

**INTERNATIONAL TRADE**  
**A positive sum game?**

A Lecture for MBA Students, UNBSJ

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**Table of Contents**

Introduction	1
International Law	1
A Short History of Autarky	3
The WTO	4
The OECD	5
International Trade	5
Balance of Payments	6
Exports, Imports: Tangibles & Intangibles	7
A Short History of Trade Statistics	7
Comparative Advantage, Competitiveness & Fitness	8
Conclusion	11
<i>Appendix: Online Graphic Explanation of Comparative Advantage</i>	12

## **INTERNATIONAL TRADE**

### **A positive sum game?**

#### **Introduction.**

International trade is the lifeblood of the contemporary global economy. First I consider how we got here by following the changing nature of international law. Second, I consider why international trade is a positive sum game but a game nonetheless.

#### **International Law**

International trade involves the exchange of goods and services between sovereign Nation-States. Sovereignty is, in effect, the monopoly of coercive force exercised by Government within its national borders. Within Nation-States Law is enforced through this monopoly invoking police, courts and ultimately military force. Between Nation-States, however, it is governed by the presumptive norms of international law or *jus cogens* including the laws of war. Arguably the most elemental norm is *pacta sunt servanda* - 'agreements must be kept'.

In many ways a Nation-State is like a biological cell separated from the outside world by a semi-permeable membrane called borders. Government controls what comes in and what goes out. Historically exports have fueled the growth of the domestic economy while imports, in addition to satisfying consumer and producer needs, have provided Government with a significant part of its income through taxes that today we call tariffs. This remains the case in many developing countries that do not have effective domestic taxation systems. It is easier to collect tariffs at a limited number of guarded points of entry than taxes from thousands of individual citizens. The entry of goods that do not enter legally constitutes smuggling, a crime subject to the coercive power of the State. It is ironic that Adam Smith, founder of modern economics and a believer in free trade, ended his days as a customs official enforcing laws against smuggling.

Legal international trade is governed by treaties between Nation-States. In effect there are three forms. First, bilateral agreements are between two states such as the free trade agreement between Canada and Israel. Second, there are regional multilateral treaties between three or more states such as the North American Free Trade Agreement between Canada, Mexico and the United States. Third, there are global multilateral treaties such as the WTO.

Law, in all Nation-States, operates in four dimensions: international, statutory, regulatory and case law. International law is made by Nation-States and International Organizations through the treaty-making process, *e.g.*, the treaty between the WTO and the World Intellectual Property Organization (WIPO) to administer the *Trade in Intellectual Property and Services Agreement* (TRIPS).

For our purposes what is important is that to ratify a multilateral instrument usually requires adjusting domestic law.

Statutory law is made by domestic legislators in parliaments, legislatures, congresses, *etc.*, while regulatory law is made by bureaucrats – domestic and international - interpreting and implementing a statute or treaty. Case law is made by judges – domestic and international - interpreting and enforcing international, statutory and/or regulatory law.

Complicating matters is when judges “make” Law by setting precedent. In the Anglosphere this body of precedent is called the “Common Law”. If a similar case was resolved in the past, a current court is bound to follow the reasoning of that prior decision under the principle of *stare decisis*. The process is called *casuistry* or case-based reasoning. If, however, a current case is different then a judge may set a precedent binding future courts in similar cases. Sometimes such precedents compel legislators and bureaucrats to change statutory and regulatory law. This is especially true with respect to intellectual property rights.

Complicating matters even further European colonization in the 16th through early 20th centuries left the world divided between two great legal traditions – the Common Law & Equity in the United Kingdom and its former colonies and the Civil Code in Continental Europe and its former colonies plus Korea, Japan, Taiwan and Thailand.

Under Common Law & Equity, Legal Persons (bodies corporate) and Natural Persons (flesh and blood human beings) essentially enjoy the same rights. Under the Civil Code, Legal and Natural Persons do not enjoy the same rights especially intellectual property rights. Under the Civil Code tradition a created work is considered an extension of the human personality. As such it is subject to imprescriptible moral rights not recognized under Common Law & Equity. In effect they are human rights rooted in the Natural Rights tradition of the Civil Code.

### *A short history of autarky*

The European colonial empires of the 16th through the 20th centuries - especially Belgian, British, French, German and Russian - did not pursue free trade but rather autarky or national self-sufficiency. African, American and Asian colonial possessions provided secure markets for goods produced in the Metropole as well as resources required to produce them. According to some estimates international trade in the colonial period represented a greater percentage of world economic activity than today.

With the end of the First World War and dissolution of the German and Russian empires the autarkic urge exploded with a vengeance. Nazi Germany pursued *Lebensraum* or living space to achieve autarky and similarly the Empire of

Japan pursued the Co-Prosperity Sphere to achieve the same result. With the end of the Second World War the Iron Curtain then split the world into two antagonistic economic systems - Market and Marxist. These two blocks similarly sought autarky with de-colonizing unaligned Nation-States caught in the middle.

In the West the General Agreement on Tariffs and Trade (GATT) laid out in 1949 rules for international trade between market economies while in the East the Council for Mutual Economic Assistance (COMECON) set rules for sister Marxist economies. Today Russia, China and other former Second World countries operate under a modified version of the Civil Code. It is important to note that GATT relied entirely on voluntary compliance of member states. There was no formal enforcement mechanism to ensure obligations were fulfilled. Furthermore, the *Hague Conference on Private International Law* has, since 1893, tried to resolve different legal traditions through various international Conventions responding to changing global needs in different areas including international commercial and finance law, *e.g.*, when is a contract a contract?.

### *The WTO*

In 1995 the World Trade Organization (WTO) began operations and a new global economy was born. The WTO was originally envisioned as part of GATT, however, division of the world between Market and Marxist blocs made its immediate creation impossible. Today, 2014, virtually all member states of the United Nations (UN) belong to the WTO including the People's Republic of China and the Russian Federation. Put another way, global regulation of political and military competition by the UN beginning in 1945 was extended to global regulation of economic competition by the WTO fifty years later. This was possible only because of the triumph of the Market over Marx.

For the first time virtually all Nation-States agree to abide by common rules of trade recognizing the WTO as final arbitrator of disputes and authorizing it to sanction countervailing measures against offenders of its rules. Its rules are based on the standard model of market economics that theoretically exclude Government interference in the marketplace. Given the historical role of trade disputes fueling international conflict, the WTO compliments the UN as a bulwark of international peace, law and order.

As an international legal instrument, the WTO is a 'single undertaking', *i.e.*, it is a set of instruments constituting a single package permitting only a single signature without reservation. One of these instruments is the *Trade-Related Intellectual Properties and Services Agreement* (TRIPS) that constitutes, in effect, a global agreement on trade in knowledge, or more precisely, in intellectual property rights (IPRs) such as copyrights, patents, registered industrial designs and trademarks. TRIPS is, however, but one part of the complex WTO package now

made up of some 60 technical agreements including GATT.

### *The OECD*

The Organization for Economic Cooperation and Development (OECD) is the First World club of industrialized democratic market economies. With the collapse of Communism Second World command economies melted into a single global marketplace. The First World, especially the Anglosphere, responded by shifting focus from a manufacturing- to a knowledge-based economy. The OECD's 1996 publication: *The Knowledge-Based Economy* (KBE) formalized this transition. Then, in 1997 the OECD published a survival guide for the KBE: *National Innovation Systems* (NIS). It is important to note that countries such as Germany, Japan, South Korea, Sweden and Taiwan while embracing the KBE maintained their manufacturing base, unlike the Anglosphere.

Until this time there was arguably no coherent national strategy for the exploitation of new knowledge for competitiveness. With NIS, however, commercialization of new knowledge generated by the University became the cornerstone of national economic policy.

In Canada, for example, there were two primary policy thrusts. First, Government funded a network of nonprofit endowments to speed the flow of new knowledge from the University to Business. These endowments support joint projects, host meetings, conferences and seminars as well as publish bulletins to facilitate communications across the cultural divide separating the University, Business and Government.

Second, a 'New Economic Geography' was introduced that re-directed Government's economic focus. A central feature is the industrial cluster such as 'Silicon Valley'. While economies of scale and scope are available within a firm, external economies are available only outside. High tech firms operating in the same sector benefit from physical proximity. Such clusters, in turn, crystallize around the University as a nucleating agent or prime attractor. The success of Government sponsored as opposed to 'natural' 'clusters', however, remains problematic.

### **International Trade**

For an individual business the benefits of international trade are straight forward: a larger market, revenues and profits. It also relaxes Adam Smith's restraint that the division and specialization of labour is limited by the extent of the market. For Nation-States the question is more complicated involving the balance of payments, comparative advantage, competitiveness and fitness in a rapidly changing global economy.

### *Balance of Payments*

The balance of payments is the score card for all economic transactions during a given period between one country and its residents including Government and all other countries. Transactions are reported using double entry bookkeeping with credit entries balanced on the debit side. The balance of payments thus necessarily balances. There can be no surplus or deficit in a country's balance of payments as a whole.

The balance of payments is divided into two major sections: the current account and the capital account. The current account, in turn, is subdivided into goods, services and transfer payments. The capital account is subdivided into non-monetary and monetary sectors. With respect to the current account if payments due in exceed those due out, a country is said to be in surplus; and when payments due out exceed payments due in, it is in deficit. The surplus or deficit must be balanced by a monetary movement in the opposite direction and consequently the overall balance of payments including monetary movements must always be in balance.

It is important not to confuse the 'trade balance' and the current account. The trade balance refers to trade in goods. An export surplus or deficit in goods may be matched by net sales of services and/or transfers. There could thus be no deficit in goods, services and transfers as a whole. Similarly the balance of trade in goods and services is often confused with the current account balance. The current account as a whole has always had a basic importance. A nation with a deficit on its total current account is *ipso facto* decreasing its capital assets abroad or increasing its capital liabilities to foreigners. A nation with a current account surplus is gaining foreign assets or reducing its foreign liabilities.

A deficit in the balance of goods and services does not necessarily affect a country's exchange rate. There may be a matching inflow of investment capital that strengthens the exchange position and builds up a country's future exporting capacity. Similarly, a surplus in the balance of goods and services may not assure a strong exchange rate because of an outflow of capital investment.

The classic example is the United States which over decades has experienced a significant trade deficit. Much of this deficit, however, results from purchasing goods made by American multinational corporations in foreign countries such as China. Consider the Apple iPhone made in China. The 16 GB iPhone 5S costs Apple about \$199 to make. Off contract, however, it sells for as much as \$849. This means manufacturing costs account for only 24% of revenue, *i.e.*, Apple makes a margin of 76%. Assuming retained earnings from global sales are repatriated to the U.S. (transfers), the trade deficit with China for iPhones imported into the United States is more than covered.

A further complicating factor is intra-corporate transfer pricing by multinational corporations. Hypothetically, consider the Ford Motor Company. Ford International, headquartered in Canada, manufactures parts that are sold to Ford subsidiaries in Europe and *vice versa*. How much Ford International charges its European subsidiaries and *vice versa* depends, to an extent, on relative tax rates. If taxes in Europe are higher than in Canada, Ford International may charge a higher price increasing costs for its European subsidiaries but reducing their tax burden and increasing overall corporate earnings. It is very difficult for any Government to determine the fair market value of internally produced parts and intra-corporate transfer pricing remains a major concern in international trade.

### *Exports & Imports: Tangibles & Intangibles*

Exports are what we sell and imports are what we buy from other countries. Goods are fairly straight forward. They include things produced by the primary and secondary sectors of the economy. The primary sector includes farming, fishing, forestry and mining industries. The secondary sector involves manufacturing industries. The tertiary sector involves services and are more complex. Some are obvious like tourism and transportation, *e.g.* a Canadian goes to France and stays in a hotel, buys restaurant food, *etc.* and this counts as an import; a French person comes to Canada and does the same and it counts as an export. As they say: follow the money. Some services, however, are intangible like banking and management services, engineering and design services as well as the flow of intellectual property royalties on copyrights, patents, registered industrial designs and even trademarks. The later, intellectual property royalties, arguably represents a distinct sector in their own right that I call the 'Quaternary Sector'. IPRs represents the currency of the knowledge-based economy.

### *A Short History of Trade Statistics*

The first set of standardized trade statistics emerged out of the Zollverein or German Customs Union. Established in 1833 among the many German principalities that existed before unification in 1870 it was necessary to agree upon what was what when trade occurred across many borders. The resulting data set inspired a distinct school of economic thought called as the German Historical School.

It was not, however, until 1944 that a global System of National Income Accounts (SNIA) became a reality. Discussions between the United States, the United Kingdom and Canada resulted in adoption of the essential rules and framework for a common system of accounts that allowed comparisons between national economies. In 1947, the United Nations introduced international standards for the SNIA with associated sub-sets including the:

Standard International Trade Classification (SITC)  
Standard Commodity Classification (SCC)  
Standard Industrial Classification (SIC)  
Standard Occupation Classification (SOC)  
Standard Classification of Goods (SCG)  
Standard Classification of Transported Goods (SCTG)  
Standard Geographical Classification (SGC).

A parallel U.N. System of Material Balances (SMB) was adopted for the command economies of the Second World, *i.e.*, Marxist economies. The U.N. no longer publishes the SMB manual.

Today virtually all U.N. members use the SNIA. Over time, however, each country has modified the standard system to match its specific economy. Thus in trade treaty negotiations, *e.g.*, NAFTA, concordances between national systems have been developed so that parties know what is what when trade occurs across borders.

In addition to the SNIA at the international level engineering standardization began with the International Electrotechnical Commission (IEC) in 1906. The broader based International Federation of the National Standardizing Associations (ISA) was set up in 1926 and, after the Second World War, the International Standards Organization (ISO) was established in 1947. Today the ISO has forty distinct fields of standardization ranging from Environment to Image Processing to Domestic Equipment. In most fields mathematically defined standards are codified and designed into hardware to ensure compatibility anywhere in the world. For a company to sell abroad it must usually meet ISO standards.

### *Comparative Advantage, Competitiveness & Fitness*

If the production function is the most elegant contribution to thought by economics, *i.e.*,  $Y = f(K, L, N)$ , then the theory of comparative advantage is one of its most obscure. When challenged by mathematician Stanislaw Ulam to “name me one proposition in all of the social sciences which is both true and non-trivial,” the Nobel Prize winning economist Paul Samuelson responded with the theory of comparative advantage because:

That it is logically true need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them (Samuelson 1969).

This obscurity partially results because the theory engages a complex web of economic ideas including absolute advantage, division and specialization of labour,



exchange, factor endowments, opportunity cost, production possibility frontiers, relative prices, separation of consumption from production and trade. Furthermore, it would more accurately be called the theory of comparative cost rather than of advantage.

Semantic obscurity has led to the theory finding general expression as a numeric example such as that first used by David Ricardo to demonstrate the theory in his 1817 book *The Principles of Political Economy and Taxation*. In his case, it concerned wheat and wine production in England and Portugal. In summary, comparative advantage means that mutually beneficial exchange is possible whenever relative production costs differ prior to trade.

The theory was used by Ricardo to counter arguments in favour of protective tariffs and trade barriers which, intuitively, promise national prosperity. It continues to serve this free-trade purpose. The theory attributes the cause and benefits of international trade to the differences between countries in the opportunity cost (cost in terms of other goods given up) of producing the same commodities. In Ricardo's theory, labour was the only factor of production. Furthermore, the fact that one country could produce everything more efficiently than another was not an argument against international trade.

The theory of comparative advantage, in effect, separates consumption from production. Without trade, a nation can only consume what it produces. With trade, it is able to consume *more* than it produces. Put another way, by specializing in what it does best, a nation can afford to buy more of what it does worst. The theory of comparative advantage thus provides a strong argument in favour of free international trade and specialization among countries.

Even if one country has an 'absolute advantage' in both commodities, it still pays to trade. The reason is opportunity cost. Thus while output may be greater for the same level of inputs in one country, there remains an opportunity cost to producing one *vs.* another commodity. As long as the opportunity cost of another country is less it still pays to trade.

An alternative explanation of comparative advantage, however, can be derived from biology:

Economics has its roots in agency and the emergence of advantages of trade among autonomous agents. The advantages of trade predate the human economy by essentially the entire history of life on this planet. Advantages of trade are found in the metabolic exchange of legume root nodule and fungi, sugar for fixed nitrogen carried in amino acids. Advantages of trade were found among the mixed microbial and algal communities along the littoral of the earth's oceans four billion years ago.

The trading of the econosphere is an outgrowth of the trading of the biosphere. (Kauffman 2000, 211)

There is no doubt that competitiveness through the division and specialization of labour available through free trade leads to a higher level of consumption and hence well-being of domestic consumers. Similarly, there is no doubt that some industries win and some lose creating lobbying forces in favour and against trade. But competitiveness as comparative advantage has its limits.

Competitiveness is generally expressed in sports metaphors such as: “skating where the puck is going, not where it is” which captures its anticipative nature. In sports, it is the opposing team that is the challenge. The playing field, the environment itself, is fixed, invariant and becomes subsidiary to the consciousness of players at play.

In biology, however, natural selection involves not just an opponent but also new invariants and affordances thrown up by an ever changing environment including new predators, prey, possible mates and/or symbionts. Similarly in business it is not just competitors but also change in the economic environment that determines long run success. Whether it is ecological (floods in Thailand or a tsunami in Japan), geopolitical (the Arab Spring) or technological change (the Internet) the economy can be transformed almost overnight.

Given an active environment, autonomous agents – organisms or institutions – must constantly adapt, adjust and evolve or go extinct. They adapt by experimenting with mutations called preadaptation or exaptation. In business it is new products and processes generated by research & development in the natural & engineering sciences, new administrative and operational techniques generated by the humanities & social sciences including the management sciences and new aesthetics, forms and designs thrown up by the Arts. Economic, epistemic and biological systems expand or explore the adjacent possible as quickly as possible subject to timely selection of the fit and unfit, *e.g.*, going out of business. Such timely selection is called ‘early visibility’ and ‘fast failing’ in the innovation literature. In this sense competitiveness refers to being the best in the current climate while fitness refers to flexibility and adaptability to an ever changing economic environment.

If selection takes too long, then fitness may decline or simply melt away. Arguably, this partially explains ‘de-industrialization’ of Anglosphere Nation-States. They maintained existing plant and equipment, *e.g.*, in steel production until fully depreciated through voluntary (and sometimes involuntary) quotas on imports from developing Asian producers who were investing in the best new technologies emerging from the adjacent possible. The fitness of the Anglosphere fell, at least in terms of the traditional manufacturing-based economy.

In this sense fitness is not simply bodily strength, intelligence, vigor or bravery *vis-à-vis* rivals. Rather, fitness is a compounded result of the mutual relationship between an organism and its environment including symbiotic as well as predator/prey relationships. And symbiotic relationships significantly enhance fitness, *i.e.*, the probability one will survive and leave descendants. Arguably this is what the European Union and to a lesser extent other regional trade agreements represent. Smaller economies join forces and specialize, like legume and fungi, to ensure mutual survival in a rapidly changing global knowledge-based economy.

### **Conclusion**

There is no doubt that international trade expressed as globalization has been a positive-sum game with respect to consumption – everybody wins! Thus in the 20 years since the WTO began operations more people in more countries have been raised out of poverty than anytime in human history. In this sense Walmart has been the most successful anti-poverty program in Canada and the United States. Through its ‘China trade’ Walmart has made quality goods available to the poor at affordable prices.

On the other hand, the off shoring of manufacturing by Anglosphere countries strictly following the tenets of a KBE has resulted in the hollowing out of the manufacturing sector with resulting employment and wage losses. Thus Apple, the largest company in the current U.S. economy, employs only 47,000 people in the U.S. compared with General Motors' 600,000 at its peak.

The failure of the current Doha round of WTO global negotiations has led to the New Regionalism in international studies. According to this school of thought, business and Government are responding by reshaping the geo-political landscape through regional free trade agreements (FTAs) to allow a more efficient and effective embedding of business in a reconstituted political economic matrix. It is important to note, however, that regional FTAs follow the same presumptive norm: the standard model of market economics

In closing, time has not permitted discussion of the game playing involved in international trade. This includes responses to various special short run exemptions granted by the WTO such as the so-called ‘Peace Clause’ involving agricultural subsidies as well as the growing importance of non-tariff barriers to international trade.

### **Appendix: Online Graphic Explanation of Comparative Advantage**

For clarity, the theory of comparative advantage is usually outlined for only two countries and two commodities, although the principles are by no means limited to such cases. Consider the production possibility frontier (PPF) of 'Farmland' (P&B Fig. 35.1). If all resources are committed to producing grain then 36 million tons result. If all resources are committed to producing cars 9 million cars would be produced. The PPF shows the alternative amounts of grain or cars that could be produced if resources were divided between these two activities. The slope of the PPF measures the 'opportunity cost' of producing one car measured by how many tons of grain would not be produced.

By contrast consider the PPF of Mobilia (P&B Fig. 35.2). If all resources are committed to grain then 19 tons result; if all resources are committed to cars, then 10 million cars come off the production line. As above the slope of the PPF measures the opportunity cost of producing cars vs grain.

In both cases, a country chooses which combination of goods to produce and consume. For Farmland it is 15 tons of grain and 8 million cars. For Mobilia, it is 18 million tons of grain and 4 million cars. This mix of outputs assumes no international trade between the two. The production/consumption mix must be on the PPF.

Cars are cheaper in Mobilia (one car costs one ton of grain compared to 9 tons in Farmland; grain is cheaper in Farmland (9 tons cost one car compared to nine cars in Mobilia). Each has a comparative advantage in one commodity where comparative advantage is defined as the ability to produce a given good or service cheaper than another country. If they were to trade both would benefit. Mobilia would get cheaper grain and Farmland would get cheaper cars.

First considering only international trade in cars. Farmland has a demand curve reflecting the quantity of imported cars it would be willing to buy at various prices (measured in tons of grain (P&B Fig. 35.3). If the price were the same as the domestic cost of production (9 tons) no cars would be imported. At any price less than that some cars would be imported. For Mobilia there is a supply curve of cars it would be willing to sell at various prices (measured in tons of grain). If the price were the same as the cost of domestic production (1 ton) then Mobilia would not trade. At any price higher than the domestic cost of production it would be willing to trade. Where demand equals supply exchange takes place at a price of 3 tons of grain then 4 million cars will be imported into Farmland and 12 million tons of grain exported to Mobilia.

The effect of trade is to move consumption off and away from the PPF (P&B Fig. 35.4). The consumption possibility curve reflects the 'terms of trade', *i.e.*, 3 tons of grain for 1 car. Where this curve is tangent to each country's PPF marks the new output combination. For Farmland 30 tons of grain and 5 million cars; for Mobilia 9 tons of grain and 9 million cars. However, due to trade each can now consume more than before trade. Thus Farmland now consumes 18 million tons of grain and 9 million cars (compared to 15 million tons of grain and 8 million cars without trade); and Mobilia now consumes 21 million tons of grain and 5 million cars (compared to 18 tons of grain and 4 million cars without trade). Both are better off.