

The international banking crisis and domestic financial intermediation in the Czech Republic

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The global financial crisis did not significantly affect the Czech banking sector. Due to its massive deposit base, the Czech banking sector did not suffer from a lack of liquidity during the crisis. In contrast to most other European countries, the Czech Government did not have to provide any subsidies to the banking sector. However, in response to the malfunctioning of the money market, the Czech National Bank (CNB) introduced extraordinary liquidity-providing repo operations with two-week and three-month maturities. The purpose of those instruments was also to support the functioning of the government bond market by allowing government bonds to be used as eligible collateral. With regard to the Czech economy as a whole, the effects of the crisis were more visible. The Czech Republic, as a small, export-oriented country, is vulnerable to external factors and the reduced demand, especially in western countries, resulted in a decline in GDP and an increase in the unemployment rate. According to the Czech Statistical Office, GDP adjusted for price, seasonal and working day effects fell by 3.1% in Q4 2009 in comparison to Q4 2008. By contrast, GDP increased by 0.7% compared to Q3 2009. Total employment adjusted for seasonal effects dropped in Q4 2009 by 1.9% year-on-year and increased by 0.2% quarter-on-quarter. Over the course of 2009, real GDP fell by 4.1% compared to the previous year, while employment fell by 1.2% on average. Nevertheless, it is important to point out that the decline in GDP and the growth in the unemployment rate were much more moderate than in other central and eastern European countries. This paper will further describe the effects of the crisis on financial intermediation in the Czech Republic, eg changes in domestic and cross-border lending both on the interbank markets and to the corporate sector, changes in bank funding and the effects of the crisis on the Czech money, foreign exchange (FX) and derivatives markets as well as the responses of the CNB to the new situation and newly emerging risks.

The terms (maturities, spreads, collateral, etc) in which cross-border lending takes place did not change significantly in the case of the Czech Republic during the crisis. The Czech banking sector has systemic liquidity surplus and, therefore, tends to be a creditor in cross-border interbank lending (see Table 1). Most banks operating on the Czech market are subsidiaries of large European internationally active banks, which implies that cross-border interbank lending mostly takes the form of intragroup transactions. The CNB has no evidence that the tightening of banks' lending policies that started in autumn and winter 2008 was accompanied by a loosening of parent funding of Czech subsidiaries or branches. Such loosening was not necessary because in 2007, 2008 and 2009 Czech banks achieved record profits. Moreover, parent funding is not a major source of funding for Czech banks (see Tables 5 and 7). On the other hand, conditions in the domestic money market were tighter than before the crisis.

Cross-border bank lending to the corporate sector is predominantly provided by EU banks benefiting from the free movement of services under the single licence. A total of 276 banks from EU Member States that had notified the CNB of such activity were prepared to provide banking services on that basis at the end of 2009. They are able to offer banking services, including loans, without establishing a branch in the Czech Republic, pursuant to Article 21 of Directive 2000/12/EC of the European Parliament and of the Council. As in many other EU Member States, the aforementioned banks are not subject to a reporting duty to the host country and their operations in the Czech market are not subject to CNB supervision. The number of banks that notified the CNB of their provision of cross-border services in the Czech Republic increased by 24 in 2009.

Table 1

Cross-border borrowing and lending of the Czech banking sector

	1/07	2/07	3/07	4/07	1/08	2/08	3/08	4/08	1/09	2/09	3/09	4/09
Cross-border lending to banks	260.7	312.5	277.4	312.2	335.7	401.8	387.3	329.2	315.3	309.3	271.7	284.5
Cross-border borrowing from banks	204.3	238.7	267.7	266.1	298.0	336.7	321.4	342.9	305.1	277.9	268.8	278.9
Saldo	56.4	73.8	9.7	46.2	37.7	65.1	65.9	-13.7	10.1	31.4	2.9	5.6

Quarterly data in CZK billion.

Source: CNB data for monetary statistics.

Cross-border bank lending to the Czech economy in the second half of 2008 followed the rising trend of previous years. However, in the first half of 2009, lending decreased from CZK 702 billion to CZK 631 billion (EUR 27 billion to EUR 24 billion), mainly due to the decline of interbank loans by CZK 64 billion (see Tables 1 and 2). The increase in this segment of cross-border lending in the last quarter of 2008 probably substituted the sharp liquidity drop in the spot and outright forward markets during the winter. The subsequent decrease in 2009 can be attributed both to the improving liquidity of the markets and to the downturn in the Czech economy that was accompanied by a protracted contraction of exports and imports as well as by a decrease in cross-border and domestic loans to the corporate sector.

Table 2

Cross-border lending by creditors

	Foreign banks	Government institutions	Multilateral institutions	Suppliers and direct investors	Other investors
1/07	525.3	8.7	104.2	256.3	318.9
2/07	562.1	8.7	105.7	264.8	360.1
3/07	587.4	8.7	107.4	263.0	347.6
4/07	583.4	8.7	102.1	292.6	387.9
1/08	612.8	7.2	104.5	268.1	388.4
2/08	657.1	7.2	109.3	308.2	426.9
3/08	662.1	7.2	120.5	337.8	459.2
4/08	702.5	7.2	123.6	346.4	427.7
1/09	669.6	5.7	123.2	340.7	415.8
2/09	621.9	5.7	123.6	320.5	447.1
3/09	599.1	5.7	127.5	286.2	446.2
4/09	630.8	5.7	136.6	296.1	520.5

Quarterly data in CZK billion.

Note: Data regarding cross-border lending from balance of payment statistics are only partially comparable with data regarding domestic lending from banking statistics.

Source: CNB data for monetary statistics.

Table 3
Cross-border lending by debtors

	CNB	Commercial banks	Government	Other sectors
1/07	0.6	283.4	256.3	673.0
2/07	0.7	338.7	271.3	690.8
3/07	1.8	367.4	263.2	681.7
4/07	1.2	382.0	274.4	717.0
1/08	0.5	433.2	269.5	677.9
2/08	0.2	469.0	316.4	732.2
3/08	0.7	474.5	325.0	786.6
4/08	1.8	482.4	295.4	827.8
1/09	1.5	444.2	280.6	828.9
2/09	1.8	407.4	313.7	796.0
3/09	1.9	395.3	320.3	747.3
4/09	3.7	410.4	364.1	811.5

Quarterly data in CZK billion.

Note: Data regarding cross-border lending from balance of payment statistics are only partially comparable with data regarding domestic lending from banking statistics.

Source: CNB data for monetary statistics.

In the second and third quarters of 2009, cross-border lending to the corporate sector declined by more than CZK 80 billion in total, mainly due to a decrease in loans granted by suppliers and direct investors (Table 2). This decrease was probably caused by demand factors, ie the downturn in the Czech economy and the continued contraction of exports and imports. The adverse impact of the credit contraction on financial conditions in the corporate sector was significant because, first, the sector largely depends on foreign borrowing and, second, because of the simultaneous decrease in corporate loans granted by the Czech banking sector (Table 4). The fourth quarter of 2009 brought an economic revival accompanied by the increase in cross-border lending to the corporate sector amounting to almost CZK 65 billion. In contrast, financing by the Czech banking sector trended downwards during 2009.

As of 1 January 2010, the Czech banking sector consisted of 21 banks and 18 branches of foreign banks. A total of 96% of the sector's total assets was controlled by foreign owners. The remaining 4% was held by two state-controlled banks specialising mainly in export and business promotion (Česká exportní banka and Českomoravská záruční a rozvojová banka) and one small domestically owned private bank. The structure of the banking sector has been fairly stable since the privatisation of large banks at the beginning of the 21st century. By taking account of these facts, it would be misleading to analyse the different behaviour of foreign and domestically owned banks.

Table 4

Domestic and cross-border lending to the corporate sector

	Czech banks' lending to the corporate sector	Cross-border bank and non-bank lending to the corporate sector	Ratio of cross-border lending to domestic lending
1/07	763.9	673.0	88.1%
2/07	819.5	690.8	84.3%
3/07	870.1	681.7	78.3%
4/07	903.6	717.0	79.4%
1/08	919.6	677.9	73.7%
2/08	979.4	723.2	73.8%
3/08	1,018.2	786.6	77.3%
4/08	1,020.8	827.8	81.1%
1/09	1,008.4	828.9	82.2%
2/09	993.2	796.0	80.1%
3/09	970.9	747.3	77.0%
4/09	946.3	811.5	85.8%

Quarterly data in CZK billion.

Note: Data regarding cross-border lending from balance of payment statistics are only partially comparable with data regarding domestic lending from banking statistics.

Source: CNB data for monetary statistics.

With regard to the maturity of bank funding, Table 5 shows that, in the second half of 2008 as well as throughout 2009, the shares of medium- and long-term liabilities grew slightly and the shares of the shortest-term maturities decreased somewhat. These facts, together with the fairly stable share of liabilities with an undetermined maturity, indicate that the crisis caused neither a liquidity strain nor an infringement of trust of Czech banks' creditors. Nevertheless, the crisis caused some damage. For example, in August 2009 the rating agency Moody's downgraded the domestic-currency deposit ratings of the largest Czech banks, ČSOB, Česká spořitelna and Komerční banka, by one notch from Aa3 to A1. However, this downgrade was the agency's reaction to the global financial crisis, the emerging economic recession and related concerns over whether the local government would potentially be able to provide banks with any financial assistance because of the recent situation regarding the Czech Parliament.

Table 6 demonstrates that clients', ie non-bank, deposits (residents and non-residents) are the most important source of funding for the Czech banking sector. Such deposits were growing steadily, with the exception of Q4 2008 and Q3 and Q4 2009 when the growth was interrupted by a decrease in deposits of government institutions (household deposits continued to rise). There were virtually no loans granted by the CNB, and interbank lending represented roughly 10% of funding. Cross-border interbank loans represented approximately two thirds of the total interbank lending figure. The Czech banking sector has a systemic surplus of liquidity and interbank lending to Czech banks is not a major source of funding for the Czech banking sector. Data also indicate that the structure of the Czech banking sector's funding has been fairly stable; the crisis did not cause any significant changes to that structure.

Table 5
Maturity of the banking sector's liabilities

In per cent

	1W	1Y	5Y	More than 5Y	Not determined
1/07	52.75	22.50	10.02	4.26	10.47
2/07	52.24	24.77	8.73	4.30	9.96
3/07	54.22	23.50	7.87	4.85	9.57
4/07	53.65	23.71	6.62	6.23	9.80
1/08	53.30	23.87	6.06	5.94	10.84
2/08	51.96	26.03	5.81	5.67	10.54
3/08	51.02	25.46	6.61	6.18	10.73
4/08	49.43	24.47	7.62	6.57	11.91
1/09	48.44	25.38	8.02	6.63	11.53
2/09	48.77	25.56	8.21	6.83	10.62
3/09	48.65	25.07	8.37	7.14	10.77
4/09	47.72	25.51	8.63	7.22	10.91

Quarterly data as ratios.

Note: 1W means (< =) than one week, 1Y means (< =) than one year, 5Y means (< =) than five years.

Source: CNB data for banking supervisory purposes (note that this dataset is collected according to a different methodology than the dataset collected for monetary statistics purposes).

Table 6
Interbank deposits versus other sources

	Total balance sheet liabilities	Clients' deposits	Interbank loans – cross-border lending	Interbank loans – Czech banks	Clients' deposits	Bonds	Capital and other balance sheet liabilities
1/07	3,331.4	2,203.2	6.1%	3.2%	66.1%	5.4%	19.0%
2/07	3,546.4	2,317.6	6.7%	4.0%	65.4%	5.6%	18.3%
3/07	3,638.6	2,350.2	7.4%	4.3%	64.6%	5.9%	17.9%
4/07	3,708.2	2,369.0	7.2%	3.7%	63.9%	6.9%	18.4%
1/08	3,879.6	2,455.0	7.7%	3.4%	63.3%	6.4%	19.2%
2/08	4,080.6	2,562.2	8.3%	3.9%	62.8%	6.1%	18.9%
3/08	4,128.3	2,608.1	7.8%	3.7%	63.2%	6.5%	18.8%
4/08	4,153.4	2,566.9	8.3%	2.8%	61.8%	6.5%	20.7%
1/09	4,248.9	2,666.1	7.2%	3.6%	62.7%	6.4%	20.1%
2/09	4,222.7	2,739.0	6.6%	3.6%	64.9%	6.5%	18.4%
3/09	4,179.7	2,722.9	6.4%	3.4%	65.1%	6.7%	18.3%
4/09	4,223.1	2,698.2	6.6%	4.2%	63.9%	7.0%	18.4%

Quarterly data in CZK billion for total liabilities and clients' deposits, % for remaining columns.

Source: CNB data for monetary statistics.

The funding of the Czech banking sector has a strong and steadily growing retail deposit base. Although bond issuance plays a supplementary role, it nevertheless grew considerably in the fourth quarter of 2007, causing a year-on-year increase in the ratio of bonds to retail deposits by 5%; that ratio remained fairly stable thereafter and the crisis did not cause any major shift from retail deposits to funding via capital markets or vice versa.

Table 7

Retail deposits versus markets

	Bonds	Household deposits	Quarterly growth of bonds	Quarterly growth of retail deposits	Ratio of bonds to retail deposits
1/07	181.3	1,207.0	6.5%	2.8%	15.0%
2/07	198.3	1,254.0	9.3%	3.9%	15.8%
3/07	213.5	1,268.4	7.7%	1.1%	16.8%
4/07	254.0	1,289.5	19.0%	1.7%	19.7%
1/08	247.4	1,323.4	-2.6%	2.6%	18.7%
2/08	248.9	1,367.2	0.6%	3.3%	18.2%
3/08	267.0	1,399.5	7.3%	2.4%	19.1%
4/08	269.5	1,439.8	0.9%	2.9%	18.7%
1/09	270.8	1,494.5	0.5%	3.8%	18.1%
2/09	275.1	1,513.5	1.6%	1.3%	18.2%
3/09	281.0	1,518.4	2.1%	0.3%	18.5%
4/09	293.8	1,551.3	4.6%	2.2%	18.9%

Quarterly data in CZK billion.

Source: CNB data for monetary statistics.

The crisis caused a stagnation of loans granted by the Czech banking sector to clients in 2009. The maturity structure of the loans changed slightly in favour of long-term loans.

The crisis strengthened a long-term trend of an increase in the share of loans to households in the Czech banking sector's portfolio accompanied by a downturn in corporate loans.

With regard to direct loans and investments in debt securities, the share of loans to clients in total assets of the Czech banking sector is more than twice as large as the share of tradable debt securities. The crisis did not significantly change that structure.

The recession in the first half of 2009 motivated Czech banks to moderately increase the share of quick assets in their balance sheets. At end-2007, this share was 23.7%, and in December 2008 it decreased to 23.0%. However, in the first quarter of 2009, this share reached 25.5% and in June it climbed to 26.5%. The quick assets include cash, claims on central banks, claims on credit institutions repayable on demand and bonds issued by central banks and general government, except for non-marketable bonds included under the loans and receivables portfolio.

Beside the facts mentioned above, the global financial crisis affected the local money market. As in all other countries, the money market yield curve declined sharply following interest rate cuts by the CNB. The short end of the curve declined more than the long end, leading the curve to steepen. The 1Y Pribor spread versus the monetary policy rate increased to

81 basis points from 23 basis points the previous year, while the bid-ask spreads and Pribor-OIS spreads widened.

Table 8
Maturity of loans to clients

	Total loans to clients	Short-term	Medium-term	Long-term
1/07	1,471.9	23.1%	19.9%	57.0%
2/07	1,591.2	23.1%	19.7%	57.2%
3/07	1,686.2	23.6%	19.2%	57.1%
4/07	1,784.0	24.4%	18.1%	57.4%
1/08	1,831.8	24.0%	18.3%	57.7%
2/08	1,938.5	25.4%	17.5%	57.2%
3/08	2,029.4	25.4%	17.2%	57.4%
4/08	2,075.7	22.6%	17.4%	60.0%
1/09	2,078.8	19.8%	18.1%	62.1%
2/09	2,091.4	20.2%	16.6%	63.2%
3/09	2,091.3	19.5%	15.8%	64.7%
4/09	2,102.1	18.4%	15.1%	66.5%

Quarterly data in CZK billion for total loans.

Loans to clients, ie non-banks, residents and non-residents.

Source: CNB data for monetary statistics.

The volumes traded by banks are strongly concentrated in short maturities, while trading above one month is virtually non-existent. Most of the trading activity remains overnight unsecured lending. Secured lending transactions remain rare. The reassessment of interbank credit lines led to reduced lending activity and some credit lines were cut to zero. Client-based financing and FX swaps with parent banks thus became more important for many banks.

The crisis and related lack of confidence between banks also caused some difficulties on the Czech capital market. Market-making on Czech government bonds between banks was limited but there was still a well-functioning market between banks and their clients and brokered interbank trading. Bid-ask spreads increased. The primary market worked quite well for T-bills and most auctions were oversubscribed at very low yields.

Due to the difficulties in many local currency government debt markets, the government risk premium (measured by credit default swaps (CDS)) increased, peaking at 350 basis points. In addition, the Ministry of Finance cancelled some of the planned auctions, reduced offered volumes and switched to the monthly publication of auctions.

The situation on the Czech FX market was also influenced by the crisis, leading to a sharp liquidity drop in the spot and outright forward markets, mainly during the winter. The current situation has more or less stabilised, although the liquidity still seems to be slightly subdued compared to the period prior to the collapse of Lehman Brothers. Liquidity in the FX swap market was reduced only for a couple of weeks. Local banks also started to show a preference for using the FX market rather than the money market to steer their liquidity in FX currencies.

Table 9

Corporate versus household loans

	Corporate sector	Households	Ratio of corporate to household loans
1/07	763.9	561.3	136.1
2/07	819.5	604.2	135.6
3/07	870.1	646.8	134.5
4/07	903.6	707.8	127.7
1/08	919.6	737.4	124.7
2/08	979.4	778.1	125.9
3/08	1,018.2	818.4	124.4
4/08	1,020.8	851.5	119.9
1/09	1,008.4	870.8	115.8
2/09	993.2	896.6	110.8
3/09	970.9	919.2	105.6
4/09	946.3	940.5	100.6

Quarterly data in CZK billion and ratio in %.

Source: CNB data for monetary statistics.

In relation to derivatives markets, Czech banks mostly trade in standard derivative contracts, ie FRA, IRS and FX swap, and three aspects of these contracts changed. First, there was a decrease in the liquidity of longer-term maturities; second, some credit lines were reduced due to the higher volatility in 2008 that caused an increase in VaR values of exposures; and, finally, banks adjusted their limits for certain counterparty exposures more frequently in response to information received concerning the respective counterparty.

The Czech banking sector and the Czech financial market as a whole were, of course, affected by the global financial crisis. Nevertheless, the crisis did not cause significant damage to the Czech financial system and there was no need for the Czech authorities to take any drastic action to provide financial subsidies to the banking sector. Given the systemic liquidity surplus in the Czech banking sector, the main monetary policy instrument of the CNB is liquidity-sterilising repo tenders. However, the malfunctioning of the money market during the financial crisis led to the situation whereby some market participants lacked liquidity rather had a surplus. In response to this situation, the CNB introduced, in autumn 2008, liquidity-providing repo operations with two-week and three-month maturities. The purpose of those instruments was also to bolster the functioning of the government bond market by allowing government bonds to be used as eligible collateral.

The liquidity-providing repo operations were mostly used at the end of 2008 and the beginning of 2009 with the maximum outstanding amount of CZK 38 billion. The scheme has been deemed a success and it will probably remain available until the end of 2010. In addition to introducing liquidity-providing repos, CZK/EUR currency swaps were offered to commercial banks. The purpose of this was to support the CZK liquidity of foreign bank branches. However, this instrument was infrequently used, with a maximum outstanding amount of EUR 40 million.

CNB monetary decisions to cut interest rates are guided by unconditional inflation forecasts using a DSGE macro model, which assumes an exchange rate reaction to changes in

interest rates. Some exchange rate depreciation is therefore a desirable effect of interest rate cuts. However, fast koruna depreciation at the beginning of 2009 (January and the first half of February) was considered unreasonable by the February 2009 forecast and the forecast expected a correction. Exchange rate development was also discussed during the February 2009 board meeting (see February 2009 minutes: “The Board agreed that the exchange rate was encumbered with considerable uncertainty, but that a weaker exchange rate would reduce the scope for lowering monetary policy rates.”) and considered to be a risk to the forecast. At the end, the board decided, broadly in line with the forecast, to cut interest rates by 0.5 percentage points. The decision was accompanied by verbal interventions against the weak CZK. Consequent exchange rate development, when the koruna appreciated to 25.50 CZK/EUR in summer 2009, confirmed our expectations.

The CNB has not intervened on the FX market since 2002. Therefore, the Czech exchange rate regime is classified as free floating. Our policy has been to intervene only under exceptional circumstances, when the exchange rate diverges from fundamentals over a long period of time and poses a threat to the economy. Verbal interventions are more frequently used, mainly because of shorter-term deviations, with the purpose of conveying CNB concerns regarding exchange rate developments to markets. This philosophy did not change with the crisis.

The Czech authorities have not taken any measures to support foreign currency refinancing. The vast majority of commercial loans provided by Czech banks, local subsidiaries and branches of foreign banks are denominated in CZK (foreign loans represent less than 20% of total loans in the case of companies and almost 0% in the case of households). In the situation of falling foreign trade, there was no urgent need to provide commercial banks with additional foreign currency liquidity.

Although no additional measures have been taken, proactive communication and forward-looking elements in the CNB’s monetary policy decision-making might have had a stabilising effect.