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Czech Republic: Reserve Requirements, 1997¹

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Abstract

In the first quarter of 1997, fiscal and current account deficits in the Czech Republic put pressure on the koruna's pegged exchange rate as capital flowed out of the domestic economy. Although the Czech National Bank (CNB) committed to tight monetary policy to protect the peg, on April 11, the CNB announced a lowering of the minimum reserve requirement (RR) ratio from 11.5% to 9.5%, effective May 8. The RR ratio (RRR) reduction (RRR) reflected a compromise with the government, which had petitioned the central bank to ease monetary policy. To improve the balance of payments, the government also implemented budget cuts along with several other economic correction measures. Most novel among these measures was a scheme that required importers to deposit funds temporarily with the central bank, which helped sterilize the liquidity produced by the RRR reduction. Nevertheless, the koruna continued to face intense speculative attacks. On May 26, the CNB abandoned the peg and switched to a managed float. The CNB said that the May 1997 RRR reduction released CZK 20 billion (USD 660 million) of liquidity into the system during the crisis, although about half of that was offset by the import deposit scheme.

Keywords: Czech Republic, liquidity rules, reserve ratio, reserve requirements

¹ This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering the adjustment of reserve requirements. Cases are available from the *Journal of Financial Crises* at <https://elischolar.library.yale.edu/journal-of-financial-crises/>.

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Overview

Following the collapse of the Soviet Union and the breakup of Czechoslovakia in 1993, the Czech Republic emerged as one of the fastest-growing economies in Europe (Hroldová 2009). In 1994 and 1995, the liberalization of capital flows, combined with a tight exchange rate peg,³ led to persistent current account deficits produced by the appreciation of the real exchange rate. The Czech economy financed these current account deficits through an increasing reliance on short-term foreign borrowing (Horvath 2003; Hroldová 2009).

In February 1996, to ease appreciating pressures, the Czech National Bank (CNB) widened the exchange rate band to +/-750 basis points (bps) around the target rate (Horvath 2003). At the same time, the CNB shifted to a more contractionary monetary policy to further sterilize monetary inflows (Begg 1998). In addition to increasing its discount (floor) and Lombard (ceiling) rates, the CNB increased the minimum reserve requirements ratio (RRR) from 8.5% to 11.5% in August 1996 (Horvath 2003).

According to Begg (1998), this high RRR helped the CNB manage the pegged exchange rate by limiting monetary expansion. The high RRR effectively sterilized capital inflows by lowering the money multiplier; as a result, the CNB was able to accumulate foreign reserves despite persistent current account deficits in the years leading up to the crisis (Begg 1998).

Beginning in February 1997, the koruna started to weaken (Horvath 2003). Depreciating pressures grew in March and accelerated in April, with the emergence of a government budget deficit (Hroldová 2009; IMF 1998). In response to the fiscal deficit, the government

Key Terms

Purpose of Adjusting Reserve Requirement (RR): To provide koruna liquidity as a compromise with the government	
Range of RR Ratio (RRR) Peak-to-Trough	11.5%–9.5%
RRR Increase Period	August 1996–May 8, 1997
RRR Decrease Period	May 8, 1997–October 7, 1999
Legal Authority	Article 15 of the Act on Banks; Article 25 of the Act on the CNB
Interest/Remuneration on Reserves	Unremunerated
Notable Features	CNB lowered RR as the first relaxation of monetary instruments The government partially sterilized the liquidity created through a novel import deposit scheme Reservable liabilities included bonds with maturities under five years
Outcomes	Released CZK 20 billion (USD 0.66 billion) of liquidity

³ Until May 1997, the Czech koruna (CZK) was pegged to a currency basket composed of 35% US dollars (USD) and 65% German deutschmarks (DEM); until 1996, the koruna exchange rate band allowed for a fluctuation of only 50 bps around that rate (Horvath 2003; Hroldová 2009).

introduced economic correction measures, which promised to reduce state budget expenditures by CZK 25.5 billion (USD 843 million),⁴ slow wage growth, and introduce an import deposit scheme (CNB 1998b).

On April 11, in its first monetary policy change of 1997, the CNB announced a reduction in the RRR from 11.5% to 9.5%, taking effect on May 8 (CNB 1998b; IMF 1998). The RR change resulted from a compromise with the government, which had petitioned for monetary easing; but the government's import deposit scheme helped sterilize the CZK 20 billion of liquidity produced by the RRR reduction (IMF 1998). According to the CNB, the RRR reduction communicated the CNB's willingness to relax its restrictive monetary policies provided that the government continued to resolve the budgetary imbalances. After the CNB announced the RRR decrease, domestic credit rates decreased modestly (CNB 1998b).

However, on May 15, less than one week after the CNB lowered the RRR, the koruna depreciated 5% amidst a major speculative attack (Hroldová 2009). The CNB defended the currency through foreign exchange intervention and aggressive interest rate increases. On May 21, the koruna succumbed to another speculative attack. The following day, the CNB suspended foreigners from transacting in the domestic money market. On May 26, the CNB abandoned the exchange rate peg altogether and switched to a managed float. The koruna eventually stabilized in the third quarter of 1997 at 10% below the original 28 CZK/USD target, and with it, the Czech credit and forex markets also stabilized. With the abandoning of the peg, the CNB lost its nominal anchor for monetary policy and by 1998 switched to a new monetary regime that targeted inflation (CNB 1998b).

Meanwhile, to address losses that banks were experiencing on their securities proposals, the CNB introduced new loan loss provisioning requirements on July 1, 1997 (CNB 1998b). The new rules required banks to constantly create provisions for all securities whose market value fell below the purchasing price. In 1998, the CNB also increased required provisions against bad and doubtful loans (CNB 1999; *Hospodářské Noviny* 1998).

In 1998, the CNB overestimated the inflationary risks, and inflation undershot the CNB's targets (Janáčková 2001). With the economy in a deep recession, the CNB attempted to ease its monetary policy in the second half of 1998; the main policy tool, interest rate reductions, failed to lift the economy, as banks were in the midst of a credit crunch by November 1998 (Janáčková 2001). Some Czech economists blamed the prolonged recession on the CNB's restrictive monetary policy, which protected the stability of the currency at the expense of the broader economy (Horvath 2003). The CNB's strict provisioning requirements may also have been partially to blame, according to Janáčková (2001).

Starting in mid-1998, the CNB's RR policy supported its monetary easing policy. Beginning on July 30, 1998, and ending on October 7, 1999, the CNB cut the RRR from 9.5% to 2% in three separate steps (CNB 2001). In the final RRR reduction, in October 1999, the CNB

⁴ Per Bloomberg, USD 1 = CZK 30.25 on April 16, 1997, when the government approved the economic correction measures.

completed the process of harmonizing the RRR with the Eurosystem and retained the 2% ratio for several years thereafter (CNB 2000).

Summary Evaluation

The Czech currency crisis in May 1997 was ultimately short-lived. Horvath (2003) noted that the market reacted well to the CNB's initial crisis management package, including the reduction in the RRR. The loosening of the RRR from 11.5% to 9.5% in May 1997 released CZK 20 billion (USD 660 million) of liquidity into the system during the crisis, although about half of that was offset by the import deposit scheme (IMF 1998). Starting in mid-1998, reserve requirement policy played a supporting role in the CNB's monetary easing.

Context: Czech Republic 1997–1998	
GDP (SAAR, nominal GDP in LCU converted to USD)	\$62.2 billion in 1997
	\$66.8 billion in 1998
GDP per capita (SAAR, nominal GDP in LCU converted to USD)	\$6,034 in 1997
	\$6,490 in 1998
Sovereign credit rating (five-year senior debt)	1997
	Moody's: Data not available
	S&P: Data not available
	Fitch: Data not available
	1998
	Moody's: Data not available
S&P: Data not available	
Fitch: Data not available	
Size of banking system	\$41.4 billion in 1997
	\$38.7 billion in 1998
Size of banking system as a % of GDP	66.6% in 1997
	58% in 1998
Size of banking system as a % of financial system	Data not available in 1997
	Data not available in 1998
Five-bank concentration of banking system	Data not available in 1997
	Data not available in 1998
Foreign involvement in banking system	Data not available in 1997
	Data not available in 1998
Existence of deposit insurance	Yes in 1997
	Yes in 1998
<i>Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.</i>	

Key Design Decisions

1. Purpose: The CNB lowered the RRR in 1997 in response to domestic economic challenges and as a result of an agreement with the government.

On April 11, 1997, in response to a domestic economic shock, the Czech National Bank (CNB) announced a lowering of the minimum reserve requirement ratio (RRR) for banks from 11.5% to 9.5%, effective May 8 (IMF 1998). The RRR reduction reflected the first monetary policy instrument change for the year and represented a departure from the CNB's tight monetary policy stance used to defend the koruna's (CZK's) fixed exchange rate regime (CNB 1998b; Horvath 2003). Following mounting political pressures for the CNB to relax monetary policy, the Czech government and the CNB made a compromise that allowed the CNB to ease RRs without undermining its commitment to protecting the currency. Under the terms of that compromise, the Ministry of Industry and Trade established an import deposit scheme in April that helped sterilize the additional bank liquidity released by the CNB's RR decrease. The CNB also maintained high interest rates on its lending facilities (IMF 1998). In announcing the RR change, the CNB noted that the import deposit scheme allowed the CNB to relax RRs (CNB 1997b; Czech Ministry of Industry and Trade 1997).

The koruna continued to depreciate in May toward its lower bound amidst a major speculative attack (Hroldová 2009). On May 26, 1997, after repeated attempts to fend off speculative attacks, the CNB abandoned the koruna peg and switched to a managed float (CNB 1998b).

Beginning in 1998, the CNB transitioned to a new monetary policy regime based on inflation targeting (CNB 1998b; CNB 2000). In 1998 and 1999, the CNB continued to lower RRs in support of the CNB's monetary easing policy, unlike in 1997. The CNB said that these changes served to harmonize monetary instruments with the ECB and promote the competitiveness of the Czech banking system (CNB 2000).

2. Part of a Package: In 1997, the CNB initially reduced the RRR without changing any other monetary policy instruments; the RR change, however, came alongside government economic policy measures.

Leading up to the currency crisis in the first quarter of 1997, the CNB was reluctant to ease monetary policy because it was prioritizing the defense of the koruna's peg to a basket of currencies (IMF 1998). Therefore, the CNB did not change any other monetary policy instruments when it reduced the RRR on May 8, 1997. However, the RR change came alongside the government's economic correction measures announced in April 1997. These government measures included budgetary cuts and other economic correction measures to address the fiscal and current accounts deficits (CNB 1998b; Hroldová 2009).

Notable among these measures was the introduction of an import deposit scheme, which helped sterilize the additional liquidity from the RRR reduction (CNB 1998b; IMF 1998). The scheme required importers to deposit 20% of the value of their imports for a six-month

period in koruna accounts at the Consolidation Bank, a state-owned bank that administered the scheme. It applied to 30% of all Czech imports. The proceeds from the scheme amounted to CZK 10.5 billion, half of which was then deposited with the CNB as additional koruna reserves, thus helping offset the liquidity released from the RRR reduction. The government retired the scheme in August 1997 (IMF 1998).

The CNB also increased loan loss provisioning requirements on July 1, 1997, in response to banks' losses in securities markets. The new provisioning rules required banks⁵ to constantly create provisions for all securities whose market value fell below the purchase price; banks' provisions against securities losses amounted to CZK 9.9 billion by the end of the year, double that of 1996 (CNB 1998b).

In 1998, the CNB increased provisions against nonperforming loans while at the same time lowering the RRR (CNB 1999; Hospodářské Noviny 1998).

3. Legal Authority: Both the CNB Law and the Act on Banks authorized the CNB to set RRs for all banks operating in the Czech Republic.

Pursuant to Article 12 of the 1992 Act on Banks, all banks were required to maintain a specified ratio of reserves to their liabilities (Act on Banks 1992, 21/1992, article 12). Article 15 authorized the CNB to set such ratios and rules, including a mandatory requirement to reserve a certain portion of liquid assets to be deposited with the CNB (Act on Banks 1992, 21/1992, article 14-15). The CNB cited Article 15 as the legal basis for the RR change on May 8, 1997 (CNB 1997a).

Article 25 of the 1992 Act on the Czech National Bank (CNB Law) defined the parameters of RRs as one of the CNB's monetary instruments. Accordingly, the CNB could require banks to deposit funds up to a maximum of 30% of total liabilities (net of liabilities to other banks) in non-interest bearing CNB accounts. Under special circumstances (for example, inflationary pressures) the CNB could impose RRs exceeding the 30% threshold; however, in such cases the CNB needed to pay interest, at the discount rate, on the excess requirements (Act on the Czech National Bank 1993, article 25).

If a bank had insufficient RRs, Article 26 of the CNB Law authorized the CNB to impose fines up to a maximum of three times the discount rate on the deficit funds (Act on the Czech National Bank 1993, article 26).

4. Administration: The CNB's board of directors administered RR changes.

The CNB's board of directors decided on any changes to RR policy, including the lowering of the RRR on May 8, 1997, in response to the crisis (CNB 1998b).

⁵ The CNB excluded banks "under conservatorship" from this requirement (CNB 1998b).

5. Governance: The board of directors consisted of seven members, working closely with the Open Market Committee and other departments when setting RRs.

The CNB's board of directors included seven members serving six-year terms: a governor, two vice-governors, and four chief executive directors. The board attended the weekly Monday meetings of the Open Market Committee. In these meetings, the CNB generated a forecast of the supply and demand for reserves for the remainder of the week. Included in the reserve demand forecast were the RR level as well as the surplus reserves in relation to short-term interbank interest rates (CNB 2000).

6. Communication: The CNB communicated the RRR reduction as part of a compromise with the Czech government.

On April 11, 1997, the CNB announced a 200-bps RRR reduction that would take effect on May 8 (IMF 1998). In the weeks leading up to this change, the prime minister repeatedly criticized the CNB for keeping monetary policy too tight. The CNB implemented the RRR reduction as a compromise with the government following the government's adoption of new economic policy changes to reduce expenditures and support economic growth (CNB 1998b; IMF 1998). The CNB's press release on the RRR reduction said that the import deposit scheme provided for the ratio reduction (CNB 1997b). In the 1997 annual report, the CNB opined on the RRR decrease:

The CNB responded to the acceptance of the import deposit system aimed at limiting import growth by decreasing the minimum reserve requirements. This change was not very significant; however, by adopting this measure, the CNB signaled its willingness to gradually ease monetary restriction if the government more intensively engages itself in solving the economic problems. (CNB 1998b)

After the CNB announced the RRR decrease scheduled for May 8, 1997, domestic credit rates decreased slightly (CNB 1998b).

7. Assets Qualifying as Reserves: Banks satisfied RRs through the balance of their koruna-denominated settlement account with the CNB.

Banks held koruna-denominated cash accounts with the CNB, the balance of which constituted banks' reserves. Banks used these accounts to settle interbank payments while ensuring the average level of these accounts (over the two-week maintenance period) did not fall below the RRR. If needed, banks could borrow overnight from the CNB or the interbank market to maintain sufficient RR funds (BIS 1997).

8. Reservable Liabilities: Banks held RRs against primary liabilities, which included deposit accounts in both koruna and foreign currencies as well as long-term bonds.

The CNB set the RRR as a percentage of a bank's primary liabilities (Basna 2014; CNB 2000). Primary liabilities included government deposit accounts, client borrowings, issued bonds with maturities of up to five years, and foreign currency deposits, subtracted by any

collateralized (by treasury bills and bonds) interbank borrowings of up to five years (CNB 1997c).

9. Computation: The CNB computed banks' RRs as a percentage of primary liabilities and under a two-week maintenance period.

The CNB administered RRs by managing banks' koruna-denominated accounts placed at the CNB. These reserve accounts were also used by banks for interbank settlement (BIS 1997). However, banks had to, at a minimum, ensure that the average balance of these accounts over the two-week maintenance period complied with the RRs (BIS 1997; CNB 1998a; CNB 2000). Banks computed their RRs as a percentage of their primary liabilities, which excluded interbank liabilities (Basna 2014; CNB 2000). The CNB gave the following formula for the calculation of the deposit base subject to RRs: government deposit accounts + client borrowings + issues of bonds with maturities up to five years + foreign currency deposits, netting out interbank borrowings collateralized by treasury bills and bonds (CNB 1997c).

10. Eligible Institutions: All banks in the Czech Republic had to hold RRs in accounts with the CNB.

Domestic banks and branches of foreign banks operating in the Czech Republic were required to have accounts at the CNB to meet RRs (BIS 1997; CNB 1997c). By the end of 1997, there were a total of 50 banks in the Czech Republic (CNB 1998b).

The CNB administered a separate, lower RRR for the Czech-Moravian Guarantee and Development Bank (CMZRB) and building societies (CNB 1997a). The CNB classifies CMZRB and building societies as "special banks" together with two other banks (Export Bank and Cm. Hypotecni Banka). As of the end of 1996, special banks accounted for 3.1% of assets of the banking system (BIS 1997).

11. Timing: The CNB rarely changed RRs, with only one adjustment in 1997 and one or two annually in the following years.

Historically, the CNB changed RR policy infrequently (IMF 1998). In 1997, the CNB implemented only one RR change (CNB 1998b). In the following years, the CNB changed RRs once⁶ in 1998 and twice in 1999 (CNB 1999; CNB 2000).

During the 1997 crisis, the timing of the CNB's one and only RR change was unique insofar as it occurred before any other changes in monetary policy instruments. In contrast with the RR change on May 8, the CNB waited until after the speculative attack on May 15 before changing rates for other instruments (CNB 1998b; Hroldová 2009). The CNB's decision to lower the RRR followed the government's economic policy corrections adopted on April 16, 1997. The government's policy measures attempted to reduce expenditures and support economic growth and the transition to a market economy. By easing otherwise tight

⁶ The CNB's board of directors announced two RR changes in 1998, the latter of which became effective later in January 1999 (CNB 1999).

monetary policy, the CNB's RRR reduction demonstrated support for the government's economic changes (CNB 1998b).

12. Changes in Reserve Requirements: The CNB lowered the RRR once in 1997 and three more times between 1998 and 1999.

From May 8, 1997, to October 7, 1999, the CNB lowered the RRR on primary liabilities from 11.5% to 2% through four separate changes (CNB 2001). See Figure 1.

Figure 1: Minimum RRR on Primary Liabilities (1997–1999)

Date of change	RR change
May 8, 1997	11.5% reduced to 9.5%
July 30, 1998	7.5%
January 28, 1999	5%
October 7, 1999	2%

Source: CNB 2001.

The changes in the RRR represented by Figure 1 exclude the separate RRR applied to building societies and the Czech-Moravian Guarantee and Development Bank (CMZRB). From 1995 until October 1999, the CNB maintained a lower 4% RRR for these specialized institutions, keeping this ratio unchanged during the 1997 currency crisis. On October 7, 1999, the same day the CNB lowered the RRR from 5% to 2% for all banks, the CNB also reduced the RR for building societies and the CMZRB to 2% (CNB 2001).

13. Changes in Interest/Remuneration: RRs were unremunerated.

The CNB did not pay interest on the RRs until 2001 (CNB 2000).

14. Other Restrictions: In its public statements, the CNB did not attach any other restrictions to its RR adjustments.

Research has not determined any other restrictions on RRs.

15. Impact on Monetary Policy Transmission: The government's import deposit scheme partially sterilized the liquidity injection that resulted from the May 1997 RRR reduction.

The RRR reduction in May 1997 released CZK 20 billion in liquidity to banks, which was partially sterilized by the government's new import deposit scheme. The scheme required importers of select goods to deposit 20% of their value for a six-month period (IMF 1998). The scheme resulted in an increase of CZK 10.5 billion in reserves, sterilizing about half of the RR change. From mid-1998, reductions in the RRR supported the CNB's monetary easing policy. The dramatic lowering of the RRR in 1998 resulted in excess liquidity, which the CNB sterilized with repo transactions (CNB 1999).

16. Duration: The CNB did not set an end date for RR relaxations; rather, the CNB continued to lower RRs in the years after the crisis until they were harmonized with ECB standards.

When the CNB introduced the first reduction in the RRR on May 8, 1997, it did not provide an end date to the relaxation. Within weeks of the change, speculative attacks forced the CNB to abandon the exchange rate peg, ushering in a new era of monetary policy. After abandoning the peg on May 26, the CNB switched to a managed float and an inflation-targeting regime (CNB 1998b). The change in monetary regime also accompanied a gradual process of harmonizing the CNB's policy instruments with those of the ECB. By October 7, 1999, after three more RRR reductions, the CNB eventually lowered the RRR to 2%, matching the requirements of the Eurosystem (CNB 2000).

References and Key Program Documents

Documents cited in the text are introduced with a parenthetical author-date citation. Documents that are relevant to this case but have not been cited in text do not include this parenthetical reference.

Implementation Documents

(CNB 1997a) Czech National Bank (CNB). 1997a. "106/1997 Measures of the Czech National Bank Setting the Minimum Amount of Liquid Funds," 1997.
Document implementing the reduction in reserve requirements effective May 8, 1997.
<https://ypfs.som.yale.edu/library/1061997-measures-czech-national-bank-setting-minimum-amount-liquid-funds>

(CNB 1997b) Czech National Bank (CNB). 1997b. "Czech National Bank Bulletin (May 7, 1997)," June 1997.
Bulletin describing changes to reserve requirements in May 1997.
<https://ypfs.som.yale.edu/library/czech-national-bank-bulletin-may-7-1997>

(CNB 1997c) Czech National Bank (CNB). 1997c. "Czech National Bank Bulletin (September 23, 1997)," September 1997.
Bulletin describing changes to reserve requirements in September 1997.
<https://ypfs.som.yale.edu/library/czech-national-bank-bulletin-september-23-1997>

(CNB 1998a) Czech National Bank (CNB). 1998a. "Czech National Bank Bulletin (July 3, 1998)," July 1998.
Bulletin describing changes to reserve requirements in July 1998.
<https://ypfs.som.yale.edu/library/czech-national-bank-bulletin-july-3-1998>

Legal/Regulatory Guidance

(Act on Banks 1992) Act on Banks. 1992. Law 21/1992 Sb. 21/1992.
A 1992 law, as amended in 1996, setting the regulations for required reserves deposited with the CNB.
<https://ypfs.som.yale.edu/library/act-banks>

(Act on the Czech National Bank 1993) Act on the Czech National Bank. 1993. Law 6/1993 Sb. 6/1993.
A 1993 law, as amended in 1997, on the legal provisions for the CNB.
<https://ypfs.som.yale.edu/library/act-czech-national-bank>

Media Stories

(Hospodářské Noviny 1998) Hospodářské Noviny. 1998. "The Bank Board decided to reduce the required minimum reserves." *Hospodářské noviny* (HN.cz), June 19, 1998, sec. HN.
News article discussing the CNB's decision to cut RRs in 1998.

<https://ypfs.som.yale.edu/library/bank-board-decided-reduce-required-minimum-reserves>

Press Releases/Announcements

(Czech Ministry of Industry and Trade 1997) Czech Ministry of Industry and Trade. 1997. "90/1997 On the Introduction of an Import Deposit," April 1997.
Decree of the Ministry of Industry and Trade on the introduction of an import deposit.
<https://ypfs.som.yale.edu/library/901997-introduction-import-deposit>

Reports/Assessments

(BIS 1997) Bank for International Settlements (BIS). 1997. "Payment Systems in the Czech Republic." Prepared by the Czech National Bank and the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries, June 1997.
BIS paper on the payment system in the Czech Republic.
<https://ypfs.som.yale.edu/library/payment-systems-czech-republic>

(CNB 1998b) Czech National Bank (CNB). 1998b. Annual Report 1997.
Annual report discussing the CNB's monetary policy decisions during the crisis.
<https://ypfs.som.yale.edu/library/annual-report-1997>

(CNB 1999) Czech National Bank (CNB). 1999. Annual Report 1998.
Annual report discussing the CNB's monetary policy decisions in 1998.
<https://ypfs.som.yale.edu/library/annual-report-1998-0>

(CNB 2000) Czech National Bank (CNB). 2000. Annual Report 1999.
Annual report discussing the CNB's monetary policy decisions in 1999.
<https://ypfs.som.yale.edu/library/annual-report-1999-0>

(CNB 2001) Czech National Bank (CNB). 2001. Annual Report 2000.
Annual report discussing the CNB's monetary policy decisions in 2000.
<https://ypfs.som.yale.edu/library/annual-report-2000-0>

(Hroldová 2009) Hroldová, Zdeňka. 2009. "The Causes, Solution and Consequences of the 1997 Monetary Crisis," 23.
Presentation on the 1997 Czech currency crisis.
<https://ypfs.som.yale.edu/library/causes-solution-and-consequences-1997-monetary-crisis>

(IMF 1998) International Monetary Fund (IMF). 1998. "Czech Republic: Selected Issues," 1998.
IMF report discussing the developments in the Czech economy before and after the 1997 monetary crisis.
<https://ypfs.som.yale.edu/library/czech-republic-selected-issues>

Key Academic Papers

(Basna 2014) Basna, Pavlína. 2014. "Monetary Policy Tools on the Example of the Czech National Bank," 70.

Bachelor thesis on CNB monetary tools between 1993 and 2012.

<https://ypfs.som.yale.edu/library/monetary-policy-tools-example-czech-national-bank>

(Begg 1998) Begg, David. 1998. "Pegging Out: Lessons from the Czech Exchange Rate Crisis." *Journal of Comparative Economics*.

Paper discussing the 1997 Czech currency crisis.

<https://ypfs.som.yale.edu/library/pegging-out-lessons-czech-exchange-rate-crisis>

(Horvath 2003) Horvath, Julius. 2003. "The Czech Currency Crisis of 1997." In *Currency Crises in Emerging Markets*, edited by Marek Dąbrowski, 221–34. Boston, MA: Springer US. *Book chapter on the 1997 Czech crisis in the context of other emerging market currency crises.*

<https://ypfs.som.yale.edu/library/czech-currency-crisis-1997>

(Janáčková 2001) Janáčková, Stanislava. 2001. "The Chimera of Autonomous Monetary Policy in a Small Open Economy: The Case of the Czech Republic." *Eastern European Economics* 39, no. 3: 45–74.

Paper discussing the Czech currency crisis in 1997.

<https://ypfs.som.yale.edu/library/chimera-autonomous-monetary-policy-small-open-economy-case-czech-republic>

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