Stabilization Policies and Structural Developments: Poland and the Crises of 1929 and 2008

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(Draft; do not quote. All comments – and critical opinions – are welcome!)

Abstract

This paper contrasts the impact of the 1929 and 2008 world crises on the Polish economy. Her much better performance during the recent crisis can be explained by two groups of factors. First, by very different stabilization policies. Second, by distinct structural developments (resulting both from authorities' structural policies and spontaneous processes). It is emphasized that several factors responsible for Poland's superior performance during the 2008 crisis also contributed to her economic success vis-à-vis other EU countries.

1. Introduction

During the crises of 1929 and 2008, like most countries, Poland was heavily hit by a series of strong external shocks. In both historical episodes, however, her economy's reaction sharply differed.

The events of 1929 and subsequent years (episode "1929+") resulted in a crisis that lasted in Poland, back then an agricultural country, as long as until 1935 (Zweig 1944:167; Landau and Tomaszewski 1985:86-114). Not only was its duration longer than in many other countries, but also its depth was more severe. Real national income shrank by more than 20 per cent, industrial output – by almost 40 per cent, wholesale prices declined by more than 50 per cent, and the unemployment rate reached over 30 per cent. All in all, it was observed that

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Poland in the 1930s had gone “through one of the worst and longest depressions of all European countries” (Wolf 2007a:2)[2].

A very different picture of the Polish economy emerges when looking at the recent crisis (episode “2008+”). Poland suffered no recession, but only temporary slowdowns in 2009 and 2012-3; actually, between 2008 and 2015 her GDP grew by almost 30 per cent. The unemployment rate increased, reaching a peak of 10.3 per cent in 2013, i.e. well below the average for the EU and the euro area. Finally, inflation substantially declined, but only in mid-2014 a mild consumer price deflation appeared, which lasted until the end of 2016.

Against this background two main questions emerge.

First, why did Poland do much better during the 2008 global crisis than during the 1929+ one? Or more precisely: what was the role of economic policies and structural processes (conditions) on the peculiarities of both episodes in Poland?

Second, without aiming to be exhaustive (since this would require an extensive cross-country analysis) a side question arises: why did Poland perform better during the 2008+ period than other EU (and many non-EU) countries?

Before answering these questions we must, however, tackle another, preliminary one. Namely, does it make economic sense in case of Poland to compare both periods (and draw conclusions) given the important historical events separating them (World War II and its consequences, among others the nearly 45-year experience of centrally planned economy), and the impact of these (and other, like technical change) events on the structure of the economic system?

To respond to these questions, especially the first two, we highlight the role of stabilization (or cyclical) policies and structural factors (both authorities’ structural policies and spontaneous structural processes) in crises’ development.

In the economic literature the impact of both crises on Poland is scarcely described or analyzed; consequently – to the best of our knowledge – their comparisons are non-existent. For example, Eichengreen in his book relating the two crises (Eichengreen 2015) fails to mention Poland at all, in the collected papers edited by Akerlof et al. (2014) Poland’s recent experience is merely hinted in the context of the floating exchange rate regime (by Shambaugh 2014), while in Allen’s work (2013) essentially only Polish current monetary developments are signaled, although the author compares monetary developments in the 1930s and during the recent crisis in the international dimension.

[2] See also Wolf (2007b:351-2) and Feinstein et al. (2008:96).

Before going further a clarification concerning timing must be made. We term the periods under analysis as “1929+” and “2008+” in order to signal our commitment to the long-term approach. Obviously, because of the second world war (WWII) outbreak, the first period concludes in 1939[3]. The analysis of the second period ends in 2015. This is not only because of the availability of statistics at the time of finishing the paper (last quarter of 2016). The main reason for ending our analysis in 2015 stems rather from the fact that next year a deeper change in Polish economic policy started, signaling probably the beginning of a new period in her economic history.

The rest of the paper is organized as follows. In the next section, we compare the main features of the 1929+ and 2008+ developments in Poland and explore if it makes sense to confront these two episodes; thus, we answer (positively) the preliminary query. In section 3, we present our analytical framework which underpins the responses to the main questions. In the subsequent section, the 1930s and 2008+ occurrences are analyzed from the perspective of stabilization policies. The structural perspective is applied to the analysis in section 5. The last section recapitulates, answers the two research questions, and signals problems with the evaluation of the 2008-15 period.

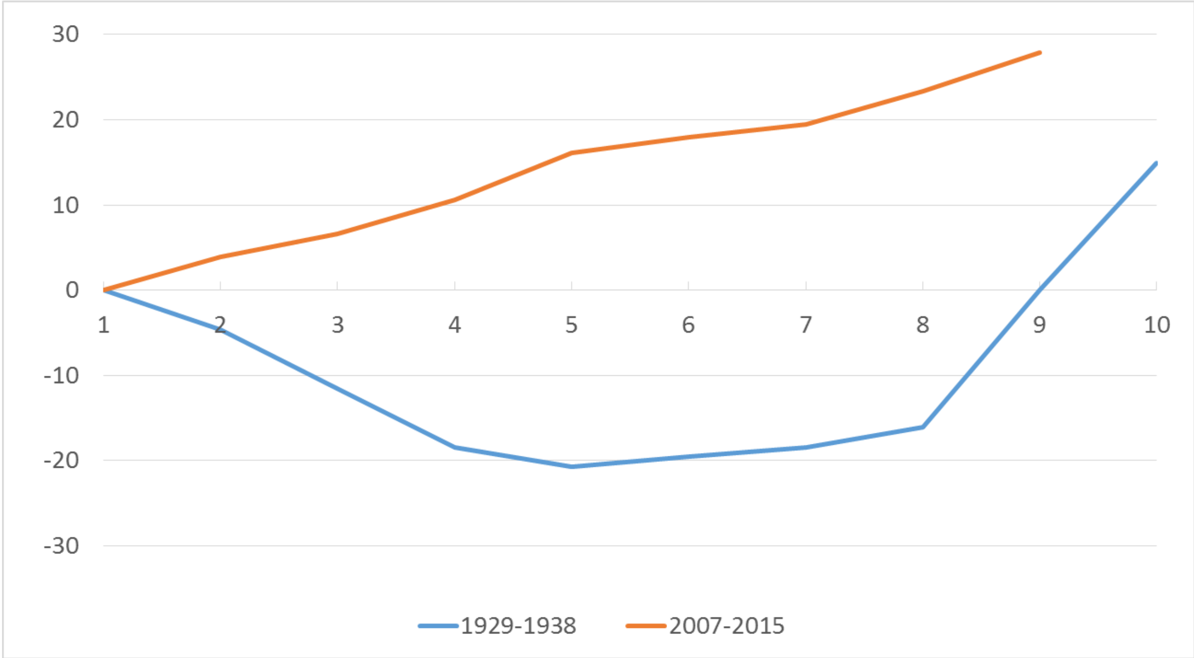
2. Poland and the 1929 and 2008 crises confronted

2.1. A glimpse at some macroeconomic developments

Let us start by glancing at the main developments typically looked at when the macroeconomic picture of a country is initially assessed, that is at real national income, price, and unemployment data. Given their limitations, however, we can only reasonably well address the first two developments of the 1929+ and 2008+ periods.

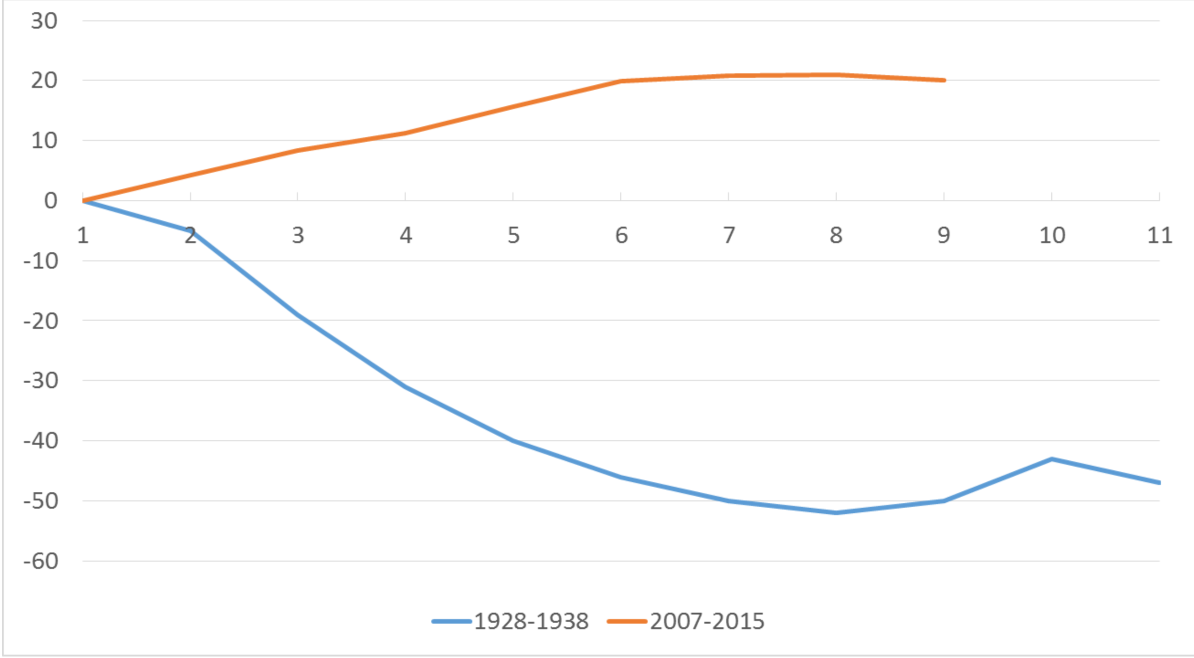
[3] Such time horizon in the analysis of the 1929+ crisis is not unusual. For the US see for example Kindleberger (1973) and Bernstein (1987).

Figure 1. National income: Poland, 1929-38 vs. 2007-15 (per cent, 1929 and 2007 = 100)



Note: Data for 1929-38 are estimates of national income in 1990 international Geary-Khamis dollars; data for 2007-15 is Gross Domestic Product (European System of Accounts 2010).
Source: Maddison (2006:476) and Eurostat website (accessed on 12 May 2016).

Figure 2. Price developments: Poland, 1928-38 vs. 2007-15 (per cent, 1928 and 2007 = 100)



Note: Data for 1928-38 are wholesale prices of foodstuffs, raw materials, and semi-manufactured goods; data for 2007-15 is Harmonized Index of Consumer Prices.
Source: GUS (2012:293) and Eurostat website (accessed on 12 May 2016).

Figures 1 and 2 point out that the 1929+ events were for Poland much more severe than the recent ones; in fact, they were harsher than in many countries in the 1930s. Let us only say that it is estimated that between 1929 and 1933 Polish real GDP declined by nearly 21 per cent[4], while between 1928 and 1935 the domestic purchasing power of the zloty more than doubled. This is also confirmed by other developments, for example by industrial output's decline. According to the official statistics, in 1932 it reached its nadir: that year Polish industrial production was lower by more than 37 per cent than in 1929, similarly as in Germany, but much more than in other countries (GUS 1938:3; GUS 2012:379). The crisis was also longer: actually both Figures 1 and 2 suggest that the Polish economy started to recover only in 1935-6[5].

Unemployment reached astonishing levels too. However, as in the interwar period Poland was an agricultural country[6], the available data (in fact estimates) on unemployment size vary to a large degree.

As a matter of fact, Polish official statistics of that time did not use the concept of unemployment rate. According to them (GUS 1938:4-5) the employment of those covered by social insurance was in 1933 lower by 21 per cent, while in the same year the employment of workers in large and medium industry was lower by 36 per cent (in both cases compared to 1928). However, working hours in the industry amounted to only 58.3 per cent of these in 1929 (GUS 2014:317). Furthermore, if we take into account the hidden unemployment in the agricultural sector (for example, Zweig (1944:126) estimated roughly at one-fourth the superfluous peasants' population), then the unemployment rate of over 30 per cent mentioned in the introduction is likely to be a conservative estimate[7].

[4] This estimate is based on Maddison (2006:476). However, estimates of national income decline in this period by Polish economists range between 10.3 per cent (by M. Kalecki and L. Landau) and 32.4 per cent (by Z. Knakiewicz) (as quoted in GUS 2012:526).

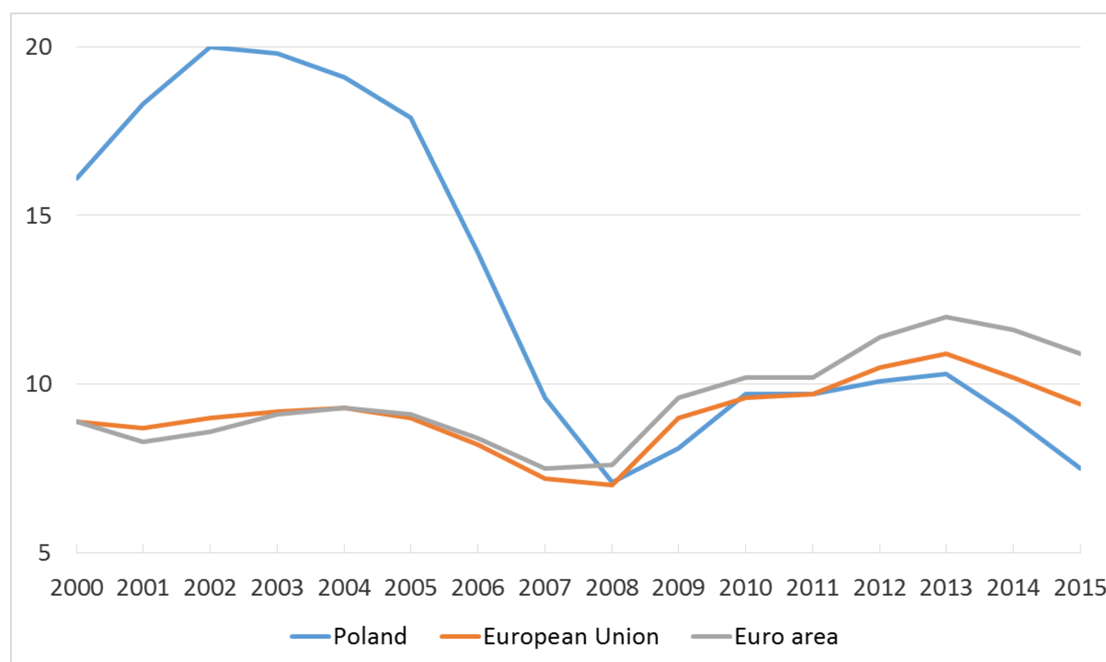
[5] Zweig (1944:61) points out that „The period from 1932-3 to the spring of 1936 may be described as one of stagnation with symptoms of slight recovery". Using higher frequency data obviously sheds additional light on the crisis. For example, Albers and Uebele (2015) construct monthly activity (i.e. encompassing not only industrial production) indices for 30 countries which show three characteristics of Polish developments. First, Poland entered the crisis already in early 1929 (in January of that year her activity index reached its peak) (pp. 20 and 30). Second, the trough of Polish monthly activity index took place already in August 1932 (p. 30). Finally, they state that, in terms of cumulative loss (a function of duration and amplitude), "the American, Canadian, Polish, Austrian and German Depressions were the most severe" (p. 21).

[6] As stated by the 1931 census 72.6 per cent of Polish population lived in rural areas and 65.2 per cent of professionally active population was engaged in agriculture (GUS 2012:124 and 169).

[7] This estimate is suggested in Leszczyńska (2011:31).

Consequently, time series for both 1929+ and 2008+ periods, although implicitly suggest deeper labor market problems in the interwar Poland, cannot be sensibly compared and analyzed. Thus, we propose changing the focus and concentrate here only on more recent unemployment developments as shown in Figure 3.

Figure 3. Unemployment rate: Poland vis-à-vis the European Union and the euro area, 2000-15 (per cent)



Note: EU Labor Force Survey data. EU in composition of 28 countries, euro area in composition of 19 countries.
Source: Eurostat website (accessed on 12 May 2016).

The unemployment rate reached its highest point in Poland after WWII in the beginning of the 2000s. In 2002 it was of 20.0 per cent, well above the EU and euro area averages (9.0 and 8.6 per cent respectively). Afterwards it began to decline, so that starting since 2008 a reverse situation emerges. Paradoxically, while unemployment rate in Poland once again began to increase (as already mentioned achieving in 2013 a peak of 10.3 per cent), it became lower than that in both the EU and the euro area.

In what follows we will make an attempt to explain the diverging developments in the 1929+ and 2008+ periods. Before we do this, however, we must answer our preliminary question: does it really make sense for Poland to compare both historical episodes?

2.2. Does it make sense to compare?

Is it sensible in the Polish case to make meaningful economic comparisons between the 1929+ and 2008+ periods?

This is a very valid doubt not only because of the just mentioned data availability problems. Clearly, as for Poland, parallels (or similarities) between the crises under consideration are not that obvious as it is for example in the case of the US and some other developed countries[8].

The answer to this question is even more important if we fully realize that the pre- and post-WWII economies of Poland greatly differ at the very fundamental levels. As we have already hinted Poland in the interwar period was an agricultural country while after the WWII, since the mid-1950s, she turned into an industrialized one[9]. Besides, from the late 1940s until the late 1980s her economy worked under very different principles of a centrally planned socialist system, that is on the basis of bureaucratic, not market, coordination mechanisms[10]. After the political changes of 1989 Poland became a transition economy, i.e. transforming its social, political and economic system into a modern market one. However, despite these serious differences, we are convinced that there is a case for arguing that important similarities can be exploited.

There are at least five main reasons to study simultaneously both events and conduct their comparative analysis.

First, in both historical cases Poland was a state belonging to the Western world and was powerfully struck by a series of serious external shocks coming directly mostly from the developed Western countries.

Second, in both cases Poland was a "new" economy in the sense that she was building a new socio-political-economic system; in current terminology it can be said that in both episodes she was an "emerging" or "catching-up" economy struggling for proper reputation. In the interwar period she was a newly reborn state, after a more than a century long partition.

[8] See inter alia Almunia et al (2010), Bindseil and Winkler (2012), Eingner and Umlauft (2014) or Fratianni and Giri (2015). Let us also note that both crises were dissimilar in some respects. For example, their early stages differed considerably. In 1929 collapses in equity prices, world trade and output were not accompanied by major bank failures (these occurred on a larger scale only from spring of 1931) (see also subsection 5.3). In 2008, however, bank failures (or rescues) and the collapse of output and trade took place almost simultaneously. See Ritschl (2009), Allen (2013:158) and Fratianni and Giri (2015).

[9] As a result of the Six-Year Plan of the 1950-55 promoting the Stalinist "forced (or accelerated) industrialization" of the country. More on this see for example in Landau and Tomaszewski (1985:215-45).

[10] For more on these coordination mechanisms see Kornai (1984; 2014).

In the 1990s and subsequent years, after the collapse of communism, she was building a market economy. In both these eras many economic (and political) institutions were built almost from scratch.

Third, in both episodes Poland acutely lacked sufficient resources (both physical and intellectual capital) to promote her economic development (and build her defense industry in the interwar period). Consequently, given the chronic deficiency of domestic savings, she had to import financial capital, this being a crucial factor in economic policymaking, both after 1918 and after 1989.

Fourth, during post-communist transition, Poland, similarly as in the 1920s, became a typical small open economy (i.e. one in which world prices, interest rates and output levels and their changes are exogenous to the economy in question[11]), subject to strong financial globalization, with a marked peripheral character.

Fifth, when looking from a broader perspective a similar, general cyclical pattern of developments can be observed during the periods preceding the crises, the crises' times themselves and in their aftermath, although the magnitude of the events, as shown above, was greatly different. Adopting a bird's eye view, both 1918+ and 1989+ developments in Poland can be seen as having a following sequence:

- strong inflation accompanied by economic growth problems (1918-23: inflation and hyperinflation; 1989-90: Poland on the brink of hyperinflation, followed by disinflation lasting until 2003);
- stabilization coupled with strong economic growth (1926-9 and 2003-7);
- recession or slowdown with deflation or practically non-existent inflation (1929-35 and 2008-13);
- recovery (after 1935 and acceleration of GDP growth since 2014).

There are also other economic similarities between the two periods under review, but they are of minor importance for the overall macroeconomic picture. For example, in the interwar period and since the early 1990s, Germany was Poland's main trading partner. One has to be careful here, however, as in the former period the role of trade with Germany was essentially gradually declining, while in the latter it was steadily increasing.

As a result of these factors other similarities arose (as we will discuss later for example the higher interest rates in Poland than in other countries). Nonetheless, we must acknowledge that these economic parallels were accompanied by great differences in the

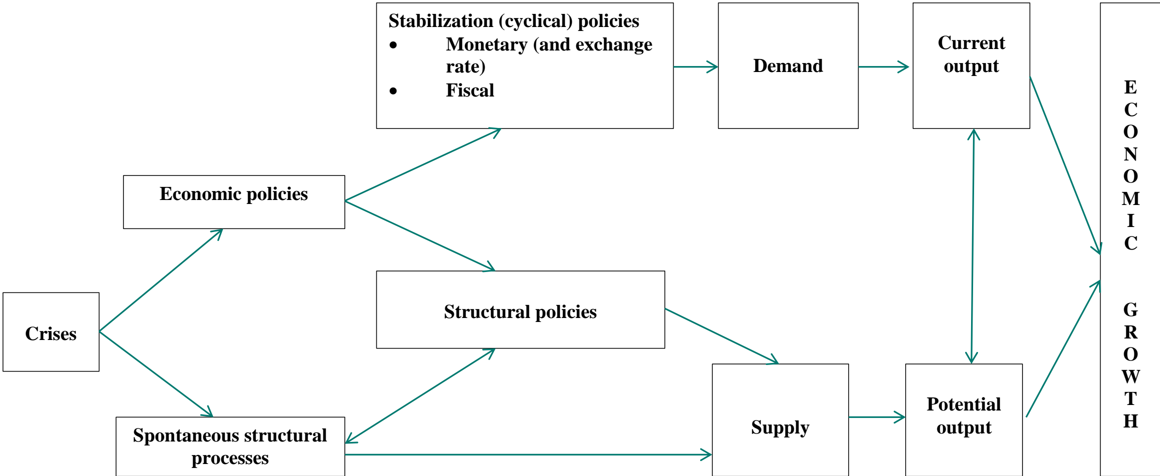
[11] Walsh (1998:269).

political dimension, both internal and external. In this respect Poland's situation in the interwar period and since the start of the 1990s differs dramatically. Without going into details let us recall that during the 1926-39 period Poland was subject to an authoritarian regime, whereas since 2004 she has been a member of the democratic European Union (however, short of joining the euro area). Although during the 2008+ period the international political climate, not only due to economic reasons, gradually deteriorated, Poland has been surrounded by mostly friendly countries. This was clearly not the case in the interwar years when she found herself trapped between two hostile superpowers (Germany and Soviet Russia) and having only amicable relations with two smaller countries with short common frontiers (Romania and Latvia). These political factors also influenced economic policy decisions and developments in both studied periods. In this paper we concentrate on economic developments, however. Other aspects of Polish history can be found, for example, in the exhaustive works by Davies (2001; 2005).

3. The framework

In order to analyze the impact of both crises on the Polish economy and answer our main research questions we propose an analytical framework as described below. The logic of our approach emphasizes the role of stabilization (or cyclical) policies as well as of structural developments (policies and spontaneous processes) in crisis emergence, expansion, and outcomes. See Graph 1.

Graph 1. Crises, economic policies, and spontaneous structural processes: A framework



Source: Author's compilation.

Relying on modern economic policy theorists' (e.g. Bènassy-Quéré et al. 2010) and policymakers' (Draghi 2015) ideas as well as Schumpeterian ones (Schumpeter 1911/1934; Schumpeter 1942/1950), our analysis underlines that crises are linked to and result in a sequence of changes (innovations) that can take place in two, usually interdependent, dimensions: (1) authorities' economic policies, and (2) spontaneous actions of the productive sector[12].

The "spontaneous actions of the productive sector" consist of private agents initiatives, that is, in its pure form not directly stimulated (or induced) by public policies (e.g. through taxes or subsidies). Their primary example include private-based actions (e.g. research) leading to labor, product or financial innovations (which are essentially included in the Schumpeterian concept of "creative destruction process"). Another example of a spontaneous process is a mechanism known as the Minskian "financial instability hypothesis" (Minsky 1986). One more example here can be the implications of the "animal spirits" phenomena as analyzed by Akerlof and Shiller (2009). Spontaneous actions, among others, result in structural changes leading directly to modifications in supply and potential GDP.

From the upper part of Graph 1 it can be seen that the impact of economic policies on post-crisis developments can result from stabilization policies as well as structural ones. Stabilization policies, monetary and fiscal, have a demand-side effect and directly influence nominal variables (current GDP) but only do so indirectly in case of the potential output.

Structural policies, on the other hand, are nowadays typically limited to product and labor market policies (or reforms) aiming at improving performance of these markets (OECD 2015; IMF 2016:101-42). In this context product markets are often understood broadly, i.e. as markets not only for physical goods but also for services, financial ones included (Bènassy-Quéré et al. 2010:515-523). Thus, the concept of product market policies encompasses developing and regulating financial markets as well. Below we follow this approach, however, we also link the concept of structural policies to state authorities endeavors directed at changing the productive structure of an economy, or of one of its sectors, through targeted factor allocation or ownership changes; in this occasion we will be talking of "industrial and investment policies" (subsection 5.4). In any case, structural policies directly concentrate on the supply side, i.e. on increasing the potential and resilience of an economy.

As in the actual world current output and potential output are closely interlinked we show this in Graph 1 by a double-headed arrow. There is also an interdependence between

[12] Actually, crises may also result from these factors as well. In the paper we stress, however, the causality running from crises to policies and spontaneous processes.

structural policies and spontaneous structural processes, especially important in modern economic systems. Because of this latter interdependence, when answering our research questions, we will be considering two perspectives:

(1) a stabilization policy one, which is used in the next section, and

(2) a structural (policies and spontaneous processes) perspective, used in section 5.

4. Stabilization policies in Poland and the crises of 1929 and 2008

As already mentioned stabilization policies consist of both monetary and fiscal anti-cyclical activities of the state. Our central concern in this section is therefore: did both policies provide a macroeconomic stimulus (i.e. an expenditure increase) during the 1929+ and 2008+ periods to counteract the economic slowdowns?

Monetary policy is understood here broadly, that is as interest rate and exchange rate policies together with foreign exchange control developments (i.e. changes in administrative restrictions on cross-border money transactions). Similarly with fiscal policy: when possible (data availability permitting) we will be rather talking about public sectors' actions than on state (national government) budgets' only.

4.1. Monetary policy

After the 1923 hyperinflation[13], a new central bank was created – the Bank Polski (Bank of Poland), in charge of issuing a new currency – the zloty. In April 1924 it started to conduct monetary operations in the framework of the Gold-Exchange Standard (GES) as recommended by the 1922 economic conference in Genoa[14]. During the conference, it was also suggested that monetary authorities should preserve their independence. Thus, the Bank Polski was incorporated as a joint-stock company with its main shareholders becoming private individuals and institutions (the State Treasury's participation in the Bank equity being initially of only 1.1 per cent)[15]. Therefore, when formed, the Bank was a highly independent institution with a fixed parity of the zloty vis-à-vis gold and foreign currencies convertible into gold. Hence, in principle it was not in a position to buy Treasury debt (as in

[13] See more on it for example in Taylor (1926), Cagan (1956), Sargent (1982) or Horsman (1988:99-103).

[14] Karpiński (1958:15-17), Morawski (2002:136-7) and Leszczyńska (2013:42-9). On the Genoa conference and the restoration of the gold standard after WWI see for example Brown (1940:342-57), Clarke (1973:5-18), Kindleberger (1973:63-4; 2000:63-4) and Sayers (1976:153-63).

[15] Karpiński (1958:18); see also Meyer (1970:62).

other Central European countries, in Poland this and the underlying budgetary deficits were the main reason for hyperinflation after WWI).

The introduction of the new monetary system happened not without problems. After a period of turmoil (bank crisis, the re-emergence of inflation, government's collapse) and the suspension of the Polish currency from the GES, zloty's stabilization plan (1927-30) was adopted. Following devaluation, it allowed for the return of the zloty to the system in the autumn of 1927[16]. The new parity was maintained by Poland until WWII, that is during the whole crisis period.

To confirm its adherence to the GES at the time of its decomposition, in mid-1933 Poland joined the so-called gold block, formed by countries committed to maintain their monetary systems on gold[17] (contrary to countries in the sterling block or the US or Germany). Only in April 1936, as a result of a strong outflow of foreign exchange and gold (see Table 1[18]), Poland unwillingly introduced widespread and extremely restrictive foreign exchange controls (Karpiński 1958:169-71; Leszczyńska 2013:336-49). This de facto meant that she went off gold and a new period in her monetary policy started. However, formally, the GES system was maintained and, as mentioned, the gold parity of the zloty remained in place until the outbreak of the war in September 1939 (Morawski 2002:160 and 164). Consequently, during the crisis and its aftermath the market exchange rate of the zloty barely depreciated, contrary to most other currencies – see Table 2. Thus, Poland deliberately did not follow policies which helped recover many countries initiating devaluations[19].

Table 1. Foreign reserves at the Bank Polski, 1924-38 (selected years, million zlotys)

	1924	1929	1934	1938	1938 (as % of 1929)
Total	615	1227	531	464	37.8
- Gold	178	701	503	445	63.5
- Foreign exchange	437	526	28	19	3.6

[16] For more see Zweig (1944:48-53), Landau (1963), and Meyer (1970:64-99).

[17] The leading country of this group was France, the other being Belgium, the Netherlands, Italy and Switzerland. The fold finally broke down in September 1936. More on Poland's participation in the gold block see Smith (1936), Karpiński (1958:114-5) and Wolf (2007a; 2007b).

[18] For graphs on these developments (1928-36) based on monthly data see Wolf (2007a:35-7).

[19] For the European experience see Eichengreen and Sachs (1985); for the US one see Temin and Wigmore (1990).

Note: End of the year.

Source: GUS (2014:489-90).

Table 2. Market exchange rates vis-à-vis the parity as of 1929: The zloty vs. selected European currencies, 1933 and 1938 (per cent, as of December)

Country	1933	1938
Poland	99.9	99.3
Czechoslovakia	100.4	69.1
France	100.0	43.4
Germany	99.6	99.6
Switzerland	100.2	70.0
United Kingdom	68.1	59.3
Italy	99.0	59.0

Source: GUS (2014:484-5) following Statistical Yearbooks of the League of Nations.

After the termination of the zloty's stabilization plan in 1930, the Bank Polski was gradually losing its independence to the extent that after the 1936 imposition of exchange and trade controls, it became almost solely an agent following government's instructions[20]. This situation was reinforced as it became obvious that the war was imminent. The act of the Bank Polski was amended in February 1939, allowing for money creation not backed by gold or foreign exchange (fiduciary issue)[21] with the aim of financing military armament (and counteracting the withdrawal of deposits from commercial banks) (Landau and Morawski 1995:370). Maintaining a fixed exchange rate of the zloty continued, however, to be of primary importance for the authorities.

[20] Zweig (1944:113) and Knakiewicz (1967:147). Landau (1997:84-85) and Leszczyńska (2013:317-8) stress, however, that in practice the loss of independence by the Bank Polski had been taking place already since the very early 1930s (i.e. after the stabilization plan concluded).

[21] Actually the process of money supply increase accelerated earlier: already in September 1938 banknotes issued by the Bank Polski exceeded the statutory limit (Landau 1997:86). See also Zweig (1944:114) and Hartwell (2016, Figure 1).

Let us move now to the second price of money – the interest rate. It must be stressed from the outset that compared to the current practice of most central banks, interest rates were not of key importance in the Bank Polski's policymaking process, at least as concerns domestic issues[22]. First, because under a fixed exchange rate they had to be of secondary importance (due to the implications of the logic of the impossible trinity theorem for exchange rate targeting[23]), although after the imposition of exchange controls this factor must have become of less importance. Second, because the interbank money market in the interwar Poland was deeply underdeveloped (Sołowij 1939:48-51). Third, because the Bank Polski was not conducting open market operations[24]; similarly as a majority of continental European central banks it was not permitted to conduct them to avoid monetization of public debt (Bernanke and James 1991:39; Karpiński 1958:231). In fact, it only set the discount rates on zloty bills of exchange, and their impact through the interest rate channel on domestic economic activity was limited. As in regard to setting market interest rates, the crucial role in determining their levels was played by the administrative maximum rates set for commercial banks by the government as an anti-usury measure. The latter rates were on average twice as high as the Bank's discount rates (Leszczyńska 2013:327). Having all this in mind let us now inspect more closely Bank Polski's interest rates development in the context of other European central banks' rates. See Table 3.

Table 3. Central banks' discount rates: Poland vs. selected European countries, 1924-38 (selected years, per cent, annual averages)

Country	1924	1929	1934	1938
Poland	11.4	8.6	5.0	4.5
Czechoslovakia	5.9	5.0	3.5	3.0
France	6.0	3.5	2.7	2.8
Germany	10.0	7.1	4.0	4.0
Switzerland	4.0	3.5	2.0	1.5

[22] Knakiewicz (1967:189-92) and Leszczyńska (2013:327-8).

[23] Let us remind that the theorem states that monetary authorities can at the same time implement only two of the following three policies: an autonomous (i.e. aimed at achieving domestic goals) interest rate policy, a fixed exchange rate policy and a policy aimed at country's full capital integration (i.e. allowing for free capital cross-border flows) (Frankel 1999).

[24] Nor it imposed reserve requirements on banks (Leszczyńska 2013:327 and 330).

United Kingdom	4.0	5.5	2.0	2.0
Italy	5.5	6.8	3.1	4.5

Source: GUS (2014:508) following Statistical Yearbooks of the League of Nations.

As could be expected central banks' (nominal) interest rates followed a declining pattern during the 1929+ period (with some minor exceptions for France and Italy in 1938). Interestingly, in all these years – despite the fact that they reached their lowest level since the establishment of the Bank Polski – Poland's rates were permanently higher than in other countries (again with the exception of Italy in 1938), often considerably much higher. Two main factors seem to explain this latter tendency. First, the chronic shortage of savings compared to Poland's investment needs (albeit during 1930-5 new savings must surpassed declining investments as her foreign trade account was positive – see Figure 7 in subsection 5.1). Second, the risk premium resulting from Poland's peripheral status, poor performance in most of the interwar period, and above all the constant tensions due to her geopolitical situation, all of them leading to pronounced uncertainty. Even if we take into account their limited importance for domestic economic affairs, such high nominal interest rates in times of strong deflation (Figure 2) resulted in very pronounced real interest rates which were not conducive to recovering from the recession and restoring growth. This statements are made in the context of central bank rates, but – as mentioned above – the crucial role in setting market rates was played by the administrative rates set by the government, and these were higher than Bank Polski's rates.

We can summarize our brief account of Polish monetary policy at that time by stating that it did not provide a stimulus to the ailing economy, neither through the exchange rate, nor through the interest rate. The 1929+ Bank Polski's interest rate decisions may be at best characterized as accommodative, in the sense that they followed general economic trends and did not try to actively alter them by monetary stimuli.

An argument could be made here that the logic of the GES system imposed described policies, implying deflationary effects. It is a valid observation since this monetary framework was blamed for providing a "deflationary bias" which resulted from the asymmetric response of different countries to gold flows movement and the maldistribution of international reserves of gold, leading to monetary contractions in many countries[25]. Obviously, as was

[25] For an exhaustive discussion on this aspect of the interwar gold standard see Bernanke and James (1991:35-44). See also Feinstein et al. (2008:49-51) and Fratianni and Giri (2015:20-3).

usually the case in the first half of the 1930s, money stock in Poland also declined (although relatively modestly)[26]. Polish authorities tried to reduce this deflationary bias by amending the Bank's statutes on several occasions[27], but such actions were of minor importance. Only the April 1936 regulation introducing exchange controls modified the monetary framework and made deeper changes possible in Bank's policies. This was, nonetheless, done much later than in most countries and, as we have seen, was not followed by exchange rate depreciation and bolder interest rate movements.

Let us now turn to monetary policy in the 2008-15 period. During this episode, central bank policy was very different both as concerns exchange rate and interest rate developments. In principle, this was possible because the new central bank – the Narodowy Bank Polski (National Bank of Poland, NBP in what follows)[28], has been operating under a very different monetary system than its predecessor, i.e. that of contemporary fiat (fully fiduciary) money framework. The latter clearly allows for more flexible economic policies than the one established in the twenties.

As hinted in subsection 2.2, at the end of the 1980s, i.e. during the final fall of the communist regime and the centrally planned economy, Poland experienced very high inflation, bordering hyperinflation dynamics which, contrary to the 1920s experience, did not turn into a genuine hyperinflation. Actually, in 1989-90 there were only two months (October 1989 and January 1990) in which the inflation rate surpassed 50 per cent, the often used conventional yardstick to define hyperinflation (Cagan 1956). To halt the expansion of the inflation process, a stabilization program was adopted known as the 'Balcerowicz plan' from the name of the main architect of Poland's economic policies at that time. From then on inflation gradually and without major reversals declined, turning in mid-2014 into a mild deflation[29]. See Figure 4.

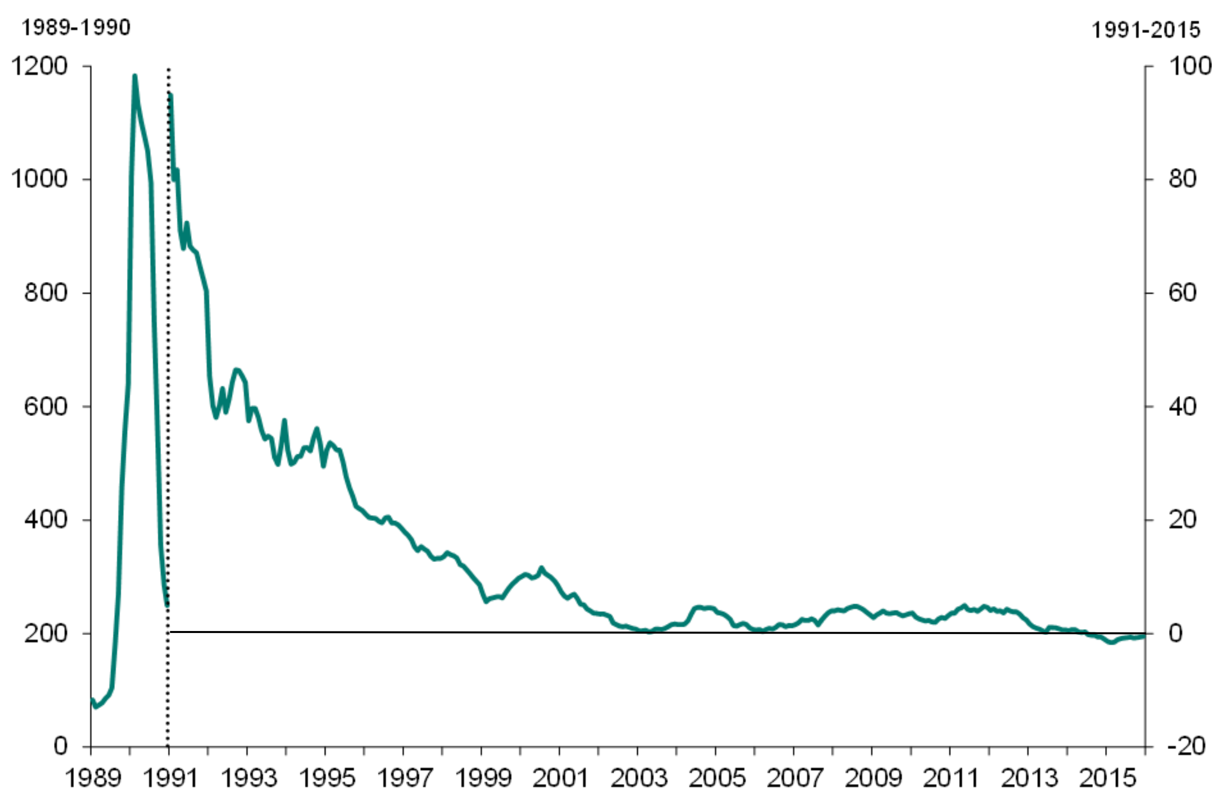
[26] More on this see in Karpiński (1958:236-7), Knakiewicz (1967:133-60), Leszczyńska (2011:35; 2013:318 and 330-1) and Hartwell (2016, Figure 1).

[27] In March of 1932, 1933 and 1935, and February 1936 (in the latter case the Bank provided non-interest funds to the Treasury). On the context and technicalities see Zweig (1944:112-3) and Leszczyńska (2013:325 and 338).

[28] It was established in 1945, and turned into a modern, independent central bank in the sense of an autonomous institution concentrating on monetary control in the framework of a two-tier banking system at the end of the 1980s and in the early1990s. See Kokoszczyński (2004:212-3). On the late 1980s and early 1990s reforms of the Polish banking sector and the NBP there is a vast literature; to the English-language reader we suggest Mondschean and Opiela (1997), and Ugolini (1996). For a more general transition countries perspective see Polański (2016).

[29] Our narrative stresses consumer price behavior. However, it has to be pointed out that in terms of domestic industrial producer prices (Producer Price Index), deflation in Poland appeared already at the end of 2012.

Figure 4. CPI inflation: Poland, 1989-2015 (per cent)



Note: Year on year monthly rates.

Source: GUS website (accessed on 26 January 2016).

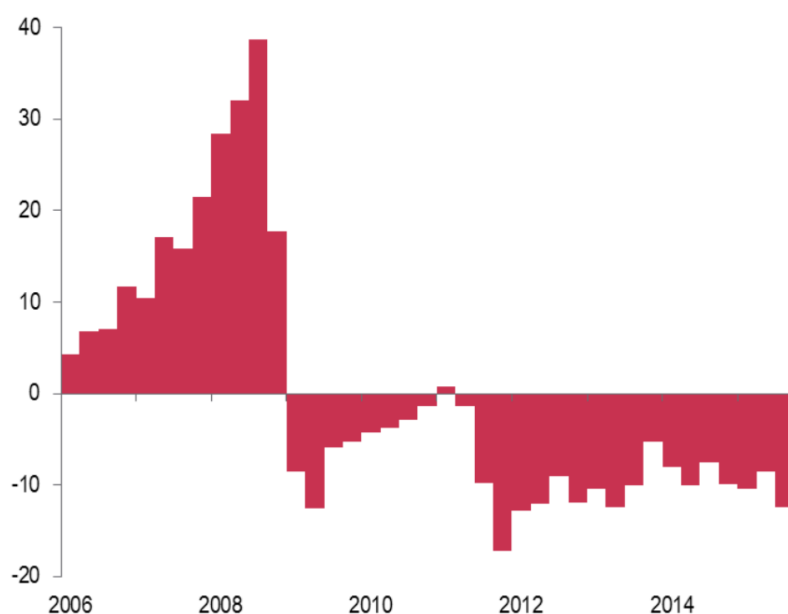
At the end of the 1990s the NBP adopted a full-fledged inflation targeting as its monetary strategy and introduced a freely floating exchange rate regime. Solving in this way the impossible trinity problem it could further concentrate on inflation control so that at the time of joining the EU in 2004 monetary stabilization was completed[30].

When Poland was hit by the 2008 crisis her economy was operating well above its capacity, i.e. she had a noticeable (of roughly 3 per cent of potential product), positive output gap (see Table 5 in next subsection), while disequilibria started to emerge – inflation increased again (Figure 4) and a speculative bubble on the housing market began to grow (NBP 2010). However, as we mentioned elsewhere (Polański 2014:167), Poland was struck by the global turmoil in a comparatively good moment, that is at a relatively early stage of her strong expansion when the disequilibria were still not pronounced. Consequently, the shock cooled down her quickly expanding economy without pushing it into a recession (see Figure 1).

[30] Polański (2016:99). More on Polish monetary policy until EU accession can be found in Polański (2004).

The first to react to the 2008 external shocks, and to provide an anti-recessionary monetary stimulus, was the nominal exchange rate which started to depreciate already in the middle of that year. After the Lehman Brothers bankruptcy (15 September), its depreciation accelerated. In the second half of 2008 and the beginning of 2009, just in half a year, its effective nominal value decreased by almost 25 per cent, while its real value by 37 per cent (Polański 2014:168). Clearly, the regime of a freely floating exchange rate showed in Poland the shock-absorbing capacity with its full strength (Stążka-Gawrysiak 2009).

Figure 5. Deviations of the real effective exchange rates (REER) of the zloty from its 10-year average, 2006-15 (per cent)



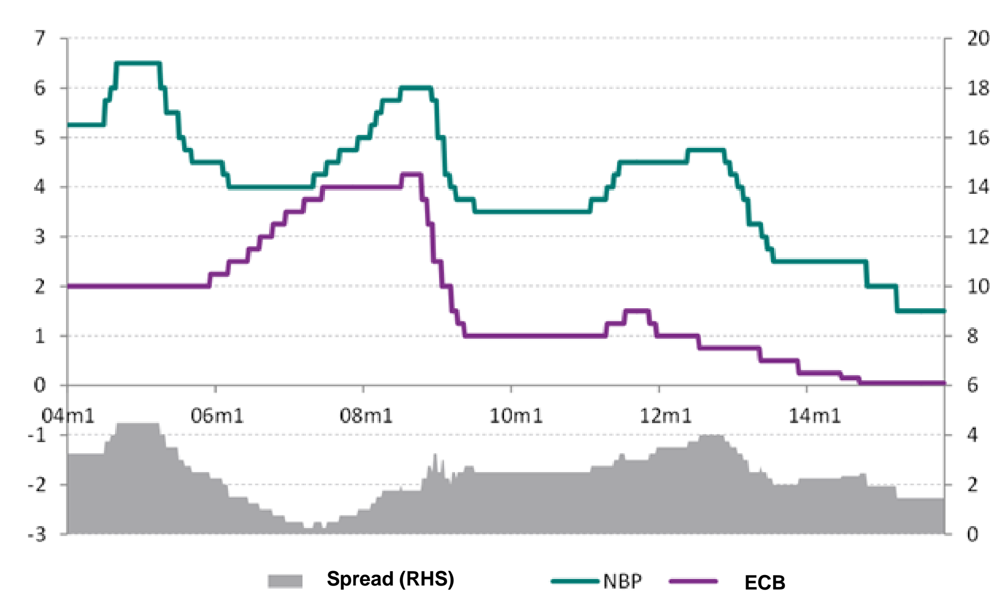
Note: Unit Labor Costs (ULC) are applied as deflators to the REER calculation.
Source: NBP.

Figure 5 suggests that the impact of the depreciated currency was a prolonged one: until 2015 the REER of the zloty remained below its 10-year average. Such a long period of currency depreciation in real terms points out, however, that other factors must have played a role in shaping it. How it happened, and why we show the REER computed using ULC indices, will become clear only when we move to structural issues, in particular labor market developments (covered in subsection 5.2).

Returning to the 2008 developments, one must note (as shown in Figure 6) that directly before them, the NBP policy rate again reached elevated levels (in June the reference

rate was raised to 6 per cent), increasing the disparity with the ECB's one. This was clearly the effect of the overheating economy as the central bank made attempts to cool it down and control inflation at the 2.5 per cent CPI target. With the unfolding of the global financial crisis, the NBP, in line with other central banks, started to cut its rates. Nonetheless, the disparity with ECB rates continued increasing until 2013. During the whole 2008+ period, however, NBP interest changes followed the general pattern of the ECB's while continuously remaining above the latter. Thus, to a large extent it was a similar development to that observed in the 1930s (Table 3)[31]. This should not be entirely surprising as in both historical episodes Poland had to import financial capital while being a peripheral, only building her international reputation, country[32].

Figure 6. The NBP and the ECB main policy interest rates, 2004-15



Note: NBP – reference rate; ECB – refinancing rate.

Source: Bloomberg and NBP.

Another important piece of information provided by Figure 6 is that, contrary not only to the ECB but also various other central banks of the developed world, the NBP rates remained well above zero all the time. In March 2015 its reference rate was cut to 1.5 per cent

[31] Because of the theme of this paper we talk in more detail only on the 1929+ and 2008+ events. It must be stressed (as partly reflected in Table 3 and Figure 6), however, that Polish central banks' interest rates were also in the pre-crises years above that of its peer central banks.

[32] In other words, several factors (shortage of capital, the risk premia,…) resulted in her higher natural (or neutral) interest rates than in many other countries. See for example Brzoza-Brzezina (2006; 2011:49-64).

(remaining at this level until the end of 2016). Thus, similarly as was the case of the Bank Polski in the interwar years, during the global financial crisis and its aftermath NBP rates reached its lowest point since the beginning of transition (1989). This was achieved, however, by a more flexible policy as evidenced by the frequency of interest rate changes[33]. Nevertheless, in the area of interest rates the NBP did not resort to unconventional decisions such as negative nominal rates.

Essentially the same can be said about its other monetary policy tools. After the shock resulting from the Lehman Brothers collapse, the NBP attempted to introduce some unconventional instruments under a program entitled "confidence package" (already approved in mid-October 2008). Similarly to many other central banks' actions of that time, this plan aimed at providing additional liquidity to the banking sector (by extra repo operations, FX swaps and lowering reserve requirements[34]). All this, however, proved to be largely pointless (probably with the exception of FX swaps which supplied foreign denominated liquidity[35]). This was because the Polish banking sector, since the start of post-communist transition, was characterized by a permanent state of macroeconomic excess of liquidity (Polański 1994)[36]. As a result, the role of the NBP was to absorb the surplus liquidity by selling its own debt instruments (money bills).

At the time of the crisis, thus, Polish banking sector enjoyed a "liquidity cushion". Attempts at supplying additional domestic liquidity met with mixed reaction of banks, proving largely futile. Consequently, in the course of 2010 most of these actions were already reversed and the reserve requirements returned to its previous level of 3.5 per cent. Not surprisingly, in January 2011 this was accompanied by a start of NBP's interest rates increasing cycle (which had begun a few months before the ECB's – see Figure 6).

To sum up: in the period 2008+ there was no need for the NBP to move in the uncharted territory of unconventional decisions. On the one hand, the floating exchange rate proved to be an excellent instrument stimulating Polish exports (see Figure 8 in subsection 5.1) and promoting growth. On the other hand, inflation rate developments and economic expansion resulting from these strong exports and some other (particularly consumption) components of aggregate demand did not call for a very deep reduction of interest rates while

[33] From the autumn of 1929 until September 1939 the Bank Polski changed its policy rate merely 8 times, while from the autumn of 2008 until the end of 2015 the NBP did it 22 times.

[34] In 2010 also by adding a new refinancing credit scheme.

[35] On Polish experience with FX swaps see for example Allen (2013:152-7).

[36] The main reasons for it being foreign exchange interventions conducted by the NBP until mid-1999 and, afterwards, the inflow of EU funds.

the banking sector enjoyed ample domestic liquidity, basically without the need for additional central bank involvement. Therefore, while exchange rate depreciation supplied a strong stimulus to the economy, the same cannot be said of the interest rate policy. Given the circumstances, the latter per se did not provide a stimulus resulting in an additional demand expansion. While being significantly more flexible than in the 1930s, in the 2008+ period interest rate policy was also of accommodative nature.

4.2. Fiscal policy

In both episodes under consideration Poland faced fiscal deficits. Taken at face value, this similarity can be highly misleading, though. This is particularly true when we look at budgetary developments from the perspective of fiscal stimulus creation which should counteract economic slowdown and recession.

During the 1930-5 span Poland's state budget was a deficit one. Before that period (but only from 1926) it showed surpluses, while afterwards modest positive balances. See Table 4.

Table 4. Polish state budget: Yearly changes of revenues and expenditures, and balance to expenditure ratio, 1928-38 (per cent)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Revenues	8.6	0.7	-9.2	-17.8	-11.5	-7.0	8.5	0.5	9.2	9.7	1.7
Expenditures	11.2	5.4	-6.0	-12.3	-9.0	-0.6	3.2	1.5	-5.3	8.9	1.9
Balance/Expenditures	5.9	1.2	-2.3	-8.4	-10.9	-16.6	-12.3	-13.1	0.2	0.9	0.7

Notes: (1) The fiscal year runs from 1 April until 31 March. The dates refer to the starting calendar year. (2) In 1934 the national loan is excluded from revenues.
Source: GUS (2012:497).

The nominal size of the state budget (both revenues and expenditures) peaked in 1929. It can be estimated that in the observed year the ratios of revenues and expenditures to GDP amounted to 11.7 per cent and 11.5 per cent respectively[37]. The yearly rates of growth of revenues and expenditures started to decline already in 1928, the pace of reductions being larger in the case of revenues. Consequently, a budget deficit appeared in 1930. It reached its

[37] Among the available estimates of Polish GDP for 1929 we use the one suggesting its largest size, computed by M. Kalecki and L. Landau (also by C. Klarner). For various estimates of Polish GDP in the interwar period see GUS (2012:526).

largest nominal value in 1933, which was an equivalent of 16.6 per cent of that year's budgetary expenditures and of 1.6-1.7 per cent of the estimated national income[38]. In terms of expenditures, it was above 10 per cent for four consecutive years (1932-5).

The speed of reductions of budgetary revenues and expenditures declined in 1932, however, it was only two years later when the growth rate of the former surpassed that of the latter, and initially only temporarily. From 1936, a clear trend of stronger growth of revenues than of public spending became evident, impeding further deficits formation. The growth of the nominal size of state budget continued; however, it did not reach the late 1920s dimension. But with a much lower price level (Figure 2) its size in terms of GDP increased considerably. For example, in 1937 the ratios of budgetary revenues and expenditures to GDP were higher by 3 percentage points (p.p.) than in 1929 (14.7 per cent and 14.6 per cent respectively[39]).

Likewise as in the case of other countries, changes in Poland's state budget were closely linked to her macroeconomic developments (subsection 2.1). Clearly, deepening recession and deflation led to lower revenues, and the appearance and expansion of fiscal imbalances. Contrary, however, to many other countries' practice – especially of those that left gold at some point of time[40] – and suggestions made in economic literature (e.g. Keynes 1933:349[41]), Poland actively fought for balanced budgets and finally, after 1935, managed to return to them.

All Polish governments during the 1929-35 crisis aimed at balancing state accounts (Knakiewicz 1967:206; Landau and Tomaszewski 1985:99-100). This was to be achieved by both spending reductions and revenue increases. Initially, more emphasis was laid down on outlays cuts; the first of them took place already in the 1929 budget and referred to investments (in state enterprises), the given rationale being the capital outflow from the European markets (Knakiewicz 1967:235). In the following years (until 1935), public investments were further reduced making them an irrelevant item in the state budget. Salaries

[38] Again, we use here the estimates providing the largest nominal GDP as computed by the authors mentioned in the previous footnote. The actual ratio of the deficit to GDP was probably higher as the government tried to hide budgetary deficits by means of creative accounting (Knakiewicz 1967:236-8). Furthermore, taking into consideration the whole public sector, one must stress that local governments (as a subsector) also often showed deficits (GUS 2012:500-1).

[39] The 1937 GDP as estimated by the Polish Central Statistical Office (GUS 2012:526). See also Jezierski and Leszczyńska (2001:336).

[40] It must be stressed, though, that these countries enjoyed modest fiscal shortages when looked from today's EU standard of the 3 per cent of fiscal deficit to GDP ratio. For more see Almunia et al. (2010). See also Romer (1992; 2009).

[41] Also M. Kalecki, at that time still an unknown economist, already in 1932 hinted to resort to fiscal deficits (Kalecki 1932a/1979:80-1).

and jobs in the public sector were cut in several steps, especially as concerns civil servants and teachers; public pensions were also reduced. On the revenue side, taxes were increased, albeit in a selective manner. The latter refers in particular to some direct taxes so that not to demotivate additionally the business sector[42]. Indirect taxes were expanded and their rates increased. The final tax increase during the crisis took place in the autumn of 1935 when the income tax rate was raised.

As a result of all these actions tax burdening increased considerably (Knakiewicz 1967:219-222). Despite this, the national government and local governments had to use additional sources to finance their spending, and therefore their indebtedness significantly enlarged, mostly the domestic one[43]. Using available estimates of national income for 1936, the public sector debt to GDP ratio can be estimated at 23.1-26.1 per cent while the national government's debt alone at 18.6-20.8 per cent (GUS 2012:501 and 526).

Regardless of the existence of budget deficits (and implied public debt), and even taking into account the aforementioned tax initiatives to act selectively, it cannot be said that fiscal policy had provided a macroeconomic stimulus to Poland's development during the crisis period. Fiscal deficits were above all an outcome of recession (Figure 1) and deflation (Figure 2). Increasing tax burden and cutting budgetary outlays obviously did not help in expanding national spending. On the contrary, Poland's fiscal policy of that time was a contractionary factor in the sense that it reduced the badly needed domestic demand. In fact, thus, it had a procyclical, deflationary impact.

While the budgetary situation of the 1930s cannot be considered as providing a macroeconomic fiscal stimulus aiming at smoothing the business cycle, we had a considerably different state of affairs during the 2008+ period. See Table 5.

Table 5. Polish public sector: A general overview, 2007-15 (per cent of GDP)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Revenues	41.3	40.9	38.0	38.1	38.8	38.9	38.4	38.9	38.9
Expenditures	43.1	44.5	45.3	45.6	43.6	42.6	42.4	42.2	41.5

[42] In 1933 tax breaks to stimulate housing investments were also introduced.

[43] Notwithstanding the new foreign loans obtained during the 1930-5 period, Poland's external indebtedness in zloty terms declined until WWII (GUS 2012:501). This was mainly possible because of the devaluations of the pound sterling (1931), the US dollar (1933), and other currencies (see Table 2).

Balances:									
- Actual	-1.9	-3.6	-7.3	-7.5	-4.9	-3.7	-4.0	-3.3	-2.6
- Primary	0.3	-1.5	-4.8	-5.0	-2.3	-1.0	-1.5	-1.4	-0.8
- Structural[a]	-3.5	-5.1	-8.1	-8.2	-6.0	-3.9	-3.4	-2.8	-2.4
Debt[b]	44.2	46.6	49.8	53.3	54.4	54.0	56.0	50.5	51.3
Memo: Output gap[a]	3.1	2.8	1.5	1.4	2.3	0.4	-1.2	-1.0	-0.5

[a] As a percentage of potential GDP.

[b] Stock of gross debt (end of year).

Notes: European System of Accounts 2010. General government sector (national government, local governments and social security funds).

Source: European Commission (2015:109; 2016a:35; 2016c:107 and 109).

Table 4 presents Polish public sector's incomes and outlays, three basic measures of fiscal balances: actual (or financial), primary and structural, as well as gross debt developments. Each of these items is related to actual GDP with the exception of the structural (or cyclically adjusted) balance which refers to potential GDP. The latter balance estimates what the actual balance would be, had output been at its potential level (i.e. nil output gap was in place). It provides, thus, an information on the impact of government's discretionary decisions on fiscal balance, as opposed to the impact resulting from the functioning of the so-called automatic stabilizers (Bènassy-Quéré et al. 2010:163).

All public sector balance measures clearly show that during the 2008+ period a strong fiscal stimulus was provided to the economy. Contrary to the 1930-5 period, expenditures had been increasing until 2010 (as a part of constantly growing, both in real and nominal terms, GDP – see Figures 1 and 2). What is more, during the 2008+ crisis the ratio of revenues to GDP declined while in the first half of the thirties it increased as nominal GDP at that time declined faster than budgetary revenues.

The fiscal impulse took place in the whole 2008-15 period, however, from 2011 it clearly started to moderate. This was not only because the macroeconomic situation became less challenging, but also because in July 2009 Poland was again subject to the EU's Excessive Deficit Procedure (EDP)[44]. The new EDP was closed only in mid-2015, after two

[44] It is worthwhile to recall that the previous procedure had been finalized only a year earlier (July 2008).

extensions (initially it was supposed that the deficit would be corrected by 2012). Hence, despite pressure for fiscal austerity, Poland, similarly to some other EU countries[45], prolonged her relatively lax fiscal orientation. It was only in 2014 that the structural balance, as mentioned above – the measure of the discretionary component of fiscal policy, was reduced below 3 per cent[46].

Likewise in 2014, Poland's ratio of gross debt to GDP abruptly fell and remained reduced during next year. This was due to the reorganization of the pension system which, among others, assumed a major transfer of funds from private open pension funds to the Polish Social Insurance Institution (see for example Polański 2014:172-3)[47].

How was the fiscal stimulus engineered and managed? The answer is provided by data in Table 6 and the following it information.

Table 6. Polish public sector revenues and expenditures: Selected items, 2007-15 (per cent of GDP)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Tax burden[a]:	34.6	34.4	31.4	31.1	31.6	31.9	31.9	32.1	32.4
- Indirect taxes	14.5	14.5	12.9	13.6	13.7	12.9	12.8	12.8	12.9
- Direct taxes	8.3	8.4	7.2	6.7	6.7	6.9	6.8	6.9	6.9
- Social contributions	11.9	11.4	11.3	10.9	11.2	12.1	12.4	12.3	12.7
Social benefits[b]	14.1	14.0	14.5	14.5	13.8	13.9	14.4	14.3	14.3
Compensation of employees	10.4	10.9	11.1	11.0	10.5	10.3	10.4	10.4	10.2
Fixed investment[c]	4.5	4.8	5.1	5.6	5.8	4.7	4.1	4.5	4.4
Memo: Average tax burden in:									
- EU-28	38.4	.	37.5	37.5	37.9	38.6	39.0	39.1	39.0

[45] Such as for example France, Greece, Hungary, Portugal or Spain (Chrzanowski 2015:148).

[46] If such budget balance is corrected for the one-off and other temporary measures, then in 2014 it reached only -2.6 per cent of potential GDP; in 2013 by this measure it amounted to -3.4 per cent (European Commission 2016b:172). The cyclically adjusted balance corrected for the one-off and other temporary measures is currently considered by the European Commission as the main indicator for the assessment of a country under the Stability and Growth Pact (Mourre et al. 2013).

[47] For a much broader picture of this development see, however, Bielawska et al. (2015).

- *Euro area (19 countries)*	38.9	38.5	38.1	38.0	38.5	39.6	40.0	40.3	40.3

[a] Defined as the sum of revenues from indirect taxes ("taxes on production and imports"), direct taxes ("current taxes on income and wealth"), and social contributions ("actual social contributions"). Figures may not add up due to rounding.

[b] Social transfers other than in kind.

[c] Gross fixed capital formation.

Notes: As in Table 5.

Source: European Commission (2015:107; 2016c:83, 107 and 123).

First of all, let us note that the tax burden to GDP ratio in Poland, contrary to her pre-war experience and many other EU countries[48], visibly declined. From 2007 until 2010 (the lowest ratio) it decreased by 3.5 p.p., increasing slightly thereafter, but at the end of the studied period being still lower by 2.2 p.p. than at its beginning.

In Poland, during the 2008+ episode, there were no massive tax increases as in the 1930s, albeit some taxes were raised. For example, in 2011 the Value Added Tax (VAT) rate was increased: the standard rate from 22 per cent to 23 per cent, and the reduced rates from 3 and 7 per cent to 5 and 8 percent respectively. This was not unusual in the EU at that time. However, despite increases of VAT rates in most EU countries, Poland's VAT standard rate continued to be above average (in 2015 the simple average for the EU-28 was 21.6 per cent, while for the euro area it was 20.8 per cent) (Eurostat 2015:140-1).

A different picture emerges when the Personal Income Tax (PIT) is considered. In Poland, its top statutory rate was reduced in 2009 from 40 per cent to 32 per cent while the average for the whole EU since that year oscillated around 38-39 per cent (in 2015 – 39.3 per cent) and the euro area around 39-42 per cent (in 2015 – 42.1 per cent). As for the other direct tax, the Corporate Income Tax (CIT), in Poland it has remained flat at 19 per cent since 2004. In both the EU and the euro area the top statutory CIT rates, however, declined, being nonetheless continuously above Polish rate (in 2015 the simple average for the EU was 22.8 per cent, while for the euro area – 24.6 per cent) (Eurostat 2015:142-5).

[48] See the last two rows in Table 6. In that period strong declines in tax burden-GDP ratios took place in Ireland and, particularly, Spain (see European Commission 2016c:19 and 27).

All in all, during the 2008-14 period the effective average tax rates for the corporate non-financial sector in Poland remained basically unchanged at 17.5 per cent[49] while both in the EU and the euro area their averages slightly declined (to 21.1 per cent and 22.8 per cent respectively) (Eurostat 2015:146). However, taken together both indirect and direct taxes as a ratio of GDP considerably declined in Poland: from 22.8 per cent in 2007 to 19.8 per cent in 2015, that is by 3 p.p. (Table 6).

The last revenue item in Table 6 refers to social contributions. They increased slightly during the covered time frame but actually only since 2011. This development should be above all linked with mounting financial tensions in the social security arrangements which, among other, resulted in the already mentioned 2014 reform of the pension system. Given constantly higher social payments (benefits) than inflowing social contributions, the government made increasing attempts to improve compliance with social security regulations. Since the start of the decade, this activity was additionally motivated by the increase of the unemployment rate, which – as we already know – topped in 2013 (see subsection 2.1).

Public sector employees compensation remained broadly stable as a fraction of GDP. During the time span covered by Table 6 there were no cuts in nominal salaries as it happened in some EU countries at that time or in Poland during the 1930s. However, attempts were made to control increases in nominal salaries and the number of positions. Both of them were frozen (in the context of the EDP implementation) and, as the data suggests, these attempts were relatively successful.

Finally, Table 6 shows that, contrary to the 1929-35 policies, public fixed investments played a major role in Polish government's outlays. In fact, their growth was an important factor behind the 2007-10 expansion of public spending and the fiscal stimulus. We are witnessing here, however, two developments. The first one, of a longer nature, must be linked to Poland's accession to the EU (May 2004) and the resulting inflow of structural (and other) funds. This is clearly confirmed by the data: while in 2003 the ratio of public fixed investments to GDP was of only 2.8 per cent, in 2007, after an uninterrupted growth, it reached 4.5 per cent. In subsequent years, this ratio further increased but declined in 2012-3, reaching afterwards approximately the level of 2007.

Hence, obviously, there was a second development taking place, but of a shorter nature, i.e. lasting only until 2011. This additional investment expansion resulted from the organization by Poland (and Ukraine) of the 2012 European football contest (UEFA European

[49] In 2008 (as in the previous year) it was of 17.4 per cent.

Championship or Euro 2012). The decision to co-host these tournaments was taken in mid-April 2007, i.e. just before the US subprime crisis erupted. Again, evidently, Poland was lucky in terms of timing. In terms of the total impact on Polish economy too: it was estimated that all forms of outlays related to these games may have caused (during the 2008-20 period) an increase in the real GDP by 1.4-2.7 per cent of its total 2009 volume (Borowski et al., 2011).

4.3. Stabilization policies: Summing up

The conclusions from our analysis of stabilization policies during both eras under review are succinctly presented in Table 7.

Table 7. Main features of Polish stabilization policies during 1929+ and 2008+ periods

	1929+	2008+
Framework	Gold Exchange Standard (practically until April 1936)	Fiat money
Monetary policy		
- Interest rate policy	Accommodative: No stimulus	More flexible, but accommodative: No stimulus
- Exchange rate policy	No devaluation/depreciation: No stimulus	Strong depreciation: Stimulus
Fiscal policy	Restrictive (despite temporary fiscal deficits): No stimulus	Temporarily considerable fiscal deficits: Stimulus

Source: Author's compilation.

The analysis so far has shown that in the dimension of cyclical policies, two very different approaches were followed, largely explaining the differences in macroeconomic performance underlined in subsection 2.1. In the 1930s, Poland refrained from stimulating aggregate demand by monetary and fiscal policies. During the 2008+ period the situation was considerably different: both policies (in the case of monetary policy - the exchange rate behavior) provided macroeconomic stimuli.

What were the reasons for such diverging policy approaches?

The answer to this question is not that obvious if we take into account that both historical episodes were preceded by strong inflationary processes (1923 and 1989-90) and long disinflation policies (1924 reforms and the 1927-30 stabilization plan in the case of the

first episode, and policies implemented until 2003 in the case of the second one). In both periods memories of high inflation and harsh stabilization policies were still very vivid, precluding the government and the central bank from an abrupt policy adjustment.

Obviously during the former period inflation memories must have been more intense as the 1923 hyperinflation was much stronger than the 1989-90 inflation episode. Also the time span separating these two inflationary events and both crises was different. However, the dollarization of the Polish banking system was administratively abolished only in 1934, as a result of the devaluation of the US dollar in the preceding year (Karpiński 1958:125-28; Knakiewicz 1967:149-50). After the collapse of communism, the de-dollarization proceeded very quickly (Reinhart and Rogoff 2009:194-5), although even today a part of Poland's banking system deposits remains in foreign currencies[50]. Inflationary fears, therefore, must have been present in both episodes – not only among the society as a whole, but also among its political elites. However, as just has been said, the time span from high inflation and stabilization (disinflation) to the outbreak of the crises was much shorter in the first case than in the second one.

Besides the political situation (in particular the international context), as stressed in subsection 2.2, was very different. Consequently, the authorities of the newly reborn Poland stick to the pervasive mentality of the gold standard (Eichengreen and Temin 1997) and followed very orthodox financial policies in order to get "a good housekeeping seal of approval", which was instrumental in attracting foreign capital at reasonable cost (Bordo et al. 1999; Wolf 2007a, 2007b). As mentioned earlier, the capital was in short supply while demand for it was growing as the WWII approached. Under these circumstances, the pre-war authorities delayed decisions to make a serious macroeconomic policy regime change in line with the one that had allowed other countries to recover quickly from the Great Depression (Eichengreen and Sachs 1985; Temin and Wigmore 1990; Romer 2014). Instead, Polish authorities adhered to the pre-war gold standard as long as possible; and only in April 1936 unwillingly (and temporary in intention) introduced currency controls, therefore implementing at best a partial regime change in its macroeconomic policy. Accordingly, the policy framework continued to be very rigid.

This was not the case in the 2000s. The rigid stabilization policy framework implemented at the start of the 1990s under the Balcerowicz plan, which allowed reducing the high inflation rate, evolved during the decade towards a quite flexible regime (as epitomized

[50] At the end of 2015 they still amounted to 8.3 per cent of M3 or 9.5 per cent of total bank deposits.

by a freely floating exchange rate). Consequently, the system could act as a shock absorber; at the same time the fiscal authorities followed non-dogmatic policies, which also proved flexible. Therefore, contrary to the prewar experience, the early post-communist transition macroeconomic policy regime in Poland evolved towards a flexible one before being struck by the 2008+ external shocks.

As we shall see in the next section, Poland was also relatively well prepared for these shocks in the structural dimension of her economy. And, again, this was not the case in the 1930s.

5. Structural developments in Poland and the crises of 1929 and 2008

In this section we move to structural developments resulting from both authorities' structural policies and spontaneous processes (i.e. coming from private economic agents initiatives). As suggested in section 3, we will analyze these developments under four headings: (1) product markets, (2) labor markets, (3) financial markets, and (4) industrial and investment policies.

To answer our two main initial research questions we look now at different causes, mostly supply-side in nature, contrary to the demand-oriented stabilization policies discussed so far. On the one hand, this will supplement the number of factors behind Poland's developments in both historical episodes. On the other, the analysis currently to be provided will offer an additional dimension to some of the issues touched upon until now. We will evaluate various developments in terms of flexibility (or rigidity) of market structures, stability of the markets, and the activity of the state in relation to these markets.

Before moving ahead, it is also important to note that during the second of the analyzed episodes, Poland was a member country of the European Union. Using the official EU accession terminology, she was, thus, "a functioning market economy" with "the capacity to cope with competitive pressure and market forces within the Union" (European Council 1993). Therefore, before the 2008+ events, her regulations were compatible with the EU standards, promoting the "four freedoms" underlying the concept of the European single market, that is, the free movement of goods, the free movement of persons, freedom to provide services and free movement of capital (Treaty of Rome 1957, Art. 3). In other words, at the time of the crisis, Poland's product, labor and financial markets' regulations together with industrial and investment policies were in principle in line with these of the other EU countries. Hence, we feel exempt from analyzing in detail Polish regulations in place, especially where they were fully compatible with the EU requirements. However, since in the

interwar period market standards were internationally decisively less homogenous, in what follows we will have to put some emphasis on characterizing the Polish ones.

5.1. Product markets

For the purpose of this paper, we define product markets' policies as broadly understood competition and trade policies, both internal and external, typically regulations, including fiscal instruments (taxes, duties, subsidies, etc.), which provide additional incentives to economic agents' behavior. As the impact of domestic and foreign, competition and trade, regulations is usually interlinked, let us analyze internal and external developments together.

One of the crucial features of industrial organization in the interwar Poland, similarly as in many countries of that time (Fear 2006:12), was her high cartelization. Likewise as in the area of stabilization policies in the 1920s, she was implementing business practices and regulations largely analogous to that in place in most Western countries. In this context, it is worthwhile stressing that both top Polish economists of that period, although coming from different schools of thought, namely O. Lange and M. Kalecki, strongly emphasized the role of cartels in the crisis prolongation and depth (Lange 1931; Kalecki 1933). This comes as no surprise since at the peak time, i.e. around 1935, the cartels controlled approximately 60 per cent of the total Polish industrial output (Landau and Tomaszewski 1985:92 and 1989:131-2).

Cartelization is largely a spontaneous process resulting from market forces which shape business behavior. Given their impact on competition, prices and output, cartel practices have been in the realm of European governments' policies following WWI (Fear 2006:11-2). In the case of the interwar Poland, cartel policies were, however, not entirely consistent. On the one hand, the government saw the cartels as an instrument of economic policy aiming at promoting certain public goals, while on the other, taking into account publicly voiced opinions resulting from cartels' behavior negative externalities, attempted occasionally to restrict their activities (Zweig 1944:104).

In the second half of the 1920s the Polish government increasingly promoted cartels[51] on the ground that they can smooth the business cycle (Kalecki 1932b/1979:84) and help in exports expansion (Zweig 1944:104; Landau and Tomaszewski 1985:65-6). In particular, during the Great Depression, cartels were encouraged to conduct dumping policies. As Kalecki (1931/1979:51) put it "the cartelization of the internal market is a prerequisite here",

[51] According to Battaglia (1933) already in 1929 38.6 per cent of Polish industrial output was produced by private cartels (while the remaining 24.2 per cent and 37.2 per cent by state monopolies and non-cartel private companies respectively).

i.e. for such policies. We will see in a moment (Figure 7), nonetheless, that its impact on export development during the Depression was limited. However, as dumping had to be ultimately financed by domestic agents, its influence on prices was considerable since internal prices became significantly higher than the export ones (although both declined with worldwide deflation; for Poland see Figure 2). Table 8 suggests that in the middle of the Depression, the latter declined by more than 20 p.p. than the former as compared to the pre-crisis situation.

Table 8. Domestic and export prices' indices of goods produced by Polish industry, 1928-34 (in percent, 1928 = 100, and percentage points)

	1929	1930	1931	1932	1933	1934
1. Domestic prices	2.7	-0.1	-9.3	-19.1	-27.6	-30.7
2. Export prices	-0.9	-15.5	-29.7	-41.0	-45.6	-48.6
3. Difference (1-2)	3.6	15.6	20.4	21.9	18.0	17.9

Source: Kalecki and Landau (1935/1988:339-41).

The implementation of higher domestic than export prices by cartels (and some other monopolistic-type arrangements in place) led to a pronounced phenomenon of "price scissors" (or the "scissors effect"), i.e. a product market wedge resulting from the terms of trade between the agricultural and industrial sectors[52]. This in turn led to strong distributive consequences deeply disfavoring the rural population. It was estimated, assuming the value of 1 for 1928, that in the 1934 Poland the ratio of agricultural to industrial prices declined to 0.52, increasing slightly thereafter (in 1936 this ratio reached 0.59 and in 1938 – 0.66) (Orczyk 1981:582).

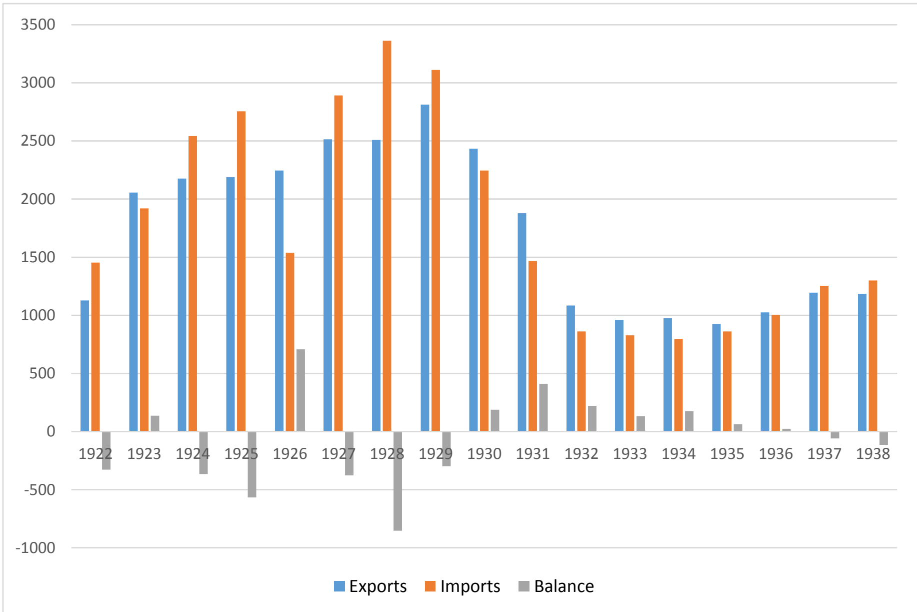
Of course, such price developments produced additional social discontent and a reaction of the government which decided to start controlling cartels' policies. For that purpose, at the end of March 1933, Cartel Law became effective which was amended two and a half years later giving the government power to dissolve cartels. Consequently, in 1936-7 the number of cartels in Poland declined, although usually it was the smaller ones which were dissolved (Landau and Tomaszewski 1989:131). However, in 1938, as part of the new economic policies and the drive towards militarization (see subsection 5.4), the number of

[52] See more, although in the context of a communist economy setting, in Lin and Yu (2008) and Cheremukhin et al. (2013, 2015). On the "price scissors" phenomenon in Poland see also Knakiewicz (1967:66-70).

cartels increased again. Nonetheless, it is worthwhile stressing that the Polish government made serious legislative attempts at de-cartelization; this was not always the case – for example in Italy, the Mussolini's governments promoted cartelization in an uninterrupted manner during the entire interwar period well into WWII, with special emphasis in the 1930s decade (Binda and Perugini 2015).

In the 1930s cartels' development, as in many other countries at that time, was intrinsically linked to trade protectionism which in Poland started in early 1931 (Leszczyńska 2013:303). The Great Depression brought a worldwide decline in foreign trade; in Poland it resulted in a trade surplus from 1930 (see Figure 7).

Figure 7. Trade balance: Poland, 1922-38 (million zlotys)



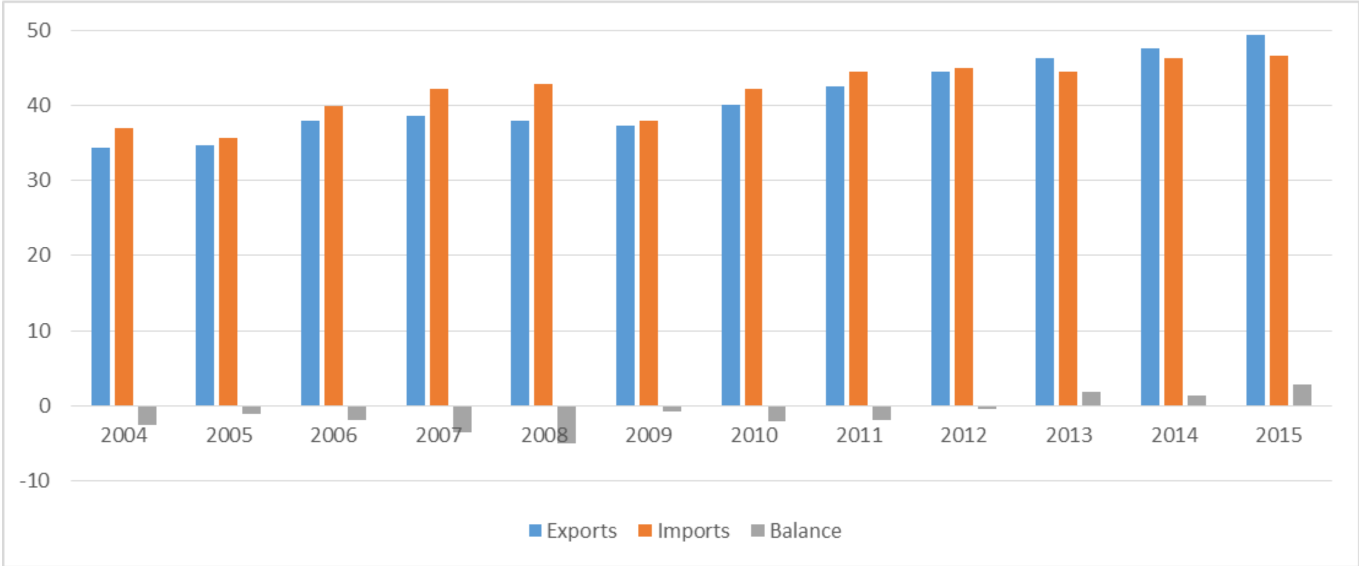
Note: The 1927 parity of the zloty is applied throughout the period.
Source: GUS (2012:470).

Obviously, the trade surplus (which vanished in 1936) was the effect of the recession as strongly declining domestic demand reduced, among others, the volume of imports. The decline of the nominal value of imports was, however, accompanied by a decline in the value of exports. Since the central bank faced an outflow of foreign capital and declining reserves (Table 1), and the terms of trade (until 1932) were for Poland unfavorable (GUS 2012:296), the subsequent governments had a strong motivation not only to restrict imports, but also to force exports. As already mentioned cartels were considered a useful tool to this end. One can say that the wide use of cartels and extensive trade protectionism (together with the foreign

exchange controls implemented in the spring of 1936) were to a large extent a substitute for the passive stabilization policies followed by Poland until the outbreak of WWII (see section 4).

After the fall of communism in Poland at the end of the 1980s, the product markets' developments followed a very different route. Since the 1990s she has been promoting free trade and flexible market structures in line with EU regulations (common market, customs union). Given her strong growth, also Poland's foreign trade volume expanded considerably – see Figure 8.

Figure 8. Trade balance: Poland, 2004-15 (as per cent of GDP)



Note: Foreign trade (of goods and services) in terms of national income statistics (European System of Accounts 2010, current prices).
Source: Eurostat website (accessed on 27 June 2016).

As can be seen in Figure 8, Polish exports and imports as a ratio of her GDP substantially increased since she joined the EU[53]. Only in 2009 a decline in foreign trade took place. Afterwards these ratios continued rising again. In this growth context, different to the 1930s

[53] Actually this development was taking place since the early 1990s. For example, but based on the European System of Accounts 1995, in 1995 the ratio of exports to GDP was of 23.2 per cent while for imports of 21.0 per cent (Eurostat data; for more see Polański 2014:181).

recessionary one, a new trend has clearly emerged: in 2013 Poland has started to enjoy trade surpluses (in terms of national income statistics[54]).

Can these developments in Polish foreign trade be explained by product markets' policies alone? Obviously not. Certain role was played here by mostly positive terms of trade. An important factor was also the exchange rate depreciation, as discussed in subsection 4.1. It was hinted there that for the real effective exchange rate, labor markets' developments were of major importance. We move, thus, to these latter issues now.

5.2. Labor markets

Let us begin the next structural topic by recalling our earlier remarks on unemployment, made at the time of the initial overview of macroeconomic developments and answering the question if it makes sense to compare both crisis' periods in Poland (section 2). We observed there that there are important measurement problems when trying to compare unemployment rates across time. It was stressed that in the period between the world wars Polish society had been still a predominantly agrarian one, with extensive chronic underemployment for which no statistics are available, while after WWII her society became an industrialized one. At the time of the 1929+ and 2008+ crises she faced major joblessness problems, however, because of what just has been said, unemployment rates are impossible to compare precisely, although there is no doubt that during the first period they were much higher that during the second.

Below our remarks will be centered around two main issues, largely of a spontaneous nature. First, on the mostly quantitative aspect of the problem of international migrations. Second, on the qualitative problem of labor costs evolution.

The common characteristic of both eras under study is that in the interwar period as well as since 1990 emigration had a powerful downward influence on unemployment in Poland. Table 9 provides some information on migrations from and to Poland during the period of 1926-38.

Table 9. International migrations, Poland: 1926-38 (thousands of persons)

	1926-30	1931-5	1936-8
1. Emigration	964.1	229.3	286.1

[54] We stress this because both statistics based on customs information and payments (balance on goods) information are not that clear cut, although they also point out to an improving Polish foreign trade balance in recent years. However, only in 2015 these two balances became positive as well.

2. Returns of migrants	459.7	232.5	178.1
3. Net emigration	504.4	-3.2	108
3.1 As per cent of total population[a]	1.6	-0.01	0.3

[a] For the first two time spans, total Polish population as of the census of 1931 (32.1 million) is taken into account, for the third span – an estimate for 1938 (34.8 million).

Note: Total emigration, i.e. both temporary (seasonal) and permanent.

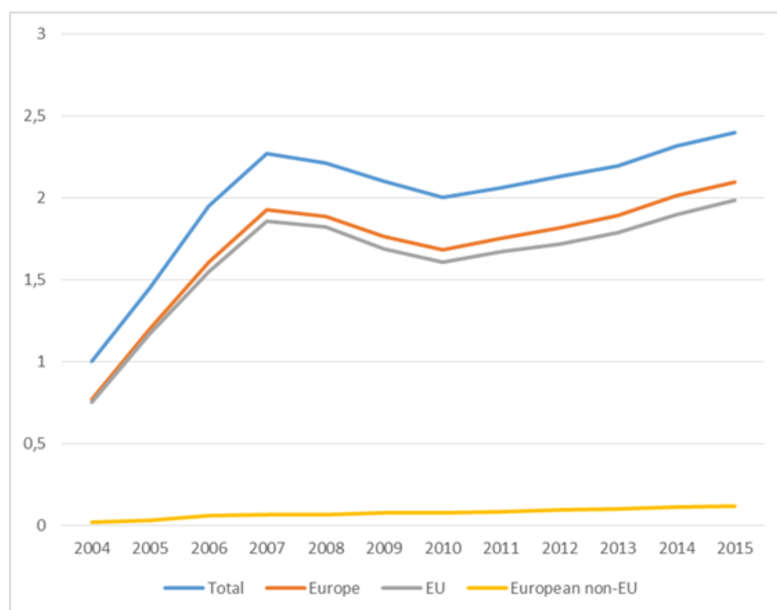
Source: GUS (2012:124 and 127).

Paradoxical, at first glance, may be the observation that during the first sub-period shown in Table 9, i.e. in the pre-1929+ crisis period, emigration was at its highest level. During the 1926-30 sub-period, of which the years 1927-9 are considered to be the best time in the interwar years not only in Poland, the net emigration surpassed 1.5 per cent of her total population. In the next sub-period (1931-5), the years of the depression, returns of migrants exceeded the size of emigration, i.e. on balance an inward movement of persons took place. In the third sub-period (1936-8), net migration became positive again, although on a much lower level than in the first of the three time spans.

This time pattern of migrations, though paradoxical as it may initially look, was not that unusual, especially in Europe. In the 1930s, the trends of the earlier decade were reversed, as a consequence of the impact of the Great Depression which resulted, among others, in the rise of restrictions on entry, clearly reducing the size of migrations (Eichengreen and Hatton 1988:44).

Since Poland joined the EU we can observe, broadly speaking, a somewhat similar pattern of emigration flows. See Figure 9.

Figure 9. Polish temporary emigration, 2004-15 (millions of persons)



Note: Estimates of number of Polish citizens temporary out of the country at the end of the year.
Source: GUS (2016:3).

While Table 9 referred to both permanent and temporary (seasonal) emigration, Figure 9 talks only of temporary migrants, defined as persons with permanent residence in Poland being abroad for above two (until 2006) or three (since 2007) months. Stressing temporary emigration in this case seems to be a correct approach as currently, or more precisely – since Poland joined the EU, her citizens are taking advantage of the possibility of emigration to other EU countries mainly because of pay differentials[55]. (Although it is obvious, that at a certain point of time some of the temporary job contracts will turn into permanent ones, implying also a permanent residence.) It is not surprising then that during the highest uncertainty of future work-related developments, i.e. in the years 2008-10, Polish emigration to the EU declined (and returns of migrants increased), implying a total emigration reduction. Figure 9 clearly shows that while emigration to the EU declined over these years, this was not the case of other (non-EU European) destinations[56]. Since 2011, Polish emigration to the EU has started to increase again while continuing growing vis-à-vis European non-EU countries.

[55] It seems that in the interwar period also other factors, by seriously limiting life prospects, motivated emigration (i.e. causes like just sheer lack of jobs, underemployment, domestic political reasons, and an unclear – from the point of view of some minorities living in Poland – general situation in Europe in the second half of the 1930s).

[56] According to Polish Central Statistical Office data (GUS 2016:3), in the latter group of countries Norway was the chief destination for Polish temporary migrants.

Until recently the total population of Poland was of 38.5 million; thus, for example, the number of temporary emigrants at the end of 2014 constituted 6.0 per cent of Polish population. Clearly, emigration had an important impact on Polish unemployment rate, evidently reducing its size, especially until 2007 and again since 2011 (see Figures 3 and 9). However, the effect of these migrations cannot be restricted to their impact on unemployment only.

As mentioned, the main incentive for the temporary emigration has been the pay factor. The incomes earned by migrants, as it is usually the case with temporary ones, have been largely transferred to Poland[57]. Since she joined the EU, remittances considerably increased, giving an additional boost to the economy. According to the balance of payments statistics, remittances flowing into Poland almost doubled in 2004 (as compared to the previous year) and were estimated at 2.3 billion euro (i.e. they amounted to 1.1 per cent of her GDP of that year); in the top 2007 they reached 5.3 billion euro (1.7 per cent of GDP), and thereafter gradually declined to 3.9 billion (0.9 per cent of GDP) in 2015 (for more details on remittances flowing to Poland see Chmielewska 2015).

Thus, the impact of emigration on the economy was twofold – on the supply of labor and the size of remittances. Taken together, however, this impact rather deals with the creation of domestic demand as emigrants do not only generate remittances but also, by leaving the country, reduce their demand there[58]. But what about the impact of labor market developments, not only of migration, on the supply side of the production process, as implied by our analytical framework (section 3)? To answer this question we have to move to more qualitative problems, namely, the relationship between nominal wages and productivity changes; in short – to the issue of unit labor costs (ULC). In both periods under discussion, ULC dynamics were of major importance although they had different time patterns, different sources and different effects.

[57] This was probably to some extent the case in the interwar Poland as well, although we lack proper data to fully back this claim. From subsection 4.1 we know, however, that insufficient reserves of gold and FX were a major problem for the central bank, and this motivated the government to search for their other sources, migrant funds included. Consequently, for example, in 1929 the government established a new bank (Bank Pekao S.A.) whose mission was to take care of finance of the Polish diaspora around the world (estimated at that time at 8 million persons).

[58] Of course output as well, assuming they were to be employed somehow.

For the interwar period, data on ULC evolution is very limited, and in fact we can rather talk of approximations to the ULC concept[59]. In Table 10 we show available estimates of ULC changes during most of the 1930s crisis in Poland.

Table 10. Unit Labor Costs: Polish industry, 1928-34 (in per cent, 1928 = 100)

	1929	1930	1931	1932	1933	1934
1. Workers	8.7	6.6	-3.0	-10.4	-20.8	-25.4
2. Administration and technical staff	8.7	25.2	26.5	28.6	10.2	0.6

Note: Estimates based on data referring only to part of Polish industry (although a major one).
Source: Kalecki and Landau (1935/1988:347-8).

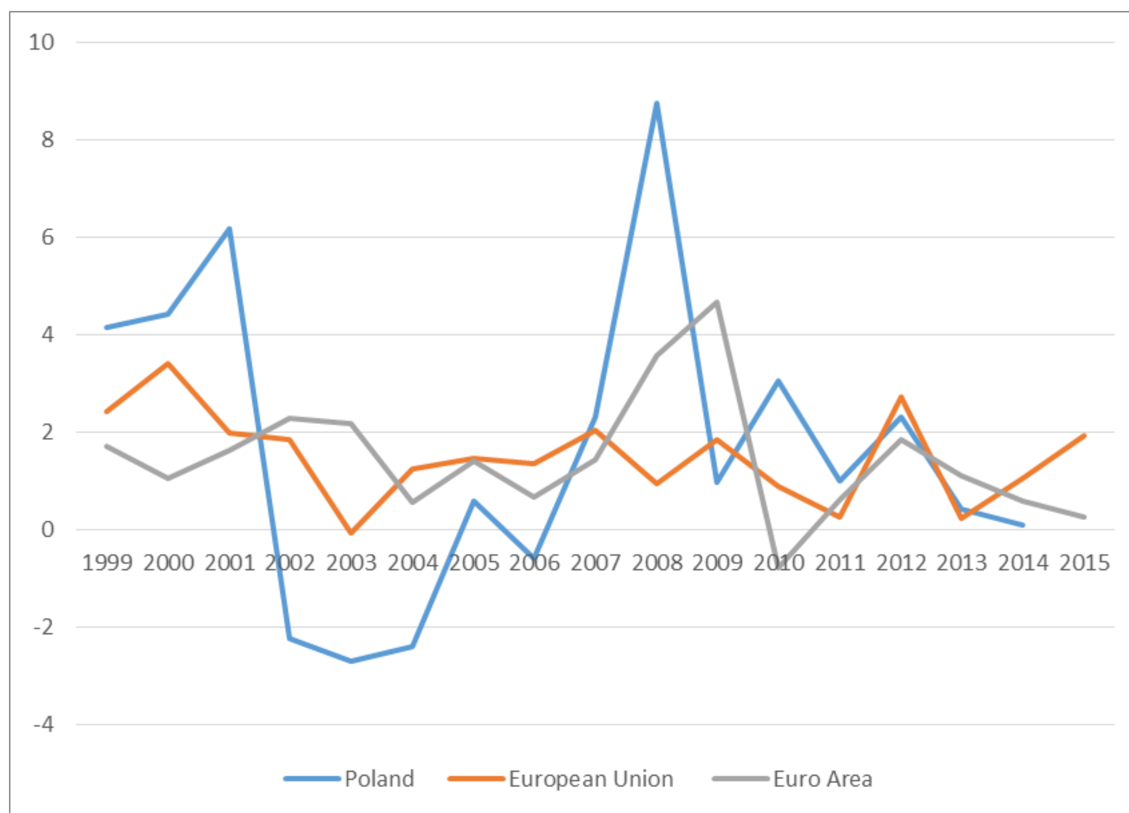
We can clearly perceive from Table 10 that the decline in the volume of industrial production (recession), which in terms of full years lasted in Poland from 1930 until 1932 (see Figure 14 in subsection 5.4), had a profound impact on ULC levels. The Table shows that ULC index for workers was declining from 1930 until the end of the covered period; as concerns administration and technical staff their ULC started to decline later (only in 1933), but remained above the 1928 level. Such trends of declining ULC during recession and deflation are not surprising as the reduction of output was accompanied by declining nominal wages (and of course rising unemployment)[60]. What may be disturbing is that the ULC decline lasted at least until 1934, while recession in Polish industry statistically ended two years earlier. Cartels, and other monopolistic-type associations, obviously tried to control the levels of their profits during stagnating production and deflation (see subsection 4.1). The main observation here is, however, that ULC changes in the first half of the 1930s followed and resulted from recession, and prepared the ground for the expansion of Polish industry in the second half of the decade (Figure 14).

During the 2008+ crisis period, in fact since the beginning of the decade, the pattern of ULC changes was sharply different. Let us have a look at Figure 10 now.

[59] When analyzing current ULC issues, we use OECD data. On this institution definition of the ULC see note to Figure 10.

[60] According to data quoted by Eichengreen and Hatton (1988:16 and 21-22), after the *International Labour Review* (1939, No 40), in Poland weekly hours of work in industry declined by 7.6 per cent in 1932 (bottom year) as compared to 1929, while nominal hourly earnings in mines, industries and transport reached their nadir in 1936, being lower by 30 per cent than in 1929 (in real terms it meant, however, an increase of 22 per cent).

Figure 10. Unit Labor Costs: Poland, the European Union and the euro area, 1999-2015 (annual change, per cent)



Note: ULC are for the overall economy, and are defined as the average total labor cost per unit of output produced (for more see OECD 2016:74).
Source: OECD database (accessed on 2 November 2016).

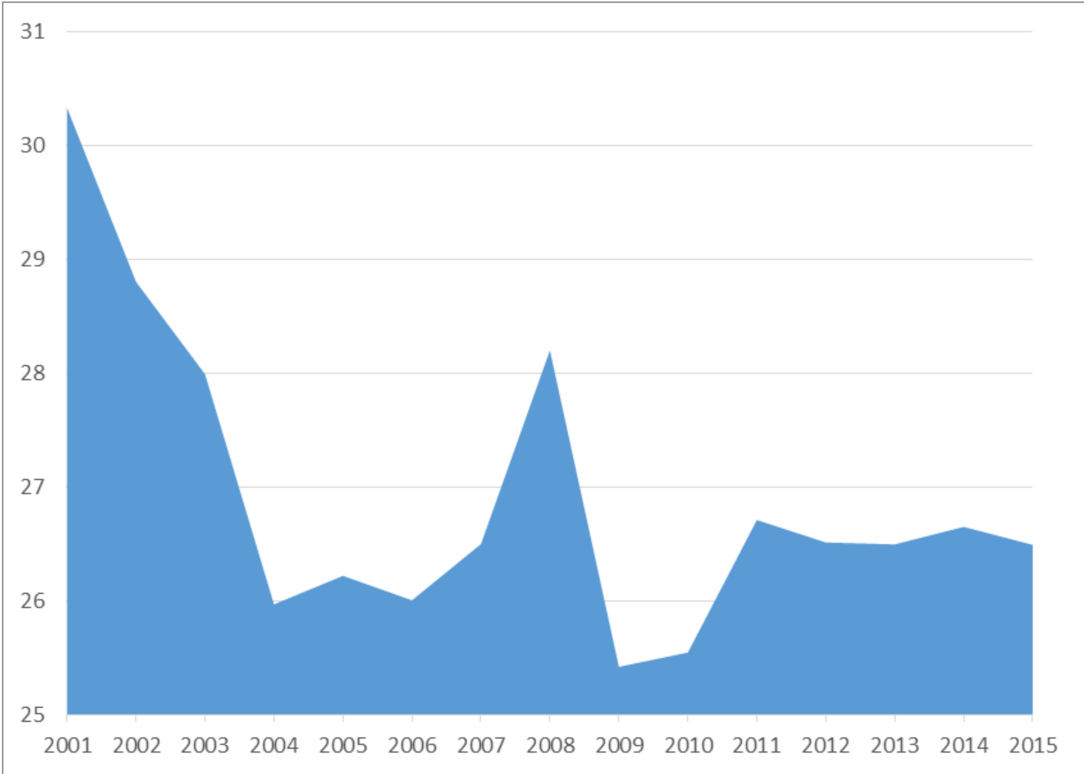
As concerns the time pattern, in the 2000s ULC development was very different from that observed in the first half of the 1930s. Figure 10 demonstrates that ULC in Poland strongly declined before the 2008+ events, more precisely during 2002-6; on average, throughout the 2001-7 period, annual decrease of Polish ULC was of 0.8 per cent, the second largest, after Japan, among the OECD countries. Afterwards, during 2007-8 they strongly increased, but subsequently their increases were very moderate; throughout 2009-14 annual increase of Polish ULC was 1.4 per cent (OECD 2016:75).

In this context of ULC changes it is important to note that labor costs in Poland were all the time one of the lowest in the EU: according to the Eurostat, in 2014 they were of 8 euros per hour, the third lowest in the Union, the average for the whole group being 22 euros. Such low labor costs in Poland resulted mostly from her relatively low productivity as compared to the bulk of EU countries.

As for the sources of the ULC decline during 2002-6, they are only partly linked to the business cycle logic (which was the case after 1928) and they were largely of a spontaneous nature.

In the late 1990s Polish economy faced large imbalances, and since the start of the new decade restrictive stabilization policies were implemented which resulted in a pronounced economic slowdown and a squeeze of the wage fund (Figure 11). As shown in Figure 3 the unemployment rate reached very high levels (20.0 per cent in 2002) and only slowly declined afterwards. This reduction of joblessness was not only due to the revival of the economy, but also resulted from the emergence of a dual labor market in the framework of existing regulations, holding low ULC[61] and the wage fund in check.

Figure 11. Ratio of the Wage Fund to GDP: Poland, 2001-15 (in percent)



Note: the wage fund is defined as total gross wages and salaries in the economy (without national defense and public safety budgetary entities ones).

Source: GUS website (accessed as of 2 November 2016).

[61] There were other factors contributing to the low ULC in Poland (both levels and increases) as well, but we do not discuss them here. The most important among them have been the lack of formal, automatic indexation in Poland, low trade union participation and a relatively high structural unemployment rate. For more see, for example: ECB (2009:16-21 and 34-36) and NBP (2013:53).

The duality of the Polish labor market resulted from a strong expansion in the 2000s of employment based on "atypical" contract forms, which have been much more flexible than the traditional permanent (open-ended) labor contracts. These flexible contract forms are of two basic types: fixed-term contracts (regulated by the Labor Code) and so-called "civil contracts" (regulated by the Civil Code). The latter lack many of the benefits which are typically associated to the Labor Code contracts; for example, in the extreme case of so-called "contracts for a specific task", the employee is not even entitled to the usual benefits like social security, health insurance, holidays or the minimum wage requirement[62]. This atypical contract forms, statistically labeled as "temporary employment", dramatically increased in the 2000s; according to the Eurostat, in 2012 Poland temporary employment was the highest among EU countries, in fact at about the double of EU average (Gatti et al. 2014:12).

Finally, as concerns the effects of ULC dynamics in the post 2008+ period one must stress two issues. First, purely economic. Second, of social nature. In both cases they are linked to the fact that thanks to the development of the atypical labor contracts forms, Polish labor market became much more flexible.

From the purely economic point of view the increased flexibility stabilized Polish ULC at low levels allowing for a strong depreciation of the REER (Figure 5), which clearly promoted Polish price competitiveness and exports expansion (Figure 8), largely explaining while Poland did so well during the crisis period. In fact, one can claim that by increasing the flexibility of her labor market and maintaining the ULC in check, she de facto restructured her labor market in anticipation of the 2008+ events, making the economy largely immune to the external shocks.

However, this developments look quite differently when the social aspects are taken into account. True, Polish unemployment declined and was much lower than in other EU countries during the crisis period because of more flexibility in employer-employee relations. As many, especially young people, did not accept low wages and the flexible labor market conditions, the latter in fact contributed to increased emigration, which in turn further stimulated the decline of unemployment (and an inflow of remittances).

All this said one must also observe that the increased flexibility of the labor market generated social cohesion problems and society's discontent, especially that wages continued to be a decreasing part of GDP (Figure 11). This contributed to another paradoxical situation: in the middle of the current decade, the social mood in large parts of population deteriorated

[62] An overview of employment arrangements in Poland and the benefits linked to them can be found for example in Arak et al. (2014:4-6) or Gatti et al. (2014:13-7).

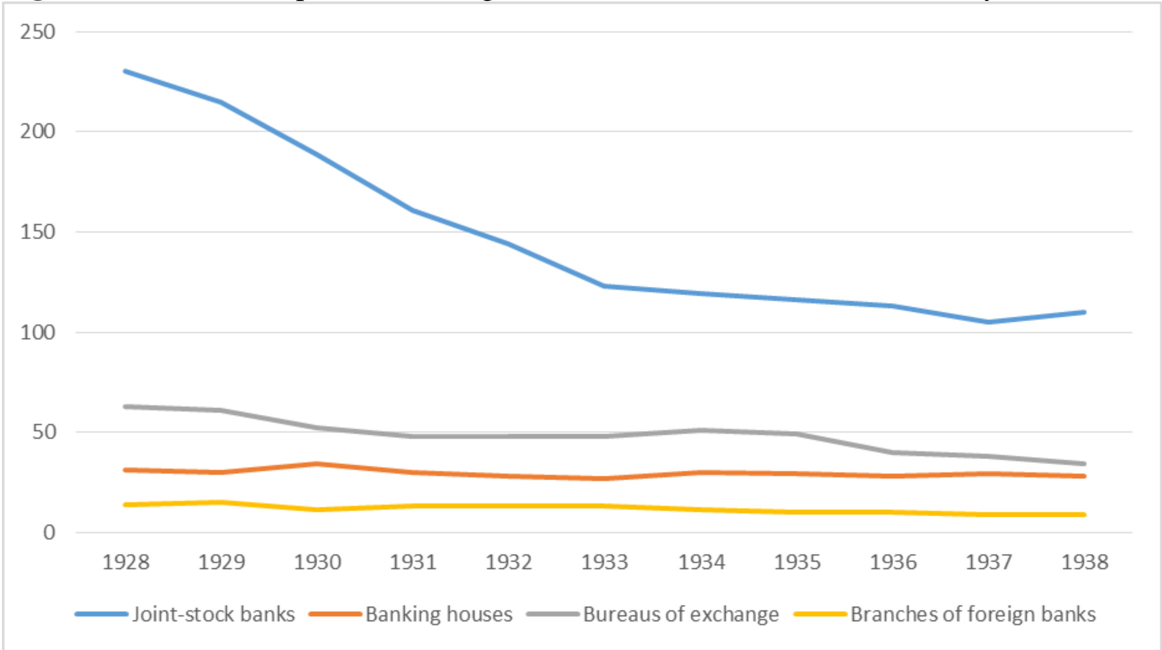
while Poland being at the same time by and large a successful economy which passed with relative ease the turbulent 2008+ period.

5.3. Financial markets

Compared to many other countries during both analyzed episodes, Poland did not suffer very strongly from financial crises. In the 1929+ period clearly less than in the well-known cases of the United States or Austria and Germany, while in the 2008+ period virtually not at all. What are the reasons for these largely divergent, from the dominant international crises' pattern, developments?

Let us start with a look at the changes in the number of institutions composing the Polish private banking sector in the 1930s – see Figure 12.

Figure 12. Number of private banking institutions: Poland, 1928-38 (end of year)



Note: Joint-stock banks encompass both their headquarters and branches.

Source: Morawski (1996:127).

From 1929 the number of private banking institutions in Poland clearly declined. Surprisingly, however, it can be observed in Figure 12 that 1931, the year of "disastrous" events for European banking (Kindleberger 1973:146-70; Allen 2013:158-172), does not seem to be of particular importance for the contraction of the number of her banks. Although, the collapse of Austrian and German banks caused in Poland a "real panic" and a serious decline of deposits in private banks (Zweig 1944:115; Landau and Morawski 1995:365), in

1931 the number of Polish private bank headquarters remained unchanged (at 50, declining only since 1932), while the number of foreign branches actually increased (from 11 to 13, and remained unchanged at this level until 1933). Right, the number of Polish banks' branches (shown in Figure 12 together with their headquarters) had been declining since 1929[63]. The number of remaining private financial institutions gradually declined too, especially of bureaus of exchange in the second half of the 1930s (which should be attributed to the introduction of foreign exchange controls). Thus, similarly to many other countries, Polish private banking institutions were touched by the crisis, however, its impact is somewhat moot.

Why the 1931 European banking crisis was not particularly strongly felt in Poland? The literature suggests two explanations, partly overlapping. The first one is that in the interwar period Polish private banking was on a constant downward trend, after 1935 mostly because of political causes (Zweig 1944:117-8). The second one stresses that in Poland the really relevant banking crisis (together with a currency one) took place in 1925 and afterwards, as a result of a largely spontaneous process, the number of banks continued shrinking, making the year 1931 not a very special one in terms of bank failures (Morawski 1996:123-4).

Before going further it is important to mention again that Figure 12 shows only the development of private banking institutions. Thus, public banks are absent there. Contrary to private ones, usually relatively small, the latter strongly developed during the crisis[64]. For example, public banks' role in the deposit market increased from 54.4 per cent at the end of 1930 to 80.3 per cent at the end of 1936, to slightly decrease in the subsequent two years (reaching 72.6 per cent at end 1938) (Landau and Tomaszewski 1989:396).

Actually the entire interwar period in Poland was characterized by a gradual rise of public banks at the expense of private ones, the main underlying reasons being the unstable economic and political situation, and the scarcity of domestic capital (Zweig 1944:114-9; Landau and Morawski 1995:358 and 372). The 1929+ crisis clearly accelerated this trend. It also speeded up due to the behavior of foreign investors which withdrew from Poland in the course of the 1930s. Figure 12 shows that the number of foreign banks' branches declined (from 15 in the top 1929 to 9 units at the end of the period). When looked from the ownership

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[63] In 1929 the number of bank branches declined by 12 units, in 1930 by 25 units while in 1931 by 28, however, the following year only by 14 units.

[64] Giving their exact number is, however, a little bit tricky. In the 1930s public banks among others included a small group of large state banks with many branches (over 30 in total), communal banks (around 4), communal savings banks (over 300), a network of entities linked to the postal service, and so on (GUS 2012:502). It is also worthwhile remembering that Bank Polski also provided short-term loans to the private sector (see next footnote).

capital stock structure perspective the situation is essentially the same: while in 1930 the role of foreign investors in the total capital of joint-stock banks was of 33.3 per cent, in 1935 this ratio lowered to nearly 25.0 per cent (Morawski 1996:142).

The underdevelopment of private banking in the interwar Poland was also the result of the role of public policies which, despite occasional ideological objections, favored a statist approach to economic development not only in the second half of the 1930s (more on this in the next subsection)[65]. In this context it is worthwhile stressing that the activities of lender of last resort were not performed by the Bank Polski. Poland in the interwar period followed the Austro-Hungarian tradition under which the central bank concentrated on the issue function, while rescuing commercial banks in trouble was the domain of the government and domestic public banks (Morawski 2012:218). In the case of Poland the latter task was performed by the powerful Bank Gospodarstwa Krajowego (National Economic Bank), which above all specialized in long-term investments in industry and municipalities. Needless to say that such institutional solution helped the government to influence private banks, in some cases making them state-controlled while preserving their joint-stock company legal status[66].

Private banks specialized in providing short-term credit to businesses. As could be expected, during the Great Depression their balance sheets contracted substantially. In 1936 they were (nominally) smaller by almost a half than in 1929 (GUS 1939), resembling a credit squeeze, which was, however, counteracted by public banks[67]. Private banks' credit activity recovered starting from 1937, but the following year they still supplied only 25.6 per cent of all short-term credits, while in 1929 their participation in this stock had been of almost 50 per cent (Landau and Tomaszewski 1989:404).

In any case Poland did not suffer from massive bank failures in the 1930s as only small private banks collapsed and no major bank went bust. Although similarly as in other European countries, trade on the stock exchange in Warsaw crashed in the early 1930s and

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[65] Concerning private banking three examples can illustrate this point. First, the already mentioned (in subsection 4.1) fact that the important factor shaping the market interest rates level was a legal one (the anti-usury law). Second, the promotion from 1926 (until WWII) by the government of a Warsaw bank cartel with the aim to lower the deposit rates (Morawski 1996:85-88). Third, the fact that the Bank Polski was extending short-term loans to the non-banking private sector, with a tendency to increase, its share in total short-term banking credit reaching approximately 14 per cent (Zweig 1944:118; Karpiński 1958:160-5).

[66] For example, since 1935 this was the case of the oldest (established in 1870) and one of the largest Polish private banks between world wars, in operation until today, the Bank Handlowy w Warszawie S.A. (Landau and Tomaszewski 1989:398).

[67] In line with such activity in 1933 the government established a new bank (Bank Akceptacyjny S.A.) focusing entirely on short-term credit conversion, especially of rural non-performing loans.

was depressed during the first half of the decade (Knakiewicz 1967:84), on balance we can only talk of moderate financial instability at that time.

Even though one may have doubts if during the 1929+ crisis Polish financial system can be characterized as preserving macroeconomic stability, it was obviously a stable one during the 2008+ episode. Similarly as in the 1930s, there was some turbulence accompanied by a decline in the Warsaw stock exchange trading; and – as discussed (subsection 4.1) – a strong depreciation of the zloty in the currency market took place at the end of 2008. These events signaled a withdrawal of foreign investors; but there were no failures of financial institutions. The first ones took place only in 2014-5 and referred to small cooperative banks with no international exposition[68]. In one case, in 2015, the central bank had to act as a lender of last resort and provided liquidity support (NBP 2016b:35). Given also an efficient deposit insurance scheme in place (non-existent in the interwar period), these failures had no impact on financial system stability.

Against this background, once more, a familiar question in this paper arises: how was it possible? Why was financial instability in the 2008+ Poland avoided, contrary to the experience of so many other countries?

Leaving aside the macroeconomic factors (above all the stabilizing role of the floating exchange rate, the excess liquidity of the banking sector, and the FX swaps provided by the central bank), the answer from the financial sector perspective to this question can be stated in the following way.

First, despite its strong development before EU accession[69], modernization included (Polański 1995 and 2002, Pietrzak et al. 2008), the financial system in Poland continued to be an unsophisticated one compared to that of developed countries. Derivative markets were still in their infancy, securitization was inexistent and, consequently, phenomena like shadow

[68] When talking about cooperative banks in current Poland two types of institutions should be distinguished. First, mostly the rural and small business oriented banks (their roots in the cooperative movement of the XIXth century, some of them operating uninterruptedly during the communist period). Second, mostly the urban ones (US-type credit unions, expanding in Poland since the first half of the 1990s). Both groups have separate legislation and have had problems of their own. However, since the start of the century until 2013, similarly as the rest of financial institutions in Poland, they showed stability.

[69] In the middle of the first decade of the XXIst century the structure of the Polish banking system stabilized. It can be characterized as moderately, below the EU average, concentrated (Pawłowska, 2014 and 2016). At the end of 2008, the Polish financial system was composed of the following commercial institutions (in parentheses number of units and their role in sector's assets): commercial banks (67, 68.3 per cent), rural and small business cooperative banks (582, 5.4 per cent), credit unions (62, 0.7 per cent), insurance companies (66, 9.8 per cent), investment companies (39, 5.4 per cent), open pension funds (14, 9.8 per cent), and brokerage houses (59, 0.6 per cent). (Source: NBP (2016a:13 and 16)). The total bank sector assets to GDP ratio has been all the time below 100 per cent.

banking did no develop. Thus, the main economic reasons for the high fragility of modern financial markets were in Poland almost non-existent at the time of the 2008 crisis.

Second, the banking (and insurance) sector in Poland during transition was to a large extent developed and modernized thanks to the inflow of foreign capital at the time of its privatization (which took place essentially in the 1990s). What is crucial here, however, is that in the process foreign investors became owners of banks which continued operating on Polish law. From the legal point of view, thus, even with full or majority ownership they continued working on the basis of domestic regulations, and consequently did not become branches of their institutional owners. If the latter were the case, it would imply (under the EU law and the concept of so-called “single passport”) that they would be monitored not by Polish supervisors but the local authorities supervising their headquarters.

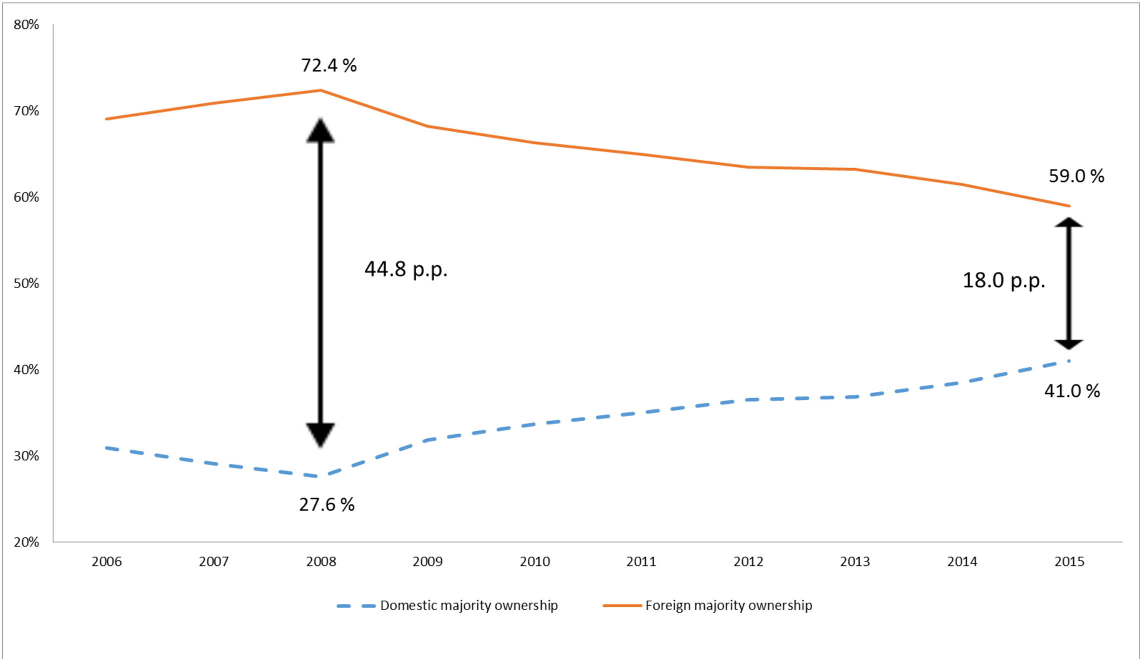
Third, such a situation allowed for a coherent and timely (or even anticipatory) introduction of financial regulations and their restrictive implementation. As many countries before the 2008 events, Poland faced a credit boom and similarly to the situation of many emerging (or transition) economies these credits were often foreign denominated (let us recall that interest rates in Poland have been permanently higher than in most other countries). Therefore, in the first decade of current century, bank loans denominated mostly in Swiss francs and euros, usually mortgage credits, quickly grew creating a potential for a major financial stability problem. This was quickly noticed and already in 2006 a first regulation (the so-called recommendation “S”) was issued by the bank supervisor which curbed the expansion of foreign denominated loans. This regulation was several times amended making it increasingly restrictive and in the beginning of 2010 it was supplemented with another one (so-called recommendation “T”) which obliged banks to follow more conservative policies with respect to all types of credit granted to households (Marszałek and Janc 2016:214-7). Such regulations reduced the expansion of domestic loans and, consequently, the following bust was much less painful than in many developed and transition countries (in the second group let us mention for example Hungary, Romania or Ukraine).

Restrictive regulatory actions were also temporarily implemented at the time of top worldwide financial turbulence. As mentioned, the development and modernization of the Polish financial system during transition was to a large extent instrumental on foreign investments. Thus, a major part of her banking system became foreign-owned (as of the end of 2008 above 70.0 per cent of total Polish bank sector assets originated in institutions with foreign majority ownership – see Figure 13). In order to reduce the impact of international turbulence on the Polish banking system her supervisory authorities enforced temporarily a

regulation (once again in the form of a recommendation) that in 2009 prevented a major outflow of dividends from Poland (KNF 2009). Consequently, that year an effective freeze on capital transfer from domestic to foreign banks was implemented and only 13 per cent of profits were paid out as dividends (while in the preceding five-year period it was on average of 50.0 per cent)(Brzoza-Brzezina et al. 2016:21-2).

Obviously the transmission of foreign shocks through the banking sector could not be entirely prevented and, similarly as in the 1930s, the role of foreign investors in the sector gradually declined. See Figure 13.

Figure 13. Changing ownership structure of banks: Poland, 2006-15 (end of year) (per cent of total banking sector assets)



Source: NBP data base.

The process observable in Figure 13 was until certain point of time to a large extent a market driven, spontaneous one. However, some observers claimed that foreign-owned banks operating in Poland had behaved procyclically during the crisis (e.g. Kawalec and Gozdek 2012:11). Consequently, in the last two years covered by the Figure, the government promoted changes leading to an increase in the role of Polish private investors. As a result, two medium size banks with foreign majority ownership moved to the group of institutions with domestic majority ownership.

Summing up: the effects of the 1929+ and 2008+ crises were clearly visible on Polish financial markets. In neither case, however, they destabilized the entire financial system. In the 1930s a clear destabilization took place in the private banking sector, but it was accompanied by the growth of stable public financial institutions. Thus, at that time we cannot talk of an overall macroeconomic financial destabilization, at worst of a subsector's destabilization. During the 2008+ period the situation was better, much better. Due to several, shortly discussed above, overlapping reasons, the financial system showed remarkable stability. As suggested by some researchers, it was one of the systems best combining financial development with economic growth worldwide (Sahay et al. 2015:16 and 22).

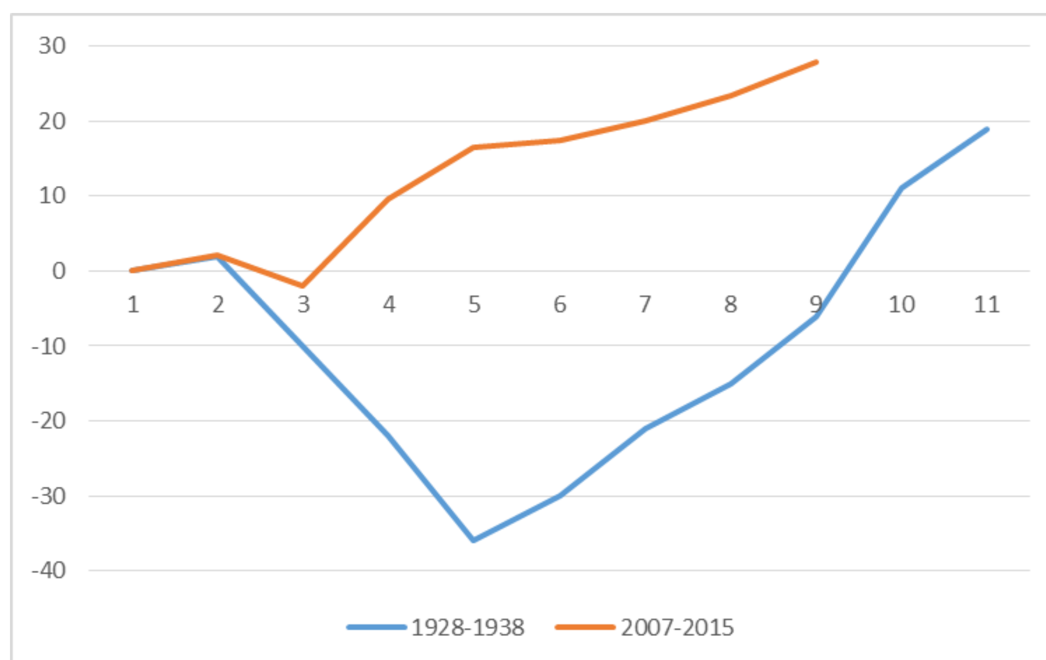
5.4. Industrial and investment policies

So far, when analyzing the three markets (product, labor, financial), our central concern has been, on the one hand, on economic policies understood as implementing regulations shaping agents' behavior, while on the other, on agents' spontaneous actions. Nonetheless, stressing the importance of regulations does not entirely cover the role of the state in influencing structural developments in an economy. We refer now to economic policies such as industrial and investment policies, geared mostly to changing the productive (supply) side of an economic system in order to accelerate its expansion. Such policies were implemented, not only in Poland, in the second half of the 1930s, but also to some extent during the period following the 2008+ crisis.

First, however, let us have a closer look at real industrial output changes in Poland in both periods under consideration. See Figure 14.

Figure 14. Industrial production: Poland, 1928-38 vs. 2007-15

(per cent, 1928 and 2007 = 100)



Source: GUS (2012:379) and Eurostat website (accessed on 28 June 2016).

Figure 14 summarizes industrial developments in the studied eras. The Figure is to some extent complementary to Figure 1 as both show essentially similar trends, however, also some differences are clearly discernible. One minor difference is that Figure 14 covers one additional year in the case of the first period. A major dissimilarity between the two Figures is that industrial output changes are more pronounced than national income ones, the difference resulting from the role of other sectors in national income creation; in particular, in the prewar period, from the dominating role of agriculture. Consequently, in Figure 14 the declines of industrial output are not attenuated by other sectors. Therefore, we can observe from it, that industrial production dropped much more than national income in the first period under analysis and that in 2009, at least as concerns the industrial sector, Poland was really touched by the external shock.

What is, however, common to these two Figures is the visible acceleration of both national income and industrial production growth from a certain point in time, in the case of the 1930s from 1936, while in the second case since 2014. Figure 14 suggests that national income growth was essentially due to the expansion of the volume of industrial output. Let us look then at industrial policies, and underlying investment policies, to shed some additional light to these growth developments.

As already mentioned (subsection 5.3), in the interwar years, Polish economic policy in practice favored a statist approach, even before the outburst of the Great Depression. This was visible not only in banking, but also in industry – at the start of 1927 approximately 12 per cent of the whole national wealth was owned by the state (Zweig 1944:108, after Kruszewski 1931) with some industries fully (e.g. aviation) or almost fully (e.g. merchant marine) state-owned. The reason for this pronounced role of the state was the aforementioned shortage of private capital and the absence of armament industry, since Poland had not inherited any from the partition period (Wolf 2007a:14). The most important state investment project, focused on changing the economic structure, through developing the transport system and both maritime and naval industries, was the harbor and adjacent city of Gdynia. It was started from scratch just after WWI, its construction accelerated after 1926, so that in 1934, Gdynia became the largest port in the Baltic sea in terms of freight.

The case of Gdynia was a unique example of a major structural activity of the government until 1935. In fact, from the start of the crisis until then, the government only tried to alleviate its impact by curbing the cartels (internal) price behavior and reduce the "price scissors" phenomenon, over time (since 1933) also by promoting public works and such initiatives as tax breaks in housing construction (subsection 4.2) (Knakiewicz 1967:247-301).

The real breakthrough came only in 1936, i.e. much later than in many other countries. The newly appointed Deputy Prime Minister for economic affairs and Treasury Minister, Mr. E. Kwiatkowski, earlier the main driving force behind the Gdynia project, promoted further industrialization through public investment and the expansion of state ownership. Thus, domestic supply (and obviously demand) expanded in the framework of a four year (1936-40) investment plan, and a simultaneously implemented six year (1937-42) plan for the development and modernization of the Polish armed forces. In this context the main investment effort was concentrated on creating, again almost from scratch, an economic zone called Central Industrial Region, placed in the confluence of rivers Vistula and San[70].

These development and military initiatives were implemented under a balanced budget, accommodative interest rate policy, and a fixed exchange rate (section 4). Hence, it was "neither Kaleckian, nor Keynesian style economic intervention program" (Beksiak et al., 2003:21). The additional finance was supplied by (public) banks, the Bank Polski (which in 1939 started a fiduciary issue), by other types of internal loans, and – in the case of the

[70] An English-language reader can find more information on the Central Industrial Region, for example, in Zweig (1944:77-82), and Landau and Tomaszewski (1985:117-26).

defense sector – by a French loan, obtained in late 1936. (Moreover, we should recall here (see subsection 4.1) that strict currency controls were also imposed in 1936.) As a result the share of investments in national income increased from 10.7 per cent in 1935 to 13.2 per cent in 1937 (GUS 2012:527), being this mostly industrial investments, although – as stressed – both for domestic and military purposes.

The post-1935 rapid economic expansion visible in Figures 1 and 14 was to a large extent motivated by these actions. However, one should not forget that other important forces were at work too. Two of them must be signaled. First, world's cyclical improvement taking place since 1933. Second, Polish ULC further declined; according to Kalecki (1939/1980:65), in both 1936 and 1937 ULC in Polish industry were lower by 40 per cent than in 1928.

As an outcome of the above structural interventionism, the role of the state in the economy expanded further and Poland became a largely directed (or managed) economy. In 1939 the share of state ownership in the Polish economy reached 15-20 per cent (Roszkowski 1981:164), while state enterprises and with state capital participation produced 25-30 per cent of total industrial output (Jezierski and Leszczyńska 2001:310).

What were the final results of all these developments in the second half of the 1930s? Of course, they can be easily dismissed by arguing that the described efforts were in vain, the final corollary being that during WWII Poland lost her independence in a few weeks' time. It is also true that Polish state's intervention in the economy expanded later than in other countries. One should remember, however, that the economic plans were only partially introduced since they were interrupted by the outbreak of the war. As a matter of fact, at the end of the 1938 another, this time a 15-year plan (1939-54), aiming at a deeper change of the economic structure, was made public[71].

More important is the observation that the structure of the economy was partly changed towards an industrial one as a result of the investment effort; for example, the employment structure of the society was altered, slightly, but visibly: while in 1931 72.6 per cent of Polish population was statistically defined as "rural", in 1938 this share declined to 70.0 per cent (GUS 2012:124). One can also point out that many of the productive assets resulting from the industrial and transport investments of the 1930s are still operating, confirming the durability of at least some of that decade's structural policy initiatives.

While in the interwar years the role of the state and its industrial and investment policies was gradually increasing, the same cannot be said of the post-1989 period. In fact, the

[71] Its wider description and analysis can be found in Landau and Tomaszewski (1989:108-12). See also Zweig (1944:79), and Landau and Tomaszewski (1985:119-20).

post-communist transition started with nearly total neglect of an active role of the state as concerns industrial and investment policies, being this a clear reaction to the communist practice of dominant, almost monopolistic, and ultimately ineffective government management.

Until the 2008+ crisis, industrial and investment policies in Poland, can be linked to three basic types of activity. First, privatization. Second, foreign direct investment (FDI) inflows. Third, EU funds inflow.

Privatization, closely linked to capital market development, took place essentially in the 1990s, leading in the next decade to a situation in which less than 25 per cent of Polish GDP is being produced in the public sector (while in 1990 it produced almost 70 per cent of GDP[72]). Privatization and capital market building were stimulated by an in inflow of foreign capital since the early 1990s. Regulatory developments favored the inflow of FDIs[73], which was additional encouraged by the promotion of special economic zones since mid-1990s. Most of the FDIs were located in manufacturing and trade, and as suggested earlier (subsection 4.3) in the financial intermediation sector. Special economic zones flourished with visible spillovers on employment and positive, although weaker, effects on investments (Ciżkowicz et al. 2015). However, as capital movements are highly sensitive to business fluctuations, FDI inflows declined substantially with the advent of the 2008+ crisis. As in the case of many developing countries, 2009 and 2012-3 were particularly difficult in this respect.

Although implying public policy activity, privatization, capital inflows and related developments (capital market and special economic zones creation), promoted market mechanisms which were eventually expected to efficiently allocate resources. Such an approach was still dominant during most of the 2008+ period; however, at this time an important and increasing role was being played by the inflow of public capital in the form of EU funds. Poland benefited from them already since mid-1990s, initially in the form of pre-accession funds, afterwards as a major beneficiary of the EU multiannual financial frameworks. These funds were mostly focused on infrastructural projects and in practice meant the return to an active investment policy.

During the post-2008+ period, EU funds to a large extent diminished the negative impact of dwindling private capital inflows. Actually, the EU net transfers quickly increased:

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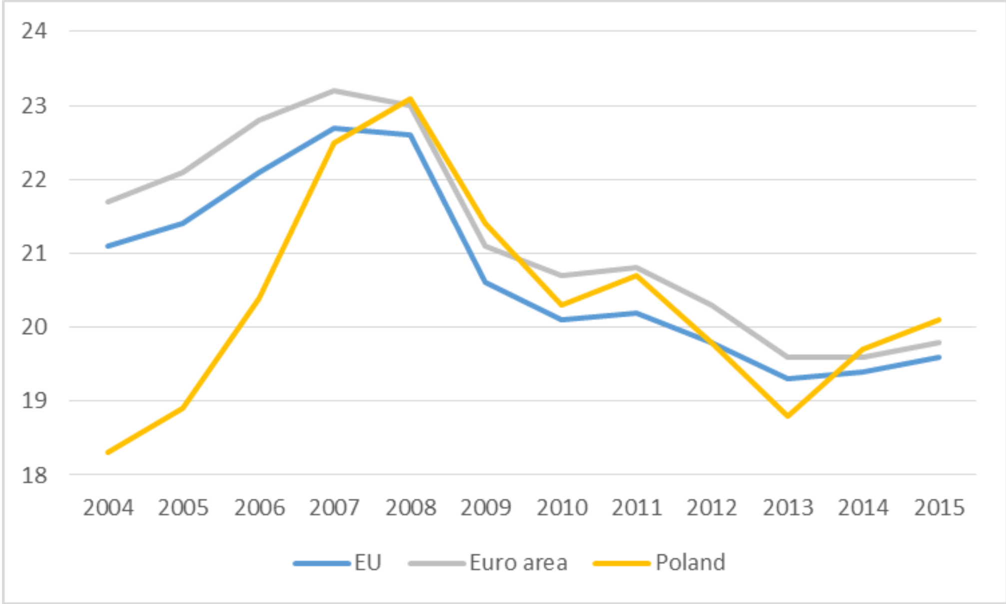
[72] It must be remembered that Poland during the communist period retained relatively developed private ownership, particularly in agriculture, but also in the small productive and service sectors.

[73] On the logic of capital flows liberalization in Poland see for example Ötker-Robe et al. (2007:39-40).

while in 2006 they were an equivalent of less than 1 per cent of Polish GDP, in 2009 they reached almost 1.9 per cent, and since the following year they have regularly surpassed 2 per cent of GDP, in 2014 reaching a top value of 3.2 per cent.

Despite this strong inflow of funds mostly directed towards investments, the share of the latter in GDP declined during the crisis years. See Figure 15.

Figure 15. Investments: Poland, the European Union and the euro area, 2007-15 (percentage of GDP)



Note: (1) Gross fixed capital formation as per cent share of GDP, (2) EU in composition of 28 countries, euro area in composition of 19 countries.
Source: Eurostat website (accessed 27 June 2016).

According to the data in Figure 15, after 2007-8 investment-GDP ratios declined in all three economic areas mentioned there. This could be expected during the downturn. However, in the case of Poland their variance was larger than in the whole EU or the euro area: in her case the ratio of investment to GDP was at the highest level at 23.1 per cent in 2008, declining thereafter to 18.8 per cent (in 2013), to partly recover in the next two years. These developments were obviously more pronounced than in the other two economic areas; the higher variability of the investment GDP-ratios in Poland signaling that EU funds in some years did not fully substitute for the decline of private capital inflows (and domestic private investments).

Since 2014 the rise of the investment ratio in Poland coincided, and was most probably positively influenced, by the attempts to start implementing more active industrial

policies. Namely, in mid-2013 a financing vehicle called Polish Development Investments was created with the aim to provide long-term finance for infrastructural projects. The move to industrial and investment policies has been also strongly stressed in the economic program of the new government formed in the autumn of 2015. In December of the latter year the Ministry of Economic Development was established with the mandate to conduct fully-fledged industrial and investment policies (largely based on EU funds under the so-called Juncker plan). On the operational side, in the spring of 2016 the above mentioned financing vehicle was transformed and renamed (to Polish Development Fund), and its financial and organizational capacity was considerably strengthened.

Time will tell how successful the latter initiatives actually will be. However, it should come as no surprise that both crises episodes led to active structural economic policies in Poland. In the two considered cases their implementation started with a delay, under very different macroeconomic and historical circumstances. And in both cases they seem to have had some positive results: during the 1936-8 period they contributed to growth and started to have some impact on economic structures, while during the post-2008 period they contributed to the avoidance of recession (thanks to the EU funds and structural reforms conducted at the earlier stages), and the acceleration of economic growth since 2014.

5.5. Structural developments: Summing up

The main conclusions from our analysis in this section can be briefly summarized as in Table 11.

Table 11. Main features of Poland’s structural developments during 1929+ and 2008+ periods

Developments	1929+	2008+
Product markets	Rigid • High cartelization allowing for dumping • Protectionism (tariffs); shift to autarky	Flexible • EU regulations in place (antimonopoly, common market, customs union) • Expansion of foreign trade
Labor markets	Flexible • Pronounced emigration during the entire interwar period • Its decline during the 1930s	Flexible • Emigration since the 1990s, accelerated since EU accession • Since 2000 largely spontaneous developments leading to a dual labor market and

		ULC in check
Financial markets	Moderate instability • Small and medium size private banks failures • Further rise of state ownership and control of banks	Stability • No crisis; stable and growth oriented financial system, not very sophisticated • Extended foreign ownership; regulations often more strictly implemented than in most EU countries
Industrial and investment policies	Passive • Active policies since 1936	Passive • Promoted inflows of FDI and EU funds, and special economic zones • More active since 2016

Source: Author's compilation.

In Table 11, the 1930s structural developments are mostly summarized by terms with negative connotations such as "rigid", "passive" or (moderate) "instability". In the case of the 2008+ period we rather use terms such as "flexible" or "stability". As for labor markets we give the same label of "flexible" in both periods. Similarly with industrial and investment policies – in the two episodes we characterize them as "passive", although some new tendencies emerged, especially at the end of the studied periods.

The final message of this comparison seems to be basically the same as the one resulting from the analysis of stabilization policies (section 4) and summarized in Table 7. Namely, that the post-communist structural policies and institutions resulted in more flexible (i.e. less rigid) economic mechanisms and stable developments than the ones of the period between the two world wars.

6. Conclusions. What did go wrong?

When answering our two initial questions we can state the following.

As relates to the first one (on why did Poland do much better during the time of the 2008+ crisis) a conclusion can be reached that this was because of a combined effect of several factors such as: (1) labor market developments resulting in low ULC, (2) the exchange rate and its shock absorber capacity (freely floating regime), (3) fiscal developments, (4) financials sector stability, and (5) a "good luck" factor. Leaving aside the last one, they can be

ultimately boiled down, partly with the exception of labor market developments, to the implementation of more flexible macroeconomic and structural policies than it was in the interwar period. In the case of financial markets we would stress broader and more coherent regulations (then before WWII) and their often stricter and preemptive in practice implementation (as compared to most other EU countries).

Concerning the second question (on why recently did Poland perform better than other EU countries), it can be stated that most factors responsible for Poland's superior performance during the 2008-15 period (than in the 1929+ one) also contributed to her relative economic success vis-à-vis other EU countries.

That said, let us observe, though, that despite the very different processes and economic outcomes of the 1929-39 and 2008-15 episodes, in both cases they had important political, not only economic policy, implications. As regards the international dimension it is now conventional wisdom that the Great Depression contributed to the WWII. Nowadays we are apparently facing another turning point. Some recent developments suggest the buildup of social tensions, that can be at least partly attributed to the impact of the 2008 turmoil and the policies implemented since then.

When the domestic perspective is considered, the Polish experience with both crises seems at first glance quite unique or at least not fully consistent. The 1930s crisis in Poland was, as we tried to demonstrate, particularly severe, which was largely due to the misguided economic policies. However, it had no major domestic political impact, the reason for this being twofold: on the one hand, the authoritarian regime in place, while on the other, the deteriorating international scene and the slide towards WWII.

Poland has passed the recent crisis period without major upheavals and with largely adequate economic policies, often in place since the early 1990s. Nevertheless, as a result of the outcome of Presidential and Parliamentary elections in 2015, a major correction of the economic program has been taking place since the following year.

Thus, another important question emerges: what went wrong with the internationally acclaimed, successful economic policies implemented in Poland since the start of post-communist transition and, especially, during the period of 2008-15?

At this juncture we are only inclined to state that in Poland during this latter time span, the economic crisis was avoided but at a cost of a social one. In the adopted analytical framework (section 3), the emergence and development of the social crisis must be above all linked to labor market processes (subsection 5.2). They led to social disequilibria, visible in a generalized frustration, which resulted in the 2015 political choices.

We are fully aware that the labor market distortions should be related to the otherwise successful economic policies. This leads us to the very final observation that a profounder understanding of the negative externalities of the policies implemented until 2015 calls for further study.

8.XI.2016

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