IMF WORKING PAPER

WP/92/66

INTERNATIONAL MONETARY FUND

Research Department

The Dissolution of the Austro-Hungarian Empire: Lessons for Currency Reform

Prepared by Peter M. Garber and Michael G. Spencer 1/

Authorized for distribution by David Folkerts-Landau

July 1992

Abstract

This paper investigates the currency reforms undertaken subsequent to the dissolution of the Austro-Hungarian Empire in 1918. The reforms were motivated by the lack of coordination of monetary policy and the absence of a rule for sharing seigniorage. Because the Successor States' reforms were not carried out simultaneously, individuals could choose where to convert their crowns based on where their real value was greatest. The cross-border flows of notes was substantial, to the detriment of Hungary which was last to reform. The Austrian and Hungarian currencies were stabilized only with the help of League of Nations financial programs.

J.E.L. Classification Numbers:
E5, F3, N2

1/ This paper expands upon Section III of "The Economics of Currency Reform in the C.I.S.," by David Folkerts-Landau, Peter Garber and Michael Spencer, forthcoming 1992.

Contents

Summary

The dissolution of the Austro-Hungarian Empire in 1918 provides a salient historical example of a currency union whose breakup was not forced by occupation authorities or civil war or orchestrated by a colonial power. This example is particularly instructive now, because the changes in the economic and political landscape 74 years ago closely parallel current developments in Eastern Europe.

Beginning in March 1919, the Kingdom of Serbs, Croats, and Slovenes, Czechoslovakia, Austria, Romania, and Hungary successively undertook currency reforms designed to create identifiable domestic currencies over which their own institutions had control. This episode provides the best historical example of the transition from a breakaway reform--that is, a currency reform undertaken unilaterally by one of a group of states in a currency union--to a successor state reform, in which all states in the currency union introduce reforms.

This paper investigates the currency reforms instituted by the Austro-Hungarian successor states. Of particular interest is the sequence of events and the consequent incentives and opportunities for individuals to choose where to convert their currency based on where the Austro-Hungarian crown notes that were being replaced had their highest real value. The paper also includes a discussion of the liquidation of the Austro-Hungarian Bank.

This historical episode suggests the following observations. First, currency separation can be accomplished relatively quickly. Second, if currency separation is not undertaken simultaneously in each region, differential tax-inclusive conversion rates will create incentives for individuals to spend or exchange their old notes in the region where they are most valuable. Third, states that are late in breaking away from the currency union may ultimately convert more than their previous shares of the old notes. An agreement among authorities to liquidate central bank assets prorated on the amount of currency collected, and to return these notes to the bank of issue, will only partially compensate for the lost goods. Fourth, the existence of such incentives, created by the withdrawal of one significant region from the currency union, will lead to defensive currency reforms in the remaining regions. Hence, a breakaway reform introduced by one region will likely lead to reforms being introduced in all regions. Finally, currency reform will succeed in creating a stable medium of exchange only if it is accompanied by sound fiscal and monetary policies. It is not necessary, however, for fiscal restraint to precede currency reform if the new monetary authorities are constrained in their ability to extend credit to the state.

I. Introduction

The dissolution of the Austro-Hungarian Empire in 1918 provides the key historical example of the breakup of a currency union not compelled by occupation authorities or civil war or orchestrated by a colonial power. 1/ It is particularly instructive because the consequent changes in the economic and political landscape closely parallel current developments in Eastern Europe. At the end of World War I the minority nationalities in the Empire received support from the Allies for their demands for independence. On October 15, 1918, Croatia and Slovenia declared independence from Austria-Hungary and established the state of Slovenes, Croats and Serbs. Bosnia-Hercegovina and Vojvodina declared themselves for union with Serbia. On December 1, 1918 the two groups joined in the Kingdom of Serbs, Croats and Slovenes with its capital in Belgrade. On October 20, 1918, the Czech National Council proclaimed the independence of the Czech and Slovak state, comprising Bohemia, Moravia, Slovakia, and part of Galicia. In response, the Austrian Provisional National Assembly was formed on October 21 and proclaimed the German-Austrian Republic on November 12, comprising what was left of the Austrian half of the Empire. On October 25, Hungarian politicians formed their own assembly and proclaimed the Hungarian Republic on November 16, having lost Transylvania and other territory to Romania. Other parts of the Empire were claimed by Italy and the new Polish state.

1/ The Austro-Hungarian Empire emerged from the union of the Austrian Hapsburg Empire and the Hungarian Monarchy in the "Compromise" of 1867. This agreement created a monetary and customs union of two autonomous regions with their own administrations and budgets, but sharing commercial, defense and foreign policies. The common expenses were paid out of net customs receipts and contributions from the two governments (their "quotas"). Under the terms of the last pre-war agreement, Austria paid 63.6 percent of the residual common expenditures. The terms of the agreement, including the tariff structure and the distribution of expenses between the two states were renegotiated every ten years.

Table 1. Territorial Redistribution

	Area (km^2)		Population (,000)	
	1914	1921	1914	1921
Austria-Hungary	676,443		51,390	
Austria		85,533		6,536
Hungary		92,607		7,600
Czechoslovakia		140,394		13,613
Romania	137,903	304,244	7,516	17,594
Serbia	87,300		4,548	
Kingdom of Serbs, Croats and Slovenes		248,987		12,017

Source: Berend and Ranki (1974), p. 73.

The creation of the new states had respected historical political geography more than economic relationships. Czechoslovakia inherited the bulk of the most efficient heavy industrial plants, coal mines, textile plants, and sugar production. Hungary inherited most of the best farmland (although much of it was lost to Romania) while Austria inherited a considerable, although weakened, industrial base and most of the administrative and financial infrastructure of the Empire. These new states shared a greatly devalued, hyperinflating currency, a collapsed trade and payments system and large external debts.

II. Post-War Situation

Austria-Hungary had been a relatively closed empire and it seemed natural that the Successor States should quickly restore the pre-war patterns of trade between them. 1/ In fact, there was support for the maintenance of some kind of preferential commercial relationship among the Successor States. 2/ The Portorose Conference of November, 1921 investigated just such an arrangement and called for the elimination of trade barriers among the states occupying former Austro-Hungarian territory. The participants, however, were prepared only to create a customs union, and not to re-establish an economic union. Nevertheless, political differences (as over the 'Sudetenland' between Austria and Czechoslovakia) and German and Italian opposition to the creation of a customs union, which would

1/ The term "Successor States" will here be expanded to include Austria, Hungary, Czechoslovakia, Romania and the Serb-Croat-Slovene State as the inheritors of the most significant portions of Austro-Hungarian territory.
2/ Pasvolsky (1928), p.191.

exclude them from valuable markets, prevented the ratification of the Portorose protocol. 1/

During the immediate postwar period, the Allies maintained their trade embargo against Austria and Hungary. 2/ After four years of war the situation in these countries was poor. There had been shortages of food and raw materials in Vienna as early as 1916 as Hungary restricted food deliveries to ensure self-sufficiency, and transportation routes were disrupted. 3/ In an attempt to protect their industrial bases and to compete against the financial strength of Vienna, Czechoslovakia, Hungary and the Serb-Croat-Slovene State raised tariffs to between 150 percent and 200 percent of Austrian tariffs. 4/ Moreover, exports of food and fuel were forbidden in Czechoslovakia and Hungary and imports of Austrian consumer goods were also proscribed. Even the Austrian provinces refused to send food to Vienna because they had their own shortages of food and fuel and were reluctant to accept crowns in payment for their shipments. It is

---

1/ During the war, Germany had proposed unification with Austria, an idea that had first surfaced in the mid-19th century. The Germans therefore opposed any attempt to reach a preferential tariff agreement among the Successor States and threatened retaliatory measures. Since Germany was one of the most important trading partners for Austria and Czechoslovakia this threat succeeded in its aim. Unification was opposed by much of the banking and industrial community, which feared losing out to lower cost German competitors. In any event the unification scheme was specifically prohibited in the Peace Treaty of Saint-Germain signed by Austria. That Treaty, however, recommended a trade association among the Successor States.

2/ Austria and Hungary were considered by the Allies to be the successors of the Austro-Hungarian Dual Monarchy and were therefore held responsible for starting the war.

3/ After the dissolution of the Empire the different countries nationalized those parts of the former Austro-Hungarian rail infrastructure contained within their borders. This led to a very uneven distribution of rolling stock. Consequently, the Czech authorities, for example, did not allow rolling stock to leave the country and confiscated any Austrian cars that came in, effectively halting cross-border traffic. Moreover, there were shortages of coal, even in Czechoslovakia, which frequently prevented trains from moving. (Marz (1984), pp.292-293, de Bordes (1924), p.10)

4/ Austria, Hungary and Czechoslovakia retained the Imperial tariff of 1906, with the rates adjusted for depreciation. By 1924 the adjustment in Austria and Hungary involved multiplying the per unit tariff by 10,000, but even this was not enough to compensate fully for the change in the value of the crown. The multiplication factor was much greater in Czechoslovakia. Romania similarly adjusted the old Romanian tariff, and the Serb-Croat-Sloven state used adjusted Serbian tariffs. The very high tariff rates were apparently largely a strategic measure designed to increase the authorities' bargaining power when they negotiated trade agreements with each other (Pasvolsky (1928), p.181). Each state introduced new tariff structures in 1924-25.

difficult to ascertain how important the trade embargoes in Czechoslovakia and Hungary were since food and raw material shortages in these countries would have reduced food available for export. 1/ The trade that was permitted was hampered because of disruptions in the rail network and because Czechoslovakia, the Serb-Croat-Slovene State and Hungary were reluctant to accept crowns in payment. Thus, most of the trade was barter arranged by the three governments.

On August 4, 1914, the Austro-Hungarian government suspended gold conversion, the need for 40 percent gold cover of the currency, and the obligation to publish central bank statements every ten days, and authorized the Austro-Hungarian Bank to ignore the prohibition from lending to the government. 2/ The authorities also suspended the 5 percent tax on notes issued in excess of an amount equal to the gold reserve plus 600 million

---

1/ These shortages of food and fuel in Czechoslovakia and Hungary were documented by the Inter-Allied Commissions in Austria and in these two countries. The Commissions arranged for emergency food shipments to the three countries in early 1919.

2/ The Austro-Hungarian Bank was established in 1878 when the Austrian National Bank was transformed into a bank of issue for both Austria and Hungary. It was granted an exclusive right to issue banknotes but had to maintain two equal centers of operation in Vienna and Budapest. Its first charter covered the period July 1, 1878 to December 31, 1887. It was originally governed by one governor (appointed by the Emperor upon joint recommendation of the Austrian and Hungarian finance ministers), one vice-governor from each of Austria and Hungary and twelve councilors chosen by the general assembly of the shareholders, with a minimum of two from each country. Since Austrian banks dominated the shareholders, most of the councilors were Austrian. The founding statutes assigned 70 percent of note issues to the Austrian branch and 30 percent to Budapest. Similarly, the governments' shares in the bank's profits were divided 70:30. The charter was renewed in 1887 for a further ten years. In 1892 the Bank was charged with moving to a gold standard on January 1, 1900 at the conversion rate of 1 kg. of gold to 3,280 crowns. The Bank immediately commenced building up gold reserves with which to stabilize the external value of the crown and between 1890 and 1900 these rose from 108 million crowns' worth to 919.6 million crowns (Zuckerkandl (1911) p.117). While the crown was never legally placed on a gold standard, in practice the Bank maintained convertibility (Pasvolsky (1928), p.17, Rasin (1923), p.7). After two temporary extensions the Bank's charter was renewed in 1899 for a period extending to no later than 1910. The government of the Bank was changed to require that Austria and Hungary be represented equally on the council and to add Austrian and Hungarian deputy vice-governors. The distribution of profits was also changed to reflect Hungary's increasing economic strength. Hungary insisted that its share of profits should be equal to the proportion of the Bank's earnings acquired in Hungary. After two temporary extensions the charter was renewed for a final time in 1911 and was due to expire at the end of 1919.

crowns. The war effort was financed almost entirely by sales of government War Bonds, which were then purchased by the Bank at a discount. 1/ The bonds usually sold at a rate of 96 and had a coupon interest rate of 5.5 percent. To ensure that the War Bonds were completely subscribed the Bank was authorized to provide advances of up to 75 percent of their face value (at a discount rate of 5 percent). It continued to do so even in November of 1918 when the bonds sold at only 60 percent of face value and maintained this policy long after the war. 2/ From July 23, 1914 to October 26, 1918, the Austro-Hungarian Bank's gold reserves declined to 21 percent of their pre-war level, and the stock of currency rose by

---

1/ Marz (1984), pp.135-136, notes that in correspondence between the Austrian Finance Minister and the governor of the Austro-Hungarian Bank soon after the start of the war, no mention is made of the possibility of financing any part of the war expenses through taxation.

2/ Not surprisingly this provided a very attractive opportunity to escape the inflation tax. In a high inflation-rate economy debtors profit from a devaluation of their debt. Hence the Bank's operation provided an easy way for creditors to the government to become debtors to the Bank. On one day, November 7, 1918, advances on War Loans were made totalling 609 million crowns. Between October 26, 1918 and February 2, 1919, advances rose by 5,225 million crowns (Rasin (1923) p.19). These advances were facilitated by the Austrian government's commitment to compensate the Bank for any losses incurred on these loans. The debts incurred were greatly devalued by the ensuing hyperinflation. Czechoslovakia had prevented the Austro-Hungarian Bank from providing these advances in Czechoslovakia in November, 1918, but had been unable to convince the Austrians to end the policy. Marz (1984) pp.325-326 argues that in fact both parties were acting rationally. Most of the War Loans were held by German Austrians and to a lesser extent by Hungarians, while the Czechs held comparatively more cash. Thus, this policy allowed Austrians and Hungarians partly to escape the inflation tax at the expense of the Czechs and others holding bank notes. Zeuceanu (1924), p.132, reports that many investors arranged an easier escape by simply reporting false names and addresses on their loan applications.

1,340 percent. 1/ Despite this expansion in the monetary base, there was little depreciation of the crown because of extensive capital controls and the great reduction in trade. There was, however, substantial inflation. 2/

The pressing problem facing the Successor States was that they shared a common currency, the Austro-Hungarian crown; but they did not all share in the seigniorage and did not have the same need for inflationary

---

1/ Accounts of the Austro-Hungarian Bank
July 23, 1914 to Oct. 26, 1918
('000 crowns)

	1914	1918
Assets		
Reserves	1,589,247	342,342
Gold	1,297,879	285,010
Silver	291,368	57,332
Discounted Securities	767,830	2,812,946
Personal Loans	186,526	4,094,582
Debts of the Austrian Government	60,000	19,694,000
Securities	17,618	57,178
Mortgages	299,994	280,668
War Loans	...	100,241
Debts of the Hungarian Government	...	6,798,000
Treasury Bill Claims	...	2,929,241
on the Austrian Government	...	1,862,997
on the Hungarian Government	...	1,066,244
Other Assets	115,292	1,198,106
Total Assets	3,036,507	38,307,304
Liabilities		
Share Capital	210,000	210,000
Reserve Fund	32,160	42,190
Notes in Circulation	2,129,759	30,679,675
Current Accounts	291,270	2,849,018
Mortgage Bonds in Circulation	291,268	274,721
Treasury Bills in Circulation	...	2,929,249
Other Liabilities	82,050	1,322,451
Total Liabilities	3,036,507	38,307,304

Source: Rasin (1923), pp.8-10.

2/ Marz (1984), p.207, reports official indices prepared in December, 1921, that show that the cost of living rose by 1,226 percent between July 1914 and November 1918. When housing costs are removed from the index (rents had been frozen early in the war) the price increase grows to 1,540 percent. This index does not reflect black market prices and so underestimates the true inflationary impact, given that there were serious shortages of basic consumer items for most of the period.

finance. 1/ For example, the Austrian government, faced with unprecedented unemployment, huge debt payments, a large civil service, a commitment to food subsidies and scarce foreign exchange and gold reserves, maintained the wartime policy of monetizing government budget deficits. 2/ The Czech and Hungarian representatives on the board of governors of the Austro-Hungarian Bank objected strongly to this policy and to the discounting of government and commercial paper.

As inflation in the region soared in response to the monetary expansion, the governments of the Successor States increasingly embraced the necessity of currency reform. Beginning in March, 1919, the Kingdom of Serbs, Croats and Slovenes, Czechoslovakia, Austria, Romania and Hungary successively undertook currency reforms designed to create an identifiable

---

1/ In late 1918, Czechoslovakia, Poland, Romania, the Serb-Croat-Slovene State and Italy were given representation on the board of governors of the Austro-Hungarian Bank. However, all the notes continued to be printed in Budapest and Vienna. Czechoslovakia, having inherited much of the industrial sector of the former empire had a stronger tax base than either Austria or Hungary and therefore had less of a need to finance government spending through printing money. Prior to pushing for Successor-State commissioners at the Bank, Rasin had tried to have instituted an international commission to control the Bank and prevent further issues of uncovered notes. He had also argued, unsuccessfully, against further discounts of War Loans and against the extension of Bank credit to governments (Rasin (1923) pp. 16-17).

2/ Pasvolsky (1928), p.96-97, de Bordes (1924), p.19 and the Economist (July 19, 1919), p.94, report that large numbers of German Austrian civil servants and bankers who had been stationed outside the territory covered by the Republic of Austria were expelled and returned to Vienna where they were absorbed into the Austrian civil service. League of Nations (1926a) reports that as of October, 1, 1922, there were 246,473 employees in the central administration, and government enterprises and railways (other than the Southern Railway). The elimination of 44,870 jobs between October, 1922 and July, 1923 was "possible without drastic reorganization of the administration" (League of Nations (1926a), p.52). The League of Nations reconstruction program with Austria called for the elimination of 100,000 positions, which was considered a conservative target. The Financial Committee found that state officials and their families constituted more than ten percent of the population of Austria in 1921 (League of Nations (1921). De Bordes (1924), p.11, reports that the number of unemployed rose from 46,203 in December, 1918 to a peak of 186,030 in May, 1919, of which 131,500 were in Vienna alone, a city of roughly 2 million people.

domestic currency over which their own institutions had control. 1/ This episode provides the best historical example of the process that makes a breakaway reform, a currency reform undertaken unilaterally by one of a group of states in a currency union, an ephemeral stage of a successor-state reform, in which all states in the currency union introduce reforms.

III. Initial Currency Reforms: Currency Separation

1. Kingdom of Serbs, Croats and Slovenes

The new Kingdom of Serbs, Croats and Slovenes comprised territories that had either been part of the Austro-Hungarian Empire or had been occupied by its army during the war. Consequently large quantities of Austro-Hungarian Bank notes circulated along with Serbian dinars, Montenegran perper and Bulgarian lev. 2/ The Serb-Croat-Slovene State started the successor-state reform process in the region on January 8, 1919 by calling in and stamping with the national emblem all Austro-Hungarian notes in its territory between January 8 and February 2. 3/ This initial operation was unsuccessful, because the stamp was easily forged, and in a second operation, undertaken between November 26 and December 15, 1919, a stamp was affixed to notes bearing the ink mark. 4/ When the stamps were attached to the notes the authorities imposed a levy, converting 20 percent of the currency submitted into 10-year government bonds which paid 4 percent interest per year. For amounts below 1000 crowns, the 20 percent that was

---

1/ Austro-Hungarian currency circulated in these countries and also in parts of Italy and Poland. These two countries also exchanged these notes for domestic currency; however, the amounts were small and, more importantly, the experiences of those countries did not correspond to successor state or breakaway reforms. The details of their currency reforms are in Appendix B.

2/ There were far more crowns circulating at this time than Serbian dinars. In Serbia there were 50 percent more crowns than dinars and in Croatia/Slovenia and Vojvodina there were twice as many crowns as dinars (*Lampe and Jackson* (1982), p.378).

3/ A decree of Dec. 12, 1918 had forbidden the import of Austro-Hungarian banknotes into the Serbian parts of the Dual Monarchy and a decree of Jan. 30, 1919 extended this ban to the rest of the Kingdom. The stamping operation was implemented by a decree signed on December 25, 1918, but announced on January 8, 1919. This provided for the stamping of the 100, 50, 20, 10, 2 and 1 crown notes, but not the 25, 200 and 10,000 crown notes.

4/ "The forgeries of stamps became so numerous that the officials themselves could no longer detect whether the stamps were genuine or forged, so that the Government was compelled to accept large quantities of these falsified notes which were presented for the second stamping." (Steiner (1921), translated in de Bordes (1924) p.235).

retained was returned no later than April 1, 1920. 1/ The currency exchange was effected on two occasions, first between February 16 and May 15, 1920, and between May 17 and June 4, 1921, at a rate of four crowns per dinar, although the imposition of a 20 percent tax refundable in ten year bonds lowered the effective rate to 5:1, which was worse than the market rate in Vienna. 2/ Zeuceanu (1924) reports that the Yugoslav authorities submitted 5.7 billion crowns to the liquidators of the Austro-Hungarian Bank. 3/

The new National Bank of the Kingdom of the Serbs, Croats and Slovenes was established on January 26, 1920 and began operations on February 1, replacing the Serbian National Bank and taking over its assets and liabilities. The National Bank also took over the local branches of the Austro-Hungarian Bank. It was established as a joint-stock company independent of the government, with sole right to issue currency and prohibited from lending to the government. Its stock issue was not completely taken up until a third effort in early 1922. 4/ Most of the Bank's gold and foreign exchange reserves were provided by the government and were considered to be owned by the government rather than the Bank.

The Bank was successful in maintaining a moderate rate of monetary expansion through 1925, with average annual rates of increase in circulation of 6.6 percent over 1921 - 1925. 5/ This policy was assisted by the fact that the government budget returned to a surplus position in 1923. 6/ The dinar depreciated by 840 percent over 1919 - 1923 but appreciated by

---

1/ These procedures were outlined in a decree of November 5, 1919, reproduced in Steiner (1921), vol. II, p.463.

2/ Steiner (1921), vol. II, p.466, and Pasvolsky (1928), p.475, report that the exchange rate was changed three times: from 2.5 crowns per dinar, to 3:1 on June 17, 1919, to 3½:1 on November 11, and ultimately to 4:1 on January 1, 1920. The official rate stayed at 4:1 at least until February, 1921. The pre-war conversion rate maintained by the Empire was a highly favorable two dinars per crown, which later rose to four dinars per crown. The gold parity between the Austro-Hungarian crown and the Serbian dinar was 0.95:1.

3/ Zeuceanu (1924), p.245. Pasvolsky (1928), p.475, and Notel (1986) p.176, report that approximately 8 billion crowns were converted to dinars, of which at least 1 billion were believed to have had forged stamps. However, Marz (1984) pp.326 reports that about 5 billion crowns were stamped in the first round, and that only 4 billion were stamped in the second round, apparently because of a relatively unfavourable conversion rate.

4/ Three-quarters of its shareholders were Serbian, and that pattern was reflected in the distribution of loans. Half of net profits went to the government and 5 percent were used to build up foreign currency reserves, with the remaining 45 percent being distributed among directors and shareholders (Lampe and Jackson (1982), pp.390-391).

5/ League of Nations (1926c), pp.176-177.

6/ Pasvolsky (1928), p.484, 487.

37 percent over the ensuing two years and remained stable at about 56.6 dinars per dollar from the second half of 1925. 1/ However the Bank's gold reserves at the end of 1926 were low, amounting to a gold cover of only 17 percent, and the Bank held 4.4 billion dinars in debt to the government.

2. Czechoslovakia

Czechoslovakia undertook its own stamping procedure between March 3 and 9, 1919. The authorities prepared the details of their reforms in secret parliamentary sessions although evidently people were not taken completely by surprise. 2/ On February 25 the borders were ordered closed for the night and all postal communications abroad were suspended until March 9. 3/ All large-denomination notes were supposed to be surrendered for stamping, and bank deposits were converted to the new Czech crown at a

---

1/ Pasvolsky (1928), p.471, 480.

2/ An article in an Austrian newspaper on February 15 predicted the upcoming stamping. The Czech Ministry of Finance had in fact, in a decree of January 30, 1919, announced that a survey of currency and deposits would be taken in order to evaluate the possible revenue to be gained from a capital levy. An article in the Economist on February 1, 1919 said that "it is assumed in Vienna that the crown will there [in Czechoslovakia] be replaced by the franc." The same article stated that "it is assumed that the crown will disappear in all the new states, including Hungary."

3/ The border closing was intended to prevent people from transferring their notes abroad to avoid the tax. Indications are that this was largely ineffective and that substantial sums did in fact move into Austria, suggesting that unstamped notes were perceived to have greater value than stamped notes, or at least that notes with the Austrian stamp would be more valuable. Rasin (1923) p.28, did not believe that many people were able to evade the stamping. However, he appears also to have been unaware that the plans had been leaked, and later, on p.40, he attributes the Austrian decision to stamp banknotes to "pressure from the Czechoslovak Republic." The knowledge of the impending stamping and capital levy created a reverse run on the banks in Czechoslovakia as holders of banknotes tried to convert them into deposits or to purchase goods and assets that were exempt from the levy. The Economist (March 15, 1919) reports that in the week between the announcement and the beginning of stamping the interest rate paid on chequing accounts fell from 3 percent to 0.5 percent and that on savings accounts fell from 5 percent to 1.5 percent. There was a simultaneous boom in stock prices.

one-to-one conversion rate. 1/ However, 50 percent of the stamped notes were then withheld by the Ministry of Finance in a forced loan that paid 1 percent interest. 2/ Similarly, current accounts and Treasury bills were stamped, subject to a 50 percent retention. 3/ Small-denomination (one- and two-crown) notes were not included in the stamping order but remained legal tender and likewise a few million crowns in iron, nickel and copper coins were not converted to Czech crowns. 4/ The Czech authorities reported in February, 1922, that 8.4 billion crowns had been stamped and an additional 2.1 billion in deposits and Treasury Bills were converted. At that time, 2.8 billion crowns were withheld of which 2.1 billion were

---

1/ Different procedures were used in certain border territories more than a year later. Unstamped notes were converted to Czech crowns at approximately 4:1, sometimes after payment of a fee. These conversion rates reflected the current exchange rate between Czech and Austrian crowns. In New York in October 1920, 100 Austrian crowns traded for $0.355 while 100 Czech crowns cost $1.24, which implied a conversion rate between them of roughly 3.5 Austrian crowns per Czech crown.

2/ These forced loans were "irredeemable by the creditor but repayable on the part of the state at any time" (Rasin (1923), p.25-26). They were considered as advances towards the payment of the capital levy and the tax on incremental wealth (the difference between one's pre-war and post-war assets) that were introduced on April 8, 1920 to reduce the stock of currency in circulation. Sums presented for stamping of less than 300 crowns were exempt (Rasin (1923), p.28).

3/ Only Poland and Czechoslovakia converted current accounts and Treasury bills. They were not required to do so under the terms of the peace treaties.

4/ The one- and two-crown notes remained in circulation for a while after the stamping and many were smuggled into the country. To prevent this it was announced on September 23, 1919 that they would be exchanged subject to a 10 percent tax. The Czech authorities also did not convert the 10,000 crown notes and the 25 and 200 crown notes which had been printed, after November, 1918, on only one side of the sheet. None of these notes had ever been legal tender in Czechoslovakia.

banknotes and the remainder were forced loans deducted from deposits. 1/ After March 9, only the stamped notes were legal tender.

On March 6, 1919, legislation was passed providing for the establishment of a private bank of issue to be established at a later date. As an interim measure a banking office in the Ministry of Finance was established by decree on May 15, 1919. The Czech operations and staff of the Austro-Hungarian Bank (including its thirty branches) were taken over by the banking office and provided the nucleus of this new office. 2/ The decree gave the banking office the sole right to issue notes and forbade the banking office from providing credit to the government. In late November, the banking office was charged with controlling transactions in foreign bills and currencies.

Legislation on April 10, 1919 converted the stamped notes into a new Czech currency, ordered the replacement of the stamped notes by new Czech notes and made the Czech state the sole debtor vis-a-vis the holders of the stamped banknotes and the sole Czech claimant on the assets of the former central bank. The new currency unit and sole legal tender was called the Czech crown and for purposes of settling previous debts was initially fixed at par with the old Austro-Hungarian crown. This legislation also placed a limit, equal to the value of the notes stamped, on the total value of Czech

---

1/ The amounts stamped are from Zeuceanu (1924), p. 245. and represent the total amounts claimed by the Czech authorities as having been stamped to date. The amounts confiscated are from Razin (1923), p.28 and these exclude the results of the exchange of notes in the "border districts" (chiefly Carpatho-Russia). He reports that in the initial stamping operation 7.4 billion in banknotes and 2.1 billion in Treasury Bills and current accounts was submitted, resulting in the total of 9.5 billion quoted in Marz (1984), p.326. As of October 31, 1921, 8 billion in banknotes had been submitted of which 2.5 billion had been retained. Since sums under 300 crowns and those belonging to public and certain social institutions were exempt the forced loan actually took in only about 30 percent of the stock of notes.

When the liquidators of the Austro-Hungarian Bank went to Prague to verify the authorities' claim they found that only 8.3 billion crowns were available to be turned over.

2/ *Anti-Austrian sentiment outside Austria resulted in the expulsion or* voluntary withdrawal of most German-Austrian civil servants from Czechoslovakia, Hungary and the Serb-Croat-Slovene State soon after the dissolution of the empire. To get an indication of the size of the experienced staff of the new banking office consider the following figures reported by Zeuceanu (1924), pp.431-435. As of Nov. 20, 1920, of the 3,113 employees and pensioners of the Austro-Hungarian Bank recognized by the liquidators, only 283 (9 percent) were of Czechoslovak nationality, of which 85 were retired, and at least seven resided outside the Czechoslovak Republic. On the other hand, by the beginning of the War the Prague branch was the Austro-Hungarian Bank's most profitable and the Czech-owned banks dominated banking in Czechoslovakia (Rudolph, (1976), p.73).

crowns that could circulate without being covered by private commercial securities.

The banking office exchanged stamped notes for new Czech crowns between September 25, 1919 and July 31, 1920, and stamped notes ceased to be legal tender on August 31, 1920. The stamped notes were retained by the banking office as claims on the liquidation account of the Austro-Hungarian Bank. Thus, the initial issue of the Czech currency was backed almost entirely by these notes. New issue of Czech notes however, was determined solely by discounting Czech commercial paper and purchasing foreign exchange.

3. Austria

The sudden assertion of monetary independence did not take the Austrian government by surprise. On February 16, the Austrian government forbade the import of Austro-Hungarian banknotes or the transfer of crown deposits from outside Austria and strictly controlled the sale of Austrian securities and stocks to nationals of the Successor States to prevent an influx of notes from Czechoslovakia. There are indications that these ordinances were widely evaded. 1/ On February 28, the Austrian government published

---

1/ Marz (1984), p.327: "The lack of border supervision must have facilitated the introduction of large quantities of banknotes in defiance of the ordinance. There are indications that many Czechoslovak residents tried to evade the imminent capital levy." Pasvolsky (1926), p.40: "One of the results of the stamping of currencies in Yugoslavia and Czechoslovakia was an influx of unstamped notes into Austria, which compelled the Austrian government to take a similar step several days after the process was completed in Czechoslovakia." F. Steiner, Manager of the Anglo-Austrian Bank in Vienna, wrote that "in order to prevent an influx of banknotes from the States in which they had been stamped, the Austrian Government ordered that banknotes should be stamped in Austria as well" (Steiner (1922), p.37). As an indication of the magnitude of this transfer, de Bordes (1924), p.42 reports a Board of Trade document which estimates that just over 31 percent of the Austro-Hungarian currency in circulation in March, 1919 was in Czechoslovakia. However, the 8.4 billion crowns converted by the Czechs constituted only 22 percent of the currency supply. Thus, approximately 3.5 billion crowns in Czechoslovakia were not stamped there. Rasin (1924), p.32, estimates, on the basis of equal per capita note holdings throughout the Empire, that approximately 2 billion crowns held in Czechoslovakia (exclusive of Carpatho-Russia) were withheld from the stamping operation. However, since Czechoslovakia was comparatively more industrialized and urbanized than other regions of the former monarchy, this probably understates the flow of unstamped notes. For example, the Economist of March 15, 1919 reported that 12 billion Austro-Hungarian crowns circulated in Czechoslovakia. In its May 3 report from Prague, the figure of approximately 8.2 billion notes stamped represented a "pleasant surprise" (p.726).

details of its own stamping exercise to be undertaken between March 12 and 24.

On March 10, all securities held by banks were put under control and 50 percent of bank deposits were blocked. This was done to provide as accurate a picture of wealth distribution as possible and to prevent transfers of assets to other jurisdictions. The Austrian government did not close the frontiers during the stamping operations, and banks also remained open for much of the period. Large-denomination notes were stamped between March 12 and 29, 1919 and one- and two-crown notes were stamped between August 20 and September 15, 1920. 4.7 billion crowns were stamped, amounting to twelve percent of the 37.6 billion Austro-Hungarian crowns in circulation as of February 28, 1919. 1/ Clearly, many Austrians preferred to hold unstamped notes, either to avoid a feared capital levy or forced loan or because it was expected that unstamped notes would be more valuable since unstamped notes continued to be legal tender in some of the Successor States. 2/ Many of these were subsequently marked with forged stamps. Indeed, unstamped notes traded at a premium on the black market. 3/

The legal consequences of the stamping operation were outlined in legislation on March 25, 1919. Stamped crowns were proclaimed to be the sole means of payment, and all contractual obligations in crowns were transformed into stamped crown obligations at par. 4/ Crown deposits by foreigners were frozen. Banknotes belonging to nationals of the Successor States were repayable in unstamped notes and all other deposits were frozen until such time as a general debt settlement had been reached with the Successor States. Debts of the Austro-Hungarian administration and claims on Austrian residents by foreigners were paid in unstamped crowns. Checkable deposits belonging to Austrian residents were converted to stamped crowns while others were paid in unstamped notes.

1/ This figure is reported by Zeuceanu (1924), p.246, de Bordes (1924), p.42 and Young (1925), p.12. Marz (1984), p.328, says 4.8 billion crowns were submitted for stamping, while Schumpeter (1925) says 5.9 billion were stamped. De Bordes (1924), pp.34-37, reports a distribution of banknotes estimated by the Board of Trade which shows 21 percent of Austro-Hungarian notes circulating in Austria in March, 1919.

2/ At this time the Austrian authorities intended to introduce a capital levy. This policy had been publicly debated and was widely expected to be implemented. Joseph Schumpeter, who became Finance Minister on March 15, 1919 had argued strongly for such a tax in Schumpeter (1991). However, the levy was never imposed.

3/ See Marz (1984), p.328. Unstamped notes were more valuable than stamped notes because, since the stamps were apparently easily forged, the value of these notes included an option on future conversion to whichever of the stamped currencies proved more valuable.

4/ Debts contracted, but not paid, before March 26 were denominated in unstamped crowns.

No new bank of issue was created at the time, but on January 1, 1920 the Austro-Hungarian Bank created a separate department, the Austrian Section, to serve Austria as its central bank, in which capacity it simply continued to provide credit to the government. 1/ The Bank also created a Hungarian Section at the same time. The accounts of the two Sections were maintained separately from the accounts of the Austro-Hungarian Bank in liquidation. 2/

As the third government to undertake this exercise, the Austrians were put at a disadvantage since unwanted crowns had almost certainly flowed in from the Serb-Croat-Slovene State and Czechoslovakia, further exacerbating the inflationary pressure. However, Austria felt bound to defend the Austro-Hungarian bank. 3/ Also, some Austrians had been arguing for the

---

1/ The Austrian government also maintained fairly strict foreign exchange restrictions (see de Bordes (1924), Ch. V, and League of Nations (1922), p. 55). In April, 1919, the government reorganized the exchange control office ("Devisenzentrale") and placed it under the control of the Ministry of Finance. All purchases of foreign exchange had to be made with the approval of this office and exports had to be denominated in foreign exchange and were only permitted after the an equivalent amount of foreign exchange was deposited with the Devisenzentrale. Purchases of foreign exchange were made through the Devisenzentrale, and imports of Austrian crowns were prohibited. The Devisenzentrale differentiated between two types of accounts in Viennese banks, the *ausland* crown and *inland* crown accounts. The former were accounts, owned by foreigners, whose balances had been released from restrictions by the Devisenzentrale. Crowns in *inland* accounts could be transferred only to residents of the Successor States. Approval for transfers between accounts was rarely given. Because they could be exchanged freely, *ausland* crowns commanded a substantial premium over *inland* crowns. For example, in Vienna in December, 1921, £1 was puchased for 22,000 *inland* or 11,000 *ausland* crowns.

2/ Although Zeuceanu (1924) reports that the liquidators found considerable confusion in the books and concluded that the separation of accounts was purely "illusory" (p. 12). This was partly a consequence of the fact that the assets of the Bank in liquidation were being used to cover issues of notes by the Austrian and Hungarian Sections.

3/ Since the charter of the Austro-Hungarian Bank did not expire until December 31, 1919 the Bank naturally strongly protested both the expropriation of its assets and the institution of rival note issuing agencies in Czechoslovakia and the Serb-Croat-Slovene State.

continuation of an economic union among the former members of the dissolved empire. 1/

4. Romania

The Kingdom of Romania was greatly enlarged at the end of the War with the addition of Transylvania and some border territories from Hungary, part of Bukovina from Austria and Bessarabia from Russia. Consequently there were Russian rubles, Austro-Hungarian crowns, and Romanian lei, including 249 million lei issued by the Banque Generale during the German occupation, in circulation. 2/

A decree dated June 7, 1919 announced that crown notes issued prior to October 27, 1918, except the one- and two-crown notes, would be stamped in Bukovina. 3/ This operation was soon extended throughout the former Austro-Hungarian territory in Romania, and a decree of July 3, 1919 provided for the stamping of the post-October 27, 1918 notes as well. The stamping operation took place between June 16 and August 28, 1919 subject to a one or two percent tax to cover costs. On August 12, 1920 the Ministry of Finance was empowered to replace the krone notes and exchange them for lei at the rate of 2 crowns per leu, a process which ran from September 1 to 20, except for the 10,000-crown notes which were exchanged in November. 4/ Forty percent of the submitted notes were retained in a forced loan repayable in three months. However, the repayment was delayed ultimately until the following year. The December 31, 1922 statement of the National Bank showed

---

1/ See also Pasvolsky (1928), p.191. (League of Nations (1920) contains a proposed scheme for economic recovery in the successor states written at an unknown earlier time by an Austrian identified only as "Herr Meinl". In it he maintains that "the economic revival of the countries of the former dual monarchy is only possible if economic union and free traffic between the Succession States are re-established." Opponents of union with Germany often proposed the establishment of economic union with successor states.

2/ At the end of 1918 the money supply in Romania consisted of 2.5 billion lei in National Bank notes, the Banque Generale notes, 100 million lei in metallic currency, and the equivalent of 7.5 billion lei in German marks, Russian rubles and Austro-Hungarian crowns.

3/ The Romanian government had in December, 1918, ordered the stamping of the lei notes issued by the Banque Generale under the German occupation forces, although this order was replaced in January, 1919, by a decree accepting unstamped Banque Generale lei at par. A decree of May, 25, 1919, provided for the exchange of these notes for National Bank notes.

4/ The conversion of ruble notes was begun in September, 1920 at various rates of exchange depending upon location and kind of ruble (Romanoff or Lwoff). The exchange of wartime-issue lei was begun in 1920 by the conversion of 1,000 lei notes and the encouragement to use this currency to pay taxes.

that 8.7 billion crowns had been exchanged. 1/ Of these, 5.8 billion were submitted in Transylvania and Banat and 1.1 billion in Bukovina. 2/ The authorities also claimed 773 million crowns held in an account at the German Reichsbank which had been sent to Germany as cover for the wartime issue of Banque Generale lei.

In its December 31, 1918 report, the National Bank of Romania declared possession of 494 million gold lei of metallic reserves. In fact however, 315 million of these consisted of gold bullion that had been shipped to Russia during the war and had been confiscated by the Soviet Government there. A further 81 million was held in the Reichsbank and was subsequently returned. Thus, the available gold reserves amounted to only 1.5 percent cover. 3/ Romania avoided the monetary instability of Hungary and Austria partly because its government ran budget surpluses from the 1922-1923 fiscal year and therefore had no need for central bank credit. On May 19, 1925 the National Bank and the Ministry of Finance signed conventions that committed the Bank to return to a gold standard with at least 33 percent cover within the next twenty years. Until that time, the maximum circulation of lei notes was set at its current supply of 21 billion.

5. Hungary

Hungary was the last of the Successor States to undertake the stamping of Austro-Hungarian crowns, and as a result, many notes that had not been stamped in the other states were brought there for stamping. The operation was undertaken between March 18 and 27, 1920. 4/ All Austro-Hungarian notes in circulation in Hungary, except the one- and two-crown notes, were to be stamped, with 50 percent of the notes submitted retained as a forced

---

1/ Steiner (1921), p.553, and League of Nations (1938c), p.56, reproduce a Ministry of Finance announcement that 8.5 billion crowns had been stamped. Pasvolsky (1928), pp.389-390, states that this was roughly twice as many as had been anticipated. He attributes at least part of the difference to the relatively favourable conversion rate between lei and crowns which resulted in "large inflows of crowns" between the announcement of the conversion rate and the actual stamping process.

2/ League of Nations (1922), p.70. Zeuceanu (1923), pp.242-243, reports that in February, 1922, the Romanian authorities submitted claims for 8.7 billion crowns, of which 6.8 billion were exchanged in the territory of the former Austro-Hungarian monarchy.

3/ Pasvolsky (1928), p.391.

4/ The details of the stamping operation were described in a March 17, 1920, decree. At the time of stamping, 50% of the notes were to be retained in a capital levy. Crown deposits, made before March 8, 1920, were converted at par and appear to have been exempt from the 50% levy. A later decree on December 18, 1920, froze 20% of all deposits except those belonging to non-residents.

loan paying 4 percent interest. 1/ Zeuceanu (1924, p. 246) reported that Hungary declared to the liquidators of the Austro-Hungarian Bank that it had collected 8.5 billion crowns, but Young (1925, p. 107) reported that 20.7 billion Austro-Hungarian crowns were submitted for exchange into Hungarian crowns. 2/ Young states that the Hungarian authorities eventually exchanged 15.8 billion stamped crowns for State notes. 3/

As in Austria a Hungarian Section of the Austro-Hungarian Bank opened on January 2, 1920 to serve as a temporary central bank for Hungary. A national system of currency was introduced in May, 1921. A protocol of April 30, 1921 provided for the withdrawal of the existing paper currency, mainly stamped Austro-Hungarian notes, and the introduction of a new national currency. It also provided for the creation of a State Note Institute under control of the Ministry of Finance to assume the affairs of the Hungarian section of the Austro-Hungarian Bank and to act as a central bank of issue. The Institute began operations in August, 1921, and promptly issued its own notes in exchange for the circulating stamped Austro-

---

1/ The Economist reports that 3 billion crowns were taken in by this levy, Pasvolsky (1928), p.302, reports 4 billion were collected. However, this retention was later reversed by a decree of June 30, 1920, which required the return of all the first 10,000 crowns retained from each individual, except that none was returned if the amount retained exceeded 25,000 crowns. Further changes were made when a 20 percent tax on capital was introduced in the spring of 1921.

2/ Being the last to stamp the old notes Hungary should have paid particular care to the legality of the unstamped notes. Since the borders were not closed and because small denomination unstamped notes remained legal tender, there arose the possibility of arbitrage driven by Gresham's Law. Since the Austrian crown was more depreciated than the unstamped crowns in Hungary, people brought unstamped small denomination notes to Hungary, bought dollars and then returned to Austria where the dollars could purchase a larger number of crowns. According to Kerschagl, "a month after the stamping the importation of one and two crown notes into Hungary was prohibited by law, as these notes had gradually lost their purchasing power everywhere else, and were now pouring into Hungary" (quoted in de Bordes (1924), p.236). There was also substantial forging of stamps.

The continued acceptance of small-denomination notes and the delay in stamping, and finally in exchanging, the notes probably accounts for the difference between the figures reported to the liquidators and those given by Young. The report to the liquidators was made in early February, 1922, but the actual exchange of stamped notes in Hungary did not begin until after June 21 of that year.

3/ The Hungarians also exchanged 793 million crowns that bore the Yugoslav stamp, from territory regained from Yugoslavia.

Hungarian notes. 1/ The assets of the note institute were mostly Hungarian treasury bills and claims on the Austro-Hungarian Bank. The law also limited the maximum amount of notes that could be issued by the institute to the total value of old notes exchanged for new ones, plus an amount not to exceed 2 billion from discounting three-month Treasury Bills. The government could, provisionally, raise the 2 billion limit for agricultural finance or for payment of the capital tax. The government quickly made use of this provision. The law also intended to make the institute independent of the government and forbid it from issuing credit to the government. However, these intentions were not realized. Advances to the government resumed in October, 1921 and grew steadily until 1924.

IV. Cross-Border Currency Flows

The peace treaties with Austria and Hungary required the Successor States to collect the Austro-Hungarian bank notes circulating in their territory and turn them over to the liquidators of the Austro-Hungarian Bank. Yet, despite the best efforts of some of the authorities, and as a result of lax procedures elsewhere, there were apparently significant movements of crowns between the Successor States to take advantage of differences in the values of the stamped and unstamped notes throughout the region. Consequently, the distribution of the notes exchanged by the authorities across countries differed from estimates of the original distribution.

Unstamped notes moved across borders into those regions where they had greatest value. Thus, notes moved out of the Czechoslovakia at the time of the stamping operation because of the 50 percent levy imposed on these notes. 2/ This flow of notes precipitated the Austrian currency separation.

> One of the results of the stamping of currencies in Yugoslavia and Czechoslovakia was an influx of unstamped notes into Austria, which compelled the Austrian government to take a similar step several days after the process was completed in Czechoslovakia.
>
> Pasvolsky, (1928), p.40

A similar observation is made by Steiner (1921), de Bordes (1924) and Marz (1984). De Bordes (1924) describes the situation thus:

1/ There were also post office savings bank notes (about 250 million crowns) and so-called "White Notes" issued by the short-lived Soviet government in 1919 (about 3.5 billion crowns) circulating in Hungary. These were also legal tender and were converted to new notes by the State Note Institute.

2/ Similar movements of notes out of the Serb-Croat-Slovene State also appear to have occurred.

> The desire to escape the levy was responsible--among other reasons--for the fact that many of the notes were not presented. Moreover, the Austro-Hungarian Bank of Vienna continued--with the sanction of the Austrian Government--to bring unstamped notes into circulation for the benefit of foreigners, even after the stamping had been completed in Austria; other States again, delayed for a long time to call in the notes for stamping. As a result, considerable quantities of unstamped Austro-Hungarian notes remained in circulation in Central Europe, and were the objects of a brisk trade, especially in Vienna.

When the Austrian government initiated its own stamping procedure many notes were again withheld essentially because the unstamped notes were still legal tender both inside and outside Austria and because the Austrian authorities continued to stamp notes after the deadline passed. Hence, holders of the unstamped notes enjoyed the option of holding unstamped notes and converting them into the currency of their choice whenever they desired. After the other Successor States had stamped the notes in their territories, forgeries of the Austrian stamp appeared.

The flow of unstamped notes was encouraged by the apparent ease with which the stamps could be forged. This was a sufficiently serious problem in the Serb-Croat-Slovene State that that country was forced to repeat the stamping operation. 1/ De Bordes (1924), pp. 235-236, quotes evidence of fraud from each of the Successor States.

While it is not possible to precisely measure these cross-border flows, it is possible to draw some approximations from various sources. In particular, de Bordes (1924), p. 42, reports an estimated geographical distribution of banknotes in March, 1919, prepared by the Austrian Board of Trade. These estimates show 31 percent of the notes circulating in Czechoslovakia, 21 percent in Austria, 18 percent in Hungary, 12 percent in the Serb-Croat-Slovene State and 5.2 percent in Transylvania. However, the number of crowns stamped in Czechoslovakia that month corresponded to only about 22 percent of the stock of Austro-Hungarian currency in circulation, while the Austrian operation yielded perhaps 12 percent. If the remaining notes that were apparently circulating in Czechoslovakia and Austria but not stamped there (approximately 18 percent of the stock of notes) eventually made their way into other countries then approximately 6.5 billion crowns (equal to the estimated circulation in Hungary) were transferred out of these two jurisdictions alone.

1/ Notel (1986), p.176, reports that of the approximately 8 billion crowns exchanged in the Serb-Croat-Slovene State, "about one-eighth was thought to have come from smuggling and forgery."

The ultimate destination of most of these notes appears to have been Hungary and Romania. 1/ While in February, 1922, the Hungarian authorities claimed to have collected 8.5 billion crowns as a result of their stamping operation to date, the subsequent note exchange yielded 20.7 billion stamped notes. 2/ Likewise, Romania, which should have inherited little more than 12 percent of the March, 1919 circulation, exchanged 8.7 billion in crown notes which represents approximately 16 percent of the end-1919 supply of Austro-Hungarian notes. 3/ Romania appears to have had a particularly liberal policy with respect to the currency exchange, accepting any crown note for exchange regardless of whose stamp it bore. 4/

The traffic in unstamped notes is aptly described by the following newspaper excerpt (quoted in de Bordes (1924), p. 236).

> Our only hope--however absurd it may sound--is that the Hungarian and Polish crowns will soon rise higher than the Austrian crown, and that the Hungarian and Polish stamps can be counterfeited just as easily as the Austrian stamp, so that it will become again more profitable to the forgers to counterfeit them (just as was formerly the case with the Yugoslavian and Czechoslovak stamps) and that we may no longer be the victims of their favour.
>
> Oesterreichischer Volkswirt, May 1, 1920

V. Liquidation of the Austro-Hungarian Bank and Settlement of Austro-Hungarian debt

The Treaties of St. Germain and Trianon, signed on September 10, 1919 and June 4, 1920, respectively, approved the stamping of Austro-Hungarian banknotes in the territory of the former monarchy and ordered those governments that had not already done so to stamp currencies in their territories. The treaties also required the governments to replace the stamped notes with new national currencies within one year and to turn over the notes collected to the liquidators of the Bank. 5/ According to the Treaties, notes issued before October 27, 1918 represented claims on the net

---

1/ Notel (1986), p.176, claims that about a half of the crown notes exchanged originated outside the borders of the new Romania and bore forged stamps. De Bordes (1924), p.326, quotes Steiner as saying that the Romanian authorities did not attempt to discriminate against notes with forged stamps.

2/ Zeuceanu (1924) p.246, and Young (1925) p.107.

3/ Romania did not begin collecting the crown notes until January, 1920, and finished the operation in October.

4/ de Bordes (1924), p.236.

5/ Returning the notes to Austria for destruction was no easy matter. Poland's 2.7 billion crowns' worth of notes were packed into 2,917 cases and weighed 70,544 kilograms. (Zeuceanu (1924), p.571)

assets (excluding securities issued to back note issues) of the Austro-Hungarian Bank, particularly its gold reserves. 1/ Notes issued after that date represented claims only against the Austrian and Hungarian debt issued to cover these notes. The Austrian and Hungarian debt issued to cover the earlier note issues was forgiven. Foreign holders of Austro-Hungarian notes were given superior treatment. Notes issued prior to October 27, 1918 and held outside the territory of the former Monarchy on June 15, 1919 were given senior claims to the net assets of the Bank as well as government debt. The rest of the notes held by foreigners had the same rights as those held by residents of the Successor States. 2/ These third-party holders of notes had until March 30, 1922 to submit the banknotes they collected. The foreign debts of the Bank were undertaken and paid off by the liquidators prior to making any payments to the Successor States.

Liquidators were appointed in August, 1920 by the Reparations Committee and assumed their functions in September. 3/ They suggested in January, 1921 that each of the Successor States should assume the Austro-Hungarian-crown-denominated commercial assets and liabilities of the Bank branches within their respective territories (subject to an assumption that 30 percent, 70 percent for Czechoslovakia, of the loans were unrecoverable). This was agreed in June, and an initial distribution of 50 million gold crowns from the reserves held in Austria and Hungary was made to all states containing territory of the former Monarchy. This distribution of gold prior to the conclusion of the liquidation proceedings was made at the request of the Successor States other than Austria and Hungary in order to supplement their note issuing authorities' meager gold reserves. 4/ The property of the Bank that was expropriated by the Successor States was

---

1/ The gold reserves of the bank amounted to 243 million gold crowns. Conversion rates for gold crowns into the currencies of the successor states are given in Appendix C.

2/ For simplicity, in this section the term "Successor States" will include Italy and Poland since they also occupied territory formerly part of the Austro-Hungarian Empire and were parties to the liquidation negotiations.

3/ The Treaty of St. Germain provided for the liquidation, carried out under the direction of the Reparations Committee, to begin on September 11, 1919. However, work could not begin until a peace treaty with Hungary was signed. The Reparations Committee decided on a further delay until the Treaty of St. Germain was ratified on July 19, 1920 (the Treaty of Trianon was not ratified until July, 26, 1921). Due to conflicts over the rights and responsibilities of the liquidators, work did not actually get underway until April, 1921.

4/ The gold was distributed on the basis of 1910 populations and the number of notes stamped. The gold crown amounts distributed were: Italy (4.6 million), Poland (7.25), Romania (14.0), Yugoslavia (10.0), Czechoslovakia (15.35), Austria (7.2) and Hungary (7.1). Gold crown conversion rates are given in Appendix C.

evaluated at 80 percent of its notional December 31, 1919 gold crown value and that amount was deducted from the accounts of these states.

To speed up the process, the Successor States also decided to simplify the treatment of banknotes. Since it was impractical to determine whether each note was in circulation before or after October 26, 1918, they agreed upon a schedule, based upon populations and the numbers of banknotes stamped, which distributed the estimated stock of crowns in circulation on that date among them.

Table 2. Distribution of Pre-Armistice Crowns

	Total Crowns Claimed	Agreed Dist.
Austria	7,428	4,000
Hungary	8,500	4,000
Czechoslovakia	8,357	6,100
Serb, Croat, Slovene State	5,686	4,270
Romania	8,717	6,100
Italy	3,500	2,500
Poland	2,739	2,150
Total	44,927	29,120

Source: Zeuceanu (1924) pp. 260-261.

On March 14, 1922 Austria and Hungary agreed to pay 2.5 million gold crowns each to the accounts of the other governments, in proportion to their holdings of old crowns, to redeem securities deposited with the Austro-Hungarian Bank to back notes issued after October 27, 1918, or before that date but held outside the borders of the old Empire. A second distribution of gold was also arranged at this time. 1/

There were two special departments of the Bank, separated from its central banking operations, which were also liquidated. These were the mortgage department, which issued loans for purchases of property and raised the necessary funds by issuing secured debt, and the deposits department.

1/ This distribution of gold was made conditional upon the states' ratification of the treaty signed after the Second Vienna Conference, which resolved the major issues of the liquidation. The gold crown amounts distributed were: Yugoslavia (14.6 million), Italy (8.5), Romania (20.9), Czechoslovakia (20.9), Poland (7.3), Austria and Hungary (13.7 each).

The mortgage department was liquidated by converting the claims into Austrian crowns and then paying them off out of Bank assets. Each of the Successor States purchased the loans of the department backed by property found in their territory, discounted by 75 percent. The department's liabilities, its secured debt, was paid off in Austrian crowns out of the proceeds of the liquidation of the Bank. The deposits department was essentially transferred wholesale to the Vienna Postal Savings Bank, except that the smaller deposits were withdrawn. Shareholders' claims to the assets of the Bank, and their right to try to rescue it were denied by the liquidators. They were given a residual share of the bank's net assets, as well as some of its Austrian property, including the printing press.

The business of liquidation was completed by the end of July, 1924, and the results are summarized in the following table.

Table 3. Results of the Liquidation of the Austro-Hungarian Bank
(Million gold crowns)

	Total Dist.	Gold	Property	Other Assets
Austria	25.2	19.7	5.5	...
Hungary	25.2	19.7	5.5	...
Czech.	44.4	36.0	6.3	2.1
S.C.S. State	30.3	27.4	2.8	0.1
Romania	43.6	41.0	2.6	0.0
Italy	17.8	17.3	...	0.5
Poland	15.2	12.4	2.8	0.0
Total	201.7	173.5	25.4	2.8

Source: Zeuceanu (1924) pp. 454-456.

Of the Bank's gold reserves, 17 percent (just over 41 million) were withheld from distribution by the liquidators as a safeguard, leaving 201.7 million for distribution. Of that amount, 173.5 million crowns was transferred in the form of gold or convertible currencies, 25.4 million was transferred implicitly by the seizures of Austro-Hungarian Bank property by the Successor States, and the remaining 2.8 million represented the net value of other assets (e.g. commercial loans) transferred during the liquidation.

The treaties of St. Germain and Trianon also dictated how the debt of the former Austro-Hungarian administration would be treated. War Loans were

assumed by the governments of the states in which the certificates were found, although they were under no obligation to honour them. Austria was made responsible also for certificates found outside the territory of the former Empire. Pre-war debt was classified as secured or unsecured debt. Secured debt was converted into debt of the state in which the security (e.g. salt mines, railways) was located. Unsecured debts were divided among the Successor States according to their proportional contribution to Austro-Hungarian state revenues over 1911-13. Property of the Austrian and Hungarian Governments that was expropriated by the other Successor States (other than hospitals, schools and some property of historical interest) was considered as having been sold by the former governments at values determined by the Reparations Commission.

VI. Hyperinflation

The preliminary currency reforms undertaken in 1919-20 failed to halt the rapid increase in the supply of money in either Austria or Hungary (see Figure 1). The Austrian and Hungarian Sections of the Austro-Hungarian Bank continued to lend to these governments to finance large deficits. Consequently, inflation increased dramatically and the currencies depreciated (see Figure 2).

In Austria loans to the government rose 572 percent in 1921 and a further 1,586 percent in 1922. 1/ The extension of credit to the government paralleled a large increase in loans to the private sector. From 426 million crowns at end-1920 loans and discounts rose to 29.4 billion at end-1921 and to 781.8 billion at end-1922, annual increases of 6,795 and 2,561 percent. 2/ As a result of this expansion the stock of currency increased by 468 percent from end-1920 to end-1921 and 2,245 percent from end-1921 to end-1922. Retail prices in the meantime rose 1,042 percent from January, 1921 to January, 1922 and 1,748 percent from December, 1921 to December, 1922. 3/

1/ All the statistics in this section, unless otherwise attributed, are taken from League of Nations (1926c), and are reported on a year-end basis, so that annual changes are calculated as the change from December 31 of the previous year to December 31 of the given year. For Austria, the data to end-1922 are those of the Austrian Section of the Austro-Hungarian Bank. For Hungary the data to July, 1921 are those of the Hungarian Section.

2/ This growth in borrowing was a response to extremely low discount rates. On November 29, 1921, the discount rate was raised from 6% to 7% and on September 4, 1922, it was raised again to 9% and credit rationing was introduced (Young (1925), p.12)

3/ By September, 1922 the price index had rise by 2,033% over the December 1921 level, but prices declined sharply in the last quarter. The worst monthly increase occurred in August, 1922 when the price index rose by 128.7% (Young (1925), p.293).

The contemporary situation in Hungary was as dismal. Loans to the government rose 28 percent from end-1920 to the end of July, 1921 when the Hungarian Section was replaced by the State Note Institute. Loans to the government then rose by 834 percent in 1922 and 2,156 percent in 1923. Commercial loans increased by 663 percent in 1922 and 1,788 percent in 1923. This asset growth mirrored a 201 percent increase in notes in circulation in 1922 and further 1,127 percent increase in 1923. The monetary expansion slowed somewhat in 1924 with a 385 percent increase in circulation backed by a 251 percent increase in private credit and a 9,884 percent increase in advances to the government. The growth in credit was mirrored in inflation which reached 2,270 percent in 1923. 1/

The Czech experience was almost exactly the opposite. Loans to the government by the banking office were not permitted so one of the two sources of inflation was not evident. Commercial loans increased 2,432 percent in 1920 but remained only a small fraction of total assets. In the ensuing years total credit actually declined, by 2.6 percent in 1921 and then by 47 percent in 1922 and 10 percent in 1923. Notes in circulation during this time rose 7 percent in 1921 and then fell by 17 percent in 1922 and a further 5 percent in 1923, 8 percent in 1924 and 5 percent in 1925. Total liabilities of the Banking Office declined in each year from 1921 to 1925 except for a modest 7 percent increase in 1923.

The Czech authorities had initially intended to restore gold convertibility at the pre-war parity. They thus allowed a substantial appreciation of the crown between October 1921 and October 1922. This led to a substantial trade deficit, a capital outflow and a sharp decline in prices. 2/ This deflationary episode lead to an increase in reported unemployment from 63,000 in October 1921 to 318,000 in October 1922 and 441,000 in October 1923. 3/ In late 1922, the authorities abandoned their attempt to restore the pre-war exchange rate of 20.26 cents per crown.

The rate of inflation in Romania never reached the levels observed in Austria and Hungary. From 1913 to 1923 the cost of living index presented in Notel (1986), p. 178, shows a 2,300 percent increase for Romania as compared with rates of increase of 502,200 percent for Hungary and 871 percent for Czechoslovakia. 4/ During the same period the Romanian leu depreciated by 3,839 percent, while the Czech and Hungarian crowns depreciated by 587 percent and 389,515 percent respectively.

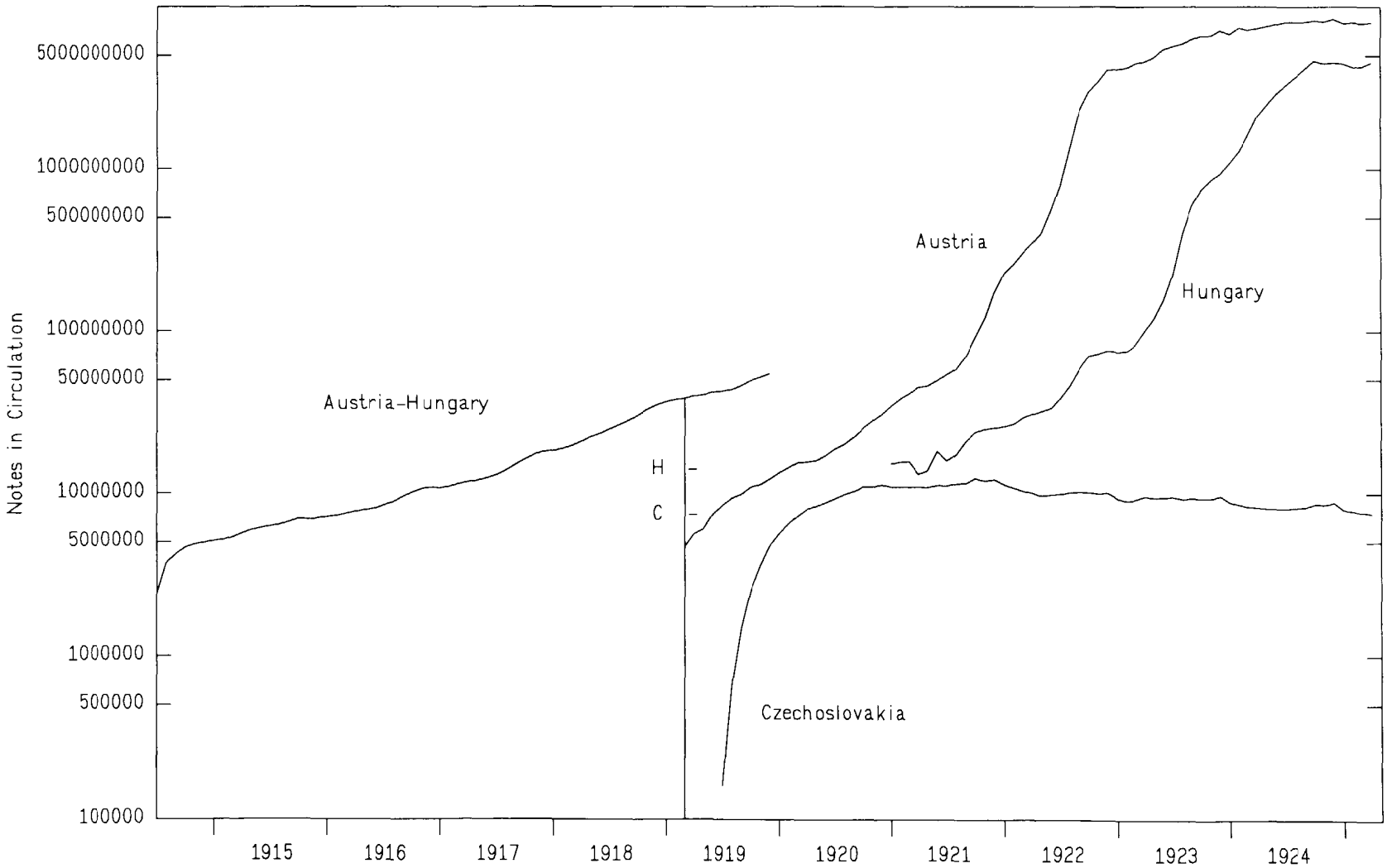
1/ The worst month was July in which the price index rose 98% (Young (1925), p.322).

2/ Notel (1986), p.202 reports that the wholesale price level fell by more than 40 percent and the cost of living by about 50 percent during this time.

3/ Notel (1986), p.202

4/ Comparable figures for Austria are not available. The worst inflation rate in the region was that of Poland where the cost of living index rose 119,656,600 percent over the same period.

Figure 1. Currency Supply in Austria, Czechoslovakia and Hungary
(July, 1914 to April, 1925)

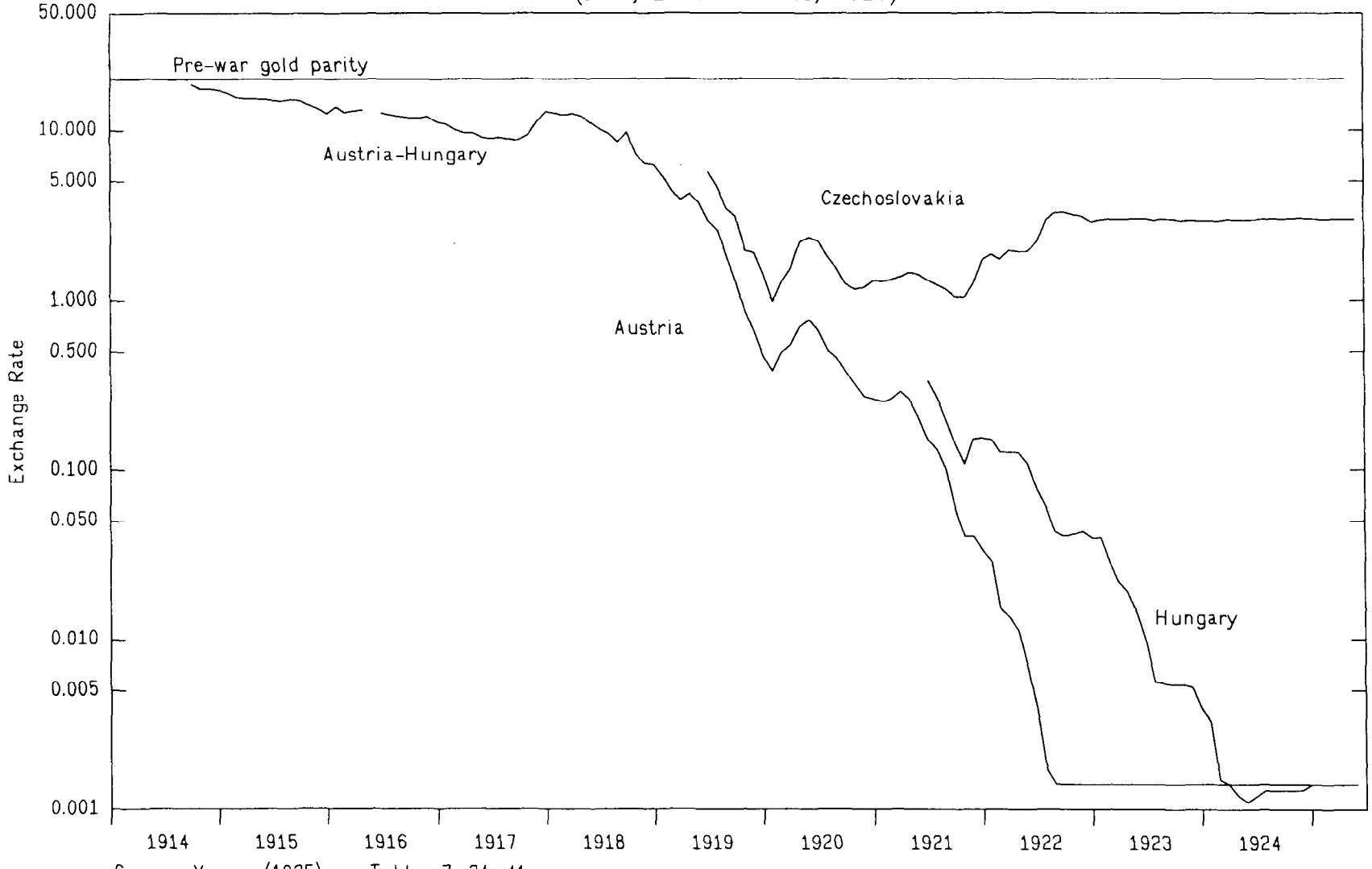


Source: Young (1925) pp. Tables 3, 22, 39.
C,H-amt. stamped by Czech, Hung

Figure 2. Dollar Exchange Rates for Austrian, Czech and Hungarian Crowns

cents per crown, monthly average

(Jan., 1914 to June, 1925)



Source: Young (1925) pp. Tables 7, 24, 41.

VII. Second Stage of Currency Reform: Stabilization

1. Czechoslovakia

The Czech stabilization was actually accomplished in 1919 when the new banking office was set up and forbidden to provide credit to the government. Thereafter, deficits were financed by borrowing domestically and abroad. The new Czech banknotes were introduced in 1919 and gradually exchanged for stamped Austro-Hungarian notes at par. Legislation of April 14, 1920 had called for the establishment of an independent central bank to replace the banking office. This was put into effect by the Bank Act of April 23, 1925, creating the National Bank of Czechoslovakia, which opened on April 1, 1926. The National Bank had an initial capital of $12 million, one third of which was to be provided by the government. The government bought its share by using the reserve holdings of the banking office and funds provided by the liquidation of the Austro-Hungarian Bank. Thus, most of these reserves were government securities. The state's share of the Bank's profits and the revenue from taxes on note issue were used to repay State debt held by the Bank. The Bank opened on April 1, 1926; it was independent, could not lend to the government, and was charged with maintaining a gold exchange standard by fixing the exchange rate against the U.S. dollar. As with the Austrian central bank, the Czech bank held a combination of gold and convertible currencies in reserve and endeavored to fix the exchange rate against the US dollar at the average level of the previous two years (between 2.96 and 3.03 cents per crown). 1/ Gold convertibility was restored on January 1, 1929 and made legal on November 7.

2. Austria

The Austrian Section of the Austro-Hungarian Bank was initiated with no share capital and almost no cash reserves. Thus, the Austrian crowns it emitted were backed only by treasury certificates issued by the government to finance the budgetary shortfall. Since these deficits persisted, the supply of money continued to expand with a consequent depreciation and hyperinflation.

The stabilization of the crown was initiated by the Geneva Protocols of October 4, 1922, which outlined a program of reforms backed by the League of Nations. The new, independent, Austrian National Bank was chartered and began operations on January 2, 1923. The Bank assumed the assets and liabilities of the defunct Austrian Section of the Austro-Hungarian Bank and the Devisenzentrale, the foreign exchange control agency of the Ministry of Finance that was also eliminated on December 31, 1922. The Bank was endowed with share capital of 30 million gold crowns, which was subscribed

---

1/ To increase the bank's gold reserves, the government raised an internal loan of gold coins, bullion or convertible currencies that raised the equivalent of $11.7 million.

internally in December, 1922, and was charged with restoring the gold standard.

The Austrian crown was stabilized relatively quickly when the government suspended borrowing from the Austrian Section, capital controls were reintroduced, and credit rationing was instituted on November 18, 1922. The stabilization was solidified by the statutes of the Austrian National Bank (passed on November 14, 1922) which prohibited it from providing credit to the government. The government was able to finance its budgetary deficits in 1923 and 1924, of 110 million gold crowns and 9 million crowns respectively, by borrowing abroad under the League of Nations program but thereafter moved quickly to a balanced budget. With the strengthening of the National Bank, confidence in the crown was restored and large amounts of flight capital returned to Austria. Consequently, the central bank's reserves of foreign exchange and gold grew much more quickly than its liabilities. Lacking sufficient reserves of gold, the Bank acquired dollars as its principal reserve asset, and from July, 1923, pegged the crown to that currency. 1/

The Geneva Protocols were accompanied by a more liberalized economic policy in which trade and investment were freed from most controls. Interestingly, the reform package did not begin by balancing the government budget, but by forcing budgetary discipline by eliminating its source of finance. In fact, while the government suspended borrowing from the bank in November, 1922, it did not succeed in balancing the budget until 1924.

The last important development in the currency reform was the introduction of a new unit, the schilling, on March 1, 1925. 2/ The schilling was equal to 10,000 crowns, a unit of measurement that had become common by the end of the hyperinflation and was established as the new legal unit of account. The schilling was convertible into gold at the rate of 0.21172086 grams per schilling, which corresponded to the current exchange rate of 70,935 crowns per dollar. The Bank began issuing schilling notes and coins in April, 1925. They were issued gradually by exchanging them for crown notes upon request. 3/

3. Hungary

The stabilization of the Hungarian crown was also accomplished through a reconstruction agreement with the League of Nations (on April 26, 1924) and was financed by a 253 million gold crown foreign bond issue. This agreement created a Hungarian National Bank, modelled on the Austrian

---

1/ The crown was pegged at 1,000,000 to $14, which was its current exchange value. The prewar value of the crown had been 100 to $20.26.

2/ Schilling accountancy had been required since legislation on December, 20, 1924.

3/ Because of their relatively high silver content, the first issues of schilling coins were hoarded and quickly disappeared from circulation.

National Bank, which replaced the State Note Institute. With an initial capital of 30 million gold crowns, the bank opened for business on June 24, 1924. The Hungarian crown was stabilized on July 31, 1924, at a value of 346,000 crowns per pound sterling. Thus, when Britain returned to a gold standard in 1925, Hungary was on a gold exchange standard. 1/ Return to a true gold standard was foreseen when the government's debt to the bank was brought down sufficiently. The Bank was not permitted to lend to the government unless the loan was backed by collateral of foreign assets of the same value. The government, forced to raise taxes and cut expenditure to finance spending, ran surpluses in the 1924/25 and 1925/26 fiscal years.

The final element of the currency reform was the introduction of a new currency, the pengö, on January 1, 1927, at a conversion rate of 12,500 crowns per pengö. The pengö became legal tender in July, 1927.

VIII. League of Nations Control

A crucial element of the reconstruction efforts of Austria and Hungary was the role of the League of Nations. Austria obtained approximately 650 million gold crowns in external financing in 1923, and in 1924 Hungary received 253 million. To obtain these funds both governments had agreed to detailed financial programs supervised by the League of Nations. 2/ The League of Nations programmes had five distinguishing characteristics.

1. Release from reparations and other claims for the duration of the program 3/
2. External loans secured by government revenues equal to two years' financing requirements
3. Prior actions on the part of the debtor, including the creation of an independent central bank and the agreement on detailed budgetary commitments

---

1/ During 1924, as the pound appreciated, so too did the Hungarian crown so that when Britain returned to its prewar gold standard conversion rate, the Hungarian and Austrian crowns traded at par.

2/ The principles behind the League programs were crafted at the Brussels Conference of 1920. There were also subsequent League programs for Bulgaria (1926,1928), Danzig (1925,1927), Estonia (1927) and Greece (1928).

3/ The Reparations Committee excepted from all treaty charges the customs revenue, sugar tax, and tobacco and salt monopoly revenues used to secure the debt service. In return, Hungary agreed to pay 200 million gold crowns over twenty years starting in 1924, with payments rising from 5 million gold crowns in the first two years (see League of Nations (1926b) p.201 for a schedule of payments). The Committee also excepted from charges the revenues assigned by the Austrian government as security for their reparations loan for a period (League of Nations (1926a) p.151).

4. Passage of Reconstruction Laws giving governments extraordinary powers
5. League of Nations control over the execution of the program

The objective of the program was to stop inflation and the resulting depreciation of the crown by first creating an independent central bank with a monopoly on note issue and with tight restrictions on granting credit to the government 1/ and then eliminating the budget deficits that were the underlying cause of the inflation. Since the budget reform necessarily took time, a reconstruction loan was provided to finance the transitional budget deficits.

In both cases the programs were formalized in Protocols signed in Geneva, on October 4, 1922 for Austria and on March, 14, 1924 for Hungary. The Protocols achieved three objectives. First, they recognized the territorial integrity of Austria and Hungary and reaffirmed their commitment to abide by the terms of the peace treaties. Second, the creditor nations agreed to provide loans, to release the secured revenues from reparations claims, and in the case of Austria to guarantee repayment of the loans. 2/ Finally, Austria and Hungary agreed to enter into League-supervised programs of fiscal and institutional reforms aimed at achieving budget surplus and currency stabilization within two years.

Before the loans were made available, the debtors were required to undertake certain prior actions. These included (1) specifying detailed semi-annual targets for fiscal expenditure and revenues, (2) passing a Reconstruction Law delegating all present and future governments the power to take measures deemed necessary for the successful completion of the program without having to get parliamentary approval, and (3) creating an independent central bank with a monopoly on note issue and extremely tight constraints on lending to the government.

A crucial element in both programs was the position of the Commissioner-General, who was appointed by and reported to the Council of

---

1/ "*Through its independence and its autonomy*, the Bank will be strong enough to resist any further interference on the part of the State and to oppose any demand for an issue of paper money," (League of Nations (1921), p.22).

2/ The Austrian Reconstruction loans were issued in the United States, Belgium, Great Britain, France, the Netherlands, Italy, Sweden, Switzerland, Czechoslovakia, Spain and Austria. Service was guaranteed by France, Great Britain, Italy and Czechoslovakia (24.5 percent each), Belgium and Sweden (two percent each), and Denmark and the Netherlands (one percent each) (League of Nations (1926a) pp.39-42). The Hungarian loans were issued in Great Britain, the United States, Italy, Switzerland, Sweden, the Netherlands, Czechoslovakia and Hungary.

the League of Nations. 1/ The Commissioner-General's task was to ensure that the government was implementing the agreed measures, to ensure that the reconstruction loan was serviced, and to disburse the proceeds of that loan. The loans were secured by customs revenues, proceeds from the state monopolies, and other taxes that might be necessary. These revenues were transferred immediately into a blocked account controlled by the Commissioner-General. The forecast amounts of these revenues greatly exceeded the service on the debt. 2/ Hence, for the most part the Commissioner-General simply received these revenues, extracted that part necessary for debt service plus an amount held in reserve, and passed the remainder on to the government.

If the government implemented the agreed reforms and passed budgets without excessive deficits, the Commissioner-General would intervene little in the government's affairs. The Commissioner-General, however, was given the right to require increases in certain taxes and reductions in certain expenditures and to appropriate revenue if the budgetary situation deviated from the program and if the secured revenues were insufficient to service

---

1/ In the Austrian program a "Committee of Control of the Guaranteeing Powers" was instituted to whom the Commissioner-General also reported. This committee monitored progress under the program and ensured that the provisions of the Protocols were being satisfied. In Hungary, a "Committee of Control" was composed of representatives of the creditor countries, which gave them an opportunity to monitor the program. They could not interfere with or block policies in Austria and Hungary, but could complain to the Council of the League if they felt that the Commissioner-General was delinquent.

2/ For Hungary, the revenues held as security for the loan were gross customs revenues, net proceeds from the tobacco and salt monopolies, and net receipts from the sugar tax. In the fiscal year 1925-1926 these revenues amounted to 258 million gold crowns, while the service of the League-sponsored loan was only 33 million (League of Nations (1926a) p.171). Austria promised the customs and tobacco monopoly revenues as security for the loan, and in fiscal year 1925 these raised 240 million gold crowns, while the debt service amounted to only 56.7 million (League of Nations (1926b), p.110).

the debt. 1/ His influence over fiscal policy was maintained by his ability to delay disbursement of the external loans if the conditions of the agreement were not met. In both cases, disbursement of the loans was halted before the end of the program because of better-than-expected fiscal performance. 2/ The Commissioners-General in both countries were removed on June 30, 1926. The possibility remained that a Commissioner-General could be nominated at any time before the loan matured (twenty years in each case) if the Council deemed it necessary. In any event, a form of control remained in the Trustees representing the bondholders who succeeded the Commissioners-General in their task of monitoring developments and disbursing the loan.

A second element of control existed in the person of an Advisor to the central banks of both countries. These were appointed by Austria and Hungary, although nominated by the Commissioners-General, and reported to the Governors of the central banks. Their duty was to oversee the development of policy in the central banks, and they had the right to veto any policy or decision which they felt contravened the statutes of the bank. However, they did not report to the Council of the League and their importance appears to have been the experience and credibility they brought to the Banks.

IX. Conclusions

The currency reforms undertaken by the Successor States depended crucially on two sequential actions: (1) currency separation, in which a domestically-controlled and issued currency was created, and (2) the implementation of policies consistent with monetary stability. The stamping operation undertaken by the states constituted the first of these two

---

1/ "The Commissioner-General will not, so long as the progress of the reform scheme is up to or in advance of the programme drawn up...object to particular items of expense or require modifications of the taxation system except on the ground that the particular expense or feature in the taxation system is such as in his opinion to compromise the later progress of the scheme; but if the progress of reform is at any time behind what is prescribed for the six-monthly periods...he may...object to any item of expense and may also, or alternatively, require the Hungarian Government to increase the yield of existing taxation or to impose new taxes." (Protocol II, Article IV of the Hungarian accord). The modified control agreed upon by the Austrian government and the League of Nations in September, 1924 contains similar wording.

2/ In the case of Hungary, there were no disbursements after June 30, 1924 for financing purposes. However, dispensation was given to use 100 million gold crowns for capital expenditures. Thus, when the Commissioner-General was removed, 70 million gold crowns had been used to finance deficits, 100 million had been allocated to capital expenditure and 80 million remained unallocated.

actions. Stamping Austro-Hungarian banknotes with a national stamp and making only stamped notes legal tender immediately created a national currency, the stock of which was determined by the rules governing the stamping operation and the ease with which the stamps could be forged. The real demand for the new currency dictated whether notes would be smuggled in and affixed with a forged stamp, or smuggled out and stamped elsewhere. By setting a disadvantageous rate of exchange against the domestic currency or by being one of the first to stamp the notes a Successor State could easily push notes onto the other states.

However, the fundamental aspect of a currency reform is not the exchange of new banknotes for old, or even the creation of a new national monetary authority, but the effective exercise of control over the supply of these notes after the reform. Thus, in Czechoslovakia, the banking office was forbidden to lend to the government, which immediately resulted in the stabilization of the Czech crown since the public recognized that the impetus behind the monetary expansion was eliminated. Likewise, stabilization was achieved for the Austrian and Hungarian crowns only after the League of Nations reconstruction agreements that accomplished the same separation of central bank operation from government deficits.

This episode suggests five lessons for currency reform elsewhere. First, currency separation can be accomplished relatively quickly. 1/ It involves little more than marking the banknotes circulating within the breakaway state with a stamp. This initial operation will necessarily be followed by an exchange of stamped notes for new national currency, but it buys time for the authorities to plan the second stage carefully. Second, the exchange of old notes for new provides an opportunity for the authorities to eliminate any "monetary overhang" by imposing a tax on notes exchanged. Such a tax was imposed in the Serb-Croat-Slovene State, Czechoslovakia and Hungary. Third, if currency reforms are not conducted simultaneously throughout the former currency union, differential conversion rates for the old currency will create incentives for individuals to spend or exchange their old notes in the region where they are most valuable. The imposition of a tax, or differential expected rates of inflation, creates another incentive to move notes to escape the tax. Thus, old notes will flow into those countries with the most favourable tax-inclusive real

---

1/ For example the Serb-Croat-Slovene authorities started their initial stamping operation within six weeks of the creation of their state. The Czech government initiated their program less than four months after deciding on separation. If the Austrian operation is assumed to have been entirely a defensive one, it may have taken only one or two months to plan and carry out.

conversion rate. 1/ Fourth, states that are late in breaking away from the currency union may find more than their share of the stock of old notes dumped on them. Breakaway reforms elsewhere may cause people to sell their old notes for goods and assets in those states where they are still legal tender. The last state to convert the old notes will then absorb both the notes originally circulating in its territories and many of the notes previously circulating elsewhere. A liquidation of old central bank assets prorated on the amount of currency collected will only partially compensate for the lost goods. Finally, currency reform will succeed in creating a stable medium of exchange only if it is accompanied by sound fiscal and monetary policies. In this respect it is not necessary for fiscal restraint to precede currency reform if the new monetary authorities are constrained in their ability to extend credit to the state. In each of the Successor States, fiscal equilibrium was attained as a consequence of the currency *reform, rather than as a precondition of it.*

1/ These inflows might be sterilized by reducing the supply of notes from the central bank. However, if the amount of notes is substantial this represents a significant loss in seigniorage, which is often the most important source of revenue. If not sterilized, the inflows exacerbate inflationary pressures.

Timetable of Key Events

1918 - Oct. 15, South Slav National Council declares independent Croatia, Slovenia
- Oct. 20, Czech national council declares independence
- Oct. 21, Austrian Provisional National Assembly declares independence
- Oct. 25, Hungarian Parliament declares independence
- Dec. 1, Serb-Croat-Slovene Kingdom founded

1919 - Jan. 8 - Feb.2, Serb-Croat-Slovene State stamps notes
- March 3 - 9, Czechoslovakia stamps notes
- March 12 - 29, Austria stamps notes
- May 15, Czech banking office established
- July 16 - Aug.28, Romania stamps notes
- Sept. 1 - 20, notes exchanged in Romania
- Sept. 10, Peace Treaty of Saint-Germain signed (ratified July 19, 1920)
- Sept. 25 - July 31, notes exchanged in Czechoslovakia for new Czech crowns
- Nov. 26 - Dec. 15, Serb-Croat-Slovene State repeats note marking

1920 - Jan. 1 Austrian and Hungarian Sections open
- Feb. 1 National Bank of the Kingdom of the Serbs, Croats and Slovenes opens
- Feb. 16 - May 15, notes exchanged in Serb-Croat-Slovene State
- March 18 - 27, Hungary stamps notes
- June 4, Peace Treaty of Trianon signed (ratified July 26, 1921)
- August, liquidators of the Austro-Hungarian Bank appointed

1921 - April 30, note exchange in Hungary begins
- May 17 - June 4, second note exchange in Serb-Croat-Slovene State
- Aug. 1 State Note Institute of Hungary begins operations

1922 - March 14, Austro-Hungarian Bank liquidation plan agreed
- Oct. 4, Geneva Protocols signed by Austria, League of Nations

1923 - Jan. 2 National Bank of Austria opens

1924 - March 14, Geneva Protocols signed by Hungary, League of Nations
- June 24, National Bank of Hungary opens
- July 31, liquidation of Austro-Hungarian Bank completed

1925 - March 1, Austrian schilling introduced

1926 - April 1, National Bank of Czechoslovakia opens
- June 30, Commissioners-General leave Austria and Hungary

1927 - Jan. 1, Hungarian pengö introduced

Crown Conversions in Italy and Poland

1. Poland

At the end of the War there were in circulation in Poland about 2 billion rubles, about 2 billion German marks and 4 to 5 billion Austro-Hungarian crowns. As a result of a law of January 15, 1920 the Polish mark became legal tender and circulated beside these currencies. The exchange rate was 70 Polish marks for 100 crowns, but until conversion of the crowns the Polish mark was not widely used for large payments.

The conversion of crowns began over April 19 and April 26, 1920 when the 100-crown and 1,000-crown notes were exchanged without having previously been stamped. The conversion of smaller denomination notes was announced by a Finance Ministry decree of June 7, 1920. In February, 1922 the Polish authorities claimed to the liquidators of the Austro-Hungarian Bank that they had exchanged 2.7 billion crowns in the former province of Galicia.

Sources: League of Nations (1922), pp.68-69 and Zeuceanu (1924) pp. 242.

2. Italy

Italy inherited only a small amount of territory from the Austro-Hungarian Empire. In Venezia Giulia and Venezia Tridentina the rate of conversion was fixed at 0.40 lira per crown by a decree of April 5, 1919. This was subsequently raised to 0.60 lira per crown by a decree of November 27, 1919. However, for amounts in excess of 5,000 lira people were given Treasury Bonds. The original exchange of notes, without prior stamping, occurred between April 10 and 19, 1919.

In Dalmatia the exchange of notes could not proceed until the borders were established definitively by the Treaty of Rapallo on November 12, 1920. A decree of May 1, 1921 ordered an inventory of notes then in hand in order to prevent further inflows of unstamped notes. A decree of June 10, 1921 provided for the exchange of the first 3,000 crowns in full and beyond that up to a maximum of 10 percent of income (estimated by multiplying the 1920 tax paid by twenty). The conversion rate was 0.60 lira per crown for the first twenty percent of the total exchanged, 0.40 lira per crown for the next fifth, 0.20 lira for the third fifth and 0.10 lira for the remainder, for an average conversion rate of 0.28.

Austro-Hungarian notes ceased to be legal tender after June 19, 1921. In February, 1922, the authorities claimed to the liquidators of the Austro-Hungarian Bank that they had collected 2,500 million crowns.

Sources: League of Nations (1922), p.65 and Zeuceanu (1924) pp.247.

De Bordes (1924), p.42, reports that in March, 1918, less than 5 percent (roughly 1876 million) of the Austro-Hungarian crowns then in circulation were in Poland, and 1.25 percent (470 million) were in Italy. The amounts of notes eventually stamped in these countries appear to exceed

these proportions, indicating that crown notes were imported. Poland certainly appears to have been a popular destination for unstamped notes. De Bordes (1924), p. 236, quotes Kerschagl to support this conclusion. "Both Poland and Hungary remained for a long time the hope of those who for one reason or another wished to put off the stamping of their notes to the last possible moment."

Gold Crown Conversion Rates

		Austrian Crown	Hungarian Crown	Czechoslovak Crown	S.C.S. Dinar	Romanian Leu	Polish Mark	Italian Lira
1919	Mar.	5.2						
	June	6.0						
	Sept.	13.9						
	Dec.	31.4						
1920	Mar.	41.9	15.1	6.1	12.3	29.9	3.8	
	June	29.4	31.5	8.6	4.3	8.6	32.2	3.4
	Sept.	51.7	51.9	14.0	5.7	9.7	46.9	4.6
	Dec.	134.0	100.6	17.5	6.8	15.6	112.0	5.8
1921	Mar.	127.0	72.3	15.5	7.2	14.7	159.0	5.3
	June	143.0	49.5	14.5	7.0	12.9	247.0	4.1
	Sept.	496.0	101.0	17.4	10.4	20.7	756.0	4.8
	Dec.	1117.0	136.0	16.4	13.3	25.6	654.0	4.6
1922	Mar.	1527.0	160.0	11.6	15.8	27.0	854.0	3.9
	June	3837.0	186.0	10.5	14.7	30.7	853.0	3.8
	Sept.	15111.0	494.0	6.2	16.0	30.4	1618.0	4.7
	Dec.	14207.0	472.0	6.5	16.4	33.0	3530.0	4.0
1923	Mar.	14434.0	701.0	6.8	19.4	41.8	8622.0	4.2
	June	14346.0	1447.0	6.8	17.6	39.1	15830.0	4.4
	Sept.	14346.0	3684.0	6.8	18.5	43.6	57894.0	4.6
	Dec.	14346.0	3897.0	6.9	17.8	39.3	1013139.0	4.7
1924	Mar.		13508.0	7.0	16.4	38.8	1842072.0	4.7
	June		18421.0	6.9	17.1	47.0	0.0105†	4.7
	Sept.		15587.0	6.8	15.0	38.1	0.0154†	4.6
	Dec.		15587.0	6.7	13.5	39.9	0.0155†	4.7

Sources: Austria: de Bordes (1924) pp. 115-139, average rate in last week of each month.
All others: League of Nations (1923) pp. 51-52 and League of Nations (1926c) vol. II, pp.5-10; New York dollar exchange rates multiplied by dollar/gold crown conversion rate.

† denotes the conversion rate for the Polish Zloty.

Conversion rates for the U.S. dollar are obtained by multiplying the above gold crown rates by the gold parity of 4.935 kr/$. (e.g. for March, 1919, $1=25.7 paper crowns).

References

Berend, I.T., and G. Ranki, The Hungarian Economy in the Twentieth Century (London: Croom Helm 1985).

_____, Economic Development in East-Central Europe in the 19th and 20th Centuries (New York: Columbia University Press, 1974).

de Bordes, J. v. Walré, The Austrian Crown (London: P.S. King and Sons, 1924).

Dragnich, A.N., The First Yugoslavia (Stanford: Hoover Institution Press, 1983).

Economist, various issues, 1918-1920.

Held, Joseph, ed., The Columbia History of Eastern Europe in the Twentieth Century (New York: Columbia University Press, 1992).

Hodac, F., "The Tariff Arrangements of the Succession States," Manchester Guardian Commercial (July 27, 1922) pp. 312-314.

Lampe, J.R. and M.R. Jackson, Balkan Economic History, 1550-1950 (Bloomington: Indiana University Press, 1982).

Layton, W.T., and Charles Rist, The Economic Situation of Austria (Geneva: League of Nations, 1925).

League of Nations, International Financial Conference, Brussels, 1920, Vols. I, II, III (Brussels: Th. Dewarichet, 1920).

_____, Financial Reconstitution of Austria: Report of the Financial Committee of the Council (Geneva, 1921).

_____, Memorandum on Currency, 1913-1921 (Geneva, 1922).

_____, Memorandum on Currency, 1913-1922 (Geneva, 1923).

_____, Memorandum on Currency, 1913-1923 (Geneva, 1924a).

_____, Memorandum on Central Banks, 1913 and 1918-1923, (Geneva, 1924b).

_____, Financial Reconstruction of Hungary: 25 Reports of the Commissioner-General of the League of Nations for Hungary (Geneva, 1924c).

_____, Financial Reconstruction of Austria: Agreement (Geneva, 1924d).

_____, Memorandum on Currency and Central Banks, 1913-1924, Vols. 1 and 2 (Geneva, 1925).

_____, Financial Reconstruction of Austria: General Survey and Principal Documents (Geneva, 1926a).

_____, Financial Reconstruction of Hungary: General Survey and Principal Documents (Geneva, 1926b).

_____, Memorandum on Currency and Central Banks, 1913-1925 (Geneva, 1926c).

_____, Chronique des Evenements Politiques et Economiques dans le Bassin Danubien 1918-1936: Tchecoslovaquie (Paris, 1938a).

_____, Chronique des Evenements Politiques et Economiques dans le Bassin Danubien 1918-1936: Autriche (Paris, 1938b).

_____, Chronique des Evenements Politiques et Economiques dans le Bassin Danubien 1918-1936: Roumanie (Paris, 1938c).

_____, International Currency Experience: Lessons of the Postwar Period (Princeton, 1944).

_____, The Course and Control of Inflation: A Review of Monetary Experience in Europe After World War I (Princeton, 1946).

Marz, Eduard, Austrian Banking and Financial Policy, trans. C. Kessler (London: Weidenfeld and Nicolson, 1984).

Nötel, R., "International Credit and Finance," Chapter 12 in M.C. Kaser and E.A. Radice, eds. The Economic History of Eastern Europe, 1919-1975, Vol. II., pp. 170-286 (Oxford: Clarendon Press, 1986).

Pasvolsky, Leo, Economic Nationalism of the Danubian States (New York: The Macmillan Company, 1928).

Popovics, A., Das Geldwesen im Kriege (New Haven: Yale University Press, 1925).

Rasin, Alois, "Currency Conditions in Czechoslovakia," Manchester Guardian Commercial, (April 20, 1922), pp. 39-40.

_____, Financial Policy of Czechoslovakia During the First Year of its History (Oxford: Clarendon Press, 1923).

Redlich, Joseph, Austrian War Government (New Haven: Yale University Press, 1929).

Rudolph, Richard L., Banking and Industrialization in Austria-Hungary (New York: Cambridge University Press, 1976).

_____, "Austria, (1800-1914)," in Rondo Cameron, ed., Banking and Economic Development: Some Lessons of History (New York: Oxford University Press, 1972).

Sargent, T.J., "The Ends of Four Big Inflations," Chapter 3 in Rational Expectations and Inflation (New York: Harper and Row, 1986).

Schumpeter, J.A., "The Crisis of the Tax State," reprinted in translation in R. Swedberg, ed. The Economics and Sociology of Capitalism (Princeton: Princeton University Press, 1991), pp.99-140.

_____, "The Currency Situation in Austria," pp. 225-231, in Young, J.P., European Currency and Finance (Washington: Government Printing Office, 1925).

Singer, Paul, Monetary and Central Bank Laws (London: League of Nations, 1932).

Steiner, F., Die Wahrungsgesetzgebung der Sukzessionsstaaten Österreich-Ungarns, Vols. I, II (Vienna: Verband Österreichischer Banken und Bankiers, 1921).

_____, "Vienna as an Exchange Market for the Succession States," Manchester Guardian Commercial (April 20, 1922), pp. 37-39.

Strong, David F., Austria (October 1918 - March 1919): Transition from Empire to Republic (New York: Columbia University Press, 1938).

Swedberg, R., Joseph Schumpeter: His Life and Works (Cambridge: Polity Press, 1991).

Teichova, Alice, An Economic Background to Munich: International Business and Czechoslovakia, 1918-1938 (London: Cambridge University Press, 1974).

Turnock, David, The Romanian Economy in the Twentieth Century (London: Croom Hill, 1986).

Walters, E. Garrison, The Other Europe, (Syracuse: Syracuse University Press, 1988).

Young, J.P., European Currency and Finance, Vols. 1 and 2 (Commission of Gold and Silver Inquiry, United States Senate, Serial 9), (Washington: Government Printing Office, 1925).

Zeuceanu, A., La Liquidation de la Banque d'Autriche-Hongrie (Vienna: Imprimerie des Mechitharistes, 1924).

Zuckerkandl, "The Austro-Hungarian Bank," Banking in Russia, Austro-Hungary, The Netherlands and Japan, National Monetary Commission, Vol. 18 (Washington: Government Printing Office, 1911), pp. 57-118.