Is the Euro Crisis a False Mental Model?

Eric O'N. Fisher California Polytechnic State University

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It is alleged that Wittgenstein [9] had the deep insight that language is a game while he was watching a group of children playing soccer. A central notion in his philosophy of language is that meaning consists essentially in the interaction among people who have an implicit understanding of the shared social conventions. Language is not just a list of axioms, a grammar for constructing meaningful formulae, and rules of transformation showing how one proposition leads to the next. A language must have a *semantical* context. Its utterances acquire meaning in how they influence the actions of the members of a community.

This way of looking at language has deep implications for economists' models of financial markets. The idea that the madness of crowds is central to economic life is at least as old as Mackay [6]. It has been associated with the second generation of models of exchange rate crises.¹ Is there an element of crowd psychology, having nothing to do with economic fundamentals, that influences asset prices and thus financial markets more generally? Do Keynes's animal spirits really matter?

Cass and Shell [2] formalized these ideas in the simple Walrasian framework of an exchange economy. They dubbed Keynes's animal spirits *sunspots*, emphasizing that a sunspot variable was a publicly observable signal that had nothing to do with economic fundamentals. Their deep insight was that sunspot equilibria could not arise if there were complete markets in which every trader could participate. If traders worried about animal spirits and had access to a full panoply of

¹The first generation arose from the analysis of fixed exchange rate regimes [4]. The second generation is typified by exchange between Krugman [5] and Obstfeld [7], and the third generation is exemplified by Morris and Shin [8].

contingent claims, then they would seek complete insurance. In this case, extrinsic uncertainty could have no effect. Many economist wondered whether sunspot equilibria were just a theoretical *curiosum*.

Creating a controlled environment designed to mimic a simple market with no insurance, Duffy and Fisher [3] showed that animal spirits really do exist. Their key insight was that the semantics of a sunspot variable matters. Participants in financial markets do key on extrinsic variables, but there must be a common understanding of which–among a myriad of possibilities–is the animal spirit *du jour*. In the aftermath of the financial crisis of 2008, Buchanan [1] speculated that turbulence in global financial markets might have had to do in part with animal spirits.

For example, it was alleged having an NFC team win the Super Bowl was bullish for equity markets. If everyone believes that fact, then you short the market on the Monday after the Giants (an NFC team) win the Super Bowl at your peril. This sunspot variable works only because everyone knows who the NFC and AFC teams are and because almost everyone watches the Super Bowl. Animal spirits exist within a shared cultural context.

Failing to receive a bailout, Lehman filed for bankruptcy on Monday 15 September 2008. Financial market in the next five days were of course unsettled. But the Paulson Plan announced on Saturday 20 September and its subsequent very public initial repudiation by Congress on Monday 22 September, during the course of a national political campaign, brought the crisis to its head. The wording of the Paulson bailout and the manner of its promulgation may well have given the semantical framework that served as the common language for a sunspot variable in financial markets.² The rest, as they say, is history.

Are we watching a second act, in slow motion, of the financial crisis of 2008, with the drama being recast now on the stage of Europe? The ratio of Greek debt to GDP is certainly not a sunspot variable. It impinges on the path of future Greek taxes. An *unexpected* default by Greece will have real consequences because it consists in essence of a transfer of wealth from asset holders worldwide to the future taxpayers of Greece. But Greece is a small part of the Eurozone; its GDP

²The draft legislation of the Paulson Plan read almost like a war powers act. For example, its Section 8 sated in its entirety, "Decisions by the Secretary pursuant to the authority of this Act are non-reviewable and committed to agency discretion, and may not be reviewed by any court of law or any administrative agency""

in 2009 was less than 3% of that of the larger area. Perhaps the European Central Bank's focus on the fiscal solvency of several of the member states is creating a semantical framework for the latest round of animal spirits.

Greece is a much smaller part of the Eurozone than California is of the United States. California faces important fiscal imbalances, but it is inconceivable that a default on its debt–with no transfer payments among the several states engineered from Washington–would cause the "dollar zone" to disintegrate. A default on the debt of the State of California is a transfer of wealth from current bondholders to future state taxpayers. It might have minor national macroeconomic effects, since the labor market in California is about 13% of that in the national economy. But it would likely have a negligible effect on world interest rates or global financial markets. Thus it is hard to make the case the Greece's default on sovereign debt has a large enough real effect to rattle world financial markets. Perhaps the focus on sovereign default is creating a shared common culture of financial hysteria.

The European Central Bank is in an enviable position: its only policy imperative is price stability. This wise circumscription of its goals stands in sharp contrast with the Section 2A of the Federal Reserve Act, requiring the American central bank to accomplish the logical impossibility of achieving three goals of stable prices, full employment, and low interest rates with one policy tool.

Willett highlights several false mental models that he feels characterize the current crisis in the Eurozone. First, he underscores that the Germans believed that excessive fiscal deficits were the only problem facing Europe; of course, there are some countries with large current account deficits and relatively modest government deficits. Another of Willett's false mental models is that monetary integration is different from trade and financial integration. Willett also mentions in passing three other false mental models; (1) the monetary union needed to concern itself with only fiscal and monetary policy; (2) the Maastricht criteria were really enforceable after the fact; and (3) the European Central Bank did not have to concern itself with its role as a possible lender of last resort.

What would happen if the European Central bank just announced publicly that is not in the business of monitoring the fiscal solvency of the members of the Eurozone? The Maastricht criteria are now history, and there is nothing in the explicit structure of the European Central Bank that gives it authority over member states' fiscal policies. So one has to wonder if the most basic of Willett's such models is the implicit assumption that a monetary union *ipso facto* promotes fiscal cooperation.

In fact, the European Central Bank has four basic tasks.³ First, it defines and implements monetary policy for the Eurozone area. Second it conducts foreign exchange operations for that are. Third, it manages a portfolio of foreign exchange reserves. Fourth, it is responsible fro the smooth operation of payment systems within the commercial banking systems of member countries.

The European Central bank also has four ancillary tasks. First, it has the authority to issue banknotes for the Eurozone. Second, it coordinates the collection of statistics among the member countries. Third, it is responsible for financial (not fiscal!) stability and supervision. Fourth, it promotes international and European cooperation.

Nowhere in this list of eight primary and secondary tasks is there an explicit mention of the coordination of fiscal policies among the several (vestigially) sovereign states of Europe. In particular, worrying about the possibility of default on socalled sovereign debt is not within its bailiwick.

In the advanced economy of a pluralistic democracy, fiscal policy is necessarily re-distributive because taxes are progressive. Even if the central government provided only one public good-national defense-rich regions would pay on net, and poor regions would receive subsidies. This issue is of no concern to a central bank whose only charge is price stability. As soon as the central bank begins to buy "distressed" assets, it becomes an agent for the redistribution of wealth. The Troubled Asset Relief Program in the United States was administered by the Treasury, but when the Fed began buying financial assets other than Treasury securities, it transfered wealth among participants in world financial markets. There is no reason for the European Central Bank to repeat the same mistake.

In fact, the TARP was a transfer of wealth from the taxpayers of Montana, who received no funds, to those of Delaware, who received \$29,000 per capita. It would be hard to imagine a popularly elected official in the European Union who could say to the people of Germany, "You are being taxed to pay for the social welfare benefits of Greece or Spain."

³See http://www.ecb.int/ecb/orga/tasks/html/index.en.html.

What then are my tentative conclusions? Financial architecture and financial regulation may be the most important issues facing modern central banks in the next decade. Proper financial architecture is crucial not because some institutions are too big to fail but because complete contingent claims obviate the possibility of sunspot equilibria! If a central bank wants to eliminate financial market turbulence, it should make it abundantly clear that it is not in the business of coordinating fiscal policies but it may be in the business of making financial markets more transparent and thus more complete. The European Central Bank should reiterate that its only goal is price stability, and then it could well trumpet its fine record in maintaining low inflation in the last decade.

If Europe is really serious about the harmonization of fiscal policies, then the stage is set for a radical political reform. Europe should seek a cure well outside a monetary union. I propose the creation of a popularly elected Chief Fiscal Officer of the Eurozone. He or she would stand for election every four years, long enough to ride out one usual business cycle. That office would be given a budget and the trans-national authority to tax. It would issue bonds denominated in euros, and it could conduct re-distributive fiscal policy among the vestigial nation states. The real constraints of a popular election might well impose the fiscal discipline that were at the foundation of the Maastricht criteria.

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