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Towards Pluralism in Macroeconomics?

MACROECONOMICS IS SHIFTING. WHAT'S THE RIGHT DIRECTION?

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The questions asked by the FMM network this year were: *What has changed in the two decades since the foundation of the network? Is there greater pluralism in theoretical approaches? What are the improvements in modelling the economy in orthodox and heterodox approaches? What is the explanatory power and empirical content of macroeconomics today?*

This paper is a reflection on such questions. It begins by comparing the current crisis of macroeconomics with that of the 1970s. It develops the argument that the 1970s' shift to Monetarism was a regression of macroeconomics that did not address the true shortcomings of 1960s macroeconomic policy.

With an unclear direction, macroeconomics today is at a crossroads. 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 statement that is at odds with the current well-established, orthodox view, but which may soon become orthodox itself 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 of how the Fed would conduct open-market operations when government debt has been fully paid off. 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 that would maneuver a key interest rate on the basis of a clear reaction function, independent of government pressures. By contrast, counter-cyclical fiscal policy should only be limited to automatic fluctuations on the condition that these do not impact on the government's 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 as to how to decode the unfolding of events when he fathoms that the world economy 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 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 'consensus opinion' of macroeconomists, given that views are now split among 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 many 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 best available 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 35 years ago. In the 1960s, just as 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 a new theory, the Monetarist paradigm, quickly came into 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 thanks not only to its vocal leader based in a prestigious institution, 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 forward 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 the same three questions that Post-Keynesians had criticized in the ISLM model. Keynes, they argued, 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.

5. Monetarists' solution to these flaws, however, was different. They addressed these three questions, respectively, by bringing the quantity theory of money back 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 successful new theoretical reformulation, the Monetarist model offered an explanation of why the old theory had become obsolete, why ISLM-led policies had been temporarily successful, and why they eventually failed.

Although the Monetarists labeled their approach 'money matters' to reflect their 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.

6. For the Monetarists, the prime mover of aggregate spending was no longer the injections-leakages model. Monetarism discarded the original Keynes 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 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 that which prevails in a barter economy. Yet, if money is mismanaged by the issuing authority (by making it too scarce or too abundant), people get confused by 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 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, only the central bank, and only central bank policy, can trigger spending. Government issuing bonds to finance a deficit builds up a spending overhang only if 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 because of the deficit per se.

This position was strengthened by a different, yet concurrent, logic. Because a rising public debt reflects a rising inflation overhang, government budgets should be under strict rules (Fischer). Yet, representative democracy was considered to be ineffective in checking governments, given the alleged bias of electors towards deficit spending (Buchanan). So, rules should be constitutional or hardly modifiable at will by any government. Once such rules are in place, electors understand that any deficit spending will be offset by future taxes, and deficit spending becomes wholly ineffective (Barro).

8. The transition from Monetarism to the 1990s' policy consensus went through two modifications in its model. One addressed the question of the usefulness of monetary aggregates as monetary policy guidelines. The other addressed the question of the assumption that people persist in misinterpreting the consequences of monetary policy. The latter produced the rational-expectations models and the 'New-Keynesian' models blaming market failures on market rigidities and imperfect competition. With regard to monetary aggregates, these lost their appeal when it was acknowledged that central banks directly control official interest rates, not the money supply. Contrary to Friedman's money-growth rule, central banks 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 corollary was a long-run balanced budget, and thus a 'sustainable' public debt. 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 lending or other channels) aggregate demand. John Taylor's forecast of an acceleration of prices following Quantitative Easing that 'flooded the economy with liquidity' 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, without any restraints 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 perfectly 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 rather incongruous. 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 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 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.

The view that central bank policy is more effective than fiscal policy is explained by the quantity-theoretic view of the money supply. For the mainstream, fiscal debt is a powerful factor causing demand only when monetized. Until then, it is an inflationary overhang outside policy-makers' control. Thus, a more desirable alternative is to deliberately modify interest rates, via a transparent reaction function, to trigger changes in the money supply. Thus, questioning the mainstream view of the money supply undermines the mainstream position on policy effectiveness.

13. In a floating-currency system, the quantity of money that a central bank issues is unconstrained, and it responds to the financing needs of banks under the set policy rate. This means that the central bank always has the power to lend liquid balances or to 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.

By contrast, fiscal policy has the power to make payments to the private sector or withdraw their financial assets from circulation. Any attempt to ration (net) spending (e.g., the enforcing of fiscal rules in the European Union) would affect the economy's capacity to rebound via 'automatic stabilizers'.

14. Indeed, the key question in macroeconomic policy is not so much (or not only) what mainstream economics calls the 'neutrality' question, i.e., the magnitude of the effect of nominal spending on real output and prices. This is Paul Romer's concern when he discusses the trouble with macroeconomics. Rather, one key policy question today is what is the most powerful trigger of aggregate spending: interest rates or government net spending.

Does spending depend on available liquidity as allegedly measured by interest rates, or does it depend on the available stock and the expected flow of financial assets generated by desired debt positions? Well-established, orthodox models support the former view, based on the notion that lower rates entail more liquidity and thus excess money balances.

An alternative response underlying comments by a number of critics of ISLM and Monetarist models, such as Steindl and Kaldor, is that 'excess money' makes no sense 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).

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 much more reasonable to explain private spending as being triggered by an overall assessment of the total 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 its 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 in 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 redistributes financial assets between borrowers and lenders and also lessens the flow of debt service paid by the government to private holders of public debt, thus reducing the supply of financial assets. 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 flow 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 further reducing the supply of financial assets.

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. This may, in fact, become the best option in times of deleveraging, on the condition that the central bank face no restraints in keeping public debt fully liquid by letting the currency float unconstrainedly 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, to reconsider the quantity-theoretic view of monetary policy. Second, to reconsider the role of savings. Regarding the first, the views that central bank's monetary operations are about interest rates, not quantity, and that aggregates like the 'monetary base' are of little use, have gained increasing attention in central banking literature. Regarding the second, the point is again whether we model the economy as a real-exchange economy 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. 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. 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. In contrast to '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 where desired saving and desired indebtedness match.

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

21. This explanation is in stark contrast to the popular description of a condition of stagnation as a condition when saving exceeds investment at the current real-interest rate. Describing saving as a real asset that may or may not be loaned to investors misses 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 as 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 so 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 the concept 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 to track the natural rate of interest at which savings match investment.

This implies that setting limits to public deficits and debt curbs the ammunition 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 operations (i.e., the money multiplier is inapplicable, the monetary base is not a useful concept, etc.) and may soon become orthodox when supported by additional formal literature.

Do we agree on the point 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 the flow of financial savings are more relevant than monetary aggregates?