Mendel
University
in Brno

MENDELU Working Papers
in Business and Economics
8/2011

Rent-Seeking Origins of Central Banks: The Case of the Federal Reserve System

Tomáš Otáhal

MENDELU Working Papers in Business and Economics
Research Centre
Faculty of Business and Economics
Mendel University in Brno
Zemědělská 1, 613 00 Brno
Czech Republic
http://vyzc.pef.mendelu.cz/en
+420 545 132 605

Citation

Otáhal, T. (2011). Rent-Seeking Origins of Central Banks: The Case of the Federal Reserve System. *MENDELU Working Papers in Business and Economics* 8/2011. Mendel University in Brno. Cited from: http://vyzc.pef.mendelu.cz/cz/publ/papers

Abstract

Tomáš Otáhal: **Rent-Seeking Origins of Central Banks: The Case of the Federal Reserve System**

What were the purposes for establishment of central banks? Central banks are historically relatively young organizations. Their main purposes are to regulate money supply through interest rates, regulate the banking sector and act as a lender of last resort to banking sector during the time of financial crises. Historical evidence suggests that in the second half of 19th century in the USA private clearing houses were able to provide the banking sector with similar services. In this paper, we follow such evidence and provide Public Choice explanation for establishment of central banks. On the historical example of establishment of the Federal Reserve System we show that the motivation for establishment of the Federal Reserve System might be rather political instead of economic. More precisely, we argue that the Federal Reserve System was established to allow the American Federal Government to control rent-distribution through money supply control and banking sector regulation.

Key Words

Federal Reserve System, financial markets institutions, historical example, rent-seeking

JEL: D72, D73, N21, E42, E58

Contacts

Ing. Tomáš Otáhal, Department of Economics, FBE MENDELU in Brno, Zemědělská 1, 613 00Brno, Czech Republic, e-mail: tomas.otahal@mendelu.cz.

Acknowledgements

This article is the result of a research project supported by the Ministry of Education, Youth and Sports of the Czech Republic, no. VZ 6214648904 "The Czech Economy in the Process of Integration and Globalization, and the Development of Agricultural Sector and the Sector of Services under the New Conditions of the Integrated European Market", thematic area 01 "Macroeconomic and microeconomic performance of the Czech economy, and the Czech government's econo-political measures in the context of the integrated European market".

This paper was inspired by work of Lawrence H. White from George Mason University. For detailed comments and suggestions we thank to Frederic S. Lee from University of Missouri-Kansas City. For research assistance we thank to Alena Melicharová from FBE Mendelu in Brno. For some comments we thank to Mike Munger from Duke University, Stephen Davies from Manchester Metropolitan University, David T. Beito from Auburn University, Ladislava Grochová from FBE MENDELU in Brno and Marek Hudík from University of Economics, Prague. The paper was presented at Prague Conference on Political Economy 2010, University of Economics Prague workshop in 2010 and at Financial and Economic Crises: Causes, Consequences and the Future 2010 conference held at Mendel University in Brno. We thank to all participants commenting the content of the paper.

Introduction

Central banks are governmental agencies responsible for money supply control through interest rate regulation. They regulate banking sector and they act as a lender of last resort to banking sector during time of financial crises. They were established by governments and their responsibilities were given by political decisions. They could be considered as bureaucratic organizations (Toma 1982, White 1999, chap. 8).

In a recent monetary theory, it is argued that the monetary policy and regulation of financial and banking systems could be handled by the market (i. e. Selgin and White 1994). It is also argued that the reasons for establishment of central banks were therefore not economic but political. For instance, Rolnick and Weber (1986), Kaufman (1994) and Gorton (1985, 1988) argue that the rational arguments for establishment of the Federal Reserve System in the USA were overestimated. Other studies even argue that in the second half of 19th century in the USA, private organizations, referred to as clearing houses, were able to handle the regulation of financial and banking systems better than later Federal Reserve System (Mullineaux 1987, Gorton and Mullineaux 1987, Timberlake 1993).[1] Naturally, a question could be raised: If central banks are wasteful bureaucratic organizations[2] and the market could handle the money and regulation of banking and financial systems, for what purposes central banks were established?

In this paper, we suggest the answer. On the case of the Federal Reserve System, we explore the possibility that the establishment of central banks might be a result of rent-seeking activities.[3] By this, we would like to cast doubt on the assumption that central banks are benevolent governmental agencies seeking social welfare. We thus would like to support the notion that central banks were established rather to the convenience of powerful interest groups[4] instead of the convenience of general public.

First, we present a theoretical model combining rent-seeking activity with inflationary public policy. We assume that additional liquidity provided by governments during times of financial crises represents rent. We thus combine two theoretical approaches. On one hand, we make the assumption that the absence of barriers to entry in the banking industry provides conditions for entrepreneurial competition (Kirzner 1973), thus ensuring the stability of the banking and financial systems (White 1999). On the other hand,

[1] The Federal Reserve System is sometimes referred to as the Federal Reserve or simply the Fed.

[2] For pioneering contribution to the theory of bureaucracy, see Niskanen (1968).

[3] For pioneering contribution to the theory of rent-seeking, see Tullock (1967), Krueger (1974), Buchanan (1980), Tollison (1982).

[4] For pioneering contribution to the theory of interest groups, see Olson (1965).

we assume that entrepreneurial competition could be socially wasteful if the entrepreneurs are seeking rents (Buchanan 1980). We thus apply theory of wasteful entrepreneurship on the development of monetary institutions and generalize the pioneering argument of Mark Toma (1982) by classifying further interests which profit from inflationary public policy.[5]

Second, we will outline the historical situation before the establishment of the Federal Reserve System in the USA and we will describe the concrete interests of concrete interest groups, which profited from the establishment of the Federal Reserve System[6] to provide realistic evidence for the outlined theoretical model. Then we will make a conclusion.

1. Simple model of rent-seeking origins of central banks

In this section, we will develop a rent-seeking model of the establishment of a central bank controlled by the government. Let us assume that the first goal of the central bank is to maximize non-interest-bearing debt held by public. Non-interest-bearing debt held by public is the revenue generated from printing fiat money. Then let us assume that the second goal of the central bank is to maximize its own power (White 1999, chap 8.). Naturally, the central bank might seek additional goals, for instance it could create a political business cycle. Nevertheless, in the case of Federal Reserve System the former two goals played a crucial role in the process of its establishment.

1.1. Central bank as a non-interest-bearing debt held by public maximizer

Let us assume that an economy without a central bank operates under gold and silver standards. As a result, seignorage is the difference between the face value of coins minted and their actual bullion content minus the cost of minting. The money supply therefore, could be expressed by the following equation.

$$M = PQ + C + S,$$

where *M* is the nominal value assigned to the batch of coins, *P* is the nominal price paid by the mint per ounce of precious metal, *Q* is the number of ounces of precious metal embodied in the batch of coins, *C* are the average costs of operating the mint (called "brassage"), *S* is the nominal seignorage.

Now, let us assume that providing gold and silver money is a perfectly competitive industry. Assuming this, perfect competition would enforce the price conditions equal to marginal cost, $M = PQ + C$, implying $S = 0$.

[5] For recent representative literature survey see for instance Kvasnička (2005).

[6] For previous historical study on interest groups origins of FED see Otáhal (2009a).

Under perfect competition, seignorage is reduced to zero. No barriers to entry ensure that the profit in form of seignorage will be eliminated because new mints could be operating with lower costs. Not even the government could earn seignorage if it does not restrict potential competitors by creation of barriers to entry.[7]

Now, let us suppose that the economy with a central bank operates under the fiat money standard. Then the bullion content of base money is zero $Q = 0$, and the production costs are almost zero. Even though the production of fiat money is not costless, it would be useful to assume that $C = 0$. Then the equation describing money supply under gold and silver standard could be rewritten as $M = S$. Under the fiat money standard the government seignorage per year is simply equal to the change in stock of base money per year. The relationship is following.

$S = \Delta H$,

where ΔH indicates the change in H, the stock of "high-powered" money or base money in existence. Real seignorage is

$s = \frac{\Delta H}{P}$,

where P is the price index used as a deflator.

Previous assumptions allow us to describe the governmental budget constraint under the fiat money standard as follows:

$G = T + \Delta D + \Delta H$,

where G is the government spending including debt service, T is the tax revenue, ΔD is the change in the interest bearing debt held by non-government public, ΔH is the change in non-interest-bearing debt held by public. In other words, ΔH is the nominal seignorage.

1.2. Additional liquidity distribution without central bank

Now, let us assume that the government in order to maximize seignorage *S* obligates private banks to hold governmental bonds. When the market value of bonds falls down the banks obligated to hold overpriced bonds face the problem of insufficient liquidity (Kvasnička 2008, 34-35, Rybáček and Šíma

[7] Kirzner (1973) argues that perfect competition model is unrealistic in its assumptions. According to Kirzner (1973) sufficient condition ensuring free competition is no barriers to entry. For this reason we might abandon the assumption of perfectly competitive market and assume competition as a dynamic process without barriers to entry. For recent explanation see Otáhal (2008b).

2010). This process brings the government to provide additional liquidity, rent, to private banks to satisfy the money demand.

The supply of additional liquidity provides incentives for rent-seeking. First, the government by providing additional liquidity strengthens its political power by discretionary decision-making. The government representatives then invest resources that allow them to allocate additional liquidity according to their preferences. Second, banks facing the problems with liquidity invest resources to influence the government representatives' decision-making on allocating additional liquidity.

Now, let us assume that the probability p_i that the banks get additional liquidity is proportional to the investment of banks into rent-seeking x_i. Since this applies to all banks equally and all probabilities must add up to one, a single banks' probability of getting additional liquidity decreases with the investments undertaken by its competitors. In case of n banks, this results in

$$p_i = \frac{x_i}{\sum_j x_j} \qquad i, j = 1,...,n$$

with x_i being the expenses for rent-seeking of bank i. The resulting equilibrium can be determined once the following assumptions are introduced: banks are risk-neutral, they act symmetrically, they are unable to influence the rent-seeking investments of other competitors x_j.

Assuming that the government gets liquidity by enlarging the non-interest-bearing debt held by public ΔH, banks maximize its profit $E(p_i \Delta H - x_i)$. Maximization of the profit of the banks looks as follows.[8]

$$\frac{d\left(p_i \Delta H - x_i\right)}{dx_i} = \frac{d\left(\Delta H x_i / \sum x_j - x_i\right)}{dx_i} = \frac{\Delta H}{\sum x_j} - \frac{\Delta H x_x}{\left(\sum x_j\right)^2} - 1 = 0 \quad \text{..... (1)}$$

Assuming that banks are symmetrical, $x_i = x_j = x$, the Cournot-Nash-equilibrium could be followed by optimal levels of rent-seeking.

$$\frac{\Delta H}{nx} - \frac{\Delta H x}{n^2 x^2} = 1 \Leftrightarrow n\Delta H - \Delta H = n^2 x \Leftrightarrow x = \frac{n-1}{n^2}\Delta H \,.$$

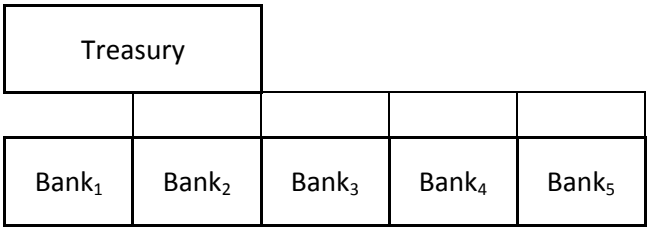
Total expenses R for rent-seeking then could be summed up as follows:

$$R = nx = \frac{n-1}{n}\Delta H \quad \text{.....(2)}$$

[8] Historical process within which gold and silver standard was transformed into the fiat money monetary regime will be described later.

The last equation implies the following. If banks face the problem with liquidity and the government provides the additional liquidity via non-interest-bearing debt held by public ΔH, banks will spend more resources in rent-seeking *R* when the number of banks n is larger. The government thus must provide additional liquidity to larger number of banks n. If there is too many banks competing for additional liquidity the government must provide almost all non-interest-bearing debt held by public ΔH to banks to cover their total rent-seeking expanses *R*. This also means that there is almost no non-interest-bearing debt held by public left for the governmental spending. Assuming non-interest-bearing debt held by public maximizing government this situation might be sub-optimal. Graph 1 shows additional liquidity distribution without central bank schema.

Graph 1: Additional liquidity distribution without central bank



1.3. Additional liquidity distribution with central bank

According to previous model, if there is only one bank demanding additional liquidity, the government has a opportunity to share non-interest-bearing debt held by public ΔH thus corrupt government[9] instead of provision additional liquidity to too many banks will rather chose a few banks with which it can share non-interest-bearing debt held by public. Previous model, however, assumed exogenous rent ΔH. Now, let us assume that the government might change the amount of additional liquidity distributed according its own preferences (Lambsdorff 2002).

Let's assume that ΔH additional liquidity is positively dependent on the total rent-seeking expenses: $\Delta H = \Delta H(R)$, with $\Delta H' > 0$. Thus the larger the size of the rent ΔH that banks seek to obtain, the larger bank's total expenses for rent-seeking *R* required to induce government to provide them with additional liquidity. Then this equation might be introduced in the model above. Since $\Delta H = \Delta H(\sum x_j)$, equation 1 can be rewritten:

[9] For theory of corruption see Otáhal (2007).

$$\frac{d\left(\frac{\Delta H\left(\sum x_j\right)x_i}{\sum x_j} - x_i\right)}{dx_i} = \frac{\Delta H' x_i}{\sum x_j} = \frac{\Delta H}{\sum x_j} - \frac{\Delta H x_x}{\left(\sum x_j\right)^2} - 1 = 0 \quad \text{.....(1')}$$

Assuming that banks are symmetrical, $x_i = x_j = x$, the Cournot-Nash-equilibrium could be followed by optimal levels of rent-seeking.

$$\frac{\Delta H' x}{nx} + \frac{\Delta R}{nx} - \frac{\Delta H x}{n^2 x^2} = 1 \Leftrightarrow n\Delta H - \Delta H = nx\left(n - \Delta R'\right) \Leftrightarrow x = \frac{n-1}{n\left(n - \Delta H'\right)}\Delta H .$$

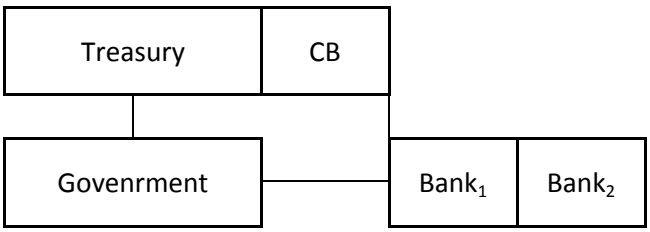
Total expenses R for rent-seeking then could be summed up as follows

$$R = nx = \frac{n-1}{n - \Delta H'}\Delta H \quad \text{.....(2')}$$

If ΔH is larger (smaller) than 1, R is larger (smaller) than ΔH and an increase in the number of banks n will decrease (increase) the total expenses for rent-seeking. This shows that the classical assumption of rents dissipating through competition reemerges with the power of central bank to control money supply through interest rate regulation. In money markets under gold and silver standards, banks' seignorage S dissipate through competition. As seignorage S attract new entry into the market, the increasing money production drives down nominal seignorage s and reduces banks' profits. But assuming the economy with a central bank that operates under the fiat money standard as soon as rents ΔH are seen to depend on rent-seeking expenses, the rent-distribution might lead to decrease of number of rent-seeking banks n. Economically, this relates to the fact that the positive impact of rent-seeking expenses R on the rent ΔH might be felt more than few banks exist. If there is too many banks competing for additional liquidity they might rather increase their share instead of devoting more resources to rent-seeking. This also means that if corrupt government will maximize non-interest-bearing debt held by public ΔH it will rather provide a few banks with additional liquidity to induce banks to rent-seeking.. Situation with a few banks competing for endogenous rent ΔH might be thus optimal.

Graph 2 shows additional liquidity distribution with central bank schema. In Graph 2 schema a few banks corrupt government to receive additional liquidity and central bank dependent on treasury provide additional liquidity to a few banks to induce banks to spending received additional liquidity into rent-seeking.

Graph 2: Additional liquidity distribution with central bank



2. Historical example of Federal Reserve[10]

The previously discussed simple model predicts that the government controlling the central bank creates barriers to entry to maximize seignorage. By creating the barriers to entry the government also restricts the competition of new mints, because it reduces seignorage to zero $S = 0$. Restricting the competition of new mints allows the government to control the convertibility of government currency. The creation of barriers to entry by the government thus transforms the gold and silver standard into the fiat money standard.

In this section, I will briefly describe the process of creation of barrier to entry by the American government in decades before the establishment of the Federal Reserve System. First, I will describe the free banking era. Second, I will describe the national banking era.

2.1. Free banking

From 1837, in all states in the territory of the USA there was gradual approval of the *Free Banking Act.*[11] By this law all banks chartered by a particular state were allowed to issue their own banknotes. The privilege to operate on the financial market, also known as charter, obligated banks to hold the state bonds as collateral against the issued banknotes. The charter was assigned to anyone who met the minimum requirements of honesty and capital (Kohn, 2003, p. 135). Therefore this period in the US monetary history is referred to as the *free banking era*.

The free banking era is also sometimes referred to as "wildcat banking". Since there was relative freedom for anyone to found a bank, there was also the possibility of the misuse of power to issue banknotes.

[10] The first version of the historical example was published in Otáhal (2009b).

[11] In this year the Free Banking Act was approved in Michigan, in 1838 it was approved in New York, and then it was gradually approved in other states of the US Federation until lastly it was approved in Pennsylvania in 1860. States which never approved the Free Banking Act remained relatively severely regulated. For a description of the regulation of banking system in this period see Rolnick and Weber (1983, p. 1082).

Bankers could distribute banknotes and then terminate their operation in order to enrich themselves at the expense of their clients. This was the result of asymmetric information. Cases were discovered in which bankers had founded bank branches in backwoods in order to minimise the chance of conversion, moreover to protect themselves against comptrollers, the state supervisory agency, who could force them to pay off clients.

Taking all historical facts into consideration however, the wildcat banking was a relatively trustworthy banking system. Rockoff (1974) in his paper estimated the costs connected with holding privately issued banknotes. His results lead to the conclusion that in comparison with the states where the Free Banking Act was not approved, the costs to bank clients in states with the Free Banking Act were not higher and were constantly decreasing. Comparing banks in New York State with those in Philadelphia State, Rockoff proves that banks in New York had a more conservative investment strategy than banks in Philadelphia where the Free Banking Act was never approved. Rolnick and Weber (1983) followed Rockoff's conclusion and argued that if in states with looser regulation banks went bankrupt because of problems with liquidity, then only one third of them were not able to fully pay off their clients.[12] In general, the proportion of closed banks in states with looser regulation was lower than the proportion of closed banks in states with tighter regulation. Moreover, banks in states with looser regulation survived for longer periods and their banknotes circulated with relatively stable value for longer times than banknotes of banks in states with tighter regulation.[13]

This evidence suggests that a free banking system does not suffer from asymmetric information. Nevertheless, there was one serious problem with free banking. As mentioned before, the charter was a state privilege allowing state banks to issue banknotes against state bonds. Charters were assigned by state supervisory agencies. However these state agencies had authority only in the territory of particular states. The differentiation in regulation according to state legislation created a barrier to entry. Different regulations therefore restricted the ability of bankers to branch across state borders and generate profit from economies of scale, which is a typical source of profit in the banking industry.

2.2. National Banking

Economic rationale for the elimination of barriers to entry in the banking industry could have been presented, however no complaint was ever filed. In 1863 and 1864 two laws were passed, the *National Currency Act* and the *National Banking Act*. These acts started off a period in the US monetary history

[12] In New York the proportion of closed banks was eight per cent.

[13] The value of randomly chosen one dollar banknotes issued by New York banks did not decline below 99 cents for many years.

referred to as the *national banking era*. By these acts the federal government empowered itself by chartering banks operating on the national level. The reason for central regulation was simple. The federal government wanted to enlarge the national debt, so it created a system of national banks distributing federal currency, fiat money, United States Notes, also referred to as *greenbacks*[14]. This ensured the distribution of the national debt in the form of federal bonds. The national banking system was therefore not the solution to the disadvantages of the free banking system but the result of political objectives followed by federal representatives.

Why did the federal government need to establish the national banking system (National Association [NA]) in order to enlarge its own debt? The reason was obvious. The Civil War of 1861–1865 became a costly "public policy" promoting industrialization in the south so that the federal government could find another confederate who would accept the federal bonds.

The problem was that the national banking system was not competitive enough to make greenbacks the main means of transaction in the USA. Other currencies that were convertible to monetary metals were still circulating. For this reason the federal government was continuously tightening regulation in the banking industry. For instance, in 1865 a law was passed imposing a 10 per cent tax on every banknote issue realized by state banks operating under the Free Banking Act. The federal government also required a higher nominal value of issued banknotes. Of course, lower nominal values have a better chance of acceptance. As we will see in the next section, the federal government followed this trend at least until 1913 when the Federal Reserve System was definitively established.

There is an important conclusion which I would like to make in this subsection. In this period of the monetary history of the USA the federal government established key governmental agencies which created the formal institutional background for establishment of Fed. It was a federal bureau for the administration of currency, the Office of the Comptroller of the Currency, which controlled the capital facilities and portfolios of national banks. The Comptroller of the Currency was institutionally subordinated to the Department of Treasury of the federal government. The roots of the Federal Reserve System therefore grew not from the economic interests of state banks but from the economic interests of the new and stronger federal government.

3. Rent-seeking Interests

In the previous section I have briefly described the process of creation of barriers to entry in the banking system. In this section I will continue with classification of specific rent-seeking interests.

[14] Greenbacks as a legal tender were approved by the Legal Tender Act in 1862.

3.1. Classification of Interests

The recovery after the Civil War of 1861 – 1865 could be characterized as an agricultural recovery in the age of steel and electricity. On one hand, the fluctuations in the agricultural production pressured the state and national banks to sustain short-term money demand of farmers, on the other hand the innovations in railways, chemical industry, and telecommunications pressured the state and national banks to sustain the money demand of entrepreneurs. In addition, the federal government promoting industrialization in the south and the west was demanding money too.

However, the existing monetary system was not able to absorb the short-term fluctuations in the money demand of farmers, the long-term money demand of entrepreneurs and the needs of the federal government. The instability of the existing monetary system documented by sudden monetary contractions in 1873, 1884, 1890, 1894, and 1907 was the argument for change. The leading argument was the inability of the existing monetary system to allocate emergency currency in time of contraction.

This development gives us ideas of the possible rent-seeking interests: **(i)** the first possible interest represents the federal government representatives. The federal government representatives invested resources into creation of barriers to entry to allocate emergency currency according to their preferences; **(ii)** the second possible interest represents the state banks and national banks. The state banks and the national banks invested the resources into influencing the allocation of emergency currency; **(iii)** the third possible interest represents the entrepreneurs who were expanding in the industrial sector. The entrepreneurs also invested resources to influence the allocation of emergency currency. In this subsection, I will explore the rent-seeking interests of the outlined interest groups.

(i) Federal government. The value of greenbacks fell during the Civil War. According to Friedman and Schwartz (1993, ch. 2) the greenback's value fell to half the value it had had before the War started. Naturally, this decline made the greenback an uncompetitive currency. The federal government therefore decided on the termination of the greenback's circulation. Interestingly, it was not until 1879 that the *Specie Resumption Act*, which was approved by the Congress in 1875, came into force.

After the Civil War, the gold and silver dollar were in circulation. In this period, the silver dollar encouraged quite an extensive political discussion. There were governmental interests seeking the termination of its circulation in favor of establishment of a pure gold standard. According to Friedman Schwartz (1993, pp. 89–134) this political debate was manipulated. James Lawrence Laughlin (1850–1933), a respected economist from the University of Chicago and expert in monetary problems, criticised this political decision. He argued that the problems of the monetary system did not arise from bimetallism. Even though Laughlin's proposals were targeted towards the federal distribution of the

emergency currency, Laughlin's federal regulation proposal allowed bankers to compete freely. Regarding the termination of the circulation of the silver dollar, he wrote: "If there had been a possible danger from silver before March 14, 1900, the possible danger still exists" (Laughlin 1900, p. 290). After 1900, despite the experts' opinions,[15] the circulation of silver dollar was terminated. The monetary system went over to the regime of the pure gold standard without the competition from silver.

The period between 1890 and 1920 in the American history is referred to as the *progressive era*. A typical feature of the progressive era was the initiative of politicians and intellectuals to boost legislation in favor of mottos like "social justice". In the spirit of such ideological concepts, Theodore Roosevelt in the years 1901–1908 and Woodrow Wilson in the years 1913–1921 led their country towards the Federal Reserve System.

After another monetary contraction in 1907, the federal government initiated a new political decision. As a solution to possible future monetary crises, the *Aldrich Vreeland Act* was approved in 1908. This law ordered the setup of the National Reserve Association, which was entrusted with planning the federal agency distribution of emergency currency. Senator Nelson Wilmarth Aldrich (1841–1915) and Edward B. Vreeland (1856–1936), inspired by the proposals of J. Laurence Laughlin and Abram Piatt Andrew (1873–1936) from Harvard,[16] suggested that the National Reserve Association be constituted from fifteen regional branches. This organizational structure was to replace the role of the private bank associations, the clearing houses. The National Reserve Association was planned to be led by bankers and monetary experts, however this suggestion was not politically passable. The democratic chair of the House Committee of Banking, Carter Glass (1858–1946), argued against a politically independent governmental agency, naturally, in the spirit of the Progressive movement, where political interests were above the interests of entrepreneurs.

Timberlake (1993, ch. 15) shows that the opponents of the Aldrich proposal either pointed out that the governmental agency should be led by elected representatives, or that the governmental agency should be led by scientists. Lastly they argued that the inflationary monetary policy is a public service, therefore every citizen should have access to "easy money." In 1912, the Democrats won the elections and Thomas Woodrow Wilson (1856–1924) became the President. This political arrangement gave space to the plans of the Progressive movement. Forder (2003) argues that the political meaning of the independence of

[15] J. Laurence Laughlin was not the only expert with such an opinion. Charles Dunbar from Harvard, for instance, had a similar opinion (1898), but these opinions were criticized by, for instance, Fred M. Taylor (1898) from Michigan, who was later an explicit proponent of central planning.

[16] Piatt Andrew (1908a, 1908b) argued that sudden monetary contractions and crises were caused by too tight regulation. If there was less regulation then private banks' associations – clearing houses – would be able to solve the liquidity problems of their members. He proved this conclusion through empirical investigations.

the central bank was understood as independence from the bankers' interests because an independent central bank should be obligated to provide "easy money" to every citizen. Forder concludes:

My point is that the Populists, their successors the Progressives and the supporters of Woodrow Wilson, naive or wise, profound or superficial, were the people who passed the Federal Reserve Act. They created an agency of the government to serve the national interest, not an autonomous body to protect the policymaking process from the government. It is for this reason that the Federal Reserve Board included Presidential nominees in addition to the Secretary of the Treasury and the Comptroller of the Currency. (Forder 2003, p. 306.)

The above discussed move was in line with the ideology of egalitarianism favoring discretionary decision-making. In 1913 the *Federal Reserve Act* was passed and the Federal Reserve System was established.

(ii) State and national banks. Small-scale state and national bankers were the second interest group. They, however, were countervailing the political interests. For this reason, their aim was a Federal Reserve more similar to a network of government-run correspondent/clearing houses opposed to a strong and powerful central bank in the European style. Kohn thinks that:

There was too much political opposition from populists fearful of concentrated power and from thousands of small banks fearful of stronger regulation. Rather the Federal Reserve System was something much weaker and less centralized. (Kohn 2003, p. 609.)

In fact, empirical evidence had existed suggesting that too tight regulation deepened the monetary contractions.[17]

The reason why small-scale state and national banks were countervailing the political interests was the fear of hindered access to the emergency currency. Decentralized Federal Reserve System should have ensured easy access to the emergency currency for state and national banks without residence in financial centers.

(iii) Entrepreneurs. The third possible rent-seeking interest represents the entrepreneurs. It was said that the period before the establishment of the Fed could be characterized as the technical revolution. New technological innovations provided profitable possibilities for entrepreneurs. Nevertheless, the conversion of technological innovations into profitable opportunities is impossible without capital. Massive expansion of corporations financing their productive activities by debt was therefore a result of entrepreneurial "hunger" for credit to cover profitable investments.

[17] See the previous supra note.

During this period we can see the development of financial intermediaries profiting from the overflow of financial capital and concentration, trust companies. Trusts provided the financial support for the large railway and industrial corporations. They were able to provide fairly similar services to banks: securing financial transactions, providing additional credit, and trading with shares, obligations, and notes. Trusts were also able to organize investments in large railway or industrial constructions. Moem and Tallman (1992) argue that the federal government wished the trust companies to do well. Even though they were chartered as state and national banks, they were able to secure risky entrepreneurial investments, which state and national banks were not allowed to do by law.[18]

The problem was that trusts had worsened access to emergency currency. They were connected with emergency credit through subsidiary banks organized in clearing houses. Moem and Tallman (1992) provide evidence suggesting that the financial crisis in 1907 was not the consequence of real economic development, because demand for deposits was stable.[19] They tried to prove that the financial crisis, which started the serious debate about monetary reform, was a consequence of financial transactions of trusts. Because trusts had the majority of deposits in the most important New York banks, sudden withdrawal could have caused unexpected monetary contraction. Through such speculation, trusts would have been able to raise demand for emergency currency.

Rothbard (1999) sees purposeful activity in the behavior of trusts. He argues that the largest trusts like J.P. Morgan Company[20] and the Kuhn-Loeb Trust Company,[21] which was under the control of railway company Harriman and J.D. Rockefeller,[22] were continuously influencing the political decision-making. They were trying to influence the federal representatives so that they would pass legislation restricting state and national banks in competition. According to Rothbard, Charles Conant (1861–1915), was the man representing Morgan's interests.

[18] For instance, in New York trusts were required to hold a reserve ratio ten per cent smaller than that of the national banks. They thus held an advantage over the national bank in providing credit.

[19] This hypothesis is supported by Oliver M. W. Sprague (1977), an economist from Harvard. He argued that in comparison with the crisis of 1894 there were no real changes which could have indicated the forthcoming crisis of 1907.

[20] J.P. Morgan (1837–1913) built up his own railway empire after the Civil War. He was a very powerful entrepreneur who secured, for example, the merger of Edison General Electric and Thompson-Houston Electric into General Electric in 1882. He financed the investment in the Federal Steel Company in 1901 from which he created the United States Steel Corporation.

[21] Kuhn, Loeb, and Company was an investment bank established in 1867 by Abraham Kuhn and Solomon Loeb. It was one of the most powerful investment banks in American history. For instance it financed railway construction and the funding of corporations like Western Union and Westinghouse.

[22] J.D. Rockefeller (1839–1937) was a founder of Standard Oil and created his own petroleum empire. He was another very powerful entrepreneur.

Charles Conant was also responsible for a political campaign in favor of the termination of the silver dollar and the proponent of federal imperialistic public policy which targeted the expansion in the Philippines, Panama, Mexico, Cuba, China, Liberia, Bolivia, Guatemala, and Honduras.

When Senator Aldrich established the National Reserve Association prior to the passage of the Federal Reserve Act, he had to choose its members. Rothbard describes concrete occupational and family relationships between members of the commission and people close to Morgan, Rockefeller, and Kuhn-Loeb. At that time it was impossible to ignore political decision making, because the main steps toward Federal Reserve System were carried out. The federal government controlling the allocation of emergency currency thus connected its interests with powerful financial entrepreneurs. Economists like Charles Conant and Paul H. Warburg (1868–1932), a German economist at Harvard, were proposing a solution which would allow the federal government to realize inflationary monetary policy and expand its interest in developing countries. Powerful trust companies controlling the strategic industries like steel, coal, railways, and electricity were useful partners in pursuing these interests.

Such a public policy of continuously restricting competition of state and national banks was useful for the realization of the interests of politicians and financial entrepreneurs. Politicians controlling the emergency currency were thus able to provide money to trust companies and trust companies were able to support federal government policy.

Conclusion

In this paper, I wanted to explore the possibility that the establishment of central banks was initiated by rent-seeking interests. I showed the objectives pursued by particular interest groups in the case of the most powerful central bank in the world – the Federal Reserve System. It was argued that state banks were not able to operate in large scale because of barriers to entry caused by the existing state regulation and the federal government restricted national banks in competition with powerful trust companies. The trust companies invested resources to support the policy of the federal government and the federal government clothed by progressive movement ideology invested resources into creation of barriers to entry, which resulted in the political control of the Federal Reserve System.

The previous assertions are not to suggest that the establishment of central banks is the only outcome of rent-seeking. It is very difficult to identify the negative consequences of particular rent-seeking activities for the society (Pasour 1987, Medema 1991, Otáhal 2008a). In monetary economic literature there is a prevailing opinion that the central bank as a lender of last resort and stabilizer of business cycles is a necessary part of modern national policy. Nevertheless, in monetary economic literature we can find also the opinion that central banks are causing business cycles. Some economists point out the positive

impact of central banks on society and others argue that inflationary monetary policy controlled by central banks has a negative impact on society, especially in the long term. Therefore, in order to say that the establishment of the Federal Reserve System was the only consequence of rent-seeking, the negative economic consequences connected with federal monetary policy must also be investigated.

References

Buchanan, J. M. (1980). Rent Seeking and Profit Seeking. In: Buchanan, J. M., Tollison, D. R. and Tullock, G. (ed.): *Toward a Theory of the Rent-Seeking Society.* College Station: Texas A&M University Press, College Station 1980: 3–15.

Dunbar, CH. (1889). The national banking system. *Quarterly Journal of Economics,* 12(1): 1–26.

Friedman, M. and Schwartz, A.J. (1993). *A Monetary History of the United States, 1867–1960.* Princeton, (N.J.): National Bureau of Economic Research, 1993.

Forder, J. (2003). Independence and the founding of the Federal Reserve. *Scottish Journal of Political Economy,* 50(3): 297–310.

Gorton, G. B. (1985): Clearinghouses and the Origins of Central Banking in the United States. *Journal of Economic History,* 45(2): 277–283.

Gorton, G. B. (1988). Banking Panics and Business Cycles. *Oxford Economic Papers,* 40(4): 751–781.

Gorton, G. B. and Mullineaux, D. J. (1987). The Joint Production of Confidence: Endogenous Regulation and Nineteenth Century Commercial-Bank Clearinghouses. *Journal of Money, Credit and Banking,* 19(4): 457-468.

Kaufman, G. G. (1994). Bank contagion: A review of the theory and evidence. *Journal of Financial Services Research,* 2(2): 123–150.

Kirzner, I. M. (1973). *Competition and Entrepreneurship.* London and Chicago: The University of Chicago Press, 1973.

Kohn, M. (2003). *Financial Institutions and Markets.* 2nd ed. Oxford: Oxford University Press, 2003.

Krueger, A. O. (1974). The Political Economy of the Rent-Seeking Society. *American Economic Review,* 64(3): 291–303.

Kvasnička, M (2005). Independence and Responsibility of Central Banks. *New Perspectives on Political Economy,* 1(2): 50–75.

Kvasnička, M. (2008). Stabilita a efektivnost amerického „svobodného bankovnictví". *Národohospodářský obzor,* 6(3-4): 22–41.

Lambsdorff, J.G. (2002). Corruption and rent-seeking. *Public Choice,* 113(1-2): 97–125.

Laughlin, J. L. (1907). Currency Reform. *Journal of Political Economy,* 15(10): 603–610.

Laughlin, J. L. (1990). Recent Monetary Legislation. *Journal of Political Economy,* 8(3): 289–302.

Moem, J. and Tallman W.E. (1992). The bank panic of 1907: The role of trust companies. *Journal of Economic History,* 52(3): 611–630.

Medema, G. S. (1991). Another Look at the Problem of Rent Seeking. *Journal of Economic Issues,* 15(4): 1049–1065.

Mullineaux, D. J. (1987). Competitive Monies and the Suffolk Bank System. *Southern Economic Journal,* 53(4): 884-98.

Niskanen, W. A. (1968). The Peculiar Economics of Bureaucracy. *American Economic Review,* 58(2): 293–305.

Olson, M. (1965). *The Logic of Collective Action.* Harvard University Press, Cambridge (MA), 1965.

Otáhal, T. (2008a). Na obranu dobývání renty. *Ekonomický časopis,* 56(10): 1019–1032.

Otáhal, T. (2008b). Teorie podnikatelského objevování. *Politická ekonomie,* 56(5): 669–683.

Otáhal, T (2009a). Souvislosti vzniku Federálního reservního systému: Přehled ekonomických zájmů. *Ekonomický časopis,* 57(8) 2009: 788-803.

Otáhal, T (2009b). The Rent-Seeking Origins of the Federal Reserve. In *Firm and Competitive Environment 2009.* Brno: MUAF in Brno, 2009. Available at SSRN http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1700135

Otahal, T. (2007). Why is Corruption a Problem of the State? *Prague Economic Papers*, 16(2: 165–179.

Pasour, E. C. (1981). Rent seeking: Some Conceptual Problems and Implications. *Review of Austrian Economics,* 1(1): 123–143.

Piatt Andrew, A. (1908s). Hoarding in the panic of 1907. *Quarterly Journal of Economics,* 22(2): 290–299*.*

Piatt Andrew, A. (1908b). Substitutes for cash in the panic of 1907. *Quarterly Journal of Economics,* 22(4): 497–516.

Rockoff, H. (1974). The free banking era: A reexamination. *Journal of Money, Credit and Banking,* 6(2): 141–167.

Rolnick, J. and Weber, E. (1986). Inherent Instability in Banking: The Free Banking Experience. *Cato Journal,* 5(3): 877-90.

Rolnick, J. and Weber, E. (1983). New evidence on the free banking era. *American Economic Review,* 73(5): 1080–1091.

Rothbard, M. N. (1999). The origins of the federal reserve. *Quarterly Journal of Austrian Economics,* 2(3): 3–51.

Rybáček, V. and Šíma, J. (2010). Bankovnictví divokých koček, minulost či přítomnost. *Ekonomický časopis,* 58(9): 958-966

Selgin, G. S and White, L. H. (1994). How Would the Invisible Hand Handle Money? *Journal of Economic Literature*, 32(4): 1718–1749.

Sprague, O. M. W. (1977). *History of Crises under the National Banking System.* New York (NY): A. M, Kelley, 1977.

Taylor, F. M. (1898). The final report of the Indianapolis Monetary Commission. *Journal of Political Economy,* 6(3): 293–322.

Toma, M. (1982). Inflationary Bias of the Federal Reserve System: A Bureaucratic Perspective. *Journal of Monetary Economics,* 10(2): 163-190.

Timberlake, R. H. (1993). *Monetary Policy in the United States: An Intellectual and Institutional History,* Chicago (IL) and London: Chicago University Press, 1993.

Tollison, D. R. (1982). Rent Seeking: A Survey. *Kyklos,* 35(4): 575–602.

Tullock, G. (1967). The Welfare Costs of Tariffs, Monopolies and Theft. *Western Economic Journal,* 5(3): 224–232.

White, L. H. (1999). *The Theory of Monetary Institutions,* Blackwell Publishers, 1999.