## In conversation with John Nash Jnr on Ideal Money

A conversation I was privileged to have with John Nash in June 2000 is posted below as a small tribute to a great man – di Yanis Varoufakis

Yanis Varoufakis: Professor Nash, in your talk on Ιδεώδες Χρήμα (Ideal Money, June 2000) at the Old Parliament House in Athens, you commented, in relation to the Eurozone, that membership of a club makes sense only if it is exclusive. (Greeks know this well enough since the earlier consensus among experts that Greece would not be allowed in, made the project of entry into the Eurozone particularly popular here.) Then you strengthened your claim by suggesting that if everyone joins an alliance, the alliance is absurd. But is it? Does a Grand Alliance not gain meaning if its establishment entails unanimous agreement by all members regarding its institutions? Is it not akin to a Grand Bargain over the precise mechanism for distributing gains? (Something like agreeing on the properties a cooperative solution should possess?) And if so, does a Grand Alliance not make sense as a framework for conflict resolution?

John Nash Jr: The words 'club' and 'alliance' do not have the same meaning. This is why in game theory we use a third word which also differs conceptually from the first two words: 'coalition'. It is of course true that it is possible to have a coalition between all the nations (or the states) of the world. The Universal Postal Union, with its Berne headquarters, is a good example. Mind you, it would be far fetched to refer to this union as a 'club'. I am not sure I can recall the precise phrase I used in my talk. Nevertheless, a truly Grand Coalition, that includes 'everyone', is an important and natural concept of game theory. It is the means by which an efficient (in the context of Pareto's definition) agreed resolution to disputes can be imagined following mutual concessions.

Yanis Varoufakis: Regarding your specific proposal (that is, a new Gold Standard based not on Gold but on a basket of suitably weighted material commodities), is your 'ideal money' meant as a proxy for transferable utility (such that the outcome of exchanges can become genuinely independent of the way payoffs are calibrated)?

John Nash Jr: The value of effective transferable utility is obvious. However, as far as contemporaneous transactions within the 'walls' of a domestic economy are concerned, the transferability of values can be eased equally well by ideal and non-ideal money. But when it

comes to inter-temporal, long-term transactions, e.g. mortgages, the difference between ideal money and typical European currencies would be somewhat intense, if not dramatic.

Yanis Varoufakis: If your proposal were to be adopted, much inter-state bargaining would take place regarding the weights to be attached to the various commodities making up the global currency (as nation-states would want to favour the commodities they are rich in). Given the changing conditions of technology, international trade and capital flows, are you confident that this tension would be resolved efficiently? In other words, are you confident that the Pareto condition is sensible in this type of bargaining problem?

John Nash Jr: Quite. The selection of the correct base, or index, for the construction of a value standard to be used as an international consumer price unit, founded on internationally traded goods, will be difficult to agree upon and inevitably raises many political issues. However, it is not substantially different to choosing a base unit, within a domestic economy, for measuring the cost of living (taking into account manufacturing cost and the cost of raw materials). Recently I became aware of the possibility that, besides metal prices, transportation costs could play an important role in shaping such an index. You can see, I am sure, that this would give Greek shipping a say in the formation of such an index.

Yanis Varoufakis: One might think, judging by your comments, that your responses of Keynesian views on money are underpinned by a strong principle of rational determinacy; that is, on the assumption that there exists a range of efficient equilibria in the global economy, and that the market will automatically, though non-cooperatively, home in on one of these equilibria. It seems to me that Keynes' point was that there exists no mechanism which can guarantee the implementation of such an optimal equilibrium. Indeed he thought that agents' beliefs, even when rationally deduced from the evidence available, are often inconsistently aligned. Such misalignment may very well lead investors, workers etc. to decisions which do not confirm everyone's plans; and if there is no guaranteed process guiding beliefs onto a Patero optimal path, the economy can be locked in a steady state of low economic activity (or aggregate demand). Keynes' point was that, under those circumstances only (and not when agents beliefs are in equilibrium with one another), to print money is not to produce 'bad' money. Put simply, at times of recession, the central bank prints money and, to the extent that this increase in money supply boosts economic activity and enhances belief equilibration, more goods/value will be created to correspond to the newly minted money. Is this an erroneous view of how market economies work?

John Nash Jr: It is indeed a Keynesian view that there are times when it is 'good' to print money (or to relax the central bank's restrictions so as to effect an increase in the money supply, regardless of how this is measured). Do Keynesians consider the possibility when the opposite holds? When there is a need for the money supply to shrink?

Yanis Varoufakis: Keynes certainly did believe that the government should tighten the reins during periods of boom, including a monetary tightening. Fiscal and monetary 'laxity' would only work, according to him, during periods of recession, the trick being to know when to phase out the 'loosening up', especially viz. fiscal policy. Do it too early and the economy chokes, returning (as in 1937 in the United States) back to recession. Leave it too late and you have inflation without any gains on investment or employment. Then again there is the interesting question if capitalism allows for such an optimal switching point – a question that some of us on the Left post.

John Nash Jr: This is why I think that, even if at a certain moment in time, the freshly minted money is not immediately 'bad money' (in Gresham's terms), it can soon turn into 'bad money' when it becomes part and parcel of the inflationary dynamic and the business cycle takes its toll. From what you are saying, Keynesian analysis turns on the difference between short-term and long-term analysis. I am a little sceptical of our capacity to make these distinctions. If a revolution were to take place today, replacing one regime with another, it is possible that many will benefit. However, it is also true that in eighty years or so it will be hard to measure, or even gauge, which of the benefits experienced by the population are due to the said revolution (and which to all the events following the revolution).

Yanis Varoufakis: You seem to lean toward those who place price stability above other objectives, such as full employment. Historically, price stability has benefited rentiers over wage and profit earners. Are you not worried that your proposal, assuming it would succeed in engendering near-perfect price stability, might alter the balance of bargaining power in favour of non-producers?

John Nash Jr: In the sense that rentiers receive fixed nominal income, you are right. Then again, under the assumption of rational expectations over prices, there are no rentiers, really, as investors choose between uncertain investment plans. This includes pensioners or those living on social benefits. In the United States, due to constant inflation, benefits were

indexed. E.g. the Cost of Living Allowance. It is a political agreement of great importance

because it tries to turn benefit and pension recipients into rentiers who have access to ideal

money. If national politicians, e.g. Greece's, fear that they will not have the funding necessary

to support a decent system of social security, then they will resort to certain tricks by which to

short-change pensioners. In fact, there was a time when the Nobel Institute invested like a

rentier, relying on constant returns. But then circumstances changed, it proved disastrous. The

main change was that they were forced to stop taking for granted the value of the Swedish

crown or of any other currency.

Yanis Varoufakis: Lastly, Professor Nash, would you say that money plays the same

role today as it did in pre-industrial, even ancient societies?

John F. Nash, Jnr: I think that the study of the history of money is truly worthwhile.

You are lucky enough to be located in Greece, and also close to historic Constantinople, west

of Midas and Ashurbanipal, etc. In other words, you are ideally located for such a study in

monetary history. Coming to your question: No, money plays constantly evolving role, despite

the continuity from one era to the next. Flux and Continuity. Presently, economists have

focused on the theoretical problem of replacing paper money by plastic of electronic money, as

well as on the repercussion of such a replacement. All this is happening against an interesting

historical background of money that is either degenerate or of good quality – over which some

ancient republic (for instance, Athens) or Empire maintained control.

Yanis Varoufakis: Professor Nash, thank you for bearing with my questions.