“What works? Evidence from mini-states and national borders”

Lecture given by Professor Mancur Olson

on the 23th of January 1997

at the ‘Centre Universtaire’ Luxembourg

at 6.30 pm.

Luxembourg Institute for European and International Studies
in co-operation with the
Institut Grand-Ducal, Section des Sciences Morales et
Politiques

A. Clesse: Before introducing our guest, Professor Mancur Olson, I will talk about a book he is writing - he is about to complete: 'Capitalism, Socialism and Dictatorship,' with the subtitle: 'Outgrowing Capitalist and Socialist Dictatorships' - if that is the definitive title - which will be published then in a few months by Random House and certainly become a big success. There have been conferences on this question why some countries are so successful and others less, or why some countries are successful in some period of their evolution, then decline. So we try to look at the historical evidence, we try to explain through a multi-disciplinary and a multi-national approach, we try to forecast, we try also to think about how to maintain or strengthen the vitality of countries. It's in this context that we had a first meeting in April in Washington on 'Capitalism, Socialism and Dictatorship' with mainly American economists, experts, many of them from the IMF, from the World Bank.
So during the next days there will be a follow-up meeting with mainly European experts, European economists and political scientists.
But first but I should give a few elements or clues about our lecturer, Mancur Olson, who is now a distinguished university professor at the University of Maryland. He has there a very interesting research centre called ‘IRIS,’ centre on institutional reform and the informal sector where he is working with some one hundred people, many Harvard and academic staff. It’s very impressive indeed. Mancur Olson, some thirty years ago, already published a very famous book on 'The Logic of Collective Action'. I think it was his Ph.D. thesis at Harvard. And then, some ten years later, 'The Rise and Decline of Nations,' which became also very famous. Both are still textbooks, mandatory reading for students of economics in the United States. The title of the lecture is: ‘What works? Evidence from mini-states and national borders!' So, sorry for having been so long.
The floor is to Professor Mancur Olson...'

M. Olson: Thank you for that much too generous introduction and thank you for the invitation and for having these events of which I am most appreciative!

My question is: ‘What is it that makes some countries have better economic performance than others?’ ‘Why are some countries rich and others poor?’ Or: ‘What works to make an economy grow?’

Now this - it seems to me - is an apt location to discuss this issue because, though I do not know much about Luxembourg, I do know that the per capita income of Luxembourg is very high, higher than that of the United States, much higher than that of Luxembourg’s neighbours. So, this is an anomaly that makes the question that I ask locally pertinent. When we think of Luxembourg’s neighbours and the continent of Europe, we also are reminded that the continent of Europe is an extremely interesting place when it comes to anomalies in economic growth. France, Germany and other countries of continental Europe grew at extraordinary rapid speed in the first quarter century after World War II, but now, the same continental Europe that grew so rapidly then is now lagging behind East Asia and the United States. So again, continental Europe makes us think a lot about this question of what causes economic growth.

In trying to answer this question, I will try to persuade you of the validity of an argument that I made in the spring issue of the *American Economic Association’s Journal of Economic Perspectives.* In that article, as tonight, I begin with a very old and tired joke that, nonetheless it is of use, because, as is the case with many jokes, this one has a serious point. This joke grows out of the theory that to those of you who are not an economic it might be well to spell out briefly: ‘the theory of efficient markets.’ This is the theory that any publicly available information that bears on the price of a share of stock, or other financial security that is publicly traded, any publicly available information will already have been taken into account. So, you cannot make money on the stock market because you hear good news about company X; if you buy its stock, you will be likely to find that others have already bid up the price of the stock because of this good news. So therefore it is argued in the efficient markets hypothesis that one will do as well with a randomly managed portfolio or an index fund that has a pro rata share of all the stocks listed in some market. One will do as well with a randomly managed portfolio or an index fund as one will do with a professionally managed portfolio, because the market is already efficient and there is no way you can make any money by using publicly available information. Now, this ‘efficient markets theory’ then lead to the story of a senior professor: A senior professor and an assistant were walking down the sidewalk. The assistant sees a hundred dollar bill and quickly reaches for it and the senior professor holds him up saying: ‘No, if it were real, it would have been picked up already.’ The serious point of the story is, that it is not very often that money is left on the sidewalk and when it is, it is usually picked up very quickly. So, as the efficient markets theory tells us and as common sense reminds us, we usually don’t find easy money there to pick up. If it were easy to get at, someone would have got it already. I would like to suggest that the efficient markets hypothesis and this old joke about big bills left on the sidewalk typifies a lot of the thinking in economics in recent times.

Whereas in an earlier period, Keynesian macroeconomics told us that there could be great gains sustained by an activist fiscal and monetary policy, the new classical and real business psycho macroeconomics tells us that this is not so, that the economy is already efficient. If there is alleged to be involuntary unemployment for example, the new classical macroeconomics tells us it is not really there: if the value of a worker's time to the worker is less than that time would be worth to an employer, the worker and the employer will make a mutually advantageous deal so there is not any unemployed labour walking along the sidewalks either.

The economy is automatically efficient simply because of the rational self-interest of the partners. This idea that the economy is already efficient is brought to its furthest point by some people who have extended and exhalted a result of Ronald Coase. It has reached its furthest point in those people who, unlike Ronald Coase himself, speak of the Coase fear. What Ronald Coase had done in his brilliant and profound article on the problem of social cost is argued that sometimes when economists have thought they observed market failure or expected market failure, that in fact there was not market failure and Coase proceeded by a series of examples to make his point.

The most interesting of these examples for me is the story of the rancher and the grain farmer and the rancher's cattle trample the grain farmer's fields. This would seem to be an example of an extranality and Pigue had told us that when there were extranalities a 'laissez-faire' will lead to an inefficient outcome. But according to Coase this is not the case, if the rancher's cattle do indeed more damage to the farmer's grain than the cattle gain from the grain, so it is socially inefficient for the cattle to be trampling the farmer's grain, then it does not matter, whether the rancher is liable for the damage or whether the farmer is liable for whatever loss there is. It does not matter, in either case the two parties will bargain toward an efficient outcome. This will come about simply because of the maximisation behaviour of the parties and it will happen unless transaction costs, bargaining costs, are so high they keep it from happening.

The late George Steegler and other economists have gone beyond these examples and spoken of a Coase theorem, the idea that if transactions or bargaining costs are zero, rational parties in all circumstances will bargain together until they attain a Pareto efficient, that is to say socially efficient, outcome. Some other economists have gone on to note that transactions costs use up real resources, the time the rancher and the farmer spent haggling with one another is time they could have been working and all of the resources used for bargaining and transaction, then have an opportunity cost, they could be used to produce things, so therefore we must in defining an efficient state, in defining a Pareto efficient outcome what we need to do is take the transaction costs into account in defining an efficient state.

Some economists have gone on - or I at least I will go on - to say that if the previous propositions are true, a further proposition is true, that the parties that bargain an economy will bargain together until they achieve all mutually advantageous deals. In these mutually advantageous deals, they will take account of transactions costs, that is to say the parties will make all deals which leave them better off net of transactions costs. If there were deals such as that, if they left transaction or bargaining costs out of account and made that deal, the deal would have been

desirable had transactions costs been zero. In fact if the gains from this deal are less than the costs of making it, then rational parties will not make the deal. So, the idea, that the rational parties will make only those deals that are advantageous, on balance, taking account of the costs of transactions, this fact leads to what I would argue is a far stronger proposition. If the Coase theorem is true, then we can say that it holds, no matter how high transactions costs may be, because if there were a mutually advantageous deal out there, mutually advantageous taking into account the cost of making the deal, then the parties out there would have made it. So the world we observe under 'laissez-faire' is perfectly efficient; if it could have been made more efficient, the people with interested stake in the economy would already have made it so. So Doctor Penglass seems to have some support in this line of thinking; 'laissez-faire' according to the Coase theorem seems to suggest that 'laissez-faire' leads to a perfectly efficient economy, a very strong proposition but it turns out that with no slip in the logic we can go on to an even stronger proposition if the Coase theorem is true; in the end, of course, I'm gonna say it's not.

So let us go on and think a moment about transactions costs; obviously transactions costs depend on the technology and on the organisation of things. Obviously cash registers have lower transactions costs as compared with an abacus, and point of sale computers presumably can lower transaction costs even more; but it is also the case that various aspects of social organisation can affect and lower transactions costs. The invention of money presumably lowered transactions cost, shopping malls lower transaction costs for suburbanites, stock exchanges lowered the transactions costs of exchanging stock. Some people have argued (economists) that government as well is a device for lowering transactions costs, that when government is used, lesser transaction costs would occur than if the market was used. Now, this has led a few economists (usually economists starting with conservative libertarian instincts and preferences) to startling conclusions, and conclusions that testify to the sincerity and honesty of their research. Many of these economists have gone on to say: look, if governments are a means for reducing transactions costs, then government policies that emerge from a democratic policy and the political bargaining of the parties in it, these policies must also be efficient, because remember, rational parties make all of those deals that are advantageous to them net of transactions costs.

It is argued by people like Whitman and Earl Thomson and Roger Faith and George Steegler at moments made this argument too (the late George Steegler), that if the parties could make a deal in the political system which left them better off net of the costs of the political bargaining needed to make the deal, they would have done it. So we then get the extraordinary strong proposition, that the world we see out there is efficient, whether it's 'laissez-faire' or characterised by a rampant interventionism because, in either case, it is a result of the bargaining of rational people who would have made all mutually advantageous deals. What I am suggesting, is that the idea that there is not money left on the sidewalk, that the bargainers, rational bargainers, do not leave any money on the table, this is an idea that is driving rather basic thinking in economics in recent times. It turns out, that empirical research on economic growth is based also on the idea that there are not any bills left on the sidewalk. The method of apportioning the sources of growth among capital accumulation, technical advance

and so on, worked out by Robert Solo, assumes that societies are as productive as they can be, i.e. it assumes that societies are on the frontiers of aggregate production functions. Societies are getting as much out of the available resources and the known technology as they can.

The basic idea is, that you can calculate the output that comes from a given amount of factor augmentation, say, a given amount of capital accumulation You can go beyond that and make the assumption, that any additional economic growth beyond that, explained by the increases in the amount of capital or other factors, any additional economic growth is due to technological advance, the residual is identified with technological advance and this procedure then is a procedure generally used for qualitative work on economic growth. This procedure assumes that societies are efficient, i.e. are on the frontiers of aggregate production function. It assumes, for example, that the marginal private product of capital equals the marginal social product of capital and that's true of any factor that is considered in the analysis, and that in turn means that the assumption is that the societies are efficient. So what I am trying to persuade you of then, ladies and gentlemen, is the idea that there are very important and prominent and sustained forces in modern economic thinking, in modern economic theory, that suggest that something very elemental, a tendency that leads people to pick up bills lying on the sidewalk.

This tendency by itself makes economies efficient, through the market and, when transaction costs are lower, through the government. Now, the question comes: 'How can we test these ideas, how can we get empirical information that would bear on the question of whether this extremely optimistic tendency that I have described is true or not?' Admittedly, most of the people putting forth many of the arguments that I've described just now, would not state them so starkly as I have stated them. But believe me, in stating these points starkly, I am not falsifying the characteristics of these arguments, I am just taking their logic to its real conclusion, to deducing the conclusion that follows from the premises. It would seem terribly difficult to get any numbers that would bear on whether these arguments that I have been putting forth and that I have represented as embodied in important trends in economic theory, it seems very hard to get numbers that would enable us to test these propositions. But, there is one place where empirical evidence abounds, and that is at the borders of countries, including small countries like Luxembourg, because countries - the boundaries of countries - delineate the areas where there are different economic policies and institutions. That means, that if we can explain the per capita income of different countries in terms of their different endowments, in terms of the available resources, then it is the case that the theories that I have just described are supported: we explain differences in per capita income across countries by explaining their different amounts of resources that they own, taking, defining resources, of course, to include human skill and human talents and education of all kinds as well as natural resources.

However, if it is the case that there are great differences in per capita income that cannot be accounted for by the different endowments countries have, then the theories that I have just described will be refuted, because it means there are some countries (at least some countries), that are not getting as much out of their resources as they

could. There are some countries that are leaving big bills on the sidewalks. Well, let me emphasise, that there are very large differences in per capita incomes across countries; if we take the best available purchasing power parity data literally, the richest countries have per capita incomes forty five times as high as the poorest countries. Even if we are very conservative indeed, we should have to say, that the richest countries are at least twenty times as high per capita income as the poorest. So then, taking these huge differences in per capita income as the thing to be explained, what I would like to do, is consider with you each of the aggregate factors of production, that is to say, I would like to look at land and natural resources, at tangible capital and at labour and culture in order, and of course also to look at the available technology to see whether we can make sense of the great differences in per capita income across countries in terms of analysis of these aggregate factors. Technically, the economist and a detailed and complete analysis would have to desegregate factors but these studies of economic growth, that use the aggregate function technique and do proceed in an aggregate level, I shall do that and I should have to do that too. I believe we will find that this aggregation is not fatal to the enterprise in which we are engaged.

So, what I would like to do first of all, is ask: Can we explain the great differences in per capita incomes across countries by focusing on technology, is it the case that the technologies used in the richest countries are in some sense unavailable to or too costly for the poor countries?

Then I want to go on and look at land and natural resources and ask: 'Are the poor countries poor because they are overpopulated and have too few resources in relationship to their population?'

Aferwards I want to go on and ask: 'Are the poor countries poor because they haven't got access to tangible capital in sufficient quantities, are somehow endowed naturally with too little tangible capital?'

And then, finally, I want to ask: 'Are the poor countries poor because they haven't got the adequate skills, the adequate human capital, an appropriate culture, the Protestant ethic or whatever?'

So then, that is the method of proceeding, to take these things in order and we start with technology.

Is it the case, that the technologies of the first world - or the technologies of the most advanced countries - are these technologies too expensive in some sense for the poor countries? Is it the case that the gains from the advanced technologies that enable the rich countries to have such high income, is it the case that the gains from these technologies are as it were mainly reserved for the countries that developed the technology, so there is not a large net gain to the poor country from adopting superior technologies?

So, with the help of Brandon Kennelly, a research assistant, I tried to find data on this topic and there turned out to be some data for South Korea in the 1970s. One was able to find out for South Korea the total amount paid for patent rights, for every kind of payment for disembodied technology and all these payments added up to less than one one thousandth of South Korea's GNP. But maybe, we thought, this was not the right way to do the calculation, maybe the profits of multinational corporations were

really not a reward to the capital owned by these multinational corporations, maybe their profits were really a payment for technologies that these multinational corporations had. So we added in all the profits of multinational corporations to the payments for disembodied technologies and then we asked: How much of the increase in output that came from that, that came in South Korea in the seventies, how much of this increase in output was needed to pay for the new technologies? Well, it turned out, even adding in all the profits and returns of multinational corporations, that the South Koreans had to pay an amount less than one and a half per cent of the increase in their GNP over the period for the technologies that they obtained. So, if this case is representative, and I believe it is, for countries that are going rapidly, then we get the conclusion that the world's technologies are the highest technologies, available to countries throughout the world at a cost that is tiny in relationship to the increased output brought about by these technologies. To an approximation then the modern technology is available to the entire world and we cannot explain the differences in per capita income in terms of any kind of secret productive technique or anything of that sort that might be possessed by the highest income countries.

So, if you accept that, let us pass on to land and natural resources. That is to say: 'Can we explain the higher income of the high-income countries as due to their large endowments of land and natural resources or can we explain the poverty of the poor countries as due to overpopulation, too much population in relation to resources and so on?' Well, the key to the idea of shortage of resources is, of course, diminishing returns -- one of the most elemental and oldest idea in economics: the idea, that if you apply additional labour or other variable factors to a given amount of land, you get, after a time at least, diminishing increments of output. The law of diminishing returns is unquestionably true. You have perhaps heard of the pity way of putting it, that if the law of diminishing returns were not true, all the world could be fed from a flower pot if it were tilt with sufficient intensity. But we know: all the world could not be fed from a flower pot and we know: the law of diminishing returns is true. So, given that the law of diminishing returns is true, how can we work out a test of the idea that differences in per capita income across countries are due to different amounts of land and natural resources per capita?

We know, from the law of diminishing returns, the effect that migration ought to have: that is to say, suppose we have got a large amount of migration from one country to another, now, the law of diminishing returns tells us that the movement of labour from one country will lower the supply of labour there, mean less labour is mixed with land in that country; as the labour goes to the other country it will increase the ratio of labour to land in the country to which the migrants go. So, therefore, the elementary logic of diminishing returns tells us what will happen to the relative wages in different countries when there is migration -- it will tell us, that if there is a large amount of migration, that we should get a large increase in per capita income in the country from which the migrants come and there should be a large reduction in wages in per capita income in the country to which the migrants go.

So what I want to do then, is look at cases in history of very large migrations and see if these very large migrations leave a pattern in the data that would have to be there, if societies really are as efficient as they could be -- if the societies really are at

the frontiers of aggregate production function. One of the most striking examples of large migration is between the island of Ireland (well, what's now the Republic of Ireland, although that is not identical, of course, with the island of Ireland) and the island of Britain. We know from the United Kingdom census of 1821, that the density of population in Ireland in parts of the island of Ireland (that is now the republic of Ireland we know from the UK census of 1821), that Ireland was more densely settled then was the island of Britain. The population of Ireland was then not much short of the total population of the island of Britain. Now, by contrast, there is over six times as many people per square kilometre in the island of Britain as on the parts of the island of Ireland that are in the Republic of Ireland; so then, we have had an extraordinary change in relative population densities. There has been such a gigantic migration of labour from Ireland to Britain that there has been an utter transformation in the ratio of land, of population and land to natural resources as a result of this gigantic migration. But, notwithstanding this gigantic migration, Ireland has still a lower per capita income than Great Britain which, in turn, has a lower per capita income than the highest income countries on the Continent and in North America.

That is to say, the theory would tell us that Ireland should have been gaining in per capita income compared to Britain and the rest of the world but it has not. There has also been a huge migration from Ireland to the United States and other countries of the world; the Irish earning high incomes in the countries to which they go, but Ireland continuing to be way behind in per capita income from the countries to which most of the Irish have migrated. So here is a case that does not fit the idea that societies are on the frontiers of their production functions. Suppose we look at migration between Europe and the United States: the US frontier is said to have been closed about 1890, so let us look only since 1890 --there was a huge migration from Europe to the United States between 1890 and 1914 but the United States gained in per capita income compared to most countries of Western Europe in that period -- that is the opposite of what we would expect, if societies were at the frontiers of aggregate production functions.

There is a huge migration between Mexico and the United States but we cannot, by looking at fluctuations in this migration, looking at data in this migration, we can not see any tendency for per capita income in Mexico and the wages of labour in Mexico to go up and the wages of labour in the United States to go down with fluctuations in this migration.

There are a number of detailed econometric studies of particular communities, studies, for example, in France of the effect of the repatriation of the people of the former colonies of Algeria, Tunisia and so on, where there is a big increase in the labour in particular parts of France but it shows no effect on the wage level. The same thing has been done looking at Portuguese migrants after the end of the Portuguese colonialism -- again no effect on the wage patterns. The effect of the marial boat lift from Cuba on the Florida labour market, again do not see the impact that one would expect to see if societies are at the frontiers of their production function if they were as efficient as they could be. So, the law of diminishing returns combined with the idea that societies are as efficient as they could be, seems not to be supported by the pattern that we observe in these cases of large amounts of migration.

Now, I would like to give you some numbers from this article in the *Journal of Economic Perspectives* that I mentioned on population density, because I believe that some of these numbers will surprise you. Let me look at page 12, where I have these numbers which I do not have in my head: Argentina, a country with quite an unsuccessful economy in the last generation, has only eleven persons per square kilometre; Brazil has only sixteen; Kenya twenty five and Zaire thirteen. These are unsuccessful economies by and large with relatively low numbers of people per square kilometre. India, like most societies with a lot of irrigated agriculture, is more densely settled with 233 people per square kilometre (this is 1986 data), but high-income West Germany with 246 people per square kilometre is more densely settled than India, and the Netherlands and Belgium are much more densely settled still -- in other words, large parts of Western Europe are more densely settled than India, so this should make us cautious about the idea that it is overpopulation that is the cause of low income in the poor countries.

Not as a serious econometric exercise, but as a matter of descriptive statistics I ran a regression, a univeriate regression, to ask how much of the difference in per capita income across countries is associated with differences in density of population. So, picture univeriate regression then with a dependent variable being the log of per capita income measured in purchasing power parity fashion. The one independent variable is the population per square kilometre so what is the result?

Robert Lucas, in an article in the *American Economic Review Proceedings,* used the extended Solo road model, a Solo dynamic road model, as a basis for estimating the returns to capital, the margins of profit to capital in India and the United States taking into account the great differences in capital to labour ratios in India and the United States, on the assumption that one Indian worker equalled one American worker. Lucas stopped the prediction, that the marginal product of capital, a return to capital, in India should be 58 times as great as in the United States. Now, Lucas calculated that there would probably be more education and skill per worker in the United States than in India, so he made the surely conservative assumption that he took five Indian workers to equal one US worker and even on that assumption, the marginal product of capital in India should be three or four times as great as in the United States i.e. that would mean a rate of return to capital of over four hundred per cent in India.

Now, of course, we do not observe anything remotely. But let us further think of the law of one price, that is to say let us ask ourselves: If all the countries of the world had equally good economic institutions and policies, what would then happen to the stock of capital in different countries of the world? What would happen, if that capital would go to where it has the highest return, and the returns to capital and the plenitude of capital would be equalised around the world. So, the stock of tangible capital cannot be an explanation of the differences in per capita income across countries because it is not a variable that has independent significance: that is to say the capital market, the tendency for capital to seek the highest returns, the tendency for the owners of capital to pick up the bills on the sidewalk, this tendency -- if other things were equal-- this tendency would mean, that all countries were equally well stocked with capital. There is no way we can start with initial amounts of capital and

explain the per capita income of countries, there is no way in any sensible period of economic growth we can treat countries capital stock as exogenous or determined outside of the United States. So, I would submit then that totally (and I would like to think compellingly) we can dismiss different endowments of tangible capital as explanations of differences in per capita income across countries.

Now, you may say, well, but now we get to the hard one: labour, human capital and culture. Here, many people believe that this is the big issue, the tough issue, that poor countries are poor because there is something about their culture which makes people poor workers and savers or poor entrepreneurs; there is something about the population that in one way or another makes it a population that does not earn a high per capita income; there is something about another population, a Protestant ethic or something like that, that makes this other population generate high incomes.

A common place feature of the analysis of differences in economic performance is to attribute to the high-income country various cultural or genetic traits that are supposed to explain the high income, to attribute to the countries of low per capita income cultural or genetic traits that make that country ill-suited for modern economic life. Now, I want you to be very suspicious of this because, of course, many countries and many peoples change their cultural reputation as time goes on. As recently as the 1950s, the Chinese were thought ill-suited to modern economic life and modern economic growth. You go back to the late 18th, early 19th century you find the Germans think of themselves as not very good at making money, the British as exceptionally good at it. You go to the 1950s, you see exactly the opposite.

How can we analyse this question in a systematic way? How can we get at this question of whether we can explain differences in per capita income across countries in terms of labour human capital and culture? Well, I think, to do this, we have to make a distinction that is not usually made and that is a distinction between what I would like to call 'marketable human capital' and 'public good human capital'.

'Marketable human capital' -- it would be that kind of skill, would be those traits, that an individual, who possesses them, can sell for a higher wage. So, marketable human capital then is a kind of individual characteristic or culture which the individual gets the benefit of; so then, we measure the amount of marketable human capital that an individual has by his or her wage, marginal product, of course, if the firm maximises profits. So then, that marketable human capital will be one thing, a separate thing is the ideas people have about how societies ought to be organised, that is to say: people have ideas in their heads about the right way to run a country, 'about what works' -- to use the title of this conference.

The ideas about what works for a country I will call 'public good human capital', for if the people of a country have right ideas about what works for a country, then it would be the case that they will have lots of public good capital in their heads, if they have wrong ideas about what works to make a country go they will have not valuable, they will have poor, harmful human capital in their heads.

So, I very much then need to distinguish these two kinds of culture, these two kinds of human capital: we might say the 'marketable human capital' we will call 'individual culture' and 'public good human capital' you can call 'civic culture' and thus use the language not only of economics but of others.

Now, the nice thing about marketable human capital is that you can get dramatic evidence on how much of it a people has, from a very simple experiment. We can get good evidence on this from observing the natural experiment that occurs when someone migrates from a poor country to a rich one. That is to say when, let us say, a Mexican swims the Rio Grande to go to the United States, that Mexican, when he first arrives, is not instantly baptised with the Protestant ethic, he comes with the human capital he had the day before in Mexico.

So, the earnings of immigrants when they first arrive measure the value of their marketable human capital and the marketable human capital they had before they left. So, we can learn something about the marketable human capital of Mexicans in Mexico from looking at the earnings of Mexican migrants to the United States when they first arrived. If they would stay a long time, perhaps they could be argued to have acquired US cultural attributes and so that would not be a fair experiment but the earnings of beginning migrants are a fair experiment.

Here we find, that for Borhas, leading US economist studying immigration, George Borhas has taken four poor, less-developed countries that have large numbers of migrants that have gone to the United States and taken their earnings when they first arrived, that means their earnings from the interceptive regression equation which gives the increase in earnings as people have spent more years in the United States. One finds, that migrants to the United States from poor countries earn 55 per cent as much when they first arrive as people born in the United States of the same age, sex and years of school; in other words, the migrants from poor countries earn surprisingly much even when they have exactly the marketable capital that they took with them from the country that they came from. Now you may say: 'oh, the migrants,' and this is a very popular idea in the United States and other countries made up of immigration the ideas that immigrants have lots of get up and go when they go they would not have migrated if they had not a lot of get up and go but note that that argument, even if totally true and of great quality and importance, does not in any way alter the argument I put forth, does not in any way refute the argument I put forth, because we are talking about the earnings of the same person.

That is to say, when people migrate from a poor country to a rich country, when people migrate from Turkey to West Germany, from North Africa to France, what happens, is that the incomes of those individuals goes up. If they have lots of energy and ambition and good work ethic, they had it back in the country that they left. We are not talking, the idea that immigrants are self-selected, does not counter the argument that I am putting forth, it could only counteract it if the very act of migration changed a person’s marketable culture: if someone saw the Statue of Liberty and that made him or her productive, that would contradict my argument but nothing less.

So, what I am suggesting then, is that we have compelling natural experiments in migration suggesting that the productivity of people even in the poorest countries, the marketable human capital of people even in the poorest countries, is quite considerable, that they have a productivity which is very high in relationship to the per capita incomes in these poor countries. That is to say, that we can explain, suppose we would say that in some poor country the people have 55 per cent, let us say in Central America we suppose - by the figure I presented a moment ago - we suppose that

people have 55 per cent as much human capital on average as citizens, as people, born in the United States have. Then this theory would lead to the prediction, that these countries ought to have 55 per cent as much per capita income as the United States if it was only these differences that accounted for the difference in per capita income but, of course, these countries will have maybe one fortieth or one twentieth in per capita income. Indeed, I tried to underline this point by taking one country, by taking some pairs of countries, one country of the pair being highly successful and the other country being highly unsuccessful and a number of these paired comparisons that led to the same result.

Let me give you the one for Haiti and West Germany; in other words, let us take West Germany, one of the more successful economies in the world in the post-war period, and let us take Haiti, one of the least successful. Now, let us look at the performance of migrants to the United States on which we have data from the US census. Let us look at the earnings in the United States of migrants from West Germany to the United States and migrants from Haiti to the United States. Now here, I am making experiments where you could say the experiment maybe is corrupted by selection bias: suppose, the dumbest people in West Germany migrated to the United States and the smartest people in Haiti migrated to the United States, then the earnings of these migrants to the United States would not be a good measure of the human capital in the countries they came from, right. So, the story I tell now is subject to that possible shortcoming. But let us look at the earnings in the United States of Haitians and West Germans according to the 1980 US census: self-employed migrants from Haiti earned 18.900 dollars for a year while those who were self employed from Germany earned 27.300; waged and salary immigrants from Haiti earned 10.900, those from West Germany 21.900, so the West Germans earned more in the United States than the Haitians, let us say twice as much, right. Now, look at the differences in per capita income between Haiti and West Germany, let us give the Haitians a doubling in their per capita income -- i.e. let us perform the thought experiment of imagining Haiti with its institutions and economic policy -- peopled by Germans with the German level of marketable human capital, this would give you a doubling of Haiti's per capita income at which point it would still be about five per cent of that of Germany or, to perform the same experiment in another way, let us suppose we imagine Germans -- with the human capital that we infer the average Haitian has from these figures about immigrants in the United States -- we get a Germany with about half the per capita income it now has which is still a huge multiple or actual per capita income of Haiti.

So, what I am suggesting, ladies and gentlemen, there is just no way that one can explain most of the difference in per capita income across countries. Remember, these differences are of the order of 44, there is no way one can explain it by differences in marketable human capital. Now, of course, it is possible, that the countries that are poor are poor because the beliefs that the people in those countries have about how the society should be organised, these beliefs may be wrong -- i.e. the public good human capital, the civic culture of the countries that are poor, may be inadequate -- and that is easily possible. But that is not a problem for my argument because, indeed, it is my own conclusion, that is to say that the main part of the huge differences in per

capita income across countries are due to difference in the quality of economic policy and institutions across countries. That if Luxembourg has higher per capita income than other countries around it, the Luxembourgians are probably doing something better in their way of economic policy-making than other countries That the poor countries of this world have low per capita incomes, not because of any inadequacy of their people or their natural resources or because they are denied access to the technology or tangible capital portfolios of this world, the poor countries are poor because they have got the wrong arrangements; in other words, what I am suggesting is, that it is not true, the Coase theorem is false for some technical reasons -- that are explained in a paper that we will soon have finished -- that there are trillions of dollars on the footpath of developing countries, that is to say, that though I believe that people in a poor country are as quick to pick up bills on the sidewalk as people in a rich country, though the mother wit is much the same in one country as another, human nature much the same one place, the same human nature in all these countries, notwithstanding that there are great differences in per capita income, because some countries have the institutions and economic policies that facilitate the social co-operation that generates high incomes and other countries do not.

Those institutions which make markets work well, make the rich countries rich; institutions and economic policies which do not facilitate the operation of markets and indeed intrude upon them make other countries poor. That assumption, the thing that is wrong with the economic theories that start the rational self interest, the tendency of people to pick up bills on the side walk and go from that to social efficiency, what is really wrong with these ideas is that they fail to note that individual rationality is not a sufficient condition for social rationality. If you will forgive my putting it in a way that is a little self aggrandising for me, what they overlook, is the logic of collective action, that is to say that rational individuals are by no means sufficient for a rational social outcome, for that, one needs the right institutions and economic policies.

And my hour is up in two seconds, I am done, thank you!

A. Clesse: Thank you, Mancur. So now, are there any comments, reactions? I hope somebody will contradict, contest, some of the things Professor Olson said. I know he likes this, he likes contradiction, he likes to contradict others and he likes to be contradicted himself. So, who would be first...?'

A. King: This is not a contradiction, it is a wish. The comment is a very simple one: Mancur, you referred to public good human capital and, at several points, you distinguished in what you said between economic policy on one hand and social arrangements on the other. Don't you need, in terms of your own argument as you are developing it, to unbundle those two and pursue that point further?

M. Olson: To me, economic and social -- there is no clear and neat distinction. I would say, poor countries are poor because all of their arrangements (social, political, economic) are poor, but I do not think the social, political, economic is a clear and useful distinction. But I very much accept your correction that I misspoke.'

E. Lacos: 'This is a question for clarification and I do not want to appear splitting hairs but the public good human capital, isn't that part of the culture?'

M. Olson: 'Yes. Yes, it is and I may then have misspoken...'

E. Lacos: '...because I had the feeling earlier, when you were starting to talk about human capital, as if you were mentioning, as if you had separated, human capital from culture. That was the impression I got, that is why I said this is a request for clarification.'

M. Olson: 'Well, I misspoke if I did that. Culture is a big word and covers many things. I would think that both public good human capital and market human capital would be part of culture and I may have spoken at times in a way not consistent with that and thank you for the correction on that point.'

R. Skidelski: 'Again, not a criticism by any means, I found it fascinating what you said, but I have a question that arises about marketable human capital: if, in fact, migrants from low-income countries can come to high-income countries and earn wages which are perhaps half, even from the lowest-income countries, half the average wage of the countries they come to, what does that tell you about the importance of education in developing human capital -- because, you would assume, that the education institutions of the low-income countries would be very much inferior to those of the high-income countries at all levels actually and yet the amount of difference it seems to make to the marginal productivity of the bodies is not as great as you would expect. I wondered if you have had any thoughts about that -- because one of the great panaceas in Europe for very high levels of inactivity is to upskill the population and put a lot of money into education -- are we misdirecting diagnosis to some extent?'
M. Olson: 'Well, that is a very good question indeed. Those people, who argue that, or the main thing you need to do to bring economic development to poor countries or

to bring more economic progress to already high-income countries, is to invest more in human capital. I am sure that that is wrong. Now, however, note that 45 per cent of the average US wage earned over a lifetime of work, discounted, would pay for a pretty expensive education. So that, let us say, we are thinking of workers earning 20.000 instead of 40.000 dollars a year and you think of the discounted present value of 20.000 dollars a year, half of 40.000, and it would pay for a very expensive education. So it would not be a correct interpretation of my argument to say that one should be stingy on human capital but your point is right that it certainly is not the way to turn a sick economy around either to spend more on education.'

R. Petit: I visited many Eastern, former communist countries and I would like you, if you could, comment upon the diverging evolution of some former communist countries of, let us say, Eastern Europe. Let us say, you compare the Czech Republic versus Ukraine for instance it would be a good way to document your theories.'

M. Olson: 'Certainly it fits in with my conception of what is happening in Eastern countries, it fits in with my prejudices in general, that is to say, as I see it, the Czech Republic has had not such bad economic policies since the collapse of communism. Ukraine has often had preposterously bad economic policies and not surprisingly, the Czech Republic is doing better than the Ukraine. Now, mind you, I think there are some other factors involved, that I have a hypothesis about, that at some point I'd enjoyed discussing but that would take us of the subject now, so let us not get into them.'

A. Steinherr: 'I have three methodological questions, the first is the difficulty to try to assign to a number of factors their contribution to growth, you do not find much and then it all winds up in the residual and the residual has a really powerful explanatory factor, nearly too powerful to be true except if one looks at the concept. The concept after all is all embracing so it does not give us really a hand of what practically matters, because if we say: 'well, success is due to a social type of capital', we would, of course, like to know what it is precisely, because there are many elements of the social capital. And then, we would have to say: this is the one or that is the one and in addition it seems to me, except if we refer to mystical concepts like Protestant ethics which do need develop over very long periods of time so we can consider them for our 19th, 20th century purpose as exorgenous (many others may not be that exorgenous); it just turns out, that capital rich countries with a good personal education level also are smart in organising their social organisations, so that you may face the same problem as with the explanation of physical capital, that the kind of stuff we may wish to play with within that larger bag of elements in this social capital thing is stuff which is indigenous and we are back to square one.'

M. Olson: 'Let me say, that that argument goes right at the heart of my argument and that is a very forceful criticism indeed, I very much take it seriously. Now, to underline that, let me just, if I might try, restate one part of your point another way. What I have done tonight in what I have said (if you take everything I have written, it is a different

story), but what I have done tonight is proceed by elimination: I said, if it is not land and natural resources and it is not tangible capital and it is not human capital or culture then it is institutions and economic policy. But there could be other options that I have not excluded, so your point is very forceful and I would like to think, that if you take other things that I have written along with this, you will find more specific hypothesis and more specific findings that go along with what I have said tonight and greatly strengthen the case. I did not have time to get into all of that and run up against my time limit as it was.

Let me though see if I can get some defence against your criticism by noting a couple of observable features of reality that would be true if my positive argument is true -- that is to say, if it is institutions and economic policy, institutions and policies generally, that mainly explain economic performance, then that would leave a certain trace on the patterns of relative growth rates indeed what would be useful is to take the most familiar economic theories of growth and compare the predictions that these theories make with the prediction my argument makes.

We have the old growth theory descending from Robert Solo, we have a new or an indigenous growth theory and then we have the argument I put forth tonight. Now, the old growth theory says that all countries are not only on the frontiers of their production function but that technology is accessible around the world, so it predicts convergence of income across all countries. Those countries, that are low-income, are off their growth path: they will grow more rapidly than high-income countries, so we get convergence, at least conditional convergence -- that is to say, the countries might have different study state growth but they would at least converge and each country would go to its steady state.

Now, the indigenous growth theory, by contrast, says there are extranalities to the stock of human or tangible capital -- that is to say, for example, highly educated people in a high-income country will learn from each other so that the more highly-educated people a country already has, the greater these extranalities are and so the indigenous growth theory says that the high-income countries have an advantage in growth and so we can think of the indigenous growth theory as being motivated by the manifest inconsistency between the old growth theory and the facts, that is to say the absence of convergence. If you look at the world as a whole, there is no tendency for low-income countries to catch up with high-income countries; if anything, the gap between the average income of the lowest countries and the highest indeed this is widening. So the indigenous growth theory can be thought of as saying, as motivated by the observation that we need to show something about the high-income countries that enables them (even though they already have high income) to grow as fast, or faster than the poor countries. So, the old growth theory predicts convergence; indigenous growth theory predicts the high-income countries can grow as fast, or faster than the low-income countries.

What does my argument predict? It predicts that poor countries, it implies, that poor countries are poor, because they have poor economic policies and institutions; that rich countries are rich, because their institutions and policies aren’t so bad. So it predicts, that if a poor country improves its institutions and economic policies it will then have catch-up opportunities of a kind we would see from the old growth theory.

That is to say, my theory predicts the fastest growth should never be in the countries that have high-income, because they don't have the catch-up opportunity; the highest, the most rapidly growing countries ought to be that subset of low-income countries that have improved their policies and institutions. What do we in fact observe? That if you take, suppose we put along this axis the rate of growth of per capita income, along this axis the per capita income countries now have, you find the observations will be in a cone -- all of the high-income countries will have roughly similar growth rates but among the poor countries they rang from very high to negative -- that is consistent with the idea that there is enormous variation, that some of the poor and middle-income countries have improved their institutions and economic policies and are able to grow very rapidly.

My argument further predicts that as time goes on and the difference in per capita income between the richest countries and the poorest countries increases, the rate of catch-up growth that is possible should also increase, in other words, the countries that were catching up with Britain after the industrial revolution would not, if my argument is right, be able to grow as fast as the countries that are catching-up now if they are way below the highest-income countries in per capita income and that is in fact the case. Suppose you look at the four fastest growing countries on the European continent in the 1870s and the 1880s. These countries were catching up with Britain and they grew three tenths of one percentage point, each point faster than Great Britain did in that period. Now, let's look at the four fastest growing countries in the 1970s and the 1980s. The four fastest growing countries grew like 7% each points faster than the United States grew. In other words, the rate of catch-up growth is like 15 or 20 times greater now than in the 19th century. So, this is consistent with my vision that there are fantastic opportunities for growth out there for poor countries. Evidence for that is that some countries find these opportunities and take advantage of them and grow at fantastic rates and it contradicts the old growth theory and the indigenous growth theory.

See, neither of them predicted what we actually observe: namely the fastest growth in a subset of low-income countries and a faster rate of catch-up growth the larger the absolute difference in per capita income between a country and the richest country at the time.'

A. Clesse: 'Professor Steinherr for a follow-up comment!'

A. Steinherr: My worry is the following: I think nobody disputes that there are dollars out there, we know that the modern technology travels relatively freely and therefore it is a progress and nobody disputes that some countries are able to grab and others not. If you try to explain why can you grab and why you cannot, well, because some have a better organisation in doing it than others. Fine, what have we explained? I think the obvious, except if we cannot say what gives you the social capital that provides you with the possibility to grab and that we have not said. We have just said: If you are smart as a society, you will do better than if you are dumb as a society. And I think nobody will dispute that.'

M. Olson: 'That's a very apt criticism and I am trying to think of a very quick way to provide what I must provide to adequately answer your criticism. Now, the reason I have not, is that my views about what are the right institutions and economic policy are not such that I can describe them in a sentence or two. For example, if I believed that the familiar ideologies, any of them, summarise things, I could say all you need to do is have a right wing policy or a left wing policy or something like that but I do not believe either of those things, so I can not come up with any summary like that.

But let me try a summary with a new phrase, I would say that those societies grow fastest that have governments that are market augmenting. Now, you may say that is a contradiction in terms - governments augmenting markets - but I do not think it is a contradiction in terms. I believe that the governments that do the best job at enforcing contracts and maintaining property rights greatly increase the number of markets and the gains from social co-operation through markets. So that in a good first world country you will not only have good capital markets, people can borrow money, let us say over long periods, like 30 years, and know that the debtors' assets will be seized if the debtor decides not to pay that loan, that this is not true in the formerly communist countries to an approximation, it is not true in the third world. Markets in long term capital, private sector markets in long term capital are the exception in the second and third world. These are countries that do not augment markets and have next to no long-run capital markets. Now, this proposition holds even at a more elementary level you go to an anarchy, which is the poorest of all, then there is almost no market at all, right.

So then, a marketing augmenting government is the best single phrase answer I can get. Now, in ''The Rise and Decline of Nations' I go into an important consideration dealing with what I think is important, dealing with the extent to which their markets are augmented or repressed by activities of lobbies and cartels and that's the second element of the explanation. Since there are many different economic policies and many institutions, you can see I'm at a disadvantage in trying to be able to give a very brief answer to your question.'

A. Clesse: 'And there's the constraint of time, of course, for all of us. Let me see, who would like to ask a question or has a comment at this late hour? Professor Ian Mac Lean from the University of Oxford!'

I. Mac Lean: To speed some disquiet about bundling everything from economic policy to social attitudes into the heading of culture, how about a natural experiment which distinguishes between the two by desegregating below the level of the country, we talked about the country as the unit in this discussion. Consider the well-researched case of Italy, where generations of researchers from Edward Banfield in the 1950s to Diego Gambeta and Robert Putman in the last decade have said that there is something about the culture, not the economic institutions of Southern Italy, which is sufficiently different from that of Northern Italy to make a big difference to economic outcomes, would that, if viewed through the filter of your theory help to unbundle in a way that might be helpful to some of those who are sceptical about the way so many things are bundled into culture?'

M. Olson: 'That's a very good question. Notice that I treated per capita incomes of countries...