

## “Agile” Estimates of Private Capital Flows

### Bank of Russia

Attempting to better serve the interests of information users, in addition to the IMF-approved set of standard publications, Russia’s balance of payments statistics compilers have adopted it as a rule to regularly disseminate estimates of such indicator as *private capital inflows/outflows*.

As Russia’s balance of payments is characterized by sustainable surpluses of its current account balance, and highly volatility of private capital flows, the latter attract particular attention. The indicator comprises both components of the balance of payments financial account relating to changes in banks and other sectors assets and liabilities, and balance of payments net errors and omissions. It is believed that this item mainly arises from the problems in statistical recording of private sector financial transactions. As a result of summing up the above-mentioned balance of payments items, general volume of private capital inflows/outflows in the reporting period is calculated, which indicator is also better understood by wider audiences of users than a great number of components of the financial account and the negative sign used to denote growth in external assets.

Estimates of this indicator are published on a quarterly basis by the Bank of Russia on its website within three days following the end of the reporting period and simultaneously with publication of the balance of payments estimates for the lapsed quarter. Both sets of estimates are not entirely based on the data reported to the Bank of Russia but moreover on monitoring public media reports and information on resident transactions with nonresidents. The estimates published within tight three days timeframe of course are not to be fully confirmed by the reported data 90 days later. Nevertheless, it is possible to conclude that the estimates of main balance of payments derived measures, including *private capital inflows/outflows*, usually come close to the actual data, firstly, due to their net and balancing nature of computation, and secondly because the net errors and omissions item offsets imperfections in estimating separate financial account items.

### ***Flash Estimates of Balance of Payments and External Debt of the Russian Federation***

The Bank of Russia’s BOP compilers regard the initiative to provide users with estimates of quarterly BOP and External Debt data soon after the end of the reporting period as an important one. Advance estimates of the BOP (flows with nonresidents) and the External Debt (positions vis-à-vis nonresidents) of the Russian Federation are disseminated on the Bank of Russia’s website ([www.cbr.ru](http://www.cbr.ru)) usually on the second and third business days following the end of the quarter, respectively.

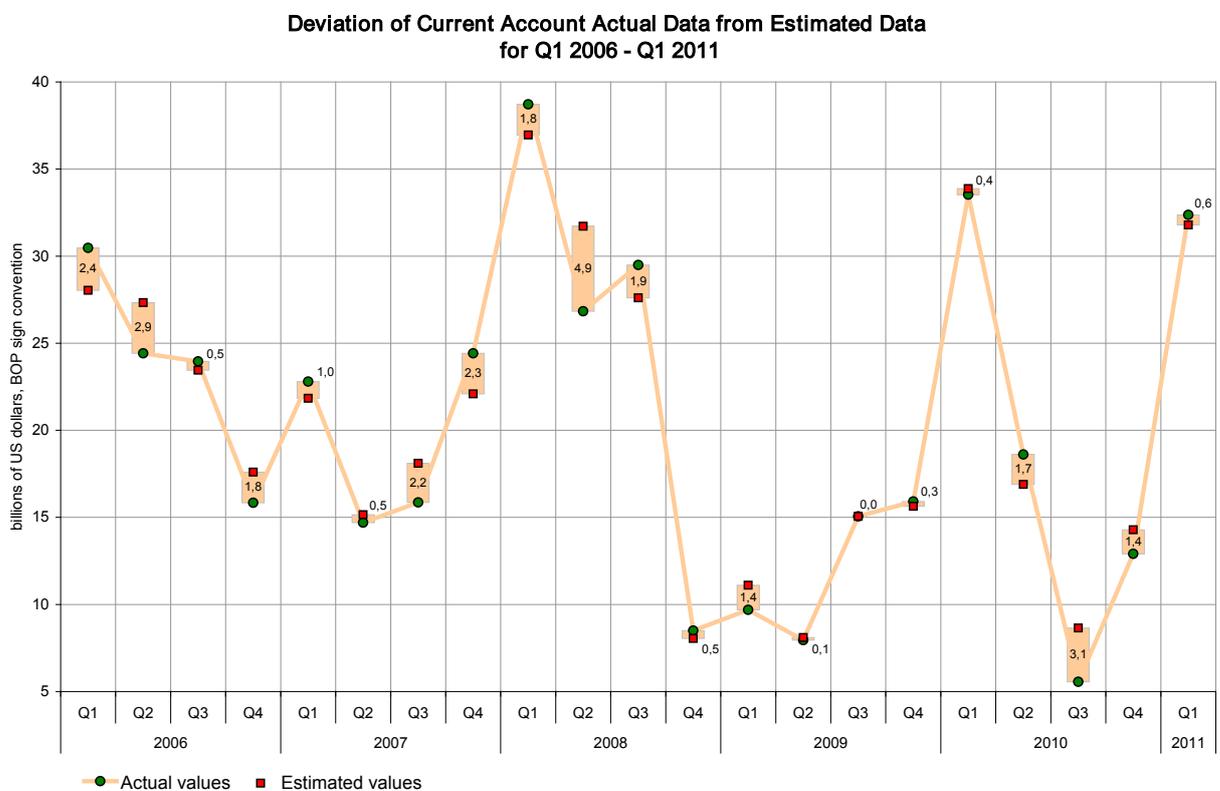
On the second business day following the end of a quarter the BOP compilers have at their disposal only part of data from their separate reporters:

- Russia’s merchandise exports and imports data from the Federal Customs Service for the first month of the reporting quarter;

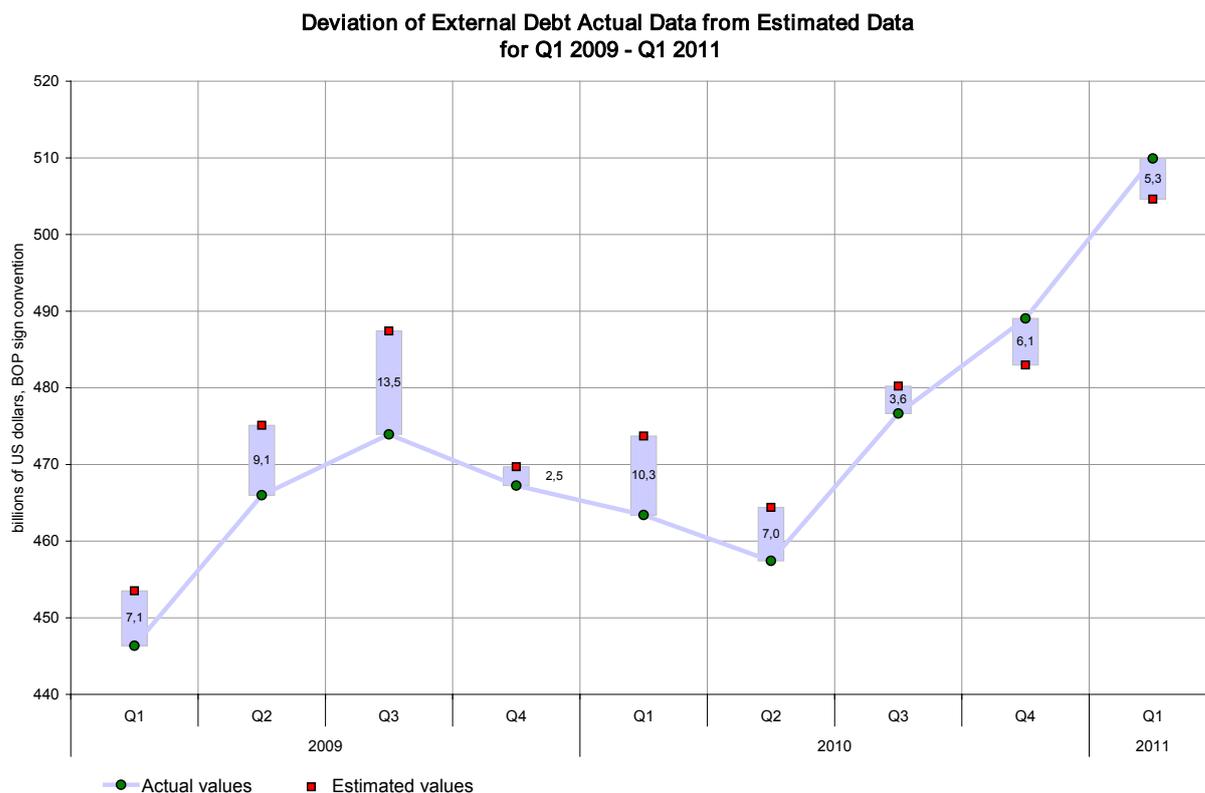
- data on volume and prices for Russia’s major commodities exports and imports in the second and third months of the quarter;
- Customs’ flash estimate of Russia’s non-CIS (Commonwealth of Independent States) imports in the quarter;
- all relevant monthly reporting forms submitted by the banks for one or two months of the quarter including the “Report on Foreign Exchange Transactions through Customers’ Bank Accounts” which represents BOP transactions of *other sectors* on a cash-basis;
- the data as of the end of the reporting quarter from balance sheet reports of the banks submitted on the second business day of the following quarter;
- the data on International Reserves.

In addition, the BOP compilers closely monitor financial press reports covering large resident transactions with nonresidents and other related issues.

**Graph 1**



Similarly, in order to estimate the External Debt on the third business day after the end of the quarter, estimates of the BOP financial account have to be finalized on the day before, and the data as of the end of the quarter from the reporting form on balance sheet of the banks is used. The techniques of the International Investment Position reconciliation statement with the positions as of the beginning of the quarter, transactions and valuation changes are used to estimate the positions as of the end of the quarter. Exchange rate and price changes are calculated based on the currency composition of the financial instruments and on the composition of negotiable instruments for which information on price changes is important.



Provided the estimated data are broadly based on external trade data of the Customs and the data derived from regular reporting forms received by the Bank of Russia from the banks, the advance estimates may be regarded as a good approximation of the statistical data though they are not statistics as such. At the time of posting the estimates on the website the compilers do know that further corrections are unavoidable. The users are also aware of this but they appreciate the possibility to examine the advance materials prepared by a group of well-trained specialists who are, more importantly, better informed than others. Analysts may compare the published estimates with their own calculations; journalists do not care much about future adjustments to publication and usually take the initial estimates as final. Timeliness is an important prerequisite of serviceability nowadays.

Quarterly BOP and External Debt reported data after being processed within 90 days are placed on the Bank of Russia's website at the end of the next quarter, and flash estimates are removed simultaneously so that the users would not be confused. It can be noted that the external sector data, when first released, can not be final and may be subject to changes (mainly, during the first year after being published).

### ***Concept of Private Capital Flows in Russian External Sector Statistics***

Private capital flows constitute the part of the BOP financial account transactions which are conducted by *banks* and *other sectors* with their assets and liabilities.

Figure 1

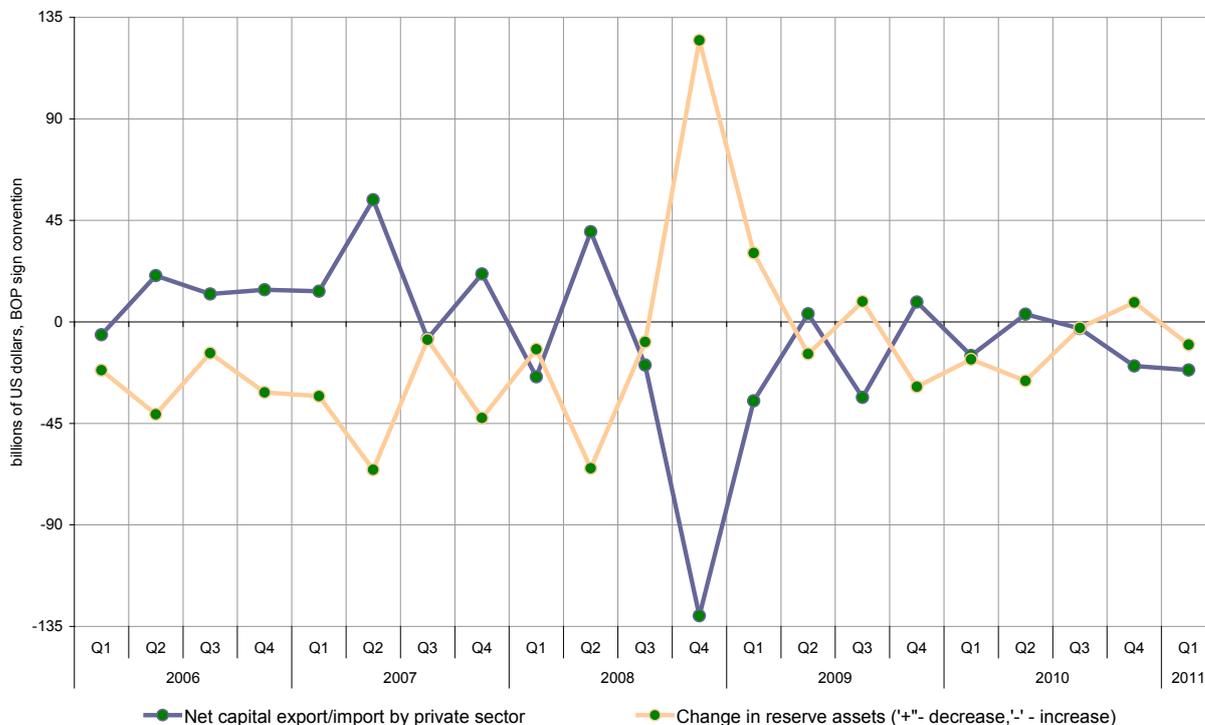
Balance of Payments Template

|                                                                          | Year 1 | Year 2 |
|--------------------------------------------------------------------------|--------|--------|
| <b><u>Current account</u></b>                                            |        |        |
| <b><u>Capital and financial account</u></b>                              |        |        |
| <b><u>Financial account (excluding reserve assets)</u></b>               |        |        |
| <i>General government and Monetary authorities</i>                       |        |        |
| <i>Private sector capital flows (including Net errors and omissions)</i> |        |        |
| <b><u>Change in reserve assets</u></b>                                   |        |        |

Monitoring of the latest BOP developments in Russia shows that alongside with stable components there are those that constantly change their sign under the influence of different external and domestic factors. The Russian BOP is based on the permanent current account surplus while the private capital flows are highly volatile. That is the reason why the latter indicator attracts so much attention of policy-makers, mass media and other users: when the current account is positive and general government transactions are mostly insignificant, accumulation or spending of international reserves in the country can be explained mainly by private capital movements.

Graph 3

BOP Data: Private Capital Flows and Change in Reserve Assets for Q1 2006 - Q1 2011



The statistics on quarterly and monthly (starting with 2007 data) private capital imports/exports is placed as a separate table on the Bank of Russia’s website, and it is in great demand (See Table 1).

Private<sup>1</sup> capital inflows/outflows comprise the following BOP transactions:

- Banks Assets
- Banks Liabilities
- Other Sectors Assets
- Other Sectors Liabilities
- Net Errors and Omissions

The item "Net Errors and Omissions" entirely relates to the financial transactions of *other sectors*. It could be explained by the fact that most noticeable difficulties arise upon recording of capital transactions undertaken by these sectors in the balance of payments. The item is considered to be as an unidentified form of other sectors capital flows.

Time series on totals as well as on subcomponents including net assets of different subsectors; claims of private sector or its liabilities are of interest for monetary policy and macroeconomic analysis.

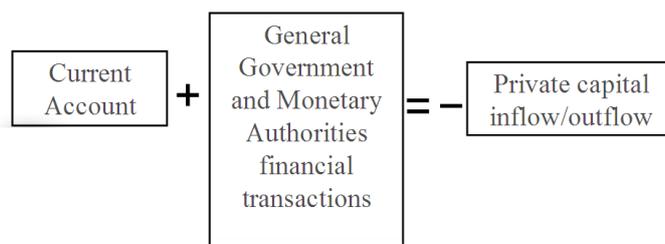
### ***“Agile” Estimates of Private Capital Flows***

There are two main assumptions that facilitate successful work of the Bank of Russia on estimating private capital flows within the three days timeframe.

1. The general accounting principle underlying the BOP, namely that the BOP accounts are balanced and Net Errors and Omissions item is used to make the sum of all BOP items equal to zero. This simple equation is very helpful in reference to making estimates: one can use information available on some BOP items to estimate the others, subject to net errors and omissions being covered by the calculation. The indicators that are being searched are equal to the known ones with the opposite sign.

The estimate of the BOP current account components can be prepared by using autoregressive models as well as above-mentioned existing information on trade balance with a short time lag. The statistics on general (mainly federal) government international transactions and own the Bank of Russia’s transactions with international reserves is always available to the BOP compilers on the next day after the reporting period.

Thus, to receive the estimate of the private capital inflows/outflows, one just has to take the sum of the current account and general government and monetary authorities financial transactions with the opposite sign:

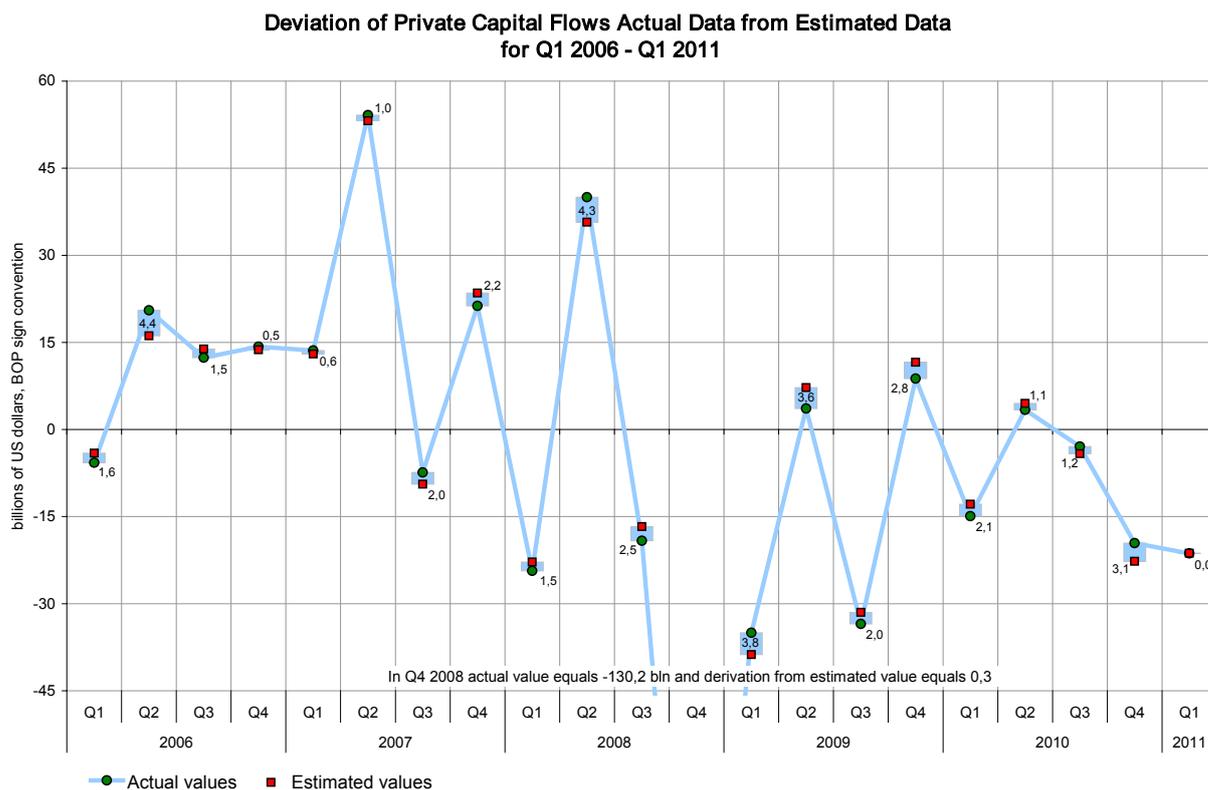


**Figure 2**

<sup>1</sup> Public enterprises are included. Public enterprises are those non-financial or financial corporations which are controlled by general government and monetary authorities.

Initially, we get the total figure, within which imperfections in estimates of separate components offset each other. Besides, the law of large numbers is on our side under this approach.

Graph 4



2. Another important assumption deals with the attribution of *net errors and omissions* to the private capital flows in the equation. After having received the totals the breakdown of private flows into *banks* and *other sectors* is made. It is based on preliminary balance sheet data for the Russian banking sector, calculating the *other sectors* including *net errors and omissions* as a residual item. Furthermore, using public information on large-scale deals, schedule of external debt repayments, etc., the differentiation between their transactions with assets and liabilities is assessed. *Net errors and omissions* are added to the most difficult item, and in case the reported data when obtained differ from the estimate, *net errors and omissions* serve as a buffer compensating the difference and the total figure remains constant.

### ***Pros and Cons of Publishing Estimates***

Publication of the agile estimates was started much later than we actually begun to compile the estimates for internal use. As a large change of the published estimates may hamper interpretation of the results of future publications, the discrepancies between estimates and actual data are analyzed by the BOP compilers item by item.

Sometimes overshooting and undershooting occur, especially with regard to separate components if large-scale cross-border deals are omitted. In such a case, the balancing role of *net errors and omissions* can be crucial: the change in the standard BOP component is offset by the

reverse fluctuation of the *net errors and omissions*, and total flows remain close to the published estimate.

On the other hand, with regard to the described techniques of calculation, in order to improve quality of capital flows estimates, the patterns in the current account are brought to a focus.

The assessment of various estimated patterns in relation to actual values of BOP items is provided in Tables 2 and 3 below:

**Table 2**

**Average error estimate to actual data**

|                                                               | Current account balance | Net private capital exports/imports |                                   |
|---------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------------------|
|                                                               |                         | Total                               | Of which net errors and omissions |
| Average, estimate/actual data, bln USD                        | 20.6 / 20.4             | -5.8 / -5.8                         | -3.2 / -1.4                       |
| Variation range of deviation estimate from fact data, bln USD | from -4.9 to +2.4       | from -3.6 to +4.4                   | from -12.7 to +8.6                |
| Average error share in actual data (absolute), in %           | 9%                      | 19%                                 | 164%                              |

**Table 3**

**Quarterly error estimate to actual data (in absolute values), %**

|          | Current account balance | Net private capital exports/imports | Net errors and omissions |
|----------|-------------------------|-------------------------------------|--------------------------|
| 1 Q 2006 | 8%                      | 28%                                 | 5%                       |
| 2 Q 2006 | 12%                     | 21%                                 | 388%                     |
| 3 Q 2006 | 2%                      | 12%                                 | 150%                     |
| 4 Q 2006 | 11%                     | 4%                                  | 145%                     |
| 1 Q 2007 | 4%                      | 4%                                  | 94%                      |
| 2 Q 2007 | 3%                      | 2%                                  | 304%                     |
| 3 Q 2007 | 14%                     | 27%                                 | 143%                     |
| 4 Q 2007 | 10%                     | 10%                                 | 161%                     |
| 1 Q 2008 | 5%                      | 6%                                  | 53%                      |
| 2 Q 2008 | 18%                     | 11%                                 | 31%                      |
| 3 Q 2008 | 6%                      | 13%                                 | 69%                      |
| 4 Q 2008 | 5%                      | 0%                                  | 181%                     |
| 1 Q 2009 | 15%                     | 11%                                 | 57%                      |
| 2 Q 2009 | 2%                      | 99%                                 | 117%                     |
| 3 Q 2009 | 0%                      | 6%                                  | 236%                     |
| 4 Q 2009 | 2%                      | 32%                                 | 579%                     |
| 1 Q 2010 | 1%                      | 14%                                 | 128%                     |
| 2 Q 2010 | 9%                      | 33%                                 | 390%                     |
| 3 Q 2010 | 55%                     | 43%                                 | 143%                     |
| 4 Q 2010 | 11%                     | 16%                                 | 68%                      |
| 1 Q 2011 | 2%                      | 0%                                  | 11%                      |

## ***Conclusion***

The quality of the external sector statistics as a whole benefits from this project, as the staff is better prepared for the new round of statistics compilation because everyone has to scrutinize constantly the latest events while working on the estimates. Exceeding the limits of pure statistical work provides the opportunity to the statisticians to be involved in the monetary and fiscal policy decision-making in a real-time mode. There is a lot of interest to the results from the management, and the outputs are widely discussed in mass media. The users appreciate this initiative.



Net Capital Export/Import by Private Sector in 1994-2010 and in the First Half-Year of 2011  
(Based on the Balance of Payments, Flows Data)

bln. of US Dollars

|                  | Net capital export/import by private sector, total (2+5) | Net capital export/import by banks (3+4) | of which:      |                     | Net capital export/import by other sectors (6+7+8) | of which:      |                     |                                                     |
|------------------|----------------------------------------------------------|------------------------------------------|----------------|---------------------|----------------------------------------------------|----------------|---------------------|-----------------------------------------------------|
|                  |                                                          |                                          | Foreign assets | Foreign liabilities |                                                    | Foreign assets | Foreign liabilities | "Net errors and omissions" of balance of payments** |
|                  | 1                                                        | 2                                        | 3              | 4                   | 5                                                  | 6              | 7                   | 8                                                   |
| 1994             | -14,4                                                    | -2,0                                     | -3,0           | 1,0                 | -12,4                                              | -14,1          | 1,2                 | 0,5                                                 |
| 1995             | -3,9                                                     | 6,8                                      | 4,0            | 2,9                 | -10,7                                              | -5,8           | 3,8                 | -8,7                                                |
| 1996             | -23,8                                                    | 1,3                                      | -2,9           | 4,2                 | -25,1                                              | -26,0          | 8,1                 | -7,3                                                |
| 1997             | -18,2                                                    | 7,6                                      | -1,3           | 8,9                 | -25,9                                              | -29,8          | 12,7                | -8,8                                                |
| 1998             | -21,7                                                    | -6,0                                     | 0,3            | -6,3                | -15,7                                              | -14,7          | 8,3                 | -9,4                                                |
| 1999             | -20,8                                                    | -4,3                                     | -3,4           | -0,9                | -16,5                                              | -10,1          | 2,1                 | -8,5                                                |
| 2000             | -24,8                                                    | -2,1                                     | -3,5           | 1,4                 | -22,8                                              | -15,3          | 1,8                 | -9,3                                                |
| 2001             | -15,0                                                    | 1,3                                      | -1,4           | 2,7                 | -16,2                                              | -10,4          | 3,7                 | -9,5                                                |
| 2002             | -8,1                                                     | 2,5                                      | -1,1           | 3,6                 | -10,6                                              | -18,9          | 14,3                | -6,1                                                |
| 2003             | -1,9                                                     | 10,3                                     | -1,0           | 11,3                | -12,2                                              | -25,1          | 22,1                | -9,2                                                |
| 2004             | -8,9                                                     | 3,5                                      | -3,6           | 7,1                 | -12,4                                              | -38,3          | 31,8                | -5,9                                                |
| 2005             | -0,1                                                     | 5,9                                      | -13,4          | 19,2                | -6,0                                               | -50,6          | 52,5                | -7,9                                                |
| 2006             | 41,4                                                     | 27,5                                     | -23,6          | 51,2                | 13,9                                               | -47,8          | 52,2                | 9,5                                                 |
| 2007             | 81,7                                                     | 45,8                                     | -25,1          | 70,9                | 35,9                                               | -94,6          | 143,8               | -13,3                                               |
| 2008             | -133,7                                                   | -56,9                                    | -65,1          | 8,2                 | -76,8                                              | -164,2         | 98,6                | -11,3                                               |
| 2009             | -56,1                                                    | -30,4                                    | 11,8           | -42,1               | -25,8                                              | -58,2          | 34,2                | -1,7                                                |
| 2010             | -34,0                                                    | 15,9                                     | -1,8           | 17,7                | -49,9                                              | -67,9          | 25,3                | -7,3                                                |
| 2011             |                                                          |                                          |                |                     |                                                    |                |                     |                                                     |
| Q1, 2011         | -21,3                                                    | -7,7                                     | -10,0          | 2,4                 | -13,7                                              | -21,7          | 13,3                | -5,2                                                |
| <i>jan. 2011</i> | -7,9                                                     | -1,0                                     | 0,1            | -1,1                | -6,9                                               | -3,6           | 0,3                 | -3,7                                                |
| <i>feb. 2011</i> | -7,6                                                     | -5,2                                     | -9,8           | 4,6                 | -2,4                                               | -9,9           | 7,2                 | 0,2                                                 |
| <i>mar. 2011</i> | -5,8                                                     | -1,5                                     | -0,4           | -1,1                | -4,3                                               | -8,2           | 5,7                 | -1,8                                                |
| Q2, 2011*        | -9,9                                                     | -4,2                                     | -8,4           | 4,3                 | -5,7                                               | -25,7          | 20,7                | -0,8                                                |

Notes:

1. Sign "-" denotes an outflow of capital, sign "+" implies an inflow.

2. The indebtedness on supplies of goods according to intergovernmental agreements is excluded.

\* Preliminary data.

\*\* The item "Net errors and omissions" entirely relates to the other sectors. It could be explained by the fact that most noticeable difficulties come to light upon the recording in the balance of payments of capital transactions undertaken by these sectors.