

# Comment on Fernando Cardim de Carvalho

## – Monetary Policy, Monetary Theory and Financial Structure

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Professor Cardim de Carvalho has provided a clear and concise survey of the twists and turns in monetary theory and policy since the Keynesian revolution changed the context for monetary policy by introducing a second policy tool, active fiscal policy. As he notes, we have now come full circle and monetary policy has once again become the sole policy, given that fiscal policy has become hostage to the fiscal surplus targets imposed by IMF conditionality. While these changes in the views of practitioners of monetary policy were also accompanied by changes in view of academics formulating monetary theory, as he notes, much of recent theory has had little if any impact on current monetary policy. Rather, it is the experience of policymakers that has dominated.

Irrespective of how one classifies the policy adopted by the Volcker FED in the United States in the 1980s, it is clear that it was adopted out of frustration with existing policy, not because of any conversion to monetarism (indeed, Volcker has confirmed this himself, see VOLCKER; GYOHTEN, 1992). By the same token, the decisions of his successor Alan Greenspan to allow much higher growth rates and lower unemployment rates without active monetary tightening during the boom in the last half of the 1990s has less to do with Greenspan's lack of belief in the Phillips curve (see his remarks on the eventual transmission of lower unemployment and higher wages requiring monetary tightening to avoid inflation) or the theory of the NAIRU, as with practical experience.

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Indeed, the major change that has occurred in monetary policy as it is actually practiced has been due less to changes in the dominant theory, than to the changes that have taken place in the financial structure. This has led to the recognition that the monetary authority can no longer control the monetary conditions by direct intervention in financial markets - the size of individual institutions and the degree of their international integration has made the market just too large - so that the only hope of influencing the market is by influencing the expectations of market actors.

We follow Minsky in arguing that monetary policy induces technical change in the way commercial banks operate and thus produces change in the financial structure which eviscerates the potency of existing monetary policy, leading to a change in central bank operating procedures. A short review of the changes in the US financial structure in the post-war period will help understand this process<sup>1</sup>. In the early 1950s US commercial banks had large stocks of government debt acquired in support of the war effort at extremely low interest rates (2 per cent or below). Whenever the Federal Reserve tried to reduce bank lending by draining banks' reserves the banks sold some government bonds from their portfolios to fund their desired lending. Operating on banks' reserves thus had virtually no impact on bank lending and the Fed responded by voiding its informal agreement with the US Treasury to keep interest rates low and stable to ease funding of the government deficits accumulated during the war. In the famous “Fed-Treasury Accord” in the early 1950s the Fed regained the ability to operate directly on interest rates. By driving up interest rates far enough the Fed could drive down the prices of government bonds and create a large disincentive for the commercial banks to sell bonds to fund lending (long-term bonds with low interest rates have very high duration, which means their prices are extremely sensitive to changes in interest rates) since the capital loss on selling the bonds would exceed the income from the new lending. Indeed, on some occasions the impact on bond prices was sufficient to drive some financial institutions, such as government bond dealers who held short positions in bonds, into near insolvency, as in the credit crunch of the mid 1960s.

However, by the 1970s these bond portfolios were empty and financial institutions actively sought to escape the influence of interest rates on their activities. This was done by developing methods of raising funds that were independent of Fed control. Banks created a range of short-term liabilities that were not influenced by interest rate changes and were not subject to reserve requirements. As a result, banks could always raise additional funds by increasing rates on these instruments. The influence of Fed policy then depended on the action of the Fed to extend regulations governing the payment of interest rates on bank liabilities (called Regulation Q) to cover the new innovations. It was in this period that “liability management” replaced “asset management” (i.e. bond portfolios) in bank management.

As a result Volcker’s attempt to fight inflation by a policy of tight money based on higher interest rates had virtually no impact on bank lending for banks could always raise additional funds through higher interest rates on their new liabilities and as long as inflation expectations exceeded the higher lending rates borrowers would continue to demand new loans. It was in this period that capital requirements took on importance as an alternative means of limiting the ability of banks to raise additional funds to lend by issuing capital liabilities in the capital market. It was out of frustration at his inability to use interest rates to reduce the volume of lending that led to the decision to move to money supply targets. It is interesting that even this did not work and in the end it was the imposition of quantitative restrictions on credit cards that appears to have staunched inflationary expectations.

In any event commercial banks responded to the new policy of supply targets – that are in fact just another form of restriction on the funding of bank loans by restricting the creation of bank liabilities – by removing the loan assets, and thus the associated funding liabilities, from their balance sheets. As a result, commercial banks in the US no longer issue liabilities to fund assets in their commercial and industrial loan books. Rather, they originate and service loans that are packaged in a common pool and then sold to a separate financial institution created specially for this purpose (called a “special purpose vehicle”) that issues bonds in the capital market to fund the purchase of the loans from the banks. The Fed cannot regulate

the issue of these long-term bond liabilities by the special purpose vehicles since they are not banks, nor can they regulate their creation and sale of the loan assets since they are no longer on the balance sheets of the banks. The funding of short-term bank lending by the issue of short-term bank liabilities has thus been shifted to the capital market. The only way the Fed can influence this process is by influencing bond prices that are the source of the funding for loans, or to put it another way, by influencing long-term interest rates. In a sense policy has come back to where it was in the immediate post war period, attempting to influence bond prices. But the only policy variable available to the Fed is short-term rates, and the bonds are now in the hands of the private sector investors, rather than the commercial banks. The problem in the post war period was to discourage bank sales of bonds, by actually driving down bond prices with higher interest rates, while the problem now is to discourage the private sector investor from buying more bonds. The only way to do this is by creating the expectation that bond prices in the future will be lower, that is by influencing expectations of long-term rates.

Since banks no longer determine the amount of lending to the private sector it is of no use for the central bank to influence bank lending behaviour by influencing the costs of funds, or to influence borrowers' behaviour by increasing borrowing costs to offset inflation expectations. But, the implication of this shift is that it is expectations of asset prices that are the most important target of monetary policy, not expectations of goods prices. It is for this reason that the US central bank has never adopted, and indeed has argued against, the use of inflation targeting. Nonetheless, as Cardim de Carvalho notes, inflation targeting is the direct successor of the policy of money supply control that was abandoned as a result of the creation of the new bank liabilities in response to supply targets. Thus, it is extremely interesting that the Brazilian Central Bank should have adopted the policy while the Greenspan Fed rejected it. Cardim de Carvalho's explanation of this fact is the need to substitute the exchange rate anchor of the Real plan in order to retain control over inflation expectations.

The *de facto* operation of the Real plan, as any successful stabilization plan, involved restoration of stability of the exchange rate. Successful exchange rate stabilisation led to a restoration of expectations of exchange

rate stability and ex post this exchange rate stability was credited with the stabilisation of prices and baptised the “anchor” for price expectations. This follows the general idea that in inflationary conditions money cannot be held but should be used to buy goods before their prices rise, which adds to inflationary pressure, or to buy foreign currency whose value increases with the rate of exchange depreciation, and adds to inflationary pressure by increasing imported goods prices. From this point of view, successful anti-inflation policy requires both expectations of domestic price stability and exchange rate stability. Rather than an anchor, we might say it reinforces domestic expectations.

It would seem that it is in this context that Cardim de Carvalho suggests that the adoption of inflation targeting might be justified after the 1999 depreciation of the currency created uncertainty over future exchange rate policy.

However, it is not clear that exchange rate stability was indeed a part of the original formulation of the Real Plan, nor that the stability of the rate was crucial to the stabilisation of price expectations.<sup>2</sup> First, as I have argued elsewhere (KREGEL, 1999), the Real Plan was not the first that had tried the combination of policies that eventually proved successful after 1994. Rather, it was the increasing openness of international capital markets and the interest of international investors in emerging markets that proved to be the decisive factor as capital inflows more than offset the emerging external disequilibrium that appears to be a natural consequence of the initial stages of successful stabilisation and which in the past had brought about currency depreciation and the eventual return to rising prices.

Second, whereas in a closed economy high interest rates had been an additional source of inflation, under the Real Plan they attracted external capital in excess of the financing requirements of the external deficit and thus brought real, and at times nominal, appreciation of the currency that aided the effort to fight inflation by reducing import prices and increasing foreign competition in domestic markets. While this quickly generated expectations of price and exchange rate stability, it had nothing to do with setting an exchange rate anchor and no active policy steps were taken to stabilise the exchange rate as none were in fact needed. Indeed, as noted the exchange rate was allowed to appreciate. If it was

the opening of international capital markets to external capital flows that allowed high interest rates to be reduce inflation rather than increasing it, and for a rising external deficit to be accompanied by exchange rate appreciation rather than depreciation, it seems obvious that inflation targeting cannot provide a substitute.

Indeed the real problem was that while the Real Plan was efficient in bringing about short-term price stabilisation, it was not sustainable on a long term basis for external capital inflows could not provide a permanent offset to the increasing current account disequilibrium, the increasing fiscal imbalance and the disappointing growth performance. The problem was not to find a replacement for the exchange rate anchor, the problem was to find a monetary policy that would allow the acquired expectations of price and exchange rate stability to be accompanied by a return to per capita income growth. While it is not clear that there is such a policy, inflation targeting was clearly not appropriate for it has not been successful in preserving either price or exchange rate expectations, nor has it brought a return to growth.

The first thing to note is that while inflation targeting is compatible with a more flexible exchange rate it is unclear how this will impact domestic prices. For example, if rising prices are accompanied by rising foreign direct investment then higher interest rates will simply encourage capital inflows leading to exchange appreciation. On the other hand, if rising inflation generates fears of devaluation, rising interest rates may not be sufficient to prevent capital outflows from causing depreciation and undermine expectations of stable prices.

It is thus highly unlikely that inflation targeting could be considered as a replacement for the exchange rate anchor after January 1999 which in general reinforced domestic price stability. However, it is correct to say that the new policy attempts to influence price expectations directly. But even here it is not clear that the policy is successful. Tests for a Taylor Rule in Brazilian Central Bank monetary policy performance finds only one significant variable: inflation expectations (see FAVERO; GIAVANZI, p. 6). But, these inflation expectations are the result of a survey of market participants, which raises the possibility that the major banks who are the participants in the survey may be able to collude in fixing their expectations in order to “game” the central bank and indirectly determine monetary

policy<sup>3</sup>. It is clear from the experience since 1999 that the new policy target has been much less successful than the original Real Plan.

On the other hand, comparing Brazilian bank lending with that in the US, it seems that there is a degree of similarity in that much like US banks, Brazilian banks do not hold large commercial loan portfolios. However, in difference from the US, they do not engage in the same process of origination and securitisation of commercial loans. In addition, the Brazilian capital market does not have a large, deep long-term capital market. This means that the justification for US rejection of inflation targeting is not present in Brazil. But this leaves open the question of what intermediate target the Central Bank is attempting to influence in order to have an impact of price expectations. If banks do not provide the majority of financing to the private sector, then influencing the price expectations of their economic analysts who participate in inflation survey can have little impact on private sector demand. There appears to be no channel for the operation of monetary policy. On the other hand, without well-organised private sector industrial trade unions, and in an environment of low growth and falling real wages and rising productivity there seems to be little impact of costs on prices. The only visible channels of inflation then appear to be administered public services prices and import prices. The former are beyond the control of monetary policy while the latter can only be set by returning to a more ordered exchange rate policy. Paradoxically, it may be that the most appropriate policy might indeed now be a policy of exchange rate stabilisation.

## Notes

<sup>1</sup> Much of what follows is taken from KREGEL (1996) chapter 4 and KREGEL (1997), Chapter 5.2.

<sup>2</sup> See the account given in Fernando FERRARI-FILHO and Luiz Fernando de PAULA (2003) and especially Figure 1, p. 67 that shows appreciation from the first quarter of 1994 to the third quarter of 1995 and then a steady depreciation until the third quarter of 1998.

<sup>3</sup> DELFIM NETTO (2004) has made a similar point, noting the poor predictive power of the inflation expectations survey, as well as the fact that its self-referential character makes it difficult to provide a truly independent estimate of market expectations of future price behaviour.

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