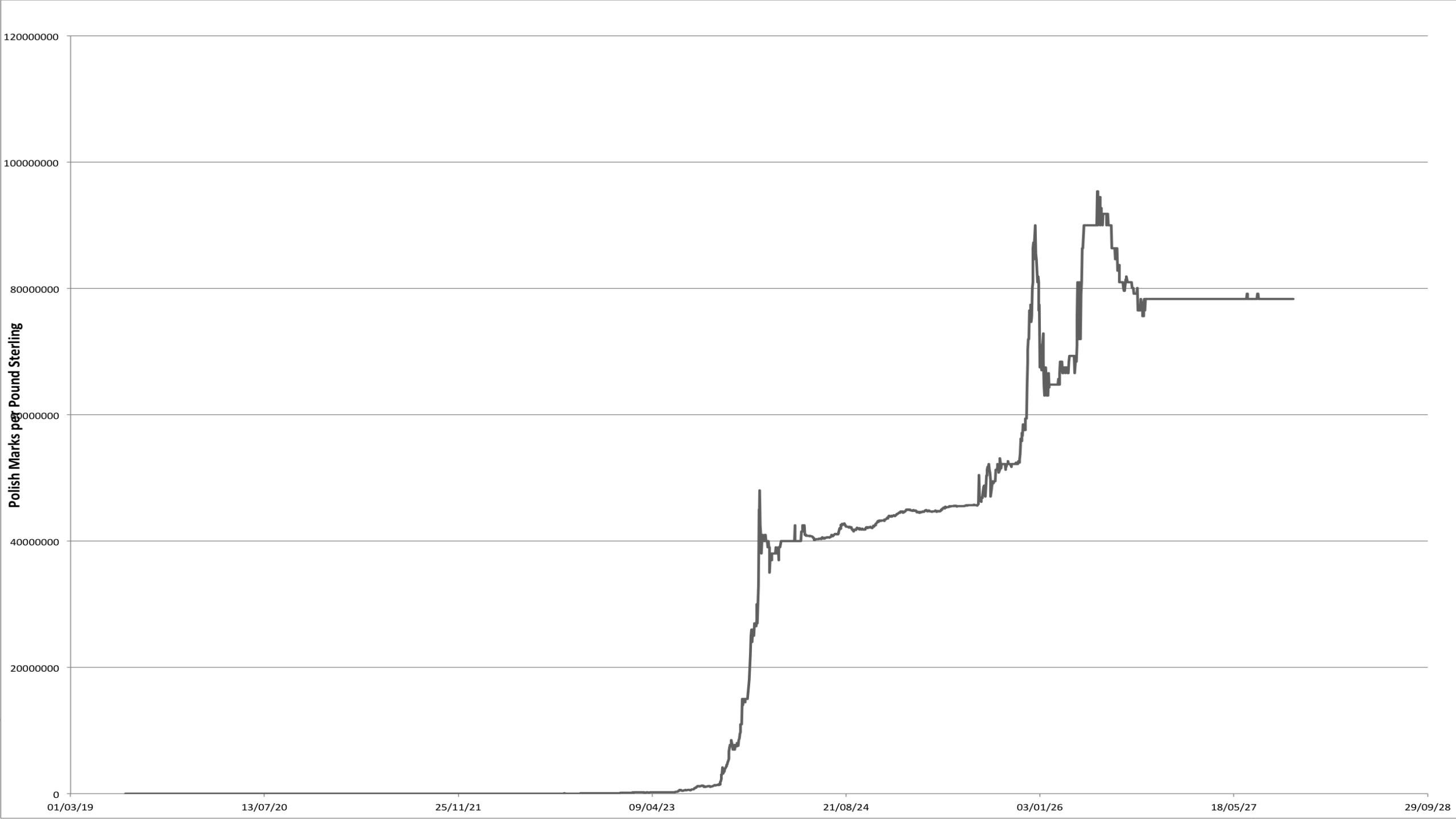


Hyperinflation and Stabilisation in Poland: 'War of Attrition' or Politics by Other Means?

Thea Don-Siemion
29 June 2023

Poland's Hyperinflation in Context

- Four cases of extreme monetary instability in the interwar period:
 - Austria (1918 – 1922): 288x increase in nominal value of money in circulation
 - Hungary (1918 - 1923): 298x increase
 - Poland (1918 – 1927): 678x increase through January 1924, then further price rise of c. 40% between 1925 and 1926.
 - Germany (1919 – 1924): 3,000,000,000x increase



Poland's Hyperinflation: Distinguishing Features

- Second-largest hyperinflation of the interwar period, much larger than the better-studied cases of Austria and Hungary.
- Stabilisation from hyperinflation achieved from own resources, with no conditional foreign aid, unlike in Austria and Hungary (League of Nations loans with heavy conditionality) and Germany (Dawes loan with perverse incentives – Ritschl 1998).
- Poland not a defeated power: therefore, no legacy of reparations and a different set of challenges, including much greater need for postwar reconstruction and ongoing border conflicts
- This stabilisation (1924) unravels, with continued high inflation 1925-26– but no return to hyperinflation.

The State of Our Knowledge

- **Germany:** The paradigm case of hyperinflation in any period. Very well studied, particularly the domestic dimensions.
- **Austria and Hungary:** Respectable English-language literature.
 - Eichengreen (1995)
 - Sargent (1983)
 - Macher (2016, 2018) on both countries.
- **Poland:** Not much written, especially in English. Narrative work by Polish scholars (e.g. Landau and Tomaszewski); short treatment in Sargent (1983); von Thadden (unpublished PhD thesis).

The Evolving Research Agenda

- Since being written, this paper has gained new significance with recent geopolitical events.
- The main finding of the paper is the close connection between intensification of inflation in Poland and armed conflict (threatened and actual), in particular in connection with Poland's border wars.
- The role of conflict in fuelling inflation strongly implies that the hyperinflations in Poland and Germany were interlinked.
 - Quantitative analysis of the specific interactions between the four hyperinflations is next on the research agenda.
- There are therefore clear parallels with the current war in Ukraine: both the problem of war finance domestically, and the interconnection between different national experiences of inflation: why did inflationary expectations become un-anchored simultaneously across developed economies?

Political History: Poland- Lithuania, 1772

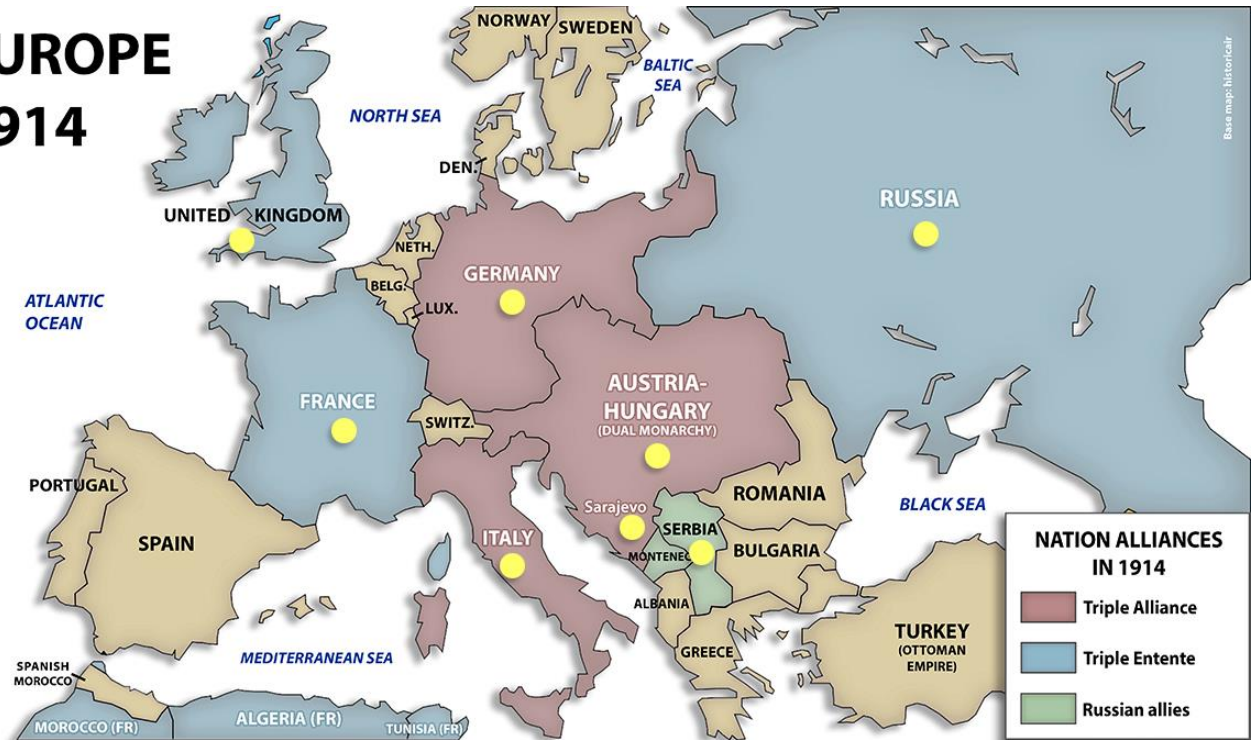


Political History: Poland Partitioned, 1795



Political History: The First World War

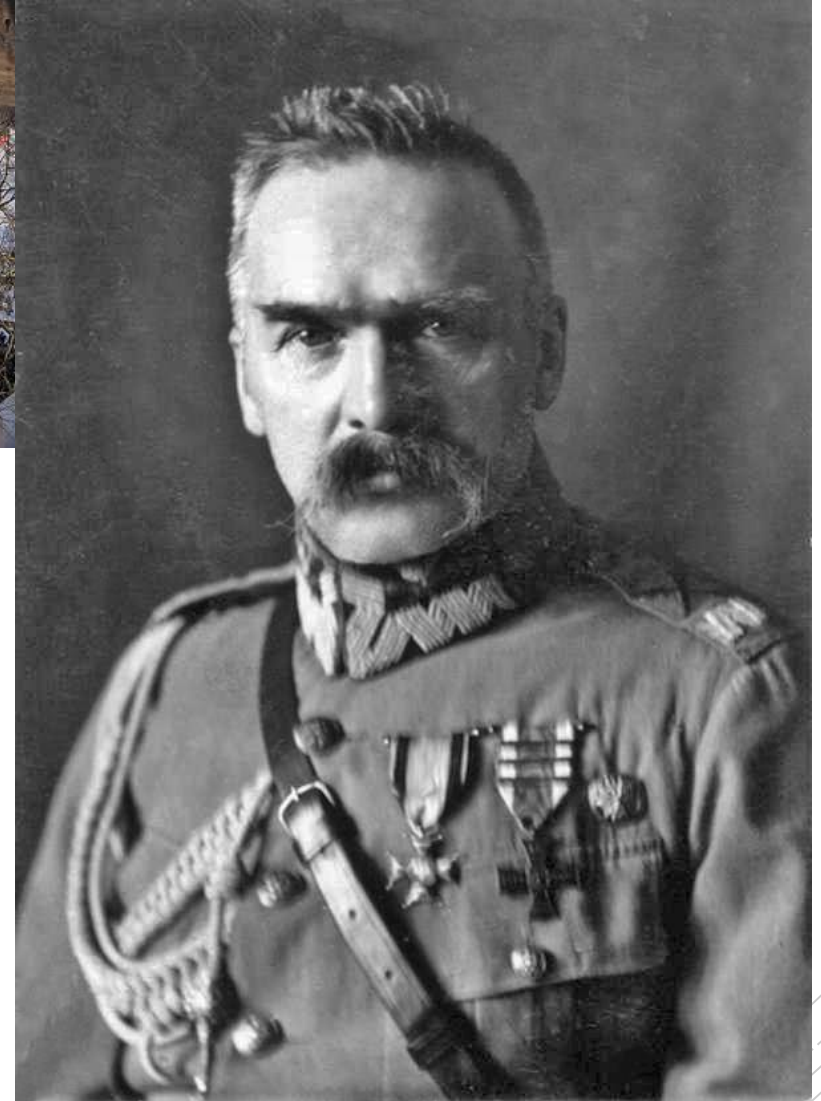
EUROPE 1914



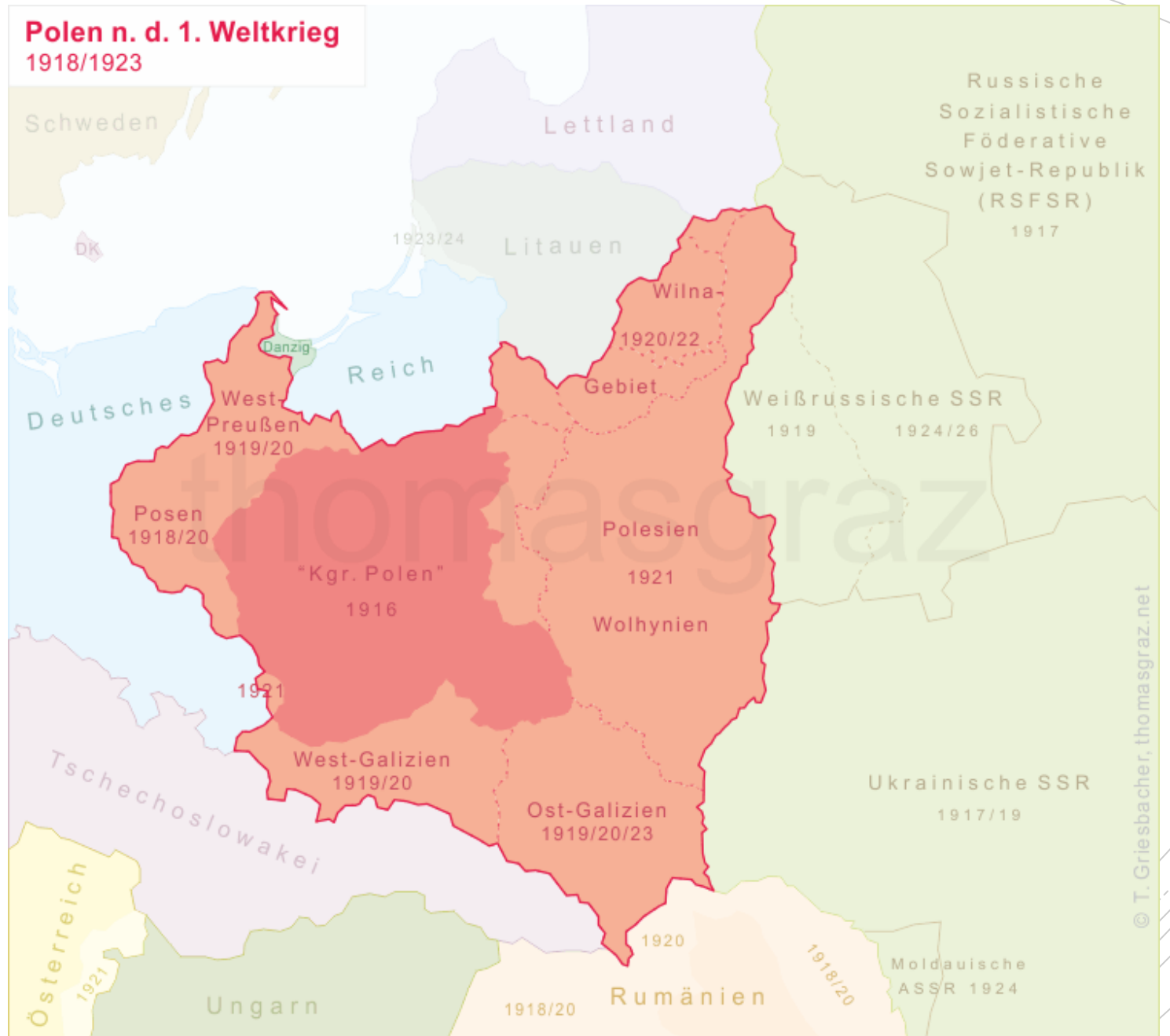
Political History: The First World War



Political History: The Wars of Independence



Political History: The Wars of Independence



The Polish-Soviet War



The Approach

- What was driving Poland's hyperinflation? Was it a continuous process fueled by momentum (von Thadden 1994); by rational expectations in the absence of an independent central bank (Sargent 1981); by a distributional conflict ('war of attrition') between labour and capital (Alesina and Drazen 1991)? Or was it contingent on external events?
- One approach, pioneered by Willard et al. (1996), Waldenström and Frey (2007) is to conduct an event study using structural-break analysis to identify critical junctures. This paper follows that strategy, using the algorithm of Bai and Perron (2003).
- The time series analysed is one of exchange rate quotations from the *Times*' London (7/1919 – 10/1927: c. 2500 observations). A database of articles from the *Times* and the *Economist* (all articles containing 'Poland', 'Polish', 'Warsaw', 'Zloty') is used to identify the breaks.

Core Results

Date of Break	F-Statistic (5% Critical Value)	Major Event
13/11/1920	684.11 (13.88)	Armistice between Poland and USSR signed and ratified by Polish Sejm, with provisions made for a gold indemnity to Poland.
31/8/1921	4117.15 (13.45)	Economic unification of Poland (less Upper Silesia) and subsumption of former Prussian territories' revenues into central budget (1 September). Michalski appointed Finance Minister (17 September).
26/6/1922	369.05 (12.97)	Piłsudski uses powers of chief of state to remove Michalski's government over Lower Silesian stance (15 June). Negotiations to form a new government break down (24 June).
3/4/1923	96.47 (12.35)	Grabski, as Finance Minister, introduces financial reforms, beginning with indexation of new taxes to gold and a new internal loan (2 March). Success of internal loan allows note issue to be paused (10 April). (7 April: Midpoint of Grabski's tenure as Finance Minister)
8/1/1924	12623.72 (9.10)	Sejm passes Special Powers Bill granting Prime Minister Grabski powers to govern by decree in economic matters until 30 June 1924. Treasury announces end of paper money issue by 31 January 1924.
5/1/1925	692.84 (11.36)	Not positively identified; transition from slow depreciation to complete stability of the exchange rate, possibly related to release of final, better-than-expected budget figures for 1924 (reported 13 January).
1/12/1925	11407.2 (10.55)	Zdziechowski becomes Finance Minister (20 November). Bank of Poland and Union of Banks intervene in support of the Zloty (1 December). Signature of the Treaty of Locarno (1 December).

Interpretation

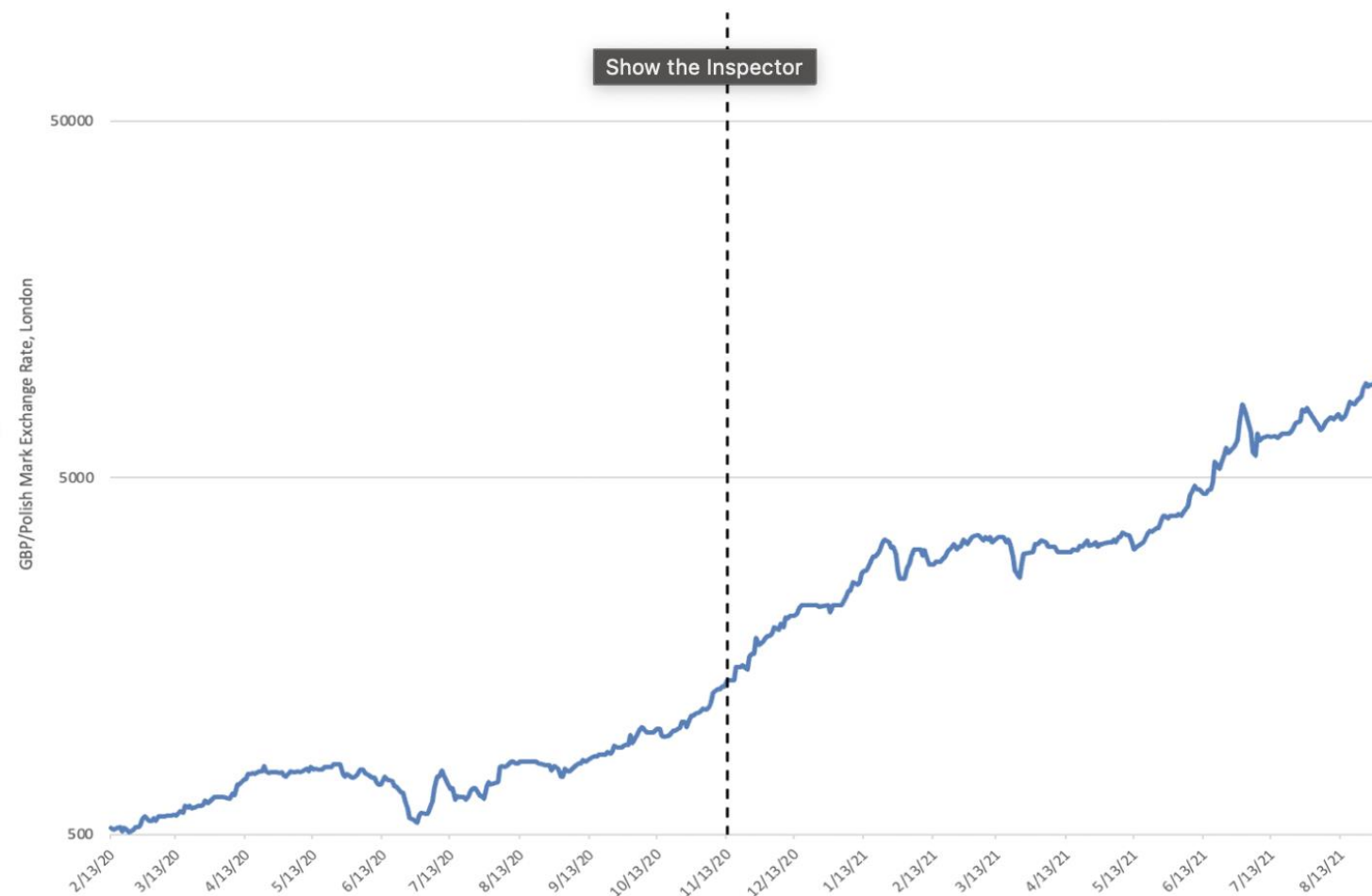
- Several plateaux in the exchange rate before Grabski stabilisation: after Peace of Riga (Spring 1921; unravels summer 1921); in late 1921/early 1922 (unravels summer 1922); transitory in May 1923.
 - First plateau: begins with Peace of Riga (gold indemnity); ends with 3rd Silesian Rising
 - Second plateau: Michalski stabilisation (ends with cabinet crisis provoked by conflict over foreign affairs sparked by Pilsudski; tensions in Silesia as Korfanty becomes PM).
 - Third plateau: Grabski's first stabilisation
- Plateaux correspond with foreign policy events, not government disagreements over monetary/economic policy.
- Strongest break in series: 8 January 1924 – Grabski granted special powers. (No effect – or even a negative effect - for passage of Bank of Poland charter on 16 December 1923).

Robustness

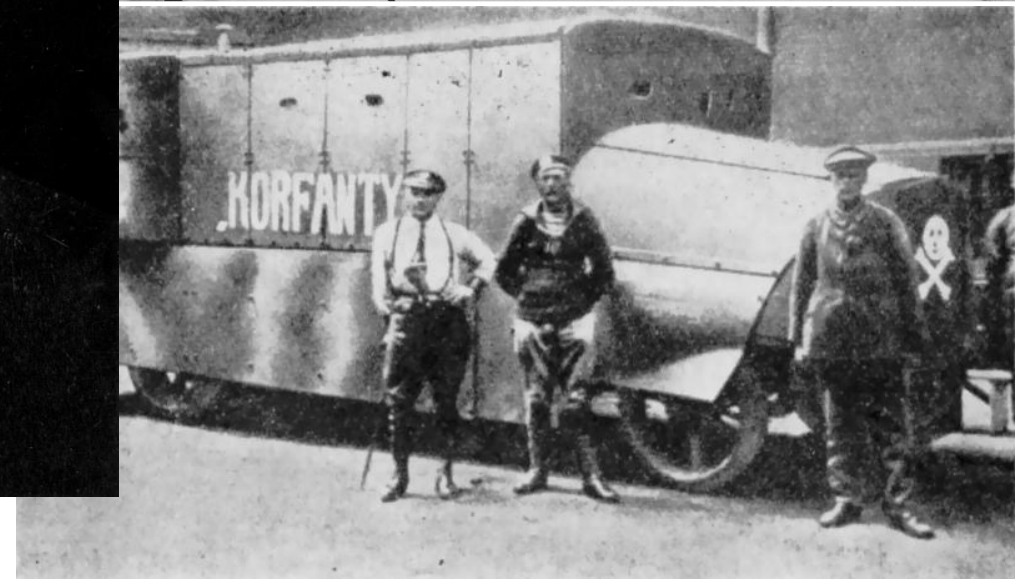
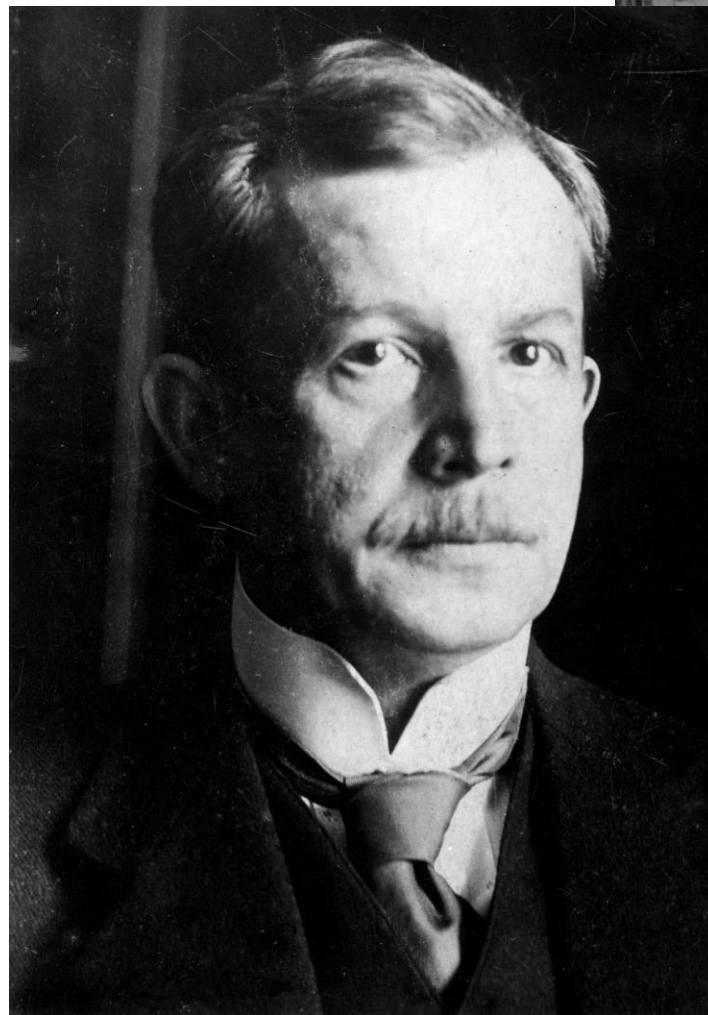
- **Internal Consistency:** Running Bai-Perron estimation with varying parameters gives nearly identical results (though 15% trimming identifies 5 breaks, for mechanical reasons).
- **External Consistency:**
 - Dollar series (NY) to repeat the analysis with quotations against a consistently gold-based currency. Preliminary examination (based on a series from May 1919 to June 1920) so far suggests little difference.
 - Archival research (minutes of Cabinet, Cabinet Economic Council, the Polish State Loan Bank itself) to confirm whether interpretation of breaks suggested by 'Times' holds up.

The Polish Hyperinflation: 1920-22

7A. The Polish-Bolshevik War to the Michalski Stabilisation, 2/1920 - 8/1921

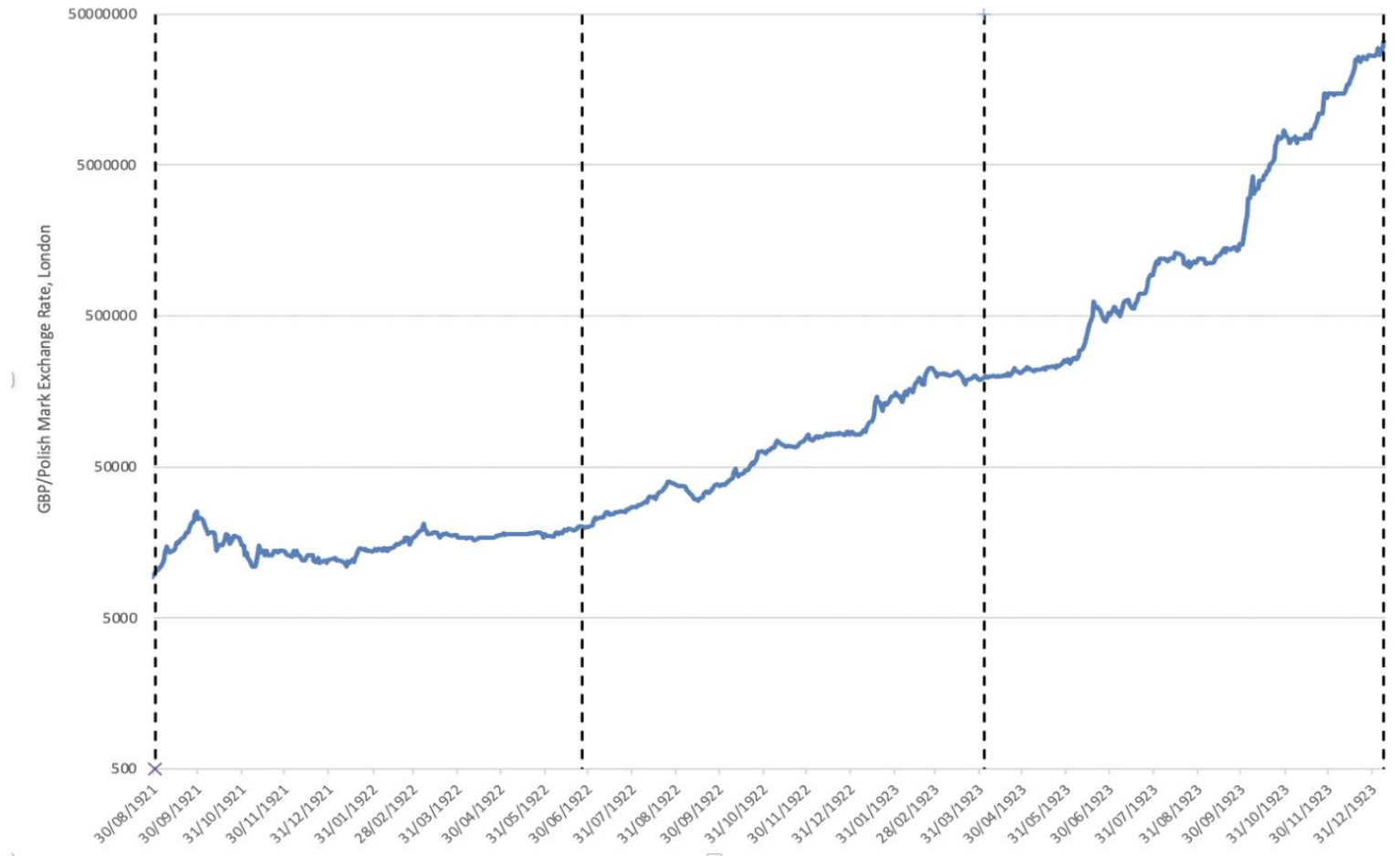


Third Silesian Uprising



The Polish Hyperinflation: 1922-23

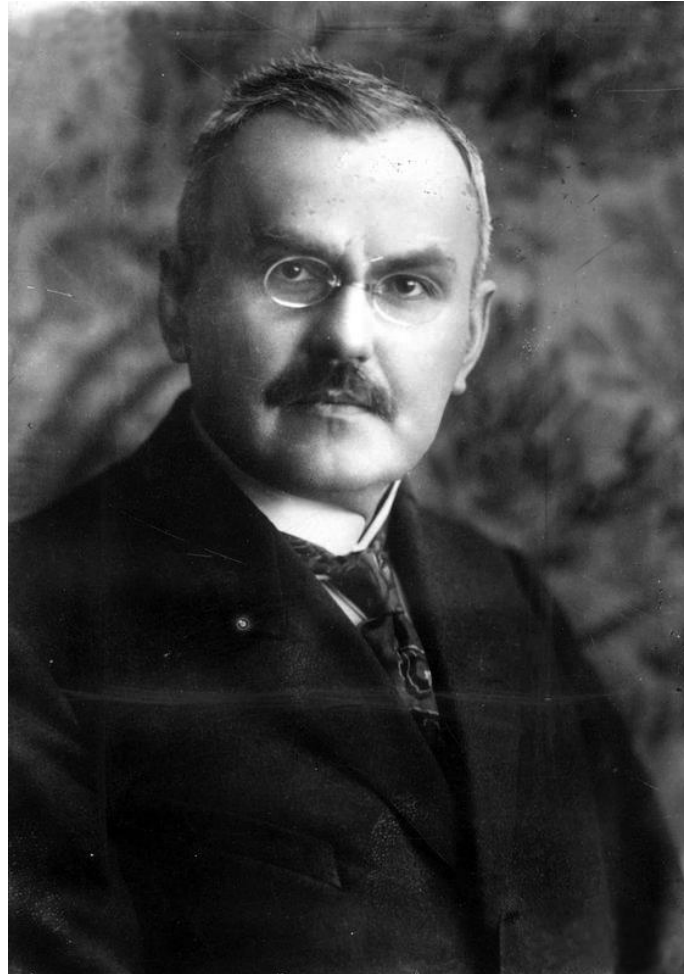
7B. From the Michalski to the Grabski Stabilisation, 8/1921-1/1924



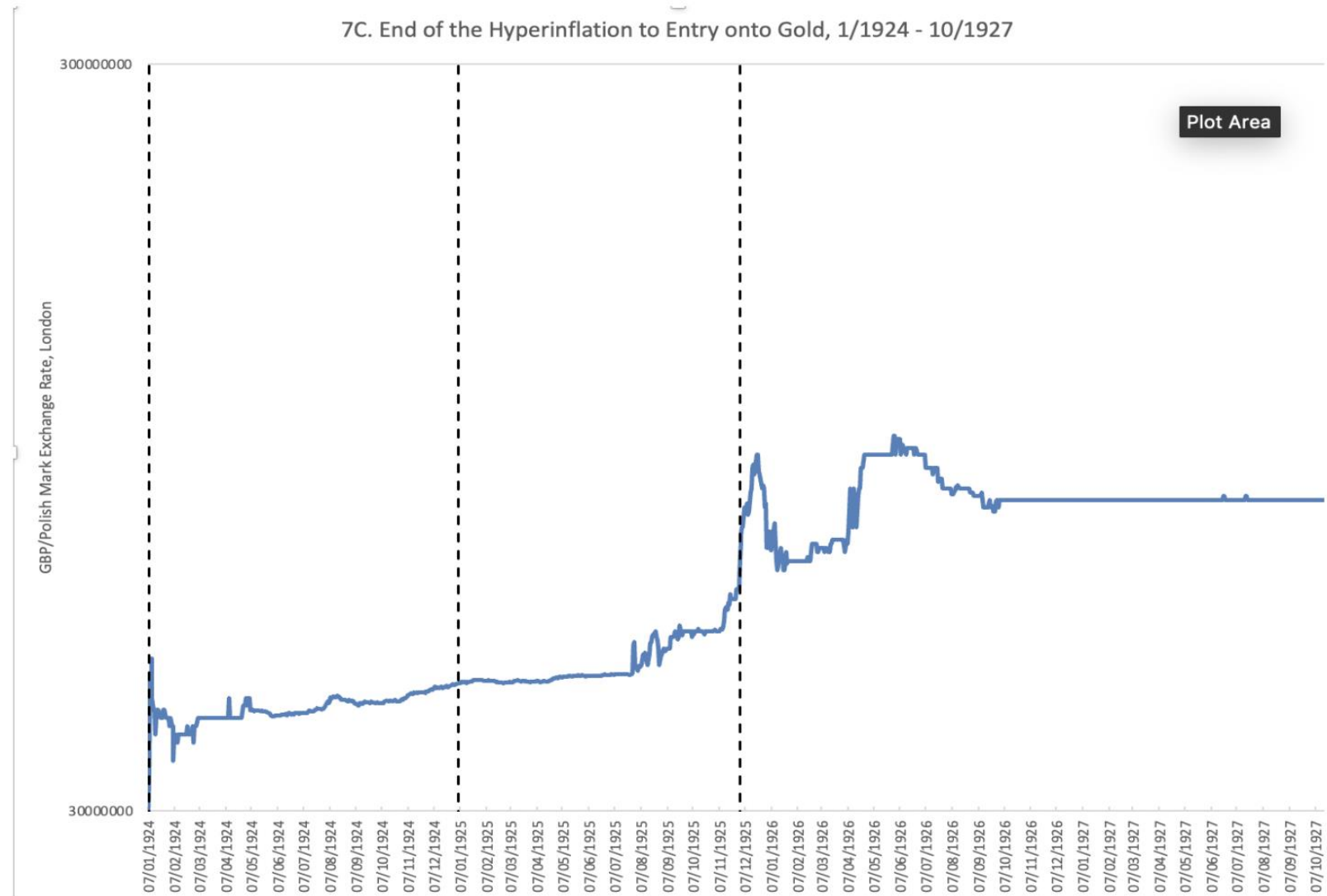
Michalski and Piłsudski



Grabski and Hilton Young



The Polish Hyperinflation: 1924-27



The May Coup



Conclusions

- For the period 1918-1923, Poland's inflationary experience seems better explained by state capacity constraints and Clausewitz's 'politics by other means' than failure of political will as to the distribution of the stabilisation burden.
- The Polish Mark could probably have been stabilised in late 1921/early 1922, had Michalski's government been allowed by Piłsudski to stay the course.
- Strong support for Sargent's 'rational expectations' thesis (though along different lines than proposed by Sargent): credible commitment via emergency powers as key to success of Grabski's stabilisation.
- Case for 'war of attrition' stronger, but not decisive, in post-1924 period: plausible alternative story centered on breakdown of relations with Germany.
- Poland 1918-1924 as a plausible antecedent of Ukraine 2022-?