

F.A. Hayek and his rational choice of monetary arrangements

Sahoo, Ganeswar

University of Trento

 $2 \ \mathrm{May} \ 2012$

Online at https://mpra.ub.uni-muenchen.de/39920/ MPRA Paper No. 39920, posted 08 Jul 2012 19:23 UTC

F.A. HAYEK AND HIS RATIONAL CHOICE OF MONETARY ARRANGEMENTS

By

Ganeswar Sahoo

"It is important here first to distinguish between the need for some 'lender of last resort' and the organization of banking on the 'national reserve' principle. ... It is far less obvious why all the banking institutions in a particular area or country should rely on a single national reserve. This is certainly not a system which anybody would have deliberately devised on rational grounds and it grew up as an accidental by-product of a policy concerned with different problems. The rational choice would seem to lie between either a system of 'free banking', which not only gives all banks the right of note issue and at the same time makes it necessary for them to rely on their own reserves, but also leaves them free to choose their field of operation and their correspondents without regard to national boundaries, and on the other hand, an international central bank. I need not add that both of these ideals seem utterly impracticable in the world as we know it. But I am not certain whether the compromise we have chosen, that of national central banks which have no direct power over the bulk of the national circulation but which hold as the sole ultimate reserve a comparatively small amount of gold, is not one of the most unstable arrangements imaginable." (F. A. Hayek, Monetary Nationalism and International Stability, (Graduate Institute of International Studies, Geneva, 1937; Good Money, Part II, The Standard, The Collected Works of F. A. Hayek,

volume 6, Liberty Fund, 2008, p. 88.))

My paper is based on the above paragraph.

I express my gratitudes to Prof. Fabio Masini (University of Rome Tre, Italy), Prof. David Laidler (Western University, Canada), Prof. Marcello Messori (University of Rome Tor Vergata, Italy) Prof. Hansjörg Klausinger (Vienna University of Economics and Business, Austria)), Prof. Nicola Giocoli (University of Pisa, Italy), Prof. Franco Spinelli (University of Brescia) and two other anonymous for their useful suggetion and valuable guidance.

INTRODUCTION:

Money is the one thing competition would not make cheap, because its attractiveness rests on it preserving its 'dearness'. – F.A. Hayek (1976, pp.94)

This paper addresses the perspective of Hayek's doctrine on monetary arrangements in the economy and his favorable argument for an international central bank over national central bank. I also discussed Hayek's view on free banking (i.e. for the free issue of bank notes) that would enable the banks to provide more and cheaper credit. Furthermore, Hayek comes up with an intellectual debate on "rational choice" of monetary arrangements whether the commercial banks should have the right to issue bank notes (demand for free banking) which can be redeemable in the established national gold or silver currency or an international central bank.

In the beginning of the 20th century, even before the WWI, Hayek was well aware of the growing concern of separate banking system that had destroyed the homogeneity of the circulating of medium of different countries. He was also concerned with the degree of liquidity or acceptability of 'comparatively small reserves' of gold in the national central bank (Hayek, 1937 pp76).

Hayek's philosophical thought in his book "Monetary Nationalism and International Stability" (and later his work in "Denationalization of Money") has raised debates over the years among economists, scholars and policy makers about the usefulness of an international central bank over national central bank and whether the commercial banks are better able to stabilize the currency under free banking rather than a central bank, considered as an agent of government, that could develop inflationist tendencies being monopoly in issuing paper currency. Underlying the debate, White (1996) in his book "Monetary Nationalism Reconsidered" states about two possible international monetary regimes; first a monetary system variously regulated by national governments, i.e., what White called it "inside money" and Hayek termed it as "monetary nationalism". Alternatively, deposits and circulations may be provided by private banks operating internationally could be termed as "international inside moneys". The second option is about universally free acceptable currency, i.e., commodity money such as gold. Alternatively, an

international currency can be created by international central bank, this is "rational choice" what Hayek describes – international free banking or international central bank.

Though Hayek himself did not underpin a "separate regulation of the quantity of money in a national area which remains a part of wider economic system" but he largely unsupported against maintaining of an independent national currency, which he believed an insulation of a country against the financial shocks and that could cause international instability (Hayek, 1937 pp73).

Overall, Hayek's concerned was a stable monetary system. As one of the greatest thinkers of his time, Hayek's doctrine placed a little role for government in controlling money, which he believed larger control of government over the money as the cause of instability (Hayek, 1943 [1960], pp.324-25). Furthermore, he pointed out the least importance of national central bank as an agent of government and argued that "...source of disturbance is likely to be much more serious when there is only a single bank for a whole region..." (Hayek, 1937, pp.80).

This paper focuses on Hayek's overall philosophy on international money mechanism and his intellectual debate of rational choice between the two arrangements – free banking or an international central bank and his concerned over unstable arrangements in money mechanism, which, he believes, profoundly affects economic and social conditions of people and government. Therefore, to reach the conclusion, I outlined Hayek's perspectives on central bank and government, then international gold standard, and finally, his choice between free banking and an international central banking which is central theme of this paper.

HAYEK ON NATIONAL CENTRAL BANK

"But I am not certain whether the compromise we have chosen, that of national central banks which have no direct power over the bulk of the national circulation but which hold as the sole ultimate reserve a comparatively small amount of gold, is not one of the most unstable arrangements imaginable(pp76-77)." The above epigraph states Hayek's doubt over central bank as a stable arrangement. Though the argument is not quite accomplished, but Hayek's trustworthiness doctrine does not agree with the centralization of reserves within a single bank for a whole economy. Furthermore, Hayek (1937 [1964] pp.76) argued that "With all the good will and intelligence in the world, and with all the independence from the political authority, a central bank could not really carry out a sensible policy as long as it was constrained by that institutional arrangement". Particularly, even an independent central bank is surrounded with other institutional constraints and that its monopoly power over currency circulation, could make various instabilities at national level and could raise certain concerns to the international financial system as well; such as foreign exchange and international circulation medium.

Under central banking system, the main constraint is fractional reserve banking. Hayek points out the unproductive adjustment of domestic money supply with fractional reserve on investment and insists that it has real impacts on incomes, profits and the rate of investment. Here, for example, his view - "It is as if all balances of international payments had to squeeze through a narrow bottle neck as special pressure has to be brought on people, who would otherwise not have been affected by the change, to give up money which they would have invested productively" (Hayek 1937 [1964], pp. 30). But, under fractional reserve banking with the central bank adjusting its liabilities in response to changes in its foreign reserves, the expenditure reductions will not be undertaken necessarily by those "... who would ultimately have to do so under a homogeneous international currency system, and ... the equilibrium so reached will be of its nature only temporary." (Hayek 1937 [1964] 28) as cited by Flanders (1994).

But, the central bank being an agent of government, with its monopoly power over the issue of currency, could develop inflationist tendencies (Laidler, 2005) of its own that can be coined as "new inflation" and being the bankers' bank, it would have both incentives and opportunities to debase their liabilities at the expenses of an ill-informed public (Laidler, 2005, p.3) that would destabilize the monetary system. Nevertheless, the central bank is not a natural product of the development of the banking system (Smith, 1990). On the contrary, it is coercively imposed from outside the market as a result of government action (Huerta de Soto, 1995).

Hayek insisted that the central bank being a single financial entity couldn't control the financial stability and pointed out "it is practically impossible for any single bank, acting alone, to apply the only control by which the demand for credit can, in the long run, be successfully kept

within bounds; that is, an increase in its interest charges (Hayek, 1931, 2008)". He further showed his concerned over the liquidity preference " ... that this source of disturbance is likely to be much more serious when there is only a single bank for a whole region or when all the banks of a country have to rely on a single central bank; since the effect of any change in liquidity preference will generally be confined to the group of people who directly or indirectly rely on the same reserve of more liquid assets." (Hayek 1937 [1964] 80)

Mises (1912) 1980, 347; [1928] 1978, 139-40) argued that historically observed overexpansion by banking systems were attributable to policies that had abridged competitive discipline, particularly, the creation of privileged banks to which national governments had granted monopolies of note issue and permission to suspend payments, making system wide expansion possible and reducing banker conservatism (creating moral hazard) (cited from White). Hayek (1937, pp. 90-91) agreed with Mises that central banks could and in practice did worsen the cycle problem by fostering rather than restraining unwarranted credit expansion. Furtherance, Hayek in Denationalization of Money wrote about "the obvious corollary that the abolition of the government issue of money should involve also the disappearance of central banks as we know them" [Hayek, 1976, page 105].

In concern to central banking as central planning, Glasner (2005) claimed that central banking is not central planning. Central banks are government monopolies that consciously try to steer the economy. If that is not central planning, nothing is. Much earlier in his work, Hayek argued insightfully to the effect that central banking is a form of central planning: 'A single monopolistic government agency can neither possess the information which should govern the supply of money nor would it, if it knew what it ought to do in the general interest, usually be in a position to act in that manner (Hayek, 1976, pp.102)." So, the Austrians favor abolition of central banks and of restrictions but advocate the retention of outside money, convertible into something (Flanders, 1994, pp.6-7).

From the above discussion, we know that Hayek was not in favor of a national central bank and he proposed a variety of reforms during his works. Hayek (1937, pp88-89) advised, a useful central bank "will have to act persistently against the trend of the movement of credit in the country, to contract the credit basis when the superstructure tends to expand and to expand the former when the latter tends to contract,"

Even in today's world, Hayek's work is well appreciated and I wouldn't be much surprise if economics students study and try to understand his work in 2050. Recently, Thomas M. Hoenig, ex-chief of The Federal Reserve Bank of Kansas City, said "The central bank has to be, in a way, a neutral player, and yet we find ourselves trying to stimulate, and the effect is further leveraging," he said. "If I thought zero rates would bring jobs, I'd want it forever. But it distorts the economy." Many economists are considering it as a defense to the Hayek's thinking on central banking (Gretchen, 2011). But not all economists would, of course, agree, such that, economist Prof. Masini (for discussion see Masini 2012) argues that "can you imagine what would happen right now if interests rates should raise according to the Hoenig view? Higher interests rates on private mortgages would further decrease aggregate demand, higher cost of money would further discourage investments and higher service on public debt would bring to sovereign defaults...". So, this issue still requires more research to find a scientific conclusion.

HAYEK ON GOVERNMENT

"The history of government management of money has, except for a few happy periods, been one of incessant fraud and deception". - Hayek (1988, pp.103)

I am well convinced, after an extensive literature review, that Hayek was not a supporter of government intervention and argued that government interference would deprive the "good money". In his debate, he argued as an influential exponent and questioned that the monopoly of government of issuing money has not only deprived us of good money but has also deprived us of the only process by which we can find out what would be good money. Furthermore, as concerned to the quality of money, he added, "We do not even quite know what exact qualities we want because in the two thousand years in which we have used coins and other money, we have never been allowed to experiment with it, we have never been given a chance to find out what the best kind of money would be" (Hayek, 1977, 2008). Hayek's past experience and research put

government in narrow place, and pointed out that the monopoly authoritative does not produce welfare to the people and the society as well.

Furtherance, Hayek on the role of government in the monetary system, expressed his opinion that private enterprise can issue "good money" and not government. In his word, Hayek (1999) articulated that "As a result I am more convinced than ever that if we ever again are going to have a decent money, it will not come from government: it will be issued by private enterprise, because providing the public with good money which it can trust and use can not only be an extremely profitable business; it imposes on the issuer a discipline to which the government has never been and cannot be subject. It is a business which competing enterprise can maintain only if it gives the public as good money as anybody else".

Hayek (1960) as a responsible citizen further debated that people are now well aware of the importance of a stable monetary system and showed his concern about the "great monetary disturbance". He assumed Government "a much more active part in controlling money" and remarked "as much a cause as a consequence of instability". Hayek further into his debate convinced for "spontaneous market process", and insisted that people will be better off "if governments were deprived of their control over monetary policy". In his word – "Why, it is sometimes asked, should we not rely on the spontaneous forces of the market to supply whatever is needed for a satisfactory medium of exchange as we do in most other respects?" (Hayek, 1960). Going back to the history, Hayek (1988, pp.103) mentioned "the history of government management of money has, except for a few happy periods, been one of incessant fraud and deception".

So, Hayek does not seem to have appreciated governments, but is more convinced that government too, can engage in intertemporal misallocation which will have a direct impact on the people and the state as well. In a lecture delivered at a conference, Hayek (1977, pp.1) concluded "I am afraid I am convinced that the hope of ever again placing on government this discipline is gone".

HAYEK ON INTERNATIONAL GOLD STANDARD

"I may be mistaken in my belief that this mystique of gold has disappeared for good, but, until I see more evidence to the contrary, I do not believe that an attempt to restore the gold standard can be more than temporarily successful". - Hayek (1960, pp.462)

I am now more convinced that, Hayek, at the earlier stage of his work, favors gold standard and recommends an international gold standard with powers for the Bank for International Settlements to control national use of claims on gold rather than gold itself. Hayek (1935) points out, the gold standard is subject to two defects – the first applying to all international standards, namely, the lack of willingness of individual countries to adjust their national economies to an international standard; the second inherent in gold, namely, the periodic maladjustments between demand for and supply of gold.

Hayek agreed that "there is, however, no practical alternative to the gold standard. No other standard has the slightest chance of general agreement or even support from all the great countries. ...If an international standard is wanted, the gold standard, in spite of its undeniable defects, is the only practical choice". So, Hayek was fully confident that only gold is the "practical alternative".

Recently, Glasner (2011) discussed that, Hayek, in defense of the Insane Bank of France, made a fundamental error assuming that a small open economy (which France could be considered to have been in the late 1920s) had control over its money supply and its price level under the gold standard. It is believed that Hayek was on the wrong side of coin defending France's policy on gold standard. When there was an unwelcome climate and suspension of gold convertibility (or devaluing the currency in gold terms) in the wake of the great depression 1930, Hayek, on the other hand, along with von Mises, not only advocated for gold standard but also, he accepted, if not welcomed, deflation as the necessary price for maintaining the gold standard. Faced with a conflict between maintaining the gold standard and following his own criterion for neutral money, Hayek along with his colleague Robbins both opted for maintaining the gold standard (Glasner, 2011). Hayek (1931) further articulated following the abandonment of gold standard, particularly in Britain, "... However, it can scarcely be doubted that the renewed monetary problems of almost the whole world have nothing to do with the tendencies inherent in the gold standard" (p.153)

Furthermore, Hayek believed that an improvement in gold mining technology which could halve the cost of production of gold and double the price, does not produce any price distortions but if a fiat-money government were to undertake policies that double the price level in the absence of improvements in gold mining technology, that would produce price system distortions that lead to overinvestment and require a prolonged and painful liquidation to put things right (Glasner 2011).

On gold reserve at the central bank, Hayek further argued "It is the regulation of the extent to which gold exchange (immediately realizable claims on the other gold standard currencies) shall be used as a substitute for gold in the reserve of central banks". Hayek's attachment to the gold standard is often criticized by economists coining as "wrong choice" but Hayek, later in his work, disavowed his support for the gold standard as early as 1943 in a paper ("A Commodity Reserve Currency") and he reaffirmed his opposition to the gold standard in *The Constitution of Liberty* (p. 335). He expressed his view that "no single country could effectively restore it (gold standard) by independent action" and he further pointed out that though it is doubtful whether the abandonment was a gain but its restoration at present is not a practical proposition.

In his foregoing argument, Hayek (1943) adjudged that "I may be mistaken in my belief that this mystique of gold has disappeared for good, but, until I see more evidence to the contrary, I do not believe that an attempt to restore the gold standard can be more than temporarily successful". Hayek, even, believed that the restoration of international gold standard deserved more attention than it had received earlier, and he asserted that "they hardly offer a practical alternative for the near future" (Pp.335). In the end Hayek admitted that the gold standard would be unworkable.

ALTERNATIVE BANKING REGIME: FREE BANKING OR AN INTERNATIONAL CENTRAL BANK

The rational choice would seem to lie between either a system of 'free banking', which not only gives all banks the right of note issue and at the same time makes it necessary for them to rely on their own reserves, but also leaves them free to choose their field of operation and their correspondents without regard to national boundaries, and on the other hand, an international central bank. (Hayek 1937 [164] 77)

This epigraph is the central debate of our essay. Walter Bagehot, the Victorian editor of the Economist, reminds us that "money will not manage itself", that means money must be managed through institutional arrangements. Hayek is generally known as a strong supporter of the free market economy but his intellectual debate is about "the choice between free banking without regard to national borders and international central bank-depends crucially on spelling out the criteria of good monetary policy and comparing the alternative systems' abilities to fulfill them" (White 1998). So, Hayek, about 75 years ago, wrote that the rational choice seems to lie between two alternatives – a full-fledged free banking (without any consideration of specific monetary policy as conventionally understood), and on the other hand, a world central bank conducting an international monetary policy. It is well noted here that Hayek even did not consider a central bank an option as a monetary arrangement. I studied that, Hayek (1932; 1937; 1939) deals more directly with the international economic and monetary relations. Masini (2004) observes that Hayek's reference to the international institutional framework in his works in 1937 and 1939 is clearly aimed at strongly reducing the intervention of (national) public authorities into the realm of economic relationships. Hayek's intention for international central bank is quite clear, what Hayek (1937; 1939) states a "the transfer of monetary sovereignty from nation-States to a supranational authority" that is "clearly and merely a means to minimize public interventions into the operation of the global market, not a matter of conflicts resolution" (Masini 2004). So, Hayek (1937; 1939) argues in favor of an international system of economic and political institutions designed along the federal constitutional principles.

Furthermore, Hayek, in his book *The Road to Serfdom* of 1944, in fact, insists on the constitutional relevance of supra-national federalism, although confined to minimal competences: "The need is for an international authority which, without power to direct the different people what

they must do, must be able restrain them from action which will damage others" and argues for a regulated "international authority should be strictly circumscribed by the Rule of Law" (Hayek 1944; 172-3).

However, in reference to free banking, at a later time, the two most prominent supporters of laissez-faire, Milton Friedman and F. A. Hayek, both rejected free banking in no uncertain terms (Friedman 1960, pp 4-9; Hayek, 1960, p324): the idea of free banking seemed too radical even for them. Both writers have since retracted their earlier arguments against free banking, and Hayek went on to champion the idea in 1970s and afterwards. (For discussion, please see Hankbook of International Banking, edited by A. W. Mullineux, Victor Murinde, pp185)

Nevertheless, Hayek (1974; 2008) subsequently argued for decent money in free market monetary system and convinced that "it will not come from government: it will be issued by private enterprise", and his further argued "... whether institutions other than government should be allowed to issue dollar notes. That, of course, would not work. But if private institutions began to issue notes under some other names without any fixed rate of exchange with the official money or each other, so far as I know this is in no major country actually prohibited by law."(Hayek, 1977, pp.5) (I have already discussed about Hayek on government). However, Hayek (1999), as concerned to free banking, noted disadvantages that "nobody would be in a position, by a deliberate policy, to offset the tendency to cumulative changes" that would remain but suggested that "this might not be so serious if there were numerous small banks whose spheres of operation freely overlapped over the whole world" (cited from White, 1999a, pp.763). However, at the end of his career, Hayek switched to favoring laissez faire in money-issue as a means to achieve price-level stabilization and his book the 'denationalization of money' offers resources and advocates modern free banking regime (White 1999a, pp.767).

After an extensive literature review, I completely agree with White's conclusion (1996) that Hayek did not endorse the establishment of a multinational fiat money and his philosophy does not support a national central bank as a monetary arrangement and also seems unsupported for the use of gold as the international money, but he presumes the use of gold merely as "exist compelling political reasons" (Hayek 1937, 75). Selgin (1988, 1991) as an advocate of free

banking, cited, that "a free banking system is better equipped than a central banking system to maintain it" (see White, 1996).

CONCLUSIONARY COMMENT

The rational choice between the two alternatives - free banking and an international central bank "depends crucially on spelling out the criteria of good monetary policy and comparing the alternative systems' ability to fulfill them".... and "anyone who shares Hayek's "practical" concern with counteracting central banks' tendency toward unwarranted expansions of the quantity of money may well find a free banking system to be the best practical alternative, given the temptations to which central banks are prone. A world central bank, and to a slightly lesser extent a pan-European central bank, would be a monopolist without any competitive discipline". – Lawrence H. White (1996)

Hayek, the gold standard champion in late 1930s, in the post Bretton Woods years, argued for an international economy based on money denationalization (a truly international monetary system), or, more precisely, a homogenous world currency which would be used extensively and its movement determined wholly by the actions of free trading individuals in different nations, i.e., free international currency competition and free banking (Endres 2005, pp.168). Hayek (1937) made a strong case in principle for the generation of international financial stability by reintroducing a full gold standard.

It is believed that Hayek's renewed interest on "free banking" could have been inspired by the publication of Murray Rothbard's "What Has Government Done to Our Money?" in 1963 (Lakomma 2007). So, Hayek, over time and situation, has changed his view over one another. In 1976, Hayek, in his book *The Denationalization of Money*, advocated that rather than re-instituting a government-mandated gold standard, a free market in money be allowed to develop, with issuers of money competing with each other to produce the best, most stable and healthy currency. Further, he suggested that financial institutions should print money that offers a more stable value than either gold and silver or national moneys. Competition, he suggests, will keep money's values stable since money losing value hurts creditors, and money gaining value hurts debitors. Hence the market would choose the 'best moneys' who best struck a balance between depreciation and appreciation. Finally, Friedrich von Hayek who advocated for "a truly international monetary system" in 1937 that "the rational choice would seem to lie between either a system of 'free banking' . . . and on the other hand, an international central bank", Lawrence White, in commenting on Hayek's work, has maintained that this choice "depends crucially on spelling out the criteria of good monetary policy and comparing the alternative systems' ability to fulfill them". Interestingly, as questioned by Koch, leaving aside, for the time being, the possibilities for a system of "free banking", how might one structure the choice between an international central bank that was committed to global price stability and Benn Steil's proposal for a system which involves a smaller number of stable currencies, governed by national or regional central banks that would also be committed to a non-inflationary policy regime? (for discussion please see, Koch 2007, pp.13). It is undoubtedly argued, that the "rational choice" of what Hayek described 75 years ago, today still requires more works to come up with an applicable solution.

On the whole, I would like to conclude collectively, that Hayek in 1937 possibly preferred an international monetary authority over a system of international free banking, though he did not express a clear preference. I completely agree with White's (1996) concluding comments in his analysis paper "Monetary Nationalism Reconsidered", that "anyone who shares Hayek's "practical" concern with counteracting central banks' tendency toward unwarranted expansions of the quantity of money may well find a free banking system to be the best practical alternative, given the temptations to which central banks are prone. A world central bank, and to a slightly lesser extent a pan-European central bank, would be a monopolist without any competitive discipline".

REFERENCE:

- 1. Endres, A. M, (2005), Great Architects of International Finance: The Bretton Woods Era, pp.168
- 2. Flanders, M June (1994), Hayek and the revival of free banking
- 3. Glasner, David (2005, 2011), Free Banking and Monetary Reform
- 4. Huerta de Soto, Jesus (1995), A Critical Analysis of Central Banks and Fractional-Reserve Free Banking from the Austrian School Perspective
- 5. Hayek, F. A. (1931), The Collected Works of F. A. Hayek: Good Money, Part 1, pp.153
- F. A. Hayek F.A. (1932), The Collected Works of F. A. Hayek, Good Money, Part 1, p. 160 Hayek's 1932 Defense of the Insane Bank of France
- 7. Hayek, F. A. (1935), A regulated Gold Standard, the Economist, May 11, 1935
- 8. Hayek, F.A. (1937[1964]), Monetary Nationalism and International Stability
- Hayek, F. A. (1939), The Economic Conditions of Inter-state Federalism, New Commonwealth Quarterly. V (2, Sept.): 131-149; reprinted in Idem (1948). Individualism and Economic Order. Chicago: The University of Chicago Press, 255-272.
- 10. Hayek, F. A. (1943[1960]), The Constitution of Liberty (pp. 324-25)
- 11. Hayek, F. A. (1944), The Road to Serfdom
- 12. Hayek F. A. (1974; 2008), A Free Market Monetary System
- 13. Hayek, F. A. (1976), Denationalization of Money
- 14. Hayek, F. A. (1977), Towards a Free Market Monetary System (pp.1)
- 15. Hayek, F. A. (1988), The Fatal Conceit: the Errors of Socialism, (pp.103)
- 16. Hayek F.A., (1999), Good Money, Vol.6, Part III, pp.230 edited by Stephen Kresge.
- 17. Hayek, F. A (2008)., Prices and Production and other works, pp93
- 18. Hoppe, Hans-Hermann (1194), F. A. Hayek on Government and Social Evolution: A Critique
- 19. Lakomma, Erik (2007), Free Banking in Sweden 1830-1903: Experience and Debate
- 20. Masini, Fabio (2004), Designing the Institutions of International Liberalism: the Interwar Period
- **21.** Masini, Fabio (2012), Designing the institutions of international liberalism: some contributions from the interwar period, journals Constitutional Political Economy
- 22. Morgenson, Gretchen (2011), Conventional Fed Wisdom, Defied, New York Times, published on 14/08/2011
- 23. Laider, David (2005), Free Banking and the Bank of Canada
- 24. Selgin, George (2011), Give Credit Where Credit is due
- 25. Smith, Vera C. (1990), The Rationale of Central Banking and the Free Banking Alternative Indianapolis, .Ind. Liberty Press, 1990, chap. 12, p. 169.).
- 26. Walter Block and Kenneth M. Garschina, Hayek, Business Cycles and Fractional Reserve Banking: Continuing the De-Homogenization Process

- 27. White, Lawrence H. (1992), Competition and Currency (pp.128-129)
- 28. White, Lawrence H. (1996), Monetary Nationalism Reconsidered
- **29**. White, Lawrence H. (1999a), Why Didn't Hayek Favor Laissez Faire in Banking?, published in History of Political Economy, Duke University Press.
- 30. White, Lawrence H. (1999b), Hayek's Monetary Theory and Policy: A Critical Reconstruction
- 31. White, Lawrence H. (2006), The Free Banking Alternative
- 32. White, Lawrence H. (2011), A Gold Standard with Free Banking Would Have Restrained the Boom and Bust.
- **33.** ----, Hayek, Free Banking, and the Commodity Money Syndrome: Toward A Praxeological Theory of Credit and Money