The Role of the Czech National Bank
in Building the Czech Financial System

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1. Preface

The role of the Czech National Bank (CNB) in building the Czech financial sector has been stronger than that of the developed countries' central banks, mainly because of the transition character of the Czech economy. But it has also been stronger than that of the central banks of other Central and Eastern European countries, owing to the deeper financial system at the start of the transformation[1].

2. Starting Conditions

The starting conditions were not favorable for the Czech financial sector. Despite a good historical experience with a standard market financial sector in the inter-war Czechoslovakia, the banking sector was one of the worst hit sectors of the economy. Forty years of central planning had strongly (and negatively) affected the banking sector and had totally destroyed the former capital markets[2]. The banking sector was dominated by a strong state "monobank", the State Bank of Czechoslovakia (SBCS). Besides the more or less standard operations of central banking, this monobank also performed commercial banking functions. These included lending to the corporate sector and direct management of the other banks, including the setting of "market" interest rates. These functions, as well as monetary policy making, were, however, strongly distorted by their subordination to the central planning process. For well-known reasons this process was itself inefficient: agents under central planning were reluctant to offer objective information to the centre, resulting in information asymmetry;[3] resources were badly allocated; and there were excess holdings of stocks and over employment. The remaining "commercial" banking sector (also wholly owned by the state) was highly concentrated and comprised only four banks. Each of these four banks specialized in a limited special function (accumulation of savings, cross-border operations, etc.) so basically all the segments of the banking sector were monopolized. Despite the entry of new banks, these "core" banks maintained their position throughout the 1990s. The fact that the "commercial" banks functioned as a kind of "technical appendage" to the SBCS also resulted

[1] In 1996 the share of bank assets made up 112.8% of GDP in the CR, while this number was 66.0% for Hungary, 50.9% for Poland and 70.4 for Slovenia. Although the high level of financial depth is positive for economic development, in the transforming country in combination with other factors (e.g. bad corporate governance or legal structures) it could lead to financial instability.
[2] For a description of the Czech inter-war capital market, see Vencovský (2003) or Lacina (1990).
[3] See Hlaváček (1990), Hlaváček et al (1988), Mlčoch (1990), Zieliniec et al (1991) or Kornai (1992)

in an absence of banking supervision at the beginning of the transformation. Banking supervision was thus built from scratch simultaneously with the economic reform process.[4]

Compared to the other post-communist countries the situation of the Czech banking sector was even more complicated. In Poland and Hungary, for example, some economic reforms had already taken place in the 1980s under the communist regime, while in Czechoslovakia the transformation started from scratch in 1989 (or rather 1990). The absence of any transformation before 1990 led to relative macroeconomic stability (compared to Poland and Hungary), which fostered a high level of saving. Nevertheless, the subsequent transformation steps had to be all the quicker, leading to very rapid changes in the legal and institutional framework, including revolutionary changes at the microeconomic level (privatization, the introduction of a capital market and its specific role in the voucher privatization process, the new phenomenon of unemployment, etc.). The need for fast transformation was also influenced by the relatively high share of industrial production in GDP, which led to a very low share of the private sector in GDP, even in relation to the other countries of the former Soviet bloc.[5] True, the banks in those CEEC countries with a higher initial private sector share did not lend much to this sector anyway, but private companies were at least able to establish a track record and the formal and informal rules of entrepreneurship could start to develop. These rules were one of the things that proved to be most missing in the Czech economic transformation.

3. Current Situation

Despite the poor starting conditions of the banking sector and despite its sometimes very painful and expensive transformation (the cost of cleaning up the sector has been put at CZK 350 billion or about 15% of annual GDP), the banking sector today is healthy and stable. At the end of the first quarter of 2004, capital adequacy was at a historical high of 15.17%, while the share of classified loans had fallen to 11.2% and impaired loans to 4.81% (see Chart 1). This was achieved simultaneously with an increase in profitability, which is well above the standard level in the developed countries (the net profit to capital ratio has been above 20%

[4] The foundation of banking supervision in fact lagged behind many of the economic reforms. For example, the first wave of new banking licences took effect in 1990, nearly a year before the banking supervision department was set up at the SBCS.

[5] In 1989 the private sector accounted for 11% of GDP in Czechoslovakia, compared to 28% in Poland and 20% in Hungary. The only country with a comparably low share was East Germany, with approximately the same share as Czechoslovakia. Even these numbers are probably overestimated, since the agriculture in the Czechoslovakia was done almost exclusively in semi-state cooperatives.

for the last three years, despite a fall in the interest rate margin – see Chart 2). The key role in improving stability and profitability has been played by new foreign owners, who control (directly or indirectly) 95% of the Czech banking sector. This figure is one of the highest in the acceding countries (in Poland it is around 67%, in Hungary just over 61%, and in Slovenia only 21%). Banking regulation and supervision is harmonized with EC legislation[6] and the standards of bank management are at European levels.

In the following text I would like to evaluate the CNB's role in this process and to relate it to the role of the other policymaker, the government.

4. *The Relationship between Macroeconomic Policies (Fiscal and Monetary) and the Establishment of Banking Supervision*

One has to evaluate the process of establishing the banking sector, and financial market as a whole, in relation to other macroeconomic policies, which are not always mentioned in this connection. This is because of the virtual absence of financial market supervision at the start of the transformation and because of the one-off and non-standard nature of the transformation. It is also true that it is not very efficient to separate the macroeconomic and microeconomic dimensions of the economic transformation problem. In the following sections I will try to evaluate the relationship between the creation of banking supervision and monetary and fiscal policy as well as one-off changes such as privatization (of banks' clients and of banks themselves).

5. *The Relationship between Monetary Policy and the Establishment of Banking Supervision*

As mentioned above, the process of creating the financial sector and fostering its stability has to be discussed in relation to standard monetary policy. One of the reasons is that (especially at the beginning of the transformation) the instruments of monetary policy were implemented in parallel with the establishment of the payment system and the creation of banking supervision. This naturally led to an attempt to design these instruments to address (at least at the beginning) both problems at the same time. A second reason derives from the possibility of standard monetary policy instruments reacting to credit quality, which is sometimes mentioned for developed countries as well. Some studies try to estimate a reaction function

[6] Some problems affecting the supervision persist, such as slow functioning of the judicial system, inadequate enforcement of contracts and perceived high level of corruption.

which, in addition to the standard factors (inflation, the exchange rate, the output gap, etc.), includes indicators of financial sector (in)stability[7]. The need to maintain liquidity in the banking sector is often mentioned in connection with the "lender of last resort" function of the central bank.[8] In the case of massive financial instability (as was the case in the Czech banking sector in the 1990s) this could hinder a tightening of monetary policy. A third reason why these linkages are worth examining is that financial instability, or the reaction of the supervisory/regulatory authority thereto, could be an autonomous factor which *ceteris paribus* tightens the monetary policy set-up, leading in turn to mistakes in macroeconomic models and excessive monetary restriction. And finally, both monetary policy and the banking sector transformation process were affected by the liberalization of capital flows. On the monetary policy side this liberalization – combined with a fixed exchange rate and fiscal expansion – led to a decrease in monetary policy efficiency. On the banking sector stability side, the inflow of mainly short-term portfolio investment led to a need to reallocate these capital inflows through the banking sector. Given the inefficiency of this reallocation, the inflow led to increased instability of the banking system and thus to a postponing of the privatization of banks.

6. CNB Instruments

At the beginning of the transformation, the SBCS's monetary policy relied mostly on administrative instruments.[9] In line with the development of the payment system this situation steadily changed and the SBCS/CNB moved to standard market instruments. A specific instrument was the minimum reserve requirement. Besides its monetary policy role, the reserve requirement also played a role in the creation of the payment system, acting as a "buffer" to smooth intraday changes in banks' liquidity positions. It also played a role in influencing the stability of the banking sector (affecting the spread between lending and deposit rates and putting pressure on banks to hold reserves, albeit with a specific use).

As Chart 3 shows, the reserve requirement was used quite extensively, mainly within the monetary transmission mechanism, which was used until 1997. However, the operation of this

[7] Bulíř and Čihák, 2004; Crockett, 2002

[8] The "lender of last resort" function is stated explicitly in the goals and targets of central banks as diverse as for example: Portugal, Japan, New Zealand, Norway, Mexico, or Malta.

[9] Between 1990 and 1992 these included maximum spreads of market interest rates vis-à-vis the discount rate (i.e. a ceiling on lending rates and a floor on deposit rates) and credit ceilings relative to a bank's capital. In the first half of the 1990s the SBCS/CNB quite often used the minimum reserve requirement (last changed in 1999) – see the description of monetary policy instruments below and also Revenda *et al.* (1997).

transmission mechanism was (in line with the textbook models of a small open economy) greatly constrained by the exchange rate regime,[10] the liberalization of capital inflows[11] and the gradual (and sometimes hidden – see below) easing of fiscal policy. The monetary base was thus driven by capital inflow, so with a stable multiplier this would have led to an overshooting of the money growth targets (what actually happened is shown in Chart 4). The CNB thus tried to use the reserve requirement to influence the money multiplier. However, this was not sufficient to stabilize money growth. Besides this, the reserve requirement influenced credit spreads and the profitability (and hence stability) of the banking sector.

7. *Monetary Policy Reaction to Financial Instability*

The specific question relating to the monetary policy set-up and the building of the financial system is whether the SBCS/CNB reacted with these monetary policy instruments to banking sector stability indicators and whether it tried to "pump liquidity" in reaction to a worsening of the banking system stability indicators (bad loans, profitability, etc.). Chart 6 shows that such a reaction probably did not occur and that there was even some opposite reaction- an increase in the reserve requirement might have helped indirectly to boost the reserves of the banking sector and could thus be seen as a reaction to a deteriorating credit portfolio. Monetary policy might have been influenced by the banking sector situation only indirectly, through the influence of banking sector indicators on the real economy. For example, the bad corporate governance of banks[12] led to a build-up of bad loans. These loans helped otherwise inefficient enterprises to survive, supported overemployment and created demand pressures on inflation. Chart 6 shows that the majority of the bad loans originated from the massive

[10] Owing to problems connected with the dual-goal nature of the transmission mechanism, the exchange rate regime was modified several times. The original fixation of the exchange rate to a basket of five currencies was changed to a narrow (±0.5%) fluctuation band around this basket on 28 September 1992. In spring 1993 the basket was changed to two currencies (65% DEM and 35% USD), the fluctuation band remaining ±0.5%. The band was widened to ±7.5% on 28 February 1996, and the exchange rate was left to float freely after a short-lived currency crisis on 27 May 1997.

[11] The main step in this liberalisation was the passing of a new Foreign Exchange Act in 1995.

[12] Owned by the National Property Fund (NPF) and managed through the Ministry of Finance (MoF). Although the NPF was the official owner of shares in the big banks, its shareholder rights were limited and transferred to the MoF. The MoF, however, failed to manage the banks and it was the bank management that played the dominant role. This, in some cases led to a further postponing of privatisation, pressure regarding the selection of new owners (an aversion to German owners because of their system of corporate governance structures) and sometimes evens to the loss of state control of the bank (the IPB case). For a detailed account of the corporate governance problems from the former NPF director, see Havel (2002).

credit expansion in the first half of the 1990s.[13] After the inflation and general monetary policy pressures resulting from the currency crises in May 1997 eased, the CNB gradually lowered interest rates. But this monetary policy easing did not lead to better credit portfolio quality at all. The improvement came much later and was due to the pre-privatisation clear-out of banks' balance sheets and to the new foreign owners' positive influence on banks' management.

8. *Effect of the Changes to Banking Sector Regulation on the Monetary Policy Set-up*

There has been much debate about the possible opposite effect, namely whether the imposing of prudential rules led to an autonomous tightening of monetary policy. Such a tightening may have resulted in an economic growth slowdown and an unnecessary drop in inflation[14]. The usual argument uses the above-mentioned relationship between high interest rates and credit growth (Chart 6), and blames the CNB for causing the expansion in bad loans by toughening credit standards. These tougher standards, coupled with a slow fall in interest rates, supposedly led to a credit crunch. It should be mentioned in this context that the changes to the legislation were not as dramatic as it is sometimes argued (see the following table). For example, the most "media-hyped" change to the regulations in 1998 introduced a requirement for loan loss provisioning for loans categorized as loss and secured by real estate. In fact this change simply reinforced rules that had been in effect for a long time ("When provisioning for bad loans secured by real estate the bank shall take into account the real value of the property"). Although the banks of course objected to these changes in the regulation, as they argued that the loans are safe due to collateral, the final destiny of these loans showed that this change of the regulation was appropriate to the situation. As part of the balance sheet clear-out process prior to banks' privatization, the Czech Consolidation Agency bought almost all of these loans. The Consolidation Agency has already sold some of these loans with a very low recovery rate of around 10% The discussion about the appropriateness of changes in the regulations is thus reminiscent of the "chicken-and-egg" debate. My personal opinion is that the primary source of the expansion in bad loans was the above-mentioned absence of proper corporate governance in the state-owned banks, although the supervisory authority should probably have reacted slightly earlier. The expansion in bad loans may also have been related

[13] The exact inception dates of most of the bad loans often could not be specified, mainly due to the substitution of old bad loans with new ones. Despite the evident insolvency of debtors, banks often offered these loans to mask their debtors' real quality and to dodge pressures for higher capital requirements from the supervisor.
[14] See Klaus, 2002; Janáček, 2004

to the rise in the number of licenses issued at the beginning of the transformation. As Chart 7 shows, only 64% of the licenses granted during the first three years of the economic transformation were "successful" in the sense that their holders survived until 2004 (and even those only with some form of government support). The low initial requirements for capital and the lack of law enforcement in this area led to activities at or beyond the economic rationale and sometimes even beyond bounds of legality.

The following table lists selected major changes to the banking sector legislation/regulations:

Year	Change
1990	First banking licenses issued (11),
1991	Banking supervision department set up at SBCS (8 employees); more licensing (13 banks); “Consolidation Program I”
1992	Act on SBCS (22/1992) and Act on Banks (21/1992) take effect – specification of banking license and banking supervision, fines, credit exposure rules, required capital of bank increased to CZK 300 million (from CZK 50 million)
1993	Czechoslovakia splits; CNB (Czech National Bank) founded; capital adequacy rules amended (capital adequacy, credit exposure, liquidity rules)
1994	Act on Banks amended – CNB empowered to lower capital of bank, conservatorship better specified, deposit insurance established, required capital increased to CZK 500 million; CNB issues regulation on loan classification and provisioning; first bank bankruptcy
1995	New specific licenses introduced for mortgage banks; “Consolidation Program II”
1996	Regulation issued on creation of stock portfolios and provisioning for potential losses on stocks; regulation on bank loans issued (new risk weights for KoB, NPF and EGAP); “Stabilization Program”
1997	CNB regulation on capital adequacy issued, specifying conditions and restrictions for certain types of investment in loans and ownership interests;
1998	“Small” and “large” amendments to Act on Banks, some corporate governance issues; CNB regulation issued specifying possibility of covering loan loss provisions by expected value of pledge
1999	CNB issues regulations on capital adequacy of banks incorporating credit and market risks (effective 1 April 2000) and on supervision on consolidated basis
2000	Regulation issued on disclosure of information by banks; amendments made to capital adequacy rules
2001	Act on the CNB and Act on Banks harmonized with EU legislation; deposit insurance scheme rules amended; Central Credit Register introduced
2002	Preparations for new NBCA capital adequacy framework – joint project with Czech Banking Association
2003	Regulations issued on bank internal management systems and capital adequacy on consolidated basis
2004	EU accession; single European passport

It is not clear that the changes in the CNB's regulations were the primary cause of the decline in lending. However, the change in the economic climate resulting from the changes in lending may have been related to the systematic undershooting of inflation targets from the outset of inflation targeting in the Czech Republic.

Inflation targeting was introduced in the Czech Republic at the end of 1997 in response to the May 1997 financial crisis, which led to the exchange rate anchor being abandoned. The Czech Republic was one of the first transition economies to implement this transmission mechanism. The main reason was the CNB's failure to hit its money growth targets. On the other hand, although the money targets were systematically overshot (see Chart 4), the inflation forecasts were fulfilled (see Chart 5), raising questions regarding the stability of monetary transmission. Although money growth hit (or even undershot) its target in 1996 and 1997, pure money targeting (without a parallel exchange rate target) lasted for only a few months (from June till December 1997) and was distorted by repercussion of the effect of the May currency crisis.

As the following table and Chart 8 show, from the *ex post* point of view the CNB undershot its targets in the form of both net inflation and the total CPI, whereas cases of overshooting the target were very rare.[15] Although one can identify many other factors to explain this undershooting (for example a greater-than-expected and massive real appreciation in 2002, a lower pace of deregulation than had been expected when the CPI target was set, an undervaluation of monetary policy efficiency in relation to the exchange rate regime change in 1997, rigidity in the central bank reaction function…), the undershooting may have been partly due (at least in early years of inflation targeting) to the above-mentioned tightening of the CNB regulations in the area of prudential supervision. Although these regulations were not the primary reason for the pressure on banks' balance sheets and for the tightening of the conditions for credit assignment, they may have played some triggering role. Although the imposition of these rules led to better functioning of the banking sector, it lifted the lid on the problems with corporate governance of the banking sector, so the overall short-term effect on economic activity may have been negative. This one-off negative shock to economic activity, given the backward-looking nature of most econometric models (dependence on historical data), together with the other above-mentioned factors, brought about a systematic undershooting of the CNB's forecasts. The question remains, however, whether this

[15] The *ex post* efficiency of inflation targeting is actually overvalued in this table, owing to the overlapping of both targets in 2001. From the point of view of *ex post* evaluation of inflation targeting, 2001 was the most successful year and is included twice in the table.

undershooting could have been captured *ex ante*, as the mistakes in the CNB forecasts did not exceed the mistakes of other institutions.

Table- Success of Inflation Targeting (Dec 1998- Dec 2003)

	Stay	Number of Months	Percentage of cases
Target: net inflation	above target	1.0	2.8%
	below target	26.0	72.2%
	on target	9.0	25.0%
Target: total CPI	above target	4.0	11.1%
	below target	20.0	55.6%
	on target	12.0	33.3%
Targets: total	above target	5.0	6.9%
	below target	46.0	63.9%
	on target	21.0	29.2%

Note: The target referring to net inflation took place from Dec 1998 till Dec 2001; the target referring to total CPI is effective from Jan 2001.

9. The Role of Fiscal Policy

Although fiscal policy does not usually play a dominant role in banking sector development, this was not true for the Czech Republic in the early 1990s. Data on the public sector deficit were distorted by the extensive use of numerous transformation institutions (the National Property Fund, the Czech Consolidation Bank/Agency, Česká finanční, numerous state funds…) to hide the true expenses (see Chart 8 for the magnitude of these effects). The recent uncovering of these hidden expenses has further exacerbated the current public sector balance.

More importantly for the banking sector, macroeconomic stability was ensured in the early years of transformation by extensive use of semi-fiscal expenditure through the banking sector. The state was able to influence the lending policy of commercial banks through its ownership, as bank privatization lagged significantly behind other economic reforms (the banks were privatized as late as 2001, while the major economic reforms took place in the first half of the 1990s). The government’s official reasoning was that banks are private entities

in the form of joint-stock companies and that the state should not interfere in their business. That basically meant that the state failed to enforce its shareholder rights, resulting in poor corporate governance in the banks. Despite the official attitude there were implicit contracts between the government and bank management – managers assumed virtually unlimited control of their banks in return for financing the major government project – privatization. Although the semi-fiscal expenses are thought to be huge (judging from the expenses for cleaning up the banking sector), they are nearly impossible to measure.

The major challenge for the government was definitely bank privatization. As the actual final value of the banking sector was negative, the government had to clear out the old bad loans from banks' balance sheets. It is almost certain that these costs increased with the postponing of this privatization. Thus the privatization was in fact enforced by the bad situation of the banking sector, rather than based on a thought through process.[16] If the state had not cleared the banks' balance sheets, the major banks and thus almost the whole banking sector would collapse with tremendous negative effects to the economic activity.

10. Conclusion

The transformation of the financial sector has proved to be one of the most important and most complicated tasks of the economic reforms in transforming countries. This paper has tried to show that there are numerous links with other macroeconomic and microeconomic policies (monetary and fiscal policy, privatization, liberalization, establishment of a legal framework, creation of the payment system, creation of supervision, etc.) which are unique to the transformation countries. Thus the financial system could not have been established simply by copying from the developed countries. Recent Czech history also shows the fiscal authorities' reluctance to implement the necessary reforms (especially bank privatization) and their attempts to use the banking sector as an instrument for fulfilling their other targets (e.g. privatization, macroeconomic stability, etc.). Also, monetary policy shows a high degree of distortion from changes in the banking sector's situation.

[16] The leader of the Social Democratic government, Miloš Zeman, several times expressed his reluctance to put any money into the banks. After realising the harsh reality, his government sold all of the remaining banks, after cleaning them with taxpayers' money.

Charts:

Chart 1 – Banking sector health indicators

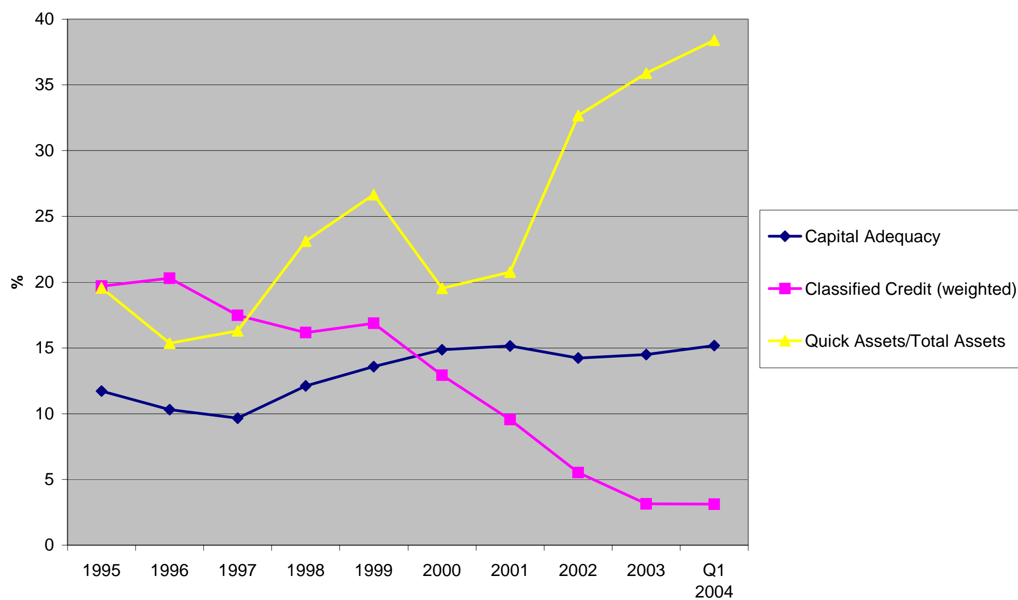


Chart 2 – Profitability of the Czech banking sector

Komentarz: Change:
"L. A." to "Left-hand scale"
"R. A." to "Right-hand scale"

Chart 3 – Changes to the money multiplier due to changes in minimum reserve requirements

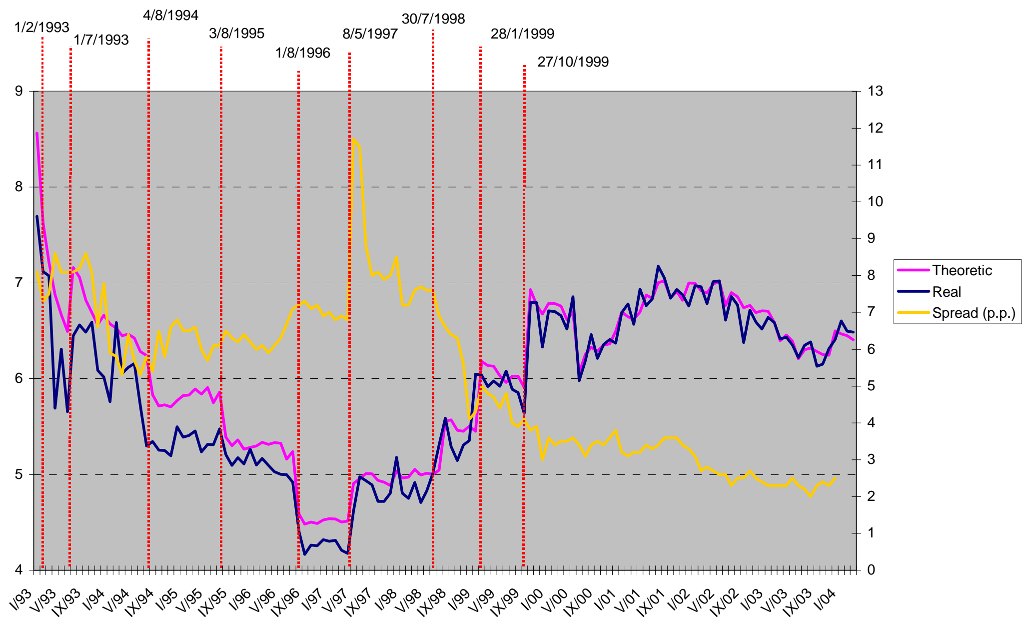


Chart 4 – Overshooting of money targets

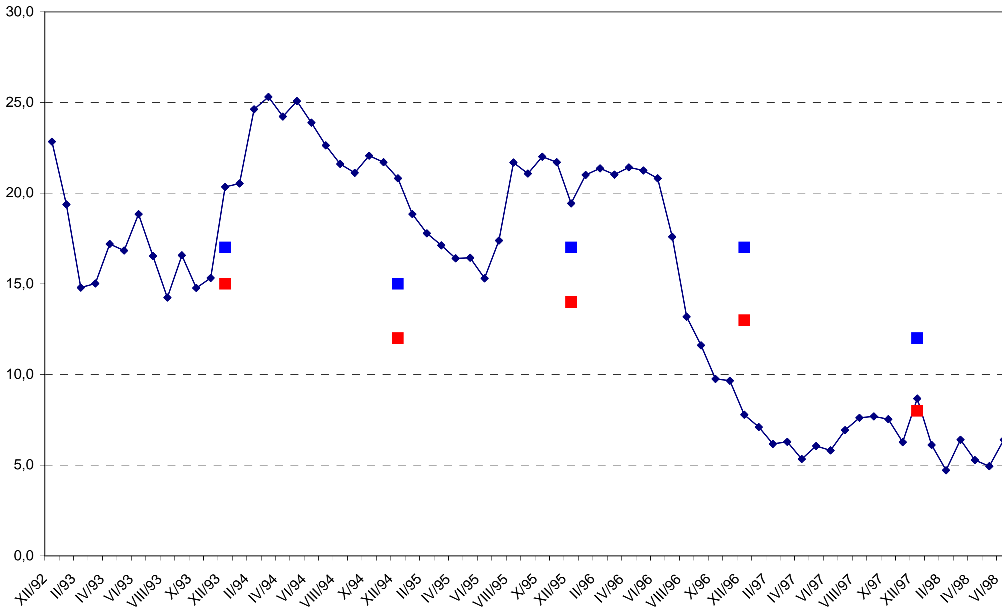


Chart 5 – Inflation forecasts prior to inflation targeting

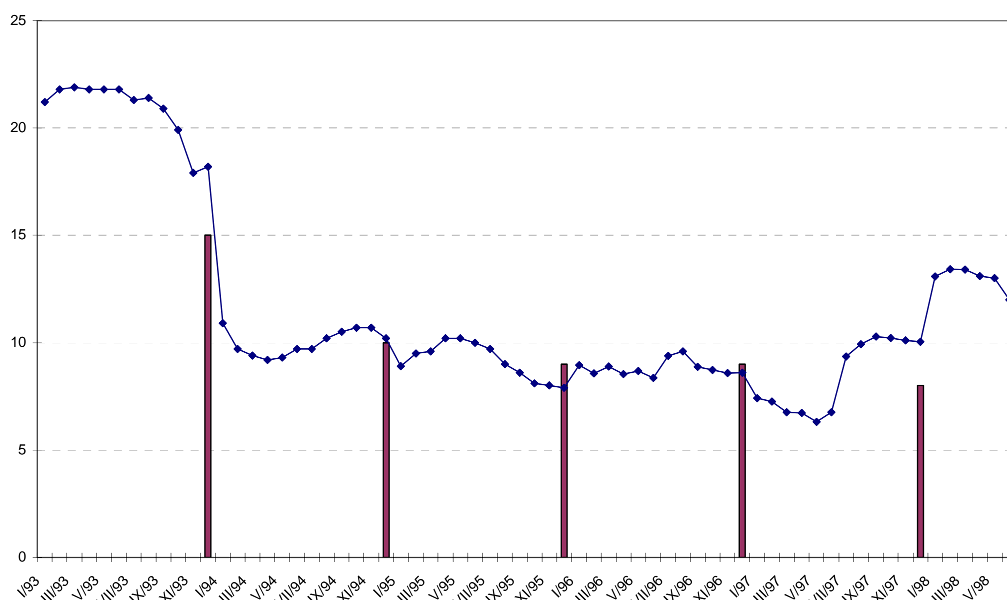
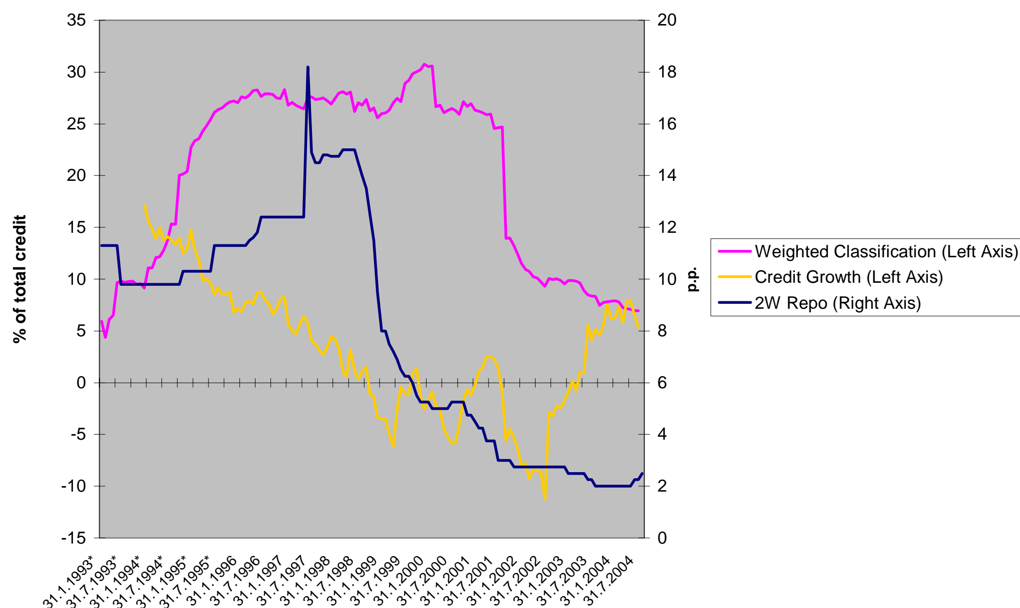


Chart 6 – Monetary policy instruments in reaction to growth in bad loans



*Note: * During this period the CNB's main interest rate was the discount rate. There were no repos. The hypothetical repo rate was calculated from the discount rate adjusted for the spread usual in later periods (the spread is currently 1 p.p.)*

Chart 7 – Ex-post success of licensing policy

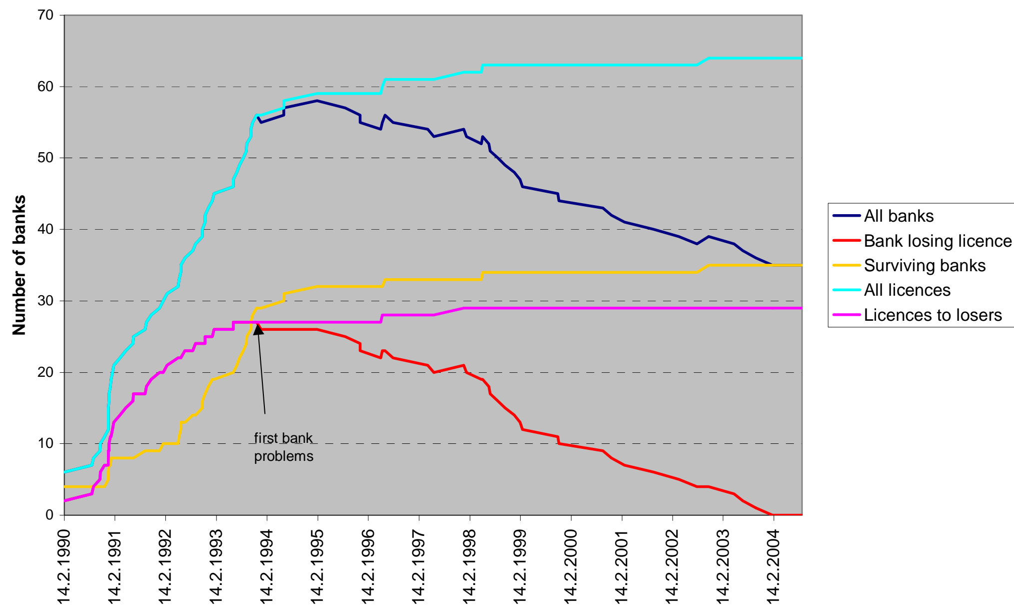
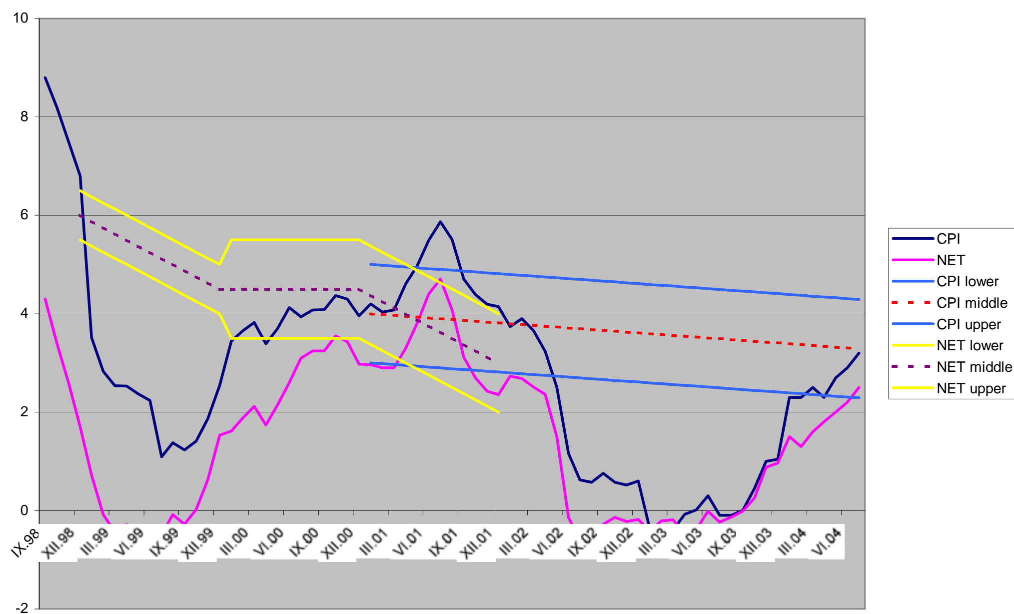


Chart 8 – Actual inflation versus targets



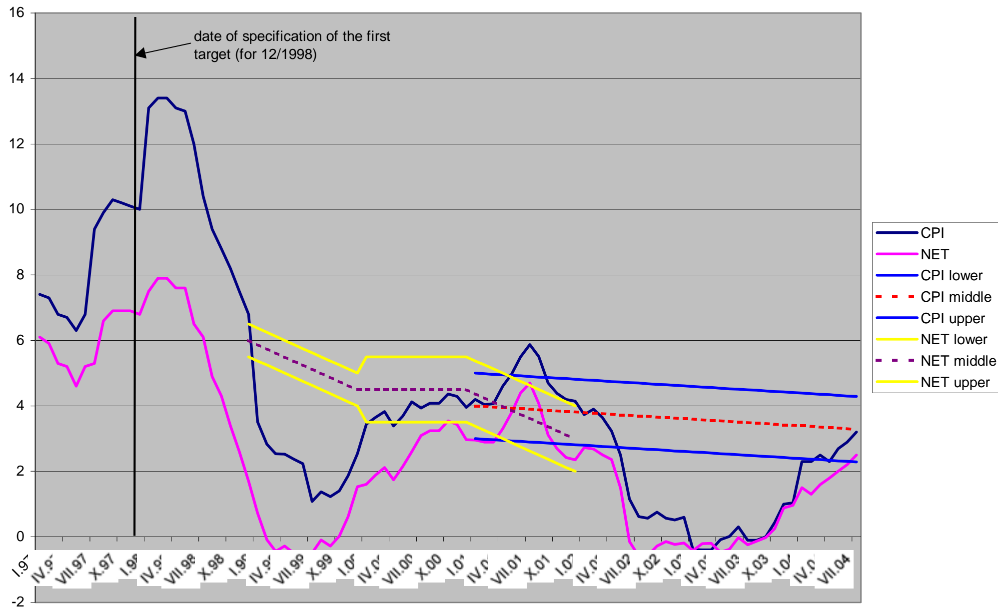
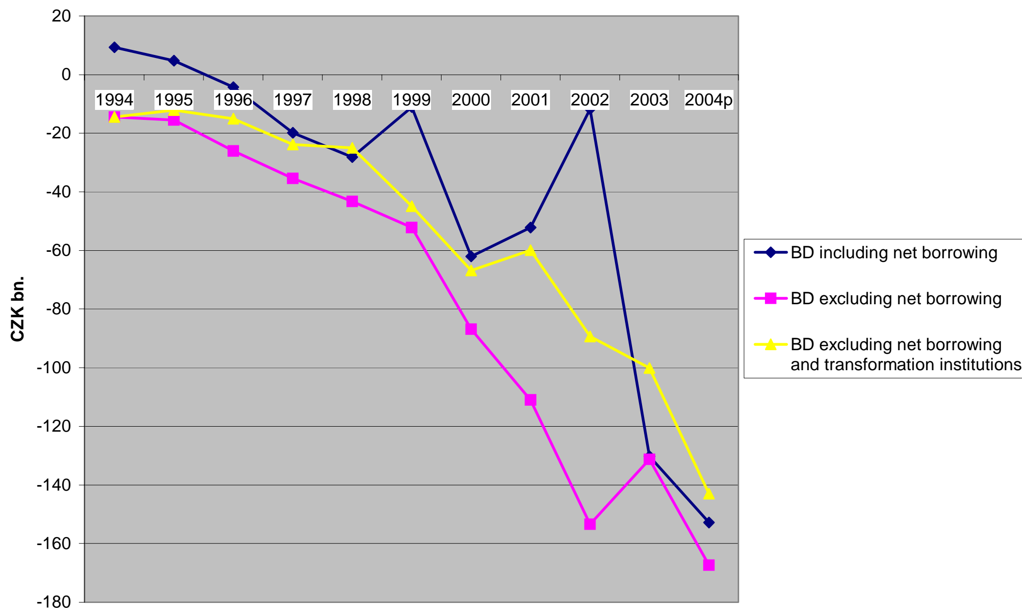


Chart 9 – Budget deficits



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