COMMENTS ON SESSION II: PUBLIC DEBT AND FISCAL RULES

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These eight papers are both enlightening and very stimulating. Together, they enrich one another, by providing various viewpoints on the difficult subject of the market and non-market responses to government's debt and deficit.

Even if this session comes three years after a whole Bank of Italy seminar has been dedicated to fiscal rules and their respective efficiency, and in spite of now many years of theoretical and empirical research, the topic remains a controversial one, partly due to the political heat that sometimes surrounds it, but mostly to the difficulties faced by anyone who tries to disentangle the various implications of fiscal policy. Credit must be given to all papers presented here, for bringing some objective light to this intricate debate.

Rather than trying to comment every paper in turn, I would like to provide some general impressions and interrogations after this session.

1. Three possible analytical frameworks

My first observation relates to the analytical framework, which is more or less implicitly assumed by most papers, which is a mixed one, in the sense that we cannot refer to the simplest models.

For example, as stated by Laubach's paper and by the Bank of Israel paper, if we assume that the households are 100 per cent Ricardian, most of the issue disappears. Additional deficit is taken care of through additional private saving providing for forthcoming additional taxes. In this pure Ricardian framework, the deficit does not have any effect at all on activity, and no effect either on interest rates and risk premiums, if adequate provisions are made for additional liabilities. In other words, in the Ricardian world, deficits are useless, and so are fiscal rules, and the market does not care anyway.

Of course, even this Ricardian world becomes more sophisticated as soon as taxes have some distortionary effects. But still, the market response to deficit is likely to remain of a second order magnitude, and the need for fiscal rules not to become overwhelming.

At the other end of the too simple theories, you can imagine a totally non-Ricardian world, let us call it a Keynesian world to simplify, in which public

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spending is not directly compensated by private savings, then putting future tax increases and debt repayment at risk. If the market worked perfectly, interest premiums should reflect the additional risk, in which case in theory you do not need fiscal rules either. Conversely, if the market does not work at all, the risk is not priced at all in bonds premiums, and additional appropriate non-market interventions, such as fiscal rules, are needed to protect investors and taxpayers from government's profligacy.

To summarize, we are somewhere in the middle of three extreme worlds:

- World #1 is a Ricardian world, featuring little or no market response to deficit, and little need for fiscal rules.
- World #2 a Keynesian world with perfect markets, featuring high market response to deficit, but little need for fiscal rules.
- World #3 is a Keynesian world with very imperfect markets, featuring little or no market response to deficit, but high need for fiscal rules.

While the description of each world is simplistic, it may still be useful to try to position each paper on this simplistic map. So, after reading these eight papers, the question is: in which of these worlds are we? Since all papers seem to agree with the need for fiscal rules, the answer would simply be that they assume to be in World #3, or not very far from it. Then the next question is: are the findings of the papers about the market response to deficit consistent with this rather Keynesian model with very imperfect markets?

2. The market response to fiscal deficit

All papers are of the opinion that fiscal deficit matters, but none is really sure whether financial markets agree much with that opinion. Actually, most empirical papers find that the markets do agree that deficit matters, but only feebly, in the sense that a 1 per cent of GDP deterioration in the fiscal position does not seem to trigger much more than a quarter percentage point increase in the spreads on bond yields. This quarter point order of magnitude can be found in three central banks papers (of the Federal Reserve, of the Bank of Israel and of the Bank of Italy), as well as in Faini's paper for the Eurozone. Other papers also mention possible higher responses of about 50 basis points.

The striking fact is that all papers also seem to find that this is a rather low response of the markets to fiscal laxity. Is this the case? Putting together figures from the various papers allows us to do some back of the envelope calculations.

Assume 1 percentage point of GDP deterioration in the fiscal deficit. Let say that this involves a 25 basis point increase in the 5 years bonds yield. According to the ECB paper, 5 years is more or less the median maturity of the public debt in EU, the US or Japan, which means that the 25 basis point increase in the yield translate into an immediate increase in the annual cost of total public debt of about 5 basis points. For example, with a debt equal to 40 per cent of GDP, an additional 1 per

cent of deficit-to-GDP involves 5 base point times 40 per cent, that is an additional cost of 0,02 per cent of GDP. In other words, the market levies a kind of fine on the additional public deficit: 100 euros more deficit involve an immediate additional cost of 2 euro in that country.

Note that this cost is going to last for a while: as long as the debt issued during the deficit year. Still assume a 5-year duration, and you get 5 times 2 euro, that is 10 euro. Allow for some discounting over time and you remain with about 9 euro. That is the present value of the total cost inflicted by the market to a 100-euro increase in the fiscal deficit during one year. In other words, the market penalty for deficit is about 9 per cent.

The nice thing is that, even with this very rough assumption about a flat response of bond yields to the current deficit, the market pricing of deficit is indeed increasing with the initial level of public debt. The implicit rate for the market pricing of deficit is proportional to the level of public debt, going from 9 per cent for a 40 per cent debt-to-GDP ratio, to 22 per cent for a 100 per cent debt-to-GDP ratio, for example.

Is such an order of magnitude high or low? It is difficult to say, but it does not strike me as particularly low for at least two reasons. First, the way the market response is measured may exhibit a downward bias. Second, this 9 to 22 per cent penalty that the market put on public deficit does not look completely out of proportion with what we know or what we usually assume about the level of negative externalities. Both reasons have to do with cross-border effects.

3. The downward bias in measuring the market response

The papers by Faini and by the Bank of Italy are the only ones to address explicitly the Stability and Growth Pact, but international spillovers of fiscal deficits are also mentioned in others. However, all consequences may not have been drawn from the recognition of such spillovers, except maybe in Faini's paper.

First, the possibility of international spillovers is well debated in a monetary union, but the channels through which they are conveyed does not seem to be limited to the existence of a common central bank. For example, according to the ECB paper, foreigners now typically hold more than one third of the public debt in big developed countries, including Europe, which is not very surprising given the high level of integration of the financial markets. This means that, even without a common currency, an increase in default risk in any country will be felt on the stock of debt held by foreign financial institutions. Propagation of debt crises in developing countries often followed this pattern, and there is no way to discard it altogether in developed countries, where the financial markets are more intertwined.

Second, of course, in a single currency area, the spillovers are amplified by the common monetary response to fiscal deficits. It dampens activity in all countries outside the culprit country, and may make their raising taxes more costly. In other

words, a general raise in interest rates, both short and long term, can be expected everywhere in the monetary union. A lower increase may also be expected outside the monetary union to reflect higher risk taken by financial institutions, if bailing-out cannot be excluded.

Put together, this means that it is difficult to find an exogenous benchmark against which you would measure the increasing spread of the deficit-making country, since other countries' spreads are likely to be affected too. So, when you measure the spread, as it is measured in most papers, you are likely to underestimate the market response to the initial increase in the deficit.

Actually, it is probably underestimated twice. First, the difference in spreads is underestimated because the benchmark has increased too. Second, part of the market reaction takes place outside the country that is responsible for the deficit (and possibly outside the benchmark zone), and this part is neglected in most papers, which compare only the deficit-making country and the benchmark.

Only Faini's paper takes those effects into account in the Eurozone, to find out that they are huge: the apparent market response is multiplied by a factor of 5 to 7, compared to the country-specific estimates.

4. The adequacy of the market response

Assume there were no downward bias in the measurement of the market response, so that the market pricing of deficit is actually 9 to 22 per cent. The question is: is it inappropriately low? To answer you need a benchmark against which the 9 to 22 per cent figure is to be assessed?

One possibility is to look at what is embodied in common macro-econometric models. Most of these macro-econometric models are of Keynesian inspiration, at least in the short term, and they also assume international spillover effects of fiscal policy in the euro area. So, to get an idea about the importance of the spillovers, in the French Ministry of Finance, we ran the Nigem model of NIESR.

Without surprise, this model tells us that an additional 1 billion euro of fiscal deficit somewhere in the euro zone is to trigger an additional raise in short-term interest rates by the European Central Bank. This, in turn, would reduce the total GDP of the euro area by 50 to 200 millions euro, compared to the situation without monetary tightening. The latter figure depends upon the country where the additional deficit took place and upon how this deficit is expected to be compensated for in the future.

This provides a tentative order of magnitude for what is implicitly put as negative externalities of the fiscal deficit in a standard macro-econometric model. This order of magnitude is 5 to 20 per cent of the initial additional deficit.

Imagine for a moment that, instead of the Growth and Stability Pact, we had decided not to forbid the excess deficit, but just to tax them, with a dissuasive

Pigovian tax, to be used as a disciplinary signal. Then, the level of this Pigovian tax should have been set at the level of the negative externalities of fiscal deficits. If you believe the previous simulations by the model, the tax rate should have been set between 5 and 20 per cent.

This imaginary Pigovian tax level can now be compared with the penalty inflicted to government by the national market response, that is the 9 to 22 per cent inferred from the papers presented in this session. The interval for the market response is strikingly similar to the interval for the adequate disciplinary signal.

Keeping in mind that the national market response may also have been underestimated because of the lack of a proper benchmark, the bottom line is that the market response to fiscal probably plays a significant role as disciplinary signal. This role may even be more than enough to internalise cross-border externalities of deficits.

5. The rationale for fiscal rules

To conclude, we can go back to the three stylised worlds. At first glance, most papers seemed to point at World #3, that is a Keynesian world with markets that were not very good at pricing deficits. But this view is not supported by the empirical work presented in those same papers. Since the market response does exist, World #1, that is the Ricardian world, must be rejected. And since the market response does not seem so inappropriate, the world we are the closest seems to be World #2, that is the Keynesian world with well functioning markets.

In this world, the need for fiscal rules is much less pressing than in World #3. Still, even with a market response in line with the notional Pigovian punishment on deficits, there are a number of reasons why fiscal rules may be useful. Here is a tentative list inspired by the papers:

- Because of international spillovers, not only the culprit is punished by the market. Well-designed rules are certainly needed in a common currency area, and even in a common financial market area.
- Since it goes through interest payments on new debt issuances, the full market response takes time to be perceived. If the duration of new debt is longer than the political cycle, an additional disciplinary device is needed.
- If the market response goes only through the cost of new debt, less indebted countries would receive too low a signal. But the eviction effects and some of the spillover effects do not depend upon which country is running a fiscal deficit. Contrary to the intuition, that involves that fiscal rules may be more needed to discipline lower debt countries than for highly indebted ones.
- The econometrics in the various papers does not come out easily. That means that, even if the market punishment is right in average, it may well be badly wrong most of the times. If so, a good fiscal rule will be better than too shaky a market response.

- Most crises are launched by shifts in expectation. That is a thoroughly non-linear phenomenon, which may or may not be well priced by the market, but which is certainly poorly captured by standard econometric tools. Fiscal rules help anchor expectations and prevent such sudden shifts.