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The Lessons of the Currency School-Banking School Dispute for the Present Post-Crisis Economy

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Abstract

The conduct of monetary policy and its results are essential for the post-crisis economy. History shows that monetary policy mistakes are not unusual and problems may arise from misunderstandings and lack of control over the impact of monetary authorities' actions. Also, there is no consensus from either academic or professional point of views over the origins of crises and how they should be avoided or dealt with. The aim of this paper is to identify the first controversies over money, monetary rules and financial crises, and demonstrate they haven't changed much since they were publicly debated in the 19th century.

Keywords: monetary policy; monetary theory; central banking; financial crisis.

1. Introduction

Presently, one takes for granted the existence of a modern central bank who operates the monetary policy in a given state. But not so long ago (namely 150 years ago), this institutional arrangement didn't exist in the shape we know it today, and the prototypes of central banks were few among the states of Europe. A central bank holds monopoly over the money supply, manages the international reserves of the state, regulates the banking system, and sometimes the financial system as well. The central banker is the one who through discretionary monetary management decides the general interest rate and to whom he should be lender of last resort. The 2008 financial crisis...
crisis showed in action the practice of saving the “too big to fail” financial institutions. However, this kind of action is seen as generating moral-hazard and leading to worse results for the post-crisis economy.

As opposed to the present institutional arrangements, free banking means that the system would comprise of competitive banks, all possessing equal rights to trade (Smith, 1936): the currency unit would be an asset or a set of assets and commercial banks would have notes and deposits convertible in the currency unit as liabilities (Goodhart, 1992). Any bank would be free to trade notes according to its assets, competing with other banks in money creation.

The post-crisis debates tackle subjects such as the functioning of central banking, what is considered to be money, how does monetary policy influence the overall economy and how should it be conducted. The topics are similar to the ones discussed in the Currency School- Banking School controversy, as we shall see. Today, economists and policy makers are in considerable disagreement over the issues mentioned above.

Monetary theory was approached in the past by many scholars, among them David Hume, Adam Smith and David Ricardo to name the early theoretician who are best known.

2. Still, the dispute over what exactly money is and how should the monetary and banking systems be organized that deserves to be mentioned as a starting point for modern times dates back in the 19th century, in England and in other countries as well. It was then when the “relative merits of a centralised monopolistic banking system and a system of competitive banks all possessing equal right to trade” were discussed, especially in France (Smith, 1936). But as most of historians of economic thought approach the subject, the central question was whether the monetary policies should be governed by rules (endorsed by adherents of the Currency School) or by discretionary decisions (endorsed by adherents of the Banking School) (Schwartz, 2008; Smith, 1936). The debate in England (it is of interest because the development of modern central banking occurred there) concerns the reform of the Bank of England (known also as the Bank) and the famous dispute between the Currency School and the Banking School around 1840s. The latter brought valuable insights regarding monetary theory and policy which will be the focus of this paper.

2. The 19th century banking system and the controversy of the Currency School and the Banking School debate: problems of interpretation

First of all, let us make some comments regarding the banking system in England during the 19th century. The Bank of England (privately owned with limited liability) had monopoly over note issuing in London and its vicinity (65 mile radius) and was the only one to be allowed joint-stock of more than 6 partners in England and Wales, until 1826. Thus, the Country banks (outside London's perimeter), who could issue notes, with some restrictions, were not entitled to the same conditions regarding joint-stock while the other London banks would only play the role of money intermediation - deposit and credit creation, being restricted also to a maximum of 6 partners (Arnon, 2011; Goodhart, 2008; Smith, 1936). The Parliament regulations of 1777 who raised the minimum denomination for any non-England notes as the dominant form of currency, notes who officially became in 1833 legal tender in England and Wales (Goodhart, 2008). Plus, all the privileges the government had given through the periodically renewed Bank's Charters had transformed the Bank, little by little, in the holder of the gold and banking reserves (i.e, reserve against notes, and reserve against deposits, respectively,) for the entire England, as Vera Smith concludes. We must not forget that at that moment, the monetary system was based on silver and gold as the standard for money, all other paper money being redeemable in silver or gold coins and bullion. There had been periods of suspension of convertibility of the Bank's notes (not of the Country banks' notes as well) during banking crises in England, but this was the exception from the rule. So the system at the time was a hybrid one – neither complete monopoly over money creation (central banking), neither free competition among banks in the trade of note issue (free banking).

2. although the role of money was discussed in the works of Plato or Aristotle in the 4th century BCE, the issue probably arose long time before them.

3. Basically, the British monetary system was put on a paper standard.
The result of the currency-banking controversy was the adoption of the Bank Charter Act of 1844, known as Peel’s Act (the name of Britain’s Prime Minister at that moment) and was seen as a victory of the Currency School. On short, the Act meant the “doom” of free banking and the placement of the ultimate monopoly over paper money creation in the hands of the Bank (Schwartz, 2008; Smith 1936) – it prohibited new banks to issue notes, restricted the issue of all existing private and joint stock country banks to their average circulation and separated the two functions of Bank of England, note issue and credit intermediation, in two departments – the Issue Department and the Banking Department who would operate separately (Arnon, 2011; Goodhart, 2008; Schwartz, 2008; Skaggs, 1999; Smith, 1936). Also, the Act placed a 100 percent marginal reserve requirement on the issue of Bank of England notes - the Bank's fiduciary issue was limited to £14 million and any notes issued above this level would be in exchange for gold coin or bullion (Skaggs, 1999).

Most of the authors, such as Anna Schwartz, Lawrence White, Charles Goodhart (who actually approaches the subject by resuming White's point of view) or Arie Arnon add to the two before-mentioned Schools the Free-Banking School as a third school involved in the debates at that time. But Vera Smith notes in her doctoral thesis that advocates of free-banking can actually be considered as taking sides either of the Currency School or of the Banking School, whether they promoted near 100% reserves or wanted monetary inflation and cheap credit. Thus, she groups the chief disputants in the banking and currency controversy as being in favour of free-banking or central banking, resulting 4 different categories of monetary thinking. While Smith emphasises the free-banking controversy, in the secondary literature the discussions on extending free trade to banking (especially note issuing) occupy little space in comparison to the dispute between the two former mentioned schools over the organisation of the Bank and the meaning of money, as we will see further on.

The ante-1840s debates had been related to the paper notes convertibility in specie (coins or gold/silver bullions) but the successive financial crises of 1825, 1832 and 1836 determined public discussions of monetary issues such as monetary fluctuations, the monetary system or the Bank of England's responsibility for the fragility of the system. The Currency School and its representatives (Samuel Jones Loyd, J.R. McCulloch, Robert Torrens, George Ward Norman etc.) believed that the crises had been attributable to the monetary mismanagement of the Bank of England and advocated for a reform – which succeeded to be applied in 1844 through the adoption of Peel's Act, while the Banking School, represented by Thomas Tooke, John Fullarton, James Wilson and others, emerged as a reaction to the pamphlets written by Loyd or Torrens, had other opinions and supported more or less the current state of affairs – Tooke was for competition outside London, monopoly over note issue inside it (Arnon, 2011). Wilson rather favoured free competition and thought banking altogether (note issue and intermediation) should obey the market forces as any other trade (Smith, 1936). Goodhart (1989) and Schwartz (2008) consider that as a whole, the Banking School agreed with the Currency School on the need to establish a Central Bank – as opposed to the Free-Banking School. Others, alternatively, interpreted it as supporting competition in money creation (Skaggs, 1999).

It is my opinion that the various (sometimes even opposing) views in secondary literature with regard to the defining principles of each School differ precisely because of the many important personalities of that time who endorsed different theories. Here comes of great help Vera Smith's analysis who used a 2x2 grid in categorising the monetary writers - currency school and banking school on one side (meaning they backed a 100% gold reserve for banknotes or a fractional-reserve system), and free banking and central banking on the other (equaling a system based on monetary competition or, on the contrary, one based on monopoly over paper money creation). As such, one can be a supporter of the Currency School's attempts to limit note overissuing and, at the same time, be a sympathiser of the monetary competition (although the general opinion is that the Currency School was an advocate of central banking). The above is valid for the Banking School as well – one can favour the trade of note issue governed by discretion and be at the same time an advocate of central banking or free-banking. Skaggs (1999) also makes a review of the multiple investigations of the British controversy and reasons that the dispute gained several interpretations and positions as a result of the authors’ different sympathies or received theory during their academic education. Still, we may say that the prevailing Currency School's opinions were incorporated in Peel's Act in 1844, from where we can draw a number of conclusions. Instead, the “Banking School had no legislative programme for reform of the monetary system. Good bank management, in the view of the school, could not be legislated” (Schwartz, 2008). Still, why the lack of legislative programme among the Banking School's proponents who actually only reacted to the Currency's School proposals? The answer will become clear once one follows the debate more closely.
3. The dispute over the role of money and money supply and discretion versus regulations

To begin with, the majority of the Currency School's members (not all of them, but this was the view that prevailed and was incorporated in Peel's Act in 1844) assumed that the money supply included notes (paper money) and coins (metallic money) and that overissuing of bank notes (whether done by the Bank or otherwise) was at the heart of monetary instability (Arnon, 2011; Goodhart, 1989, Schwartz, 2008). They did not deny the importance of other credit instruments, but considered them to be determined by the quantity of currency in circulation (Arnon, 2011; Skaggs, 1999). The Banking School claimed that the overall rate of expansion of bank assets and liabilities was the element important to monetary stability (Goodhart, 1989) and that other forms of credit (bills of exchange, Exchequer bills or cheques) were similar to, and should be treated the same way as bank notes. Therefore the definition of money should include, besides notes and coins, deposits payable on demand (Arnon, 2011; Smith, 1936). Instead, Anna Schwartz (2008) reaches the conclusion that the Banking's School definition of money was means of raising the velocity of bank vault cash but not as adding to the quantity of money\(^4\). The existence of contrasting point of views has been explained in the preceding section.

The Currency School accepted the classical quantity theory of money -in its view the prices were being influenced by the supply of money. Thus a shortage of money would result in declining prices, while an excess would increase them. Changing the quantity of money in the system would not affect relative prices and real variables such as output or employment because the nominal prices would adjust to the money supply promptly, without any impact on the real economy (the so-called neutrality of money). Its proponents also included in their theoretical explanations the Price-Specie-Flow mechanism first described by David Hume. Accordingly, countries who are trade partners will pay one another in internationally accepted money and so the inflow or outflow of gold will join or leave the internal money circulation. The result would be maintaining the equilibrium of the balance of payments in the long run through automatic forces. Then, the Currency principle implied that the circulation of notes will expand and contract at the same time with gold bullion and its evolution (in Skaggs, 1999) words “a mixed (metallic and paper) currency should fluctuate exactly as a purely metallic currency would), as the perfect circulation meant that paper money “should function as if they were gold” (Arnon, 2011). Anna Schwartz (2008) sums it up to the fact that in the School's view “any rise in the price level and a fall in the bullion reserve under a mixed currency\(^5\) would be seen as “symptoms of excessive note issues”, and thus they did not try to regulate banking activities (deposits and loans) as they considered there is no need in that direction.

Last but not least, most of the School's advocates tried to explain why the classical principle of competition could not be applied to the trade of note issue, and why a central authority should be established holding monopoly over issuing of notes (Arnon, 2011; Smith, 1936; Huerta de Soto, 2010). As mentioned before, only a minority supported free banking instead. Past experience had shown that monetary instability was closely related to the fact that banks were inclined to issue more notes than their gold reserves would have allowed them to do. Therefore, what the Currency School was trying to do may be interpreted as the setting up of a monetary system based on 100% reserves, in which any change in the bullion reserves would be followed by a change in the circulation. As noted by Arnon (2011), Goodhart (1989) or Huerta de Soto (2010), the exponents of the Currency School failed to see that deposits played an important role in money creation, and, hence, even after the implementation of Peel's Act, an Act which did not impose any requirements upon deposits payable on demand but included the School's recommendations on paper money creation, the financial crises kept recurring.

As such, one of the arguments for central banking and against free-banking regarded money creation as operating in the interest of the nation, not for profit as it did currently, and that one authority should be responsible for the money supply. Free-banking would mean a dissolution of this responsibility. Plus, in a free-banking system, there would be no mechanism against overissuing of notes if banks decided to expand together, as it had happened before in the past (Arnon, 2011). Loyd, for example, was of the opinion that the results of the miscalculations of the note-

\(^4\) They included government paper money and bank notes

\(^5\) Meaning metallic and paper money
issuers were negatively affecting the public, while banks bore no loss. Also, he believed that the ordinary rule of producing the greatest quantity at the cheapest price did not apply in the case of currency, and therefore, it should not be treated as any other trades (Schwartz, 2008). Further on, members of the Currency School argued that a monopoly over note-issuing would “not be misled to look at the level of prices, the rate of interest, the relative amount of money in different times, or the quantity of deposits” as did the issuing banks at that time. The same did not apply for all the other banking transactions, thus competition would be allowed in ordinary banking business. Also, this rationale was used in separating the Bank of England’s activities in two departments through Peel’s Act of 1844 (because its two functions were conflicting) – the Banking Department would function as any other commercial bank, maximizing its profit, while in times of distress (when clients would come to demand their deposits) it would not have the right to apply for notes or gold at the Issue department as it had done many times before, but it would use its own reserves (Arnon, 2011). Thus, in the future the fluctuations of money would be according to the fluctuations of coins and bullion reserves.

Having such an important role in the economy of a country, the trade of note-issuing was considered to be of public interest by important proponents of the Banking School as well. They favoured a system based on a big reserve of bullion (but they didn't mention its volume), managed by the Bank, who would be able to deal with temporary bullion drains without destabilizing credit markets (Arnon, 2011, Skaggs, 1999). Tooke, for example, believed that a monopoly issuer would promote “less risk of overissue and greater safety because it would hold sufficient reserves” (Schwartz, 2008). But if the central bank issue can be seen as a point on which the two schools resonated, the other proposals of the Currency School were challenged by the Banking School through their writings.

As we have seen before, they disagreed on the importance of deposits - the Banking School paid greater attention to financial assets convertible into gold (Goodhart, 1989; Skaggs, 1999), and considered other forms of credit as behaving in a similar way to bank notes. Thus they tried to demonstrate that the currency principle and the price-specie-flow mechanism were flawed from the start (as it took into consideration only coins and paper money) and, moreover, they accused the Currency School of accepting two easily the Quantity Theory (Arnon, 2011). Tooke, an exponent of the Banking School, considered that money was actually influenced by prices and income, not the other way round (i.e. the amount of money is determining prices), and that the money supply was influenced by public behaviour, not by gold flows or trade. Therefore, the money instruments were being controlled by market forces and banks of issues could not determine the amount of notes in circulation. Thus, the banks could not be accused of overissuing (Arnon, 2011). As Vera Smith (1936) mentions, the group believed that the activity of note-issuing was determined by the demand of the public, and the amount of the note issue should not be imposed through legal restrictions.

A Banking School principle, stated by both Fullarton and Tooke, was the law of reflux according to which convertible notes would return to the issuer in the form of deposits, for repayment of loans or for redemption in metallic money, if he were to try to issue too many of them (in the first two cases bringing an end to overissue, in the third - draining the gold reserves of the bank), making overissue possible only for limited periods of time (Arnon, 2011; Schwartz, 2008). The explanations were in support of not regulating money, and leaving it at the discretion of banks or the Bank.

Also, in Schwartz's account (2008) of the Banking School's history, there are two other main principles mentioned: the real bills doctrine, according to which loans which finance short term commercial transactions do not have a negative impact on the economy (as source of inflation, denied by the Currency School) and the “needs of trade” doctrine. The first one implied that "liabilities of deposits and notes would never be excessive if banks restricted their earning assets to real bills", but failed because “it ignored the role of the discount rate in determining the volume of bills generated in trade” - therefore the Currency School was right and the real bills doctrine did not prevent overissuing. The needs for trade meant that “the note circulation should be demand-determined – curtailed when business declined and expanded when business prospered, whether for seasonal or cyclical reasons” - the money supply would expand or contract to meet the needs of trade without being a source of economic instability.
4. The Lessons of the Currency School-Banking School debate for the post-crisis economy

The Currency-Banking Schools dispute can help us trace important problems on which consensus hasn't been reached even today and, at the same time, gives us the key to understand central banking evolution. The main issues were: what is money, how should money be created (through competition or through monopoly) and what should be the conduct of a monetary authority – monetary policy based on rules or on discretion? Even more, although monetary policy has evolved since the 19th century, many of its tools and principles were developed then (Bordo, 2008).

Thus, first to arise is the issue of money. In the 19th century the system was based on commodity money - meaning that currency (in the form of coins) was being minted out of gold especially (silver became less and less used) and its value was closely linked to the international price of gold and to the reserves of gold a country possessed. All notes issued by banks and government (paper money) were redeemable in currency or in bullion. Some economists, for example Tobin (2008), emphasize the role of social convention in designating the value and the functions of a commodity as money, while Menger (1909) ascertains that “money was not created by law; in its origin it is not a governmental but a social phenomenon”, meaning that money naturally evolved as a social institution. Based on Menger's previous work, it was Mises (1912) who enunciated the “regression theorem” according to which the money demand originates from the moment money had purchasing power as a non-monetary commodity in barter. Therefore, money isn’t just a simple convention, it has intrinsic value and emerges as social institution in time and following intense human interaction-commercial exchange.

Paradoxically, today the monetary unit is defined by government, the central authority deciding what media are legal tender in the settlement of debts, contracts and other payments as well. The currency is fiat, without intrinsic value, meaning that money represents a “debt” the public holds against the government, while the latter pays no interest for it (and has virtually no assets to back it). The institution of money is considered a public good which cannot be produced on the free market without government control for this reason (Tobin, 2008), although history show us the evolution of money as a social institution, not as a governmental creation.

Leaving aside the differences between commodity money and fiat money, what the Currency-Banking School dispute brings forth is valuable insight on the money’s and its derivatives’ role in the economy. The Banking School disapproved of the Currency’s School explanations in which only notes (paper money) were considered of importance. Bank notes were similar to other forms of credit such as demand deposits, bills of exchange, cheques, exchequer bills -therefore why not include them in the theoretical debate? Moreover, the Currency School believed that the financial crises of their century were the result of bank notes overissue (without even considering the role of deposits on demand). Instead, according to the 20th century Austrian Business Cycle Theory, demand deposits in a fractional-reserve banking system are the source of financial crises. Non-Austrian economists as well, such as Lucas (2011) have observed, that during the Great Depression (1929-1933) what changed in the USA was not the occurrence of war or a natural disaster, not even the American ability to produce (and thus, its potential GDP), but the decline in deposits, and, consequentially, a decrease in liquidity. Or, a fractional-reserve banking system will be fragile in these conditions and bank-runs will lead to financial crises. Concluding, deposits on demand play an important part in today’s money, besides the fiat currency created by monetary authorities, because it is through them (and the legal provisions governing them) that the fractional-reserve banking system gives power to commercial banks to multiply money in the economy.

The result of the ambiguity about the precise definition of money is that, presently, economists and central bankers use monetary aggregates comprising of different money derivatives to refer to money. Hence base money (sometimes referred as M0 or monetary base) is defined as the currency in circulation and the reserves held by credit institutions (banks and other depository institutions) at the central bank in their country. The official definition of narrow money, M1, includes currency in circulation and overnight deposits (the Fed specifies currency held by the public and transaction deposits at depository institutions - including traveler's checks, demand deposits and other checkable deposits). M2, a monetary aggregate as well, comprises M1 plus deposits with an agreed maturity of up to

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6 The definitions have been harmonized according to information given on the official websites of the ECB, Fed, and OECD.
two years and deposits redeemable at notice of up to three months (while the Fed take into account M1 plus savings deposits, small-denomination time deposits – issued in amount of less than $100,000-, and retail money market mutual fund shares). Broad money, M3, is in the OECD and ECB views, the sum of M2, repurchase agreements, money market fund shares and units and debt securities with a maturity of up to two years. Unlike the European Central Bank, the Federal Reserve System decided the cease of publication of the M3 monetary aggregate starting from March 23, 2006 as it had lost its importance in the conduct of monetary policy.

The following figure illustrates the tremendous difference between the monetary base, created by Fed in the U.S., and the monetary aggregate M2. The latter aggregate shows the contribution of private banks to money creation, multiplying money through the fractional reserve system. This leads to the conclusion that central banks cannot actually control the real supply of money in the economy, as it depends on the banking system (after it has complied with capitalization requirements and reserves requirements) to what extent it will lend money (and, thus, multiply it). The support for lending, besides time deposits, are the demand deposits (consisting of monetary base) and the two quantitative easing programmes launched by Fed – QE1 and QE2 can be seen as pushing up the monetary base (resembling two cliffs).

![Fig. 1. Monetary aggregates Evolution in the U.S.](image)

Source: Federal Reserve Bank of St. Louis

Still, the result has not been the one wished by Fed. Figure 1 clearly shows an anomaly: the monetary base is larger than the monetary aggregate M1. This could mean that the money injections are not effective, as the banks prefer to keep even higher reserves with Fed.

As regards to GDP growth following Fed's actions, the results are inconclusive. Figure 2 illustrates the change in its evolution, in percentages. There is a slight positive trend, but as it can be seen, GDP doesn't seem to register a stable growth. On the contrary.
5. Conclusions

Although the earliest predecessor to monetary policy can be considered the process of debasement (Bordo, 2008), the major issue of monetary conduct arose during the Currency School-Banking School debate. As mentioned before, many believed that mismanagement of money and of notes issued by Bank of England and other country banks led to the financial crises of the 19th century in England. It was then when the need of rules replacing discretionary issuing of notes was first discussed (and applied through Peel's Act of 1844). The currency principle meant that notes should be issued based on a strict convertibility to gold and should behave as a metallic currency (thus the volume of gold inflows and outflows in a country would affect the quantity of paper money directly). As opposed, the banking principle assumed that the volume of paper money follows the demand of the public. Thus the banks should issue notes backed by real bills (loans based on short-term commercial transactions), and not necessarily gold, leaving room to discretionary conduct. In time, the currency principle proved to be flawed because it did not prevent overissue of notes (based on demand deposits who weren't taken in consideration by most of the Currency School advocates) and financial crises repeated, while the real-bills doctrine was discredited years later, in the US, as its inflationary results harmed the economy.

At the end of this both historical and theoretical exposition, there is a simple and clear conclusion in my view. Thus, while entrepreneurs and households change their financial plans regarding investments, spendings or savings at their own expenses, central banking has been experimenting and exploring the outcomes of monetary policy at the expenses of the local tax payer. The negative impact upon our economy has never been totally assessed, and sometimes central bankers have resigned for their alleged mistakes. But in fact, central banks operate the monetary policy without knowing exactly what the outcome will be, and without paying for possible errors of policy.

The Currency School – Monetary School debate touched upon several sensitive matters which were not fully understood at that time. Although the Currency School had been well-intended and had an intuition regarding the relationship between financial crises and note over issue, wishing to introduce rules instead of discretion in monetary affairs, most of its proponents made two fundamental mistakes: first, they believed that a monopoly over money creation would lead to more responsible note issuing and more stability in the economy (which did not happen). Second, it did not take into account the important role demand deposits played in the process of money
creation and their multiplier effect. From this point of view, the Monetary School was closer to the truth, by pointing out the similar purposes of notes, cheques, bills of exchange and other forms of credit. But the Monetary School had been advocating for discretion, wishing to leave the banks use fractional reserves as they wished. This meant the banks would seek even higher profits, by lending money under the form of bank notes for which they did not have gold to back them (thus multiplying the amount of notes in circulation). Even though they were risking bank runs, as a result of a non 100% reserve. Their main argument was that money was influenced by public's behaviour, i.e. prices and income, and banks (or governments) could not determine the amount of notes in circulation.

Unfortunately, banking is identified with fractional reserves today: “once the goldsmiths realized that they need not keep 100 percent gold reserves against the outstanding claims upon them, and that they could lend their certificates to merchants promising to deliver gold later, they became banks.” (Tobin, 2008). It may seem that modern problems spring from the 19th century debate. It was then when the problem of fractional reserves and money creation out of thin air (under the name of note overissuing at the time) wasn't properly tackled and when the idea of a central bank was tried out. The failure of Peel's Act in stopping bank runs and financial crises to happen gave the impression that a 100 percent gold reserves system had been an erroneous choice (although in fact the system had been functioning with fractional reserves all along). Moreover, in the current monetary system of fiat money and fractional reserves the central banks have found serious grounds to evolve and hold a solid position – there is a need of lender of last resort. It seems rather difficult to prove the anomalies and costs of a fiat money centralised system with fractional reserves that is taken for granted by most of the world. But not implausible or impossible.

The post-crisis economy has to cope with many unsettled issues. Central bankers tried to restart the engine of the economy mainly by enlarging the money supply. However, the results are not as ensuring as mainstream economists would like us to believe. Topics such as who should hold monopoly over money creation, how this is done through the fractional reserve system and how monetary policy impacts the economy were debated during the 19th century to some extent. These challenges remain unresolved as the crises keep recurring and should be further researched.

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