

## Remarks on Monetary Policy and Fiscal Policy in an Era of Financialisation

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*Abstract:* The paper considers some of the issues for the conduct of monetary and fiscal policy which arise in the era of financialisation. It opens with a critical assessment of the dominant approach to monetary policy, namely inflation targeting underpinned by the ‘new consensus in macroeconomics’. Within that analytical framework the role of the ‘natural rate of interest’ is critically examined. It is argued that that ‘natural rate of interest’ is a construct of a specific analytical framework and as such it lacks validity in reality in so far as that analytical framework does not provide a good approximation to that reality. This is followed by consideration of some of the issues of coordination between fiscal and monetary policies. It is argued that fiscal and monetary policies can not be separated (as is the case with the new consensus). The nature of a post-Keynesian monetary policy in the present era of financialisation, and particularly the developments of securitisation, is discussed.

*Keywords:* Monetary policy, fiscal policy, securitisation, financialisation

*JEL classification:* E52, E62, E63

### INTRODUCTION

The dominant approach to monetary policy in recent decades has been inflation targeting (IT) operated via the setting by the ‘independent’ central bank of the policy interest rate.<sup>1</sup> Within that framework, the ‘natural rate’ of interest plays a key role as being a form of anchor for the policy rate of interest. This approach to monetary policy has not been particularly successful in its own terms – that is inflation targeting has not been responsible for controlling the rate of inflation.<sup>2</sup> But the IT framework came to be viewed as a success story in facilitating the so-called ‘great moderation’ (Bernanke, 2004), a claim that was rather destroyed by the

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global financial crises and the ‘great recession’ of 2009-10. The IT framework focused on price inflation and ignored asset price inflation and financial instability which were closely associated with the creation of the global financial crisis (GFC). Monetary policy had become in a number of respects the dominant component of macroeconomic policies, particularly in theoretical discussions. Following the GFC there was a revival of fiscal policy, both in practice with the post crash stimuli and in theoretical debates. These debates brought back into focus the questions of the relationship between monetary policy and fiscal policy.

The GFC came after a long period of financialisation from the mid-1970s onwards, and the processes of financialisation continue. Financialisation involves the general growth of the financial sector, and more significantly for changes in the ways in which the banking sector operates including the growth of shadow banking and of securitization. There is a need to consider how these developments have impacted on the transmission mechanisms of monetary policy and the changes to the objectives of monetary policy with some shifts to concerns over financial stability.

In section 2 it is shown that the IT approach is located within the analytical framework of the ‘new consensus in macroeconomics’, which does not provide a realistic representation of the financialised economy. Within that framework, the role of the ‘natural rate of interest’ is critically examined. It is also argued that that ‘natural rate of interest’ is a construct of a specific analytical framework, and only has validity for reality if the analytical framework provides a good approximation to that reality.

In section 3 some of the issues of coordination between fiscal and monetary policies are rehearsed. Specifically, we examine whether fiscal and monetary policies can indeed be separated and the possible gains from some degree of coordination of policies.

Section 4 brings out post-Keynesian monetary policy in the present era of financialisation, and particularly the developments of securitisation.

## **MONETARY POLICY AND THE ‘NEW CONSENSUS IN MACROECONOMICS’**

The analysis of monetary policy is, as with any macroeconomic policy (and indeed any economic policy), embedded in a specific theoretical framework of the ways in which the economy operates, even though the framework may often be implicit. The so-called ‘new consensus in macroeconomics’ (NCM) has in many respects been the dominant framework of analysis in respect of monetary policy.<sup>3</sup>

There are a range of issues with the NCM framework which handicaps its usefulness for the operation of monetary policy. Two can be highlighted here, though it should also be mentioned that the underlying dynamic stochastic general equilibrium model invokes an infinite time optimisation framework, which thereby ignores issues of fundamental uncertainty.<sup>4</sup>

A major issue of the NCM approach is that it is set within an analytical framework which relies on a supply-side equilibrium with short-term demand effects, specifically in response to the interest rate and its effects on demand, and the effects of demand on the rate of inflation through a Phillips' curve effect. The economy is perceived to fluctuate around and be close to a supply-side equilibrium. This is strongly reflected in the use of the word 'natural' – as in particularly the “natural rate of unemployment” (NRU) and the “natural rate of interest” (NRI). The common features of NRU and NRI are located within a specific type of model, which separates monetary and real factors, and the levels of NRU and NRI are not influenced by hysteresis effects from the movements of demand.

Consider first the 'natural rate of unemployment', viewed by Friedman as “the level that would be ground out by the Walrasian system of general equilibrium equations, provided there is imbedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and supplies, the cost of gathering information about job vacancies and labour availability, the costs of mobility, and so on” (Friedman, 1968, p.8). In the NCM, this is represented by the assumption of an expectations-augmented-Phillips curve of the form  $w = f(U) + ap^e$ , where  $w$  is the rate of wage inflation,  $p^e$  the expected rate of inflation,  $U$  the unemployment rate, and  $a$  the responsiveness of inflation to expected inflation. The NRU, corresponding to a constant rate of inflation, is the solution of the equation  $f(U) = (1 - a)p$  (treating productivity growth as zero and using  $p$  to signify common value of  $w$  and  $p^e$ ). In the absence of a unit coefficient on expected inflation, then any estimate of NRU depends on the rate of inflation. Although it is recognized (as in quote from Friedman) that the NRU can change over time, it is viewed in terms of 'supply-side' shifts and not in response to the evolution of the rate of unemployment and the time path of demand.<sup>5</sup> In any event, arriving at an estimate of NRU requires drawing on past experience, whether in the form of an estimation of the Phillips curve (or equivalent) or through some trend of rate of unemployment (with the implicit assumption that the actual rate of unemployment fluctuates around the NRU).

In the NCM literature, it has often been the case that a translation is

made from the labor to the production side, and that the notion of ‘potential output’ is introduced. Although this does not have the epithet of ‘natural’ it has very similar connotations. ‘Potential output’ is the level of output at which price inflation would be constant, and similar to a Phillips curve  $p = g(\text{output gap}) + bp^e$ . The estimation of potential output faces the issue that the Phillips curve may not be an accurate representation of inflationary processes. Reviewing the estimates of potential output has also revealed that they (and thereby the output gap) are subject to change (for the same period of time) and to follow actual output.

The NRI is based on a loanable funds approach and is the rate of interest which is consistent with the equality between savings and investment intentions with savings a positive and investment a negative dependency on the rate of interest. The relationship between the rate of investment and the rate of interest faces issues similar to those exposed in the (Cambridge) capital controversy concerning the negative relationship between aggregate measure of the capital stock and the rate of interest.<sup>6</sup>

Further, the NRI is consistent with a constant price level in Wicksell’s formulation though it is now treated as consistent with a constant rate of inflation. Wicksell argued that “[at] any moment and in any economic situation there is always a certain rate of interest, at which the exchange value of money and the general level of commodity prices have no tendency to change. This can be called *the normal rate of interest*; its level is determined by the current natural rate of interest, the real return on capital in production, and must rise or fall with this. If the rate of interest on money deviates *downwards*, be it ever so little, from this normal level prices will, as long as the deviation lasts, rise continuously; if it deviates *upwards*, they will fall indefinitely in the same way.” (Wicksell, 1898: pp. 82-3). In Wicksell’s approach, the ‘natural rate of interest’ is consistent with a constant price level, and any deviation of the market rate from the natural rate leads to rising or falling prices. The suggestion is that the degree of change in the price level will be repeated so long as the differential between the ‘natural rate’ and the market rate is maintained.

Whilst Keynes (1930) accepted the notion of the ‘natural rate of interest’ (e.g. Keynes, 1930, p. 139), in the *General Theory* (Keynes, 1936), he explicitly rejected the idea of a unique ‘natural rate’ of interest. In effect he argued that there is an equilibrium rate interest corresponding to each level of effective demand, which would bring savings and investment into balance. In the context of the ‘new consensus in macroeconomics’ models any equilibrium or ‘natural rate of interest’ would at most be defined for specified

levels of the fiscal stance, world demand and set of ‘animal spirits’ influencing investment. As these factors vary so will any ‘natural rate of interest’.

The ‘natural rate of interest’ is a theoretical construct, and the question is whether it has a real-world counterpart. Simply put, if the theoretical framework within which the concept of ‘natural rate of interest’ is located is not relevant, then the ‘natural rate’ does not have a real-world counterpart.

The ‘natural rate of interest’, perceived as the rate of interest at which rate of inflation would be constant, features in Taylor’s rule in which the nominal policy rate of interest set by the central bank depends on the natural rate of interest, output gap, and deviation of inflation from target rate and the rate of inflation.

The NCM suffers from the lack of explicit mention of banks, which are the creators of commercial bank money through the provision of loans.<sup>7</sup> This then neglects the roles of banks in credit creation, booms and busts, and the general issue of economic and financial stability. The targeting of price inflation overlooks asset price inflation, and thereby elements of financial instability. The enhanced roles of commercial banks and a range of financial institutions including ‘shadow banks’ have been a strong component of financialisation, and these omissions have made the NCM ‘not fit for purpose’ in respect of approaching monetary policy.

### **FISCAL AND MONETARY POLICY**

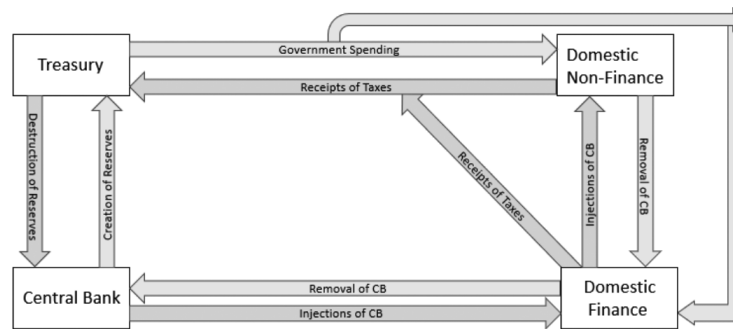
The NCM elevates monetary policy and downplays fiscal policy, close to invisibility. There are, in effect, appeals to Ricardian equivalence etc. which yields the theoretical result of an impotent fiscal policy, and a consistency of balanced budget and full employment (or at least the ‘natural rate of unemployment’). In contrast, it is argued here that there are always close linkages between fiscal policy and monetary policy (broadly viewed).

In order for a government to spend, money has to be available at its central bank to enable it to do so. By the government spending central bank money, notes and coins and commercial bank reserves are moved into the private sector. The counterpart of the commercial bank reserves will be the bank deposits held by the non-bank public. The creation of central bank money is virtually costless (in resource terms), and the availability of central bank money to finance government expenditure need never be a binding constraint. The constraints on government expenditure arise from the availability of the relevant resources and from the funding of government expenditure (through tax revenue and government borrowing). An increase in government expenditure involves an immediate rise in central bank money

held in the private sector, which is then followed by return of some, and perhaps all, to the central bank through the payment of taxes and by government sale of bonds. An increase in government expenditure would stimulate private income and expenditure, and the financing of private expenditure would be facilitated by bank loans and thereby creation of commercial bank money.

The post Keynesian monetary circuit theory explains how the state and creation of money play a crucial role. In a monetary production economy, a money creation-destruction process is a prerequisite (Graziani, 2003). Both the state and firms need initial finance to enable their expenditure plans to proceed. However, their future receipts, which are the outcome of the initial injection, account for the ‘destruction’ or ‘final finance’ of the monetary circuit (Parguez, 2002). It is important to emphasise the central role of money in the financing of expenditure and to make a distinction between commercial bank money and a central bank or state money. The central bank has the power to create money which enables the state to (initially) finance its expenditure. In modern economies, when the state decides its planned expenditure, the state money is created through the central bank (‘the ultimate provider of money’) in an ‘initial finance’ phase. On the other hand, when taxes are collected the destruction, or ‘final finance’, phase occurs. This is illustrated in *Figure 1*. The central bank creates a claim on the treasury on its asset side of the balance sheet; the counterpart would be the deposit by the state on its liability side. This deposit will be then transferred to private agents, which causes an equal increase in the reserves of commercial banks.

Figure 1: Simplified treasury-central bank interrelation



Source: our construction

An increase in commercial banks’ reserves through state spending would make them seek to eliminate their excess reserves by holding treasury bills

in order to maximize their profits (Parguez, 2002). In this case, the treasury will make new issues of bonds to absorb banks' excess reserves and prevent the automatic fall in the long-term rate of interest. Thus, the state does not issue bonds for 'initial finance' of its expenditure but for targeting the short-term rate of interest to offset the impact of the deficit on interest rates (Parguez, 2002; Seccarecia, 2012). The central bank's open market operation of buying/selling securities from/to the banks cannot be a final financing operation in the same way as private firms would need to do so in financial markets.

The impossibility of separation between the treasury and the central bank in a monetary production economy means that monetary and fiscal policies are very interrelated by nature, both in theory and practice. The interrelation of monetary and fiscal policy is essential to achieve overall economic stability. Fontana et al. (2017) argued that coordinated monetary and fiscal policies can achieve financial stability. That is to say, both policies can affect the Minsky's notion of 'lender risk' and 'borrower risk', and may reduce the perceptions of risk and restoring confidence in the economy, by changing firms' and banks' expectations, which restores economic activity. However, Minsky's Financial Instability Hypothesis (e.g. Minsky 1994) suggests that confidence and perceptions of low risks reinforces lending and the credit cycle, which brings its own instabilities.<sup>1</sup>

The monetary policy transmission mechanism uses its policy rate affecting the lending and borrowing behavior of banks and firms, by impacting lenders' and borrowers' risk *a la Minsky* (Nikolaïdi, 2017). This is so given that banks set their interest rate on loans based on mark-up over the central bank policy rate and on their credit risk which comprises liquidity and insolvency risks. Liquidity risk is the composition of their portfolio and by taking into account the ratio of illiquid and liquid assets. The liquidity risk increases when the ratio of illiquid/liquid assets of banks increases. Since loans to firms and households are normally identified as illiquid assets, banks will be less willing to accommodate the demand for credit if their portfolio is highly illiquid. However, the central bank can reduce the liquidity risk of banks by exchanging government bonds for private debts. Moreover, banks assess the insolvency risk according to the ability of firms and households to reimburse their debt. The ability of firms to repay debts, in turn, depends on their leverage ratio and Tobin's  $q$  (Le Heron and Mouakil, 2009).

The operation of monetary policy in the past decade has incorporated a series of policies which were previously thought to be 'unconventional'. Forms of 'quantitative easing' (QE) have been widely practiced, and many

have advocated the active use of ‘quantitative easing’ under headings such as ‘people’s quantitative easing’. The practices of QE have involved purchase of financial assets (generally government bonds but extended to a range of privately issues assets) by central bank to a pre-specified amount. In that way it differed from open market operations designed to maintain interest rate and/or to meet the public and banks portfolio demands on the holding of money and bonds. Some argued that QE would lead to rapid growth of the money supply and thereby inflation, though neither materialised. The expansion of the money supply in the form of bank deposits would require loan creation on a comparable scale, and would not occur in situations where banks were reluctant to lend and firms and others reluctant to borrow. The (simple) balance sheet effects of QE are:

- (i) central bank acquires financial assets and its liabilities rise,
- (ii) commercial banks: its assets in the form of reserves at central bank rise and its liabilities in the form of deposits held by the public rise,
- (iii) non-bank public: its holding of bonds and financial assets falls and its holdings of bank deposits rise.

However, bank deposits can be in the form of current (cheque) account deposits and savings account deposits, and it is only the former which are regarded as money (immediately available means of payment) though savings accounts may be treated as near money (their value is set in terms of the unit of account but are not immediately transferable). In the face of QE it has largely been savings account deposits which rose rather than current account deposits, and the money supply did not rise sharply. It should also be noted that central banks often pays interest on reserves held by banks. Hence so far as banks are concerned they receive interest on the assets (reserves) and pay interest on their liabilities (deposits). The payment of interest on reserves also has implications for the cost of consolidated government debt as interest is paid on bonds and on reserves. Hence whether government deficit is funded by bonds or central bank money money, interest charges are incurred by government or central bank.

The historically low interest rates since the GFC have often been viewed as placing limits on any further use of interest rates to stimulate economic activity. This can be re-inforced by the ‘secular stagnation’ view, to the effect that there could well be periods of growth lower than recently experienced before the Global Financial Crisis, and low or negative real interest rates will persist<sup>1</sup>. This has often been expressed in terms of central



banks facing a zero-nominal-interest-rate lower bound (ZIRB) though that nominal policy interest rate set by the ECB for the eurozone has dipped below zero to the extent of -0.5 per cent. Real interest rates have often become negative with continuing inflation. In such a state, expansionary fiscal policy is the only available tool to pull economies out of a macroeconomic-austerity trap to return the economic activity to its wheels. Portes and Wren Lewis (2015) argue that fiscal policy comes into its own when monetary policy is at or tending towards the 'zero lower bound'.

In the aftermath of the 2008 financial crisis, some New Keynesian (NK) economists working within the NCM framework have prioritized fiscal policy over monetary policy, at least in abnormal times and temporarily, to maintain economic stability. Those NK economists have developed what is called 'the fiscal theory of the price level' (FTPL) (Woodford, 1994; and Sims, 1994). According to FTPL, fiscal policies are effective in the short and long runs. They put more emphasis on the crucial role of state intervention, mainly automatic stabilizers as a fiscal tool and expansionary fiscal policy in exceptional times (time of crisis). They argue that policy interaction and greater cooperation between fiscal and monetary authorities have been inevitable aspects of effective policy initiatives to meet macroeconomic objectives in the current financial and economic crisis (Cochrane, 2014).

Monetary policy and fiscal policy are necessarily interrelated. Fiscal policy becomes more potent (in the sense of higher multipliers) in times of downturn and in times of low interest rates. The major requirement becomes that fiscal policy takes the lead in the setting of demand conditions for high levels of economic activity, and that monetary policy plays a subsidiary role in supporting fiscal policy.

## **POST KEYNESIAN MONETARY POLICY IN A SECURITIZED WORLD**

A general perspective on financialization has been provided by Epstein (2005, p.3) when he wrote that "financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies". Within that broad definition given by Epstein, the recent period is often viewed in terms of expansion of the banking sector and of equity markets and the growth of what is now often termed 'shadow banking', growth of a range of financial instruments with securitization and derivatives, the engagement of non-financial corporations in financial dealings, and the growth

of consumer borrowing and household debts. Van der Zwan (2014) identifies three themes within financialisation studies, the emergence of a new regime of accumulation, the 'pursuit of shareholder value' and the 'financialization of the everyday'.

The themes of particular relevance for this paper are the increasing scale of the financial sector in terms of bank deposits and stock markets, and the developments in the financial sector in respect of securitization etc.. Financialisation has involved and been stimulated by financial liberalization and de-regulation which impacts on the behaviour of financial institutions and credit expansion. The present era of financialisation has involved rapid growth of household debt, which has implications for the financial instability and cycles. In the context of the endogenous money, the emphasis shifts from the creation of bank deposits through loans being linked with the financing of production and investment towards creation linked with household debt.

Financial systems have often been viewed through the lens of being bank-based or market-based, though financial systems more lie along a spectrum with different relative significance of financial markets and financial institutions. Financialisation has involved in the present era a blurring of the boundary between capital market and banking activities. Hardie et al (2013) challenge the widely used dichotomous framework of bank-based vs capital market. The line of Hardie et al (2013) is the emergence of 'market-based banking' with banks becoming much more involved in financial markets. They argue that "the rise of market-based banking highlights a crucial source of change that undermines patient capital" (p. 696) which had often been seen as a virtue of bank lending. "Market-based banking undermines the central position of relational banking by increasing the position of market considerations relative to long-term bank business decisions, where a bank sacrifices short-term profitability in the expectation of subsequent recompense."

There are many changes in the financial and banking system associated with the processes of financialisation. The focus here is on securitization and shadow banking for the money form and the operations of the commercial banks is considered. Securitisation has changed the banking model from 'originate and hold' to 'originate and distribute'. This model involves banks transforming illiquid assets to liquid, creating more liquidity by expanding their balance sheets (off-balance sheet activities), lowering lending standards, increasing risk-taking, increasing their ability to create liquidity, and more importantly being less dependent on central banks'

liquidity". This securitisation mechanism helped banks to expand their balance sheets and have more power in liquidity creation. It delinked interest rate policy's impact on the volume of credit. Indeed, this dramatic change helped banks to be less dependent on central banks' policies and their transmission mechanism, in particular liquidity creation and the bank lending channel (BLC) through the balance sheet channel (off-balance sheet activities).

There can be coordinated monetary-fiscal policy with an increase of government expenditure that increases aggregate demand, expected aggregate demand and income, and a decrease of central bank policy rate. All is accompanied by central bank financing of government spending, which will lead to change market expectations, which in turns improve the state of confidence of households, firms and banks by reducing the solvency and the liquidity risk in the economy, which helps, first in achieving financial stability, second increasing economic activity and ensuring stability. In addition, through changing the behaviour of firms and banks affecting demand and supply loans by reducing solvency and liquidity risk which impacts borrower's and lender's risk behaviour. An expansionary fiscal policy with an accommodating monetary policy and policy rate targeting banks' solvency and liquidity risk, will ensure achieving financial stability that improves the economic activity.

Securitisation, first, helps banks to be at the centre of liquidity creation in the wholesale market (Vielma et al, 2019; DymSKI and Kaltenbrunner, 2017). Second, it gives them relief from Basel capital requirements, which allows them to increase credit volume with less constraint (Chick, 2013). Finally, it allows them to compete in the financial market, increasing their short-term profitability, thus banks' profits become based on fees rather than the interest rate spread (Vielma et al, 2019; DymSKI and Kaltenbrunner, 2017).

The motivations for securitisation can be grouped into three categories. First, when banks sell their loans to what is called special purpose vehicle (SPV) and obtain a lump sum value by using off-balance-sheet techniques, it increases liquidity and profitability. By doing so, the banking system can secure additional funding, and it can satisfy the credit demand (Gorton and Pennacchi, 1995). Moreover, when banks service the securitized loan, they also obtain revenue from this process, increasing profitability. Second, by selling loans and getting involved in off-balance sheet activities, banks can transfer credit risk to SPV's and other financial institutions in the securitisation process chain. Indeed, Minton, Sanders, and Strahan (2004) and Bannier and Hansel (2008) found that the primary purpose of securitisation is credit

risk transfer, as well as to serve as a new funding tool, which helps banks to be more efficient, share risk, and increase liquidity. Furthermore, according to Pennacchi (1988), this process provides a lower cost method of financing for banks facing a competitive deposit market. Third, banks obtain regulatory capital relief by the removal of loans from their balance sheets, which allows for increased liquidity.

An important aspect of securitisation is its impact on monetary policy and its transmission mechanisms, where changes in liquidity and credit-channel transmission mechanisms have reduced policy effectiveness (Estrella, 2002) due to the connections between banks' funding and financial markets. Through securitisation, banks are not subject to reserve constraints, and thus, monetary policy will not be effective through banking lending channel (Romer and Romer 1990). Banks' lending becomes more dependent on financial markets' conditions than on banks' deposits from the public. Indeed, securitisation could have a remarkable effect on the banking sector's ability to lend. This is mainly due to the relief of the illiquid assets from banks' balance sheet. In this manner, by securitising the illiquid assets banks do not need to wait for the loans to be repaid. These findings are supported by Altunbas, Gambacorta, and Marques-Ibanez (2009b), who used European banks' data to demonstrate that securitizing banks are less responsive to monetary policy because of the loosening of the link between central bank policy rate and banks' loans and deposit interest rates. Furthermore, they found that securitisation weakened banks' lending channel. Similarly, Altunbas, Gambacorta and Marques-Ibanez, Berger and Bouwman (2010) studied the influence of monetary policy on banks' liquidity creation (on and off-balance sheet) in the US, and found that medium and large banks' liquidity creation is not significantly affected by monetary policy. Furthermore, they have found that during economic crisis, banks' liquidity creation is even less responsive to monetary policy. The significance of these findings is evident when considering that medium and large banks in the US are responsible for the creation of approximately 90% of USA banks' liquidity. Moreover, the increasing influence of financial market forces towards determining credit expansion has limited the ability of the Fed to affect the economy through its monetary policy (D'Arista, 2009).

Securitisation has also affected the lending standards of banks. Diamond (1984) and Gorton and Pennacchi (1995) have pointed out that the profitability of transferring assets from banks' balance sheets to markets has discouraged the screening of borrowers, changing the monitoring function of banks. That is consistent with the lowering of lending standards observed in economies

with high securitisation rates, such as USA (Dell’Ariccia et al., 2008), and with the fact that securitizing banks make more loans (Altunbas et al., 2009a). Furthermore, the lowering of lending standards will increase banks’ default rate. Lower lending standards have another cause as well: Maddaloni and Peydró (2009), who studied the determinants of banks’ lending standards in the Eurozone. They have found that low interest rates for extended periods of time (‘cheap money’) lower lending standards, regardless of borrowers’ creditworthiness, while increasing banks’ risk-taking.

Banks’ risk-taking is accentuated by the use of securitisation under short-term low interest rate, along with weak lending-standards supervision. In addition, the more risk banks take with the ownership of mortgage-backed securities, the higher housing risk will be (Dong 2011). Furthermore, as the ECB admits “[securitisation] worked well for more than thirty years, but, in practice, instead of dispersing the risks associated with bank lending, securitisation had the perverse effect of concentrating them in the banking system” (ECB 2010, p. 77).

Banks’ liquidity risk, a key source of vulnerability in an under-regulated banking system, is apparently less in a system with securitisation, but banks’ exposure to risk remains because of recourse risk (Dymski 2010). And while securitisation improved banks’ balance sheets and improved their profitability in the shorter run, it led to systemic risk and hid vulnerabilities that were brutally exposed by the subprime crisis. In effect, the expansion of securitisation permitted deeper linkages between the major banks originating credit and non-bank financial firms in need of higher-return assets to purchase. The linkages led to systemic risk.

The increased importance of shadow banking and non-transparent financial transactions has made the credit process as a whole more opaque: loans that are securitized disappear from bank balance sheets, and the process is made more reliant on short-term non-deposit funding (Kroszner and Strahan, 2011).

Deregulation combined with the increase in securitisation and cross-border trade and finance has fed innovations in the practices and organizational logic of these firms that have far-reaching consequences. The interconnectedness between major banks and the shadow banking has added a huge growth in the complexity and size of these institutions, and these developments, in turn, have transformed both the character of financial instability and the role of banking firms in economic dynamics.

All the efforts that have been made since the global financial crisis – such as the Dodd-Frank Act and the EU’s Banking Union – to avoid future

crises on the basis of capital requirements that properly structured incentives (enough skin in the game for banks' owners) are thought to be sufficient by policymakers to avoid any repeat of this crisis. However, a new and more comprehensive account of major big banks' behaviour throws doubt on such a conclusion. Even worse, Botta et al. (2018) showed that the securitisation process makes legislations on capital requirement not only ineffective but also potentially counterproductive. If banks have to adhere to strict capital-ratio requirements, while having access to securitisation, they will have a strong incentive to take part in the creation of structured finance products to lighten their balance sheets, hence harming the stability of the economy as a whole (Botta et al., 2018).

There are many studies that claim that the regulations are working well, and that it is a good practice to encourage the securitisation activity to increase liquidity in the market. For instance, Adrian (2017) of the IMF, argued that in advanced economies, many of the risky activities that led to the global financial crisis no longer exist or pose a threat to financial stability. He states: 'To cite just a few areas, securitisation practices have been strengthened, repo market activities have been overhauled, money market funds have been made more robust, and interconnectedness between banks and shadow banks has declined. Reform efforts have aimed at transforming the structural characteristics of riskier aspects of shadow banking, as well as the economic incentives. The business models of intermediaries have fundamentally changed as a result'. A similar work from Bank of England and ECB (2014) argued for the potential benefits and importance of securitisation on increasing liquidity and lowering risk.

But the new, challenging banking behaviour under financial markets with complexity and opaqueness could not be simply controlled through new capital requirements for banks, 'skin in the game' capital standards for shadow-banking subsidiaries or affiliates, greater transparency, and more diligent reporting. Most of these reforms are being implemented. But beyond these elements is the very business model itself that too-big-to-fail banks have embedded at the heart of contemporary global finance. The lack of any base-line function within the broader economic system and the blind insistence on above-average rates of return are, quite simply, an explosive combination, given that the megabanks have become too big to fail and have largely resisted efforts to rein in their behaviour to date. This the main reason why shadow banking occurs partly inside the boundary of megabanks, and partly outside it.

With the changing behaviour of financial markets and of banks, the

central banks should focus on financial matters, taking into consideration the fragility of the financial market and system, rather than focus on interest rate policy to achieve inflation targeting (as prescribed by NCM). Therefore, given the central bank's importance as the centre of monetary and financial systems, it should play an important in directing banks and financial institutions as well. Put differently, central banks should maintain their ability to regulate and control financial institutions, portfolio strategies, and loans' conditions. In other words, it should be the one to write the rules of the game (Minsky, 1978).

The increasing instability and complexity of the financial sector, particularly in megabanks and shadow banking, has changed the fundamental role of central banks. Acting not only as a 'lender of last resort', where it rescues the on-balance-sheet credit commitments of banks, it also acts as 'dealer of last resort' to rescue the money market positions by which the banks fund themselves. It does so to protect the interwoven circuits of borrowing and lending that support derivative and repurchase-agreement positions (Mehrling 2012). More importantly, the credit-creation process that drives money creation is now funnelled through securitisation processes that prioritize asset price increases over productive credit. As Michell (2017) argued, it is clear that mega-banking decenters the money-creation process, involving shadow banks in holding and circulating money – and even, arguably, in creating it – such that money remains endogenous in a megabank-dominated system. Given the causes of the instability, central banks should urgently apply credit controls to govern the link between the issuer of the credit and the securitizing system.

### **CONCLUDING REMARKS**

In many respects, debates over monetary policy during the 1990s and 2000s were dominated by the NCM framework and inflation targeting by independent central banks. The NCM framework provided a relatively simple macroeconomic model in which monetary policy could be explored. The NCM framework came with several weaknesses. It relied on the notion of the 'natural rate of interest' as the anchor point, to which there may be no real world counterpart. It largely abstracted from fiscal policy, and indeed (at least implicitly) assumed that a balanced government budget was required. There was no thoughts of the co-ordination of fiscal policy with monetary policy, and fiscal policy itself was thoroughly downgraded. However, the linkage between government expenditure and the need for that expenditure to be financed (by central bank money) means that fiscal policy and budget deficits cannot be understood without regard to the impact on monetary conditions.

The ways in which banks operate have implications for the monetary transmission mechanism. A relatively simple one was (at least implicit) in the NCM, namely that the policy interest rate of the central would be reflected in the deposit and loan rates of the commercial banks. These rates would in turn affect savings and investment decisions, and have effects of the level of demand. In an era of financialisation, securitisation and major changes in the banking system and non-bank financial intermediaries have had an impact on monetary policy and its transmission mechanisms. In the final section we have sought to explore some of these implications of securitisation for the operation of monetary policy and central banks.

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### NOTES

- 1 As is usual, we use the term inflation targeting to refer to the policy of use by independent central bank of its policy interest rate to seek to achieve a target rate of inflation which has been set by government.
- 2 See, for example, Angeriz and Arestis (2006), Arestis and Sawyer (2008a).
- 3 See Meyer (2001) for an introduction, Woodford (2003) for very detailed elaboration albeit using the term neo-Wicksellian and the Bank of England (2005) for a model along NCM lines in the context of building a macro-economic model; Arestis and Sawyer (2008b) for a critique.
- 4 See, for example, Arestis and González-Martinez (2015).
- 5 For general discussions of path dependency and hysteresis in macroeconomics see papers in Arestis and Sawyer (2009); and for recent discussion in the context of macroeconomic policy see, for example, Fatás and Summers (2018)
- 6 See, for example, Harcourt (1972), Rogers (1997).
- 7 This was, though, not the case in the analysis of Wicksell (1907).
- 8 However, see Lavoie (1996) and Lavoie and Seccareccia (2001) for further explorations of the links.
- 9 See, for example, Łukasz and Summers (2019).

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