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World War I and the Emergence of Central Banks in South-East Europe

Matthias Morys
Department of Economics
University of York
York, United Kingdom
matthias.morys@york.ac.uk
+44 1904 324671

1. Introduction

World War I, for all the loss of life and material destruction it brought, acted as a catalyst for many historical processes. Many important political, economic and social developments of the 20th century presumably would have happened anyway, but the war accelerated them. One of them is the emergence of modern central banks in the 1920s in an attempt to overcome the monetary chaos of the war years and the immediate post-war period. While this process is reasonably well documented and understood for some parts of the world (Goodhart 1988, de Cecco 1997), this article will focus on the under-researched experiences of South-East Europe (SEE in the following), namely Bulgaria, Greece, Romania and Yugoslavia.

Banks of note issue were not new to this part of Europe. They had been founded shortly after political independence (Greece: 1830; Romania and Serbia: 1878; Bulgaria: 1908) as foundation of a modern monetary system (National Bank of Greece: 1841; Bulgarian National Bank: 1879[1]; National Bank of Romania: 1880; Privileged National Bank of the Kingdom of Serbia: 1884). Yet these four institutions were not central banks; they were commercial banks – usually the largest in their land and initially often the only one – and lender to the government, to mention only the two most obvious features disqualifying them as central banks in the way these new institutions became theoretically conceptualised in the 1920s. Commercial banking and lending to the government collided so severely with the issuance of convertible bank notes that the monetary system found itself in considerable disarray in all four countries in the 1880s and 1890s (Morys 2014).

[1] Bulgaria had obtained far-reaching autonomy in 1878, releasing the country into independence in all but name.

The importance of World War I in this context was that it wrecked the monetary system to the extent that a fundamental reorganisation of the banks of note issue in all four countries seemed inevitable. The war in SEE had been almost exclusively financed by the printing press, resulting in inflation and depreciation of extraordinary size even for the low standards of the war and immediate post-war experience. The perennial conflict between debt monetisation and a sound monetary system had become so acute that the 1920s international movement towards independent central banks had particularly strong resonance in SEE.

Yet if there was a global trend towards independent central banks in the 1920s, what was special to the Balkan countries[2] in our context? Firstly, the level of international involvement: While Western European countries achieved their objective largely on their own, Central, East and South-East Europe (CESEE in the following) did so with outside help. Such help came mostly through the League of Nations, which saw the independence of central banks as a prerequisite for joining and successfully adhering to gold. As resurrecting the gold standard was a key objective of interwar economic reconstruction efforts, spreading the gospel of central bank independence became a means to achieve it. Yet persuasion was combined with pressure: CESEE countries required loans from Western Europe to replenish their reserves; the lending countries (mainly France and the U.K.) insisted on central bank independence and a certain amount of international financial supervision in return. The lending countries reckoned that both elements were vital in ensuring long-term gold standard membership of the CESEE countries, thereby achieving the trade-related goal of eliminating the risk of ever weaker currencies in the region (and the trade disadvantages which Western Europe might incur as a result).

Yet in the case of SEE, central bank independence and exchange-rate stability had another dimension which was absent in Central and Eastern Europe. Czechoslovakia, Hungary, Poland and the Baltic countries started off with clean balance sheets[3], as political independence only came with World War I. In their cases, central bank independence and exchange-rate stabilisation aimed at providing overall stability and preventing continuously depreciating currencies. In SEE, however, the objective was broader and, arguably, more toxic from the onset. As all four countries were burdened by substantial debt-to-GDP levels already before the war, exchange-rate stabilisation in the 1920s also aimed at ensuring debt repayment by avoiding a currency mismatch between government revenue and expenditure.

[2] We use “the Balkans” interchangeably for SEE.
[3] To be precise: Successor states to Austria-Hungary mostly accepted some of the debt of the dual monarchy, but sums were small compared to SEE debt levels.

The interwar period looked set to repeat the pre-war experience, when the creditor countries, in the cases of Greece and Serbia, had reduced government interference with the bank of note issue and had effectively pushed both countries onto the gold standard (as part of the financial supervision arrangements Greece and Serbia had entered into following their defaults in 1893 and 1895, respectively).

In other words, central bank independence, exchange-rate stabilisation and conditionality imposed by foreign lenders in the 1920s built on pre-war precedents. Sometimes, there was even institutional continuity. In the Greek case, for instance, the International Financial Commission not only monitored government finances until World War I, but was revived after the war and entrusted with supervising the two League of Nations loans of 1924 and 1928. World War I both interrupted and reinforced the pre-war pattern. The war acted as a caesura in that the bank of note issue lost any room of manoeuvre vis-à-vis the government, exchange-rates began to fluctuate wildly and foreign supervision effectively came to a halt. Yet the "need" for all three elements of the pre-war order rose as time went on. In some sense, then, the 1920s appear as a restoration and continuation of the pre-war arrangement.

The remainder of this contribution is structured as follows. Section 2 outlines the key characteristics of the period of monetary stabilisation in Bulgaria, Greece, Romania and Serbia in the two decades before World War I. We will argue that this period established many patterns between governments, banks of note issue and foreign lenders which were effectively resurrected in the interwar period. The third section deals with the monetary chaos of the war and immediate post-war years. While this was a common experience of many belligerent countries, the scale of inflation and depreciation was exceptionally high in SEE; an experience which created a profound and urgent need for stabilisation policies of which central bank independence was a crucial pillar. The fourth section is devoted to the 1920s quest for central bank independence: What exactly was the bargain between SEE countries and foreign lenders that resulted in central bank independence? Why was the League of Nations involved in the cases of Bulgaria and Greece, while Romania and Yugoslavia opted for more conventional bilateral loans? Last but not least, how independent were the central banks in practical terms, and why was banking supervision and regulation not part of the reform package?

2. Currency stabilisation and bank of note issue reform 1890s-1912 (1st Balkan War)

Exchange-rate stabilisation and central bank independence were two sides of the same coin in the 1920s. Stable exchange-rates were seen as an important economic policy objective and central bank independence was viewed as the means to achieve it. An additional consideration was important in the case of the SEE countries given their high government debt levels: creditor countries – often articulating their views through the League of Nations – viewed stable exchange-rates as the best way to ensure debt repayment. This provided an additional incentive to use their leverage – i.e., their ability to help replenish currency reserves by means of an international loan – to bargain for an independent central bank.

This quid-pro-quo had clear precedents in the two decades before World War I. In this perspective, the 1920s resume a trend towards more independent banks of note issue stretching back to the 1890s but interrupted by six years of war (Balkan Wars 1912/13 and World War I). The period of exchange-rate stabilisation in South-East Europe lasted from ca. 1890 to 1912, when one country after another stabilised their exchange-rates vis-à-vis *de jure* gold standard countries such as the UK and Germany. Using a typical definition of shadowing the gold standard (maintaining the exchange-rate within +/- 2.0% deviation from mint parity), *de facto* adherence began in 1890 for Romania, in 1906 for Bulgaria, in 1909 for Serbia in 1909 and in 1910 for Greece (Morys 2014: 45). Yet this was only the last step in a long drawn-out process which was the result of domestic efforts as much as of foreign pressure; only Romania was able to achieve stable exchange-rates on its own.

The most clear-cut case was Greece. The country re-entered international bond markets in 1879, when a debt compromise was reached over the Independence Loans of 1824-25 which the country had defaulted on in 1843 (Lazaretou 2014: 102). Financial markets proved so eager to supply funds that the debt-to-GDP ratio reached 179% in 1893 when the government defaulted; in urgent need of a new loan some years later, Greece consented to financial supervision by its main lenders in 1898. The details of this arrangement foreshadowed the 1920s loan accord with the League of Nations and deserve our attention.

Starting point of the lenders was that exchange-rate stabilisation was the best means to ensure debt repayment. Theoretically, there was no connection between domestic monetary system and foreign loans which were all denominated in foreign currency (Lazaretou 2014: 121). Yet in practice, stable exchange-rates help avoid currency mismatch between government revenue and expenditure, in turn making foreign debt payments more likely.

Given that the exchange-rate had depreciated more than 60% against mint parity by the time of negotiations, currency stabilisation was an uphill task and the creditor countries were in desperate need to find domestic institutions they could rely on and work with. The National Bank of Greece (NBG) offered itself as a natural ally. The Bank (founded in 1841) had been able to avoid government interference in its first two decades of existence, but had subsequently become subservient to the government. Financing persistent budget deficits was the norm of the day, and illiquid government debt as part of total assets peaked at 55% in 1897 (Lazaretou 2014: 165). From the perspective of the NBG, the International Financial Commission of 1898 was a welcome vehicle to clean up its balance sheet. The Greek government was obliged to pay back the loans to the NBG, reducing the money supply and improving the exchange-rate in the process. Given the scale of Greece's financial problems in 1898, this would be a lengthy process, but by 1910 the exchange-rate reached parity, government debt held by the NBG had been more than halved and foreign debt was brought down to a manageable 90%.

The pattern in Serbia and Bulgaria was similar but of smaller scale. Serbia opened up to international capital markets in 1881 (three years after political independence) and accumulated so much foreign debt that its debt-to-GDP ratio stood at 138% in 1895 when it defaulted. As part of the 1895 Karlsbad debt restructuring with its creditors (mainly Austria-Hungary), Serbia was obliged to stabilise its exchange-rate and accept foreign supervision. Similar to the Greek case, the National Bank of Serbia became the natural ally of the creditor countries and benefitted from a complete re-payment of all government debt by 1906. Serbia stabilised its exchange-rate in 1909, by which time the debt-to-GDP ratio stood at 102%.

The Bulgarian experience was the mildest. The country did not default, but entered into a financial supervision arrangement in 1902 as a precondition for another international loan (Tooze&Ivanov 2011: 33-37). Similar to Greece and Serbia, the creditors insisted on currency stabilisation (which was achieved by 1906) and on the repayment of government debt held by the Bulgarian National Bank. As opposed to the other two countries, government debt-to-GDP levels were allowed to rise and stood at 37% in 1911 (as opposed to 22% in 1902).

3. The wartime impact on the SEE monetary systems

The Balkan Wars (1912/13) and World War I brought two decades of sound money and relatively stable exchange-rates to an abrupt end. While this was not uncommon – and indeed is one of the central themes of this edited volume - , the scale of monetary disruption was particularly large in SEE. Naturally, World War I affected the monetary systems of the four countries differently, depending on the amount of actual combat on home territory (more in Serbia and Romania than in Bulgaria and Greece), whether a country had to deal with a separate monetary authority of the occupying forces (as in Romania between 1916 and 1918, cf. Stoenescu et al. 2014: 245) and, last but not least, when exactly the country entered the war (Serbia: July 1914; Bulgaria: October 1915; Romania: August 1916; Greece: June 1917). Serbia and Romania, for instance, had to physically relocate their bank offices which resided in Marseille (in allied France) and in Iasi (in non-occupied Romania) during the war.

Yet similarities between the SEE countries were stronger than differences. This is not least the case, as military – and as a result monetary – turmoil started with the Balkan Wars 1912/13 which involved all four countries. We will therefore follow convention in Balkan economic history and refer to a "long" war period from 1912 to 1918. In the case of Greece, the war period extended beyond 1918, as World War I was followed by the Greco-Turkish war (1919-1922).

The monetary systems in SEE are poorly researched for the war period, yet the available evidence points to disruptions similar to the Western European experience: gold convertibility was suspended (in so far as it had existed previously, cf. Morys 2014: 41-42), the payments systems collapsed, exchange-rates began to float freely and stock exchanges closed (Athens, Bucharest and the smaller exchanges of Belgrade and Sofia). Disruptions began with the first Balkan War in October 1912, but were partly reversed after the second Balkan War in late 1913; they became more profound again starting in august 1914, affecting Serbia immediately but increasingly also the initially neutral countries of Bulgaria, Greece and Romania.

The main evidence we have systematically preserved for all four countries is the balance sheet data of the four banks of note issue, including the monetary base. We also have reliable estimates of larger monetary aggregates (Austrian National Bank et al. 2014). They provide evidence of how governments financed the war efforts and the disruptions caused in their monetary systems in the process. Table 1 shows the growth rates of three key monetary variables in a growth accounting framework. Following Fratianni&Spinelli (2001), the

growth of broad money is decomposed into the growth of the money multiplier and the growth of the monetary base. In order to understand how governments financed the war, the growth of the monetary base is then decomposed into its two components, i.e., the treasury component of the monetary base and all other parts of the monetary base. The treasury component of the monetary base captures central bank lending to the government and hence shows to what extent government expenditure was covered by the "printing press". There are four periods of interest: a) pre-war financial supervision, i.e., from when the country entered into such an arrangement to the eve of the Balkan Wars[4]; b) the war period; c) post-war stabilisation from 1919 to the year preceding de facto exchange-rate stabilisation and (d) the interwar gold standard.

[Add table 1 about here]

Taking war and post-war stabilisation period together, all four countries experienced broad money growth in excess of 20% p.a. for a period of at least 12 years. In all cases, approximately half or more of that growth is attributable to growth in the treasury component of the monetary base; in other words, between 45% (Romania) and 81% (Bulgaria) of overall money growth is explained by debt monetisation on behalf of the government. This suggests that the printing press was the main form of financing World War I in SEE, a finding in line with the qualitative literature on the topic as far as it exists (Romania and Serbia).

Table 1 also shows that the post-war stabilisation period was not much different. In the cases of Romania and Yugoslavia, money growth in this period even exceeded war time growth. Some of this reflects the growth of the national economy due to territorial expansion; yet in both cases the largest contribution to money growth came again from growth in the treasury component of the monetary base, demonstrating the extraordinary financial needs of the time.

[Add table 2 about here]

Another indicator to appreciate the level of monetary expansion during the war is the level of depreciation of the interwar gold standard compared to its pre-war predecessor (table 2). It allows for (indirect) comparison with other European countries which also expanded their

[4] In the case of Romania, we choose the period of gold standard adherence.

money supplies at the time. While some countries re-pegged in the 1920s at the pre-war parity – most notably the U.K. – most countries were forced to devalue. The standard practice was to initially stabilise the exchange-rate at some level; if the level proved sustainable, this exchange-rate was declared the new currency parity. *Ceteris paribus*, higher levels of depreciation between the two gold standard eras stand for a higher level of monetary expansion and are suggestive of more extensive use of the "printing press" to finance the war (as opposed to bond issues). SEE countries depreciated by an unusually wide margin: From all other European countries, only Portugal depreciated by more than factor 10; the standard case was somewhere between 4 and 6. The four SEE countries also stand out in comparison to Central and Eastern Europe. Czechoslovakia – which was the only country in the region to continue with the old currency – depreciated only by factor 6.8.

Why was debt monetisation the preferred option to finance the war effort in SEE? Before the war, budget deficits had been closed either by debt monetisation or by capital imports; a meaningful recourse to domestic savings was not available given the scarcity of them. As foreign funds dried up (including from the respective war allies), financing World War I through bond issuance was simply not feasible and the "printing press" was the only option available. This helps explain the extraordinarily high money growth rates during the war period and, in turn, the urgent need for stabilisation policies in the 1920s. This is what we turn to now.

4. The emergence of modern central banks in the interwar period

In late 1918, the banks of note issue in all four countries were a shadow of the institutions they had been only six years earlier on the eve of the Balkan Wars: they had become fully subservient to the needs of the treasury and they presided over bloated balance sheets full of illiquid government debt. Yet another 10 years later, fortunes had reversed again and all of them had acquired a position stronger than before the war: they had been re-organised into genuine central banks; they enjoyed a larger degree of independence vis-à-vis the government, both legally and practically; they were (or would shortly become) full-fledged members of the interwar gold standard[5] and they had used the proceeds of international loans to bring their currency reserves to comfortable levels.

[5] They had only shadowed the pre-war gold standard, with the exception of Romania (1890-1912) and Greece (1910-1914).

Developments in SEE were part of a broader trend towards independent central banks. The U.S. and the U.K. – the two largest economies of the time and the main drivers of currency stabilisation in the 1920s – were deeply concerned over the wildly fluctuating exchange-rates of the immediate post-war era. Floating rates did not provide sufficient stability and predictability for a return to trade and capital flows of pre-war levels. Yet the main fear was that the less developed countries of Europe would try to use ever weaker exchange-rates to gain a trade advantage over the U.S. and Britain (both countries were determined to maintain the pre-war parity). Moreover, the spread of universal suffrage in the wake of World War I meant that parliaments could no longer be trusted to reign in spendthrift governments, increasing the pressure on banks of note issue to monetise budget deficits. If exchange-rate stability was the objective of U.S. and U.K. government policy throughout the 1920s, they needed a means to achieve it. If monetary policy was to remain orthodox, the monetary authority needed to be shielded more from government pressure than had been the case before the war; hence the quest for central bank independence in the interwar period.

This movement was pan-European. Yet it took its clearest form in Central, East and South-East Europe. West European countries, by and large, stabilised exchange-rates on their own; in the process, they often made their banks of note issue more independent, but this would not necessarily find its way into a new charter, let alone lead to a complete restructuring of the bank. Yet in Eastern Europe, the latest academic thinking on central banking could be more directly applied. In the successor states of the Habsburg and Romanov empires, in particular, new central banks needed to be established and provided with charters.

The situation in SEE presented itself differently but no less receptive to modern central banking. Banks of note issue existed due to earlier political independence. The grand bargaining tool of the U.K. and France[6] was their promise to help replenish exhausted currency reserves by means of international loans. As demonstrated in section 3, governments relied on seigniorage to close budget deficits for several years after the end of the war; once inflation and depreciation had taken their course, exchange-rates began to stabilise at heavily reduced levels but reserves were too low to introduce convertibility (table 2 provides dates of de facto and de jure stabilisation). The Yugoslav case is extreme with only 8% reserves to bank notes in 1925, yet even Romania as the country with the highest reserve level (33% in 1927) had some ground to cover. This would take several years and require outside help; a

[6] As the 1920s went on, the U.S. became less and France became more important (cf. above).

situation which the lenders took as an opportunity to insist on independent central banks as a precondition for the loan.

In the case of SEE, independent central banks and exchange-rate stabilisation also served the ‘traditional’ interest to secure debt repayment. Payment obligations could stem from pre-war debt but also from reparations. Bulgaria – the only SEE country allied to the central powers and subjected to reparations at the treaty of Neuilly (November 1919) – illustrates the logic of the argument particularly well: de facto exchange-rate stabilisation came here earliest, as France – major recipient of the reparation payments but also large holder of pre-war debt – effectively forced Bulgaria to do so (Nenovsky&Dimitrova 2006). Yet while the exchange-rate was henceforth stabilised (an achievement only possible with capital controls), Bulgaria could not contemplate moving towards convertibility. Bulgaria’s reserves – many of which had been in German currency given the wartime alliance – were badly hit by the 1923 German hyperinflation and could barely cover a fifth of bank notes in circulation.

An international loan was the way forward, yet where could it come from? Bulgaria’s debt-to-GDP ratio stood (even after the reduction of reparation payments) at 81% in 1924. In this distressed situation, Bulgaria followed in the footsteps of Austria and Hungary which had turned to the League of Nations for loan agreements in 1923 and 1924, respectively. While such loans were issued through normal banking houses, the League of Nations provided credibility by imposing conditionality. A first such loan was issued in 1926 and devoted to the more immediate business of resettling refugees, followed by a second loan in 1928 specifically devoted to currency stabilisation (Dimitrova&Ivanov 2014: 217).

Greece’s international loans were also issued under the auspices of the League of Nations. The League loans had developed (not entirely unfounded) the reputation of providing funds to countries vanquished in World War I; yet after the military, political and economic disaster in Asia Minor (1922) Greece found itself in a comparable situation in that it was shut out of international capital markets. It took out a first loan in 1924; after exploring other loan options which all failed, it turned again to the League of Nations in 1928 for another loan specifically devoted to currency stabilisation.

The Romanian and the Yugoslav cases deviate somewhat, yet not enough to exclude the two countries from our analysis. In the Romanian case, the only major difference was that the League of Nations was not involved in issuing the loan, but it was a bilateral arrangement with France; a difference which mainly reflects the desire to keep the British at arm’s length. In all other aspects, it followed very much the League standard script (Torre&Tosi 2009).

We are on less clear grounds regarding the Yugoslav case which awaits further research. There is no indication that Yugoslavia contemplated going through the League of Nations. This might reflect political pride and the availability of outside options, but it might also reflect lingering political resentment at the League for mishandling the Fiume affair. Negotiations for an English loan broke down in 1928 and it took another three years to eventually agree on a loan with France (Hinic et al. 2014).

What exactly did central bank independence mean and how was it secured? In the view of contemporaries, three conditions needed to be met: the bank needed to be statutorily independent, its main task was to preserve the value of the currency and it required a sufficient endowment of reserves (de Cecco 1997; Christodoulaki 2002). The third condition was met by virtue of the international loans; analysing the first two will demonstrate how far reforms went at the time.

Statutory independence aimed at keeping government influence at bay. It revolved around three issues: the organisational form, the appointment of the board and the governor, and the question of state finance. Ideally, the central bank was organised as a private joint stock company, the board and the governor were elected by the shareholders, and state finance was prohibited. The Bank of England came close to this ideal and served as role model at the time; not least as a result of the overarching British influence on the Financial Committee of the League of Nations.

In terms of organisational form, the Bank of Greece came closest to this ideal: the newly founded institution (cf. below) was (and has remained to this day) a private joint stock company, of which the state and state institutions were not allowed to own more than one-tenth (Christodoulaki 2002: 20). The case of the Bulgarian National Bank – the only SEE bank of note issue which had always been fully state-owned – , by contrast, showed the limits of influence of the League of Nations when it failed to impose a privatisation scheme (Avramov 2006: 61). As far as the appointment of the governor was concerned, different rules existed but in all cases government approval (or even nomination) was required (de Cecco 1997: 104). State finance was the most delicate issue. In the cases of the more advanced CESEE economies of Czechoslovakia, Hungary and Poland, an outright ban of state finance was written into the charters. Given the scarcity of domestic savings in Bulgaria, Greece, Romania and Yugoslavia and an underdeveloped commercial banking system, such an approach appeared impractical; rather, the bank charter chose to regulate state finance by fixing precise limits to its timing and maximum extent (de Cecco 1997: 82). As table 1

shows, debt monetisation remained unimportant under the interwar gold standard. This suggests that the facilities provided for state finance were only used on a temporary basis but not to systematically close budget deficits.

Confining the central bank's task to preserving the value of the currency was meant to avoid conflict of interest: by removing the commercial banking activities, the central bank would henceforth be able to focus exclusively on the gold link. This worked well in the cases of Bulgaria, Romania and Yugoslavia, yet created considerable problems in the case of Greece. The National Bank of Greece, a private joint stock company since its foundation in 1841, refused to give up its highly profitable commercial banking activities; the only solution left was to create a new institution – the Bank of Greece – specifically as a central bank (Christodoulaki 2002: 15-17). While this satisfied the League of Nations' requirements formally, the solution found undermined the new Bank of Greece from its inception. The Bank of Greece remained in the shadow of the National Bank of Greece and never assumed the central position in the country's financial architecture that the reform was meant to give it. The National Bank of Greece remained too big in comparison and the Bank of Greece held too many illiquid assets (transferred to it from the balance sheet of the National Bank of Greece) to make its monetary policy effective (Christodoulaki 2002: 23).

While the interwar stabilisation efforts invested much faith in the letter of the central bank charter, securing the independence of the central bank and safeguarding stable exchange-rates also came through other means, in particular through the League of Nations. In the Greek case, for instance, the 1928 loan-cum-conditionality agreement between Greece and the League provided for a strict supervision over fiscal policy in general (Pepelasis Minoglou 1993: 203). Budgets had to be balanced, and foreign experts in conjunction with the Greek authorities had to report every three months in detail on the fiscal situation. The other country cases are less well studied, but financial supervision by the League and foreign creditors seems to have been conducted along similar lines (Avramov 2006: 62; Torre&Tosi 2009: 94-95).

By the late 1920s, then, Bulgaria, Greece, Romania and Yugoslavia all had modern central banks. On the face of it, the four institutions exhibited the key characteristics of a modern central bank in a purer form than was the case for older institutions such as the Bank of England and the Banque de France. Yet faithful adoption of state-of-the-art central bank charters did not necessarily guarantee central bank independence in practice. In the following,

we will point to some possible innovations which the 1920s reforms did not include. Both aspects became important when the mid-1920s boom gave way to the Great Depression.

On some level, central bank independence was tied too narrowly to the interwar gold standard. The issuing privilege of the Bank of Greece, for instance, could be withdrawn if the bank failed to ensure gold convertibility (Christodoulaki 2002: 17); this stipulation was understandable given that central bank independence aimed at ensuring exchange-rate stability. Yet it became problematic, when economic conditions turned adverse with the onset of the Great Depression and defending the exchange-rate was no longer feasible (as was arguably the case for Greece in April 1932): the door was again wide open for government interference and central bank independence came under threat when it was needed most.

Last but not least, while the 1920s efforts at currency stabilisation resulted in (relatively) independent central banks, this reform process did not turn the central bank into the bank of banks: supervision and regulation of banks came only in the 1930s (de Cecco 1997, Christodoulaki 2002). Financial experts at the time discussed whether central banks should supervise banks, yet it was thought that currency stabilisation was their main task and that they should not be overburdened by assuming another, not yet clearly specified task. The 1920s discussions failed to realise that long-term currency stabilisation also required stable banks; the interconnectedness between currency crises and banking crises became clear to many contemporaries only with the 1931 European financial crisis which in most of the affected countries exhibited characteristics of both types of crisis. It was only in response to the 1930s banking crises that the responsibilities of a central bank were widened to also include the supervision and regulation of commercial banks.

Austrian National Bank, Bank of Greece, Bulgarian National Bank, and National Bank of Romania. *South-Eastern European Monetary and Economic Statistics from the Nineteenth Century to World War I.* Vienna 2014.

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Table 1
Money growth accounting for Bulgaria, Greece, Romania and Serbia/Yugoslavia

		Growth of monetary aggregates (in per cent)				
		Total money growth	Monetary base treasury component	Monetary base rest comp.	Combined comp.	Money multiplier
Bulgaria						
Financial supervision I	1903-1911	10.0	-2.2	8.7	1.9	1.6
War period	1912-1918	30.6	20.3	16.4	1.0	-7.0
Post-war stabilisation	1919-1923	17.8	20.5	-12.7	3.6	6.4
Interwar gold standard	1924-1930	7.2	-23.1	11.1	12.7	6.5
Greece						
Financial supervision I	1898-1911	5.0	-0.7	0.7	0.0	5.0
War period	1912-1922	24.6	17.8	8.2	2.5	-3.9
Post-war stabilisation	1923-1926	12.5	2.1	6.2	2.6	1.6
Interwar gold standard	1927-1931	13.2	-3.2	-0.6	0.1	16.9
Romania						
Pre-1914 gold standard	1890-1911	5.3	-0.2	5.0	0.0	0.6
War period	1912-1918	21.6	10.6	23.2	-2.8	-9.3
Post-war stabilisation	1919-1926	25.5	10.9	8.7	-0.4	6.4
Interwar gold standard	1927-1931	8.5	-12.2	8.8	3.0	8.9
Serbia / Yugoslavia						
Financial supervision I	1896-1911	6.8	-0.5	7.0	0.4	n.a.
War period	1912-1918	29,5	16.1	16.9	-3.5	n.a.
Post-war stabilisation	1919-1924	40.2	33.1	6.6	0.5	n.a.
Interwar gold standard	1925-1930	-1.1	-1.2	0.1	0.0	n.a.

Source: Own calculations based on South-Eastern European Monetary and Economic Statistics from the Nineteenth Century to World War II (2014).

Table 2 gold standard adherence in the interwar period

	exchange-rate stabilisation			**end of gold standard**		**duration on gold**	
Countries	**de facto**	**de jure**	**depreciation vis-à-vis pre-war parity**	**by means of capital controls**	**by formal suspension or devaluation**	**de facto**	**de jure**
South-East Europe							
Bulgaria	05/1924	12/1928	26.71	10/1931	n.a.	7y 6m	2y11m
Greece	01/1927	05/1928	14.87	09/1931	04/1932	5y 4m	4y 0m
Romania	03/1927	02/1929	32.26	*10/1931*	*n.a.*	4y 8m	2y 9m
Yugoslavia	07/1925	05/1931	10.96	*05/1932*	*n.a.*	7y 11m	1y 1m
						6y 4m	**2y 8m**
Western Europe							
Austria	10/1922	12/1924	n.a.	10/1931	04/1933	9y 1m	7y 1m
Belgium	10/1926	10/1926	6.94	03/1935	03/1935	8y 6m	8y 6m
France	12/1926	06/1928	4.93		09/1936	9y 10m	8y 4m
Germany	09/1924	08/1924	n.a.	07/1931	n.a.	6y 9m	7y
Netherlands	11/1924	04/1925	1.00		09/1936	11y 11m	11y 6m
UK	01/1925	05/1925	1.00		09/1931	6y 9m	6y 5m
Switzerland	11/1924	06/1925	1.00		09/1936	11y 11m	11y 4m
						9y 3m	**8y 7m**
Southern Europe							
Italy	07/1927	12/1927	3.67	05/1934	09/1936	6y11m	6y 6m
Portugal	06/1928	06/1931	24.30	10/1931	10/1931	3y 5m	5m
						5y 2m	**3y 6m**
Scandinavia							
Denmark	06/1926	01/1927	1.00		09/1931	5y 4m	4y 9m
Finland	11/1923	12/1925	7.66	10/1931		8y	5y 11m
Norway	09/1927	05/1928	1.00		09/1931	4y 1m	3y 5m
Sweden	01/1922	04/1924	1.00		09/1931	9y 9m	7y 6m
						6y10m	**5y 5m**
Central and East Europe							
Czechoslovakia	03/1923	03/1925	6.84	10/1931	02/1934	8y 8m	6y 8m
Estonia	12/1924	01/1928	n.a.	11/1931	06/1933	7y	3y11m
Latvia	11/1922	08/1922	n.a.	10/1931		9y	9y 3m
Hungary	01/1925	04/1925	n.a.	07/1931		6y 7m	6y 4m
Lithuania	01/1922		n.a.	10/1935		13y 10m	
Poland	10/1926	10/1927	n.a.	04/1936		6y 7m	5y 7m
						8y 7m	**6y 4m**

Sources: League of Nations Statistical Yearbooks 1927, 1929, 1932/33, 1935/36 and 1938/39.