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Two Harvard Economists on Monetary Economics: Lauchlin Currie and Hyman Minsky on Financial Systems and Crises

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ABSTRACT

In November 1987, Hyman Minsky visited Bogotá, Colombia, after being invited by a group of professors who at that time were interested in post-Keynesian economics. There, Minsky delivered some lectures, and Lauchlin Currie attended two of those lectures at the National University of Colombia. Although Currie is not as well-known as Minsky in the American academy, both are outstanding figures in the development of non-orthodox approaches to monetary economics. Both alumni of the economics Ph.D. program at Harvard had a debate in Bogotá. Unfortunately, there are no formal records of this, so here a question arises: What could have been their respective positions? The aim of this paper is to discuss Currie's and Minsky's perspectives on monetary economics and to speculate on what might have been said during their debate.

KEYWORDS: Lauchlin Currie; Hyman Minsky; Monetary Economics; Monetary Policies; Fiscal Policies

JEL CLASSIFICATIONS: B22; B31; B50; E12; E50

I. INTRODUCTION

In November 1987, Hyman Minsky (1919–96; Ph.D. Harvard 1954) visited Bogotá, Colombia, having been invited by a group of professors interested in post-Keynesian economics. There Minsky delivered some lectures, and in two of his lectures at the National University of Colombia he met Lauchlin Currie (1902–93; Ph.D. Harvard 1931). Although Currie is not as well-known as Minsky in the American academy, both are outstanding figures in the development of non-orthodox approaches to monetary economics. This is to be expected since, at Harvard University during their Ph.D. studies, both had contact with important non-orthodox economists such as Allyn A. Young, Joseph Schumpeter, and Ralph Hawtrey (in the case of Currie) and with Joseph Schumpeter (in the case of Minsky).[1] Furthermore, both authors were graduate teaching assistants in the money and banking class at Harvard. Currie assisted Hawtrey and Schumpeter, and later Minsky assisted Alvin Hansen and John H. Williams (Papadimitriou 1992), both of whom were also closely associated with Currie at Harvard.

It was natural, then, that Currie and Minsky were brought together for a debate in Bogotá. Unfortunately, there are no formal records of their discussion. A question then arises: What were their positions in these debates?

The aim of this paper is to discuss Currie's and Minsky's perspectives on monetary economics, and their positions on the causes of and solutions to economic crises. As there are no documents recording their debates, this paper will present Currie's and Minsky's ideas on these subjects. The first part will address the description of business cycles in both authors' works, the second will show their viewpoints on fiscal policy, and the third will address their positions on the role of the central bank. The last section concludes.

[1] At the University of Chicago, Minsky was influenced to an extent by Frank Knight, who was his professor (Minsky 1989).

2. CURRIE AND MINSKY ON CRISES

In 1931, Currie ([1931] 2004a) wrote his dissertation, "Bank Assets and Banking Theory," inspired by his mentor Allyn A. Young's work related to money and the functions of the monetary system in a democratic society (Mehrling [1999]).[2] Moreover, Currie's later work on economic growth was heavily influenced by Young's insights (Blitch 1995; Currie 1997). In his dissertation, Currie discussed the causes of the 1929 crisis. There, he found that this was closely related to the dominance of the "banking or commercial loan principle" (also known as the "real-bills doctrine") that had ruled the United States in the 19th century, the 1920s, and the early 1930s.

According to Currie ([1931] 2004a, 242), the view of the commercial loan theory of banking—also supported by those who adhere to the banking principle—"that commercial loans represent the most productive type of loan and that security loans are unproductive [...]," was the cause of ineffective action by the Federal Reserve System (Fed) in the crisis of 1929–32. Because of this, the Fed did not supply the quantity of money necessary to avoid the deflationary process that the economy was facing at that moment. That is to say, the Fed did not act as the lender of last resort. Frank Steindl (1995, 62) pointed out that: "[Currie] observes, for instance, that the Federal Reserve System simply was not concerned with the behavior of the money stock, not even with collecting data on it." Thus, Currie's explanation of the process that led the US economy to the 1929 crisis is similar to the interpretation made by Milton Friedman and Anna J. Schwartz in their 1963 work *A Monetary History of the United States: 1867–1960*, which became the cornerstone of what is known as "monetarism."[3]

In 1937, the US economy fell into a severe recession when the levels of unemployment and production reached similar figures to those found in 1929. Currie contended that the main cause

[2] Various examples of Young's own writings on money, banking, and crises are in Mehrling and Sandilands (1999), including Young's ([1928] 1999) famous paper on increasing returns.

[3] On this aspect, David Laidler and Roger Sandilands (2010) are very clear on the similarities of Currie and the later explanation by Friedman and Schwartz (1963). Steindl (1995), however, showed that Currie did not embrace the whole monetarist framework in his explanation of the crisis. Moreover, Currie set himself apart from the idea that the central bank can always easily control the supply of money, since he accepted that the central bank could be *obligated* to accommodate the public demand for cash (currency instead of bank deposits) if a collapse of the banking sector was to be avoided. (Thank you to Dr. Sandilands for pointing this out to me.)

was the very sharp decline in the government's net contribution (Currie 1980). Thus, when he explained the causes of the 1937 recession, his arguments went in a different direction from those made by the monetarists. On this topic, his reasoning was very similar to the position that post-Keynesians would later take on the subject of economic crisis. Currie argued that the causes of the 1937 recession were the "[...] lower level of Government's expenditures and the higher level of tax receipts" (Currie 1937, 1). The higher taxes would simply reduce consumption, shrink aggregate demand, and impact negatively on business performance. As an example, Currie described the severe deflationary process of 1929–32: "We are now entering upon a period in which production is falling short of current sales while efforts are being made to reduce inventories. But as production declines unemployment increases. As unemployment increases, income and consumer demands fall off. As sales decline and profits diminish, expenditures for new plant, equipment and maintenance will decline."

A deflationary process as described above could be averted via government expenditures. The government deficit plays a key role in increasing the private sector's surplus. Currie (1937, 2–3) continued: "At a time when the national income is shrinking, the Government is seeking to raise revenues and cut expenditures, this merely intensifies the deflationary trend." This was, and still is, an obvious critique of the kind of policies attempted in the crisis period of 1929–32 that then failed, and today still fail. His analysis is in line with the arguments that later will be presented by post-Keynesian authors, as was mentioned above.[4] In his explanation of the 1937 recession, Currie presented four phases that lead the economy to an unstable equilibrium—in other words, a recession. The phases are: a transition period, a period of sustained progress, a speculative period, and finally a period of unstable equilibrium (Currie [1938] 1980; Sandilands 2004, 178–85). Currie's arguments in presenting this were neither orthodox nor monetarist.

Thus, the argument presented by Currie is in line with Minsky's "Big Government" idea (Minsky 1986).[5] That is, the role of government deficit is to stabilize the economy by

[4] In his article, Matias Vernengo (2016) argued similar points in the introduction to the reprint of Currie's October 1936 memorandum to Fed Chairman Marriner Eccles in which Currie summarized the main points of Keynes's *General Theory*.

[5] Minsky declared that in his dissertation topic he "[...] was going to explore the relations between market structure, banking, the determinants of aggregate demand, and business cycle performance" (Papadimitriou 1992, 21). Initially he started his work under Schumpeter's supervision, but he finished it under Wassily Leontief after

establishing boundaries (floor and ceilings) for the system. Currie ([1938] 1980) labeled this concept as "net government's contribution" (government deficit), taking account of different degrees of stimulus or deflation associated with the main items in the government's budget. The "net government's contribution" concept gives a better indicator of the impacts of budgetary policy than the unadjusted cash deficit concept does (Currie [1935] 2004b; Sandilands 1990b, 68–74). This policy of using the concept of "net government's contribution" is a way of turning around a deflationary process, which, later, Minsky stated was a tool the government always has available for stabilizing the economy, and not just an option among other policy devices to be used in deflationary stages. Government deficit should be always held at the ready as an instrument for stabilizing the economy.

Currie's explanation of inflation in 1937 was different from the monetarists'. According to him, in the period before the 1937 crisis, inflation could be explained as an increase in unions' power when the capacity of the economy was at levels closer to full employment and higher costs were translated into higher prices (Currie [1938] 1980). This interpretation of the inflationary process is similar to the post-Keynesian analysis of prices. Steindl (1995) argues convincingly that it is misleading to label Currie as a proto-monetarist. There is no room in Currie's line of thought to argue that monetary policy was the primary cause of the 1937 recession. His closeness to post-Keynesian arguments is also evident in an interview given to a Colombian newspaper in November 16, 1987. In this interview he was asked about the crisis of October 1987.[6] There, he highlighted internal factors related to the financial sector, especially with regard to mutual funds in the United States and the possibility that the amount of credit they lent out to developing countries would not be paid back. The latter caused US banks to adopt measures (such as suspending lending) that negatively affected foreign countries and, when the mutual fund managers tried to sell their market shares, this created a deflationary process (Currie 1987). Currie presented arguments that were far removed from the conventional approach of that time.

Schumpeter's death. In this dissertation Minsky explores the role of floors and ceilings (institutional boundaries) in the stabilization of a model of aggregate demand.

[6] This crisis is known as the "Black Monday," in reference to October 19, 1987 when the stock markets around the world crashed. That Monday, the Down Jones Average index declined by 508 points and on Tuesday, October 20, the index reached its low point by declining to 1,709 points. This affected trading institutions and the international market "[…] because of the increasing internationalization of markets, this linked market affect[ed] foreign equity markets" (Ruder 1988, 8).

Currie's description of the 1987 "crack" is similar to Minsky's. That is, a system where financial players have a big impact on the economy and push firms' managers to act in ways that help sustain the value of their companies' shares. Minsky (1988, 12) points out: "Over October 19 and 20 [1987], even as money managers were trying to sell securities, the block traders were both reluctant and increasingly unable to take positions. Furthermore because the losses of October 19 had compromised the equity of some position takers (these organizations mark their holding to market at the end of each business day), on October 20 banks began to withdraw credit from block traders as well as from floor specialists."

Currie, in a less fully elaborated argument, gave an explanation similar to Minsky's. The latter explains the business cycle through his "financial instability hypothesis" (Mehrling 1999; Wray 2016), going a step beyond Currie in this respect: "The financial hypothesis is a model of a capitalist economy which does not rely upon exogenous shocks to generate business cycles of varying severity: the hypothesis holds that business cycles of history are compounded out of the internal dynamics of capitalist economies and the system of interventions and regulations that are designated to keep the economy operating within reasonable bounds. As such it incorporates the debt deflation theory of great depressions as a part of the interactive process that characterizes a modern capitalist economy" (Minsky 1994, 9).

Minsky was able to foresee the problems that the financial sector can cause if there are no institutional boundaries (ceilings and floors) that help stabilize the economy (Minsky 1992). Although Currie's approach in the early 1930s was different from Minsky's viewpoint, Currie was later mostly in agreement with post-Keynesian ideas, and closer to Minsky's interpretation of crises and the ways they can be resolved through government intervention.

3. CURRIE AND MINSKY ON THE ROLE OF FISCAL POLICY

As mentioned above, Minsky used the term "Big Government" to label the role of the Treasury in the stabilization of the economy after the Great Depression. For him, the role of the Treasury (Big Government) and the central bank (Big Bank) are essential for the performance of capitalism (Minsky 1986; Wray 2016). Both elements, which Minsky considered important for the best performance of the economic system, were also presented or proposed in some way by Currie, as I shall present in this and the following sections.

For example, Currie ([1935] 2004b, 290) presents arguments that explain why the role of government expenditure is important: “The argument for Government deficit spending [...] may be summarized as follows. After a drastic decline in business activity it is questionable whether sufficient new investment will take place ‘naturally’ to offset the current disinvestment and current saving [aggregate monetary income minus community expenditures on consumer goods]. Broadly speaking, increased expenditures wait on increased demand, and increased demand waits on increased expenditures.”

Currie understood the problem of effective demand (the lack of expenditure in the economy) in a monetary economy very well. His understanding of this problem can also be seen in his review of Keynes’s *General Theory* (Currie [1936] 2016), where he explained this argument to the Board of Governors of the Federal Reserve. Consequently, Currie constantly advocated filling the gap in effective demand via government spending when monetary measures alone would not suffice (Currie [1931] 2004a, [1935] 2004b, [1936] 2004c).[7] In the case of 1937, the main cause of the crisis was the reduction in federal expenditures (Currie [1937] 2004d, [1938] 1980). However, Currie ([1936] 2004c, 308) argued that once the economy reached its capacity at full employment, the government should look to balance the budget. Therefore, “[...] a Federal spending program [...] should be compensatory in both directions. We must be as prepared to adopt activity-depressing measures at certain times [such as facing an inflationary process] as [we] are to adopt activity-stimulating measures at others [such as facing a deflationary process].” A similar argument was developed by Minsky years later—the “institutional thwarting system” (i.e., ceiling and floor boundaries) necessary for stabilizing the economy (Minsky 1992). In Currie, as in Minsky, there is no such thing as crowding out or inflationary processes as a consequence of well-timed federal spending policies enacted to increase national income. For Currie these kinds of policies are “[...] a powerful weapon to combat the evils of economic instability in the future” (Currie [1936] 2004c, 309), although attention must be paid to the accompanying monetary implications of deficit finance. As with

[7] These analyses precede the work of Abba P. Lerner’s ([1943] 1983) “Functional Finance and the Federal Debt,” where he showed the role that government deficits play in increasing private wealth.

Minsky and other heterodox economists, Currie did not see the economy as an inherently self-equilibrating system.

Minsky considered the role of Big Government as one of the two elements that led the economy toward a stable path after the 1929 crisis. This was because "Big Government stabilizes not only employment and income but also business cash flows (profits) and, as a result, asset value" (Minsky 1986, 17). A similar argument was given by Currie ([1936] 2004c) in his memorandum on public spending, as we saw above. In this respect, Minsky advocated implementing a job guarantee policy as an element of Big Government's antipoverty policies. In a similar fashion, Currie openly called for a public works program in his review of Keynes's *General Theory* where he stated: "Three lines of attack on this problem [insufficient volume of investment] are suggested: These are, monetary policies affecting the rate of interest, a policy of 'socially controlled investment' (*a permanent public works program?*), and, finally, policies designated to stimulate consumption" (emphasis added; Currie [1936] 2016, 64).

Some points have been presented here—such as the role of the financial sector in causing crises and recessions and how government deficit helps stabilize the economy—that show similarities between the two writers. Currie (1974) would subsequently focus on a "leading sector model" of growth that suggests a strategic way to accelerate growth and increase better-paid employment. It could be said that Minsky's "employer of last resort" (or job guarantee program) is reasonably compatible with Currie's leading sector theory, as well as with Young's ([1928] 1999) theory of economic growth. The leading sector theory, based on Young's ideas, is the cornerstone in Currie's endogenous growth theory (see also Currie [1990, 1997]). The fundamental idea is that markets create markets in a potentially self-sustaining way, and this goes back to Adam Smith's famous aphorism that the division of labor—the major explanation of the increase in the wealth of nations—is limited by the size of the market. The role of government in this proposal is key, as it directs the private sector toward the main sectors (i.e., in Colombia, Currie identified the housing construction sector for middle-class and higher-income people as a "leading sector" for her economy) that lead the economy because of their greatest demand potential (actual or latent) in the sense that government policies can break artificial barriers that suppress demand (such as those associated with high rates of inflation).[8] In Minsky's employer of last resort proposal, the government gives a job to those willing and able to work. This job program serves as an anchor for stabilizing prices and as a buffer of workers that would expand or shrink depending of the state of the economy. The similarity between these two proposals is the role that the government has in helping to break bottlenecks in the system and leading the labor force toward those areas as necessary. Because there is insufficient demand for labor with a virtually inexhaustible latent demand, a program of this nature would translate this latent demand into effective demand. In Currie (1975, 45; [1982] 1993a), leading sector policies were key for implementing macroeconomic policies for accelerated urban development because "[t]o accelerate the rate of growth and provide better paying jobs, we require rapidly growing cities, which in turn provide a motor of accelerating growth in the whole economy." This is complementary to the job guarantee policies developed by researchers at the Levy Economics Institute and implemented in Argentina following Minsky's idea.[9] The program implemented with the urban communities of Buenos Aires operated by employing the head of household from a married or single-parent family in activities the participants considered necessary for the development of their communities, with the government providing the necessary funding to carry out the programs. However, the institutional changes that Currie helped implement in Colombia, such as the Colombian indexed housing finance[10] and the new housing finance system, largely enabled his leading sector strategy to be self-financing and carried out on a much bigger scale.

[8] It is important to remember that each economy has different institutions and, therefore, different leading sectors, but also that the state may need to play a major role in creating new institutions where these are needed to offset forces that are artificially and unnecessarily suppressing potential real demand, notably in the field of long-term housing finance and with chronically overvalued exchanges rates (see Currie's "Plan of the Four Strategies" for Colombia in Sandilands [1990a, ch. 10]).

[9] The *Plan Jefes y Jefas de Hogar Desocupados* (Program for Unemployed Male and Female Heads of Household) (Tcherneva and Wray 2007; Kostzer 2008) was a massive employment program, implemented in 2002 by the Argentinean government to deal with the effects of the crisis that hit this country in 2001. Its scope was unemployed heads of households and it provided "[…] a payment of 150 pesos per month to a head of household for a minimum of four hours of work daily. Participants work[ed] in community services and small construction or maintenance activities, or [were] directed to training programs (including finishing basic education). The household must contain children under age 18, persons with handicaps, or a pregnant woman. Households [were] generally limited to one participant in the *Jefes* program. The program was intended to be one of the government's primary programs to deal with the economic crisis […]" (Tcherneva and Wray 2007, 3).

[10] This was a financial system originated in Brazil and later implemented in Colombia in 1972. It was designed for capturing a significative amount of private savings that later were channeled toward housing construction and helped to strengthen and increase competition in the financial sector. Currie's system allowed for the daily monetary correction of savings and credits in terms of the inflation rate; that is, their value would be adjusted according to the inflation index. Thus, borrowers and lenders, with the support of the central bank, were assured that their savings and credits extended would be kept constant (Sandilands 1990; Currie 1993).

4. CURRIE AND MINSKY ON THE ROLE OF THE CENTRAL BANK AND THE BANKING SYSTEM

Perhaps it is on this topic where Currie and Minsky have some disagreement. It is known that Currie (1934b) was one of the proponents of the 100 percent reserve plan, also known as "The Chicago Plan," in the 1930s with a view of gaining greater control over the supply of money. In the 1990s, Currie presented what he called "a new hypothesis on the demand for money," which shares similarities with his 1930s plan, as we shall see below. Minsky knew and understood the arguments for "The Chicago Plan," perhaps from his contact with the University of Chicago where he worked with Paul Douglas who supported and worked on that plan (Phillips 1995, 140–41). In the foreword that Minsky wrote to Ronnie J. Phillips's book, *The Chicago Plan & New Deal Banking Reform* (1995), Minsky (Phillips 1995, xiii) argued that "[a] sophisticated view of the significance of government debt as an asset and of government deficits as income-maintaining devices lay behind the 100 per cent money schemes."

Currie (1934b) proposed the 100 percent reserve program in his book, *The Supply and Control of Money in the United States*. This was elaborated upon at length in a September 1934 memorandum (Currie [1934c] 1968) to US Treasury Secretary Henry Morgenthau that was eventually published in the 1968 reissue of his 1934 book on the supply and control of money. He also presented his idea in an August 1938 memorandum prepared for Federal Reserve Board Chairman Marriner Eccles, entitled "The 100 percent reserve plan" (Currie [1938] 2004e). In both works, he made a sketch of how this system should work and the necessary conditions that a country must meet to set up such a plan. In short, Currie's program states that "[...] the most perfect control could be achieved by direct government issue of all money, both notes and deposits subject to check" (Currie, 1934b, 151). For him, notes and deposits subject to check are what defines the actual means of payment, time or saving deposits are not. Currie insisted that his proposal differed radically from those that proposed the nationalization of the banking system in the sense of taking over the banks' lending operations. Instead, he was advocating for the divorce of the supply of money from the lending of money, which would be done through requiring 100 percent reserves against all cash and demand deposits subject to transfer by check in commercial banks. The government would then be the sole issuer of money so defined. Banks themselves would continue to make loans (rather than the government through the nationalization of banks) but these loans would be based on savings deposits and so would not affect the supply of money itself, so long as there were no reserves required against those savings. Loans would *transfer* money and spending power; they would not themselves *create* money. The creation of money would be a function reserved for the central bank. Currie (1934b, 152) wrote: "[...] the popular view [is] that the significant function of banks is their loaning activity. The merit of the proposal here set forth lies, in the writer's view, in the fact that it divorces the supply of money from the loaning of money [...]. Their association in modern monetary systems is purely an historical accident."

We see that Currie was aware of the role of the banking system in supplying and creating money.[11] On the other hand, Minsky (1986, 358–59) criticizes this type of support for "The Chicago Plan," writing: "Restricting the central bank to the regulation of member banks and to the control of the money supply is wrong. Regulating commercial banks or money may have been a good enough definition of central bank responsibility when other financial institutions were less important, but such restricted responsibility is no longer appropriate."

It is evident that much time passed from when the 100 percent plan was first proposed until the time Minsky wrote his book *Stabilizing an Unstable Economy* in the 1980s. This is why Minsky had in mind a modern banking system with a larger range of activities, where individual banks could cover different branches (commercial, investment, etc.) and with the now well-known shadow banking organizations playing a major role in the economy.

In the 1990s Currie would put greater focus in his work on the demand for money alongside its supply than he did in the 1930s. His paper, "A new theory on the demand of money: the 'accounting' motive and banks' costs" (Currie [1992] 2004g, 392), which was based on evidence from Colombia (where he had considerable experience with the development of financial institutions over many years), argued that the central bank should control the supply of money, because "[...] a clearer distinction between money and non-money is necessary, and

[11] Currie knew about the money-credit driven theory because he worked as a teaching assistant for Schumpeter. Besides, in his 1934 book, Currie (1934, ch. 5) tried to define the meaning of the term "credit." For him this word should be thrown away from the economics literature because of the ambiguity in its meaning. He concludes: "The continued use of the term 'credit' appears to be an obstacle both to the advancement of monetary science and to its application to current problems" (Currie 1934, 60).

money must be something whose supply can be limited and controlled." Thereafter, he addressed the subject of the demand for money. For him, explanations for hoarding money that use the classifications given by Keynes and others based on the three well-known motives for holding liquidity—the (gross) transactions demand for money, the precautionary demand for money, and the speculative demand for money—are problematic because: "The chief weakness of the classification [...], from the point of view of throwing light on the demand for money, is that it focuses attention only on the costs to the holders of money and not on the costs to the suppliers of money, which consists mostly of commercial banks. It is argued here that the necessity of covering such costs has an important influence on holders' demand for a large proportion of the supply" (Currie [1992] 2004g, 394).

Currie ([1992] 2004g, 392) stressed the importance that commercial banks have in the demand for money and the costs they incur, since "[t]he characteristic of M1 [as money is defined in this paper] that distinguishes it from M2 is that there is a cost in holding it or that the return from assets in this form yields no return or a smaller return (in the USA) than can be obtained with equal risk and liquidity from other assets."

However, he and Jacob Viner (for whom Currie wrote his proposal revision of the US banking system in 1934[12]) were not so naïve as to think that such a plan could easily be put into practice. Political interests and the social structure of that time were important issues that blocked implementation. Nevertheless, Currie had a significant influence on the now-current monetary policy structure since he wrote Eccles' draft of what later became the 1935 Banking Act, which set up the Fed as the system we know today (see Sandilands 1990a, 64–68).

Now, Minsky and Currie could fail to agree here. The former stated that restricting the role of the central bank (Big Bank) just to the control of the supply of money and the functioning of the banking system was only a good definition of what a central bank's role is when other financial institutions (now known as "shadow banks") were not important. However, this is now less accurate because of the increased importance of those institutions in the economy (Minsky 1986). By contrast, we have seen that Currie called for total control of the supply of money by

[12] Viner also influenced Minsky during his studies at the University of Chicago.

the central bank. However, both authors focus their attention on how those "new" institutions (i.e., shadow banks) affected the banking system. Based on his experience in Colombia, Currie approached this topic through the analysis of the role of the *Corporaciones de Ahorro y Vivienda* (CAVs or savings and housing corporations) in the Colombian financial system. These institutions had different reserve requirements relative to commercial banks' current accounts. Currie insisted that savings in the CAVs should not be treated as money, defined as M1 (see Currie 1993b), and so should not be tied up in reserve requirements. Currie insisted that the use of funds in these institutions did not mean an increase in the M1 monetary supply. Indeed, if reserves were held against them, this would actually reduce M1. However, Currie argued, contrary to Minsky, that money is subject to the laws of supply and demand and its volume can be controlled except insofar as there is a change in the demand for cash instead of demand deposits, with consequences for the overall supply of M1 unless offset by central bank action (which may be vital in averting bank runs).

Following the above, it is possible to point out that although Currie's new money demand theory is closer to exogenous money theory, it does not fit into the mainstream approach. In his theory, banks are more than simple organizations that serve to promote saving and lending money; that is, they are not the simply passive actors that mainstream economists usually refer to when talking about banks. For Currie, banks have a profit motive that helps them to make decisions on the lending process. Something similar is presented by Minsky in his "Two Prices Theory." There, Minsky shows how private investment decisions are made by taking account of the prices of capital and investment goods (Minsky 1975, 1986). When a firm runs out of internal funds, it can go to the financial institutions (not just commercial banks) and borrow from them. Thus, the money requested will be lent by these institutions at an interest rate that will increase according to their studies of firms' business expectations. This two prices theory is based on Keynes's liquidity preference theory (1936) and Kalecki's risk premium (1937). Similarly, Currie argued that banks face costs (financial and opportunity) that are passed on to the users (Currie 1993b). Besides, Currie (1993b, 365) stated that "[t]he service provided by banks is to provide an indispensable element to business accounting. For all businesses, except illegal or very small, checks provide a detailed, secure and legal record of payments and receipts." This is in line with Minsky's (1986) balance sheet approach to the economy.

However, contrary to Minsky, Currie did not agree with Keynes's liquidity preference theory as the chief characteristic in the demand for money. For him, this liquidity aspect caused confusion in the definition of money. This can lead us to forget the essential aspect of money, since "[...] an essential characteristic of money—the limitation of its quantity—was lost sight of or understressed" (Currie [1991] 2004f, 372). Again, here is evidence of the differences between the authors in their approach to monetary theory.

Although the two authors' approaches are different, it is possible to say that in some way Minsky and Currie were pointing out how banks' carry costs are translated into the cost that borrowers have to pay for their credit, even though the motives are different for each author. For instance, Currie presented the role of innovations in banking, as well as the role of institutions (such as the CAVs) as administrative innovations that would reduce the cost that banks face and, furthermore, the competition among banks would be translated into lower costs to the borrowers (Sandilands 1990a; Currie [1992] 2004g, 1993b). Minsky, on the other hand, argued for the necessity of keeping track of these innovations, since the role of the central bank is also to regulate the financial sector. Without the regulation that the central bank can enforce in the financial sector, the economy is constantly on the edge of crisis.

In short, Currie and Minsky saw the role of monetary policy as a fundamental tool to constrain the crises generated in the economy. The crises are always threatening, but astute central bank control and oversight can help avoid them.

5. CONCLUSION

Both Currie and Minsky can both be labeled as non-orthodox economists who thought outside the box. Although there are almost no available records of their encounter in Bogotá in 1987, it is possible to say that any disagreements were not as important as the points of agreement and the possibilities of complementarity of their ideas.

The insights of Currie and Minsky on monetary policy are indeed useful in understanding how the banking system and central bank policies can make the economic system unstable. Also, they showed in their writings why money plays a central role in the economy and hence the need for a sound monetary theory. Other examples of their complementarity is the possibility of linking Currie's "leading sector" theory of growth with Minsky's employer of last resort as policy programs capable of correcting the instability of the system. The insights of these authors help the development of policies to solve major economic problems such as instability, unemployment, slow economic growth, and excessive inequality.

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