
Thank you very much indeed. And I have to say that as a member of this college, of Kings College, and as a student of two of Keynes's collaborators, Nicholas Kaldor and Joan Robinson, it's a particular pleasure for me to be here today.

I want to start just a little more broadly, by placing my remarks in the larger context of innovation in economic thought, of new economic thinking. I hope that when we meet again, as I trust we will, that there will be elements added to the discussion that have not been as present as they should be, in my view, so far. We should be having a dialogue for example with those who viewed the financial crisis fundamentally as a breakdown in the rule of law, particularly in the United States, and we should discuss the aspects and the evidence for fraud and corruption -- the criminological aspects and underpinnings of the crisis.

There should be more discussion, in my view, of the stock-flow-consistent accounting approach to macroeconomics that was led here and at the Levy Institute by Wynne Godley. This would help the Managing Director to understand that it's not quite logical to be happy with the rise in the savings rate at the same time that you're
unhappy with the budget deficit; they are two sides of exactly the same phenomenon.

It would be useful in my view as well -- and Rob and others have mentioned this in passing -- to spend more time on the problems of environment and climate change. If economics were broadened out to include the scientific community that is working on energy and the problem of energy return on investment, that would be helpful. And also those who are in the middle between economics, physics, and biology, working on biophysical models, which are extremely useful in understanding the effect of stability and instability on the structure of institutions.

And it would be useful to have some discussion of sociology and politics of the economics profession.

There are some things I hope we don't need to speak about again. In fact there are a few acronyms -- REH, EMH, RAM and DSGE -- for which my suggestion would be, at the end of this conference, let's take them out, bury them in the garden underneath the windows of the Keynes rooms, plant them over with garlic, and invite some of the young men who tried to come to lunch to stand over it from dusk to dawn, to make sure nothing comes back.

At the same time there have been some very good things in the mix. I was very pleased yesterday to see the network panel and I'm very
pleased and I'm happy to be here today to talk about the problem of inequality, which is my own specialty. To give you a sense of how difficult it is actually to insert this work into economic discussions, let me just note that there is no JEL classification code for the treatment I'm about to give you.

Rob placed this panel in an ethical context, and I was searching for an ethical inspiration. The Master spoke to me and I thought it would be best to begin with a few words from him. He wrote, in 1936, and I won't quote the whole thing, that while he was not entirely opposed to inequalities it was better, “that a man should tyrannize over his bank balance than his fellow citizens. But it is not necessary that the game should be played for such high stakes as at present.”

What I have done with a group of collaborators at the University of Texas, mostly with PhD students, over 10 or 15 years now, is in that spirit of open-minded skepticism to explore what the evolution of inequality actually has been over the period since the early 1960s. And we have come to the conclusion it is best seen in terms of global macroeconomics. That is to say, and to evoke another ghost who I think is unfairly down-rated in this field, Simon Kuznets, that it turns out that he was fundamentally right: Inequality is a curvilinear relationship related to the income level and this is a matter therefore of macroeconomics, and not so much of pressures one way or the other in individual labor markets.
Second, if one examines changes in inequality over time, one finds that they are driven, at least in part, substantial part, by changing inter-sectoral terms of trade -- that is to say, by the balance of market power between commodity producers and commodity consumers, and in particular and especially the dominant movements in inequalities of pay have reflected changes in the global financial regime.

Global factors indeed dominate the picture, so that the study of inequality at the world level tends to converge to the study of global macroeconomic events. In the U.S. there is a slightly different story because of the extraordinary importance of the capital markets. You will find that it is in fact the stock market that has driven American income inequality and I'll show you that at the end of the presentation.

This is our stylized view of the Kuznets relationship as it exists in the world today. There is an inverted U-curve in the developing world with only a few countries still largely agricultural and in the transition to industry that produces rising inequality. A great majority of middle-income countries are on a downward-sloping curve, such that as income rises rapidly there inequality would tend to fall. And then at the end of the “augmented Kuznets curve” - in the high-income countries there a tendency, because of their special relationship to the world economy as suppliers of advanced capital goods and financial services, for inequality to rise as growth proceeds.
So that one has -- if one observes and I think one does observe -- a tendency for income to diverge between the rich and the middle-income countries, while at the same time rising in one of the lowest income countries, you'll get a three-pronged upward movement in inequality. In the rich countries, because of the extraordinary importance of finance and technology. In the poorest countries, because of the rapid industrialization and urbanization. And in the middle-income countries because they are being driven backward by the widening of the global income dispersion.

Just to show you some evidence for the proposition that countries like Brazil are on a downward sloping Kuznets curve: here are some data relating the change in inequality measured to the change in the rate of economic growth. You can see a very clear downward-sloping relationship. There are a lot of countries that are in fact in that category.

We have over the years mined an enormous amount of information, starting with the United States, using both geographic local area personal income and standard industrial classifications (now the North American scheme) -- in order to take advantage of the richness of detail that are available from data sources that are not in fact the ones normally used for measurement of inequality. However, the measurements tend to be close to the census measures where census measures are good.
For countries like Russia, we have mined the Goskomstat databases, statistical yearbooks for China, national data sources in Brazil, Argentina, Chile, Mexico, and many others. We have used regional data sources for Europe to enable us to compute inequality not only within European countries but also between them and to begin to get some assessment of the level of inequality in Europe as a whole. And for the global economy, we have, in our most prominent work relied on the industrial statistics compiled by UNIDO. The last is a very useful standardized hierarchical data set; not covering all aspects of the economy but nevertheless covering what it does cover in a reliable and consistent way. So it has permitted us to develop a database of somewhere around 3200 country-year observations which gives you much more consistent and complete coverage than you can get in any other way, for example through the World Bank and later derivative approaches similar to theirs.

Our method in all of this is very simple and straightforward. It involves the use of the between-groups component of Theil’s T statistic, which is a consistent lower-bound estimate of inequality — something on which I will not go into in any technical detail. It's amply documented in the literature.

What I am going to show you now, to summarize very clearly, is what some of this evidence shows. And what I've done here is to create some maps in which the changes in inequality over a six-year period are given in a color code. So that from pink to red to brown you can
see decreases where they occur and from light to dark blue you can see increases. Of course the coverage of the map does vary from period to period according to how much data we in fact have and I used whatever tricks I could to fill in as much as possible in a reasonable way.

But what you can see is that in the earliest periods for which we have information, in mid 1960s, there is a very mixed pattern in increasing inequality in some countries and decreasing in others. As you move on into the 1970s, and in particular through the oil boom, an interpretable pattern in the world economy begins to emerge quite clearly. You can see that in the rapidly growing and prosperous oil-producing countries inequality is declining, whereas in the result of the stocks and recessions in Western Europe, North America, and consuming countries, inequality tends to increase.

As you move on into the late 1970s and early 1980s you begin to get into the age of the debt crisis. And what you can see now is that world economy the predominant pattern is for increases in inequality. They are most massive where the debt crisis was most severe. That is to say Latin America. I would call this, in Sorosian terms, the start of the superbubble.

And you can see that there is a significant area of exception. Which are India and China. These two countries were exempt from the debt crisis because they are substantially isolated from relationships
with the global financial system until the start of the 1980s.

As you move on into the mid 1980s and into 1990s what you find -- you may call it the age of the globalization. Not surprisingly as the Soviet Union came to an end and communism in its neighboring countries, the largest increase in inequalities occurred there and again in China. And it's still rising in most of the world. One significant exception this period is the Asian Tiger region where you see a geographically-unified pattern of declining inequality as that region experienced, through 1997, a boom driven by foreign direct investment.

One way of summarizing this information in a single diagram is to put the whole data set into a panel framework and to estimate a two-way fixed-effects model using the time effects as a kind of constructed time series. And so what you're looking at here is a measure of the movement through time of the common pattern of inequality within countries. This is not between countries, this is inequality within each country separately. The graph shows the common pattern over this whole period in the history of the global economy. And what's very interesting about, is as you can see I've written in the turning points, one of them corresponds pretty clearly with the end of stable exchange rate regime of the Bretton Woods period. There followed a period through the end of the 70s of declining inequality, the commodity and oil price boom, turning around with the debt crisis in the early 1980s, and then rising dramatically for a 20-year period
ending with the piercing of the internet bubble and 9/11 in 2001. There followed by a period of some decline in inequality running up through the middle part of the last decade and that's as far as we have data for the present time.

What's interesting about this pattern is that you can compare it to other ways of measuring inequality and here I'm going to steal a march on Branko by showing you one of his concepts of inequality. I'll call mine Concept IV to distinguish from his three, but if you look at his Concept I, it's essentially the same pattern. It also has a turning point around 1980 and its very sharp rise after that. If you look at a share of profits in the OECD over the same period again you find a turning point at the same moment. Suggesting that what we're doing here is nothing more or less is measuring different aspects of the same phenomenon: A vast increase in inequality within countries, between countries, and a shift in the share of income from wages to profits. So all of them can be seen as manifestations of the start of the Sorosian superbubble.

Okay. How much did it matter? Well, it's a fairly obvious econometric exercise looking at the OECD and the non-OECD separately, giving you a sense of what the range of variation is in the measurements from year to year. You can see that in the actual data which is on your left, the inequality rises in both groups of countries from the middle of 1980s. If you take out the common global pattern there would not have been any increase at all.
That is what I mean by saying that the predominant evidence is that there is not something going on here which can be traced largely to the idiosyncratic policies of particular countries but rather to their response to the global environment. They were all affected in various systematic ways by common events and they reacted in ways which were quite similar.

Did loose monetary policy cause the superbubble? Well, of course the moment when it occurred monetary policy was quite tight, and so the Master came back to me to say a word about that. He said “it would be absurd to regard a higher rate of interest as the appropriate remedy, for in this event the case of those who attribute the disease to under-consumption would be wholly established: The remedy would lie in various measures designed to increase the propensity to consume by the redistribution of incomes or otherwise.”

If you look finally at the United States, and what I've given you here in the dark continuous line is a measure of inequality computed across counties. There are 3150 of them in the United States, and this measure tracks very closely to any of the other measures you might come up with. But it's a nice one with lots of nice detail and I put it against the log of the NASDAQ stock market index. What you can see is that the two do coincide very closely through the peak in 2000 and the slump that followed through about 2003. There is some deviation afterwards and I'll come to that momentarily, but there is also a deviation in the 1980s which I would attribute probably to the
Tax Reform Act which redefined high incomes. There's the peak at the internet bubble, exact coincidence, suggesting for the United States it really isn't necessary to measure income inequality; you can read it in the morning newspaper -- in fact you can watch it on the CNN stock ticker if you wanted.

Broadly, just to draw my conclusions, the picture of the world economy that we have developed -- and again, this is a case of allowing the data to give us their best information -- does suggest, and I like the terminology of the superbubble, but it suggests that that superbubble was in fact, for most of the world's population, a supercrisis. That what you were seeing as a bubble in the advanced countries was in fact a reflection, a mirror image, of a great deterioration of relative income conditions in the poor countries in the world. It appears that this bubble did in fact come to a peak in 2000 to 2001, and the period since then, I think probably the most useful way to characterize it, especially in the United States, is as a time when there was ongoing effort, continuing effort, to revive the bubble to keep it going. That is to say the administration, the Bush administration took us into war in Iraq, it signaled to Congress that it would countenance any amount of public spending in 2004 to get through the election, and in this period it also deregulated and de-supervised the housing industry, the housing finance industry, mortgage originations, and encouraged and tolerated the takeover of that sector by the mortgage originators, whose aggressive, corrupt, and deeply fraudulent activities, when exposed, were certain to lead
the collapse -- the irrevocable collapse in my view -- of those markets. That's the process that I described in my book as the growth of a predator state, and I would suggest that it was this effort to extend the boom, which had already run its course, that led to the corruption of the financial markets that gave us the great crisis.

One final word from the Master: “Insofar as millionaires find their satisfaction building might and mansions to contain their bodies when alive, and pyramids to shelter them after death, or repenting of their sins, erect cathedrals and endow monasteries or foreign missions, the day when the abundance of capital will interfere with abundance of output may be postponed. It is not reasonable, however, that a sensible community should be content to remain dependent on such fortuitous and often wasteful mitigations, when once we understand influences upon which effective demand depends.”

Thank you very much. If you want more information everything, including all the data sets and a great many papers, many of them later published in the refereed literature, are on the website. If you're in the United States you can type in “inequality” into Google you'll get about 18 million hits. We were at number 11 last time I looked, and about the 2nd or 3rd that wasn't a pure mathematics site. We were also ahead of Harvard, Stanford, and Cornell: I would call that peer-review for new thinking.