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*How much are studies of competitiveness worth?  
Some critical theoretical reflections on the issue.*

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## ABSTRACT

Studies on competitiveness have been flourishing for the past 25 years or so. The competitiveness problem has been vigorously analyzed both on the macro and micro level. There is relatively little controversy when we are dealing with the micro level of competitiveness and a lot of confusion when we discuss a macro or country competitiveness. But contrary to the opinion of a number of renown experts, there is such thing as national competitiveness. Although its definition is usually too broad and methodology to asses such competitiveness oven highly flawed, nonetheless one can compare the relative competitiveness of countries, whether as a whole unit or for specific industries. What is more, country or national competitiveness have an impact on competitiveness of a firm via government policies, such as fiscal and monetary policies, by improving quality and stability of institutions or through various other ways and means which still are in a possession of the national governments. Such policies when well structured and pursued, can lead to lower transaction costs, and help rise productivity and thereby enhance competitiveness on the micro level.

One reservation which should be made when discussing competitiveness relate to the fact that a nation's competitiveness shall be viewed as a nation's relative competitive position in international markets vis-à-vis countries of similar economic development. Countries who are developing and aim at catching up will have differing objectives, as opposed to one which have had a long history of experience with the global market, and therefore should be assessed from a, somewhat, different criteria. This comes from the fact that ambitious new entries often have to restructure their domestic industries in order to build new competencies, whereas older players tend to aim at maintaining their technological edge and entering into new activities where their domestic demand for high wages will not be competitive handicap.

Another objection comes from the fact that various national policy goals may differ even when countries represent comparable development level. This is often the case when differences in economic policy direction are anchored in different ideas such as theories of functional intervention aiming at improving markets factors, without favoring particular industries, or when they are based on more aggressive versions of theories of dynamic comparative advantage, which aim at favoring particular activities and allow a government to directly intervene.

Regardless of the ideological roots for economic policy formulation there is such a thing as competitiveness policy on national level and national competitiveness matters.

Discussion on some pros and cons of the validity of the concept of national competitiveness, as well as dispute about the factors and methods of measurement to assess such competitiveness only reinforces the relevance of this area of economic research. In fact, in recent years, research on country competitiveness has become an important part of economics. Studies on the competitiveness have become a kind of conglomerate which integrates numerous branches of economic analyses and helps, when the analysis is well done, to work out appropriate strategies for many countries.

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## INTRODUCTION

There is an on going debate on competitiveness. This debate has been entered into by more and more well-known academics, as well as various experts in economics and global finance, and, let us not forget, by politicians. But it does not mean that competitiveness has an accepted definition, by those engaged in this debate. One could argue that currently there is a lack any common consensus about the issue of competitiveness. And this is not surprising. For that the confusion over competitiveness starts with semantics. When we say competitiveness, we could mean a lot of things. We could think of a company actual competitiveness as depicted by its market share or its profitability as well as of its position in international trade. Or we could think of a company's long run ability to survive and to prosper in a competitive market environment. The concept of competitiveness can also apply to the macro (or national) level. By country or national competitiveness, we could consider a country ability to grow over time in a way that its economic structure change in such a way to adjust it to more effectively interact with the world development pattern (as seen in patterns of world trade). All these situations and concern involve competitiveness, whether understood in a static or dynamic way, regardless if we are looking at it from a micro or from a macro perspective. In other words, when we enter a debate on competitiveness we have to circle out our interest precisely first to be sure that we know, as well as other participants of the debate, where we stand on the subject matter. To put some order into this debate let me depict the possible cases in the table 1.

**Table 1. Competitiveness – various approaches.**

Aggregate levels	Static vs. dynamic approach to competitiveness
Micro /firms/	Level, ranking ,outcome -/photo approach/
Mezo /industries/	
Macro /country/	Ability to compete in the longer run -/ tomography approach/ Factors: <ul style="list-style-type: none"> <li>• Assets                             <ul style="list-style-type: none"> <li>○ Natural resources</li> <li>○ Accumulation wealth</li> <li>○ Human resources</li> <li>○ Financial resources</li> </ul> </li> <li>• Processes                             <ul style="list-style-type: none"> <li>○ International environment</li> <li>○ Social economic system</li> <li>○ Economic policy</li> <li>○ Institutions</li> </ul> </li> </ul>
Mega /number of countries – i.e. EU/	

As to avoid further confusion, let us say that this paper will for the most part concentrate on the macro perspective and that a question of national or country competitiveness based on factor analyses will become our prime concern.

## **I. A brief historical perspective on development of competitiveness studies.**

In a broader sense competitiveness as a concept related to national competitiveness is centuries old. The ideas or the theoretical foundations that underlie policies aim securing the economic superiority of a nation whether understood as “economic wealth” or “good trade” or “productive power”, from exporting manufactured goods to importing raw materials can be traced from the times of mercantilism. From the “zero sum” theory of mercantilism of the 16<sup>th</sup> through the late 18<sup>th</sup> centuries was gradually replaced by Adam Smith’s classical economics taught to both Europe and America in the 19<sup>th</sup> and 20<sup>th</sup> centuries the value of the free market. The Smithian free trade ideology and policies based on it can be said to have changed “the rules of the game”. Or when the Japanese laid down their economic ideas and policy during the Meiji period and then later on in the XX century they mastered the conceptual framework of their industrial policy that aimed securing their dynamic comparative advantage. Although the terminology differs and the scope of and complexity of the subject matter varied, many nations desire to build their economic prowess superior to that of the others nation, whether the reason for this expanding their sphere of power, defending their economic and/or political security or just for the sake of the well being of their citizens or their way of life (Reinert , 1995).

Over the past 20-30 years, competitiveness, particularly with respect to an entire economy and under this very name, has become a widely used term. The very concept became an issue of political and economic concern. This was especially the case in the United States of the late 70s and the early 80s when Japanese goods made significant inroads into various important segments of the American economy. The impact that Japanese imports at the time created serious economic, social and political problems (*Report of the President on US Competitiveness*, 1980).

Let us recall, that the Japanese economy in the period of the 1960s and through the 70s and up to the early 80s expanded at the pace which was, at that time, comparable if not faster than the growth presently being experienced by the Chinese economy. The clear cause of that growth was the strength of Japanese exports. Under such circumstances in the mid 1980s many prominent academics and renowned experts on Japanese economy started to believe that Japan could have become number one economic power in the world within a generation

(Vogel, 1985). The argument went that as Japan rise would lead to the eroding of the dominant position of the US not only in world markets but also in the American domestic market as well. What was especially worrisome for American scholars, analysts and politicians was that the erosion of the US domestic market had been taking place in most important segments of the economy, e.g., motor car production, home appliances and electronics (including the computer sector the symbol of economic advancement and technological superiority of America). In short, it was held what was at stake was not only dominance but the very survival of some of the most important American industries (Stirling & Yochelson, 1984). Others even started to question whether the American economy as a whole was able to stay competitive, not only because of the pressure being exerted by Japan but in more general terms. It was argued that the economically speaking other countries developing rather fast in the 70s and the early 80s, doing much better than the US. Given the trends of the time, things were not looking good for the US (Lawrence, 1984; Ohmae, 1985; Thurow, 1992).

Not surprisingly, under the “Japanese threat” the concept of competitiveness started to flourish both in America and Japan , albeit for different reasons. For the Japanese it was seen as a concept of building economic power not only comparable to the US but may be even able to secure eventually a competitive edge, especially in critical sectors which symbolized the future like the electronics and the computer sectors (Bossak 1990; Tyson, 1992; Cohen & Zysman, 1987).

But the outburst of the competitiveness studies created dozen of conceptual and methodological problems because economists and experts on competitiveness had various ideas on the subject matter. Namely they could not agree over what should be a proper definition of competitiveness, whether the concept of competitiveness which relates to the micro level (firm/company) or the mezo (industry) level could be extended to the national or country level as well and whether the two (or three) concepts were compatible or complementary ones (Porter, 1990). Secondly, the problem of evaluating methods was discussed of how to asses competitiveness properly and how to discriminate among the indexes which are held to reflect competitiveness as an outcome, as opposed to the ability of or potential of an economic agent to compete in the long run (U.S. Department of Commerce, 1983). Thirdly, what started to become a critical issue was whether an assessment of competitiveness could be the basis for an economic policy or strategy (Krugman, 1994). And finally, a fundamental question arose, at least for the majority of economists concerned, if whether competitiveness has become another part of economics as a new important segment

of the science or whether it was just an interesting research subject matter and something “derivative” of real economics, similar to marketing or logistics? All those and related questions came to the fore in the late 80s and in the early 90s when a discussion on competitiveness had reached a kind of a critical mass. The confusion over “correctness” of the very concept of competitiveness, as well as related methodological problems was really difficult to bear.

The confusion stemmed from various reasons but what was most difficult to take was the fact that in addition to a sloppy methodological work of many academics and “experts” on competitiveness, had been an ideological or political bias at stake, which like a concern over full employment or a rise in real wages as a main criterion of measuring competitiveness, clouded the picture, so that getting a balanced and objective approach to the question of competitiveness and even a simple definition of it was an problem in the first place (Scott & Lodge, 1985). One of the best example of the confusion over the issue of what competitiveness is and to how to define it properly (and not relying on false judgments and/or not to formulate ill-structured economic policies out of such false judgments), can be seen in the famous article, one is almost tempted to call it a “manifesto” as how it is believed in, by Paul Krugman titled “Competitiveness, a dangerous obsession” published in *Foreign Affairs* in April/March of 1994. We will present his theses published there in the next part of this paper in more detail, for his presentation reflected most of the critical opinions on the very concept of competitiveness at that time and still remains one and as such it offers us a good reference point to start our discussion on this subject.

Fortunately, in the later part of the 90s and for the past 5 years of the 21<sup>st</sup> century, the situation in this regard has changed dramatically and for the better. Globalization has had a lot to do with the rise of attention paid to competitiveness at the macro (country) level because at the mezo (a nation’s industries) and micro (economic agents) have become more and more exposed to international competition and the question of economic survival has become a more demanding problem than ever before. For that reason, a myriad of reports prepared by international institutes and institutions have been published (i.e., by IMD in Lauzanne, WEF in Geneva, Heritage Foundation, Freedom Foundation, World Bank – *Doing Business* reports, EU Competitiveness Reports, ect.) and the textbooks on competitiveness sprung up all over the world (see icons like: Porter, 1990; Kogut, 1993; Hamel & Prahalad, 1994; Boltho, 1996; Porter & Sachs & Warner, 2000; Lall, 2001; Hämäläinen, 2003).

On methodological front, hundreds of measurement methods and indexes have been developed and used to assess competitiveness (i.e., IMD uses ca 300 of them in each of its

annual reports) and a variety of very refined and sophisticated statistical techniques have been invented and employed, for example the knowledge discovery in data-bases (KDD), models, etc., used to identify important factors associated with country's competitiveness (Zanakis & Becerra-Fernandez, 2005). And what is more, when shifting attention to the issues of knowledge and technology as a basis for competitiveness, the quality of institutions as a dominant factors to support competitiveness become seen as being highly significant. A great number of studies on the subject matter swung from classical exogenous economic theories to the New Trade Theory or to the endogenous efficiency/growth ones (Hague, 1995). All these new developments enriched our knowledge on competitiveness as an important economic issue quite a bit. It also has allowed it to become a method of assessment, which is a relevant part of economic studies. What is equally important, such studies were started to be used to formulate economic policy, which undertook to enhancing the competitiveness of many countries.

## **II. Paul Krugman's objections to "national competitiveness"; why he was wrong?!**

As we have indicated earlier there is a relevant point in a discussion on competitiveness that even the very term is a vague one and could be confusing. This is because it can refer both to a competitive position of an economic agent (a firm, an industry or a country), or it could refer to an agent's ability to compete overtime. Now in the latter usage seems to have more to do with a company or a country economic potential rather than with an economic agent actual performance at a particular moment in time. But more than the question of the very meaning of the term "competitiveness", there is also the concern about how do we measure it. The very problem with the concept is its very richness and variety, that there is no consensus over what signifies what it in fact is, and this is what really makes many experts reluctant to pay more attention to the concept. Even if there could be a definition of it, one which all could agree, the question whether it can be a principle factor in shaping a nation's economic policy remains. As indicated earlier, Paul Krugman, in his messy article *Competitiveness: A Dangerous Obsession* (*Foreign Affairs*. March/April 1994) says the following:

- "concerns about competitiveness are, as an empirical matter, almost completely unfounded"...and
- "the obsession with competitiveness is not only wrong but dangerous, skewing domestic policies and threatening the international economic system.... Thinking in terms of competitiveness leads, directly and indirectly, to bad economic policies on a wide range of issues, domestic and foreign, whether it be in health care or trade"....and, finally...
- "the concept of national competitiveness is elusive"....

If it had not been Paul Krugman, a reference point in himself, we would not have to pay too much attention to these unfounded judgments, but since his opinion cannot be ignored let us examine what rationale has been laid down to support the opinion.

First, or what bothers Krugman most, is a concept of national competitiveness as opposed to competitiveness of an enterprise. The last one can be accepted for it is simple and

definite--when a firm is not competitive it will be driven out of a market and will cease to exist whereas nation cannot cease to exist. A country may do badly on various accounts but still will stay as a separate unit. Ergo-the concept of competitiveness should not apply to countries. What one can do at best is “to compare countries”. But this is where Krugman stops.

Secondly, what bothers Krugman strongly as well is “careless arithmetic” when it comes to measuring or assessing competitiveness. The same applies to the methodology used by many authors which very often make a subjective judgment, quite often led by a predetermined belief, without a deeper justification or explanation not to mention a real econometric test. One can hardly disagree with Krugman on this issue. We will address this concern of his in greater detail later.

Third thing which makes him mad on the issue of using term “competitiveness” is that the term is often used as a metaphor by politicians and media people who mess around by turning economic facts into psycho-political instruments useful to make a desired impression on people rather than to improve our understanding of economic problems or to face the real ones. Politicians on both sides of the Atlantic (i.e., B. Clinton and J. Delors) have been cited as using the term “competitiveness” as a political device used to cloud a real problem either to introduce unpopular tough economic policy measures (i.e., higher taxes to balance the US budget) or to turn away people’s attention from some more difficult economic and political problems that need to be solved. It can also lead to the wasteful spending of government money under a banner of enhancing country competitiveness or it could possibly lead to trade wars or protectionism or bad public policies in general.

In short all the three reasons or the three sets of reasons summarized by Krugman and many of those who shared his view (i.e., Scharping, 1994) come to believe that “competitiveness” is either “a largely meaningless concept” or “a kind of obsession which has already begun dangerously to distort economic policies”. Let us briefly examine his judgments and fears one by one.

### **1) National competitiveness vs. company competitiveness; some hints on the issue.**

First let us look at what is called the false concept of “country competitiveness”. According to Krugman, since country cannot go bankrupt there is no competitiveness problem on a national level. International exchange as measured by exports or imports to GDP ratio is

still of a minor importance for it takes from around 9 to 13% of the whole economic potential i.e., in the US case (or in Japan for that matter one might add). In other words, national competitiveness or international competitiveness may still be neglected for it is a marginal issue. What really matters is a company's competitiveness. But again since most of American companies sell on balance, 90% of their products for local market (i.e., three major US motor companies), this is mostly an internal issue.

Well, when we look at these arguments especially now in 2006 we have to be struck by Krugman's ignorance and/or arrogance. First of all, it's hard to understand why he ignored the growing importance of globalization. Globalization has expanded to the extent that there is almost no country, industry or big enterprise which could be immune to international environment. Dramatic reduction in tariffs, removal of barriers to international capital transfer, easier and faster access to information and technology thanks to internet, make all economic agents aware of and affected by the international environment. Presently none could dare to say that any country and its government could not see the relationship between the economic environment created by the processes of globalization and the one created on the national level by actions of a particular government policies. Paradoxically, these developments have reduced importance of national borders and, as a consequence, the role of governments in conducting traditional economic policies, especially those related to trade and currency manipulations. The developments which work for Krugman's arguments, to some extent, for under such circumstances there has been more room now for direct, individual contacts between economic agents which started to treat international markets as a single unit and that national governments have become increasingly impotent to influence the situation to some extent. But all that does not mean that national policies related to competitiveness improvement ceased to exist or that national competitiveness does not matter.

On the contrary, governments of various countries are well aware of processes of globalization and its consequences. Some, more than others, try to adjust their economic policies accordingly. Governments still do have in their possession several sets of instruments to make national economies more conducive to the changes and challenges created by the every increasing international or global environment. Even when traditional economic policy instruments are either eliminated (e.g., quotas, tariffs, exchange rate manipulations) or seriously reduced (e.g., subsidies, some monetary policy or fiscal policy instruments) governments can still do a lot to improve institutional environment conducive to growth and competitiveness improvements on the country level. For example, well defined property rights, clear and transparent law and regulations, effective government agencies responsible

for law implementation, efficient financial system and credit institutions; all can make a difference and can be treated as government tools to enhance competitiveness for all these formal institutions (and informal institutions such as corruption habits just as well ) form a setting which can lower transaction costs and make the country attractive both to local business and international investment. The same still holds with respect to fiscal policy, both budgetary and tax policies, which even in a highly and formally integrated economies (like in countries of the European Union) fiscal policy for most part still remain of the domain of local national governments and could be used as a government instruments to enhance competitiveness.

In other words, government economic policy as far as its character and/or direction is concerned when focused on improving quality and stability of institutions or conducting a supportive fiscal policy, can do a lot to enhance the economic environment so it becomes increasingly conducive to competitiveness improvements on a national level. As a consequence of these undertakings and via this macroeconomic and microeconomic environment, the improvements government can still engage in can assist an economic agents on the micro level or sectoral (mezzo) level, so that economic agents could increase their productivity, lower unit labor cost and transaction cost and as a result improve their competitiveness vis-à-vis their foreign competitors. In other words, national economic policy matters and can improve macro and micro environment working both to country competitiveness as well as can contribute to sectoral (industry or regional) or micro competitiveness on a company level. For that very reason various international institutions and organizations compare the institutional setting created by different countries and asses environmental conduciveness to business development and competitiveness (i.e., see World Bank annual reports on *Doing Business...*). This is done because there is a national competitiveness policy conducted by various countries which aims to improve its institutions and harness fiscal policy to this end. And when it is well structured and carried out it could bring considerable positive results as reflected by faster GDP growth, lower unemployment rate, higher productivity and/or lower unit labor cost, positive changes in economic structure and export composition and consequently in higher GDP per capita as the cases of Ireland, Australia, New Zealand, Chile, USA or other countries to be examined later can illustrate. In other words national competitiveness matters and policies leading to its improvement have been conducted by various countries for many years successfully and we can both easily define it as well as to list a number of measures which can lead to a country higher

competitiveness ranking.<sup>1</sup>We will continue on the subject matter in the subsequent part of this paper.

## **2) Measuring competitiveness; where and Krugman is right.**

The second of the Krugman's concerns relates to ill-founded methodology used by economists who analyze competitiveness, not to mention "careless, flawed arithmetic" which they employ. It could be held that his criticism has had a fairly solid foundation at that time when he expressed it. It was in the early 1980s, when several important studies on US economic competitiveness sprung up of which we should mention: *Report of the President on US Competitiveness* prepared by Department of Labor (GPO, Washington D.C. 1980) and *US International Competitiveness: Perception and Reality* (New York Stock Exchange, Office of Economic Research, 1984) as well as some pioneering books by Lawrence *Can America Compete?* (The Brookings Institution, Washington D.C. 1984) or Scott & Lodge, *US Competitiveness in the World Economy* (Harvard Business School Press, 1985) to mention just a few. At that time, the methodology to assess competitiveness was poor and most measurement methods focused on measuring exports or imports inroads into markets or its segments like for example: Constant Market Share (CMS), Revealed Comparative Advantage (RCA), Import Penetration Ratios, Terms of trade or balances of trade taken totally or for a particular SITC sets of goods. What is more, many of the reports or the books on competitiveness were written by people concerned with social problems rather than core economics or economic efficiency as such therefore the methodology employed by them have been biased by ideological or political conviction or just a different interest. For example such indicators as: secured jobs, higher minimum wages or guaranteed social benefits used to be a common place in many works on competitiveness (Scott & Lodge, 1985; or Thurow, 1985). As a consequence, much of the analyses were biased or they were very narrowly structured

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<sup>1</sup> The question of a national or a country competitiveness as opposed to company competitiveness has been raised by many authors not to mention classics like Porter book on "The Competitive Advantage of Nations". Free Press /Division of Macmillan/ New York, 1990, or Kogut "Country Competitiveness..."Oxford University Press. New York, Oxford, 1993. For relatively recent references look at Hämäläinen "National Competitiveness and Economic Growth. Changing Determinants of Economic Performance in the World Economy", Edward Elgar . Cheltenham, UK. Northampton , MA, USA. 2003 and the recent "Global Competitiveness Report 2005-2006" by World Economic Forum, Geneva. Published by Palgrave Macmillan, 2006.

(focusing on imports penetration or exports performance for example) and therefore could hardly satisfy anybody but the authors.

Today when we have several renown institutes or research centers working on competitiveness annual rankings for decades and the institutes employ best experts and analyze tens or even hundreds of indicators and related data (i.e., the Lausanne based International Institute for Management Development -IMD *Annual Report on Competitiveness-2005* has been collecting over 300 indicators of competitiveness), the way countries are analyzed could be compared to nuclear screening in medicine when a patient, after getting a radioactive fluid injection, is being screened by a sophisticated tomography machine which goes layer after layer to detect the state of the body and a condition of each of the patient organs. By analogy, this is exactly what happens when national economies are analyzed at present and when we do not stop at making a country “photo”, as measured by GDP per capita, productivity level or compare the RCA indexes, but when we employ a factor analyzes and go through both group of factors a tomography way. That is when we screen “assets” (meaning; natural resources, inherited wealth, human resources, financial and technological resources) and factors called “processes” (like: socio-economic system, character of economic model and/or economic policy direction as well as quality and stability of institutions), and when we add a proper weight to these factors as determinants of a country competitiveness. Then we could see not only a country competitiveness position, like in annual international rankings, but a country long term ability to compete and/or a country competitiveness potential. As Cohen has put it, “Competitiveness is a recognition of a broad set of indicators, none of which tells the whole story but that together provide a highly legitimate focus” (Cohen & Zysman, 1987). This is exactly this method of assessment of competitiveness of a particular national economy which is informative and useful when it comes to make an economic policy formulation.

### **3) Competitiveness as a bases for economic policies formulation.**

The third of the Krugman’s concern relates to a worry that ill defined competitiveness problems can lead to faulty economic policy formulations or to ill structured strategies on the company level. And first of all that this commonly used term, when employed by politicians can lead to market distortions by allocating recourses to these industries which could be

picked up for political rather than economic reasons contributing to a waste or slower growth rather than to enhance competitiveness of the economy in question.

Is Krugman right? Well, again it all depends. When politics or incompetence enters the picture then the worst scenarios are possible. Even when economic policy is supposed to be based on knowledge and technology and is being pursued for the sake of enhancing competitiveness, the outcome still may be doubtful at best, as one could see when looking at ill-conceived “Lisbon Strategy”, with its hesitant implementation and the results so far. On the other hand, one can hardly question the effectiveness of the Japanese economic model when aiming at catching up with developed economies through structural adjustment and building dynamic comparative advantage which had made the country one of the most competitive in the world in 1990 (World Economic Forum, 1990). The same or similar policies brought astonishing results in some other countries of Far East Asia like in South Korea or Taiwan.

The same could be said about policies based on quite different economic theoretical foundations, nonetheless aimed at the pro-growth and pro-competitive policy objectives and which, once well structured and carried out, brought the desired effects. Think about the recommendations of the National Competitiveness Council of Ireland and even earlier when the Irish economists and experts have laid down foundation for the Ireland’s Economic Program in 1986 and the outcome of this well conceived pro-growth and pro-competitive program. In other words there is no reason to think of competitiveness as “a dangerous obsession” for pursuing policies to enhance competitiveness. This could be a satisfactory endeavor both for the politicians, economists and the citizens of the country involved.

### **III. National competitiveness in the XXI century.**

As we have indicated earlier a concern over national competitiveness is not new. What is new now in the 21<sup>st</sup> century is the need both, on a company level (owners and/or management) and on a national level (governments), to respond to globalization, rapid technological change, instant information flow, shrinking economic distance (as measured by transportation cost per value unit of trade) and sweeping liberalization. In other words, what is new is **intensity of competition** whether within nations or in international exchange caused by fast technological change and policy developments. Saying competitiveness now means concern around retaining ability to restructure industries while developing new competences (this is especially important for countries that are trying to catching up or keep up) and for countries in the lead it is a concern around maintaining their technological lead and entering new activities where high wages are not a competitive handicap (Lall, 2001). All the challenges require governments' active participation to create macro and micro environment as to allow the structural changes to take place easily and socially painlessly and/or to remove all potential barriers to allocate resources the way which would allow their economies to build new comparative advantages based on technological improvements and market signals. In the more global world, economic agents to stay competitive should have a free access to information, technology and financial resources and governments should do whatever is feasible to make it easy by creating an institutional setting conducive to increase competitiveness in this new and more demanding global environment. In other words, national competitiveness policy matters because governments still can do a lot to lower transaction cost by whatever policies remain within its domain.

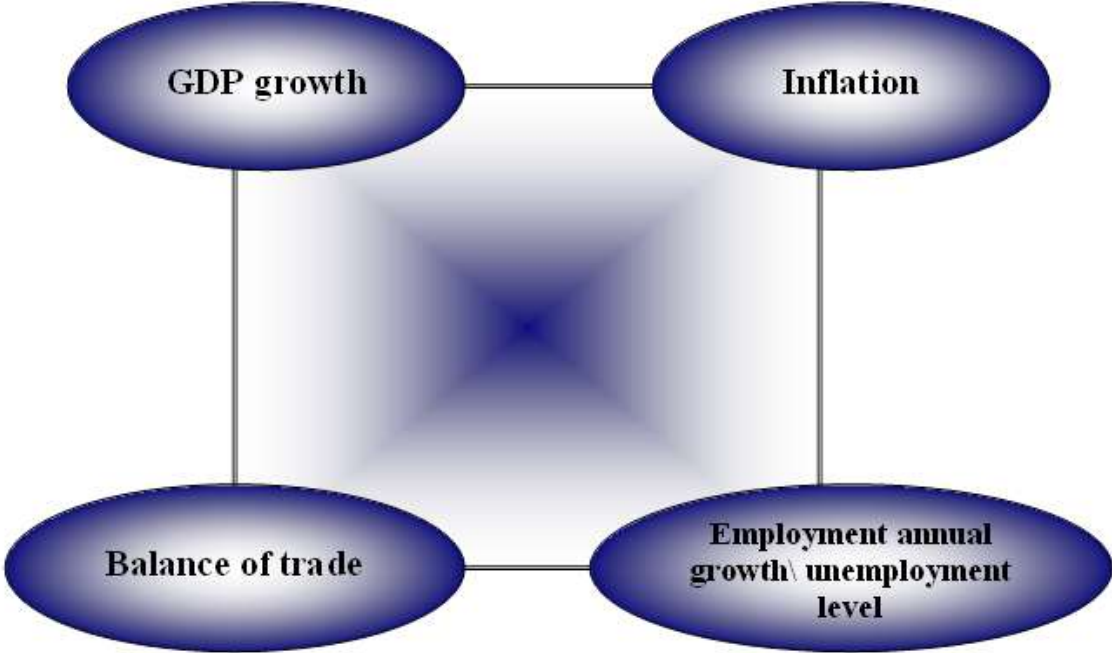
#### **2) Some hints on best measurement methods to asses national competitiveness.**

##### a) The “magic quadrangle” formula.

Since governments are responsible for institutions to upgrade macro and micro economic environment of a country as well as for its economic policy direction, one of the best way to asses its effectiveness is to examine macro economic performance of the country in question over a certain period and to relate it to identical data on macro performance of

other countries. It seems that one of the best way to do this is to use the “magic quadrangle” which is a conglomerate of indexes of a GDP growth rate, inflation level, unemployment rate and/or employment growth rate and current account balance. This formula can be depicted on Figure 2 below:

**Figure 2. Magic Quadrangle.**



To have a better understanding of the formula one has to recall the “Phillips curve” which illustrated trade off between inflation and unemployment, the phenomenon which had been observed in OECD countries between 1950-1970 when governments used to exercise the Keynesian way of handling macro policy problems. When the policy was in place, naturally, it was close to magic to have it all, that is – positive growth rates, low inflation, low unemployment and positive current account balance at the same time, and therefore to enhance national competitiveness when the one was measured by the macro economic performance indicators as enumerated in the magic quadrangle. But since a new concept of “policy mix” has been developed by Robert Mundell (Mundell, 1971), that is an idea of a simultaneous implementation of restrictive monetary policy and expansionary fiscal policy, in accord with supply side economics, the magic has become less magic at least for the countries

which have returned to neoclassical economics and abandoned or significantly reduced direct government intervention and/or a welfare state policy trap. In other words, since the implementation of Mundell's policy mix it has become feasible to get positive indexes of the magic quadrangle and the new economic policy formula has become a potent policy tool used for better utilization of assets in building national economic prowess. For example it has been utilized in numerous countries and brought positive results in US, UK, Australia, New Zealand and Chile (Niskanen, 1988; Bienkowski, 1995; Nau, 1990; Tanzi, 1996; Bienkowski & Brada & Radło, 2006).

To be sure, not all of the magic quadrangle indicators are viewed the same way by all economists. Most of the controversy has stem from different interpretation of the balance of trade indicator. Many economists read surplus of exports over imports as an indicator of a country strong competitiveness position as opposed to the trade deficit which is treated as an indicator of the country weakness. Even renown international institutes like IMD used to treat trade deficit as an indicator of the country competitiveness problems. But a country depending on "foreign savings" for some time or even permanently, does not have to illustrate a competitiveness problems. To the contrary, we could say, at least with respect to countries that need more financial resources than they are able to provide themselves from internal savings. Foreign savings may allow them to overcome various bottlenecks and secure faster growth than otherwise would be feasible. Even more, foreign financing, when brought by some kind of FDI, could be accompanied by new and better technology and/or organization or logistical solutions and therefore contribute to increasing productivity of the countries in question and to their better chances to get an access to foreign markets. The real problems lies with the level of the deficit and an accumulated debt. When the country in question can manage the debt, that is when the debt is lover than 60% of GDP, or less than 200% of is annual exports or when annual debt service ratio (that is the sum of interest on debt and installments over annual exports) does not exceed 25% , than the country debt is safely serviced and the revealed data on the debt should not translate into poor international rating as published by International Financial Institutions like World Bank or IMF or some private rating organization. In other words the 4<sup>th</sup> of the magic quadrangle indicators does not to have a positive one if the country competitiveness ranking is to be a positive one. And definitely, when the country has a deficit, even a permanent one but none the less manageable, the country competitive potential could improve in that the deficit or the efficient use of foreign savings can possibly contribute to a country enhanced long-term ability to compete. With this

qualification we could say a lot of good on magic quadrangle as one of the best although complex, indicator of a country's competitiveness.

b) New ideas how to assess national competitiveness as developed by World Economic Forum/WEF/ experts.

There are two measures of how to assess national competitiveness as developed by WEF recently; The Global Competitiveness Index which is a measure of a country potential for growth, and the Current Competitiveness Index which illustrate countries actual achievements in economic performance. The small difference between the two is that performance is the outcome of potential and therefore the authors of the reports concentrate on different things.

The Growth Competitive index (GCI), analyses the extent to which individual national economies have the structures, institutions, and policies in place for economic growth over the medium or long period, (McArthur and Sachs, 2002), whereas the Current Competitiveness index (CCI) people examine the microeconomic factors of competitiveness such as infrastructure regulatory policies and other factors taken from the famous M. Porter's diamond formula that constitute business environment in which a nation's companies operate (Porter, 2002).

The GDI in turn is built out of three conglomerate indexes related to – technology (50%), public institutions (25%) and macroeconomic environment (25%). The three main indices are obtained by regression analysis using as a dependable variable a composite indicator based on per capita GDP growth. The composition of the GCI makes more of a growth rather than competitiveness index (Yap, 2004). The WEF GDI has been criticized by renown experts for adopting, if not recommending, "IMF style adjustment", an approach to the role of the government that veers between the strong neoclassical and market friendly position. Critics of this index point to the examples of countries that based the pro-competitiveness policy on more direct and more selective interventionist policies and became quite successful (Lall, 2001). With such an opinion one could hardly disagree when look at the advances of Japan, South Korea or Taiwan some time ago but in a more global economy driven by technological advances and sweeping liberalization there is less room at the national level for strong, direct government intervention of the old style. The challenge now is to design competitiveness policies that would overcome market failures without violating the international rules of the game (Yap, 2004). In this respect the WEF indices provide a lot of

useful information and policy recommendations to build policies conducive to enhance national competitiveness.

c) New econometric methods to assess national competitiveness.

There is growing number of powerful econometrics and rigorous economic models, which seek to explain growth. Competitiveness analysis has to match or improve upon this to claim validity and originality (Lall, 2001). It seems that there are some of that around the corner if not on the table already. One may think of the applicability of the “knowledge discovery in data-bases (KDD) models used recently to predict country competitiveness. This is a very sophisticated techniques developed parallel to other methods aimed at presenting insights gained from the use of data mining (DM) and multivariate statistical techniques to identify important factors associated with a country competitiveness. These adds up to stepwise regression and weighted non-linear programming techniques, intelligent learning ones, classification and regression trees which, when applied to a dataset from either IMD or WEF reports could bring astonishing results. But a brief evaluation of the techniques goes beyond the scope of this paper. Nonetheless it is worth mentioning that the results gained thank to its application have enriched our knowledge on determinants of national competitiveness and the findings may be useful for the policy makers and international agencies to expand their own abilities, insights and establish priorities for improving country competitiveness (Zanakis & Becerra-Fernandez, 2004).

## Conclusions

Competitiveness as a concept is both multidimensional and situation specific. Once we specify what we mean by competitiveness and how we define it . It is in this latter concern where the difficulty arises in that one needs to address what are the relevant set of measures required to asses it, because a single measure can not capture all the relevant aspects for any product, industry or the whole economy. Also, the most appropriate set of measures will differ across product, industries and aggregate economies depending on the level of development of a particular country (trailing vs. leading country). For the same reason various economic theories could be a better intellectual foundation for an economic policy formulation to enhance competitiveness.

A combination of classical economies with some business friendly (or at least business neutral) intervention theories will be favored by developed countries which are on the same or similar development level. The New Trade Theory or a strong and direct intervention theory may better advantage a dynamic way. Recent developments in economic analysis of international trade have focused on the role of imperfect competition that justify, to some extent, through strategic intervention, rather than through business friendly policies a direct industry specific intervention. On the other hand globalization and wide spread liberalization as well as prevailing international rules seriously limited the chances for such strategic intervention polices to be successful.

The name of the game now is how to intervene in a way that agrees with or does not go against the international institutional rules.

As we have shown above, one of the best measures of a country's competitiveness is "magic quadrangle" formula. This composite index illustrates both improvements in a country's competitiveness as well as a right economic policy direction. Balance of trade problems, or deficit, do not to have be treated as a sight of competitiveness weakness. On the contrary, debt or foreign saving can be an asset in competitiveness drive provided it is being kept within safely limits. When it is done, foreign savings could be utilized to speed up growth, enhance structural changes and increase productivity. For single measures of national competitiveness

high level of GDP per capita and relative labor productivity seems to be best available proximate indicators of a country's success in the competitive struggle.

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