

GLOBALIZATION – WHAT, WHY, AND HOW TO MEASURE

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Summary

Globalization is considered to be a relatively new phenomenon and is consequently neither well defined nor well understood. Normally it is economic globalization that is thought to be worth of study and observation. It is only natural to study it from this angle as we are used to economic statistics of all kinds and we are thus exploring a territory where we feel relatively confident. While it is true that this is an important point of view as it has vast economic consequences it is also true that just this point of view does not provide an answer regarding other, possibly less agreeable consequences of globalization. Just to illustrate: why would crowds violently demonstrate during summits in different parts of the world if globalization is beneficial to all? There must be something more to it than meets the eye.

Indeed there is and it is an intention of this contribution to try to provide a comprehensive look at the phenomenon. Neither is it new nor is it limited to economy and economic domain alone. While it is true that this is probably the easiest way to apply statistics to it, there is much more to do if we want to at least try to outline a near satisfactory picture. First comes the problem of definition. There are only first attempts to define the economic globalization, but this is not nearly enough to encompass the whole picture. So an acceptable definition to suit economic aspects, but also other ones, must be provided in the first place. Then there comes the question of measurement: why would we want to measure globalization? There is a general answer that statistics measures everything, so why not globalization as well. As every measurement has its price and its purpose we will try to provide a better reason for this one. Third question is then how to measure. If we have succeeded in (1) providing the definition and in (2) establishing reasons for measurement it should not be too much of a problem to explain how to measure it. The paper hopes to propose an acceptable approach for statistics to proceed towards finding solutions by combining conventional mechanisms and methods.

1. WHAT IT IS

As of not so long ago, hardly a day passes without globalisation being mentioned in some context or another. Many a thing is ascribed to it and not all of them are positive, indeed even the majority of them have a negative connotation. It is being regarded as a phenomenon from the economic realm so it would be expected that economists are on speaking terms with it. It

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seems that they are as there comes no strong opposition from their rank and file. The rest seem not to worry too much; politicians take it as a *fait accompli* and try to do with and about it as much as they can to use it to their own ends. The general public seems not to be bothered very much as it considers globalisation something that it cannot be influenced and possible negative effects are tried to be avoided. The attitude towards it is very much like that towards bad weather. It cannot be influenced and we try to protect us from it as best as we can. There is however a minority that fights violently against globalisation and which does not seem to have in common either geographical or social or any other common property except for its determined rejection. We are witness to demonstrations of antiglobalists practically during every summit and inevitably reports on television that show politicians and economists shaking hands offer also scenes where police are trying to protect the top brass and themselves. In short the picture is such that politics and capital appear to support globalisation, most of the population seems not to care, and very few act as if they knew something that is hidden from the rest, and fight against it. So what is going on there?

End of 1980s is an era of dissolution of empires of twentieth century. Borders that have determined closed markets of the empires have dissolved and previously separate markets are melting together into one sole global market. Large market areas that are not closed have emerged and there is no boundaries among them. A new requirement that the new situation has provoked is reaction to globalisation of market which in turn means also globalisation of competition and of operation. The response of stakeholders are strategic partnerships, integration of companies and joining to company groups, the expected result being presence on the market, in the business, or, in the minimal case, just staying alive. The formula for presence on the market is now already notorious 7x24 where time zones play no role anymore. This has been made possible by global private and public computer networks, world wide web, and internet. As early as in the 1970s has IBM announced the operating system where a parameter during initial program load was time zone. Only few then understood the reason for this, but later development in the company and in the world has convinced us that the vision of its engineers has vastly overtaken the imagination of its strategists. Globalisation has introduced also new threats in our back yard. After our businesses close for the day a window opens for traders from other time zones that are already (or still) in the business, and also for domestic customers that have a need for a product or service. An unpleasant consequence of such development is that the domestic market can be no longer protected which gets a bad record the governments that appear to be inefficient. Inefficient domestic industries become increasingly vulnerable. Interdependent and interconnected economies is ruling out protectionism and those who do not understand will find themselves in isolation. Even more: protectionism will have to be dismissed by governments because it is no more viable in the new situation. We may presume that not all smiles on signing NAFTA³ were sincere, but in itself the agreement is a token that United States have understood signs of the time. All countries will have to follow the example sooner or later in their own way and on their own territory, one of important consequences being hopefully to balance population and social policy which is an elementary duty of any government.

Globalisation is normally considered to be a phenomenon that has emerged only recently. The word itself is rather new. It implies something that influences the whole world, that is related to the world as a whole, that has world wide effects. It has become a concern of many, but it is not yet studied in depth. It is regarded nearly a natural phenomenon which cannot be

³ North American Free Trade Agreement

influenced and which is taken advantage of by the smart and the rich to their benefit which is to get even richer, possibly on the account of the poor, the latter to become even poorer and the whole process having an unfavourable effect at the environment. A few illuminati seem to see behind the curtain and are fighting against the whole process with whatever means they can. There is basically an extremely polarised picture of globalization: on one hand there are governments and transnational organisations that approve of the process, promote it and support it with whatever means they have. On the other hand there are more or less organised groups of warriors that spare no effort and means to fight against it. It is nearly as if they were considering completely different phenomenon that has only incidentally the same name.

It is an elementary property of the world in which we live that everything is moving because of the difference in potentials. This is true of physical and technical processes, but is valid also in social relations and economics. Therefore a migration of production into parts of the world where labour is cheaper is only an actuality that could have been forecast and expected if only there were an interest in this field some fifty years ago when the tendency started. New technologies of transportation and communication only made this happen earlier than expected and in with a much wider scale, to a surprise of many and to the benefit of the first that came running. Harbingers of this trend in economy were what we may now already call classical multinational companies of the seventies.

There is little doubt that globalisation has many positive effects. Advocates emphasise that it has helped to develop international trade, thus increasing employment and domestic product, opening markets, reduced isolation of less developed parts of the world all of which could hardly be regarded as negative. Less bright picture offered by its critics is that it is a yet another vehicle of developed countries to exploit the poor under a disguise of help, at blunt disregard of consequences and without any concern for the environment in those countries. Moreover, there is also a criticism regarding the terms under which business and trade are permitted to them.

Whatever the criticism, it must be understood that globalization itself cannot reduce poverty, nor can it bring about stability and neither is this within possibilities of any phenomenon, globalization included. Those in position and capacity to bring this about are companies, governments, and intergovernmental institutions such as United Nations (UN), International Monetary Fund (IMF), World Trade Organisation (WTO) and World Bank (WB). While companies have other goals than providing social relief there remain only governments and that are in position to direct globalization processes so to the benefit of the less developed but not reducing the motive of companies and capital at the same time. Considering governments we can identify two types of attitudes towards globalisation. One is that of developed countries which try to assess the process in the light of their future development and regard it as an actuality that must be taken into account in preparing their strategies for the future, hopefully to utilise it to their advantage. Slovenia is a case of such country. The strategy that is being under discussion precisely at this time contains a special regard for globalisation⁴. It is very likely that most developed countries have a strongly decided view about how to go about globalisation to their benefit, not necessarily formulating this in any form of a formal document but strongly respected nevertheless. Their point is mainly to improve their present and future situation and not to provide relief.

⁴ Strategy [4]

Another attitude is that of governments in poor countries that mostly do not have resources enough to deal with it to their benefit. This leaves practically only intergovernmental institutions that remain in the play. This is easier said than done; if it were easy it would have been done long ago. Pitifully it can be observed that even intergovernmental institutions do not feel responsible to act in the direction of reducing poverty and increasing stability as they, too, seem to have primary goals other than those and too often too little understanding for the circumstances of those to whom they may even want to help. They are ready to help, but under their own terms that hardly take into account cultural, economical and political circumstances of those to receive the help. A situation where there is a global governance without global government⁵ seems to be a very correct description of the circumstances and in this respect the opponents of globalization cannot be blamed altogether.

So far only economical aspects of globalisation have been mentioned, but its effects are by no means limited to economy. The already mentioned Slovenian strategic document takes a particular interest in three further aspects of globalisation: political, cultural, and environmental where the document also proposes how to act – or react – in respect to all three. We will not discuss the importance of each in an depth as this is not the purpose of this contribution. Globalisation is recognised as an opportunity for the country to develop an active strategy to exploit the country's assets, at the same time embracing its share of responsibility for control the risks of globalisation internationally. The globalisation is defined as *a process where a mutual interdependence of producers of goods and providers of services is increasing and where decisions on allocation of production factors are ever more made globally*⁶. The point in this definition (related to economic globalisation) seem to be globally made decisions as interdependence is not characteristic of global operation; the same can be true of local providers of commodities.

Considering what has been said about globalisation earlier it follows that an acceptable definition must be offered for start. There are many all of which relate to economical globalisation which is important sure enough, but is far from providing a complete picture. One definition is that it is an increasing interrelatedness and interdependence among economies of different countries and regions in the world⁷. Another description that is more comprehensive and offers also an insight as to where it originates from is that "...it is closer integration of countries and peoples of the world which has been brought about by the enormous reduction of costs of transportation and communication, and the breaking down of artificial barriers to the flows of goods, services, capital, knowledge, and (to a lesser extent) people across borders."⁸.

2. WHY MEASURE

In science, in technology, everywhere - we measure to understand we measure to understand phenomena, but we must also understand what we measure. The same is true of statistical measurement. If we want to introduce a measurement we must first consider if there is a general need for it and then bring it into an appropriate perspective. Only in doing so we may hope to provide a useful outcome for the purpose. The need for it has been justified long ago

⁵ Stiglitz [1]

⁶ Strategy [4]

⁷ Rant [2]

⁸ Stiglitz [1]

and is beyond the scope of this paper. There is a straightforward procedure to be followed which begins with a definition, continues with a metric, followed by the actual measurement and ends with study of results.

While admitting that the description is comprehensive and without an intention to argue with a Nobel laureate, it must also be said that it is limited to the realm of economy and that it is not compact enough to serve as a definition. Let us therefore offer another one that is not limited to economy: Globalization is a world wide operation made possible by progress in information technology, communication, and transportation. This definition does not exclude – or prefer for that matter – any kind of subject that operates or is being operated upon, does not concentrate on a particular type or field of operation and also does not bring in categories such as price, politics or other factors. What is essential is that operation is world wide which implicates relations that extend over continents rather than countries regardless of their size.

In the light of this definition we may conclude that globalization is nothing new as world wide operation is not an invention or a device of twentieth century. Just let us recall of caravans that used the Silk Road to transfer goods from most distant parts of the world, to offer the most notorious prototype. But it has been done before of which the Amber Trail bears witness, and it has been done after more and more often, the West Indian Company of nineteenth century being just one case. In all cases the operation in question extended far beyond local and regional borders only to reach to the most distant ends of then known world. The difference is that in history it has been a privilege of brave, rich, and bold, whereas today because of accessibility of information technology, communications and transportation such kind of operation is at the fingertips of all. One of the results of such predicament is that operation is no more limited to economy as financial rewards are next to negligible because low cost of travel and communication. Consequently, globalization has spread into practically every sphere of human endeavour and to consider just economic aspects of it, ignoring all the others at the same time, would today mean an inadmissible case of tunnel vision.

While it is true that we measure to understand it is also true that to limit the purpose of measurement makes it somewhat too abstract. By measurements we also provide tools for comparison of certain traits or properties among themselves. When discussing globalisation we want to know answers to the following questions:

- how global is our operation (what is the degree of our globalisation)?
- are we using globalisation to meet our development goals, hopefully not at the expense of our partners (.....)?
- how good we are in achieving our goals as compared to our environment?

There are no simple answers to those questions as there is not any one single area of global operation. While economic globalisation is studied relatively well, study of other its aspects is only at the beginning. Let us therefore as just one possibility offer some aspects of globalisation other than economic where it should be emphasised that aspects, content, subject, and measure have been chosen arbitrarily just as an example. It is also true that while there may be a strong globalisation in a particular aspect it may be much weaker in some others. A combined quantity should therefore be used to express the degree of globalisation in order to be able to provide at least a rough estimate.

3. HOW TO MEASURE

If we want to measure something there must be an object of measurement, a method, and a measurement apparatus. In our case the object of measurement is clearly globalisation but, being an extremely complex phenomenon, it cannot be measured as such, but must rather be measured by its various properties. Methods will be necessarily statistical but not yet completely defined for all aspects of globalisation; indeed we are making the first steps in measuring economic globalisation and even this is not generally agreed upon. The apparatus too is statistical and must include classifications, but must also take into account the geographical scope of operation and the subject of operation. Considering that essential for the phenomenon is globality of operation, meaning relations of such kind that bring about practical consequences – in trade, industry, culture, medicine, population, to name but a few areas - we may conclude that two groups properties should be measured: the *degree of globalisation* and the *results of globalisation*. Let us discuss shortly both.

The degree of globalisation can be expressed by number of entities that operate, i.e. communicate, perform business of some kind across a given distance. The distance between any two entities that operate must not necessarily be expressed in units of length as this measure does not apply for any two entities. Instead, it is better expressed in relative categories where three are proposed: *local*, *regional*, and *global*. A few hundred kilometres may be regional distance in Europe, but is local in the United States for example. A couple of thousands of kilometres may be regarded as a global relation in some parts of the world such as Europe whereas the same distance may be regarded as regional in Russia. If we use relative quantities for the distance all relations will be expressed with the same measure regardless of the actual distance. Of course it is not easy to define where locality terminates and regionality begins, and where in turn regionality ends and globality takes over as the relations depend on distance nevertheless. Let us rather not try to use units of length to define the distance, but express it in terms of countries' borders and continents. Let us propose for local operation the one that does not extend beyond the state border. Let us further propose for regional operation such that extends across state borders, but stays within the limits of one continent. Globality by this proposal includes operation that extends over continents. This again is somewhat tricky criterion in case of Europe, but we may safely say that in studying globalisation because of its economic, cultural, and population potential the classical geographical borders will be respected.

Results of operation are in most cases easier to define as the result of any business is defined and measurable. There are areas of course where this is not so easy to determine such as in culture, but if we want to measure the effects we will have to agree upon a measure in such cases as well or put up with an idea that certain parts of human endeavour will avoid our observation.

DEPARTMENT	CONTENT	SUBJECT	MEASURE ⁹
labour	work force	migrations outsourcing	number

⁹ combined by category of distance (local, regional, global)

energy	energents	exchange import export	quantity
finance	funds	transactions	amount
culture	arts by kind artists	works by kind	number
education	study by program	students	number
industry	activity by kind	raw materials production goods services	quantity worth
sports	disciplines by kind	sportists	number
population	people	migrations	number
health	patients medicine personnel	diagnostics treatment rehabilitation	
defence	armed forces	engagement on foreign territory	number of interventions

Table 1: A possible approach to measure globalisation

Table 1 presents a set of arbitrarily chosen departments, the subjects they deal with, their content, and the quantity to measure. We will not go into detail as all state statistics are conducting research in all of the above departments and much more. Let just be pointed out that each quantity should be regarded in relation to its global aspect, i.e. how much of the result of the respective operation, quantity, number, or exchange is produced locally, regionally, and globally. This way it may be measured how globalised is each of the studied departments. By doing that we have achieved two things: firstly, we have provided a measure to express the degree of globalisation (by department) and secondly, we have provided a tool to compare the degree of our globalisation with that of the departments in countries of our interest. It must be also emphasised that to author's knowledge such research has not been done yet and so no practical example is offered in this paper.

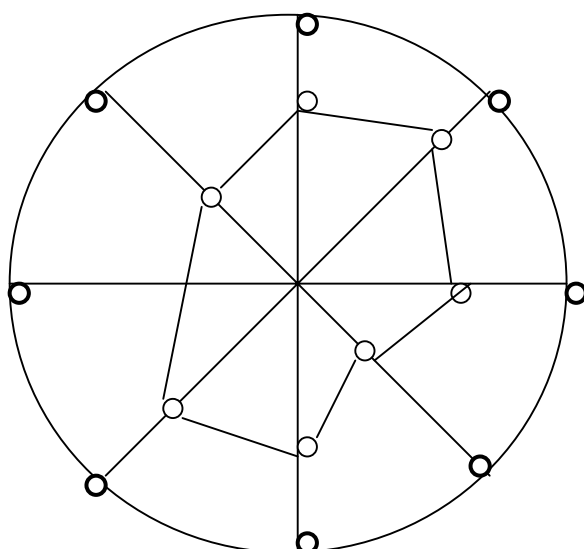


Diagram 1: Degree of globalisation

The intention of the above example is just to show that globalisation can be measured and hopefully to encourage those that have a curiosity or a necessity, to further elaborate the subject and start a related research work.

Let us further take a hypothetical example of a measurement of the degree of globalisation (by department) of a country (Diagram 1). Let us suppose that we have chosen eight areas that we want to measure and a compound measure to express the degree of globalisation of each¹⁰. The result of each of the measurement is shown as a circle on the respective axis of the polar diagram. The values for “ideally” globalised areas would lie on the edge of the respective circle as ideally they are 100% globalised (without a qualification whether this is good or bad, positive or negative, productive or not). Anything less than 100% of globalisation will then necessarily lie within the circle on the respective axis. We can then easily see how globalised we are in the chosen areas and we can also easily compare our situation with that of another country.

4. CONCLUSION

The intention of the paper is to show that globalisation is presently considered from a very specific economic aspect, but that such a complex and important phenomenon must be studied from other viewpoints as well if we want to provide a more complete picture. The consequences of globalisation were not considered nor has it been given a particular qualification in terms of good or bad, positive or negative. The fact is that it is here and is considered to be one of most important vehicles of development which is the merit that entitles it to much wider study than is the case now. Further it has been also an intention to show that this can be done and one example of how can it be done. There are surely numerous other ways to do it and those that want to will no doubt find practical ways to do it. Considered how important is globalisation for all countries, not just developed ones, we should expect a more extensive work to be carried out by governments and supragovernmental organisations before long. The OECD manual on globalisation¹¹ is but one indication that such expectations are justified although the manual concentrates primarily on economic aspects. Even this is not too bad as for every endeavour there must be a beginning somewhere provided that the concern will not end there. Considering the overall importance of economic activities for the world at large and the long tradition that economic measurements have, it is a logical choice for a starting point.

Let us however mention once again that the success of any work will depend on basic common understanding. Above all there must be a universally accepted and technically acceptable definition of globalisation. Only based upon a sound definition some serious work can start. It has been shown that there are many definitions in use today which is somewhat of a problem as results of measurements cannot be comparable if every student is proceeding along his own line. The definition must be necessarily strict if we want to build upon it. The more loose the definition, the more cases fit. This is the main reason for such a requirement. It

¹⁰ The measure is not being necessarily the same for all areas: while in economy we may want to measure turnover, in pharmacy we may want to measure the number of products that are tested elsewhere.

¹¹ Still under preparation at the end of 2003

has been also shown that such a definition is possible regardless if it will be used, improved, or disregarded. Any serious attempt to propose something should be endorsed by an example of how to carry out the work and this was the motive to propose the definition.

As for the rest, may we say that statistics disposes of all necessary apparatus already: there are in place internationally recognised classifications and nomenclatures as well as methods and techniques. Statistical registers, business registers in particular, are a matter of course. It is only a matter of motivation when and how will the work on a comprehensive observation of globalisation proceed. Let us hope that it will not take very long.

5. SOURCES AND REFERENCES

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