Cultural Advantage as an Alternative Framework:
An Introduction

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Abstract

Despite the economics jargon on 'rational choice', nowadays the entire world has nothing else to choose except to succumb under the spell of magic words of modern economics, i.e. 'neoliberalism', 'financial liberalization', 'free market' (*laissez-faire*), and 'globalization'. All of these can be shown to be part of a preconception, i.e. far beyond the 'neutral' idea of natural sciences.

In Fritjof Capra's book 'Turning Point' (Bantam Books, 1982) these phenomena are summarized as follows: economics thinking have started by assuming that in economics sciences one can achieve the same generality and universality that physicists enjoy in doing Natural Sciences. In other words, economists try to become through their work 'hard science' rather than recognizing that in economics the subject of their study is human/people which is far from being predictable, either as individual or as society.

In our humble opinion, economics is a mixture of both, hard and soft sciences. In order to show this, we introduce a new study, called **Poly-Emporium Theory**, where we show that phenomena from hard science and soft science co-exist and interact in economics. Poly-Emporium Theory is the study of interactions among many (big and small) firms in the market, and it is different from *oligopoly* since poly-emporium takes into consideration the small firms too (not only the big firms that dominate the market as in oligopoly).

The above logic of thinking is the starting point to submit a new idea, under the heading of 'Cultural Advantage.' The first book in the series has title: Cultural Advantage for Cities: An alternative for Developing Countries. This presentation summarizes its basic ideas, with a hope that these ideas may be found interesting to develop further. For clarity the readers are referred to the book.

Introduction

In simple words, the entire history of economics as 'science' can be summarized as systematic methods to give reasonable explanation of human behavior in order to fulfill their needs. Furthermore, the progress was inspired by the remarkable success of Newtonian mechanics in describing the 'world' [2].

In the same way, economists since Adam Smith strived so hard to bring 'order' into the apparently chaotic phenomena with respect to human responses to various variables (government taxation rules, market competition, etc.). In conclusion, the strange history of Economics can be summarized as follows:

> "These days' people like to call neoclassical economics "mainstream economics" because most universities offer nothing else. The name also backhandedly stigmatizes as oddball, flaky, deviant, disreputable, perhaps un-American those economists who venture beyond the narrow confines of the neoclassical axioms. To understand the powerful attraction of those axioms one must know a little about their origins. They are not what an outsider might think. Although today neoclassical economics cavorts with neoliberalism, it began as an honest intellectual and would-be scientific endeavor. Its patron saint was neither an ideologue nor a political philosopher nor even an economist, but Sir Isaac Newton. The founding fathers of neoclassical economics hoped to achieve, and their descendents living today believe they had, for the economic universe what Newton had achieved for the physical universe." [2]

Despite the economics jargon itself on 'rational choice', nowadays the entire world has nothing else to choose except to succumb under the spell of magic words of modern economics, i.e. 'neoliberalism', 'financial liberalization', 'free market' (*laissez-faire*), and 'globalization'. All of these can be shown to be part of a preconception, i.e. far beyond the 'neutral' idea of natural sciences.

Another implication of this neoclassical economics can be summarized as follows:

> "Neoclassical economics is by its own axioms incapable of offering a coherent conceptualization of the **individual** or **economic agent**. From where do the preferences that supposedly dictate the individual's choice come from? Not from interpersonal relations, because if individual demands were interdependent, they would not be additive and thus the market demand function – neoclassicalism's key analytical tool – would be undefined. And not from society, because neoclassicalism's Newtonian atomism translates as methodological individualism, meaning that society is to be explained in terms of individuals and never the other way around." [2]

A caveat of financial liberalization has often been discussed in monetary policy sessions, i.e. studies revealed that liberalization is neatly linked and often precedes financial instability. In other words, the magic word has now become the curse and peril for the modern-economics believers [3]:

> "Following liberalization, many developing countries found themselves involved in a condition of high instability and increasing fragility of their financial systems. Therefore, the question arises as to why countries should enact policies that move their financial systems from a situation of relative stability to one of potential instability."

In Fritjof Capra's book 'Turning Point' (Bantam Books, 1982) these phenomena are summarized as follows: economics thinking have started by assuming that in economics sciences one can achieve the

same generality and universality that physicists enjoy in doing Natural Sciences. In other words, economists try to become through their work 'hard science' rather than recognizing that in economics the subject of their study is human/people which is far from being predictable, either as individual or as society.

> "As we know, natural sciences are normally considered as 'hard science', while social sciences are considered as 'soft science'. This terminology can be traced back to Fritjof Capra, etc. In the meantime, some economists consider themselves as doing 'hard science' while other seem to be inclined to 'soft science'. Not surprising, therefore, that some economists seem very accustomed to prescribing solutions to economics problems, using hard technologies, hard methods, *vis a vis* humanistic considerations. See also E. F Schumacher's thinking on 'meta-economics'. Therefore, by considering Cultural advantage here, we are practically introducing more 'soft sciences' into economic thinking. In other words, unlike modern economics that is more likely to be 'alienated' to the cultural context of the 'people' where they are implemented, here we propose to introduce more 'Cultural studies' before prescribing a new solution, especially for developing countries." [1]

With this new insight, we try to look again to human as human, not only as 'measure' of economics textbook, or just an object in the annual economic progress report.

With respect to development theory, the implications of those modern economics concepts can be summarized in terms of conventional belief that to become prosperous all countries should take the same industrialization path as other countries in the First World have taken. This is known as Rostow's development theory , which can be summarized as follows: [11]

> "The process of industrialization entails a transition from an agricultural to an industrial society, associated with a movement towards higher per capita income and productivity levels."

Despite all the jargons surrounding this development theory, it is recognized that the development via industrialization method has not been so useful so far, in other words most countries remain in the same problems as before: [13]

> "This development is, unfortunately, often more symbolic than real for many countries and actually helps these societies very little. Industrialization is not the solution for many countries seeking to improve conditions for their citizens." [13]

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In other words the development theory is quite similar to an 'ideology' rather than a science [12]; it is full of premises based on perception or interpretation of history in the so-called First World countries [14].

In an attempt to make a connection between economics as hard science and economics as soft science we propose a new theory on Poly-Emporium, which will be described in the last section of this presentation. In our humble opinion, economics is a mixture of both, and soft sciences.

A modified gravity equation and some implications

The so-called gravity equation has been known by economists for more than 4 decades with various degree of acceptance. There are numerous studies that have estimated gravity equations to quantify impact of various trade costs on bilateral trade flows. [5, p.5]

While this model is widely-known for its simplicity, part of the critics addressed to this model is caused by its precision to the actual situation. It is also often cited that the gravity equations have no sufficient theoretical grounds [5, p.5]. We can call this issue as 'representation problem.'

In this section we discuss first a review of existing literature on this equation, and how it can be modified to represent better the actual condition.

   (a) Existing models of gravity equations.

In accordance with Anderson and van Wilcoop, the gravity equation can be written as follows [5, p.6]:

$$x_{ij} = \frac{y_i y_j}{y^w} \left(\frac{t_{ij}}{P_i P_j} \right)^{1-\sigma} ,$$ (2)

Where x represents the nominal demands of country j from goods from country i, and y^w represents the World output, respectively. The other parameters are normally determined by curved fitting plot. [5, p. 7-8]. The Pi and Pj parameters are often cited as Dixit-Stiglitz consumer-based price levels [7, p.4].

Another expression of 'gravity equations' can be expressed as follows [6, p.48, eq. 4.12]:

$$\Pr X_{ij} = \frac{Y_i^{0.5} Y_j^{0.5}}{2} ,$$ (3)

Which is often cited to be not realistic and oversimplified. Other studies for exchange market problem have been reported, for instance see [8][9].

   (b) A modified gravity equation.

What is clear from the above summary of gravity equation is that the role of geography (distance) between countries affects the trade between them [10]. Therefore it is worthwhile to take into consideration not only geographical distance, but also geographical assets and cultural assets into the 'gravity potential' of trade between two countries (sometimes it is related to potential FDI, see [7][8][9]).

In other words, the proposed modified gravity equation here can be expressed as follows:

$$\Pr X_{ij} = \frac{Y_i^{0.5} Y_j^{0.5}}{2} + \sum GCP_i + \sum GCP_j \, ,$$ (4)

Where the GCP with index i represents the sum of geographical and cultural potential (assets) of the country i, and the GCP with index j represents the same potential for country j, respectively.

Rationale for this modification is because the role of location can be introduced into gravity equation to achieve better representation of the model.

This equation (4) can take into consideration the 'demand pull' of *eco-tourism* of a country, for instance. And the other pull factors can be introduced into the equation; this is why we introduce the 'sigma' symbols.

Therefore it can be expected that equation (4) can lead into more realistic economics model.

Interpretation of the equation:

(a) The gravity equation (2)-(3) represents bilateral trade magnitude between two countries given their distance and GDP. Of course, one can ask whether GDP alone can 'pull' the bilateral trade. For instance, small countries can have larger GDP than China, for instance Belgium, but we know that almost all Europe's large companies are heading toward investing or relocating into China, not Belgium. Therefore GDP alone is not triggering bilateral trade. What seems make more sense is that the size of the economies shall be taken into consideration too into (3). Therefore perhaps it would be more appropriate to replace the GDP with 'economy scale', which is GDP times population of the country in question.

(b) Another thing we can conclude from gravity equation (3) is that GDP will trigger FDI, not the other way around. This appears to be in contradiction with the common assumption in development theory, i.e. that FDI will improve GDP of the country in question. Sounds like circular logic?

(c) Furthermore, in equation (4) we introduce new terms in the right hand side of the equation. Given the electronic integration of the global marketplace, it would mean that there could be economics bilateral trade despite the distance of two or more countries. With comparison with instantaneous action at distance in Quantum Mechanics, then perhaps one can think of possible 'economics entanglement' between countries in distance.

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(d) To include sigma symbols into the original gravity equation (3) will give no clue for the situation, except perhaps if we consider a 'group' (or cluster) of countries, for instance EURO to Latino America, etc.

Other plausible ideas:

- Is it possible to mixing gravity equations (1) and (2) and then adding the cultural stuff.

- How to write a gravity equation for a group of countries?

Poly-Emporium Theory (F. Smarandache)

We now propose the poly-emporium theory. A search done in Google on May 3rd, 2008, for the term "poly-emporium" returned no entry, so we introduce it for the first time.

Thus "poly-emporium" etymologically comes from *poly* = many, and *emporium* = trade center, store with a wide variety of selling things; therefore *poly-emporium* is the study of interactions among many (big and small) firms in the market.

Poly-emporium is different from *oligopoly* since poly-emporium takes into consideration the small firms too (not only the big firms that dominate the market as in oligopoly). Poly-emporium considers the *real situation* of the market, where big firms and small firms co-exist and interacting more or less.

First, let's present the *duopoly* theory, which is a theory of two firms that dominate and interact in the market, proposed by A. Cournot (1801-1877) in the year 1838. In Cournot's model, if one firm changes its output, the other will also change its output by the same quantity, and eventually both firms will converge towards equilibrium.

In 1883 Bertrand's duopoly model, devised by Joseph Bertrand (1822-1900), if one firm changes its price and the second firm follows, eventually both firms would reach a price (equilibrium) where they would stay.

Both models are similar to two mathematical sequences that little by little converge towards the same limit.

Bertrand's model is criticized because it ignores the *production cost* and market entry by *new firms*.

In oligopoly, which is an extension of duopoly, a small number of selling firms control the market. There is a big degree of interaction among these firms, which set the price, and the price is high and rigid. There is a perfect oligopoly, where all firms produce an identical product, and imperfect oligopoly, where the firms' products are differentiated but in essence are similar.

Sir Thomas More (1478-1535) used this theory in his "Utopia" (1516) and then A. Cournot did. Each firm can act as a leader on its market share, either they collude, or one firm sets the price and others follow.

An analogue of oligopoly is the *oligopsony*, where a few buying firms control the market. They set the price which is normally low and rigid.

The cartel (or trust) influences the price too by regulating the production and marketing, but its influence is of less degree than monopoly's or oligopoly's. Inflexible price or administered pricing (1930s) is set in monopolies, oligopolies, government organizations, cartels.

How would interact n firms, F_1, F_2, …, F_n, for n ≥ 3, producing a similar product in the same market? A firm can be a business, a corporation, a proprietorship, or a partnership.

There are three cases of the *poly-emporium*, which will be detailed below:

1) All firms are large and they dominate the market, so we have an oligopoly or oligopsony.

2) Some firms are large, and dominate a big share of the market, while others are small, and do not dominate.

   In this sub-case, either the small firms are grouped around some of the large firms (as satellites) just as in growth-pole theory, other small firms might exit the competition.

   This case also includes the possibility that new firms enter the market, so they commence by small investments and later can grow.

   The relationship between large firms in this case can lead either to oligopoly/oligopsony if they succeed to eliminate the small competitors, or to semi-oligopoly/ semi-oligopsony if they control a big part of the market, but not the whole market.

   Small firms might collude and form larger firms.

3) All firms are small and they do not dominate the market.

As in mathematics, it is akin having n sequences, which interact, that we need to study their limit. Would they converge towards the same limit?

Surely, there would always be a *monopolistic competition* between them.

As in *monopoly*, each firm attempts to dominate the market, to prevent competition, in order to control the price. But monopoly is outlawed in most capitalistic countries. If one firm, let's say (without lost of generality) F_1, alters its output, the others F_2, …, F_n, should also respond, otherwise they loose customers.

If it's an imperfect competition, i.e. a market with a large number of sellers and buyers but having differentiated products, the interaction between these firms is less than in a perfect competition, and

they all tend towards a so-called in our opinion **multi-equilibrium**, as in a weighting machine with many balances, or as in a mathematical weighted average.

Nevertheless, if these firms produce a homogeneous product for many buyers, as in perfect competition, their interdependence increases. Disequilibrium of one firm would affect others.

 If superior technology commences to be introduced by some firms, the quality of their product will increase and the price decrease.

 This may generate the theory of growth-pole, enunciated by Sir William Petty (1623-1687) and François Perroux (1903-1987), which refers to the fact that smaller firms are grouped around a central core of firms that become catalysts. Maximum growth and product excellence for these firms presumes optimal management.

If the government controls the cultural economics, then trade unions of cultural workers should be created for counter-balancing. Because this gives birth to a bilateral monopoly, which is a market with a single buyer and a single seller, mostly referring to the government dealing conditions and salaries with unions of workers.

 The dynamicity of the market keeps the firms in a permanent competition, and competition means progress.

 We extend Engel's law (1857) that the proportion of income spent on food falls as individual income increases to a similar law related to cultural economics:

As individual income increases, the proportion of amount spent on cultural event decreases.

Thus, as individual income increases an acceleration of cultural economics occurs.

 Moreover, adjusted from the absolute income hypothesis (1936, 1960s, and 1970s) by J. M. Keynes and later refined by James Tobin (b. 1918), we derive the **absolute income cultural hypothesis** applicable to the cultural economics: as income rises, cultural consumption rises but generally not at the same rate.

 The 18th century absolute advantage theory, which states that people and nations trade since they have exceeding production in some particular field, does not apply in cultural economics. Nor comparative advantage approach that superseded absolute advantage theory works, because we can't really compare cultures.

Comparative cost, developed by Robert Torrens (1780-1864) and David Ricardo (1772-1823), which is a feature of comparative advantage, asserts that trade between countries is benefic even if one country is more efficient, because of the variety of products. Similarly, cultural economics benefits from its <u>cultural difference</u>. The more distinguishable is a culture, the better chance of increasing the cultural economics.

Economic culture can be viewed both as part of cultural economy, art (craftsmanship) economy, and also part of (music) entertainment industry, and depends on taste, advertisement, curiosity, history, and the quality of being diverse, distinctive, with a large spectrum of varieties.

The most interesting case is the third one, where all n firms are small and they do not dominate the market. Let's see, for example, a network of independent restaurants in a city. They interact little with each other. The quality, taste, distance, and price of course make the difference between them.

They do not collude but in rare situations since each of them has its specific, its exotism, which they don't want to loose. They cannot make an oligopoly since new restaurants may easily enter the market with its specific, and because the taste changes periodically. They remain into multi-equilibrium. Similarly for international cultural economics, where each culture has its specific, and that's what attracts visitors, tourists.

In general, the n firms eventually tend towards multi-equilibrium, where they stay for a while. In multi-equilibrium each firm tends towards its specific sub-equilibrium.

Periodically this multi-equilibrium is partially or totally disturbed, due to technology, government intervention, wars, crises, reorganization of the firms, change in customers' taste and preferences, but then again the firms return to stability. This period of multi-disequilibrium is a natural state, since economy is dynamic, and the disturbance is a launching pad to refreshment; in order to rebalance the market, these n firms must improve their technology, their structure, cut production cost, or else they exit the competition. "All the bad for the good", says a Romanian proverb, so disequilibrium brings later new blood into economy.

This cycle of multi-equilibrium - multi-disequilibrium repeats continuously.

Economics systems move from *multi-disequilibrium* to *multi-equilibrium* back and forth [this is hard science, since it is an economics invariant], but the movements/changes from one to another are not easy to predict when and how, nor to control [this is soft science, because of the small probability that we can calculate them with].

Concluding remarks

The idea of Cultural Advantages - while perhaps has been discussed elsewhere - is mostly treated only as sub-chapter in discussions concerning competitive advantage, or development economics studies. But most economics students keep on thinking in the framework of Ricardo-Adam Smith's Comparative Advantage or Porter's Competitive Advantage, i.e. a country should be able to offer goods at competitive prices (read 'low prices') to keep its competitive edge.

But in the framework of Cultural Advantages, these rules are now changing. While price keeps on being a determining factor, other factors also play critical roles, for instance willingness to learn new cultures, and to gain new (exotic) experience, which can be found by visiting other countries. This is the beginning of Cultural Advantage studies.

To summarize our ideas in this presentation, the cultural economics is possible mainly because modern consumers demand not only 'goods' (called 'mass products'), but also experience (learn each other's cultures, languages, etc.)

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We acknowledge that this study is far from being complete, and therefore would like to invite others to contribute to its further development.

Acknowledgment

Revised. 1st: 8th Aug 08. Revised 2nd : 14th Oct. 08. Revised 3rd: 24th Oct. 2008.

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