The Origin and History of the Polish Money. Part II

Pochodzenie i historia polskiego pieniądza. Część II

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Abstract

The article presents a monetary history of Poland after 1795. Following the Partitions, the Polish lands that had been incorporated into the structures of foreign states ultimately found themselves subject to the monetary systems of the partitioning powers. The rebirth of the Polish state in 1918 began a difficult period for the currency. Hyperinflation at the time was brought to an end by the currency reform of 1924. The zloty then introduced lasted until the outbreak of the World War II. After the War, the degeneration of money within the socialist economy reduced the role of the zloty to that of a humble medium of day-to-day exchange. The rehabilitation of the national currency began in 1990. At no little cost, the zloty was restored to the position of a robust currency that again generates confidence.

Keywords: Poland, gold standard, Polish mark, zloty, inflation, monetary policy

JEL: E40, E42

Streszczenie

Artykuł przedstawia historię monetarną Polski po 1795 r. W okresie porozbiorowym ziemie polskie włączone do obcych organizmów państwowych ostatecznie znalazły się pod panowaniem systemów pieniężnych państw zaborczych. Odrodzenie państwa w 1918 r. rozpoczęło trudny okres dla pieniądza. Kres ówczesnej hiperinflacji położyła reforma walutowa w 1924 r. Wprowadzony wówczas złoty przetrwał do wybuchu drugiej wojny światowej. Po wojnie degradacja pieniądza w gospodarce socjalistycznej sprowadziła złotego do roli skromnego pośrednika w codziennej wymianie. Proces reanimacji narodowego pieniądza rozpoczął się w 1990 r. Niemałym kosztem została przywrócona pozycja złotego jako pieniądza solidnego, który znowu budzi zaufanie.

Słowa kluczowe: Polska, system waluty złotej, marka polska, złoty, inflacja, polityka pieniężna

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The period after the partitions

In 1795 the Polish lands were finally incorporated into the state structures and monetary systems of the partitioning powers.

In the Russian zone of partition, the rouble system was in force. The silver rouble, containing about 18 grams of silver, was subdivided into 100 kopecks. Also in circulation were gold half-imperials worth 5 roubles. In addition, paper assignats were introduced to an increasing extent, although their value fell against the silver rouble.

In the Prussian zone, the benchmark coin was the silver thaler, which contained 16.7 grams of precious metal and was equal to 90 Prussian groschen. The Friedrichsdor was a gold coin equal to 5 thalers.

Under the Austrian partition, the silver gulden, containing about 11.7 grams of silver, was equal to 60 kreuzer. The gold ducat was worth 4 guldens. In addition, paper Bankzettel was issued by the Municipal Bank of Vienna.

In 1803, the Napoleonic wars began between France and the European monarchies. In 1807, France and Russia signed the Peace of Tilsit. It was decided to establish a Duchy of Warsaw ruled by the Saxon King Frederick Augustus. In 1809, a peace treaty concluded at Vienna between France and Austria enlarged the Duchy.

The Duchy found itself in monetary chaos and very difficult financial situation due to the war effort and the debt to Napoleon (so called "Bayonne sums"[1]). It was not until 1810 that the Duchy was given a monetary system of its own, one that replicated the previous Polish system. The year 1810 also saw the establishment of the Board of Cashier's Notes, printing notes secured by the customs revenues. The wartime situation soon put an end to the circulation of these notes.

After the downfall of Napoleon, the Congress of Vienna in 1815 carried out a reshaping of the Duchy of Warsaw. The Congress Kingdom of Poland was set up, with the Tsar of Russia as its sovereign, while Prussia and Austria also made certain territorial gains.

In the Kingdom a start was made on putting economic affairs in order. The foremost role in this was played by the Duke Ksawery Drucki-Lubecki. At his initiative, in 1828 the first national bank – the Bank of Poland – was founded as both bank of issue and a lending institution. There is no doubt that the Bank of Poland played a major role in stimulating economic growth within the Kingdom of Poland, and also in the functioning of the currency and in lending operations. The history of this institution mirrors the complex fate of the Congress Kingdom itself.

History of the Bank of Poland (1828–1894)

1828	-	establishment of state institution for issue of currency and lending, the Bank of Poland, with authorized capital of zlp 30 million
1829–1837	-	financing and construction of roads
1829–1842	-	financing and administration of government mining
1830	-	first issue of banknotes
1830–1831	-	financing of November Rising
1832	-	loss of control over coinage
1833–1844	-	financing and administration of Old-Polish industrial basin
1834–1839	-	construction of Bankowa Steel Mill
1834	-	beginning of Russification (use of Russian language made compulsory)
	-	capital raised to zlp 42 million
1840–1844	-	management of Augustow Canal
1841	-	rouble replaces zloty, dual language inscriptions on banknotes
	-	capital raised to 8 million roubles
1850	-	loss of right to extend short-term loans
1855–1876	-	following recession, disposal of industrial plants owned
1859	-	removal of Polish-language inscriptions on banknotes
after 1864	-	focus on discounting of bills
1865–1873	-	opening of branch network (11 local offices)
1869	-	control taken by Russian Ministry of Finance
1870	-	loss of right to issue banknotes and extend long-term loans
1885	-	decision to liquidate Bank
1886–1894	-	liquidation of Bank, taken over by State Bank of Imperial Russia

Note: zlp = Polish zloty
Source: National Bank of Poland (1988).

After the short-lived monetary interludes of the Duchy of Warsaw and the Congress Kingdom of Poland, the money supply in the particular zones of partition was composed of Russian, Prussian and Austrian currency.

After the numerous changes in the 19th century the partitioning powers developed monetary systems that tied their currencies to gold: Germany in 1873, Austro-Hungary in 1892 and Russia in 1897. The adoption of a gold standard by the partitioning powers corresponded to the global trend at that time, begun by Great Britain in 1816. In time, the gold standard would come to dominate the world. It was in this way that the longstanding history of silver as the most important of precious metals, or one parallel to gold, finally came to an end. The shift to the gold standard by the partitioning powers meant that Polish

[1] The debt, fixed at Bayonne in 1808 at the sum of 24 million francs, included Prussian obligations that had been acquired and were to prove irrevocable. See: Wójtowicz, Wójtowicz (2005, p. 138).

Table 1. *Monetary systems* during the period after Partitions, 1795-1914*

Year	Polish episodes	Russian zone	Prussian zone	Austrian zone
1795		1 half-imperial (gold)=5 roubles (silver) zlp 1 = 0.15 rouble	1 Friedrichsdor (gold)=5 thalers (silver) zlp 1 = 0.17 thaler	1 ducat (gold) = 4 guldens (silver) zlp 1 = 0.24 gulden
1807	Duchy of Warsaw 1 ducat (gold) = zlp 18 1 thaler(silver)= zlp 6			
1815 1832 1841	Kingdom of Poland zlp 1 (gold & silver) = =30 grosz zlp 1 (gold & silver) = =30 grosz = 0.15 rouble Russian system			
1873			mark (gold) zlp 1 = 0.32 mark	
1892				crown (gold) zlp 1 = 0.38 crown
1897		rouble (gold) zlp 1 = 0.15 rouble		
1914		suspension of the gold convertibility		

* basic data

Source: compiled by the author.

lands were included in the ambit of what was initially a stable monetary system. This undoubtedly influenced future Polish views on the development and operation of the currency, once the Polish state had been reborn.

The 19th century witnessed immense change, the consequence of the development of capitalism in Polish lands. Portioned Poland was split between three different economic structures. The domestic market that had been taking shape under the old Commonwealth was shattered. Economic development was relatively fast, yet at the same time anarchic and uneven in both form and speed in the particular zones of partition. The agrarian reforms and a process of industrialisation resulted in the real acceleration of economic growth after 1870. This meant enormous disparities in the size of the market and of the money economy, in the capacity of accumulating capital and sustaining the process of economic growth, and in the level of civilisational development.

It can be assumed – with a large margin of tolerance – that by the end of the 19th century the per capita money supply had grown roughly fourfold compared to the end of the times of Stanislaus Augustus. At the same time, the composition of money stocks changed (with paper currency expanding while the role of coin dwindled), as did the financial infrastructure (the development of credit and non-cash operations) and the size of the market (per capita incomes are thought to have risen threefold).

Despite a certain slump at the beginning of the 20th century, the economies of the partitioning powers developed rapidly. The monetary systems introduced in Russia, Germany and Austro-Hungary at the end of the 19th century continued to function without major disruption. Thus, the gold parities of the currencies were maintained, as well their cross-rates. The situation changed in 1914 after the outbreak of World War I. The gold convertibility of banknotes was suspended.

A brief overview of the monetary systems in use in Polish lands during the period after the Partitions (1795-1914) is given in Table 1.

The Second Republic

After the suspension of gold convertibility the belligerents began to cover the costs of the War by issuing paper money. The exchange rates for their currencies slumped several dozen percent compared to their parity value. Cross-rates began to be set by the authorities in a fairly arbitrary fashion, and were then adjusted by the market. This situation developed in the area of the Russian partition now occupied by the German army, where the rouble fluctuated against the mark on a daily basis. Monetary affairs were to be regularised by a new issuing institution set up at the end of 1916 by the Germans and named The Polish National Credit Bank (PKKP)[2]. The crown came into circulation in the south-eastern part of the Congress Kingdom, occupied by Austrian forces, with the Austrian currency also floating against the rouble.

The PKKP acquired the right to issue banknotes denominated in Polish marks (mp), pegged at one-to-one against the German mark. Issuance of Polish marks grew quickly, providing finance for the German military and civilian administration. This impacted prices which compared to the prewar period shot up as much as sixteenfold.

World War I came to an end on November 11, 1918. Poland returned to the map of Europe. The national authorities took over the PKKP. At the end of 1918, it was already decided that it constitute an interim bank of issue of Polish marks. The War brought great losses to Polish lands. Immediately after the War, the country still did not have fixed borders. These were not finally recognised until March 15, 1923.

Up until 1920, a war economy was in place, with rationing widely maintained for deficit goods. As the political situation stabilised, economic conditions improved as well. Currency in circulation was unified, with the use of the Polish mark, in the first months of 1920.

[2] Czapska (1998, p. 21–22).

The Polish mark was functioning in very particular circumstances. Central government expenditure was several times higher than receipts. It was essential to make loans to fund reconstruction. Currency issuance rose rapidly. Inflation gathered momentum. The stabilisation programmes collapsed. Retail prices growth rocketed, averaging a monthly 50%. Particularly dramatic price growth was witnessed as of June 1923. Inflation had thus turned into hyperinflation. The Polish mark was losing its capacity to fulfil the functions of money. Estimates of the rise by prices indicate an increase from a prewar base of 1 to 3,447,562 in March 1924 (Taylor 1926, p. 240–244, see also Bernholz 2003, p. 8).

There can be no consolation whatsoever in the fact that in this period hyperinflation also took hold in Germany, Austria, Russia and Hungary.

Hyperinflation provided a spur to action. On January 11, 1924, the Sejm quickly passed the Act on the Renewal of the Treasury and Reform of the Currency. In a short time, the Government headed by Władysław Grabski on the basis of the authorisation it had received, determined that the new monetary unit would be the zloty. Its value was set at parity with the Swiss franc (gold franc), containing 0.2903 grams of gold. Articles of Association were adopted for the Bank of Poland SA, and it was granted the exclusive right to issue banknotes. A conversion rate was set of mp 1,800,000 to the zloty. The Bank of Poland SA began operations on April 28, 1924, as a joint-stock bank with authorised capital of 100 million zloty. It was agreed that the banknotes in circulation would be secured in at least 30% by gold and by foreign currency and other foreign exchange of stable value. This represented the introduction of the gold exchange standard. Limited additional issues of Treasury currency were allowed. The relations between the Bank of Poland and the Treasury were regulated, setting a ceiling of 50 million zloty on Treasury borrowings at the Bank.

Władysław Grabski about Money

"The basis of sound economic development and the financial strength of the State is a sound and strong currency. To establish and maintain that currency, the whole nation has to make considerable sacrifices. These constitute the capital essential for our young statehood, a capital that must for us replace what in other modern states was amassed in previous centuries. Once introduced, the currency cannot then be adjusted to any fleeting weakness of our economic life; it cannot be devaluated, to gain the superficiality of new strength, but must be upheld at a level that corresponds to its underlying strengths, exerted to their fullest, with a tendency to return over time – perhaps remote, yet reachable – to its proper and full-valued standard".

Grabski W. (1927), *Dwa lata pracy u podstaw państwowości naszej* (1924–1925), SGGW Warszawa, WSIiZ Rzeszów (2003 edition).

The convertibility of the zloty was guaranteed, at a fixed rate of 5.18 to the dollar.

The fact that the reform was based on domestic resources (without external borrowings) created a feeling of stabilisation and increased the demand for money. Private individuals and businesses that had immediately got rid of cash during the period of hyperinflation now began to hold cash reserves. For this reason at the outset the growing issuance of currency did not trigger inflation (Karpiński 1968, p. 57–63 and 72–78).

In 1925, the situation became more complicated and signs of crisis appeared. The Government started to finance its spending by issuing Treasury notes and coin. This sparked inflation, which came to be called the "small-coin inflation". The Bank of Poland stopped accepting small coin. At the same time, a deterioration took place in foreign trade. Exporters were unhappy with the exchange rate for the zloty, at 5.18 to the dollar. Even worse, inflamed relations with Germany touched off a tariff war, initiated by the Germans. The disruptions to government finances, cash stocks and the balance of payments unsettled the zloty exchange rates. The exchange rate, the symbol of the success of the currency reform, weakened markedly. When currency intervention proved unsuccessful, the Bank – fearing for its foreign exchange reserves – abandoned the defence of the zloty. A difference of opinion between the Bank and the Government, which was calling for further intervention, culminated in Prime Minister Władysław Grabski stepping down in November 1925.

The crisis was surmounted in mid-1926. The exchange rate finally began to steady at around 9 zloty to the dollar (Jezierski, Leszczyńska 1994, p. 61–64).

Money stocks rose, while the proportion of Treasury notes and coin being issued declined. Deposits climbed at the principal credit institutions. This period saw a rapid expansion of bank lending. It was now necessary to stabilise the currency in law. The statutory stabilisation of the zloty was carried out on October 13, 1927. A new parity rate was set, with 1 zloty now equal to 0.1687914 grams of gold. This represented a devaluation of some 42% and signified a new rate for the zloty of 8.91 to the dollar. The required backing for the currency in circulation, as provided by the official reserves of gold and foreign exchange, was raised to 40%. The stability and convertibility of the zloty was supported by a 20-year international loan. The authorised capital of the Bank of Poland was increased to 150 million zloty.

The end of 1929 brought the collapse of the world economy and the Great Depression, which in Poland dragged on until 1935. A profound fall in domestic demand aggravated the slide and prolonged the crisis. Polish imports slumped 75%, while exports about 68%. With foreign capital flowing out of the country, an attempt was made to rescue the balance of payments by generating a surplus in trade. Yet the zloty gained strongly in value as prices fell, with the currency at a fixed parity rate. The exchange rate discouraged exports, making it necessary to apply measures to promote them, such as dumping (sales abroad at low prices), refunds of customs duty, and export premiums, and also ones to deter imports, such as import quotas and higher tariffs. However, curbing imports then had an adverse impact on domestic output and delayed the emergence from the crisis. As of 1930, each year it proved possible to achieve a trade surplus. Nonetheless, the outflow of capital meant that the official reserves melted away – a drop of more than 60% during six years (Wójtowicz 2003, p. 16).

Government finances were in difficulty. Currency in circulation, bank deposits and lending showed signs of remaining at a standstill. However, Poland did not experience a crash of its monetary and banking systems. In many countries the systems collapsed – in the United States in 1931, leading to a step devaluation of the dollar in January 1934. After devaluation, the exchange rate for the dollar thus fell to 5.30 zloty.

The Depression saw a catastrophic fall in prices. By the mid-1930s, wholesale prices had dropped to 53% of their pre-crisis levels, with grain prices sinking to 33%. Retail prices in Warsaw fell to 57%. The decline in prices had numerous repercussions, which snowballed to paralyse the economy. This resulted in large-scale state intervention in the economy in the years to come (Knakiewicz 1967, p. 6–7 and 58–60).

The zloty steadfastly kept to its gold parity value. In mid-1933 Poland joined the "gold block", set up in defence of the gold standard by France and a few other countries in Europe. Despite the devaluation of their currencies by successive members of this "bloc", Poland did not change the parity of its currency, nor did it introduce any foreign exchange controls. The only adjustment, due to the decline in the official reserves, was that in 1933 the backing for zloty notes in reserves was again lowered to 30% and in 1936 the authorised capital of the Bank of Poland was reduced to 100 million zloty once again. For reasons of prestige, Poland clung to a strong zloty. However, the foreign exchange and gold reserves drained away, undermining confidence in the zloty. Finally, the situation had to lead to a breach with the freedom of international payments and the imposition of foreign exchange rationing. Exchange controls were put in place on April 26, 1936 and tightened under subsequent regulations. However, despite the restrictions introduced and the ultimate disintegration of the "gold bloc", the gold parity of the zloty remained unchanged (Karpiński 1968, p. 145–149, see also Morawski 1998, p. 37).

In addition to exchange controls, a policy of "pump priming" was instituted, involving state intervention carried out by mobilising both public- and private-sector resources. This was geared towards industrialising the country and strengthening its defence capacity, and generated substantial growth in output after the long years of the Great Depression. Thanks to the changes in economic policy, the delicate equilibrium of the balance of payments and the zloty was successfully preserved. Political developments were soon to cut short this brief period of rapid expansion.

The monetary situation destabilised as events in the international arena heightened the danger of war. The German occupation of Austria in March 1938, the Munich Conference in September 1938 and the German occupation of Czechoslovakia in March 1939 resulted in an outflow of bank deposits. The impending war forced the Bank of Poland to adjust its currency issuance and lending activity. The British model of fiduciary issues was adopted, one that did not require reserve backing. Increased issuance financed spending on national defence (Karpiński 1968, p. 153–156).

The outbreak of World War II brought to an end the currency system of the Second Republic. The western part of Poland was incorporated into the Reich. The eastern regions were absorbed into the USSR. The central areas were transformed into the "General Gouvernement". On December 15, 1939, the Bank of Issue in Poland (Bank Emisyjny w Polsce) was established in Cracow, which was to issue the zloty. The Polish names of the bank and the currency were intended to promote confidence among the Polish public. Thus, from 1940 onwards, an Occupation monetary system was in operation exchanging the Bank of Poland notes for its own banknotes at a rate one-to-one. The Occupation zloty in time came to be dubbed "Cracow" zloty, in reference to the Bank's headquarters. Cash stocks expanded rapidly. The sums paid out by the Bank of Issue and the budgetary expenditure of the General Gouvernement to cover the Treasury spending of the Reich together constituted an enormous burden. The Occupation currency was therefore necessarily corroded by inflation (127% annually). In every day transactions money was often replaced by direct barter, foodstuffs, paper dollar or gold coin (Skalniak 1966, p. 130–136 and 148–149).

The prewar Bank of Poland was evacuated, taking abroad its whole stock of gold. At the end of the War, the gold – after numerous turbulent events – was again placed at the Bank's disposal.

The currency in the service of industrialisation

In the second half of 1944, an urgent task arose of organising money circulation in the areas successively liberated from German occupation. Strict limitations were applied in exchanging old currency for new zloty notes with the inscription "National Bank of Poland". It reduced cash stocks to 4 billion zloty. The swift rise in output and commerce during the postwar economic reconstruction produced rapid growth in the stock of currency. In 1949, cash stocks amounted to nearly 172 billion zloty. In these circumstances, attempts were made to halt the rise in consumer purchasing power by means of so-called "national loans". Due to the negative assessments of the market situation, preparations were begun in strictest secrecy for another currency reform.

The postwar Poland found itself in the Soviet sphere of influence. In terms of the economy, this found reflection in it changing track as a result of the nationalisation and agrarian reform, along with the creation of the command-and-quota system, with a central plan. The state was to replace the market, while its predominance in all areas of life was supposed to guarantee the effectiveness of the policy pursued. The command-and-quota economy changed the role of money. All that now counted were the physical targets set in plans. Money was to adjust itself passively to support the performance of those targets. It is no exaggeration to conclude that the currency was subordinated to industrialisation.

At the very start, in 1950, a radical currency reform was performed. The name of the currency was not changed: it remained as the zloty. A parity value was set of 1 zloty to 0.222168 grams of pure gold. Given the par value of the dollar at that time, the exchange rate that ensued was 1 dollar to 4 zloty.

Prices, wages and smaller savings deposits were translated at a rate of 3 new zloty to 100 old. Cash and larger savings deposits were translated at a rate of 1 new zloty to 100 old. Briefly speaking, the stock of currency in circulation was reduced by 2/3.

The zloty became an internal currency. The gold parity of the zloty was a fiction. The differences between foreign prices translated into zloty at the artificial exchange and domestic prices were automatically settled with the Treasury by foreign trade enterprises.

The currency reform was reinforced by draconian foreign exchange regulations. A prohibition was imposed on the possession of foreign

Money within the socialist (non-market) economy

The socialist economy retained the character of a money-commodity economy. Money was primarily present on the market for consumer goods and services. The basic means of production were not subject to market exchange. This fact, together with "the abolition of the exploitation of wage labour", prevented money being transformed into capital, considered a vehicle for appropriating the fruits of the toil of others. This reduced money to the role of a tool utilised by the socialist state and socialist enterprise for the organisation and control of the process of production and distribution.

The monetary system was based on the traditional national monetary unit. As such, the zloty in Poland remained in force. Its value was formally fixed by the statutory gold parity. The issuance of currency was conducted by the central bank, which was under the direct control of the Government. Issuance was safeguarded – i.e., the stability of the currency secured – by the planned regulation of the volume of currency in circulation and a government pricing policy. Under this planned regulation of money circulation, the central bank drew up a cash plan and a credit plan. The cash plan limited the circulation of notes and coin. Socialist enterprises traded with one another through non-cash transactions. The credit plan adjusted the supply of credit to the needs of the economy. If required, loans to government were made available without restriction.

Interest rates were low and in essence represented a substitute for bank fees. The zloty was not convertible into other currencies. The exchange rate was set by administrative decision. All that was allowed, on a reciprocal basis, was the exchange of specified sums into the currencies of other socialist countries (e.g., for foreign travel).

Source: compiled by the author.

currency, or of gold and platinum. This prohibition failed to wipe out the black market (Wyczański 1986).

The changes performed determined the further course of Poland's monetary history for many years to come.

The beginning of the 1950s witnessed the first phase of industrialisation. The years 1951–1953 saw a large increase in the role of capital formation within Poland's national income, at the expense of consumption. The immense investment effort under way soon proved impossible to sustain. In the years 1954-1957, more restrained investment permitted an increase in consumption. However, as of 1958 the development of the sector of raw materials and energy was again targeted. Autarky was the clear objective. The political "thaw" that began in 1957 made it possible to obtain loans from Western countries. This was important in the circumstances of that time, since by the end of 1957 Poland had virtually exhausted its foreign exchange reserves.

Economic expansion carried with it the danger of inflation. The currency reform at the end of 1950 calmed the situation only briefly. Wages subsequently went up. Currency in circulation rose quickly. Supply growth slowed, mainly due to neglect in agricultural development. The next "national loan" succeeded in absorbing some 10% of annual personal incomes in 1951. A brake on inflation was also to be placed by compulsory deliveries of farm produce at low prices and the reintroduction of ration cards for meat, fats, sugar and soap. Finally, it was decided to carry out a drastic price adjustment and to end rationing. The changes duly performed on January 3, 1953, represented an increase in consumer prices of over 40%. Prices came down in the years 1954–1956. The year 1957 then brought another period of price rises. These were lessened by a certain improvement in retail supplies and an emerging propensity to save.

In 1956, the prohibition on the holding of foreign currencies was lifted. In an attempt to source foreign currencies from the public, individuals were allowed to open bank accounts in these currencies.

As of 1958, the special rate set at 1 dollar to 24 zloty was used in domestic settlements arising on merchandise trade with the West. In practice, this meant a narrowing of the differentials employed in settling foreign trade transactions with the Treasury.

In the 1950s, an important role was played by the idea of having one single bank (a monobank). As a result, the National Bank of Poland chiefly acquired a monopoly position in working capital finance (89% in 1955).

In the 1960s the economy developed more slowly than in the previous decade. Wage growth was curbed. The increase in money supply was moderate. In this way, it proved possible to maintain a delicate market equilibrium. Inflationary pressure, aggravated in particular by shortages of meat and manufactured goods, was manifest not in the movements in official prices, but in the length of queues and the prices

What was worthwhile?

From 1960 to 1970, retail prices remained unchanged for bread, rice, butter and citrus fruit, and also clothing. The price of sugar, salt and soap came down. Some articles edged up in price, such as meat, eggs, milk and coffee. The price of jam covered 66% of the production cost. The price of rye flour stood at 61% of the production cost, while that of wheat flour represented 71%.

Low prices for consumers boosted demand and even led to waste. Low prices for producers, where these did not offset their costs, were a disincentive to increasing supply. The maintenance of unprofitable production had to be supported by government subsidies. Keeping prices low required keeping wages low too, which held back productivity growth. Putting off price adjustments meant running away from a solution to the problem.

Thus, it was not worth the while of consumers to work or of producers to produce, not was it worth the while of the decision-makers, afraid of social protests, to risk altering prices.

A decision taken on December 13, 1970, raised the price of basic foodstuffs by an average of 8%. The new ruling team that took office restored the old prices as of March 1, 1971 to avert a social crisis. It was obvious that a much greater price adjustment would be necessary in the future. Inflation could be hidden, but only for a time.

Source: compiled by the author. See also Sulmicki (1978, p. 261).

charged by profiteers, and also in the growth of savings representing compulsorily deferred demand. The holders of foreign currency accounts were able to acquire dollar-denominated merchandise vouchers, issued by Bank Pekao. Alongside Western currencies, these vouchers served as a means of payment in "internal exports", i.e., at special shops offering deficit goods.

In the 1970s the new ruling team that was put in place took few steps. The food price rises were called off, the prices of basic foodstuffs were frozen for two years, the lowest wages and social benefits were increased, procurement prices for farm produce were raised, and compulsory deliveries of this produce were also abandoned not long after. Strident propaganda slogans soon appeared, such as the construction of a "second Poland". This was to be the effect of dynamic growth with the taking out of large loans in the West to finance a large volume of imports (Wójtowicz, Wójtowicz 2005, p. 196–229). Poland thus entered yet another phase of forced industrialisation.

Shortly after the new economic programme had been adopted, the banks were brought into line with the requirements of the new situation. The concentration of the banking industry had reached a peak. From the mid-1970s onwards, there were only the National Bank of Poland and three specialist banks.

The results produced by accelerated growth, based on borrowing in the West, could certainly have given the impression of a rapid improvement in the state of the economy and the prosperity of the population. However, the notion of an "economic miracle" was necessarily set to be dispelled quickly. The swift rise in Poland's debt to Western countries, the failure of exports to keep pace, rising payments of principal and interest of foreign loans, together with the difficulties in achieving market equilibrium, gave birth to the idea of executing an "economic manoeuvre". However, the project of slowing growth and improving economic equilibrium was to prove unfeasible in a situation where the economy had gained runaway momentum and the authorities harboured excessive ambitions. This had to lead to a crash. A symbolic testimony to the failure of the economic policy was given in 1976 by the introduction of sugar rationing. People's lives were now less sweet. The health of the zloty suffered. Money stocks became a menacing "inflationary overhang". Money had to be supplemented by ration cards.

The authorities endeavoured to keep the economic and monetary system isolated from the rest of the world, which was impossible in the longer run. This disjunction was exemplified by the developments in exchange rates. The pattern of the zloty exchange rates seen in 1980 characterises the diverse ways in which the dollar was priced:

1 dollar = 120 zloty (black-market rate)
44 zloty (commercial rate)
30 zloty (non-commercial rate)
21 zloty (purchasing power parity)
3 zloty (base rate for statistics)

At a time when the world was experiencing inflation, the pricing function of the exchange rate had virtually no practical significance in Poland. Prices worldwide nearly trebled in that decade, while there were dramatic changes in relative prices. Price growth in Poland came to just 57% at the same time. In Poland prices were sending out false signals as regards investment, production and consumption.

By 1980, all export receipts were swallowed up by debt service expense. The fiasco of living on credit was obvious, and the figures were merciless. Poland had fallen into a debt trap, and talks with Western creditors on the further settlement of payment obligations had become an urgent necessity. Negotiations were duly commenced at the turn of 1980 and 1981. In agreement with its creditors, Poland chose the route of refinancing its loan obligations.

The external debt had constituted a huge problem and paralyzed the resolution of many economic issues. The situation demanded reform, but it was only under the cover of martial law that a legislative package was adopted in 1982. The Government slightly loosened the regime for setting prices. Bank loans were no longer to be made automatically, but were to be granted to those enterprises that were creditworthy.

The economy, in the grip of crisis since 1979, showed no sign of recovery, while the debt burden clearly held back any progress. The current account as a whole was continuously in deficit, since current receipts did not offset payments. External disequilibrium was paralleled by profound internal disequilibrium. The growth in money stocks was rapid, far too rapid. At the beginning of 1981, the excess supply of money already meant that notes and coin were insufficient and had to be supported by administrative restrictions. In 1981 almost each month saw the issue of ration cards for successive products. These limitations on retail purchases were gradually lifted, although rationing was not finally abolished until August 1989.

The doubling of consumer prices in 1982, only partly offset by wage growth, reduced the purchasing power of employee earnings by a quarter. In subsequent years, however, double-digit inflation was consistently accompanied by slightly higher wage growth. This state of affairs provoked expressions of criticism. One response to that was *A Programme for Strengthening the Currency*, drawn up at the National Bank of Poland (1987, p. 3–15). The necessary measures and lines of action that had been identified included a market-oriented transformation of the economy.

In 1988 the economy again slipped into a phase of destabilisation, as it had done at the beginning of the 1980s (Wernik 1991). The situation, already becoming progressively more complicated, was compounded by the problem of the dollarisation of the economy. With the stringent foreign currency restrictions of martial law lifted, enterprises permitted to keep part of foreign exchange they earned and the subsequent introduction of foreign exchange auctions, foreign currency became an increasingly important component of money stocks. By 1988, foreign currency accounted for 22% of the money supply, with 80% in the hands of private individuals and the fast growing private sector, while the remainder belonged to the socialised sector. In this circumstances, the proper valuation of foreign currencies acquired increasing significance.

A new system of exchange rates had been established at the beginning of 1982. A concept was introduced of the “base exchange rate for the zloty”. This was a “submarginal” exchange rate, i.e., one that ensured the profitability of 80% of exports. At the beginning of 1982, the rate for the dollar was set at 80 zloty. Inflation led to a permanent devaluation of the zloty. By the end of 1988 the price of the dollar had surpassed 500 zloty. At the fortnightly auctions organised by the newly-established BRE Bank, the exchange rate was dependent on supply and demand. During auctions sales of foreign exchange by enterprises, exchange rates diverged from the official rates by as much as a margin of five to one. The black market rate at the end of 1988 jumped as high as seven times over the official rate.

In 1989 the economy was in a state of collapse. The output was falling, the government deficit was growing, the balance of payments deteriorated, prices rose sharply and wage growth was even sharper. Inflation clearly gathered impetus after food price controls were abandoned in August. In October, price growth hit a record monthly high of 55%. From December 1988 to December 1989, the total price growth came to 640%. A substantial amount of additional money was created. The composition of the money supply was most definitely unfavourable. Dollarisation had gone a long way. The zloty, Poland’s legal tender, accounted for just 35% of total money stocks. The structure had taken shape in the wake of violent shifts in exchange rates. In mid-March 1989 private foreign currency transactions were legalised. The black-market rate dropped. This became now the exchange office rate, rather than a black-market rate. The exchange rates at the private offices were conditioned by furious market volatility, while at the same time the official exchange rate was increased repeatedly. At year end the exchange office rate and the official rate stood at similar levels (1 dollar = 7,000 or 6,500 zloty). This laid the basis for moving to a single exchange rate in the near future.

The new approach to monetary issues that was slowly paving the way for itself also began to yield results within the banking system. There were more and more new banks. The National Bank of Poland became a typical central bank within a two-tier banking system (the central bank and other banks).

The economic circumstances in 1989 necessitated constraints on banking activity. The NBP reduced its volume of lending and introduced reserve requirements. This tightened liquidity at the banks and thereby contained money supply growth.

A persistent struggle against inflation

The year 1989 brought events in Poland and in other countries of the region that shattered the previous balance of forces worldwide. In Poland, these then led to the previous opposition now taking up the reins of government, forming a new Cabinet. The task was begun of reconstituting a market economy, a process overseen by the Deputy Prime Minister and Finance Minister Leszek Balcerowicz. The stabilisation programme prepared in the final months of 1989 sought to:

- balance the budget,
- deregulate prices and alter the relative structure of prices, particularly as regards energy and those products previously subsidized,
- control nominal wage growth, with partial indexation to inflation,
- introduce the limited convertibility of the zloty and unify exchange rates, which – held fixed for a certain time – were to constitute the "nominal anchor" for the whole programme.

Monetary policy represented an important element in the programme and was designed to ensure (Wójtowicz, Wójtowicz 2005 p. 221):

- strict control over the volume of money, to curb demand and contain inflation,
- influence over the money supply via interest rates which would encourage savings and restrain inflation expectations.

At the beginning of 1990 a marked decline in demand was seen, along with the emergence of a consumer's market – for the first time in the postwar period. In subsequent months, a foreign trade surplus revitalised consumer demand and production. At the end of the year, inflationary pressure intensified and monetary policy was tightened once again. The year 1991 brought a continuation of the policies pursued the previous year. The economic situation changed. Government finances began to show rising deficit that increased the money supply. Inflation and a decline in export competitiveness made it necessary to abandon the fixed exchange rate.

It had been taken into account that consumer prices could rise sharply. Prices levels in 1991 were almost twelve times higher than in 1989.

Money stocks declined. By the end of 1991, the money supply had almost halved compared to two years previously. The key development, however, was a fundamental change in the level of dollarisation of the economy. The share of foreign currency dropped rapidly, while the zloty went from 27% at the beginning of 1990 to over 75% by the end of 1991. The rehabilitation of the zloty was thus an undoubted success of the initial period of transition. The zloty began the difficult process of winning back public confidence.

There is no doubt that the prime role in this was played by the exchange rate. The rate was set at 9,500 zloty to the dollar as of January 1, 1990. Operating as an anchor (stabiliser), it supported the improvement of domestic equilibrium. As a matter of fact, it also aided external equilibrium. In mid-May 1991, the zloty was devalued by over 14% against a reference currency basket introduced at that point. A fixed rate for the zloty against the basket was maintained for five months. In mid-October, the zloty was put on a crawling peg, being devalued on a daily basis.

Interest rates played a lesser role. In 1990, monthly rates were introduced, which were gradually lowered as inflation came down. In January, the central bank rate (the refinancing rate) stood at a monthly 36%, giving an annual rate of 432%. By June, the monthly rate had dropped to 4%, or an annual 48%. Subsequently, with economic recovering as intended, the rate was cut substantially in July, and an annual rate reinstated. This was set at 34%. A return of inflationary pressure caused rate hikes, up to 72% in February 1991. Next, inflation eased again, allowing downward adjustments, finally to 40% by the end of 1991.

The central bank slowed down the expansion of credit and the money supply using credit ceiling for the largest banks, sparingly extension of refinancing to the banks and reserve requirements reducing liquidity at the banks.

The recession ended in 1992. The economy returned to the path of growth. The process of economic expansion was assisted by the effects of profound market reforms. The private sector became the primary driving force of the whole economy. The deregulation of business activity set in motion the mechanism of competition and triggered an upsurge in small and medium enterprises. The opening up of the economy resulted in the freedom of foreign trade and the gradual liberalisation of capital flows. The market infrastructure developed, particularly the money and capital markets.

Inflation continually receded, yet still remained in double figures. Annual average price growth dropped from 70.3% in 1991 to 14.9% in 1997. Money supply growth and inflation were stoked by

The redenomination of the zloty

In 1994, Poland's domestic product was in excess of 2 quintillion zloty. Average gross wages were above 5 million zloty, meaning that the general public were millionaires. This counted for little, however, since an ordinary loaf of bread cost over 7,000 zloty, while the dollar was worth more than 24,000.

To simplify the increasingly complicated monetary calculations involved, in an environment of emerging economic stabilisation, the final decision to carry out a redenomination of the zloty was taken in mid-1994. The Act on the Redenomination of the Zloty of July 7, 1994, took effect at the beginning of 1995 and revoked the archaic legislation of October 28, 1950, on alterations to the monetary system.

The old zloty was replaced by the new zloty, traditionally subdivided into 100 grosz, at a conversion rate of 10,000:1. The rate that was used in this unlimited exchange of old currency for new meant that the redenomination operation was popularly referred to as "knocking off four zeros". Thus, the domestic product "dropped" to 210 billion zloty, wages "fell" to 500 zloty, bread "cheapened" to 70 grosz, and the dollar was now worth 2 zloty and 40 grosz.

The old and new currency circulated in parallel for two years, i.e., until the end of 1996. During this period, retail prices had to be displayed in both old and new zloty. A tendency to count in old zloty persisted to some extent for the next few years.

As of 1997, the old notes and coin, now no longer legal tender, continued to be exchangeable for new currency at the offices of the National Bank of Poland, and this is to carry on until the end of 2010.

Source: compiled by the author.

budgetary deficits. In the years 1992-1994, government finances were the main contributor to monetary expansion. The needs of the Treasury, and also the deterioration in loan portfolio quality following the disclosure of "bad debts", restricted growth in the supply of credit to the economy. Despite the deficits, the public debt decreased as the result of the partial cancellation of old liabilities by foreign creditors. This was followed by a large influx of foreign investment which financed the current account deficit and allowed a swift increase in the central bank's foreign exchange reserves. This rise in the reserves boosted foreign assets, which since 1994 had become a major counterpart to growth in money stocks. Backed by these reserves, in mid-1995 the zloty became a convertible currency in line with International Monetary Fund standards.

The central bank attempted to be flexible in adjusting its monetary policy to the ongoing situation. Up until the end of 1994, daily transactions had to be reckoned in millions, billions or trillions of zloty, but these calculations could now finally be simplified, thanks to the redenomination of the zloty.

An extraordinary policy instrument was applied in 1997. The NBP organised a three-month campaign of taking personal zloty deposits for six- and nine-month maturities, at higher interest rates than then available at the banks, to weaken consumption growth. This was designed to increase the propensity to save by forcing the banks to raise their deposit and lending rates. An important role in the monetary policy continued to be played by reserve requirements. However, the principal role in controlling banking industry liquidity now began to be played by open market operations. Interest rates became an increasingly important measure of the price of money. The key NBP interest rate was lowered very cautiously, from 40% in 1991 to 27% in 1997. It can be assumed that, as of 1995, interest rates started running above the level of inflation, thereby becoming positive in real terms.

In setting the exchange rate, the mechanisms developed in 1991 were first kept in place. However, to support exports, two steep devaluations of the zloty proved necessary. The inflow of foreign investment prompted major changes in the exchange rate policy. In mid-May 1995, a crawling band regime was introduced. The zloty exchange rate now began to be set on the currency market, being permitted to float within a band of divergence of ± 7% relative to central parity.

In the banking industry, there were intense adjustments to meet the requirements of the market economy. As of 1995, the previous troubled years gave way to a boom period for the banks.

In April 1997, the Constitution of the Republic of Poland guaranteed a strong position to the central bank within the system of public institutions. Monetary policy was made the responsibility of a new body of the NBP: the Monetary Policy Council (MPC). Additionally, a Constitutional prohibition was imposed on borrowings at the NBP to finance the government deficit.

The basic objective of the NBP was defined as maintaining price stability, with the Bank also acting in support of Government economic policies, insofar as this did not constrain pursuit of its basic objective.

The years 1998–2005 abounded with macroeconomic developments[3]. In the years 1998-2000 economic growth remained high. Economic equilibrium suffered dislocations. The public sector financial deficit was on the rise. In the opinion of some, there was a real threat of a currency crisis when the current account deficit exceeded 8% of GDP in 1999. The economy was troubled by the effects of the Russian crisis, flagging demand in Western Europe, rising oil prices and shifts in the exchange rates for the major currencies. The danger of a crisis faded away as export performance improved and import growth slowed in a more sluggish economy.

[3] An extensive description of the economic processes in the years 1998–2005 can be found in the *Inflation Reports* published by the NBP, which have been drawn on in this section. See also Kokoszczyński (2004, p. 255–289).

The monetary situation changed. In October 1998, the twelve-month CPI inflation fell to single figures for the first time since the transition began, standing at 9.9%. Then it dropped further to 5.6% in February 1999. However rising fuel and food prices later jacked up inflation once again, to 11.6% in July 2000.

The Monetary Policy Council drew up a medium term strategy to the end of 2003 (Monetary Policy Council 1998). It was decided that the best approach to reducing inflation would be that of direct inflation targeting. This meant focusing on bringing inflation down to less than 4% at year-end 2003.

Successive decisions towards freeing the exchange rate regime were taken in a consistent fashion. The cycle of many decisions led in the direction of floating the zloty. The Government decided to adopt a floating exchange rate regime as of April 12, 2000.

The MPC, guided by its inflation target, adjusted the principal central bank rate (now the reference rate used in open market operations) from 24% at the

Table 2. *The economy and the currency, 1915-2005*

Period	Unit	Domestic product[a]	Retail prices[b]	Money		Interest rate[e]	Dollar exchange rate[e]
				supply[c]	demand[d]		
1915–1918	mark	*-22*	*99*	*57*	*1.1*	6	9
1919–1924	mark	*20*	904	729	*-31*	72	9,250,000
1924–1927	zloty	*-1.1*	15.6	35.4	*18.4*	8	8.91
1928–1929		*19.3*	0.0	17.8	*-1.3*	8.5	8.91
1930–1936		-2.5	-7.3	1.2	12.0	5	5.30
1937–1939		*6.1*	1.7	10.1	*2.0*	4.5	5.30
1940–1944	„Cracow“ zloty	*-13*	127	58	*-20*	-	-
1945–1950	zloty	18.2	21.4	44.9	1.0	2	400
1951–1977	zloty	7.3	3.5	19.6	7.7	4	43
1978–1981		-4.5	11.3	18.1	11.1	8	56
1982–1989		2.6	50.9	42.2	-8.2	140	6,500
1990–1991	zloty	*-7.3*	241.7	88.7	*-40.4*	40	10,957
1992–1997		5.0	28.5	37.5	1.9	27	3.52
1998–2003		3.2	6.2	12.0	2.2	5.25	3.74
2004–2005		4.4	2.8	9.5	2.0	4.5	3.26

[a] annual real change, b annual average change, c annual nominal growth, d difference between the real change in the money supply and in GDP, e period end
Uncertain data in italics.
Source: compiled by the author, based on the sources listed in the references.

beginning of 1998 to 13% at the beginning of 1999 and then to 19% in August 2000.

On the heels of the turbulent 20th century, the new century also got off to an uneasy start. On a global scale, economic growth has been low. In Poland, now strongly linked to the world economy, the GDP rose just slightly in 2001-2002, while 2003 was much better. The general government sector experienced a difficult period, showing large deficits and seeing another increase in the public debt. At the same time Poland's external equilibrium improved. This was made possible by the virtually complete deregulation of foreign exchange operations at the end of 2002.

The monetary situation changed rather substantially. The reduction of inflation began in the second half of 2000. The twelve-month CPI changed from 8.5% at the end of 2000 to the lowest level of 0.3% in April 2003 and then to 1.7% at the end of 2003. Declining inflation and the lack of factors accelerating price growth dictated a gradual easing of monetary policy. The NBP reference rate was repeatedly cut, taking it from 19% at the end of 2000 to 5.25% at the end of 2003.

The first six-year term of the MPC ended at the beginning of 2004. The MPC prepared the next strategy, *Monetary Policy Strategy Beyond 2003* (Monetary Policy Council 2003), suggesting a continuous inflation target of 2.5% with a permissible deviation of ± 1 pp. The new MPC confirmed the basic elements of this strategy.

The years 2004-2005 were marked by a relatively high economic growth. The successful results of economic performance were connected with Poland's membership in the European Union as of May 2004 and strong demand from other member countries.

In these circumstances 2004 was characterized by a fairly complicated structure of factors contributing to inflation. The twelve-month CPI changed from 1.7% at the end of 2003 to 4.6% in mid-2004 and then to 4.4% at the end of 2004. It was estimated that price growth was primarily the consequence of growing domestic demand, then new regulations linked with the European Union membership as well as demand for Polish products (especially food) and last but not least by supply shocks increasing food and fuel prices.

In this situation, while assessing the increase in inflation as temporary, the MPC made decisions on interest rates. The NBP reference rate was changed from 5.25% at the end of 2003 to 6.5% in August 2004.

In 2005 declining inflation brought the twelve-month price growth to 0.7% by the end of the year. The MPC, easing monetary policy, cut the NBP reference rate to 4.5%. A persistent struggle against inflation has led to it being contained and recently stabilised at a low level.

The period of 1914–2005 was turbulent in every respect. The situation during those ninety one years is set out in Table 2.

Postscript

Poland's currency has always had European roots. The denar of Charlemagne was imitated in almost whole Europe, including Poland. The grosz introduced in the Italian city-states gained popularity and came via Bohemia to Poland. The ducat also originating in the Italian city-states and the thaler, first produced in Bohemia, had a huge impact on minting in Poland. The Polish zloty was at the time worth 1 ducat and then 1 thaler. The paper money, the central bank, the full convertibility of the domestic currency followed similar cases known in other European countries. Recently the transition period took Poland's currency closer to the other European currencies. When joining the European Union Poland became member of the Economic and Monetary Union with a derogation, committing itself to replace the zloty with the euro in future. Poland's road to the euro will come to an end when a combination of various events indicate that the proper hour has arrived.

References

Bernholz P. (2003), *Monetary Regimes and Inflation*, Edward Elgar Publishing, Cheltenham & Northampton.

Czapska E. (1988), *Polska Krajowa Kasa Pożyczkowa*, „Bank i Kredyt", No. 5–6, p. 21–30.

Grabski W. (1927), *Dwa lata pracy u podstaw państwowości naszej (1924–1925)*, SGGW Warszawa, WSIiZ Rzeszów (2003 edition).

Jezierski A., Leszczyńska C. (1994), *Bank Polski 1924–1951*, NBP, Warszawa.

Karpiński Z. (1968), *Ustroje pieniężne w Polsce od roku 1917*, PWN, Warszawa.

Knakiewicz Z. (1967), *Deflacja polska, 1930–1935*, PWE, Warszawa.

Kokoszczyński R. (2004), *Współczesna polityka pieniężna w Polsce*, PWE, Warszawa.

Monetary Policy Council (1998), *Średniookresowa strategia polityki pieniężnej na lata 1999–2003*, NBP, Warszawa.

Monetary Policy Council (2003), *Strategia polityki pieniężnej po 2003 roku*, NBP, Warszawa.
Morawski W. (1998), *Słownik historyczny bankowości polskiej do 1939 roku*, Muza SA, Warszawa.
National Bank of Poland (1987), *Program umacniania pieniądza*, „Bank i Kredyt" No. 11–12, p. 3-15.
National Bank of Poland (1988), *Bank Polski 1828–1885*, Warszawa.
Skalniak F. (1966), *Bank Emisyjny w Polsce 1939–1945*, PWE, Warszawa.
Sulmicki P. (1978), *Planowanie i zarządzanie gospodarcze*, PWE, Warszawa.
Taylor E. (1926), *Inflacja polska*, Poznańskie Towarzystwo Przyjaciół Nauk, Poznań.
Wernik, A. (1991), Polska *gospodarka lat osiemdziesiątych: od destabilizacji do destabilizacji*, „Studia Finansowe", No. 49–50, p. 45-68.
Wójtowicz G. (2003), *Bilans płatniczy Drugiej Rzeczypospolitej*, „Bank i Kredyt" No. 1, p. 4–17.
Wójtowicz G., Wójtowicz A. (2005), *A Monetary History of Poland*, Twigger, Warszawa.
Wyczański P. (1986), *Czarny rynek walutowy w Polsce 1970–1984*, Ph. D. thesis, SGPiS, Warszawa.