

## 2.5. Balance of Payments

- **Vertical Structure of the Balance of Payments**

International financial transactions conducted via monetary instruments facilitating international business exchange and movement of money depicted by the balance of payments will be first non-traditionally expressed in the vertical structure. In this structure, all operations will be split into credit and debit operations, while the distinguishing line of this division is the relationship of the operation to supply of foreign exchange and demand for foreign exchange. On the market, credit operations represent supply of foreign exchange (receivables) and debit operations represent demand for foreign exchange (payables). The point is not whether it is export or import (of goods, services, capital), respectively whether the foreign debt increased or decreased. That is why in the vertical structure of balance of payments exports of goods and imports of capital are both recorded on the credit side since they increase the supply of foreign exchange and imports of goods and exports of capital are recorded together on the debit side, since they increase the demand for foreign exchange.

- **Faster growth of total balance of payments turnover than GDP**

The sum of all credit as well as debit operations constituting the total balance of payments turnover shows, that as a result of international movement of goods, services, incomes, transfers, capital and change in foreign exchange reserves (including errors, omissions and exchange rate differentials between the record of transactions and the level) was in 1999-2003 period created supply of foreign exchange and demand for foreign exchange in the amount of CZK 8.96 trillion. This volume was compared to the previous five-year period (1994-1998) higher by more than three fifths. In relation to nominal GDP the total balance of payment turnover in 1999-2003 reached 83.4 %, which was by 11.8 p. p. than in the previous period.

- **Substantial change in the structure of foreign exchange supply and demand**

Structure of the total turnover differed to a great extent in the two five-year periods; more pronounced changes occurred on the side of foreign exchange supply than on the side of demand for foreign exchange. Biggest bearer of changes in the structure was on the supply side the international movement of goods (share of exports of goods rose by 8.3 p. p.) and on the demand side the international movement of capital (share of exports of capital dropped by 4.8 p. p.). International movement of goods dominated both sides of total balance of payments turnover and enjoyed the biggest effect on total change in foreign exchange supply as well as demand. Out of the cumulative five-year growth of turnover (for the 1999-2003 period against the 1994-1998 period) of 63.3 %, exports of goods contributed to the addition to supply of foreign exchange by 50.4 p. p. and imports of goods contributed to the gain in demand for foreign exchange by 48.8 p. p., i.e. by 1.6 p. p. less, which became apparent in the reduced deficit of goods operations. International movement of services mostly of income had the opposite effect; income for services added to the growth of supply of foreign exchange 3.7 p. p. and imports of income 3.3 p. p. and expenditures on services added 4.6 p. p. added to the growth of demand for foreign exchange and exports of income sizeable 9.3 p. p.

- **Negligible year-on-year changes of the balance of payments turnover in 2001 - 2003**

In the last three years the total balance of payments turnover stagnated at the level of CZK 1.9 trillion; nevertheless in 2003 it was two and a half times higher than in 1993 and by 43.4 % compared to 1998. The growth then slowed down considerably in the second five-year period – from average annual rate of growth of 11.6 % in the first period to 7.5 % in the second period, while the year-on-year changes displayed extensive span; ranging from the growth of 15.5 % (1999) to the decrease of 0.9 % (2003). The structure of receivables as well as payables also varied to a considerable extent between the years 1998 and 2003 and the year-on-year impact of international movement of goods, services, incomes, unilateral transfers and capital on the change in supply and demand fluctuated widely. While the receivables for exports of goods and services influenced the supply of foreign exchange more (by 5.0 p. p.) than payables for imports of goods and services influenced the demand for foreign exchange, the receivables for imports of income and transfers (revenues and receipts) influenced the supply of foreign exchange less (by 6.2 p. p.) than payables for exports of income and transfers (costs and outlays).

- **High range of exports of goods and imports of capital effect on changes in supply**

On the supply side, the effect of year-on-year changes in individual forms of receivables moved in opposite directions and within a wide range. Large accrualment of receipts for exports of goods in 2000 (CZK 212.3 billion) exceeded the total accrualment to supply with 13.9 p. p. effect on the growth of receivables. Cut in receipts for exports of goods in 2002 caused a negative effect of 0.8 p. p. Large fluctuations in the imports of capital led to a greatly differentiated year-on-year impact on changes in supply of foreign exchange; biggest favourable effect was recorded in 1999 (9.1 p. p.) and the most negative in 2003 (6.8 p. p.). The impact of changes in exports of services and imports of income as well as transfers on total year-on-year gains in supply of foreign exchange was not so pronounced and moved within a narrow range.

**Table 16 Impact of Components on year-on-year Change in Foreign Exchange Supply**

	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
	year-on-year change									
	in CZK billion					in %				
<b>Total supply</b>	<b>205.3</b>	<b>172.3</b>	<b>207.0</b>	<b>7.2</b>	<b>-16.5</b>	<b>15.5</b>	<b>11.3</b>	<b>12.2</b>	<b>0.4</b>	<b>-0.9</b>
in that:						Impact in p. p.				
Goods	74.6	212.3	148.5	-15.2	117.4	5.6	13.9	8.7	-0.8	6.1
Services	-2.8	20.9	4.9	-38.6	-12.0	-0.2	1.4	0.3	-2.0	-0.6
Income	9.3	11.1	9.5	-18.1	7.6	0.7	0.7	0.6	-0.9	0.4
Transfers	10.8	-8.8	-0.2	10.3	0.1	0.8	-0.6	0.0	0.5	0.0
Capital	120.9	-62.0	25.2	82.3	-130.3	9.1	-4.1	1.5	4.3	-6.8
FX reserves	-	-	-	-	-	-	-	-	-	-
Errors	-7.5	-1.2	19.1	-13.5	0.7	-0.5	0.0	1.1	-0.7	0.0

Source: CNB, calculations CZSO

- **Movement of foreign exchange reserves also significantly affected the changes in demand**

On the demand side, the effect of changes in individual types of payables with respect to the direction and size was similar to that of the supply side, with the difference that the range of goods was much higher and the range of capital slightly lower. Addition to outlays for imports of goods in 2000 (CZK 267.3 billion) notably exceeded the total gain in demand with a 17.5 p. p. effect on the growth of payables. Diminished outlays on imports of goods in 2002 had an adverse effect in the magnitude of 3.2 p. p. Size of the effect of movement of goods was the largest (20.7 p. p.). Large and opposing year-on-year changes in exports of capital had alternatively negative and positive effect on the development of demand characterized by marked differences in intensity. Change in official foreign exchange reserves placed on the demand side (FX reserves did not decline in any period during 1998 to 2003) also exhibited year-on-year opposing and rather erratic effect on gains in foreign exchange demand; five-year span of 18.5 p. p. was the second largest on the demand side. Compared to the movement of goods, capital and FX reserves, the effect of changes in imports of goods and exports of income as well as transfers on total year-on-year additions to foreign exchange demand was minimal.

**Table 17 Impact of Components on year-on-year Changes in Foreign Exchange Demand**

	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
	year-on-year change									
	in CZK billion					in %				
<b>Total demand</b>	<b>205.3</b>	<b>172.3</b>	<b>207.0</b>	<b>7.2</b>	<b>-16.5</b>	<b>15.5</b>	<b>11.3</b>	<b>12.2</b>	<b>0.4</b>	<b>-0.9</b>
in that:						impact in p. p.				
Goods	56.4	267.3	144.4	-60.6	115.5	4.3	17.5	8.5	-3.2	6.0
Services	17.6	7.8	1.5	-2.4	-3.4	1.3	0.5	0.1	-0.1	-0.2
Income	20.9	17.4	40.0	14.0	8.6	1.6	1.1	2.3	0.7	0.4
Transfers	7.1	-2.8	-3.6	-0.6	13.2	0.5	-0.2	-0.2	0.0	0.7
Capital	-108.8	103.3	-0.5	92.9	-53.6	-8.2	6.7	0.0	4.9	-2.8
FX reserves	5.5	25.5	-35.6	-149.7	204.0	0.4	1.7	-2.1	-7.9	10.6
Errors	-	-11.4	11.4	-	-	-	-0.8	0.6	0.0	0.0

Source: CNB, calculations CZSO

- ***Payables less changes in foreign exchange reserves were growing slower than receivables***

Rise in FX reserves placed every year on the debit side signifies total excess supply (after excluding errors and omissions). Correction of foreign exchange supply and demand for changes in FX reserves and errors indicates, that payables (demand for FX) were growing markedly slower than receivables (supply of FX).

In the five-year 1999-2003 period against 1994-1994 five-year period, in relation to GDP, the balance of international movement of goods and services increased, the balance of international movement of income and transfers fell considerably, the balance of international movement of capital rose and the change in FX reserves slightly increased.

- ***Horizontal structure of the balance of payments***

In the following part, the balance of payments transactions expressed in three major accounts (current, capital and financial) including individual partial balances and changes in foreign exchange reserves inclusive of errors, omissions and exchange rate differentials, will be described in the traditional manner.

- ***Slower growth of assets on balance of payments accounts to total turnover***

The sum of partial balances on balance of payments accounts (the sum of current, capital and financial account balances) in 1999-2003 represented an asset of CZK 364.9 billion, having increased by more than a half compared to the preceding five-year period. Whereas the mentioned asset declined from 4.3 % to 4.1 % in relation to total supply and demand for foreign exchange, it went up relative to GDP from 3.1 % to 3.4 %. The development of the sum of partial balances (assets) and their year-on-year changes featured considerable variability; in individual years of 1998 to 2003 period, the annual volume of assets moved within a wide interval (ranging from CZK 211.3 billion with a share of nearly three fifths in the whole five-year period to CZK 6.6 billion with less than 2 percentage share). These swings are the exclusive manifestation of unique international movements of capital. The extensive volatility of annual coefficients – of the relationship of assets to total turnover and to GDP was the result.

- ***Positive effect of financial account exceeding the negative effect of current account on the sum of partial balances***

Deficit of the current account of balance of payments of CZK 573.4 billion for the five-year period 1999-2003 was by CZK 249.0 billion higher when evaluated against the previous five-year period and had a highly negative effect on the accrument in the sum of partial balances of all accounts (106.5 p. p.). Financial account surplus of CZK 939.1 billion was in the same period larger by CZK 381.6 billion, i.e. 2.9 times in contrast to the addition to asset of all accounts with a large favourable effect (163.2 p. p.). Since the current account deficit increased relatively more than the financial account surplus, the rate of deficit financing by the surplus diminished by 8.1 p. p.

The change in FX reserves of CZK –385.7 billion (increase) in the five-year period 1999 to 2003 ended higher by CZK 135.4 billion compared to previous five-year period. Their ratio to GDP changed from –3.3 % (1994-1998) to –3.6 % (1999-2003).

**Table 18 Cumulative Balance of Payments**

in CZK billion

	1994 - 1998	1999 - 2003	Change	1994 - 2003
Current account	-324.4	-573.4	-249.0	-897.8
Capital account	0.7	-0.8	-1.5	-0.1
Financial account	557.5	939.1	381.6	1 496.6
Change in FX reserves	-250.3	-385.7	-135.4	-636.0
Errors	16.5	20.8	4.3	37.3
Informatively in %:				
Current account to GDP	-4.2	-5.3	-1.1	-4.9
Financial account to GDP	7.3	8.7	1.4	8.1
Change in FX reserves to GDP	-3.3	-3.6	-0.3	-3.5

Source: CNB, calculations CZSO

- **Extreme year-on-year changes of the financial account surplus**

Whilst in the two consecutive five-year periods the partial balances of the balance of payments accounts did not experience extreme changes, when compared on a year-on-year basis the size and counter movement of changes in individual accounts and FX reserves movement tremendously varied. The biggest year-on-year changes occurred in years 2002 and 2003, when changes in financial account partial balance (CZK 175.0 billion in 2002 and CZK -183.9 billion in 2003) a FX reserves movement (CZK -149.7 billion in 2002 and CZK 204.0 billion in 2003) considerably exceeded addition to GDP in current prices.

- **Year by year financing of current account deficit by non-debt capital inflow**

In 2003, current account deficit of CZK 157.2 billion was by CZK 116.7 billion higher than in 1998. It increased every year on average by CZK 23.3 billion, having increased the most year-on-year in 2000 (by CZK 54.2 billion) and the least in 1999 (by CZK 10.1 billion). Ratio of current account deficit to GDP reached 6.5 % in 2003, an increase of 4.3 p. p. compared to 1998. Financial account surplus arrived at CZK 163.9 billion in 2003 and was thus higher by CZK 94.3 billion compared to 1998. Since this year, the surplus had been continuously growing and peaked in 2002 (CZK 347.8 billion), as a result of completely unique movement of non-debt capital. In the next year 2003 major dive of income and sinking of active balance deep below the previous year's level followed. Ratio of financial account surplus to GDP 6.8 % in 2003 was higher by 1.7 p. p. than in 1998, yet it was 1.9 p. p. below the five-year average and markedly lower (by 8.5 p. p.) than in 2002. Current account deficits were financed by the financial account surpluses every year. This coverage changed to a great extent year-on-year; in 2003 it failed to reach even half of the coverage of 1998 and ended at less than two third level of the 1999-2003 period. Similarly, coverage of negative balance of national current transactions (with non-residents) by net inflow of foreign direct investment diminished significantly (from 286.1 % in 1998 to 26.1 % in 2003).

Change in foreign exchange reserves represented increase every year, however this increase fluctuated immensely which was connected to higher or lower growth, respectively to a mild drop in demand on the foreign exchange market. Strong pressure exerted by CNB on the rate depreciation against USD and EUR or in other words on halting the sharp depreciation of Czech crown until 2002 did not fulfill the expectations; in 2002 rise in FX reserves CZK 216.9 billion was in the past five-year period extraordinary. Minor increase in 2003 (CZK 12.9 billion) signified extreme year-on-year change. Evaluated against the average ratio of changes in FX reserves to GDP in the five-year period (-3,6 %) the ratio was above this level by 5.9 p. p. in 2002 and below this level by 3.1 p. p. in 2003.

**Table 19 Aggregate Balance of Payments**

in CZK billion

	1998	1999	2000	2001	2002	2003
Current account	-40.5	-50.6	-104.8	-124.4	-136.4	-157.2
Capital account	0.1	-0.1	-0.2	-0.3	-0.1	-0.1
Financial account	94.3	106.6	148.0	172.8	347.8	163.9
Change in FX reserves	-62.6	-57.1	-31.6	-67.2	-216.9	-12.9
Errors	8.7	1.2	-11.4	19.1	5.6	6.3
Informatively in %:						
Current account to GDP	-2.2	-2.7	-5.3	-5.7	-6.0	-6.5
Financial account to GDP	5.1	5.6	7.5	7.9	15.3	6.8
Finan. account to current ac.	232.9	210.6	141.2	138.9	155.0	104.2
Change in FX r. to GDP	-3.4	-3.0	-1.6	-3.1	-9.5	-0.5

Source: CNB, calculations CZSO

- **Relationship between exports and imports progressed favourably**

Structure of current account of balance of payments was changing sharply in the past years; ratio of receivables to debts rose markedly and partial balances evolved dividedly. Whereas the deficit of foreign trade in goods in the five-year period 1999 to 2003 in the amount of CZK 444.0 billion lowered compared to preceding five-year period by CZK 87.5 billion, in the same period the surplus of trade in services recorded reduction of CZK 43.9 billion. Income balance experienced significant negative change; five-year deficit of CZK 415.4 billion went up by remarkable CZK 332.2 billion. Positive balance of current unilateral transfers improved.

- **Large negative effect of the income balance on current account**

Current account for 2003 indicates that compared to 1998 debts grew (outlays) grew faster than receivables (receipts) and consequently the deficit of CZK 157.2 billion (2003) was higher by CZK 116.7 billion than in 1998. Only foreign trade in goods wielded positive effect on growth of total deficit, since exports of goods rose faster than imports of goods (coefficient 1.047) and the favourable impact of diminished deficit of trade in goods on current account deficit development amounted to 2.7 p. p. The three remaining balances affected the growth of current account deficit adversely – income balance the most with a highly negative impact of 6.6 p. p. While receipts (revenues) rose in the given period by slightly more than one third, outlays (costs) increased 2.1 times (coefficient 0.637). It represented a consequence of exceeding and faster growth of outlays associated with foreign investment in the CR compared to the slower growth of receipts from Czech capital invested abroad. While in 1998 the international movement of goods deficit (trade balance) overtook deficit of movement of income (income balance) 2.4 times, in 2003 this ratio fell to mere two fifths. Negative impact of balance of services development was also significant (4.1 p. p.), with receipts decreasing by more than a tenth and outlays increasing also by more than a tenth (coefficient 0.798). Despite receipts from current transfers growing considerably slower than outlays (coefficient 0.776), their positive balance fell only slightly and had only a small negative effect on the current account deficit.

**Table 20 Current Account of Balance of Payments Structure**

in CZK billion

	1998	1999	2000	2001	2002	2003
Trade balance	-84.0	-65.8	-120.8	-116.7	-71.3	-69.4
Balance of services	61.9	41.5	54.6	58.0	21.8	13.2
Income balance	-35.1	-46.7	-53.0	-83.5	-115.6	-116.6
Current transfers	16.7	20.4	14.4	17.8	28.7	15.6

Source: CNB, calculations CZSO

- **Marked outflow of portfolio investment**

Structure of balance of payments financial account is characterized by excessive changes. Net inflow of foreign resources CZK 939.1 billion in the 1999 to 2003 period was higher by CZK 381.6 billion in contrast to the previous five-year period. Interest of foreign investors in the Czech economy confirms especially the net inflow of foreign direct investment of CZK 952.0 billion, which swelled between the two five-year periods by CZK 672.4 billion, i.e. 3.4 times. Foreign direct investment in the CR

is to a major extent comprised of equity and reinvested profit. Other capital holds a very low share. Net outflow of portfolio investment of CZK 166.0 billion (1999 to 2003) weighted against their net inflow of CZK 149.3 billion in the preceding five-year period denoted total outflow of foreign resources, a consequence of excess portfolio investment of Czech subjects abroad over portfolio investment of foreign investors in the CR. Whilst assets were dominated by movement of debt securities, liabilities were governed by movement of securities and shares. With respect to other investment, net inflow of capital from abroad manifested during 1999 to 2003 period in the amount of CZK 158.1 billion, an increase of CZK 29.5 billion compared to previous five-year period.

- **Plunge in net inflow of foreign direct investment**

Financial account traced in 2003 net inflow of foreign resources in the amount of CZK 163.9 billion (assets CZK –18.3 billion and liabilities CZK 182.2 billion), indicating an increase of CZK 69.6 billion compared to 1998, in that of assets by CZK 33.2 billion and liabilities by CZK 36.4 billion. However, measured against the previous year the surplus shrunk considerably (by CZK 183.9 billion, in that assets CZK –53.5 billion and liabilities CZK –130.4 billion). The structure of financial account assets and liabilities shows that the year-on-year changes in its surplus were on the liabilities side mostly affected by foreign direct investment (i.e. foreign for this country) and on the assets side by other investment. Change in financial account partial balance in 2003 in comparison to 1998 was most favourably influenced by other investment (in total CZK 187.3 billion, in that assets CZK 113.6 billion and liabilities CZK 73.7 billion), but in comparison to 2002 was most adversely affected by foreign direct investment (in total CZK –204.5 billion, in that liabilities CZK –204.8 billion).

**Table 21 Financial Account of Balance of Payments Structure**

in CZK billion

	1998	1999	2000	2001	2002	2003
Direct investment	115.9	215.7	190.8	208.3	270.9	66.3
Portfolio investment	34.5	-48.2	-68.2	34.8	-46.7	-37.7
Financial derivatives	-	-	-1.4	-3.2	-4.3	3.9
Other investment	-56.1	-60.9	26.8	-67.1	127.9	131.4

Source: CNB, calculations CZSO

- **Level of FX reserves to GDP rose**

CNB foreign exchange reserves as at the end of 2003 reached CZK 691.5 billion, 1.8 times more in comparison to 1998, but CZK 23.1 billion less than in 2002. Their average annual level relative to GDP 29.3 % in 2003 was 1.2 p. p. higher on a year earlier. Foreign exchange reserves were sufficient in 2003 to finance imports of goods and services for the period of five months, 0.6 months or one tenth shorter than the period required in 2002.

**Graph 6 Balance of Payments Accounts Relationship to GDP**

