# CREDIT CREATION OF MONEY AS A FAILURE OF COMMERCIAL BANKS´ INCENTIVES

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Abstract

*This paper focuses on the mechanism of money creation in the* fractional-reserve banking system. *The aim of this paper is to enlighten the origin of money supply, or more precisely to analyse incentives of the institutions participating in the process of money creation of the whole money stock. Following from this, the paper refers to commercial banks as the most serious destabilizing factor of purchasing power of money in the several last decades. Attention is given to factors which influence commercial bank to supply credit and also to the factors, which create demand for this credit. In its second part the study focuses on the failure of incentives resulting from commercial banks actions, which are responsible for the continuous decrease of purchasing power of money. The paper concludes with alternative proposal of monetary system based on free banking, which is capable of preventing the aforementioned incentives' failure of commercial banks.*

Keywords:
*Inflation, inside money, free banking, fiduciary money, fractional reserve system, failure of incentives*

## Introduction

In the free-market framework, money constitutes a common tool that doesn't serve any single particular objective but continually satisfies an evolving set of individual objectives. To fulfil this role efficiently, the value of money must be stable or at least predictable.

It is merely the central bank that is presented by most of the mainstream economic studies concerning monetary policy as *"the forth pillar of government authority, which strives after designing reliable stabilizing framework for the development of purchasing power of national monetary unit"*[9]. Although in the

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[9] Krejčí, 1998, p. 1

most developed countries central monetary authorities have privilege and legal monopoly to issue notes, the sovereign power over money supply is a subject to discussion. Actually, the contemporary monetary arrangements aren't (obviously) based on metallic reserve standard. It follows that not only notes created by the central monetary authority generate money supply, but instead, most of it is the so-called *inside money*, which is issued by private (even if rigidly regulated) commercial banks.

The aim of this paper is to enlighten the origin of money supply, or more precisely, to analyse incentives of the institutions accountable for creation of the whole money stock, and in this connection to refer to commercial banks as to the actual destabilizing factor of purchasing power of money in the several last decades. The first chapter enlightens creation of money supply in the past two centuries. In this period, significant disturbances of purchasing power of money were caused by issuing activity of central banks, which more or less obligatorily redeemed governmental securities in order to provide fiscal revenues to governments to reimburse war expenditures, and thus caused significant fluctuations in purchasing power of money. The second chapter is dedicated to particular types of banking operations that result into creation of inside money and also focuses on problems of legal inconsistency resulting from these operations. The third chapter explains mechanism of money creation through credit activities of commercial banks. It targets principally the determinants driving banks either to grant or refuse the provision of credit and also focuses on factors that support demand for credit. The last chapter is dedicated to the failure of incentives resulting from actions of commercial banks that are responsible for chronic reduction of purchasing power of money. The paper concludes with alternative proposal of monetary system based on free banking being capable of preventing the aforementioned failure of commercial banks´ incentives.

## Inflation as a way of reimbursing war expenditures

Money inflation as an economic phenomenon by which the purchasing power of money decreases is the subject of study of all significant economic schools. As it follows from the prekeynesian neoclassical quantitative theory of money, decrease in purchasing power of money can be caused by an increase in money stock, by a decrease in trustworthiness of the currency or by a decrease in economic product on the territory in which the currency is used.

While governmental authorities may influence the shift in trustworthiness of the currency or growth rate of economic product only very indirectly, the size of money stock is much more a straight result of the policy of financial institutions,[10] in particular of the central bank. Therefore, it is not surprising that chronic

[10] That means official monetary institutions and commercial banks.

decrease in purchasing power of money, which typically prevailed in the second half of the nineteenth and the first half of the twentieth century, is ascribed chiefly to the policies of central monetary institutions. In particular, the periods of war and post-war eras of disintegrated countries provide a clear example of direct connection between governmental policy and instability of purchasing power of money. Money inflation, pursued by government through sale of governmental securities to the central bank is actually a far less obvious way of financing extraordinary expenditures than straightforward increase in taxes imposed on economic subjects.[11] At the same time, it is vital for pelting government to disguise the real height of war costs because it is possible to consume formerly accumulated country wealth for war purposes (without evoking public convulsions) only under condition of keeping-up the labour effort and morale of the nation.[12]

### Credit and deposit financial services

Typical current monetary systems in developed countries are characterized by a legal monopoly of the central bank regarding to the currency, which isn't by any way backed by a stock of precious metals (or other scarce resources) kept by this authority. These central banks issue monetary base (that means final money), which are used as means of circulation or which create commercial banks´ reserve.

Fractional reserves of commercial banks are another special feature of today's monetary systems. This means that monetary base in itself doesn't represent the whole money supply and often not even its majority. In these systems, the rate of inside money is a decisive aspect, which is determined by the rate of so-called excess reserves, which banks offer to third parties in the form of bank credit.

Discussing creation of inside money, it is important to split bank services into those of credit type and those of deposit type. From the point of view of money creation, credit operations aren't relevant because these are the situations when the original owner of some amount of money gives up right of disposal with this financial sum for the stipulated period. This means that the amount of money given available to the bank by the original owner has merely one single owner at any moment. However, the situation is completely different in the case of deposit operations, when the owner of the amount of money entrusts the bank with his financial sum only in order to a custody, so he reserves his right of disposal to the

[11] Without question, one of the last significant monetary expansions in virtue of war conflict is policy of US FED at the end of sixties, when Johnston's administration tried to finance Vietnam War by means of this expansion. Break up of Breton Wood monetary system was one of the direct consequences of this policy. Glasner, 1989

[12] Salerno, 1995

full extent. Thus, regardless of this situation, commercial bank treats this deposit as excess reserves, and its general majority in the form of credit makes over to third party.[13] Hereby from now on, two "owners" have the right of disposal with one financial sum, or more precisely, each of these bank contractual clients treats the same money to the full extent as if he would be its exclusive owner. This confidential obligation brings inside money into existence, and this constitutes outstanding debt of banking sector. There exists a category of "claim to inside money", which means that each balance of account is mirrored by a financial commitment.[14]

It is evident that from the legal point of view, this makes for a radical discrepancy because the existence of full and exclusive proprietary is the fundamental presumption for concluding valid (and meaningful) contract. If in terms of deposit operation the bank deals with some part of the deposit as being its owner, even if all the time the rights of disposal belong to depositor of this money, then this creates a legal conflict.

> "*One of the contract's definition resulting from fundamental ownership is impossibility to assign more than one exclusive privilege of the same thing. The essence of ownership is its exclusive control. It is logical that only one person can do that exclusive control over one thing. As soon as the same right would be declared to someone other, the exclusiveness couldn't be preserved. Even that is why a contract, which would determine, that two parties will at the same time be exclusive owner of the same thing is invalid from the beginning."*[15]

This discrepancy becomes fully evident in the case of a bank run on the bank[16]. The commercial bank provided credit to the third party, thus the credit exceeds the pool of available excess reserves (received deposits) of this bank, and therefore the bank can never pay out all issued certificates for the underlying asset. It follows that for its owner, inside money is always connected with some risk.

### Creation of inside money

As we mentioned above, if commercial banks aren't obliged by law to keep 100 % of deposited money as reserves in their vaults, they treat much of this financial asset as excess reserves. Accordingly, bank lends these (up to now

[13] Hülsmann, 2000
[14] Accordingly, the category of claim to inside money divides all subjects into creditors and debtors, whereas these positions are not incompatible of course.
[15] Havel, 2005, p. 10
[16] That means the situation, when more depositors would decide to withdraw their deposits in cash.

unproductive) funds to its clients in the form of credit paying interest. This brings significant savings in resource costs of money and therefore substantially increases competitiveness of this commercial bank.

From the institutional point of view, inside money issue (which of course decreases purchasing power of money) is in the most of the developed countries limited only by the set of required reserves ratio (RRR)[17]. Because of the low level of RRR (generally under 10 %)[18], for commercial banks the solvency and credibility of their clients to pay for credits is the only binding limit of money creation. Thus, if the commercial bank concludes that the expected return on project or its security for a debt (quality of banker's collaterals) covers the associated incremental costs, there is nothing to hinder the bank in its credit (and issuing) activity.

In politically and economically stable environment, commercial banks will strive for steady rate of deposits reserves. Applying the law of large numbers, banks will try to keep dynamics of new credits equal to the dynamics of paying for previous credits.[19] In a consequence to this, inside money creation is a direct reflection of nominal demand for cash by non-financial institutions and households, which itself is a function of credibility of the banking system.

In addition, this process of money creation works multiplicatively (originally uncovered deposits become credits and their new owners will deposit them to bank, which will again provide part of them as a credit on the financial market) and significantly contributes to instability of purchasing power of money. However, this cashless means constitute claim on public (not private) money, and that is why the commercial banks have no incentive not to go to the verge of acceptable risk in providing credit. Even if in (recent) history the purchasing power of the currency decreased because of this policy of commercial banks, paradoxically the credibility of any of these banks wasn´t undermined.

### Failure of incentives

In the free-market, a success in competition process is the question of innovations and effectiveness. To reach maximum efficiency, the entrepreneur must be able to minimize all costs. However, incentives to cut costs diminish when the government in such a way regulates the market subject that profitability is not the entrepreneurial action, or in the case when this subject doesn't bear all

[17] Required reserves of commercial banks are mandatory minimum deposits to central bank, which can't be used by the bank for credit provision. Its size is given by percent rates of primary deposits in both domestic and foreign currency.
[18] In many developed economies (Australia, Canada, Denmark, Switzerland) this instrument has been completely cancelled.
[19] Krejčí, 1998

costs and risks the consequences of its actions.[20] The second one is just the case of commercial banks that don't bear responsibility for damaged purchasing power of money caused by their excessive issuing activity.

As it follows from above-mentioned, reasons of this incentives' failure must be seen in the institutional framework of the economics, dealing with this problem. Even when speaking about developed countries, the analyses of institutional aspect of their particular sectors usually conclude that long-term inefficiency can only be caused by stiff governmental regulation of these sectors. The same accounts for banking system.

A suitable framework which prevents from this incentives failure is the system of free banking, or more precisely, framework of open competition of currencies issued by individual commercial banks.[21] Under the constraints of this competitive environment, the profit driven banks would in their self-interest keep the purchasing power of its currency stable or at least predictable in order to provide a desirable product (that is the private currency) to its customers. The decision-making process about the issuance of inside money wouldn't be only the question of risk assessment and security for a debt of certain project, but only the stability of purchasing power of bank's private currency would be pivotal. If the bank increased fiduciary money issuance above the level justified by market-driven demand for its currency, in the long-run this would result into distrust and the bank would risk that its clients start to get rid of this private currency certificates – partly in the form of additional demand for goods and services, partly in the form of direct withdrawal of deposits (run on a bank). Bank's private currency would become traded with discount and subsequently would subside to fulfil the role of money, and this would lead to reduction of shareholders value of issuing bank.[22]

Reconciliation of good reputation and confidence is an uneasy lengthy process. If the bank wanted to recover its market share, it would have to cut the amount of issued notes below the level of damaged demand for this currency. This would lead to a significant decrease in earnings, and consequently penalize bank for its previous excessive issuance.

Contrary to apprehensions of many statists, it is hardly possible that under the system of free banking a persistent excessive issuance of notes and thus a continuing fluctuation of money stock would take place. A mechanism of

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[20] Mises, 1949

[21] In its broadest definition, free banking is the system of one-stage banking settlement, in which no bank would be restricted in its entrepreneurial activity and, at the same time, no bank would be privileged by government authority. In other words, this concerns system of banking competition without any government interventions, i.e. without a central bank, banking supervision, compulsory insurance of deposits and even without any restrictions and regulations of provided banking services. This means that banks would be liable to the same legislative norms as all the others business branches. Hayek, 1990

[22] Selgin, White, 1994

sanctions to those banks that would determine to issue more money than its demanded amount works here. If some of the private banks don't respect these market boundaries of money expansion, they run a risk of worse (because of increased costs of liquidity) or even runs failure. Similarly, the bank that issues too little banknotes, reaches lower then maximum profit, and is thus motivated to increase the issue.[23]

## Conclusion

Assets in the form of final money are crucial part of money supply in a majority of developed monetary systems. Even if a central bank of the particular country has an exclusive right to issue money, it is able to influence the whole money stock only very indirectly, by means of redistribution processes. The most used tool of money supply regulation is discount rate, which, however, presumes high demand elasticity for money against interest rate.[24] Increase in money supply is then caused by the mechanism of money creation, whereas this increase is endogenous to a great extent.

Even if today the biggest part of money supply is created just by inside money, it doesn't change the fact that the strict note issuing monopoly (concerning money basis) limits free action of individuals, and mainly causes failure of incentives of commercial banks. The inside issuance of money that isn't absorbed by increased demand for money devaluates the existing purchasing power of money, without undermining confidence to the bank that actually made this issue.

The possibility of elimination of this failure can be seen in the free banking system, or more precisely, in such a monetary settlement where there is a chance for every bank to issue its own private currency. In this competitive environment every bank would have to consider its issuance activity, so that the additional increase of fiduciary funds denominated in its currency doesn't undermine its´ clients confidence. Total monetary supply of banking institutions would then directly reflect a decision of optimising individuals (clients of these banks) to keep cash, and would not be subject to incentives failure in a credit creation of money.

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[23] Kvasnička, 2002
[24] Sojka, 2002

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