

# **The impact of globalisation on opportunities for human development**

## **Final Report : Executive Summary**

February 2014

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### **1 Research plan**

The objective of the project was to analyse the impact of globalisation on opportunities for human development. Three key dimensions of human development were initially proposed for the analysis - employment, education and credit access. It was also proposed to consider different aspects of globalisation going beyond the economic domain to include social and political globalisation. Furthermore, we wanted to extend the analysis from a sociological point of view by examining whether countries with a higher social capital are able to benefit more from globalisation, all other things being equal.

There was an initial delay in the schedule due to the following reasons: a) administrative delay in the recruitment process and b) longer than expected time taken to build the data set and c) the late hiring of the second research collaborator for permit reasons. However we managed to be on track by working much more intensely in the later half of the project duration to finish it on time.

As we moved on with our project, we realised that rather than analysing access to credit which remains an important aspect of opportunities for human development, it would be better to focus on the health dimension, for two reasons: a) given the hard time we had to gather data in the other two dimensions, we did a first exploration of some possible data sources for credit access and did not find much information; it seemed that it would be easier to get information on health (from well-known databases such as the World Bank's World Development Indicators or WHO's World Health Observatory), though these sources also contained many missing values; b) health can be considered as an intrinsic part of human well-being whereas access to credit is an instrumental factor which may only indirectly lead to an increase in well-being; indeed all human development measures incorporate education and health. Therefore we decided to concentrate on employment, education and health as our key human development dimensions.

### **2 Results obtained and an analysis of them**

Three working papers have been produced in the framework of this project by the different team members. All of them have matured over regular exchange of ideas among all the members of the team.

The first paper, which is the main one, is entitled “An empirical investigation of the relationship between globalisation and three human development dimensions: employment, education and health” and the principal members who worked on it are Jaya Krishnakumar and Elena Sarti. This study investigates whether globalised economies are able to offer expanded and equalised opportunities to their populations in some key socio-economic domains. In particular, it focusses on three dimensions of human development, namely employment, education and health. The definition of human development is inspired from the so-called capability approach developed by Amartya K. Sen who defines it as the enhancement of an individual’s choices to lead a valuable life. Following this idea the analysis incorporates both quantitative and qualitative aspects of well being opportunities in the three dimensions chosen. To this end, aggregate country-level information from various data sources are collected. The final sample consists of a total of 60 developing and developed countries for the period 1981-2012.

We postulate that both globalisation and ‘opportunities’ for development are not directly observable as such but manifest themselves through multiple indicators. For globalisation we consider various openness measures from an economic, social and political point of view. For the well-being domains, we use a number of indicators covering both the quantity and quality aspects. The key relationship under investigation is the one going from globalisation to well-being and this is embedded in a structural model formulated on the basis of an extensive review of the theoretical literature on the various mechanisms in action. To our knowledge this is one of the first studies to analyse the impact of globalisation in a multi-dimensional setting.

Our model specifying the relationship between the two phenomena is largely inspired from an extensive theoretical literature on the mechanisms through which openness acts on employment, education and health. Theory elicits various ways by which people can benefit (or suffer) from more openness in the economic, social and political domains. We explicitly specify these paths in our structural model before going on to their empirical estimation. In many cases, these paths go in both directions leading to possible endogeneity issues that we tackle using instruments that are also inspired from related literature. Thus we have a rather complex structure representing all these paths and possible feedback effects which is estimated using cross-country data from 1981 to 2010. In spite of collecting information from many sources, the final sample on which our model is estimated is restricted due to a huge amount of missing data.

In a first step we combined various indicators of human development into five factor scores corresponding to the five major dimensions of our study. This is done using a factor analysis approach and the results confirm the number of selected dimensions and a good quality of fit for our indicators. The next step is the analysis of how these factors are influenced by our intermediate variables through which globalisation is supposed to act. Here again some variables could not be used for want of observations on them and for some others proxies were employed instead.

According to theory, the effect of opening out on employment is mediated by GDP (level and growth), job search efficiency and labour migration. The main mediators for education are remittances, networks, return migration and e-learning. Finally, according to the literature, the effect of globalisation on health involves health services, food imports, lifestyle changes, and environmental hazards.

Our results present a mixed picture regarding the overall impact of globalisation on human development. The most uncertain impact is that of economic globalisation. Trade/FDI flows and reduction of restrictions to trade and capital movements do have a positive impact on growth but growth in turn has a negative impact on employment. On the other hand, economic openness seems to be negatively associated with the level of per capita GDP whose effect is positive on employment. So whichever way we look at it, employment seems to suffer from economic globalisation. Countries producing high-tech products have a possible advantage if their exports pick up as a result of opening out as they increase employment. On the contrary, the other aspects of globalisation namely social and political globalisations seem to benefit employment through their positive impact on information connectivity.

Turning to the education dimension, more openness in terms of information connectivity is definitely beneficial for educational opportunities which in turn improve the ‘quality’ of education, and the quantity as well as quality of employment. Thus the path via education is a safer bet for employment rather than increased trade/FDI. In other words, increased growth from economic openness and increased education opportunities from social openness combine to yield a positive effect on employment.

The effect on health is ambiguous with many insignificant response coefficients. Food imports (the only important significant variable), which increase with globalisation, have a sure negative impact which can either be due to possible health hazards from imports or due to the fact that increase in food imports occurs when there are serious shocks in food production leading to a setback in health.

Finally, in general, globalisation is favoured by good governance, political stability, and democratic regimes, and we find strong associations of good governance with democracies, durable regimes, a parliamentary system and a higher electoral competition for the executive.

A few strong messages emerge from our study. First and foremost, one cannot affirm that globalisation is either ‘good’ or ‘bad’ as the overall impact is not uniform across dimensions. Governments need to anticipate a possible negative consequence on employment and put in place policies that will help absorb the labour laid off as a result of opening out. As education seems to benefit from openness, and since education influences employment positively, a government can enhance well-being in both the dimensions (and possibly others) by investing in the educational system.

The second paper is entitled “Seeking Social Capital in World Values Survey” and Rüya Gökhan Koçer was the principal member working on it. It examines the methodological challenges that need to be overcome in order to operationalise the idea of social capital with the aim to generate indices which may be useful in a comparative scrutiny of various situations as well as for policy makers in both developed and developing countries.

The empirical analysis uses four rounds of the World Values Survey that in total cover almost hundred countries. The analysis reveals that it is not feasible to build a single index which would effectively capture the way in which the basic indicators generate social capital across countries. Three different applications of robust principal component analysis show that there is a clear difference between advanced capitalist economies and the other countries in terms of joint configuration of basic indicators and this precludes

the construction of a single index that is equally meaningful in representing the level of social capital across countries.

Therefore, the normalized ‘general trust’ variable is found to be the most feasible crude indicator of the social capital stock of countries from a theoretical point of view as it always has a positive and large loading in any principal component analysis. The study leads to the conclusion that if one has to use a single index in order to capture social capital, not only in advanced capitalist countries but also in all countries for which data sets are available, then it might be prudent to use the ‘general trust’ variable (as derived in this study) as a proxy instead of a synthetic index whose validity may be convincing for sub-sections of the data but not necessarily for the entire data set.

The third working paper is entitled “An Analysis on Economic Opportunity” and Kui-Wai Li is the main author. It analyses the concept of economic opportunity, identifying the extensity and intensity channels through which this concept is created.

The empirical strategy employs the principle component analysis in constructing three indices for the parametric and non-parametric regression analysis for 184 (OECD and non-OECD) world economies for the period 2000-2010. As a latent concept, economic opportunity is examined through a number of proxy variables but as an outcome of economic activity, it is obtained from a combined usage of economic resources (extensity) and socio-economic complements (intensity). While extensity measures the availability of production factors, intensity shows the extent to which economic opportunity could be generated when the complementary factors are taken into account.

Results show that both extensity and intensity variables can contribute positively to economic opportunity. The OECD countries show a stronger performance in both extensity and intensity variables. For non-OECD economies, their performance in extensity can be improved through improvements in intensity variables.

### **3 Summary of results obtained and whether they correspond to those expected at the beginning of the research**

Our model specifying the relationship between the two phenomena is largely inspired from an extensive theoretical literature on the mechanisms through which openness acts on employment, education and health. Theory elicits various ways by which people can benefit (or suffer) from more openness in the economic, social and political domains. We specify these paths explicitly in our structural model before going on to their empirical estimation. In many cases, these paths go in both directions leading to possible endogeneity issues that we tackle using instruments that are also inspired from related literature. Thus we have a rather complex structure representing potential ‘causal’ chains and possible feedback effects, which is estimated using cross-country data from 1981 to 2010. In spite of collecting information from many sources, the final sample on which our model is estimated is restricted due to a huge amount of missing data.

We did not have any *a priori* expectation about the results at the beginning of our research. Economic theory predicts an improvement in the economic dimension (economic growth

in particular) as a result of opening out but has not dealt much with human development outcomes. Literature on globalisation's effect on education is scarce except for the link with studies on migration. The relationship between globalisation and health has attracted attention in recent years but few studies have analysed it empirically.

Our results present a mixed picture regarding the overall impact of globalisation on the chosen human development dimensions. The sector where we anticipated a positive response *viz.* from the economic dimension of globalisation to employment (via growth), turned out to be the opposite. On the other hand, the ultimate impact of the other types of globalisation (social and political) is potentially positive for employment, in particular via the education path. In general, education seems to react positively to openness, especially from a social and political point of view. Our results indicate that health is more likely to be negatively affected by globalisation.

Another aspect of our project concerned the role of social capital. As there is no measure of social capital readily available, our first task was to review the different theoretical concepts that exist in the sociological literature and try to construct appropriate measures. The next step was the collection of data on indicators of social capital in order to investigate the statistical and conceptual validity of a single measure (index) of social capital. It turned out that no global concept of social capital can be derived that works for all countries, regions and societies. If such a concept is needed, then the best indicator is given by 'general trust'.

## 4 Practical application of results

This study applies the framework of capability approach to investigate the impact of globalisation. Thus we analyse whether globalisation expands people's capability sets in the employment, education and health dimensions. The idea is to go beyond the classical economic approach of confining to trade and economic growth and enlarge both the concepts.

On the globalisation angle, we broaden the concept to include political and social aspects in addition to economic openness. On the outcome side, rather than looking at income and growth, we focus on dimensions that are of intrinsic value for the well-being of a population such as the ability to be employed, to be educated and to be healthy. As we are operating at the aggregate level, we also attempt to include aspects that not only reflect quantity (number of jobs, numbers of years of education etc.) but also quality (working conditions, workers' rights, vulnerability, pupil-teacher ratio etc.).

The practical application includes all countries for which data are available. However, we found that many variables are missing for many countries and that is one of the major limitations that we faced in our study. Notwithstanding, our study does have practical implications which we bring out in the corresponding section below.

## 5 Questions that merit further exploration

There are two types of issues that merit further exploration - one is data related and the other is methodology related.

Even if we spent a considerable amount of time to construct our data base which has a large number of economic, political, social, institutional and demographic indicators taken from numerous sources, some crucial variables were still missing to complete all the paths highlighted by theory. So some paths were simply absent from our empirical model and/or we used rough proxies for some variables.

Although we have a panel data set, we could not implement panel data models due to the large number of missing observations for many countries, which produced unstable results for panel specifications. So we had to content ourselves with the inclusion of regional dummies to take account of heterogeneity at a regional level rather than at a country level. Their coefficients are mostly significant indicating presence of regional heterogeneity (after controlling for all other factors).

Thirdly, it was our intention to incorporate social capital data into our model. However the information on social capital was only available for very few countries for four years. As mentioned earlier, it was not possible to construct a single index which would represent the same theoretical concept for all countries. The only variable which came closest to the idea was ‘general trust’ and when we included this variable in our human development model, the estimations did not converge most of the time and the results were not at all stable. This is one area which not only merits further empirical analysis but also requires a massive improvement in data availability at the country level.

## 6 Practical and policy recommendations

This study was not intended to arrive at policy-level conclusions. The main purpose was to gain an understanding of the impact of globalisation on various aspects of well-being, through a better grasp of the mechanisms by which a population’s well-being is affected as a country becomes more and more open. Having said this, we can derive some practical and policy implications based on our empirical evidence.

The first and foremost message is that one cannot affirm that globalisation is either ‘good’ or ‘bad’. In other words the overall impact is not uniform. It depends on the specific aspect that one is interested in.

Given that our results show a potentially negative consequence for employment from increased economic openness, it is clear that it may not be wise to let things sort out for themselves. Governments need to anticipate and identify sectors that are likely to lay off labour as a result of globalisation and put in place policies that will help them to be absorbed in the sectors that are able to withstand international competition and grow.

A second and more important message concerns the education dimension. We find that education is the only one of our three dimensions for which there is a definite positive impact, through increased connectivity. In addition, since education has a significant positive influence on employment, a government can capitalise on this favourable result to enhance well-being in both the dimensions (and possibly others) by investing in the improvement of its educational system and standards so that opening out is not seen as a threat by its population but rather as an opportunity to develop.

## 7 Information regarding past and expected publications and other activities

### 7.1 Working papers

There are three working papers that have been produced in the framework of this project by the different team members. Although the authors are different for different papers, there has been regular exchanges of ideas among all team members on all papers (see internal report). The names of the authors reflect the principal members who worked on each paper.

1. Jaya Krishnakumar and Elena Sarti, “An empirical investigation of the relationship between globalisation and three human development dimensions: employment, education and health”.
2. Rüya Gökhan Koçer, “Seeking Social Capital in World Values Survey”.
3. Kui-Wai Li, “An Analysis on Economic Opportunity”.

### 7.2 Conferences

The first paper was presented in the following conferences:

1. XXVIII National Conference of Labour Economics, Rome, 27-28 September 2013.
2. First International Conference on Sustainable Human Development, iSHuD 2013, London, 3-4 July 2013.

### 7.3 Workshop

A workshop was organised on 6 December 2013 at the University of Geneva for an initial dissemination of our results. All the three working papers were presented by the respective team members at the workshop which lasted for a whole day. Two experts, one from the economics discipline and one from the sociology discipline, were invited to give key note addresses as well as discuss our papers. The workshop was open to all and other participants included our international partners (ILO) and other colleagues from the Department. Comments from the experts and other participants were incorporated in the version attached to this report. The explicit introduction of the mechanisms in action in the link between globalisation and human development outcomes (operationalised through our mediating variables) was in fact strongly recommended the discussant of paper 1 .

A flyer on the workshop is attached for reference.

### 7.4 Publications

Jaya Krishnakumar and Elena Sarti (2013), “The Impact of Globalisation on Work Capability”, in *Proceedings of the First International Conference on Sustainable Human Development, iSHuD 2013, London, 3-4 July 2013* edited by Tariq M Khan, Eduseriv Group, U.K.

The first and the second working papers (1. and 2. above) will be submitted to appropriate journals shortly.