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## Switching to More Realistic Macroeconomics and Better Policies

Around the globe there is considerable astonishment that a dozen banks - mostly US investment bankers – and a naïve Bush Administration were able to bring about a serious transatlantic banking crisis and a world recession thereafter. Part of the problem is related to inadequate macroeconomic analysis, part to ideologically motivated policy pitfalls. The efficient market hypothesis (EMH) argues that the price of financial assets reflects all relevant, publicly available information - implicitly markets for information are assumed to be efficient, and thus the EMH looks rather convincing at first sight. However, as KENNETH ARROW argued already in the 1960s, information markets are imperfect and could suffer from market failure, since revealing part of the information for free is a necessary step on the supply side to get business in information markets going at all. Information markets could work and indeed be characterized by competition, namely if suppliers have acquired reputation and strive to maintain such reputation. Taking a look at the leading rating agencies and their poor work from 2002 to 2006 – as pointed out by the USSEC Report -, it is clear that such rating agencies were often cheating the buoyant markets, probably under the assumption that nobody would detect this (and no USSEC Report would have been written in normal times, which suggests that there should be regular evaluation reports as well as random checks by government authorities on rating agencies in the future). In a nutshell, rational expectations assumes that you can cheat some of the people some of the time, but not all of the people all of the time. However, this conjecture is too simplistic for a world in which successful lead investors can cheat and easily make a fortune (e.g., see the Madoff case with its gigantic fraud of \$ 50 billion).

The world's capital flows clearly were misguided by criminally biased signals indicating a much higher yield on investment in the US than an honest reality could deliver. The EMH has a problem for the case that most market participants have a geocentric view of the world – which is wrong – and market actors thus make inconsistent plans for landing on the moon. Specifically, if all astronauts build their expectations on wrong assumptions/wrong models they will not land on the moon, but die in outer space; every analyst on that flight will swear that he or she was simply trying to beat the benchmark, but having the focus on a wrong benchmark is nevertheless foolish. In rational expectations models, the current banking crisis, in which so many managers of big firms refuse to quantify the medium term outlook for their respective company, means that the variances in all equations have enormously increased. Should we really believe that rational expectations models are useful regardless of how big variances are? Rational behavior in such an uncertain situation suggests that politico-economic agents would seriously reform institutions in order to get back to a world in which some critical value of variances is not exceeded.

The wrong assumptions among many thousands of major market participants, most of them bankers in big banks, at the beginning of the 21<sup>st</sup> century was to expect that one can achieve a long run required rate of return of 25% - the new benchmark of a lunatic group of Wall Street investors whose ambitions were a mirror of the 20+ % rate of return on equity of overleveraged and unregulated hedge funds in the late 1990s in the US. When teaching in 2007/08 at Sciences Po, Paris, I was struck by an analysis published by Patrick Artus – a leading French economist – and his co-author VIRARD, who released a book in 2005 whose French title was "The Self-destruction of Capitalism." The authors argued in their book, unfortunately published only in French, that a 20 to 25% required rate of return implied that banks would have to incur enormous risks, since financial markets offering typically 3-4% yields on risk-free government bonds will generate such high yields only on the basis of say 20% = risk-free interest rate plus high risk premium of 16%. Every prudential supervisor should understand this argument, though most have only an analytical background in Law. Some act without adequate research support and even the most basic understanding of the developments in leading OECD financial markets. For example, the 2008 BaFin report and its preface by Mr. Sanio, Germany's top prudential supervisor, is breath-taking, as he states that his institution had no idea what was even going on in the USA. So much ignorance and benign neglect has not been seen in decades, and financial globalization with such a blind institution as the BaFin is very risky. In fact, it is politically problematic that Mr. Sanio is still in office.

Much in contrast to Mr. Lucas's argument in the *Economist* on August 8, one may argue that there is no problem in creating a model which generates forecasts of sudden falls in the price of financial assets, provided that one gives up the standard assumption present in so many macro models, namely that households maximize utility – and firms profits – over a stable infinite time horizon. The time horizon of the marginal investor could fall dramatically in certain periods, for example due to a sudden switch in one's mood from optimism in terms of economic life expectancy to a much more pessimistic outlook. If there is a small group of lead investors and traders with a truly human face – not few of whom take drugs frequently, which makes it unlikely that they make consistent decisions most of the time – key assumptions of standard macro models are not met.

Medical detectives have found increasing amounts of cocaine in the Hudson River, the Thames, and the Main, and although it is not certain that these contaminants originate from the urine of the bowler-topped bankers and traders, one should not rule out this possibility

– anecdotal evidence from insiders indeed raises this specter. In no behavioral model of finance does one account for realistic behavioral patterns in financial markets. EMH is doubtful in many financial market segments, since insider trading is part and parcel of daily transactions – although few insiders would confess this save in private dinner parties. If trader  $X_1$  learns that, say, Mr. Sheik  $S_1$  is buying oil in the market, trader  $X_1$  will do the same, and he/she will benefit from this transaction, because  $S_1$  is big enough to certainly raise the market equilibrium price at least temporarily. There are many thousands  $X_2$ ,  $X_3...X_n$  and dozens  $S_2$ ,  $S_3...S_n$  in every financial market. This generalized but fragmented series of insider trading represents asymmetric information in financial markets, not publicly available information. Insider transactions of the type described imply that financial markets are not really transparent markets but rather are similar to goods markets with heterogeneous products, which implies that the marginal supplier in each sub-market market will have zero profit; this then gives the appearance of a perfect market with homogenous products because of the zero profit condition, but this perception is utterly wrong.

Mr. Lucas errs if he argues that central bankers or other policymakers could not identify and puncture bubbles. There is, of course, only a certain likelihood with which a group of central bank experts could identify an asset price bubble, but a 60% increase of the real OFHEO house price is so serious a price shock within a few years that central bankers would might consider raising interest rates strongly, or government might consider temporary taxation on quasi-windfall profits to puncture the bubble. Given, this would in some cases kill some perceived beginnings of a bubble which would never have truly become a bubble, but one would likewise kill dangerous true bubbles in their early phase of ballooning.

This precautionary principle is indeed implemented in airplanes, and most travelers would consider it ridiculous if air traffic companies would issue guidelines according to which pilots never should stabilize an airplane but rather should allow planes to stall and crash. Economists must learn from engineers here, yet those so-called financial engineers have not earned their titles; their testing of new financial products is so miserable when compared that done by real engineers. It is also untrue that the recession was pretty typical of the modest downturns of the post-war period until the Lehman failure as claimed by Robert Lucas. As a matter of fact, the risk premia in US markets were abnormally low from 2003 to 2006 as emphasized by Charles Goodhart in International Economics and Economic Policy. This implied that the cost of capital had been artificially low and hence the downward real interest rate bias implied that there was a problem of "growth speeding" in the US. Consequently, a recession would have to be expected that was more severe than in the normal case, since the cyclical downturn would be superseded by a downward correction of the excessive earlier growth rate, so that the economy would switch back to the natural growth path characterized by growth rate of output being equal to the real rate of interest (reflecting, of course, an unbiased rate of interest).

Hank Paulson, the then-US treasury secretary, had – much in contrast to Mr. Lucas' conjecture – no idea about the economic consequences of the Lehman failure of September 15, 2008. Paulson acted on ideological grounds, namely to prove to the Republican Party and the US public that banks can go bankrupt, which is a totally irresponsible experiment when dealing with a big bank (too-big-to-fail in an orderly fashion) in the midst of an international banking crisis. This was also totally inconsistent given the rescue of the smaller Bear Stearns bank. The fact that retired Mr. Paulson is now teaching at the Paul H Nitze School of Advanced International Studies in Washington D.C. begs for a very

strange sense of humor and indeed sheds doubts on part of the US university system. Many US - and European - business schools with their abundance of case studies are analytically unable to understand and model new setups of problems and their potential links. There is a lack of theoretical analysis which is much needed here, and indeed one should emphasize the virtue of solid theoretical analysis; this, of course, includes mathematical modeling of firms, industries, and economies.

Mr. Lucas argues that the recommendation of pre-emptive monetary policies on the scale of the policies that were applied later would be irresponsible. This argument totally misses the point since the key question is whether policymakers could have imposed rules or incentives that would have limited the potential degree of irrational exuberance or overaggressive striving for high rates of return on equity. A useful instrument for achieving sustainable growth and avoiding recurrent and serious roller-coaster problems in financial markets is to introduce a volatility tax, which I have explained this in more detail in the forthcoming work, International Economics and Economic Policy. The basic idea is to provide bankers with incentives for a more long-term investment strategy. Banks would pay taxes on profits on the one hand, while they would also be required to pay extra taxes on a high variance of the rate of return on equity on the other hand. Such a strategy would encourage bankers to think twice regarding the realistic numbers for a long turn yield on the bank's equity. Such a new tax regime – not necessarily raising the overall tax burden of banks – would be superior to government's discretionary intervention into bonus payments and other micro aspects of bank management.

The waves of central bank liquidity injections obviously favored by Mr. Lucas are doubtful. It would be much better to sharply focus on progress in improving the quality of banks' balance sheets. The banks themselves have created a market-for-lemons-type problem – to use Akerlof's famous expression from his article published in the 1970s –, as they increasingly pursued off-balance sheet activities which left no trace in the balances, and when the value of asset-backed securities parked in banks' special purpose vehicles (SPVs) became doubtful in August 2007 and commercial paper refinancing of SPVs collapsed, an increasingly negatively-biased quality perception of banks' assets was spreading in the overall banking sector. The interbanking market collapsed in the US, the UK, Germany and some other countries, and it has not yet returned to normal by mid-2009. It is clear that a mixture of totally unrealistic goals - such as the 25% required rate of return -, weakening quality of management in so many banks where top managers considered their respective bank as being too-big-to-fail, and increasing numbers of white spots in the picture of balance sheets of OECD countries added to so many contradictions that the non-system had to explode. Prudential supervisors in most OECD countries perhaps excluding Italy and Spain, however – are to blame for their wait-and-see attitude and often also for their impressive lack of research (e.g., in the case of the responsible authority in Germany, the BaFin).

The IMF is also to blame, as it was so weak that the Bush Administration was able to prevent the Fund from doing its standard surveillance work properly. The Financial Sector Assessment Program (FSAP) for the US was postponed by several years to 2009. The Western world is paying dear for so many pitfalls, and the historical switch from G-7 to G-20 is equivalent to the drowning of the Western kings and the rise of the new Asian heroes. Poor macroeconomic analysis and poor economic policy has caused a true disaster. Some macroeconomists like to build complex models before even considering the most basic problems in a simple setup and even the IMF likes taking a look at advanced stress testing before doing its proper homework, namely writing a Financial Sector Assessment Program

on the US. The FSAP for the US has been overdue for many years, and when it does come in 2009 – postponed under the pressure of the George W. Bush Administration – it will only testify that the IMF ignores its own mission of surveillance when it comes to certain big countries. Using different yard sticks totally undermines the credibility of the IMF, and there is no urgent need for analyzing higher dimension issues such as the reputation building of policymakers if the most basic elements of policy consistency and credibility are not observed by leading international organizations. Moreover, the fact that banks in the US and other OECD countries could engage in over-the-counter trading of risk and credit default swaps is almost too bad and too stupid to be true; that CDS could even be remixed in non-transparent ways with derivatives in complex CDOs is also totally unacceptable. Opaque, over-the-counter markets for foreign exchange is one thing; such markets for risks is another and indeed represents irresponsible behavior, because competition in its various dimensions – including the quest for reputation – can only work if there is full risk transparency (over-the-counter is thus a no-go option).

All financial asset prices will be distorted if the risk premia for specific assets and countries are biased due to a lack of market transparency in risk markets. Had the markets known that AIG was sitting on piles of CDOs related to the subprime market, the dollar would have depreciated early on and the US cost of capital – following the logic of the interest rate parity – would have increased. Finally, the face that Washington was unwilling to give a blanket guarantee for the British bank Barclays to take over the ailing Lehman Brothers shows that there is a serious lack of political will to take the tab in the case of serious financial globalization problems. As long as there is such political nationalism – and one can find it not only in the US, but in the UK and the Eurozone as well –, one should not proceed with broad financial market globalization. The probability that an international financial game with inconsistent preferences will result in a Pareto-optimum is zero, since the case of repeated games cannot be considered a learning mechanism here: Repeating the Great Depression or repeating the Transatlantic Banking Crisis and the following World Recession simply has far too many costs.