COMMENT TO "THE EFFECT OF LOW INFLATION ON PUBLIC FINANCES" BY MARIA GRAZIA ATTINASI, VLADIMIR BORGY, OTHMAN BOUABDALLAH, CRISTINA CHECHERITA-WESTPHAL, MAXIMILIAN FREIER, GEORGE PALAIODIMOS, DORIS PRAMMER, PIETRO TOMMASINO AND JOCHEN ZIMMER

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1 The context for the paper

As known, almost all 20 century's economic crises – particularly as of the seventies – originated in developing and emerging countries due to their weak macroeconomic fundamentals and mainly included the following ones:

- Energy crises in the seventies (Δ in oil prices due to wars in the Middle East)
- Debt crisis in the eighties
- The Asian crises
- The Russian crisis
- The Real crisis in Brazil
- The Argentine default following the exit of convertibility (year 2002).

In most of the episodes mentioned above, public sectors were held responsible for irresponsible or unsound fiscal policies, paving the road for financial crises whose negative impacts were in turn internationally transmitted as international organisms (in particular the IMF) were forced to take responsibilities as lenders of last resort.

Conversely to what has so far being mentioned, developed countries' crises of years 2007-09 revealed three specific and worth emphasizing features:

- For the first time, emerging and developing countries were not to be blamed nor they shared responsibility for the events and they rather suffered the negative consequences via the reduction of their exports to developed countries.
- Developed countries' public sectors were not held responsible for the crises, unless the hypothesis is upheld that they failed in their regulatory role and responsibilities.
- Clearly, the financial sector was held responsible for the bubble, whose origin must be sought at the unsound credit policies towards borrowers (in the case of mortgages) and the toxic assets that thereafter spread up throughout financial and insurance institutions' balance sheets.

Needless to say, the 2007-09 international crises brought about disadvantageous consequences for many developed countries in America and Europe as, in the first place, the resulting dwindled private demand deepened the contractive phase of the cycle; likewise, international crises impaired their growth possibilities and increased unemployment rates and, finally and due to the recession and the lack of economic growth, the burden of debt went up placing countries in a difficult situation as far as sustainability was concerned. In this context, developed economies subject to pronounced deflationary pressures (both for low or negative inflation shocks) faced to opposing scenarios: a) to aim at fiscal consolidation, based on fiscal discipline and public reductions, and b) to resort to counteracting discretionary fiscal policies in

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order to check the effects of recession (mainly upon consumption) and seeking also to boost growth, should a lower and sustainable relative debt burden was to be obtained.

Let it be mentioned that the quoted Dilemma was extensively discussed by Cherif and Hasanov[1] in this same workshop 2014 when, after acknowledging that low inflation shocks worsened Debt/GDP ratios (denominator effect), these authors wondered whether grounds existed to believe that – in dealing with the impact of low or negative inflation shocks – the story could only partially told if fiscal consolidation and growth considerations were not both included into the analysis. Cherif and Hasanov's suggestion seems to be applicable as the paper here being commented also dealt with Debt Sustainability Analysis.

2 The paper's objectives and content

As the authors pointed it out, the paper intended to assess the impact of unanticipated disinflation shocks upon Fiscal Balances and the Debt to GDP ratio. In pursuing the mentioned objectives, a thorough revision was carried out of the standing literature related to the channels through which unanticipated disinflation shocks affected fiscal outcomes (that is, primary public spending, tax revenues, market interest rates and real debt stock). They conceptual framework developed was next used to assess the performance and policy implications in five Euro countries: Germany, Italy, France, Austria and Greece, for what three transmission channels (primary balance-primary expenditures and tax revenues and interest-rate channels) were resorted to for the carried out country-specific simulations on the effects of disinflationary and negative inflation shocks that accompanied a debt sustainability analysis.

With reference to the analytical content of the paper the authors, after quoting different empirical evidences of the impact of unanticipated inflation shocks upon the debt/GDP ratio, resorted to the known theoretical background in order to recall channels through which inflation affected fiscal outcomes, as for instance the real debt stock; market interest rates or primary public expenditures and tax revenues and particularly focused in the first one.

The ensuing interesting analytical development departed from the well known dynamic debt accumulation equation split as shown below in order to represent the total debt to GDP ratio as the sum of b^S and b^{NS} ratios which respectively expressed the portion of debt sensitive/non sensitive to inflation:[2]

$$b_t^{TOT} = b^S{}_t + b^{NS}{}_t$$

After rearrangement by the authors, the dynamic debt accumulation equation changed into the following expression:

$$b_t^{TOT} = [(1 + r)/(1 + n)]b^S{}_{t-1} + [(1 + r^*)(1 + \pi_t^{exp})/(1 + n)(1 + \pi_t)]\, b^{NS}{}_{t-1} - pb_t$$

in which n stands for the real growth rate, r and r^* are the real exchange rates respectively expected by investors on b^S and b^{NS} portions of the total debt, π_t^{exp} indicates the rate of inflation in period t expected by investors in period t–1 and pb_t is the primary balance to GDP ratio at period t.

The new presentation goes beyond a simple rearrangement of components of the debt accumulation equation, in particular as it permits now to highlight interesting features regarding the paper's objectives. Let it be noticed that the first term on the right hand side reflects the portion of the total debt "whose cost is inflation-sensitive" and that, by being the sum of the outstanding debt

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1 Cherif, R. and F. Hasanov (2014), "Public Debt Dynamics: The effects of Austerity, inflation, and growth effects", International Monetary Fund, Washington (D.C.).

2 As illustrated in the paper, b^S included short term debt, foreign-currency denominated debt, long-term variable-interest or inflation-indexed debt whereas b^{NS} only stood for domestic currency-denominated, long-term, non-indexed debt.

from the previous period, it depends negatively on inflation and also on interest payments which depend in turn positively on inflation; these two opposing effects upon the debt-to-GDP ratio cancel out.

Furthermore, the second term depends negatively on inflation when the period t inflation is unexpected, whereas the real interest rate r^* may decrease if inflation increases (in line with the second channel whereby inflation affects fiscal outcomes). In sum, the sensitivity of the debt ratio to the rate of inflation is a function of the debt's size and structure but depends also on the pass-through from low inflation to nominal interest rates.[3]

3 Some interesting conclusions from the paper

- Although disinflation tends to worsen fiscal balances due to spending rigidities and indexation, accompanied by a greater fall in tax revenues, the impact on the public finances of countries analyzed seems to be rather limited. Particularly due to the overall positive fiscal drag. Nevertheless, the authors showed that country specific features matter.
- Conversely, the impact of a negative inflation shock upon public finance is more pronounced due a higher rigidity in government spending and the contraction of GDP (negative growth rates).
- On the other side, the relative debt of burden, via the denominator effect, can increase, which can be partially compensated if low inflation shocks reduce the interest rate which will be applicable to newly issued debt.

Likewise, the performed Debt Sustainability Analysis presents interesting conclusions on the impact of shocks upon the GDP deflator growth, primary balances to GDP and marginal interest rates, on the basis of scenarios for a permanent shock of 1 per cent, a temporary shock of 1 per cent and a deflationary shock.

4 A final comment

The paper discussed has neatly been written and the adequate depth and equilibrium between the analytical and empirical sections contributed to strengthen the policy implications of achieved results; that being said, the point must be mentioned that multivariate analysis was resorted to by the authors, using panel regression and country fixed effect in order to assess the impact of low inflation according to the different mentioned channels. In this connection, and mainly intending to contribute to the discussion, the point deserves being mentioned that it is not evident from the text whether the multivariate analysis was used only for evaluating the sensitivity of the debt to GDP ratio to the inflation rate (pass through < 1 or = 1 from low inflation to nominal interest rates) and if panel regressions were also carried out in the case of fiscal variables.

Finally, it would have been interesting to count with the regressions results that assumedly backed figures presented in the various tables.

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[3] An interesting point proven by the authors was that the value of the elasticity of debt to inflation was in turn influenced by the value reached by the pass through.