCs in developing countries.

Micro-multinationals

Enabled by Internet based communication tools, a new breed of multinational companies is growing in numbers."How startups go global".

http://money.cnn.com/2006/06/28/magazines/business2/startupsgoglobal.b iz2/index.htm. These multinationals start operating in different countries from the very early stages. These companies are being called micro-multinationals. What differentiates micro-multinationals from the large MNCs is the fact that they are small businesses. Some of these micro-multinationals, particularly software development companies, have been hiring employees in multiple countries from the beginning of the Internet era. But more and more micro-multinationals are actively starting to market their products and services in various countries. Internet tools like Google, Yahoo, MSN, Ebay and Amazon make it easier for the micro-multinationals to reach potential customers in other countries.

Service sector micro-multinationals, like Indigo Design & Engineering Associates Pvt. Ltd. Facebook, Alibaba etc. started as dispersed virtual businesses with employees, clients and resources located in various countries. Their rapid growth is a direct result of being able to use the internet, cheaper telephony and lower traveling costs to create unique business opportunities

Criticism of multinationals

The rapid rise of multinational corporations has been a topic of concern among intellectuals, activists and laypersons who have seen it as a threat of such basic civil rights as privacy. They have pointed out that multinationals create false needs in consumers and have had a long history of interference in the policies of sovereign nation states. Evidence supporting this belief includes invasive advertising (such as billboards, television ads, adware, spam, telemarketing, child-targeted advertising, guerilla marketing), massive corporate campaign contributions in democratic elections, and endless global news stories about corporate corruption (Martha Stewart and Enron, for example). Anti-corporate protesters suggest that corporations answer only to shareholders, giving human rights and other issues almost no consideration. [15] Films and books critical of multinationals include *Surplus: Terrorized into Being Consumers*, *The Corporation, The Shock Doctrine, Downsize This* and others.

World Trade Organization

Location of the WTO headquarters in Geneva

The **World Trade Organization** (**WTO**) is an international organization designed by its founders to supervise and liberalize international capital trade. The organization officially commenced on January 1, 1995 under the

Marrakesh Agreement, replacing the General Agreements on Tariffs and Trade (GATT), which commenced in 1947. The World Trade Organization deals with regulation of trade between participating countries; it provides a framework for negotiating and formalising trade agreements, and a dispute resolution process aimed at enforcing participants' adherence to WTO agreements which are signed by representatives of member governments and ratified by their parliaments. Most of the issues that the WTO focuses on derive from previous trade negotiations, especially from the Uruguay Round (1986-1994). The organization is currently endeavouring to persist with a trade negotiation called the Doha Development Agenda (or Doha Round), which was launched in 2001 to enhance equitable participation of poorer countries which represent a majority of the world's population. However, the negotiation has been dogged by "disagreement between exporters of agricultural bulk commodities and countries with large numbers of subsistence farmers on the precise terms of a 'special safeguard measure' to protect farmers from surges in imports. At this time, the future of the Doha Round is uncertain."

The WTO has 153 members,

representing more than 95% of total world trade and 30 bservers, most seeking membership. The WTO is governed by a ministerial conference, meeting every two years; a general council, which implements the conference's policy decisions and is responsible for day-to-day administration; and a director-general, who is appointed by the ministerial conference. The WTO's headquarters is at the Centre William Rappard, Geneva, Switzerland.

Harry Dexter White (l) and John Maynard Keynes at the Bretton Woods Conference – Both economists had been strong advocates of a liberal international trade environment, and recommended the establishment of three institutions: the IMF (fiscal and monetary issues), the World Bank (financial and structural issues), and the ITO (international economic cooperation).

The WTO's predecessor, the General Agreement on Tariffs and Trade (GATT), was established after World War II in the wake of other new multilateral institutions dedicated to international economic cooperation - notably the Bretton Woods institutions known as the World Bank and the International Monetary Fund. A comparable international institution for trade, named the International Trade Organization was successfully negotiated. The ITO was to be a United Nations specialized agency and would address not only trade barriers but other issues indirectly related to trade, including employment, investment, restrictive business practices, and commodity agreements. But the ITO treaty was not approved by the United States and a few other signatories and never went into effect.

In the absence of an international organization for trade, the GATT would over the years "transform itself" into a *de facto* international organization.

GATT rounds of negotiations

General Agreement on Tariffs and Trade

The GATT was the only multilateral instrument governing international trade from 1948 until the WTO was established in 1995. Despite attempts in the mid 1950s and 1960s to create some form of institutional mechanism for international trade, the GATT continued to operate for almost half a century as a semi-institutionalized multilateral treaty regime on a provisional basis.

From Geneva to Tokyo

Seven rounds of negotiations occurred under the GATT. The first GATT trade rounds concentrated on further reducing tariffs. Then, the Kennedy Round in the mid-sixties brought about a GATT anti-dumping Agreement and a section on development. The Tokyo Round during the seventies was the first major attempt to tackle trade barriers that do not take the form of tariffs, and to improve the system, adopting a series of agreements on non-tariff barriers, which in some cases interpreted existing GATT rules, and in others broke entirely new ground. Because these plurilateral agreements were not accepted by the full GATT membership, they were often informally called "codes". Several of these codes were amended in the Uruguay Round, and turned into multilateral commitments accepted by all WTO members. Only four remained plurilateral (those on government procurement, bovine meat, civil aircraft and dairy products), but in 1997 WTO members agreed to terminate the bovine meat and dairy agreements, leaving only two.

WTO Ministerial Conference of 2001

Was held in Doha In Persian Gulf nation of Qatar. The Doha Development Round was launched at the conference. The conference also approved the joining of China, which became the 143rd member to join.

Fifth ministerial conference

WTO Ministerial Conference of 2003

The ministerial conference was held in Cancún, Mexico, aiming at forging agreement on the Doha round. An alliance of 22 southern states, the G20 developing nations (led by India, China^[22] and Brazil), resisted demands from the North for agreements on the so-called "Singapore issues" and called for an end to agricultural subsidies within the EU and the US. The talks broke down without progress.

Sixth ministerial conference

For more details on this topic, see WTO Ministerial Conference of 2005.

The sixth WTO ministerial conference was held in Hong Kong from 13 December – 18 December 2005. It was considered vital if the four-year-old Doha Development Agenda negotiations were to move forward sufficiently to conclude the round in 2006. In this meeting, countries agreed to phase out all their agricultural export subsidies by the end of 2013, and terminate any cotton export subsidies by the end of 2006. Further concessions to developing countries included an agreement to introduce duty free, tariff free access for goods from the Least Developed Countries, following the Everything But Arms initiative of the European Union — but with up to 3% of tariff lines exempted. Other major issues were left for further negotiation to be completed by the end of 2010

Seventh ministerial conference

The WTO General Council, on 26 May 2009, agreed to hold a seventh WTO ministerial conference session in Geneva from 30 November–December 2009. A statement by chairman Amb. Mario Matus acknowledged that the prime purpose was to remedy a breach of protocol requiring two-yearly "regular" meetings, which had lapsed with the Doha Round failure in 2005, and that the "scaled-down" meeting would not be a negotiating session, but "emphasis will be on transparency and open discussion rather than on small group processes and informal negotiating structures".

Functions

Among the various functions of the WTO, these are regarded by analysts as the most important:

- It oversees the implementation, administration and operation of the covered agreements.
- It provides a forum for negotiations and for settling disputes. Additionally, it is the WTO's duty to review and propagate the national trade policies, and to ensure the coherence and transparency of trade policies through surveillance in global economic policy-making. Another priority of the WTO is the assistance of developing, least-developed and low-income countries in transition to adjust to WTO rules and disciplines through technical cooperation and training. The WTO is also a center of economic research and analysis: regular assessments of the global trade picture in its annual publications and research reports on specific topics are produced by the organization. Finally, the WTO cooperates closely with the two other components of the Bretton Woods system, the IMF and the World Bank.

Principles of the trading system

The WTO establishes a framework for trade policies; it does not define or specify outcomes. That is, it is concerned with setting the rules of the trade policy games. Five principles are of particular importance in understanding both the pre-1994 GATT and the WTO:

- 1. **Non-Discrimination**. It has two major components: the most favored nation (MFN) rule, and the national treatment policy. Both are embedded in the main WTO rules on goods, services, and intellectual property, but their precise scope and nature differ across these areas. The MFN rule requires that a WTO member must apply the same conditions on all trade with other WTO members, i.e. a WTO member has to grant the most favorable conditions under which it allows trade in a certain product type to all other WTO members. "Grant someone a special favor and you have to do the same for all other WTO members." National treatment means that imported and locally-produced goods should be treated equally (at least after the foreign goods have entered the market) and was introduced to tackle non-tariff barriers to trade (e.g. technical standards, security standards et al. discriminating against imported goods).
- 2. **Reciprocity**. It reflects both a desire to limit the scope of free-riding that may arise because of the MFN rule, and a desire to obtain better access to foreign markets. A related point is that for a nation to negotiate, it is necessary that the gain from doing so be greater than the gain available from unilateral liberalization; reciprocal concessions intend to ensure that such gains will materialize.
- 3. **Binding and enforceable commitments**. The tariff commitments made by WTO members in a multilateral trade negotiation and on accession are enumerated in a schedule (list) of concessions. These schedules establish "ceiling bindings": a country can change its bindings, but only after negotiating with its trading partners, which could mean compensating them for loss of trade. If satisfaction is not obtained, the complaining country may invoke the WTO dispute settlement procedures.
- 4. **Transparency**. The WTO members are required to publish their trade regulations, to maintain institutions allowing for the review of administrative decisions affecting trade, to respond to requests for information by other members, and to notify changes in trade policies to the WTO. These internal transparency requirements are supplemented and facilitated by periodic country-specific reports (trade policy reviews) through the Trade Policy Review Mechanism (TPRM). The WTO system tries also to improve predictability and stability, discouraging the use of quotas and other measures used to set limits on quantities of imports.
- 5. **Safety valves**. In specific circumstances, governments are able to restrict trade. There are three types of provisions in this direction:

articles allowing for the use of trade measures to attain noneconomic objectives; articles aimed at ensuring "fair competition"; and provisions permitting intervention in trade for economic reasons. Exceptions to the MFN principle also allow for preferential treatment of developing countries, regional free trade areas and customs unions. There are 11 committees under the jurisdiction of the Goods Council each with a specific task. All members of the WTO participate in the committees. The Textiles Monitoring Body is separate from the other committees but still under the jurisdiction of Goods Council. The body has its own chairman and only ten members. The body also has several groups relating to textiles.

Council for Trade-Related Aspects of Intellectual Property Rights

Information on intellectual property in the WTO, news and official records of the activities of the TRIPS Council, and details of the WTO's work with other international organizations in the field.

Council for Trade in Services

The Council for Trade in Services operates under the guidance of the General Council and is responsible for overseeing the functioning of the General Agreement on Trade in Services (GATS). It is open to all WTO members, and can create subsidiary bodies as required. The Service Council has three subsidiary bodies: financial services, domestic regulations, GATS rules and specific commitments.

Other committees

The General council has several different committees, working groups, and working parties.

Committees on

- Trade and Environment
- Trade and Development (Subcommittee on Least-Developed Countries)
- Regional Trade Agreements
- Balance of Payments Restrictions
- Budget, Finance and Administration

Working parties on

Accession

Working groups on

- Trade, debt and finance
- Trade and technology transfer

Trade Negotiations Committee

The Trade Negotiations Committee (TNC) is the committee that deals with the current trade talks round. The chair is WTO's director-general. The committee is currently tasked with the Doha Development Round.

Voting system

The WTO operates on a *one country, one vote* system, but actual votes have never been taken. Decision making is generally by consensus, and relative market size is the primary source of bargaining power. The advantage of consensus decision-making is that it encourages efforts to find the most widely acceptable decision. Main disadvantages include large time requirements and many rounds of negotiation to develop a consensus decision, and the tendency for final agreements to use ambiguous language on contentious points that makes future interpretation of treaties difficult

In reality, WTO negotiations proceed not by consensus of all members, but by a process of informal negotiations between small groups of countries. Such negotiations are often called "Green Room" negotiations (after the colour of the WTO Director-General's Office in Geneva), or "Mini-Ministerials", when they occur in other countries. These processes have been regularly criticised by many of the WTO's developing country members which are often totally excluded from the negotiations.

Richard Harold Steinberg (2002) argues that although the WTO's consensus governance model provides law-based initial bargaining, trading rounds close through power-based bargaining favouring Europe and the United States, and may not lead to Pareto improvement.

Dispute settlement

In 1994, the WTO members agreed on the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) annexed to the "Final Act" signed in Marrakesh in 1994. Dispute settlement is regarded by the WTO as the central pillar of the multilateral trading system, and as a "unique contribution to the stability of the global economy WTO members have agreed that, if they believe fellow-members are violating trade rules, they will use the multilateral system of settling disputes instead of taking action unilaterally.

The operation of the WTO dispute settlement process involves the DSB panels, the Appellate Body, the WTO Secretariat, arbitrators, independent experts and several specialized institution

Accession and membership

The process of becoming a WTO member is unique to each applicant country, and the terms of accession are dependent upon the country's stage of economic development and current trade regime. The process takes about five years, on average, but it can last more if the country is less than fully committed to the process or if political issues interfere. As is typical of WTO procedures, an offer of accession is only given once consensus is reached among interested parties.

Members and observers

The WTO has 153 members (almost all of the 123 nations participating in the Uruguay Round signed on at its foundation, and the rest had to get membership). The 27 states of the European Union are represented also as the European Communities. WTO members do not have to be full sovereign nationmembers. Instead, they must be a customs territory with full autonomy in the conduct of their external commercial relations. Thus Hong Kong (as "Hong Kong, China" since 1997) became a GATT contracting party, and the Republic of China (ROC) (commonly known as Taiwan, whose sovereignty has been disputed by the People's Republic of China) acceded to the WTO in 2002 under the name of "Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu" (Chinese Taipei). A number of non-members (30) are observers at WTO proceedings and are currently negotiating their membership. As observers, Iran, Iraq and Russia are not yet members. With the exception of the Holy See, observers must start accession negotiations within five years of becoming observers. Some international intergovernmental organizations are also granted observer status to WTO bodies. 14 states and 2 territories so far have no official interaction with the WTO.

Agreements

The WTO oversees about 60 different agreements which have the status of international legal texts. Member countries must sign and ratify all WTO agreements on accession

Some of the important agreements

Agreement on Agriculture (AoA)

The Agreement on Agriculture came into effect with the establishment of the WTO at the beginning of 1995. The AoA has three central concepts, or "pillars": domestic support, market access and export subsidies.

• General Agreement on Trade in Services (GATS)

The General Agreement on Trade in Services was created to extend the multilateral trading system to service sector, in the same way the General Agreement on Tariffs and Trade (GATT) provides such a system for merchandise trade. The Agreement entered into force in January 1995

• Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPs)

The Agreement on Trade-Related Aspects of Intellectual Property Rights sets down minimum standards for many forms of intellectual property (IP) regulation. It was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994.

• Sanitary and Phyto-Sanitary (SPS) Agreement

The Agreement on the Application of Sanitary and Phytosanitary Measures - also known as the SPS Agreement was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO at the beginning of 1995.

Under the SPS agreement, the WTO sets constraints on members' policies relating to food safety (bacterial contaminants, pesticides, inspection and labelling) as well as animal and plant health (imported pests and diseases).

Agreement on Technical Barriers to Trade (TBT)

The Agreement on Technical Barriers to Trade is an international treaty of the World Trade Organization. It was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO at the end of 1994.

The object ensures that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade".

Criticism The stated aim of the WTO is to promote free trade and stimulate economic growth. Critics argue that free trade leads to a divergence instead of convergence of income levels within rich and poor countries (the rich get richer and the poor get poorer) .Martin Khor, Director of the Third World Network, argues that the WTO does not manage the global economy impartially, but in its operation has a systematic bias toward rich countries and multinational corporations, harming smaller countries which have less negotiation power. He argues that developing countries have not benefited from the WTO agreements of the Uruguay Round because, among other reasons, market access in

industry has not improved; these countries have had no gains yet from the phasing-out of textile quotas; non-tariff barriers such as anti-dumping measures have increased; and domestic support and export subsidies for agricultural products in the rich countries remain high. Jagdish Bhagwati asserts, however, that there is greater tariff protection on manufacturers in the poor countries, which are also overtaking the rich nations in the number of anti-dumping filings.

Other critics claim that the issues of labor relations and environment are steadfastly ignored. Steve Charnovitz, former director of the Global Environment and Trade Study (GETS), believes that the WTO "should begin to address the link between trade and labor and environmental concerns." Further, labor unions condemn the labor rights record of developing countries, arguing that, to the extent the WTO succeeds at promoting globalization, the environment and labor rights suffer in equal measure On the other side, Khor responds that "if environment and labor were to enter the WTO system [...] it would be conceptually difficult to argue why other social and cultural issues should also not enter. "Bhagwati is also critical towards "rich-country lobbies seeking on imposing their unrelated agendas on trade agreements." Therefore, both Bhagwati and Arvind Panagariya of Columbia University, have criticized the introduction of TRIPs into the WTO framework, fearing that such non-trade agendas might overwhelm the organization's function.

Other critics have characterized the decision making in the WTO as complicated, ineffective, unrepresentative and non-inclusive, and they have proposed the establishment of a small, informal steering committee (a "consultative board") that can be delegated responsibility for developing consensus on trade issues among the member countries. The Third World Network has called the WTO "the most non-transparent of international organisations", because "the vast majority of developing countries have very little real say in the WTO system"; the Network stresses that "civil society groups and institutions must be given genuine opportunities to express their views and to influence the outcome of policies and decisions." Certain nongovernmental organizations, such as the World Federalist Movement, argue that democratic participation in the WTO could be enhanced through the creation of a parliamentary assembly, although other analysts have characterized this proposal as ineffective. Some libertarians and smallgovernment conservatives, as well as think tanks such as the Ludwig von Mises Institute, oppose the World Trade Organization, seeing it as a bureaucratic and anti-capitalistic organization not promoting free trade, but political interventionism. The chairman of the Ludwig von Mises Institute, Llewellyn H Rockwell Jr, argued that

. . . the World Trade Organization says that the US must stop permitting US exporters to set up foreign subsidiaries that save as much as 30 percent in taxes they would otherwise pay. Now the US must either raise taxes by eliminating

loopholes or face massive new sanctions that will seriously harm our export sector. [...] There's been a lot of talk recently about foreigners who hate our prosperity and civilization, and seek ways to inflict violence in retaliation. Well, here's another case in point, except these are not swarthy Islamic terrorists; they are diplomats and statesmen on nobody's list of suspicious characters.