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Should I Stay or Should I Go? Understanding Poland's Adherence to Gold, 1928-1936

Nikolaus Wolf[*]

Abstract: *»Should I stay or should I go? Erklärungen für das lange Festhalten Polens am Goldstandard, 1928-1936«*. This paper examines the decision of the Polish government to adhere to the gold standard during the Great Depression. Poland did not leave gold until April 1936 and suffered through one of the worst examples of a depression, with massive deflation and a complete collapse of industrial production. The Polish case stands out against the experience of other European countries as can be shown in an econometric framework. I argue that Poland's monetary policy was largely determined by non-economic considerations, especially attempts of the Piłsudski regime to defend Poland against foreign (esp. German) aggression. I provide evidence that strongly supports this view until about mid-1933. Ironically, just after Poland had joined the gold-bloc there were signs of a broad strategic reorientation, which paved the way for an exit in 1936.

1. Introduction: why Poland?

At the end of the 19th century the monetary regime of the gold standard was nearly universal in Europe and the larger Atlantic economy. During World War One most countries left the gold standard but this was rather considered a temporal demise of the "rules of the game" – comparable to the situation in England during the Napoleonic Wars – than a definite end of the system. How-

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ever, the re-establishment of an international monetary system during the 1920s was difficult and remained fragile. More broadly speaking, there is a very notable variation in monetary regime choices across countries during the 1920s and 1930s compared to the earlier decades. In this paper I take up Barry Eichengreen's question of "why were some more inclined than others to release their gold fetters?" (Eichengreen 1992: 23) with respect to one specific case of the interwar period: the re-born Polish state.

If compared against the background of the European economy the Polish case is intriguing. There is broad evidence that an early exit from gold helped the economies to overcome deflationary pressures and to recover (Eichengreen and Sachs 1985). Poland did not leave gold until April 1936 and suffered through one of the worst examples of a depression, with massive deflation and a complete collapse of industrial production. The existing literature on why Poland adhered to gold for such a long time is – not surprisingly – nearly entirely written in Polish and it is old: its last original contribution was published about forty years ago. This Polish historiography considers the late exit from the gold standard as a "big misunderstanding" (Knakiewicz 1967: 336), mainly due to policymakers misled by the classical orthodox school who tried to cure the economy by deflation (Landau and Tomaszewski 1999: 235). The background to this is traditionally seen in a widespread fear among policymakers of yet another inflation after the experiences of the early 1920s and 1925/26 which would destabilize the country and scare off badly needed foreign capital (Studentowicz 1935) and a perceived necessity to adjust industrial prices downwards to prices in agriculture to foster domestic demand for industrial products (Matuszewski 1937). Elsewhere (see Wolf 2007) I have put these arguments into a comparative European perspective. I have shown in an econometric framework that it is hard to explain the Polish case within a model that is limited to the extent of deflationary pressures, the quest for "importing credibility" or the "mentality" of policymakers due to experiences of previous deflation as argued in the existing literature on the Poland. Only when the model is extended to account for differences in the political regime and for patterns of economic integration, it can explain the extremely late exit decision of Poland. Apparently, Poland stayed on gold mainly because of the "authoritarian" character of the regime and her integration with France that was remarkably high given the geography of the country. But these factors are arguably mere black boxes that do little to help our understanding.

To shed some light into the black boxes of "authoritarian rule" and "integration with France" I argue that the Piłsudski regime that ruled Poland since May 1926 was mainly concerned with strategies to defend the independence and territorial integrity of the new Polish state against foreign (esp. German) aggression. The perceived risk that leaving the gold standard can produce monetary instability was in part due to the Polish experience of hyperinflation until 1923 followed by a second inflation in 1925-26. But in difference to other

countries that experienced a hyperinflation in the 1920s (such as Austria or Hungary), the Polish government was afraid of an additional cost of leaving gold: loosing acess to „friendly" capital in terms of the political system of Versailles. It is obvious that for her long-run development Poland desperately needed to accumulate capital, through savings and capital imports. But the Polish government made much effort to be selective with regard to capital imports, increasingly so after the open conflict with Germany about renegotiating trade conditions since 1925. It continued these efforts during the great depression. Crucially, the exit of Germany and Austria from gold in 1931 and the non-exit of France, Belgium, and the Netherlands created an incentive for the Piłsudski government to stay on gold as well. French armament credits complete this picture, both existing ones and others under negotiation well into 1936. Bold rhetoric of monetary orthodoxy and several external factors including some signs of economic recovery in late 1932 helped the Polish government to defend this position, which culminated in Poland joining the "gold bloc" in July 1933. But ironically, just from 1933 onwards the pendulum slowly started to swing back. Increasing tensions with France, a temporal improvement in Polish-German relations, and worsening economic conditions reopened the discussion about monetary policy. The Central Bank started to engineer a slow increase in M1 from 1934 onwards, but most importantly, there was a growing pressure from military circles to speed up the modernization of the Polish army, even without French support. In October 1935 E. Kwiatkowski, just appointed minister of finance, started to realize his old plans of big push industrialization merged with military plans to set-up a Polish armament industry. After the Rhine crisis of March 1936 had proved French unwillingness to fight for the political system of Versailles, and the defenders of the Franc Poincaré had started to retreat, Poland prepared the exit decision. In April 9th, 1936 a 1 billion Złoty National Defence Fund was set up to finance the modernization of Poland's army, before Poland introduced exchange controls in April 26nd, 1936 and thereby finally left the gold standard.

The rest of the paper is structured as follows. Section II briefly discusses a unified model framework to understand the pattern of exit decisions across European economies during the interwar years. Moreover it reproduces some earlier findings that Poland fits into such a model only if we allow for some extensions. Based on this background, section III argues for a specific political economy story of the Polish case. Section IV concludes.

2. Poland in the European Context: an econometric exercise

The literature offers many possible explanations for the observed variation in exit decisions and they all tend to be rather complex. In the following I present several hypotheses that are particularly prominent (see also Wolf and Yousef 2005).

To start with, countries that experienced bad macroeconomic shocks tended to deteriorate their economic situation when pursuing monetary orthodoxy, with the result of sharp price deflation, rising real wages, real interest rates, growing unemployment and a slump in industrial production (Newell and Symons 1988, Bernanke and James 1991). As shown in Eichengreen and Sachs (1985) an early exit might have allowed them to follow expansionary monetary policies and thereby help the economy to recover. Second, the promise of recovery from releasing the golden fetters had to be weighted against a possible loss in credibility as argued in Bordo, Edelstein and Rockoff (1999). Especially for peripheral or, for this matter, new states without a track record of monetary policy, the interwar gold standard continued to serve as a "good housekeeping" seal of approval. These results have been fundamentally questioned by Taylor and Obstfeld (2003) and may well be time-dependent: the more core-countries left the gold standard during the Great Depression, the weaker the credibility signal of adherence may have become (Wolf and Yousef 2005). Third, policymakers and their electorates may differ in their adhesion to monetary orthodoxy (their "mentality") because of their own recent experience. In countries which suffered a hyperinflation or a significant depreciation of their currencies relative to the pre-war parities, one can expect a wide reluctance to adopt expansionary monetary policies (Eichengreen 1992). In the Polish context, this is the most widespread explanation to understand Poland's belated exit (esp. Knakiewicz 1967).

More recently it has been argued that this should be related to issues like central bank independence, insofar as the perceived risk of expansionary monetary policies to produce hyperinflation may be smaller the less directly a government can affect monetary policy (Kydland and Prescott 1977, Wolf 2007). Also, economic integration between country pairs differed widely during the interwar years. For example countries which traded intensively with the UK might have had stronger incentives to follow Britain off gold in 1931 than others, while integration with France may have had the opposite effect. In general, the exit decision of major trading partners could force a country to leave as well. The pattern of currency bloc formation after 1931 broadly supports this view (Ritschl and Wolf 2003), which challenges a recent literature on the trade creating effects of currency blocs (Rose 2000). Finally, the political system prevailing in a country can affect a country's choice of monetary policy

for several reasons (Wandschneider 2005). The extension of the franchise (James 2001) and political instability (Eichengreen and Simmons 1995) might have weakened the ability of governments to commit to the rules of the gold standard. Authoritarian regimes in turn might have had tools at hand to defend the gold standard and successfully suppress any political quest for expansionary full employment policies. This ability to defend the gold standard may have also increased with the weight of agriculture in the economy, insofar as political parties demanding expansionary monetary policies tended to have their electorate in industrial centres.

A simple and straightforward way to test the empirical relevance of each of these hypotheses is to estimate the probability to exit the interwar gold exchange system as a function of cross-sectional and time series variation in a large set of explanatory variables. In a related paper (Wolf 2007) I used monthly data to track the time-path of potential explanatory variables as closely as possible to estimate a logit model in the spirit of Klein and Marion (1997):

$$\ln\left(\frac{\Pr ob(D_{t+1}=1)}{\Pr ob(D_{t+1}=0)}\middle| X_t\right) = \gamma_0 + \gamma_1 X_t \,.$$

Here, the elements of the γ_1 vector represent the partial elasticities of the likelihood to exit the gold standard with respect to the vector of variables X_t. I also provided estimates of a duration model (as in Wolf and Yousef 2005) as a robustness check and because it allows for a convenient visualisation of results in form of survival functions. In Wolf (2007) the model is estimated for eight European countries over the period January 1928 through December 1936, namely for the five largest countries in central Europe (Austria, Czechoslovakia, Germany, Hungary, and Poland) and their neighbours France, Italy and Sweden. The definition of variables is given in the appendix.

The benchmark model tests for the "traditional" hypotheses on the extent of the shocks (captured by price deflation, industrial production and unemployment), the credibility of further adherence (captured by changes in foreign exchange and gold reserves and the status of the two potential monetary hegemons UK and US), and the experience of previous inflations together with a measure of central bank independence. Next, the model is extended to include variables on the political regime and the pattern of trade integration. In general the benchmark model fits the data rather well, but the fit is significantly worse for Poland. The model predicts the late exit of Poland only if the "authoritarian" character of the Piłsudski regime and the fact that Poland is highly integrated with France are taken into account. Put differently, the estimated coefficients from the model can be used to construct counterfactual exit times: given that we control for variables X,Y but discount the effect from variables Z, how

long would Poland have stayed on gold? Table 1 summarizes the results of that exercise:

Table 1: Actual and Predicted Exit Dates

	Actual Exit	Predicted Exit, benchmark model: $Prob(D_{t+1}=1 \mid X_t) \geq 0.5$	Predicted Exit w/o 1-*democracy*	Predicted Exit w/o *int28_F*
Austria	09/1931	09/1931	-	-
Czechoslovakia	09/1931	10/1931	-	-
France	09/1936	Not before 12/1936	-	-
Germany	07/1931	07/1931	-	-
Hungary	07/1931	09/1932	-	-
Italy	05/1934	05/1934	-	-
Poland	**04/1936**	**Not before 12/1936**	**09/1931**	**12/1934**
Sweden	09/1931	09/1931	-	-

Actual Exit defined as imposition of exchange controls and/ or devaluation; Source: Wolf (2007)

Without taking the high trade integration with France into account, the model would predict that Poland leaves the gold standard in December 1934, just after Italy. Instead, if we drop the political regime variable, the model predicts that Poland would leave gold in September 1931, shortly after her largest trading partner Germany.[1] If both effects are dropped, the model would predict an exit together with Germany in July 1931. A duration analysis delivers very similar results except that it has difficulties to capture the impact of variables with a time-trend (such as price deflation) on the regime choice.

3. Why Poland did not exit, 1928-1936

The notion of high trade integration with France in 1928 – with Germany still being Poland's largest trading partner – and the empirical effect of the democracy dummy hardly provide a satisfying explanation for Poland's belated exit decision. However, they give a hint that an answer will have to take *political*

[1] For this purpose, I re-estimated the model replacing the democracy dummy (which is 0 in the case of Poland over the sample period) by its inverse, an "autocracy" dummy. This obviously alters only the constant and the sign of the dummy, but nothing else. Especially the predicted exit time for Poland remains unchanged at May 1935. When the prediction is done with setting this dummy =0, the model predicts an exit in July 1931.

factors into account, and that *Poland's relations with France* played a specific role. The following section is an attempt to outline such an explanation.

The return of Poland on the European map after the First World War was possible due to the specific constellation that all three former partition powers were severely weakened through war and revolution (see Wolf 2005). The borders of the new Polish state were not established before mid-1921, after several uprisings in Upper Silesia and Great Poland, some heavily disputed referenda, and a very costly Polish victory over the Red Army, financed by French and US capital and excessive inflation taxation (Krzyżanowksi 1976: 13ff). From then onwards, the most direct threat to Poland's territorial integrity was seen in German attempts to revise the Polish-German border, i.e. both the division of Upper Silesia and the Polish Corridor, dividing the German East Prussia from Germany proper. None of the German governments during the Weimar Republic – whether left-wing, centre or right-wing – was ever willing to accept the German-Polish border (Schulze 1982).

In this situation, Poland regarded France as her natural strategic partner, and initially, the French were eager to play that role. After 1918 France tried to strengthen Poland and Czechoslovakia as an "eastern barrier designed to keep Berlin in check and preserve the status quo" (Wandycz 1988: 3). French military missions were present in both Poland and Czechoslovakia after 1918 to provide schooling and technical advice for their armies (Ciałowicz 1970). But in stark difference to Czechoslovakia, which inherited most of the Habsburg armament industry after the Great War, Poland had no significant armament industry and relied heavily on imports. In February 1921 Poland and France signed a secret military convention which obliged France to send war material, rolling stock, and technical personnel (but not troops) to Poland in case of either a German or a Russian aggression (Ciałowicz 1970: 403-405). Moreover, in 1921 France agreed on an armament credit over 400 million Francs, payable in several instalments, which was seen as crucial for a modernization of the Polish army.

However, the economic realities of Poland in the 1920s were at odds with this strategic orientation, insofar as Poland inherited from the long period of partition very close economic ties both with Germany and the Habsburg successor states including Austria.[2] Table 2 shows the percentage shares of various countries in Polish foreign trade 1924-1936. The joint share of Germany and Austria in total Polish exports exceeded 50% in 1924 and 1925, and about 40% of all Polish imports came from these two countries. Also, German and Austrian capital was by tradition heavily engaged in Polish banking and the mining industry, hence in key sectors of the economy (see Smerek 1933). The implications of this dependency became visible in early 1925, when Germany started to bilaterally renegotiate her trade relation with Poland after the restrictions

[2] The economic relations with Russia, in contrast, were cut during the Great War and the Russian Revolution in 1918. See Wolf (2005).

imposed by the treaty of Versailles did not bind her any more (Landau and Tomaszewski 1999: 137). In June 1925 the Germans prohibited Polish coal imports until a new trade agreement would be signed, and Poland retaliated. The following "trade war" with Poland is clearly visible in a dramatic decline of Poland's exports to Germany, which affected especially coal, but also agricultural products. While Poland managed to substitute the German export market – in part and temporarily – by exports to Britain (helped by the British coal strike), Poland was obviously the weaker side in the conflict, which made a deep impact on her economy. Together with heavy tax increases to support the newly (January 1924) established złoty and a poor harvest in 1924, the trade conflict produced an unfavourable balance of trade and put the Polish currency – just stabilized – under severe pressure (Smith 1936). Beyond this, the international political landscape changed in October 1925 with the Locarno treaties, which were seen in Poland as a rapprochement between France and Germany against the spirit of the 1921 convention, not at least because Locarno lacked any guarantee for Poland's western border (Wandycz 1988).

All these factors helped to bring about the coup d'état of Marshall Piłsudski in May 1926, with its slogan of "Sanacja" – to "cure" Poland from political fragmentation in order to strengthen the new state on the international scene. One of the first apparent successes of the new regime was the stabilization of the currency in late 1926 and the agreement on a stabilization loan in 1927, which allowed Poland in October 1927 to join the international gold-exchange standard (Smith 1936). In the meantime, the Polish government made several efforts to foster an economic reorientation of the country reducing the dependency from Germany. The backbone of these efforts was the development of Gdynia as main seaport to reduce dependency on Gdansk and railway transits through Germany, and the construction of a direct railway connection between the Upper Silesian coalfields and this new port. The central political figure here was Eugeniusz Kwiatkowski, then minister of trade and industry. For both enterprises, the Polish government sought to attract French capital, not at least in order to create French vested interest in the Polish Corridor. These efforts were intensified during the Great Depression, in order to capitalize from the weakening of German banks and industry relative to their French competitors. In February 1930, after the consolidation of Poland's wartime debt to France, the French cabinet authorized the signing of an agreement with a French consortium for the completion of the Gdynia harbour, and negotiations began to create a Franco-Polish company to build and exploit a railroad linking Upper Silesia with this new harbour (Wandycz 1988: 168). In a similar vein, in August 1931 the Polish chargé d'affaires Muehlstein discussed in Paris the possibilities to replace the influence of German banks in Upper Silesia by French capital. "As long as the situation was normal, the fight with the German banks was very difficult, but now, when the German *krach* had undermined their

authority, it would just be a political sin not to use this opportunity and not to try to replace the German capital by French capital".[3]

At the same time, the question of how to finance the urgent modernization of the Polish army came up again because the depression started to produce growing budget deficits and because the government feared the growing political instability in Germany. After a Polish attempt in July 1929 to negotiate a new French armament credit over 1.5 billion Francs had failed, renewed efforts to at least get the final instalment of the 1921 credit – frozen since Locarno – succeeded in February 1931. The deliveries were scheduled for May 1931 until December 1933 (Ciałowicz 1970: 162f). After this, the Polish side immediately attempted to discuss a new armament credit via ambassador Chłapowski in Paris. When this failed, Piłsudski sent a special envoy Targowski to Paris in November 1931 to explore chances for private armament credits (ibidem: 164) followed by an official request of the Polish General Staff about the price for a large delivery of heavy weapons. Note that the General Staff was eager to stress in this request the inability of Poland to realize a cash-transaction (ibidem: 166).

In this political environment of 1931 it is hardly surprising that Poland followed neither Germany nor later Britain off gold. In addition to a possible risk of inflation, the Polish government feared to lose access to French capital when it felt to need it most. Polish monetary policy apparently hinged to a large degree on the strategic considerations of the regime. Two further aspects support this view. First, in May 1931 Marshall Józef Piłsudski made his brother Jan minister of finance. He did this obviously to tighten his personal grip on economic policy because his brother had as little expertise in monetary policy as he himself. Jan Piłsudski was followed in September 1931 by W. M. Zawadzki, an eminent Polish economist, founding member of the Econometric Society, classical hardliner of orthodox monetary policy, and a confident of Piłsudski (Landau and Tomaszewski 1965). In a private memorial of late 1935, which – importantly – was never meant for publication, Zawadzki recapitulated his monetary policy as being based on two principles: first, to finance the military (!) budget of the Polish state to which the whole economy must be adapted, and second to stick to the gold exchange standard. He describes his motivation for the latter as threefold: first, to gain access to foreign capital. Second, to avoid domestic turmoil after a destabilization of the currency that could undermine the authority of the regime. And finally third, Zawadzki mentions the fact that a devaluation of the złoty would "automatically decrease the military budget", because it would decrease its purchasing power abroad.[4] In addition, he was positively convinced that it was possible to overcome the

[3] Own translation from a Letter of Muehlstein to Polish Foreign Minister Zaleski, August 8, 1931, cited after Landau and Tomaszewski (1964: 315).

[4] Zawadzki (1935), reprinted in Landau and Tomaszewski (1965: 127-151, here especially page 134).

crisis by a downward adjustment of prices (Zawadzki 1935: 132), and pursued this policy until his demission in October 1935.

This came clearly at a cost. Poland suffered through a severe economic crisis, with more deflation and a worse decline in industrial output than in other European countries. And there was opposition. From 1932 onwards, a growing number of economists and politicians argued for a change in monetary policy, most notably the Kraków group around Krzyżanowski and Zweig that proposed in June 1932 a cautious devaluation without expansionary monetary policy; probably not a solution to the problem (see Knakiewicz 1967: 96). Members of the Central Bank's board were split over the question of devaluation in mid-1932, but the minister of finance (Zawadzki) had the final say (Karpiński 1958: 113). What is more, the number of industrial strikes, factories affected and hours lost during strikes, started to increase slowly in 1932 (Mały Rocznik Statystyczny 1939: 284). The authoritarian government certainly had tools to oppress this opposition not available to democratic governments, but it was also helped by several other factors. The very high share of agriculture in the Polish economy implied that the suffering of a large part of the population during the depression years was limited, as they were unaffected by unemployment and not threatened by starvation. As stated in the Economist: "Polish peasants have been accustomed for centuries to hard work and privation. (…) They have plenty to eat and enough to wear, and to the great bulk of the population such problems as bank deposits, currency stability, etc., are not matters of consequence." (Economist, September 26, 1931: 568) Note that this effect entered the estimations in Wolf (2007) insofar as the rate of unemployment was measured as the number of registered unemployed per active population. Given the extreme decline in industrial output, the comparatively low rate of unemployment is explained by the low share of industry in the country. Also, there were some signs of a recovery in the third quarter of 1932, visible in a stabilization of prices, a small increase in industrial production, and a decline in unemployment. Another factor that actually helped the Polish regime to stay on gold was the suspension of the gold exchange standard in the US in 1933. Since the Great War, the dollar had been a de facto second currency, especially in the southern parts of Poland (due to the tight migration relations of Galicia to the US), used for hoarding but also for common bank transactions. After the dollar devaluation, many people exchanged their dollar holdings into złoty in fear of further losses, and the government perceived this as a gain in the currency's reputation. Besides, the depreciation also brought about a relief in Poland's foreign indebtedness, which had already started with the depreciation of the pound sterling, but most foreign debt was in dollar (Zweig 1944: 62-64).

At the London Conference in July 1933, Polish delegates had the opportunity to demonstrate their adherence to the gold-exchange standard and joined the "gold bloc" formed by France, Italy, Belgium, Holland, and Switzerland. In its Bulletin for autumn 1933, the Bank of Poland reported that "the access of

Poland to the so-called 'gold-bloc' made a good impression" (Bank of Poland 1933: 83). The government probably hoped for some real effects of its adherence to the gold bloc, and at least in one respect this Polish policy was successful: it helped to reduce Poland's economic dependency on Germany and prevented Poland to loose "friendly" capital. Not only did the share of Germany in Polish foreign trade decline (Table 2), but also did the share of German capital in Polish enterprises (from 23% in 1933 to 19% in 1936). Instead, the share of France remained unchanged (at 24%) and the joint share of the Gold Bloc members without Italy slightly increased (40%, 43%).

Table 2: Polish Foreign Trade Relations, 1924-1936

Shares in Total Polish Imports/ Shares in Total Polish Exports					
	Germany	Austria	UK and Ireland	France	GoldBloc
1924	34.5/ 43.2	11.7/ 10.1	7.5/ 10.5	4.9/ 4.2	15.2/ 10.0
1925	31.0/ 41.3	9.7/ 12.4	7.9/ 7.9	5.8/ 1.7	15.1/ 7.9
1926	23.6/ 25.3	6.8/ 10.3	10.5/ 17.1	7.4/ 3.6	20.2/ 12.4
1927	25.5/ 32.0	6.5/ 11.0	9.4/ 12.2	7.5/ 1.7	18.3/ 10.4
1928	26.9/ 34.3	6.6/ 12.4	9.3/ 9.1	7.4/ 1.7	18.6/ 9.8
1929	27.3/ 31.2	5.8/ 10.5	8.5/ 10.2	6.9/ 2.2	18.9/ 10.2
1930	27.0/ 25.8	5.7/ 9.3	7.9/ 12.1	6.7/ 3.1	19.6/ 12.4
1931	24.5/ 16.8	5.1/ 9.3	7.1/ 16.9	7.5/ 5.5	22.3/ 17.5
1932	20.1/ 16.2	4.4/ 8.0	8.7/ 16.4	6.9/ 5.7	22.1/ 20.8
1933	17.6/ 17.5	4.3/ 5.8	10.0/ 19.2	6.8/ 5.5	21.7/ 20.2
1934	13.6/ 16.5	4.6/ 5.9	10.8/ 21.2	5.8/ 4.2	21.2/ 19.3
1935	14.4/ 15.1	4.8/ 6.4	13.5/ 19.9	4.9/ 3.5	18.8/ 18.3

Source: *Rocznik Handlu Zagranicznego Rzeczypospolitej Polskiej*, Główny Urząd Statystyczny. Warsaw, various years.

The latter increased even in absolute terms (own calculations based on Wellisz 1938, Appendix A). Nevertheless, there are signs that the underlying factors behind Polish monetary orthodoxy started to change just before the London Conference, namely with the changing international situation after the conferences of Lausanne (July 1932) and Geneva (from February 1932 onwards). Piłsudski's growing mistrust in his French ally, which at these conferences showed little interest in the security of Poland's western border, was expressed in cancelling the extension of the French military mission in Poland in August 1932 (see Wandycz 1988: 236ff.). Shortly after the appointment of Hitler as German chancellor in January 1933, Piłsudski aimed to test the reliability of his French ally by ostensibly strengthening the small Polish garrison on Westerplatte in Gdansk on 6 March 1933, violating international agreements. In France and Germany, this was interpreted as Polish willingness to prepare a preventive war against German attempts of a border revision, and

France warned Poland to proceed (Wandycz 1988: 271). Hence, Poland found herself in a strategic deadlock, with France unwilling to provide military support and a new dimension of aggression from the German side.

In this situation, there were signs of a strategic reorientation to reduce dependency on France and gain room de manoeuvre for Poland, especially to gain time and means for building up an independent Polish armament industry. Interestingly, it was just in March 24th, 1933 that the reserve requirements of the Bank of Poland were changed, which might be interpreted as a first, very cautious step to reorient monetary policy. Foreign currencies and bills of exchange were eliminated as legal reserve and the legal cover ratio was reduced to 30% of notes and sight liabilities in excess of 100 million złoty. On this basis, the actual cover ratio in March 1933 was 44.8% (Smith 1936). Hence, while the Bank of Poland's notes were still redeemable in currencies convertible into gold at mint parity and Poland was arguably still on the gold-exchange standard, it would have in principle allowed the Bank of Poland to engineer some monetary expansion. Indeed, in difference to other countries on gold, Poland managed a stabilization of M1 in 1933 and a very small increase afterwards (Bernanke 2000: 140), due a cautious credit expansion (Karpiński 1958: 166). But still, this can hardly be interpreted as expansionary monetary policy since the cover ratio was kept well above the legal requirement (Knakiewicz 1967: 148) and contraction in private banking continued. Zawadzki and others, responsible for monetary policy, and backed by Piłsudski himself, still believed that the benefits from deflation were higher than its cost. But by 1933 they had certainly lost their illusions on French help. According to the testimony of Adam Koc, deputy minister of finance under Zawadzki and another confident of Piłsudski, "cooperation with French capital was the aim of our economic policy (…) up to the beginning of 1933" (cited after Wandycz 1988: 454).

The surprising rapprochement between Poland and Germany with the Non-Aggression Pact of January 1934, concluded for a period of 10 years, fits well into the picture of Poland trying to gain time (Wandycz 1988). While the pact served Hitler to substantiate his claim of peaceful intentions after leaving the League (Bullock 1962: 325), for the Polish government it was a main step of turning away from France towards a balanced neutrality between Moscow and Berlin, based on its own strengths. To this end, Polish military circles pressed for a rapid modernization of the army, visible in dramatic changes in the military budget after 1933 towards modern weapons, and for a state-funded armament industry. But Piłsudski himself was reluctant to follow their far-reaching requests (Krzyżanowski 1976: 85ff.). Among the several effects of the death of Marshall Piłsudski in May 1935 was the political comeback of Kwiatkowski, "father of the harbour of Gdynia", who had left the government in 1930 over a row with the Marshall about the oppression of the democratic opposition and argued for a strong interventionist economic policy (Drozdowski 2001). In October 1935 Kwiatkowski replaced Zawadzki as minister of finance, and in

December 1935 the Cabinet decided on a 4-year investment plan that merged older plans for "big-push" industrialization with plans for setting up a large-scale Polish armament industry to be concentrated in the "Security Triangle" formed by Vistula and San (see Strobel 1975; Landau and Tomaszewski 1999). In the meantime the economic pressure to finally release the "golden fetters" had increased sharply, with a large decline in Poland's reserves from mid-1935 onwards, mainly due to the imposition of new exchange restrictions in Germany and elsewhere. Poland's membership in the gold-bloc had become a façade without any economic foundations.

The time to act finally came in March 1936 with the remilitarization of the Rhineland, when Germany de facto cancelled the treaty of Locarno. Poland signalled her preparation to support France in an armed conflict in the spirit of the 1921 convention, but France did not react (Ciałowicz 1970: 216f). Moreover, the changing political climate in France, with an expected success of Blum's Front Populaire, questioned the future of the gold bloc altogether (Mouré 2002: 209ff.). On 9th April, 1936 a National Defence Fund was set up by presidential decree to be equipped with 1 billion złoty over the period 1937-40 in order to finance the modernization of Poland's army (Krzyżanowski 1976: 146), apparently in anticipation of a radical change in monetary policy. Only two weeks later, on 26nd April, 1936 another presidential decree introduced exchange controls, and thereby ended Poland's adherence to the gold-exchange standard. The half-official Monthly Bulletin of the state-owned Bank Gospodarstwa Krajowego (BGK), published in French, defended this step as follows:

> Therefore, the introduction of exchange controls was not directly determined by economic difficulties. The Polish government saw itself forced to this radical step in the first place in order to fight the currency speculation, which has developed recently, and to stop the tendencies of hoarding, encouraged mainly by events from the domain of international politics. The aggravation of the political situation in Europe and the threat of war have had a negative impact on all countries and in the first place on the members of the gold bloc (…) (BGK 1936, IX (4), p. 2).

4. Conclusion

This paper examined the decision of the Polish government to adhere to the gold standard during the great depression. Based on an econometric analysis for eight European countries 1928-1936 (provided in Wolf 2007) the Polish case does indeed stand out. The "traditional" hypotheses on the extent of the shocks (captured by price deflation, industrial production and unemployment), the credibility of further adherence (captured by changes in foreign exchange and gold reserves and the status of the two potential monetary hegemons UK

and US), and "mentality" or the experience of previous inflations that feature prominently in the Polish historiography (Knakiewicz 1967, Landau and Tomaszewski 1999) cannot explain the late exit in 1936. The model predicts the late exit of Poland only if the "authoritarian" character of the Piłsudski regime and the fact that Poland is highly integrated with France are taken into account – rather "black boxes" than satisfying explanations. To explore these black boxes I argue that the Piłsudski regime that ruled Poland since May 1926 was mainly concerned with strategies to defend the independence and territorial integrity of the new Polish state against foreign (esp. German) aggression. The perceived risk that leaving the gold standard can produce monetary instability was in part due to the Polish experience of hyperinflation until 1923 followed by a second inflation in 1925-26. But in difference to other countries that experienced a hyperinflation in the 1920s, the Polish government was afraid of some additional costs of leaving gold: loosing acess to „friendly" capital in terms of the political system of Versailles. It is obvious that for her long-run development Poland desperately needed capital accumulation, through savings and capital imports. But the Polish government made some effort to be selective with regard to capital imports, increasingly so after the open conflict with Germany about renegotiating trade conditions since 1925. It continued these efforts during the Great Depression and the exit of Germany from gold in 1931 with France staying on gold created an incentive for the Piłsudski government to stay as well. French armament credits, both existing ones and others under negotiation well into 1936 complete this picture. Bold rhetoric of monetary orthodoxy, and several external factors including some signs of economic recovery in late 1932 helped the Polish government to defend this position, which culminated in Poland joining the "gold bloc" in July 1933.

Ironically, just from 1933 onwards the pendulum slowly started to swing back. Increasing tensions with France, a temporal improvement in Polish-German relations, and worsening economic conditions reopened the discussion about monetary policy. The Central Bank started to engineer a slow increase in M1 from 1934 onwards, but most importantly, there was a growing pressure from military circles to speed up the modernization of the Polish army, even without French support. In October 1935 E. Kwiatkowski, just appointed minister of finance, started to realize his old plans of big push industrialization merged with military plans to set-up a Polish armament industry. After the Rhine crisis of March 1936 had proved French unwillingness to fight for the political system of Versailles, and the defenders of the Franc Poincaré started to retreat, Poland prepared the exit decision. In April 9 1936 a 1 Billion Złoty National Defence Fund was set up to finance the modernization of Poland's army, before Poland introduced exchange controls in April 26 1936 and thereby finally left the gold-exchange standard.

Appendix to Section II: Definition of Variables

This section describes briefly the variables used in Wolf (2007) to estimate the logit- and the duration-models. To capture the simple idea that the probability to exit should depend on how badly the economy was hit by the Great Depression I collected monthly data on wholesale prices (*whole*), industrial production (*ind*), and rates of unemployment (*unrate*). The hypothesis to be tested is that, ceteris paribus, countries experiencing more severe price deflation, a steeper decline in industrial production, and a higher number in registered unemployed per active population in month t face more pressure to release their gold fetters than others in month t+1.

Second, the idea that countries adhered to the gold standard to gain in credibility is explored by using the value of foreign exchanges (*exchange*) and gold reserves (*gold*) in month t. The commitment to stay on gold in month t+1 is the more credible, the higher a country's reserves in gold and foreign exchange in month t. Moreover, I add an indicator variable *ukus_offgold* to capture the effect of the UK and the USA leaving the gold standard on the sample countries (the variable equals 0 as long as both are still on gold, 1 after the UK left gold, and 2 when both are off gold). A significant coefficient with a positive sign would indicate that the exit of these core countries out of the gold exchange system increased the probability of other countries to follow off gold.

Third, the effect of historical experience on the "mentality" of policymakers and their electorates is captured first by the parity at which a country resume the gold standard in the 1920s as a percentage of its pre-war parity (*devalhist*), varying from values close to 0 to 100. To explore the idea that markets may have considered the risk of producing hyperinflation to be lower under institutions that assure central bank independence, I use a measure of central bank independence (*indep*) from Simmons (1994) that varies from 4 (non-existent government input) to 1 (chief executives and board of bank appointed by the government).

For the extended model I included variables on the political regime and patterns of trade integration. The prevailing political regime is captured by a simple 0,1 dummy (*democracy*), that equals 1 if the country is a parliamentary democracy and 0 otherwise. While this changes in the cases of Austria and Germany from 0 to 1 in 1933, the variable is constant over the sample time because both countries left the gold standard already in 1931. Finally, I analyse the idea that trade integration might have affected a country's decision to either join the Sterling-Bloc or the Reichsmark-Bloc and hence leave the gold standard or to join the Gold-Bloc and hence stay on Gold as discussed in Ritschl and Wolf (2003). I use their estimates of bilateral trade integration with the potential anchor countries Great Britain, Germany, and France, based on a gravity model of bilateral trade flows for an international cross-section of countries in 1928 (*int28_f, int28_g, int28_uk*). This measure captures the idea of

integration in the sense of (positive or negative) deviation from "normalized" bilateral trade flows after controlling for geographical proximity and the sizes of trading partners, hence a country can well be better integrated with its second largest trading partner than with its largest trading partner. To account for other trade-network effects, I also include a dummy variable *tradegold*, which equals 1 as long as the country's major trading partner is on the gold standard and 0 else.

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