



SCIREA Journal of Economics

ISSN: 2995-3863

<http://www.scirea.org/journal/Economics>

October 30, 2026

Volume 11, Issue 3, June 2026

<https://doi.org/10.54647/economics790549>

The process of monetary changes

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Summary

The article presents a short review of monetary phenomena in the economic history of mainly the Western world (Western civilization), starting from antiquity to the present day. A certain terminology has been proposed to describe the phenomena of monetary transformations. As a result of a short historical introspection and using the partial induction method and the proposed terminology, three basic phases of monetary changes were identified. These are phases taking place against the background of time and creating a specific cycle of irregular length: monetary innovation, monetary restructuring, monetary reform. Although the cycle of monetary changes is associated with changes in the real economy, we can talk about the autonomy of both cycles – the process of monetary changes and the economic cycle.

JEL: B26, F65, G19, G20, G28

Keywords: monetary innovation, monetary restructuring, monetary reform.

Introduction

The cycle of changes within the real economy, experiencing economic crises (real business cycles), has been exhaustively described in the economic literature¹. A possible link between monetary expansion in the form of credits and loans and the real business cycle has also been captured². In the real economic cycle, we distinguish phases such as recession, depression, recovery, boom, which apply to the entire economy, but we know that individual business people work at each stage. In the science of economics, the general description of the phases of the economic cycle can create a pretense that processes are impersonal. However, it is not.

Similarly, in the field of monetary processes and changes, there are people who decide about finances in the economy. These include politicians from the government and parliament, dealing with economic policy and state finances, and practitioners and entrepreneurs of the financial sector in the economy³. Nevertheless, the process of monetary changes has not been described in economic sciences with any phases distinguished on the pattern of changes in the real economy, which is subject to specific cycles. This is not about the process of monetary change which would supposed to show some of its parallelism with changes in the real economic cycle. The point is to show the cycle of specific changes monetary only. It can be said that in the cycle of monetary changes, analysts and economic historians focus on the last phase: on monetary reforms⁴. The monetary reform is, in a way, the political and economic culmination of monetary transformations. Monetary reforms, however, are preceded by earlier phases.

This article is an attempt to distinguish and indicate such phases of monetary transformations that precede monetary reforms. A general economic flashback, dating back to the ancient Roman period, is the method used in this article. It serves to illustrate the phases of the monetary transitions showing a probable (possible) its cycle. The paper consists of three main parts. The first part presents and discusses the working names (concepts), which will be used to determine the phases of monetary transformations preceding monetary reforms. The second part is devoted to a short, historical retrospective, aimed at illustrating the

1 Apart from classical studies, we can point to many authors from the end of the 20th century, e.g.: Long Jr J.B., Plosser C.I. (1983); Plosser C.I. (1989); Backus D.K., Kehoe P.J., Kydland F.E. (1992); Stadler G.W. (1994); Mankiw, N.G. (1995); Kaiser R., Maravall A. (2012).

2 For example Colonna M., Hagemann H. (1995).

3 People acting in politics and the financial sector in a sensational way are treated, for example, in a book by Griffin G.E. (2018).

4 Among others, works in this field created authors: Glasner D. (1989); Siklos, P.L. (1994); Kindleberger C.P. (2015).

occurrence in history of money of the phases of monetary transformation. The article ends with the third part – summary and conclusions – in which, based on the findings from the two previous parts, a general scheme of the cycle of monetary changes is proposed.

1. Terminology proposal

Two terms that will be used in this study to describe monetary processes and phenomena are: "monetary innovation" and "monetary restructuring". While the term monetary innovations should not raise much controversy, the term monetary restructuring may be a controversial term.

Introducing the term "monetary restructuring", we use an analogy that can be drawn from transformations of manufacturing enterprises known in economies. The transformations of production enterprises occur when the new systemic and political conditions appear. The term "enterprise restructuring" has been established in practice and economic theory to describe phenomena in transforming economies. This term has been strongly marked in specialist literature devoted to the issues of adapting companies to the conditions and requirements of the market, especially enterprises in Central and Eastern European countries undergoing political transformation⁵.

In the financial field, there is a familiar term: "credit restructuring". This is a completely different term from the concept of "monetary restructuring" proposed here. Credit restructuring means (generally) assistance provided to the borrower. Such assistance is provided by financial institutions (banks, credit unions). Credit restructuring may consist in partial credit forgiveness; it can be a type of credit consolidation, where several loans (even from several different financial institutions) replace one loan.

In this study, however, we propose "monetary restructuring" to be understood generally as: the impact of economic authorities and financial institutions on the money supply through accepted qualitative changes rather than through quantitative changes in current circulating currency. In connection with the proposed term "monetary restructuring", we can define the term "monetary innovation" closer as: discovery of the material, method and application of organizational solutions enabling the impact on the money supply through

⁵ Although the discussion of the meaning and use of the term "enterprise restructuring" is not the subject of this study, it is worth pointing out some examples of literature in this field: Carlin W., Mayer C. (1992); Aghion P., Blanchard O.J., Carlin W. (1997); Djankov S., Murrell P. (2002).

qualitative changes and not quantitative changes of existing type of circulating currency.

2. A brief overview of monetary history

2.1. Ancient Rome

In the Roman Empire the currency of circulation were coins: gold coins (aureus, solid, semiss, tremiss), silver coins (denarius, quinary, argenteus, miliarens, silica), bronze coins and copper coins. It can be said that depending on the period and the reign of a specific ruler, monetary restructuring in ancient Rome was a continuous process. Monetary restructuring consisted of changes in the weight of gold coins and changes in the weight and structure of the metal content in the case of silver coins, while striving to maintain the nominal value of the coin. Subsequent restructurings resulted in a monetary reform when the names of the coins were changed or some coins were discontinued (e.g. the denarius or bronze and copper coins) and other coins were minted⁶.

2.2. Early Middle Ages

In the early Middle Ages, the monetary reform in the country of Charlemagne deserves closer attention. This reform was preceded by little-known activities of monetary restructuring undertaken by Charlemagne's predecessor, Pepin the Short. The direct political and economic cause of the restructuring and monetary reforms undertaken in the Frankish state was the Arab invasion of the Middle East, Persia, North Africa and the Iberian Peninsula. This invasion took place to the mid-8th century AD. It cut off the Frankish state from the then Middle Eastern gold mines. The minting of gold coins was then discontinued in the Frankish state. Silver was made the basis (metal) of the monetary unit. The circulating coin in Charlemagne's country became the silver denarius, minted in 240 pieces from a pound of pure silver (Manteuffel, 2021, p. 59).

2.3. Late Middle Ages

At the end of the Middle Ages (and also in the 16th century), the rulers of that time, responsible for monetary circulation, often reduced the weight of gold coins or reduced the silver content in silver coins in various tranches of money introduced into circulation, while maintaining the nominal of value of the monetary unit. They was doing this to maximize

⁶ For more on the history of coins in ancient Rome and the social relations shaping economic life, see: Togo S.E (1999).

income of the seniority (money emission rents). There is a simple term for this type of monetary restructuring in the dictionary of ethical concepts – fraud.

Another phenomenon in the 15th century, worth noting due to monetary restructuring, was the banking system of the Medici, the rulers of Florence. The Medici Bank had bank branches in many European cities. The Medici banking system first used letters of credit, using its own bank branches in various European countries. The letter of credit, invented in Medici banking, was a specific element of monetary restructuring. It involved two banks, one of which may have been in London and the other in Lombardy. For example this operation was initiated in Italian cities in florins and realized in England in pounds or vice versa.

However, the Medici banking system involved a too strict symbiosis of public political power and private banking that was unfavorable to citizens' freedom. The ruler of the republic, who was also a banker (Medici), could compensate for losses from bad loans (especially granted to other, more powerful rulers) with the help of public funds (taxes) when settling the bank's settlements with republican institutions. As a consequence, this led – on the one hand – to the bankruptcy of the bank, which did not have to worry too much about the selection of reliable borrowers, because bank had constant access to public funds in its settlements, and – on the other hand – it led to the economic ruin of citizens harassed by the increase in tax burdens (Jones, 2015 t. I, pp. 63-196).

2.4. Modern times – Renaissance

In the 16th century, monetary restructuring involving changes in the precious metal content in the coin allowed theoreticians and economic practitioners to discover one of the first and fundamental laws of money circulation. This is Gresham's law, known in Poland as Copernicus' law (Mikolaj Copernicus even overtook Gresham with his observations on the circulation of two types of money – better and worse)⁷. Therefore, in other words, we can say that the monetary restructuring of the 16th century, consisting in the corruption of coins, allowed us to discover a functional law indicating that the function of money as a resource of wealth is opposed to the circulation function of money.

Monetary restructuring was carried out not only by the rulers responsible for minting

⁷ Robert Mundell states at the very beginning of his basic dissertation that in 1858 H.D. MacLeod, citing descriptions he found in Gresham's correspondence to Queen Elizabeth I, actually formulated a law he called "Gresham's Law" (Mundell, 1998). Mundell, like many other authors from English-speaking culture circles, uses the name Gresham's law to describe Copernicus' law. This is due to the lack of broader knowledge in the West about the work of the Polish scientist in the field of economics. Copernicus is better known in the West as the one who "stopped the sun and moved the earth."

coins or bankers, who were also the rulers of the urban republic (Medici in Italy). Monetary restructuring in the 16th century was carrying out for purely practical reasons, based on typically market innovations. Such an innovation was a goldsmith's certificate confirming that the appropriate amount of gold coins had been deposited to him. However, the holder of such a certificate could collect the deposited golden coins from the goldsmith at any time. Hence, the practice emerged that people – instead to take deposits to carry out the transactions and then leaving them again to a goldsmith - began to use certificates in commodity transactions on an equal footing with gold coins. Such a goldsmith, who issued certificates and accepted deposits because he could demonstrate adequate security in storing gold, became over time a banker, because it was more profitable for him to live on commissions for storing and issuing deposits than on producing jewelry and trading in gold (Faure A.P., 2013; Quinn S.F., 1994, pp. 1-59).

2.5. Modern times – Baroque and Enlightenment

Under the conditions created by the Renaissance, monetary restructuring took an entirely new course when the first real banker appeared in the mid-17th century. That first banker was Johan Palmstruch. He obtained a concession from the Swedish king, Charles X Gustaf, and began to run the national bank of the Kingdom of Sweden. The national bank of the Kingdom of Sweden began accepting deposits and granting loans. Palmstruch made a monetary innovation. He wanted the bank he headed to get rid of problems with the execution of certificates of deposit. He introduced the banknote as a general monetary obligation of the bank. The banknote was a general obligation of the bank for possible future releases of appropriate amounts of metal (gold, silver) regardless of the bearer, who currently held the banknote issued by the bank.

In this way, the former certificate, associated with one account of a specific depositary, was replaced by a "certificate" (banknote) that related to all the bank's precious metal resources, regardless of the accounts assigned to specific depositaries. The issuing by the National Bank of the Kingdom of Sweden in the form of loans of more banknotes than the bank's resources (reserves precious metals) opened the way for fiat money. Fiat money then began to play the role of an intermediary for commodity exchange for the first time, similarly to commodity money (precious metal).

The history of monetary restructuring, which began to take place with the use of fiat money, ended tragically in the case of Johan Palmstruch and the Bank of Sweden he headed

(Boudeguer R.M., 2015; Högberg S., 1961). However, the monetary innovation introduced and the monetary restructuring possible with its participation gradually gained momentum in the following centuries of European economic history. Throughout the 18th century and the first half of the 19th century, monetary restructuring concerned the dissemination of fiat money in economic circulation (banknotes theoretically fully exchangeable for metallic coins, but in practice not necessarily). Therefore, insufficient reserves of commodity money (precious metals) in the resources of private banks caused panic at various times and attacks on bank cash registers in order to withdraw their precious metal deposits (Chancellor, 2000, pp. 164-167). These phenomena eventually resulted in monetary reform undertaken in the second half of the 19th century by the governments of individual European countries.

2.6. 19th century

In the 19th century, one of the last acts of monetary restructuring (before the reform), which took place in the second half of this century, was the withdrawal of European countries from the monetization of silver. “Starting in 1871, silver ceased to be used as a means of payment in Germany, Great Britain, the Netherlands, Austria and Scandinavia, which led to a significant contraction of monetary circulation in these countries. This move resulted in a long, twenty-year recession in Europe from 1873 to 1896” (Hongbing, 2010, s. 59). Whereas monetary reforms in the second half of the 19th century led to the full monetization of banknotes, leaving their connection with something real only as a form of a hitch (gold parity). The state authorities intervened. The intervention of the state authorities took the form of appropriate legal regulations. The legal regulations concerned three issues:

- 1) normalization of issue of banknotes (the issuing privilege was granted to a selected banking entity),
- 2) determining the permissible gold reserves kept in banks,
- 3) determining the amount of precious metal, expressed in units of mass, corresponding to a monetary unit.

As a result of such reforms, money printed on paper (although still available in limited numbers in the form of gold coins) became increasingly abstract and symbolic in nature. On the other hand, the implementation of the above-mentioned monetary reforms in European countries in the second half of the 19th century led to the emergence of an international gold currency system. Nevertheless, in the gold currency system, the money of different countries

(of an increasingly abstract and symbolic nature) had highly stable mutual exchange rates. Whether gold prices rose or fell, the mutual exchange rates between currencies relating to gold in units of mass remained constant. This system, which was an international monetary system based on the gold standard, functioned efficiently until the outbreak of the First World War (Gallarotti G.M.,1995).

2.7. 20th century – interwar period

The First World War resulted in monetary restructuring in Europe. The restructuring involved a complete suspension of the exchange of banknotes for gold. The number of banknotes in the internal circulation of the warring parties increased rapidly. The purpose of such operations was to increase fiat funds that were used to mobilize resources in the warring countries. The mobilized resources were needed to compete on the war fronts. Whereas, in international settlements, especially with the supplier, which turned out to be the United States of America, European gold flowed to America.

After the end of the First World War, a return to the gold standard, similar to the pre-war system, turned out to be impossible. A large group of new countries appeared on the map of Europe and had to organize their national economies from scratch. Great economic problems affected the countries that lost the war. Monetary restructuring after the First World War took the form of a system in which bank reserves were based not only on gold, but also on the currencies of economically strong countries. Thanks to this dual type of banking reserves, the new system based on foreign currency reserves and gold reserves allowed weaker countries to create their own currencies in enough quantities to enable internal and foreign exchange of goods. It can be said that the shortage of gold reserves was compensated by foreign currency reserves, especially US dollar reserves. Later, there was also a return to the British pound as a currency supplementing reserves in the banking sector. The period of the Great Depression, which began at the end of the 1920s and lasted until the mid-1930s, further discouraged national governments from basing their national currencies on the gold standard⁸.

At the beginning of the 1920s, hyperinflation occurred in Poland and Germany. Both countries – each according to their capabilities – had to carry out monetary reform. Monetary

⁸ E.g. Kawalec and Pytlarczyk, pointing to the countries belonging to the so-called the "gold bloc" and interwar Poland, which was one of the defenders of a currency based on the gold standard, recall the fact that in those countries that were reluctant to abandon the gold standard, the great depression (stagnation) of the first half of the 1930s lasted longer [Kawalec, Pytlarczyk, 2016, pp. 243-256].

restructuring processes, as a kind of half-measure, could not be applied in conditions of rampant hyperinflation. While the hyperinflation in Germany in the early 1920s was widely reflected in the economic literature, the Polish experience with hyperinflation did not attract the attention of the world's leading economists⁹. In Germany, the "architect" of the monetary reform of the 1920s was Schacht (Long R.C., 1924), while in Poland such an "architect" was Władysław Grabski (Lendzioszek P., 2015). In interwar Poland, the Polish mark was replaced by a strong currency called the Polish zloty (1924). After the reform was implemented, the attachment to strong money of the authorities responsible for economic policy in interwar Poland almost by definition made some possible monetary restructuring difficult.

It is worth mentioning that in Germany, after the fall of the Weimar Republic and the Nazis came to full power in the country, monetary restructuring took place based on a specific innovation. Everything took place outside the then international monetary system based (in national financial solutions) on a combination of foreign currency reserves and reserves of gold. This innovation and the associated monetary restructuring, mentioned above, allowed the Nazis to avoid any financial control by the banking system, which was operating in North America and Western Europe. It all involved introducing the so-called "bills of exchange of employment of workers". As a result, labor and physical capital resources (factories, machines and equipment) were unlocked. Products and services began to be mass produced without the need to increase domestic monetary funds. Germany's central bank did not have to borrow abroad to increase the domestic money supply (Hongbing, 2011, pp. 215-220).

2.8. 20th century – after the Second World War

After World War II, the world was divided into two political blocs with two separate monetary systems. The communist bloc, recognizing - according to the adopted economic doctrine - the ultimate elimination of money as an intermediary in the exchange of goods, based its economies on fiat money. Western Europe and North America formed their national currencies based on the Bretton Woods system (Williamson J., 1985). The participants of the conference in Bretton Woods, where Poland was represented by a representative of the government in exile in London, established two international institutions in order to comply with and control the provisions of the created system: the Bank for Reconstruction and

⁹ A discussion of the phenomenon of hyperinflation in Germany in the early 1920s can be easily found in economic literature in virtually all languages of the world (e.g. Laidler, Stadler, 1998; Hongbing, 2011, pp. 177-184), but hyperinflation in Poland in the same period is discussed mainly in Polish-language studies.

Development and the International Monetary Fund¹⁰. The new monetary order on a global scale, adopted in Western Europe and North America, did not, however, give national governments greater opportunities for restructuring in the monetary field. It was therefore a monetary reform carried out on an international scale after the destructive years of war.

In the Bretton Woods system, the currency units of individual countries were linked to the US dollar and the dollar to gold. It was assumed that currency exchange rates should remain within a one percent fluctuation range. Only national central banks could exchange US dollars for gold. The basis for central banks reserves was the dollar, which also served as world money and was used in settlements related to international economic exchange (Williamson J., 1985). After such a monetary reform carried out on an international scale as the Bretton Woods system, it is difficult to consider France's aspirations (during the presidency of Charles de Gaulle) as monetary restructuring. France's actions consisted of bringing gold from the United States to the central bank of the French republic. However, the suspension of the convertibility of dollars into gold during the presidency of Richard Nixon in 1971 should be considered a specific monetary restructuring in the Bretton Woods system¹¹. The global hegemon, the United States of America, could afford this type of restructuring, which, as a result of like this move, abolished the monetary system established in 1944.

It can be said that after the collapse of the Bretton Woods system, both political blocs of the world's countries began to use fiat money in economic transactions. In the West and North America, the last thread connecting the monetary unit indirectly (through USD) with gold has been severed. During the period of domination of fiat money acting as cash all over the world (the last three decades of the 20th century), a monetary restructuring project, unprecedented in the history of Europe, appeared, consisting in replacing the entire range of national currencies by one supranational currency. This monetary project, which constitutes a specific model of monetary restructuring for other regions of the world, is the Euro currency.

2.9. The first decades of the 21st century

The project of creating the euro currency, interpreted in this article in terms of monetary restructuring, started at the beginning of the first decade of the 21st century. Common currency zones covering several countries have been present all over the world for some time

¹⁰ For more information on the role, history and proposals for reform of the International Monetary Fund, see (Michałowski T., 2008).

¹¹ There are many indications that President Nixon's suspension of the convertibility of the US dollar into gold was intended to be temporary and reversible (Rickards J., 2015, pp. 211-212).

(Klecha-Tylec, 2013, pp. 233-241; Rose, 2001, pp. 150-152). However, the project of a common currency of the Euro, for other projects of this type may provide a more encouraging inspiration for similar monetary restructurings, e.g. within several cooperating countries with each other in the Far East (Hongbing, 2016, pp. 366-380).

In the 21st century, the development of telecommunications infrastructure and the development of electronic data processing devices contributed to the emergence of a number of monetary innovations. Electronic means of transmitting financial information and monetary settlements is becoming more and more common and widespread in economic transactions. Money is increasingly detached from its real form in the shape of banknotes (fiat money), becoming only a digital record of credit and debit operations on electronic devices in the banking system. Electronic innovations used in the area of money circulation lead to the popularization of monetary restructuring, which we call "cashless transactions"¹². Cashless transactions based on bank transfers (crediting the recipient's account from a trading partner to the recipient's bank) have existed in the global economy for a long time. However, with the popularization of payment cards (credit, debit) and various "blik"-type payment applications among the population, non-cash transactions became a common method of settling even the smallest transactions in the first decades of the 21st century.

Therefore, an increasingly noticeable direction of changes appears on the horizon of future monetary events. The aim is to completely eliminate cash transactions involving real paper signs money. At the beginning, it will be a change in favor of non-cash money, i.e. in favor of money that consists only of credit and debit entries in the banking system. Following this restructuring trend leads to the complete elimination of cash from economic circulation and its replacement with non-cash settlements. From here, only one step remains to introduce digital money. This step will be monetary reform. Monetary reform will involve the introduction of electronic (digital) money on a global scale (Hongbing, 2011, pp. 321-349; Rickards, 2015, pp. 173-194). The ongoing process of globalization in money flows has been dominated by transfers made electronically (digitally) in the banking systems of all economically developed countries. Therefore, it is not difficult to predict that in the next two decades, the inevitable consequence of this state of affairs (the popularization of electronic cash flow) will be a reform effort to introduce and popularize digital money. This will be

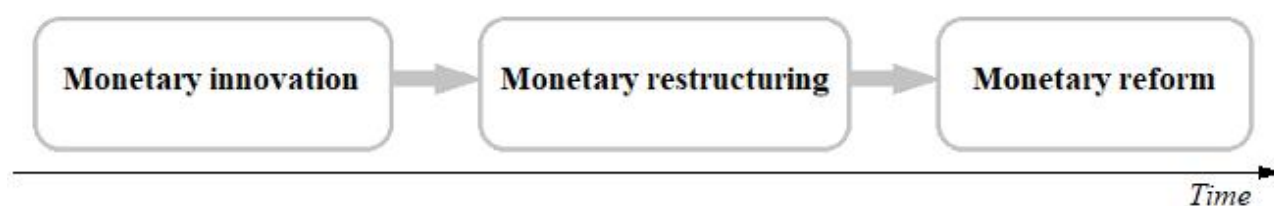
¹² Ludwig von Mises recognizes that in economic transactions it does not matter much whether mutual settlements are made by market players using cash or money substitutes (Mises, 2016, pp. 51-66). Substitutes for money, which are equated with money in commercial exchange, may be non-gold and non-silver coins, liabilities (credit money), bills of exchange and - nowadays - electronic records on recording devices in the banking system.

consistent with the Copernicus-Gresham law in Mundell's version, that money that is easier to use drives out money that is more difficult to use (Mundell R., 1998). Digital money should prove easier to use (both among people and in the banking system) than electronic cash flows, which still refer to the level and balance of cash in the form of real money (of banknotes and coins). In order to carry out such reform, it will be necessary to involve the state authorities of individual countries along with their legal regime and the monetary authorities of supranational financial organizations.

3. Transformation diagram

On the basis of incomplete induction, which involves examining a number of examples from the history of money, a specific pattern of monetary transformations can be established. This pattern reflects the behavior of people, their economic entities, and the monetary authorities striving for making means of payment available to the public. This scheme takes into account the processes of monetary transformation known from history and runs against the background of the arrow of time. Therefore, the process of monetary transformation, taking into account the terminology discussed in point 1 of this text, can be presented using the graphical diagram shown in Figure 1.

Figure 1.



The process of monetary transformation

The sequence of processes (phenomena) in the monetary field indicated in the figure repeats itself cyclically against the background of time. However, it is difficult to talk about the regularity of repeating the indicated three-part sequence of monetary changes (in the sense of equal durations of each of the three indicated sequences). In centuries past, the entire sequence could take whole century and its all individual decades. The closer we are to the present day, the shorter this three-part sequence of monetary transformations may be. Undoubtedly, the rapid technological progress that we are experiencing today also affects in

this area – especially on the element of monetary innovation, and thus on the restructuring element too.

The restructuring stage occurs if monetary innovations appear earlier. There is a specific cause and effect relationship here: the appearance of a monetary innovation (e.g. the discovery of what can be a generally acceptable substitute for money) creates a desire to use such an innovation in the minds of people dealing with finance. It increases their turnover and profits and accelerates or unblocks payment backlogs. The restructuring stage is generally spontaneous and causes turmoil, crisis and perturbation in the monetary field causing many times perturbation in the real economy. The stage of monetary reform resulting from perturbations in monetary and economy fields is characterized by restrictions on the freedom in monetary circulation of both individuals and entire societies adopting the monetary reform. We understand freedom here as providing people in the exchange of goods with many different opportunities in the use of various possible instruments of a monetary nature.

3.1. Aspect of economic freedom

Freedom then increases if the number of legal ways and means of exchanging goods increases (e.g. if the entire spectrum of exchange intermediaries such as gold, silver, banknotes and all forms of non-cash settlements were allowed). Of course, then Mundell's version of the Copernican-Gresham law would make itself felt in business transactions: money that is easier to use drives out money that is more difficult to use from the market (Mundell, 1998). Nevertheless, freedom would be completely preserved – it would always be possible to use in transactions more difficult but acceptable means of a monetary nature. However, freedom is limited and decreases if the number of legally permitted means of a monetary nature that can mediate the exchange of goods decreases.

Monetary reforms (historical introspection shows this), aiming to close the restructuring stage, reduce the number of types possible means of payment customarily distributed and used at the restructuring monetary stage.

A simple example in this regard concerns the possibility of conducting cash and non-cash transactions in society, when non-cash settlements are carried out via electronic information exchange infrastructure devices. Even if, for practical reasons, cashless transactions become widespread, covering e.g. 98% of the total turnover in a given economy, the introduction of legal provisions (monetary reform) based on this practice, stating that cash transactions are prohibited for people and firms from a specific date, will be an attack on

freedom of economic exchange¹³. However, problems of how carrying out monetary reform in a way so as not to diminish citizens' freedom is an issue for a completely different study. The problems related to this issue is even more difficult as we are aware that monetary reform usually involves public authorities, which by their nature have the right of legal compulsion.

3.2. Restructuring and reform – pluralism and monetary monism

Historical introspection and the related incomplete induction, as a method of searching for regularities, indicate that at the stage referred to in this study as "monetary restructuring", far-reaching monetary pluralism prevails. By monetary pluralism we mean allowing money and its substitutes, or even several types of money and their substitutes, to circulate in the economy (e.g., as has been the case in history, allowing silver and gold coins and banknotes replacing them to circulate). Nowadays, we can talk about pluralism in the monetary area, when, in addition to banknotes (fiat money), there are numerous forms of non-cash settlements in economic transactions – electronic records in banking made available to people via the Internet. Monetary pluralism is the result of an earlier stage that has been called here "monetary innovation".

Monetary reforms, on the other hand, in which public authorities are involved, aim to bring order to the excessive monetary pluralism that appears at the restructuring stage. Therefore, the most extreme outcome of monetary reform may be monetary monism. By monetary monism we mean the presence of one type of medium of exchange in the economy without allowing even substitutes for this medium to circulate. Based on historical introspection (in relation to commodity money), we can give an example of striving to eliminate silver as a medium of exchange and leaving only gold as money. In the case of the national economies of the communist bloc countries, an example can be given of monetary monism, which involved allowing only banknotes (fiat money) printed in the state central bank as a means of exchange. Nowadays, after a possible monetary reform, monetary monism may be introduced, which will involve allowing only digital money into circulation in the economy.

¹³ Sweden, which introduced the innovation of a banknote as de facto fiat money in the 17th century, is the first country in Europe to switch to completely cashless money. Therefore, in this country, even street artists must have contactless payment readers (Peretti, 2019, p. 101). This is an example of forcing people to use one form of payment, i.e. limiting economic freedom.

Summary and Conclusions

The article presents a short review of monetary phenomena in the economic history of mainly the Western world (Western civilization¹⁴), starting from antiquity to the present day. A certain terminology has been proposed to describe the phenomena of monetary transformations. As a result of a short historical introspection and using the method of partial induction and the proposed terminology, three basic phases can be distinguished in the process of monetary transformation: monetary innovation, monetary restructuring and monetary reform.

The indicated phases of monetary changes repeat throughout economic history, creating a specific cycle of irregular length. The irregularity in this cycle results from the unpredictable nature of the first phase – monetary innovation, which may or may not appear. Similarly, the third phase – monetary reform, in which the public authorities are involved – may occur faster, slower or not at all (usually, however, it occurs when turmoil in the real economy occurs parallel to the phase of monetary restructuring).

Although the cycle of monetary changes is associated with changes in the real economy, we can talk about the autonomy of both cycles – the process of monetary changes and the economic cycle. If some monetary innovation appears (everything depends on people's ingenuity), then the next phase will take place – monetary restructuring. The ongoing monetary restructuring may lead (and it usually leads) to turmoil in the real economy. The overlapping processes of monetary restructuring and turmoil in the real economy force economic reforms and often monetary reform. After the reforms, monetary and economic processes seem orderly for some time until another monetary innovation appears, starting a new cycle of monetary transformations.

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¹⁴ Historians and philosophers of history treat Western Europe and the countries of North America, in opposition to the rest of the countries and continents, as a separate civilization, i.e. Western civilization (Braudel F. 2006, pp. 333-444; Huntington S.P., 1993).

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