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Towards Pluralism in Macroeconomics?

MACROECONOMICS IS SHIFTING. WHAT'S THE RIGHT DIRECTION?

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Revised draft

On the occasion of its 20-year anniversary conference the FMM network asked a number of questions including *'What has changed in the two decades since the foundation of the network? What are the improvements in modelling the economy in orthodox and heterodox approaches?'*

This brief paper is my own reflection on these questions, viewed from the perspective of macro and monetary economics. It begins by comparing the current crisis of macroeconomics with the one of the 1970s. It develops the argument that the 1970s shift to Monetarism was a regression that did not address the true shortcoming of 1960s macroeconomic policy.

With an unclear direction, macroeconomics today is at a crossroad. This is because while the mainstream policy toolbox has remained unchanged in the aftermath of the Great Recession, a number of its pillars have been undermined.

It concludes with one policy statements that is at odds with the current well-established, orthodox view, and yet may soon become orthodox when supported by additional formal literature: The quantity of 'money in circulation' that matters for aggregate demand is set by fiscal policy, not by the central bank.

1. In the last two decades, much has changed in macroeconomics. If a mainstream macroeconomist named Rip Van Winkle had gone to sleep in 2000 and awoke today, he would hardly recognize what he sees. In 2000, popular topics in macroeconomics included the end of business cycles, the celebrated 'Clinton surplus', the coming end of public debt, and the outlandish question (some of my readers may recall this?) of how the Fed would conduct open market operations when government debt has been fully paid off. In that context, the belief that money-printing power should be constitutionally severed from governments to prevent the buildup of inflation overhang supported the case for balanced budget fiscal policy. This also strengthened the case for Europe moving to the single currency with a rigidly constrained fiscal stance that was supposed to suit all seasons and cycles.

This set of beliefs meant that macroeconomic stabilization policy should only be the responsibility of a central bank maneuvering key interest rates on the basis of a publicly known reaction function, independent of government pressures. By contrast, counter-cyclical fiscal

policy should only be limited to automatic fluctuations on condition that these do not impact on the government capacity to pay off its debt without ever printing money. This was the state-of-the-art in macroeconomics when Rip fell asleep.

2. Today, Rip van Winkle would hardly have a clue to decode the unfolding of events, when he fathoms that the world economy, following those allegedly remarkable achievements, has lived through a near repetition of the Great Depression, that public debt is now much bigger than it was when he went to sleep, that central banks now own massive quantities of it, that a number of beliefs that he had held, such as the money multiplier, have been declared dead by central banks, that an unprecedented massive increase in banks' liquidity has caused no inflation, that the world economy is still stagnating, and that proposals that central banks use 'helicopter money' are no longer considered preposterous. Yet, Rip would not find a new, modified 'consensus opinion' among macroeconomists, and would find that views are now split between a defense of the pre-crisis 'consensus', attempts to enhance the pre-crisis approach with ad-hoc extensions, and an array of alternative views pulling macroeconomics in different directions.

Nevertheless, and although the current diversity of views does not facilitate a smooth change towards a new paradigm of macroeconomics, the Great Recession has offered a grand 'natural experiment' where a number of propositions and predictions have been tested, including the belief that central banks are in the best position for steering the economy along its long-term path. While a number of myths seem to be crumbling (money multiplier, the intermediary role of banks between savers and investors, the inflationary effect of monetary financing, etc.), we are facing an opportunity to reconfigure the policy toolbox for dealing with economic fluctuations under the current institutional setup.

3. The Global Financial Crisis and the Great Recession have triggered a crisis of macroeconomics not different from the one that followed stagflation some thirty-five years ago. In the 1960s, just like in the 1990s, hubris had led economists to believe that they had defeated the business cycle for good. In the 1960s, it was the fine tuning based on IS-LM models that was supposed to deliver stability. In the 1990s, the 'Monetarist-Keynesian consensus' delivered the 'Great Moderation' and produced the belief that the problem of how to prevent stagnation had been solved 'for decades'.

Yet, both times, the economy underwent serious turbulence and the policies that seemed to have solved the problem proved inadequate to the challenges presented by unexpected realities. In the 1970s, the 'neo-classical synthesis,' with its faith in forecasting and macroeconomic 'fine tuning,' succumbed to stagflation, and the Monetarist paradigm quickly came to prominence. By the 1990s, Monetarists and their descendants— the rational expectations and New Keynesian models—had convinced themselves, and policy makers, that they could stabilize the economy for good, and that policy intervention beyond interest rate adjustments and inflation targeting was no longer necessary. The Financial Crisis of 2007-8 and the subsequent "Great Recession" were a wakeup call that, just as in the 1970s, instability was not gone and that a new paradigm for running the economy was needed.

4. There is also one major difference between the two 'crises of macroeconomics'. In the 1970s, Monetarism offered an immediate alternative to the dominating ISLM paradigm. This

was not only thanks to its vocal leader based in a prestigious institution (i.e., Milton Friedman at Chicago), but more importantly it was because Monetarism was not a complete overhaul of the ISLM model. Monetarism was an offspring of the Keynesian economics of the time, aimed at providing a more complete picture. Friedman's powerful narrative was that Keynes was 'rigorous and sophisticated' and yet he misunderstood the importance of the quantity of money. So Monetarism was supposedly one step forwards when it claimed the ability to fix the three main flaws of Keynesian economics: the theory of inflation, the role of expectations, and policy effectiveness in the long run.

These were precisely the same three questions that Post Keynesians had raised in their critique of the ISLM model. Differently from the ISLM model, they argued, Keynes had a theory of inflation, assigned an important role to expectations, and did not believe in a mechanical application of policy actions. According to the Post Keynesian critique, the major shortcoming of the ISLM approach was its inability to capture the characteristics of a monetary production economy, that Keynes had so vividly acknowledged.

5. Monetarists' solution to these flaws, however, was different. They addressed these three questions, respectively, by bringing back the quantity theory of money into Keynesian money market analysis, by introducing a time lag for expectations to adjust to new information, and by advocating a monetary policy rule that would offer a credible alternative to government discretionary policies. Like any new successful theoretical reformulation, the Monetarist model offered an explanation of why the old theory had become obsolete, and explained why ISLM-led policies had been temporarily successful and why they eventually failed. This explanation centered on the inflation-augmented Phillips curve.

Although the spirit of the Monetarist approach was labelled 'money matters' to reflect the emphasis on the consequence of the quantity of money, the Monetarist model did not address and was not prepared to include a serious analysis of how monetary and financial relations affect the real economy. In public debate (initially) and by disregard (subsequently), Monetarists rejected all Post Keynesian critical contributions, regardless of the ambiguous empirical evidence of Monetarist statements.

6. For the Monetarists, the prime mover of aggregate spending was no longer the injections-leakages model. Monetarism discarded the original Keynes's notion that aggregate demand depends on leakages and injections and there is neither a price nor an interest rate adjustment mechanism that can ensure that the two match at full employment. For the Monetarists, the prime mover of aggregate demand became the difference between actual and desired real money balances.

This was the sense of 'money matters'. For the Monetarists, money is a convenient means of payment in an economy where individual agents' behavior is not dissimilar from the one prevailing in a barter economy. Yet, if money is mismanaged by the issuing authority (by making it too scarce or too abundant), people get confused with the level of prices, and the economy deviates temporarily from its optimal path. Such costs can be avoided if the central bank chooses not to use its discretionary power as the currency monopolist, and instead complies with the principle that money is ultimately a spontaneous creation of the market, and thus its task must be that of providing a quantity that is compatible with price stability ('sound money').

7. Monetarism thus shifted macroeconomics in a new direction by stressing a quantity-theoretic view of monetary policy. The importance of aggregate demand that had been stressed in Keynesian models was acknowledged, and was explained as being driven by the quantity of money triggered by central bank policy, through the money multiplier. For the Monetarists, the central bank, and only central bank policy, can trigger spending. Government issuing bonds to finance a deficit only builds up a spending overhang in case government chooses to monetize debt. Only monetized fiscal deficit spending could, for the Monetarists, be effective on aggregate spending, and this was because of its monetary component, not of the deficit per se.

This position was reinforced by a different, yet concurrent, logic. Because a rising public debt reflects a rising inflation overhang, the size of government budget deficits should be carefully checked (Fischer). Yet, representative democracy is likely to be ineffective in checking government budgets if electors are biased towards deficit spending if this has some short-run expansionary effects (Buchanan). Thus, deficit size should be disciplined by a constitutional rule that is hardly modifiable at will by the government. Once this is in place, electors understand that any deficit spending will be offset by future taxes, and deficit spending becomes wholly ineffective in the short-run as well (Barro).

8. The transition from Monetarism to the 1990s policy consensus went through two further modifications of the model. One addressed the Monetarist assumption that people always need time to understand the consequence of monetary policy, i.e., the inflationary effect of an expansion of monetary aggregates. Assuming rational-expectations, the 'new Keynesian' (or neo-Monetarist) models explained market failures with market rigidities and imperfect competition. The other addressed the question of the usefulness of monetary aggregates as monetary policy guidelines. Monetary aggregates lost their appeal when it was acknowledged that central banks directly control policy interest rates, not the money supply. Contrary to Friedman's money growth rule, central banks then converged towards strategic and operational models where the policy tool is the interest rate.

Thus, the consensus macroeconomic policy toolbox came to include one single active policy with one corollary. The active policy was the central bank's responsibility of setting a policy rate in response to expected inflationary pressure so as to steer the economy along its sustainable long-term path. This would require that central bankers act independently of 'short-sighted' government preferences. The policy toolbox had been modified preserving the spirit of the Monetarist model.

The corollary was a long-run balanced budget, and thus a 'sustainable' public debt, i.e., a debt/GDP ratio that does not exceed a threshold considered safe. Fiscal policy should be limited to structural and distributional issues, while monetary policy holds the key to recovery through an expansion of the money supply triggered by lower real rates.

9. The currently adopted interest rate policy approach is not in contrast with the Monetarist quantity-theoretic approach to the money supply. The money supply may no longer be a policy variable, but it provides the channel through which modifications of the policy rate would supposedly influence (via the lending or other channels) aggregate demand. John Taylor's forecast of an acceleration of prices following Quantitative Easing was based on

precisely this quantity-theoretic view. And the Monetarist belief that the central bank can always spur greater private spending by creating excess money balances was one of the assumptions behind the belief that a policy of large-scale asset purchases could spur private spending in the aftermath of the Great Recession.

10. It is important to note that the goal of a ‘sustainable’ public debt belongs to the same quantity-theoretic view of the money supply. The rationale for constraining governments’ expenses to tax revenue in the long run is that, missing a restraint, and assuming that governments are biased towards running deficits, government debt would accumulate and create an inflation overhang. Should lenders lose confidence in the government’s ability to roll over its debt, the government would be forced to pay it off by ‘printing money’, thus generating an inflationary increase in demand.

11. Also, the policies that were named ‘unconventional’ have been quite consistent with the pre-crisis consensus. For the latter, in a slump, saving exceeds investment, and the problem of the post-Great Recession is that only a very low real rate of interest would bring them back to equilibrium. Far from being the application of a new approach, unconventional (or non-standard) measures are warranted in the belief that, given the unusual depths of the crisis, the economy needs bigger doses of the same medicine: If interest rates are not low enough, they can be set to zero, or even below zero; If low policy rates are not enough, central banks can buy assets and enlarge their balance sheets to issue more currency; If inflation is too low, central banks may even consider raising their inflation targets to influence expectations.

This course of action appears incongruous with the diagnosis of the crisis. While an increasing number of commentators effectively acknowledged that the U.S. financial crisis was the outcome of the financial system having become highly vulnerable as a result of an increasing and eventually unsustainable private leverage, monetary policy was ultimately aimed at restoring growth through a credit-induced expansion of more bank lending. By aiming at fostering private debt at a time when private agents were restructuring balance sheets in an effort to lighten debt loads, central banks were ‘pushing on a string’.

Unsurprisingly, eight years of unprecedented low interest rates and an unparalleled flood of liquidity that central banks have used to purchase both publicly and privately issued interest-earning securities have yielded a disappointingly weak growth of bank lending in the US, and caused an even worse outcome in Europe where lending has remained remarkably anemic. And yet, the belief that monetary policy should be the main driver of the economy has remained untouched, to the point that the difference in economic performance between Europe and the US is often explained on the basis of differences in monetary policy implementation (choice of tools, timing, readiness to act), while remarkably underrating the factual relevance of fiscal policy divergence between the two regions.

12. There is a dual failure in the mainstream policy toolbox. First, notwithstanding the fact that macroeconomic policies have seldom been used (at least seemingly) so massively as in the years following the Global Financial Crisis, their effectiveness has never been so meagre. Second, consecutive downgrades of growth forecasts show that IMF or OECD models have repeatedly overestimated the capacity of the economy to rebound within the current policy

framework. Both failures can be explained by the fact that models assign too much power to monetary policy and too little power to changes in the fiscal stance.

I contend that the view that the central bank has a much greater power to spur spending than fiscal policy depends closely on the validity of the quantity-theoretic view of monetary policy. In this view, fiscal debt becomes a powerful factor spurring demand only when monetized. Until then, it is an inflationary overhang, with no effect on demand up until when the size of public debt gets out of control, it is questioned by private investors, and it is monetized.

Hence, questioning the quantity-theoretic view of monetary policy undermines the mainstream position on fiscal and monetary policy effectiveness. Indeed, evidence in the aftermath of the crisis seems to have disproved such view, that also suffers from a major theoretical weakness, to which I will now turn.

13. In a floating currency system, the quantity of money that a central bank can issue is unconstrained, and responds to the financing needs of banks under the set policy rate. This is because the central bank has always the power to lend liquid balances, or trade liquid balances for financial assets at the policy rate. An attempt to ration liquid balances (e.g., the 1979 Volcker short-lived reform of operational procedures) would affect the level and the volatility of interest rates. As the European Central Bank clearly states on its website, “by virtue of its monopoly, a central bank is able to manage the liquidity situation in the money market and influence money market interest rates.”

By contrast, fiscal policy has the power to make direct payments to the private sector or levy taxes on the private sector, and thus adding or withdrawing financial assets from circulation. Notice that in the case of fiscal policy, any attempt to ration (net) government spending affects the economy’s capacity to rebound via ‘automatic stabilizers’, like the enforcing of fiscal rules in the European Union has openly proved.

The power of monetary and fiscal policy to spur aggregate spending should begin with this premise, and if the two propositions above are valid, the effectiveness of fiscal and monetary policy in generating aggregate demand cannot be the one assumed in mainstream models. Indeed, this theoretical question is even more critical than the ‘non-neutrality’ question of the magnitude of the effect of nominal spending on real output and prices.

14. The key question in macroeconomic policy is not so much (or not only) what mainstream economics calls the ‘neutrality’ question. This is, for example, Paul Romer’s underlying concern when he discusses the trouble with macroeconomics today. Rather, one key policy question today is whether interest rates or government net spending is the most powerful trigger of aggregate demand.

Well-established, orthodox models support the view that lower rates entail more liquidity and thus excess money balances and more spending. An alternative response underlying a number of critics of ISLM and Monetarist models, such as Steindl and Kaldor, is that the notion of ‘excess money’ is empty in a floating currency system (Kaldor) and that spending depends on whether the demand for financial savings by one sector is, or is not, offset by another sector’s willingness to increase indebtedness (Steindl). In this latter view, demand depends on the available stock and the expected flow of financial assets generated by desired debt positions.

15. In a monetary economy (as opposed to a real-exchange economy with money as a convenient means of payment) savings and debt, not the money supply, matter. One chief reason why the Monetarist transmission story is seriously at fault is that quantity theory explains private spending with reference to money holdings: when economic entities have more 'liquid balances' than desired, they spend more. Notice that money here includes currency in circulation and bank deposits (the 'money supply'), thus providing a very partial measure of the forms in which financial assets can be owned by the private sector.

It is quite more reasonable to explain private spending as being triggered by an overall assessment of the total of financial assets owned by the private sector, and not simply of the most liquid component on the asset side of balance sheets. Narrowing the basis of private-spending decisions to one single type of asset (i.e., money balances) seems largely misguided.

16. Thus, the power of central banks to spur spending must be assessed with reference to the effect through three main transmission channels. One depends on the effectiveness of monetary policy in boosting credit growth. As discussed above, this is the channel that was mostly dead during the crisis. Another is the effectiveness of monetary policy in boosting net exports via currency depreciation. In spite of its being currently popular, and even assuming that the central bank can engineer a currency depreciation, this channel does not produce a net increase in spending of the world economy, but only redistributes spending from one country to another.

The third channel depends on the effectiveness of supplying additional financial assets, and neither 'conventional' nor 'unconventional' monetary policies have proved to be valuable tools in this respect. Cutting interest rates redistribute financial assets between borrowers and lenders, and also lessens the flow of debt service paid by the government to private holders of public debt. When central banks purchase private or public debt, they modify the composition, and not the overall level, of privately owned financial assets, and they also become the recipients of any cash flows from debt issuers. This implies that when the central bank is the holder of more bonds and securities, financial assets get transferred from the private sector to the public sector in the form of debt service payments, thus reducing the supply of financial assets. Negative rates on reserves work as a tax, and only central bank's lending at negative rates would work as a 'fiscal' subsidy.

17. By contrast, net government spending always provides a flow of financial assets to the private sector. This is because the difference between what the public sector spends with the private sector and what the public sector collects from the private sector (taxes) is a net addition to the stock of financial assets (currency and other liabilities of the public sector) that the private sector owns. Letting net spending go higher may, in fact, be the best option in times of deleveraging, on condition that the central bank face no constraints in keeping public debt fully liquid by letting the currency float unconstrained, and by standing ready (under current institutional rules) to be the unlimited buyer of public debt if needed.

18. In the light of the above, two key modifications in the macroeconomic theoretical framework are warranted. First, the quantity-theoretic view of monetary policy must be reconsidered. This is already happening, as the beliefs that central bank's monetary operations are about interest rates (not quantity) and that aggregates like the 'monetary base' have little

or no forecasting power have gained increasing attention in central banking literature. If anything, an increasing attention should be given to the proposition that questioning the quantity-theoretic view removes theoretical support to fiscal rules.

Second, the role of savings should be deeply reassessed. The point here is, again, whether we model the economy as a real-exchange, or as a full monetary economy where output and employment decisions depend on monetary and financial conditions.

19. While saving in a real-exchange economy must be in the form of a real commodity, saving in a monetary economy is an act that reflects on others in the form of a financial claim. Thus, in a real-exchange economy saving is fully volitional. The saver has the option of storing or lending, and lending provides a means to invest. By contrast, financial savings in a monetary economy are not real quantities that anyone can independently own. Unlike the ownership of a real asset, financial saving always appears as a financial relationship, a claim (that is, an asset) of one economic unit upon another, and any change in savings must entail a change in the relationship between the 'saving' unit and the entity supplying the corresponding liabilities.

The ordinary use of the saving-investment gap in macroeconomic identities is highly misleading. Typically, the measure of the national net saving flow is constructed to calculate the financial position of the consolidated national balance sheet, and thus must always equal the current account by definition. Equally, the measure of personal saving is constructed to add up the real output saved (investment) and the flow of financial claims on the government sector and the foreign sector.

20. Differently from 'real' savings, financial savings can exist only as the other side of debt, and when we discuss financial savings we are also discussing debt. Accordingly, the notion and the measure of personal saving are of no use when analyzing the financial dimension of savings, and a serious analysis of financial savings should be formulated at a less aggregated level, one that considers the financial interaction among different sectors (i.e., macro-sector financial balances), where the net financial assets accumulated by one sector are the net liabilities of another sector.

Within this framework, any additional flow of savings by one sector must necessarily correspond to additional indebtedness of another sector. Every saved claim is someone else's liability. Because any given unit's desired financial position (net savings or indebtedness) ultimately depends on its plans and expectations, we must conclude that economic activity will settle at a level when desired saving and desired indebtedness match.

This is a reformulation of the injections-leakages model, that explains output adjustment with a) a private entities' decision to restore their desired level of indebtedness in response to changes in other private entities' savings and b) a private entities' decision to restore their desired level of savings in response to changes in other private entities' indebtedness. The entire process depends on private entities' available stock and expected flow of financial assets in a monetary economy.

21. This explanation is in stark contrast with the popular description of a condition of stagnation as a condition when saving exceeds investment at the current real interest rate. In

the latter description, saving is described as a real asset that may or may not be loaned to investors, thus missing the nature of saving in a monetary economy.

The saving-debt explanation, by contrast, describes any increase in saving as intimately linked to an increase in public or private indebtedness. Thus, any fiscal policy adding or absorbing public debt modifies the available stock of financial assets that may be saved (i.e. owned) by the private sector. If the private sector considers its current holdings being below (above) the desired level, households and firms will cut (raise) spending and trigger a recession (expansion).

In this logic, models that grant relevance to traditional monetary aggregates seem to appreciate the relevance of quantity in the wrong place. It is the quantity of government net spending (not traditional monetary aggregates) that is capable of directly modifying the level of output as to be compatible with the current saving-debt balance constraint.

22. In a monetary economy, the quantity of ‘money in circulation’ that matters for aggregate demand is set by fiscal policy, not by the central bank. Fiscal policy provides ‘money in circulation’ that the private sector may decide to hold in the form of currency, government debt, or bank liquidity. Correspondingly, banks offer additional means of payments via leverage. This entails that the monetary quantity that matters is set by banks and fiscal policy, not by the central bank. The chief aim of central bank policy, when not constrained by a fixed-rate regime, is to set an interest-rate floor, not track the natural rate of interest at which savings match investment.

This implies that setting limits to public deficits and debt curbs the ammunitions needed to prevent a downturn. Public debt guidelines cannot be justified by an alleged inflation overhang from debt monetization, and ought to be redesigned to stabilize aggregate demand.

Though at odds with the current well-established, orthodox view, this proposition is consistent with the changing views in monetary policy operations (i.e., the irrelevance of the money multiplier in a floating currency system, the inconsequential monetary base, etc.), and may soon become orthodox when supported by additional formal literature. This will be the case if we acknowledge that the key misconception of the pre-crisis macroeconomic policy approach lies in the quantity-theoretic view of monetary policy implementation and that the stock and flow of financial savings is more relevant than monetary aggregates in explaining aggregate demand.