# Ch. 2 – Introduction to the macroeconomics of money

### 1. The object: central banking guides into money theory

Bagehot's "Lombard Street" is a classic book, it has been read and appreciated by generations of economists and people interested in finance. Yet, its interpretation never changed, with the focus on the notion of "lender of last resorts". This interpretation never affected the validity of the currently accepted theory of money, being still today dominated by currency or banking positions, just as Bagehot observed at his time.

Particularly the currency school has been representing throughout the centuries the best accepted institutional vest for money theory. Every well-settled central bank declares (and almost always declared) to apply some kind of control over it's money issue, or its interest rate with the same meaning, and also to adhere to price stabilisation as its main goal.

The Peel Act, the famous law issued in 1844, represented the "currency"-theory at Bagehot's time. Bagehot's statement about this law and its theoretical content can be found already in his Introductory Chapter to "Lombard Street". Aiming to speak of the concrete reality of finance, he calls his book "Lombard Street" instead of "Money Market", and he immediately takes distance from the Act, defining it "only a subordinate matter in the Money Market". Bagehot thus directly accuses the Peel Act to be NON PERTINENT to (represent the needs of) finance.

By looking at his core argument this is easily explained: a central bank has to lend whenever it is asked for. No word about uncurbed lending only in a panic, since - he is quite explicit - a panic may begin in every moment, and it actually begins every time a central bank refuses advancing money on the basis of a sound bill. The argument goes no doubt against every ceiling concept.

If the money market works in practice under the conditions Bagehot describes, as we believe and argue, there is no place for a "currency" theory. Declaring the need for a ceiling to money supply, but lifting it in critical times or simply ignoring it, has always been the practice of central banking from Bagehot's time on. As we discussed in the previous chapter, this behaviour has been founded on the central banks' effort to adhere to the only established theory for money, but then wisely abandoning it, by the necessity to leave the rules which would destroy the system.

Central banking can again be considered the starting point for building a new theory approach, a need, which is very much felt in our time. We begin introducing a new interpretation of Bagehot's philosophy and method, with the aim to structure his work in a new context.

### 2. The arguments

Bagehot exemplifies the unique and independent role for monetary policy and central banking, i.e. the defence of the money market against the permanently threatening danger of instability.

Three are the arguments we use to present his approach. They derive from the analysis of "Lombard Street", and ground both in the theory of money and central banking and in the history of their application into practice.

The first argument consists in showing that the money market is autonomous in structure, therefore also in functions and working principles, from the market for goods and services. This contradicts the "currency" or "quantity-based" theory of money. "Lombard Street" also helps to separate the money market from the market for credit, i.e. the market for commercial banking. This contradicts the "banking" theory of money. Banking and currency principles are a steady presence in all main works on monetary theory and central banking.

Emancipating the money market from other markets allows us to define its autonomous role, and consequently also derive the unique macroeconomic function of money.

The second argument shows that capitalism caused a solution of continuity in the development of financial markets by creating fiat paper money. The fragility of money and financial markets is basically due to the nature of fiat paper money, the epitome of an ex-

tended "trust based" financial system. This new financial system deeply differs from the previous one(s), a fact never pointed out by monetary theorists. This environment offers the right frame for a restatement of the definition of a "monetary economy" - which we continue in Ch. 3 and 4 - and concretely lays the foundations for a new perspective on the theory of money.

The third argument discusses the adequacy for a central bank to hold large reserves<sup>61</sup>, and the adequacy of this principle to represent Bagehot's most genuine thinking. Although recommending large reserves represents a leading assertion in "Lombard Street", we interpret it as an historic error by Bagehot, and we correct it looking for internal coherence. This discussion confirms the "elasticity of flows" approach which we identify as Bagehot's main methodological contribution to economic thinking.

### 1 - Money market is separate from other markets

"Lombard Street" clearly describes an autonomous market for money, distinguished from the market for goods and services and also from the market for credit. This argument belongs to the theoretical foundations of the new approach.

The reference is to the most famous sentence in "Lombard Street"<sup>62</sup>: "The end is to stay the panic; and the advances should, if possible, stay the panic. And for this purpose there are two rules: - First. That these loans should only be made at a very high rate of interest. (...) Secondly. That at this rate these advances should be made on all good banking securities, and as largely as the public ask for them." This means open money supply at high money interest rate.

a) Money dependence from the real markets has been affirmed by the currency school in the quantity theory of money and in all the subsequent theoretical works belonging to this tradition (e.g. the "neoclassicism"). According to this approach, the level or dynamic of prices on the market for goods forms the key index for money management. A money market is never mentioned, since money is

<sup>&</sup>lt;sup>61</sup> Foreign/key currency.

<sup>&</sup>lt;sup>62</sup> LS p.197.

in substance considered a "veil", and subordinated to real markets needs.

The Keynesian tradition describes a general "finance" market, which has an own physiognomy in front of the market for goods, but which also places money and credit together without distinction. Among the practical disadvantages of this operation, the rate of interest for money gets thus indistinguishable from the one for commercial credit or bonds.

The "banking school" also failed to think a systemic role for money, dealing almost exclusively with the cause for commercial banking expansion. Unable to conceive a management for money it falls into the so-called "real-bills fallacy". And also in other serious paradoxes, speaking in favour of financial panics as a means to restore equilibrium, considering panics as if they were Adam Smith's invisible hand. By totally undervaluing the effects of panics, this school of thought fails to focus money market needs by concentrating only on a primitive interpretation of credit market dynamics.

For the first time in the history of money and central banking theory, Lombard Street mentions a price for money distinguished and autonomous from the interest rate on goods and services market. For the first time in the history of money and central banking theory also the inadequate fusion and lack of discrimination between money and credit markets, used by Keynes and subsequent tradition, is avoided.

Bagehot shows the whole destruction of finance occurring during a panic. By describing money as the "trust" basis in every commerce, exchange, business, industry creation, investment, saving process, i.e. in every economic act, Bagehot clears how a panic destroys the economic system dramatically and in the long run.

b) According to the currency/quantity/neo-classical tradition, national credit amounts (internal and/or external) have to be held inside limits, fixed inside "total money amounts" because of the rules for price stability (quantity theory). These rules subordinate again money to real market goals, completely disregarding its role, and

the nature of credit as the main source in the creation of value and income.

c) Bagehot considers real markets in Ch. IV of "Lombard Street", i.e. he considers the way real, credit and money markets reciprocally influence, making Lombard Street "often very dull, and sometimes extremely excited". A careful analysis reveals, that he never considers "business cycles" in the usual terms of regularity and predictability; he never searches for forecast-indexes, as the literature on the theme does, or reasons about any "normal" length of a cycle, like e.g. in Kondratiev's work. While these schools of thought<sup>63</sup> finally consider business-cycles as something normal, regular, a calm force ruling the market and linking it to equilibrium parameters, Bagehot's approach looks instead at the fragility of finance and the instability intrinsic to a monetary economy. There is no attempt to forecast the duration of a cycle phase, there is no cycle concept at all, but a precise description of how sudden a positive business tendency can turn into the opposite during a panic, thus overwhelming the tendencies ruling in other markets. This signals the significance and role of his money market.

d)
Bagehot's approach to an autonomous and unique role for money and money market leads finally also to a different conception of the "curve" or mathematical function for money supply. The striking consequence of Bagehot's reasoning is that a money supply curve cannot be conceived as continuous, as usual in IS-LM models. First-a rise in demand takes eventually to an almost infinite augment of money supply, not stopping until the primary goal of money policy has been reached, i.e. stabilisation (of panic or of any sudden rise in money demand) has been calmed down. And - second -, the - by Bagehot clearly stated - necessary raise of the price for money cannot generally be measured by a stable and continuous price-supply relation, as hypothesised by orthodox monetary theory approaches defining a money supply curve of the kind Ms = Ms (i)<sup>64</sup>.

Inside the autonomous money market, also the acknowledgement of an independent money supply, avoiding automatic rules for mar-

<sup>63</sup> Often belonging to the tradition of Keynes.

<sup>&</sup>lt;sup>64</sup> Legenda: Ms: Money supply curve; i: interest rate.

ket management, and managed in strict accordance with the specific money needs, with a clear understanding of the macroeconomic and -systemic role of money, can be considered a fundamental step on the way to newly define the central bank's role.

# 2 - Money in capitalism is fragile

The established money approach starts by defining the function and role of money without any solution of continuity across the centuries. So we read about shells and gold coins and paper money being attributed the same characteristics, being asked and held - in the famous money function definition by Keynes - for the same reasons:

- "(i) the transactions-motive, i.e. the need of cash for the current transaction of personal and business exchanges;
- (ii) the precautionary-motive, i.e. the desire for security as to the future cash equivalent of a certain proportion of total resources; and
- (iii) the speculative-motive, i.e. the objective of securing profit from knowing better than the market what the future will bring forth."<sup>65</sup>. The functions of "Account unit" and "Means of payment" are also usually mentioned, mostly as synonyms.

Also the development of financial markets has been traditionally treated as lying historically on a homogeneous, progressive developing and unique path<sup>66</sup>, from the simplest monetary systems to more complex ones.

In "Lombard Street" Ch. II Bagehot defines the year 1819, "when cash payments were resumed by the Bank" therefore initiating that reserve management which he describes as unavoidable in crises management, as the year "when our modern Money Market may be said to begin". This development followed and subsumed a previously occurring process - fundamental to the advent of modern finance -, i.e. the spread up of paper money<sup>67</sup> and the subsequent development of banking as deposit banking. The result of the whole

<sup>66</sup> Ref. e.g. the work of R.W. Goldsmith.

<sup>&</sup>lt;sup>65</sup> Ch.13, GT

<sup>&</sup>lt;sup>67</sup> Paper money becomes "fiat paper money" under all aspects when a central bank is created and takes charge of the emission of legal tender.

process was a change in the system, from which fiat paper money originated.

While the money characterising all the previous systems had a precise linkage to the physical existence of a quantity of goods, paper money - the money born under the spread of commercial banking - was the first to contain a pure, immaterial money concept. This money served the interests of the new finances basing on wide spread banking, and it definitely detached from any "quantity".

As Bagehot<sup>68</sup> analyses, banking saw its origins - first in Renaissance Italy and then in 1600/1700 North-European countries - with commercial banks being established "upon the credit, and under the protection of the state" in order to emit metal coins (gold, silver). Commercial banks had to guarantee the emission of coins of such a quality to assure a stable value to the national currency, at the same time assuring also the credibility abroad of merchants' bills of exchange emitted in that currency. The first role of those banks was to create a growing trust in national currency, on which the further development of finance had to base. Thereafter, commercial banks' position as "trust builders" was enhanced, as they started emitting paper money<sup>69</sup>:

"These are all uses other than those of deposit banking which banks supplied that afterwards became in our English sense deposit banks. By supplying these uses, they gained the credit that afterwards enabled them to gain a living as deposit banks. [...] The real introductory function which deposit banks at first perform is much more popular, and it is only when they can perform this more popular kind of business that deposit banking ever spreads quickly and extensively. This function is the supply of the paper circulation to the country [...]". Modern finances were born when the trust, built by commercial banks, permitted paper money to circulate, and become so high to enhance credit and deposit business to an ever imagined extent. The Bank of England was afterwards created in this environment in order to take charge of the emission of legal tender, and began to emit fiat-paper-money in the proper sense of this word<sup>70</sup>.

<sup>69</sup> Central banks, emitting the legal tender, where created in a later phase.

<sup>&</sup>lt;sup>68</sup> In LS Ch. III.

<sup>&</sup>lt;sup>70</sup> This process (guaranteed emission of metal coins and then of paper money by commercial banks; arising of deposit banking; creation of a central bank) describes the history of banking

Bagehot's description of the fragility affecting the English money market - which he on purpose chose as an example for being the most advanced in his time - strictly links to the advent of fiat-paper-money<sup>71</sup>. Bagehot's interest for the new character of the financial system, which he correctly recognises as the modern finance system, justifies his focus on panic. A panic is never possible without a bank emitting money on a trust basis, it is certainly not possible when money is a good, being either a shell or a piece of gold. Money consisting of gold-pieces can suffer from inflation/deflation, but cannot lead to a panic. This explains the characterisation of the mainstream theory approach referring to premonetary systems, and justifies the need for a renewal.

Fiat-paper money is the turning point in the history of money, and the beginning of the money market expansion in a modern sense, for throughout fiat paper money modern banking and finance expands in a completely new way. The meaning of money changes in this system with the changed money form<sup>72</sup>, and even more with the foundation of the institution central bank. (As) It is the satisfaction of fiat money demand by the central bank, which actually enables the existence of commercial banking and the further development of financial instruments in the contemporary age.

The quantity theory of money describes money as based on gold<sup>73</sup>: "The peculiarity of the precious metals is that their value depends for unusually long periods on the quantity of them which is in the market". Quantity makes the typical character of ancient money systems. The link between excessive money emission and inflation of prices originates from the time when money was made of goldpieces, when money was emitted by the State and not by a Bank.

In the view of "Lombard Street", hoarding, the Keynesian concept of "precautionary motive" introducing to his liquidity preference, is linked to non-modern and less-developed financial systems. So Bagehot<sup>74</sup>: "At present the quantity of coin hoarded by private per-

in England. Different reasons, above all a high degree of State centralism, brought banking in other countries, like France and Germany (see Ch. III) to a less rapid or widespread development.

<sup>&</sup>lt;sup>71</sup> Even if still in a partial gold-coverage system; we have to come to 1971 in order to abandon gold and permit a perfect fiat-paper-money system to be allowed to work.

<sup>&</sup>lt;sup>72</sup> From gold pieces to paper notes.

<sup>&</sup>lt;sup>73</sup> Bagehot, p. 142.

<sup>&</sup>lt;sup>74</sup> Bagehot, p.133.

sons is so small, that it would, if brought forth, make no perceptible addition to the circulation."

Relying on Bagehot's analysis we can affirm that there can be no monetisation process after a panic, money would be banned and the system would come to a barter state, as trust would be destroyed. For the opposite reasons, money almost "disappears" in a well functioning system too, since every transaction can be closed through cheques or bills, more refined tools than money itself, as trust is shared. A monetary economy bases on money as a symbol for available and transferable trust, enabling commercial credit and sustaining the structure of business relations.

Trust is the core element in modern monetary economies, money is only a symbol for it.

Money exists in capitalism just as a symbol for trust: It disappears in the rotten financial system, which finally comes to barter, and disappears in the best money market, replaced by bills. No sense in using money in a system where trust doesn't exist, since money cannot base but on trust; no sense in using money in a modern financial system in transactions, which better financial instruments have been developed for. But no bill and no sophisticated financial tool would ever be accepted if the emission of legal tender were stopped, in any moment, suddenly revealing the fragility of the best developed money market with the speed and the destructive force of a tornado. This describes Bagehot as the power and delicacy of the modern money market, a very different system from those existing before fiat money.

The argument - often used in practice and theory of central banking - about a money supply ceiling being essential in order to fight moral-hazard phenomena becomes absolutely contradicted through Bagehot. The moral-hazard concept reveals in "Lombard Street" all its irrelevancy in front of the core mechanisms of money markets and policy<sup>75</sup>: "That in a panic the bank, or banks, holding the ultimate reserve should refuse bad bills or bad securities will not make the panic really worse; the "unsound" people are a feeble minority, and they are afraid even to look frightened for fear their unsoundness may be detected. The great majority, the majority to be pro-

<sup>&</sup>lt;sup>75</sup> Bagehot, p. 198.

tected, are the "sound" people, the people who have good security to offer. If it is known that the Bank of England is freely advancing on what in ordinary times is reckoned a good security - on what is then commonly pledged and easily convertible - the alarm of the solvent merchants and bankers will be stayed. But if securities, really good and usually convertible, are refused by the Bank, the alarm will not abate, the other loans made will fail in obtaining their end, and the panic will become worse and worse".

A theory of money and central banking for our times cannot rest on principles, which are adequate for describing ancient and imperfect money systems, or niche situations. Both the history and the theory of money in a modern perspective have to find a faithful representation in Bagehot's vision.

Bagehot's attention goes to the structure of the financial system in a time when consciousness starts about the degree of dependence from the new finance the whole economic system can reach. At this same time, instead of simply blessing the new system for its evident ability to become incredibly powerful - as it was and as it still is in England - Bagehot immediately inquests its non exactly evident feature of immanent fragility.

This fragility finally depends on the ultimate central bank's will to discount bills whenever a demand for money arises. And as it cannot be escaped through eliminating the central institution, a central bank must play a fundamental role in the system, which we have to clear up in the following of this paper.

Bagehot's concept for the role (function) of money, as the true macro-systemic and macro-economic element linking the economic system, can be effectively represented through his "open discount window". Open money supply is needed when central bank money is the sole existing legal tender, the sole universally accepted means of payment, the sole instrument the modern financial system possesses in order to combat its natural and systemic, unavoidable impulses to self-destruction.

The role of money and of central banks derives because finances are built on precious, easy breaking "trust".

The sole, autonomous function which money can be attributed in a capitalistic, advanced system is the one as the "means of payment", not only as a means of exchange and payment in spot markets, but the only just and ultimate means of payment freeing the debtor from his obligation, expressing the uniqueness of the legal tender function in the system<sup>76</sup>. All other functions can be also developed by "goods", which are not necessarily money, and surely are not money in the modern sense, but are able to satisfy both the transaction and the precautionary liquidity preference. Clear enough, Bagehot considers the legal tender as the only existing money form<sup>77</sup> in the system.

Only money, i.e. fiat paper money, can serve as an universally accepted means of payment, not just because of being emitted by the state authority "central bank", acting as a public guaranty, but especially because of being emitted at request (and at a high price). Managing money according to this function implies holding the money supply open to money demand, and thus becoming identical with "an open discount window". Any closing of the window, any refusal to discount a sound bill, destroys the economy, and takes every businessman to bankruptcy.

On this interpretation of monetary history we will base the new definition of what makes an economy to be "monetary", as expressed in Ch.3. Bagehot describes the first monetary economy in monetary history, since he first abandons the money-good<sup>78</sup>.

# 3 - Huge central reserves against fragility: contra

We consider now the thesis advanced by Bagehot asserting that central banks need large reserves in order to fight fragility and panic in modern finance.

The book "Lombard Street" had originally been conceived by Bagehot specifically in order to diffuse his opinion about the extreme danger coming from the (scarce) magnitude of the Bank reserves, on which an enormous amount of English credit rested. Our inter-

We refer to the common use of a definition for money as increasing "monetary aggregates", comprehending deposits and other financial instruments as far as their denomination number increases (from M0,M1, M2 to upper M-classes).

<sup>&</sup>lt;sup>76</sup> See Ch.3 in this paper.

<sup>&</sup>lt;sup>78</sup> Also Keynes' money is a money-good.

pretation will try to prove that not this assertion, but the mechanism Bagehot himself describes<sup>79</sup> as the most adequate for money market management, reveals the core working principle guiding and representing central banking. This discussion, far from aiming to start an academic dispute, will be used in the following to contribute empowering our thesis about the existence of one unique goal for central banking, the money market specific one.

It must not surprise that Bagehot, whose overwhelming modernity of thought hardly finds comparison, an author who succeeded in understanding his present and much of our future, may have been confusing historic views with general principles. Money was still linked to gold at his time, and a perfectly-fiat paper money could perhaps hardly be imagined even by such a mind.

Otherwise the same Bagehot offers the elements which, when recognised and developed, guide further on the path of contemporary thinking.

The main critique we make to the assessment that a large (central) bank reserve is needed in a modern financial system is that this argument stresses the role of "stocks", just in an environment (the "Lombard Street" approach) where "flows" play - by need of the system - the main role.

As Bagehot himself often explains, he refers to England, i.e. to the biggest credit market in the world, and this market had the smallest ratio of cash reserves to the bank deposits of any country before. Bagehot writes<sup>80</sup>"[..] it may be said that we need not be alarmed at the magnitude of our credit system or at its refinement, for that we have learned by experience the way of controlling it, and always manage it with discretion. But we do *not* always manage it with discretion", therefore large reserves are needed. This argument can be turned into the opposite and the scarce bank reserves can really be considered as the best sign for the efficiency of the English money market, where modern reserve-management has been created.

<sup>&</sup>lt;sup>79</sup> In LS Ch. VII.

<sup>&</sup>lt;sup>80</sup> LS, p.18.

Following the logical path built by the same Bagehot in order to explain the nature and working rules of modern finance, we understand the necessity for banking and finance expansion to provoke the immense growth of exchanged flows as compared to reserve-stocks. Far from representing a perverse process going on in Bagehot's time, this represents a typical phenomenon in modern finance: Flows much exceed stocks. In our era this still hardly is recognised.

One "effectual instrument", which the Bank of England founded, and on which the effectiveness of its action rested for dynamically restoring equilibrium in the money market by increasing deposits and the reserves, is a raise in the rate of interest in the money market when money demand rises<sup>81</sup>: "If the interest of money be raised, it is proved by experience that money does come to Lombard Street, and theory shows that it ought to come [...] Loanable capital, like every other commodity, comes where there is most to be made of it. Continental bankers and others instantly send great sums here, as soon as the rate of interest shows that it can be done profitably. While English credit is good, a rise of the value of money in Lombard Street immediately by a banking operation brings money to Lombard Street. And there is also a slower mercantile operation. The rise in the rate of discount acts immediately on the trade of this country. Prices fall here; in consequence imports are diminished, exports are increased, and, therefore, there is more likelihood of a balance in bullion coming to this country after the rise in the rate than there was before". This explanation stresses market interaction towards re-equilibrium in case of a foreign drain.

Otherwise a domestic drain would - according to Bagehot - show the same features, and the same the request to the Bank to lend freely and generously would restore equilibrium of flows. Interest rate management and open supply: both actions are needed.

And actually, the famous Bagehot's recipe to stand panics comprehends the use of both policies<sup>82</sup>: " The end is to stay the panic [...]. And for this purpose there are two rules: - First. That these loans should only be made at a very high rate of interest. This will oper-

<sup>&</sup>lt;sup>81</sup> LS, p.45.

<sup>82</sup> Ch. VII.

ate as a heavy fine on unreasonable timidity, and will prevent the greatest number of applications by persons who do not require it. The rate should be raised early in the panic, so that the fine may be paid early; that no one may borrow out of idle precaution without paying well for it; that the Banking reserve may be protected as far as possible. Secondly. That at this rate these advances should be made on all good banking securities, and as largely as the public asks for them. The reason is plain. The object is to stay alarm, and nothing therefore should be done to cause alarm. But the way to cause alarm is to refuse some one who has good security to offer. The news of this will spread in an instant through all the money market at a moment of terror; no one can say exactly who carries it, but in half an hour it will be carried on all sides, and will intensify the terror everywhere."

The primary role by the central bank is the open supply of money. Rising the interest rate is the complementary manoeuvre, and just as subtle as the free lending one. Raising interest rates when money demand rises works as a "flow" mechanism, able as well to re-dimension "stocks".

This mechanism belongs better than holding a "large reserve" to the fluid and "virtual" world of trust detailed by Bagehot, and it stays opposite to the "large reserves" advice.

Since a modern money and credit system finally rests on "trust", a rise in the money market interest and/or an increased money supply signs and signals much more than the eventual occurrence of a "foreign or domestic drain". It actually signals a change in the "trust climate" of the system, characterised by the rise in money demand. And it is more than a way to re-equilibrate credit amounts, since it refers to and acts through the psychological rules running modern finance.

Bagehot himself strongly supports our arguing<sup>83</sup>: "It may be said that the reserve in the Banking Department will not be enough for all such loans. If that be so, the Banking Department must fail. But lending is, nevertheless, its best expedient. This is the method of making its money go the farthest, and of enabling it to get through the panic if anything will so enable it. Making no loans as we have

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<sup>&</sup>lt;sup>83</sup> In LS Ch. VII.

seen will ruin it; making large loans and stopping, as we have also seen, will ruin it. The only safe plan for the Bank is the brave plan, to lend in a panic on every kind of current security, or every sort on which money is ordinarily and usually lent. This policy may not save the Bank; but if it do not, nothing will save it."

Arguing in this context about the amount of reserves available to the central bank for the open lending is paradoxical. It can only superficially be of practical value, and it cannot take to effective theoretical principles, not even in a money system still linked to gold as at Bagehot's time.

The ultimate safety of the system rests, should reserves be large or small, on the central bank's understanding of the trust mechanisms which finance founds on, and on the appliance of the most adequate policies to safeguard that trust. No large reserves could ever save a central bank closing its discount window or sinking the price of money when money is most required.

Stressing the meaning of the open supply/interest rate mechanism vs. the holding of a very large reserve thus restates the theme of central banking having to fine-tune the trust balance in the system, something which won't ever be brought through the holding of a large reserve. Bagehot describes modern finance as an enhanced dynamic environment, its nature is represented through non regular, trust-based and therefore fragile, often spiral-formed<sup>84</sup> curves of nominal variables, its working mechanisms are described by subtle macro-economic and macro-systemic policies, its foundation is so impalpable as only "trust" can be. In such an environment monetary policy has to rest on smart and agile mechanisms, it can not defend the system through hard and dumb elements like a big reserve stock.

In a system like this, which we are tempted to call "virtual", because of the enormous influence trust has on its definition, the central bank will certainly have to find a smarter way to manage the money market than by accumulating reserves. The solution lies in the recipe offered by the same Bagehot. As we told at the beginning of this paragraph, we didn't need to search too far.

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<sup>&</sup>lt;sup>84</sup> Money is an interwoven, "bewitched" theme, everyone who dealt with it will know. Bagehot found the right style to go along with it.

This redefinition and correction of the same work by Bagehot favours the essential of Bagehot's thinking, as expressed in the famous recipe for monetary policy, open money supply and rise of central bank's interest rate, following money demand. It takes us to look finally at the bases of the open supply money theory.

# 3. The market meaning of trust

Focusing on the topic of financial instability, we denounce moral hazard as a false problem for monetary policy, as too many sound bills require attention during an illiquidity attack to care for unsound bills. We consequently denounce the "infinite credit creation" hypothesis of the quantity theory as a false problem as well, since it inadequately signals the existence of mismatching interests between the central bank and the market, while there's only a distinction of roles.

A need is felt to integrate the central bank's function into the market, as a market actor, by considering its role as the (sole) liquidity-provider of the system. This also implies a different consideration of the forces and interests struggling inside the market to emerge. We suppose to raise a more serious issue by stressing the difficulties of both central and commercial banks to face market fallacies, than by depicting rival lobbies pursuing their own interests, as the quantity theory does.

Pointing to the needs of an inherently unstable financial system lets new values and principles arise which lead financial institutions: there is a common interest of all actors in a stable credit market growth. Anyway, opening the money supply to the banking system's requests definitely doesn't make instability disappear: Instability will be always signalled by money demand increases, and even by the same money demand existence.

Restoring and stabilising a certain trust level means therefore avoiding also temporary financial market shrinks and every "tendence to barterisation" arising after a trust slide-down. This means helping to impede a shrinking in credit markets dimension rather than reducing credit quantity to a given ceiling.

### 4. Concluding remarks on trust and modern finance

By writing "Lombard Street", Bagehot's aim was to deal with the concrete developments occurring in the most modern money market of his time. But before all he meant to offer a pamphlet to open his contemporaries' eyes, and especially the Bank's managing directors' eyes, about the danger England was experiencing by holding a scarce bullion reserve.

Starting from a conservative and unfortunate aim, the author influenced the practice through its modernity of thought. Panic never occurred in England after "Lombard Street" was published, just because the right management rules had been already learned by the Bank.

These rules entered so harmoniously and efficiently the English money market, that e.g. when the 1929 panic broke out in the USA, England almost immediately chose to (temporarily) dismiss the convertibility of its currency in terms of gold. Thus showing an advanced understanding of the working principles of finance and an excellent ability to avoid the consequences of sticking to the convictions and prejudices of its time. Bagehot highly contributed to the building of such a sharp judgement.

"Lombard Street" most impressing quality lies in making financial stability coincide with the very *existence* of the financial system. An unstable financial system is already experiencing its destruction<sup>85</sup>: "[...] that system, which rests on confidence, would be destroyed by terror."

The core institution of the economy, the central bank, retains a very clear significance as a macro-economic and meta-systemic element. This is also demonstrated by its inability to look at its own profit, like a commercial bank and every economic agent does, without incurring in the own and system's bankruptcy. By leading a unique function, lending for the system's existence sake<sup>86</sup>, the cen-

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<sup>85</sup> In LS Ch. VII.

<sup>&</sup>lt;sup>86</sup> Ch. II: "Both in 1847 and 1857 [..] the Bank directors contended that the Banking Department was quite safe though its reserve was nearly all gone, and that it could strengthen itself by selling securities and by refusing to discount. But this is a complete dream. The Bank of England could not sell "securities" for in an extreme panic there is no one else to buy securities. The Bank cannot stay still and wait till its bills are paid, and so fill its coffers, for unless it discounts equivalent bills, the bills which it has already discounted will not be paid. When the

tral bank shortens the distance between money market macroduties and the general commitment to micro-maximisation. This is a new guidance to macroeconomic understanding of the working mechanisms of a monetary economy.

The significance of trust for the existence of a monetary economy has not yet been grasped in its essence. Ultimate lending ability, timing and functions in crisis management, setting the price of money for assuring stability, are all old and frequently spoken concepts. Under the orthodox vest of crisis management, Bagehot still retains some gems to be discovered, since the subtle mechanism he describes remains hidden.

Trust has been certainly nourished through the increasing efficiency of market structures, through their profitability, their allegiance to legality and safety. But the accumulation of single moments of trust weighting on every business, and the spiral of interrelation between the variables in credit and money market, which are responsible for the efficiency and instant-readiness in monetary systems, accumulate inside the function of legal tender. Money represents the subtlest and most irrational expression of trust, and it remains the most disturbing.

Resting on a thin net of behaviours starting and ending with the central bank, nature and system characterising money give the central bank<sup>87</sup> a formidable responsibility: Should it fail to assure stable trust in credit, the whole economy would break down irremediably.

Nothing else has to interest monetary policy than the state of trust in the money market, a small but the most powerfully reacting part of the whole economy, the pure macroeconomic part of it, requesting the most exclusive attention.

reserve in the ultimate bank or banks -those keeping the reserve- runs low, it cannot be augmented by the same means that other and dependent banks commonly adopt to maintain their reserve, for the dependent banks trust that at such moments the ultimate banks will be discounting more than usual and lending more than usual. But ultimate banks have no similar rear-guard to rely upon".

<sup>&</sup>lt;sup>87</sup> And other crisis management institutions like the IMF.

# 5. The results: monetary policy goal revisited; the money market as the "bomb" of the economic system

Since the money market is autonomous in structure and function from the market for goods (2.1); since fiat paper money radically revolutionize finance, making it become powerful but also irremediably fragile (2.2); and since central banking has to rely on smart mechanisms, in order to rule such a highly refined and delicate system (2.3), then monetary policy has a specific and own sphere to concentrate on, given the utmost importance of its task. Its unique goal is the stability of the money market, and this goal coincides with (implies) the same existence of the whole monetary economy.

Again, after Keynes, money can be recognised as the bomb, ready to explode and disconnect both economic equilibrium and stability. Only, Bagehot conceives the correct money market management, which impedes every explosion, and shows the monetary economic system the way of stability and growth.