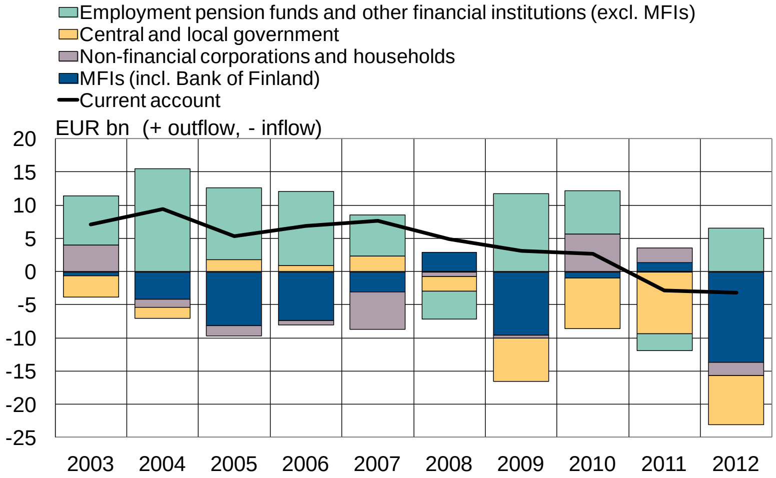
Finland's Balance of Payments

Annual Review

2012–2013/I–II

Capital movements by sector, 2003–2012



Source: Bank of Finland.

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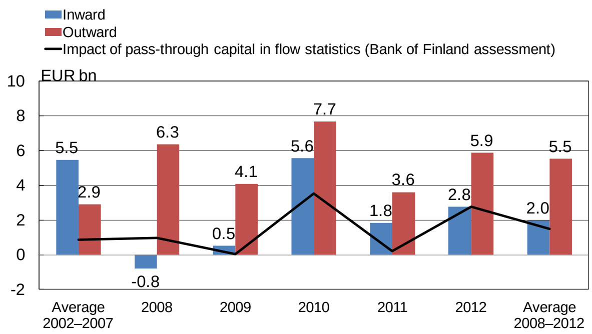
1 Pass-through investment gained importance in Finland's inward FDI in 2012

The change that followed the financial crisis is still reflected in Finland's inward and outward foreign direct investment (FDI)[1]. The global recovery in investment flows witnessed in the two previous years has been reversed; investment flows have started contract again. Investment flows to Finland [2] have followed global patterns in the 2000s, and in 2012 FDI flows to both Finland and developed countries have declined.

1.1 FDI flows to Finland follow a global pattern

Foreign direct investment (FDI) flows to Finland totalled EUR 2.8 bn in 2012, which is EUR 1 bn more than in the previous year. Excluding pass-through investment [3], inward FDI was just EUR 2 bn, which is EUR 1.6 bn less than in the previous year. In other words, foreign investors' withdrawals of capital from Finland almost matched their new investments in Finland.

Chart 1. Finland's net FDI flows, 2002–2012



Source: Bank of Finland.

In the pre-crisis years 2002–2007, FDI flows to Finland annually averaged EUR 5.5 bn, compared to about EUR 2.0 bn in 2008–2012 (excluding pass-throughs EUR 0.5 bn). Despite some recovery observed in Finland's inward FDI, flows to Finland have remained at a considerably lower level than before 2008.

[1] A direct investment relation exists between an investor and an enterprise resident in another country when the investor has control (over 50% of the voting power) or influence (from 10% to 50%) over the enterprise. The direction of the investment (*inward* or *outward*) is determined in the statistics on the basis of the direction of the control/influence between parties. Direct investment refers to financial transactions between entities in a direct investment relationship.

[2] Investment flows to Finland excluding pass-through investment.

[3] Pass-through investment refers to investment where a domestic investment enterprise receives capital from a foreign direct investor and immediately reinvests it in its own direct investment enterprises abroad. Pass through funds increase, with the same item, both inward and outward FDI. When pass-through investment is negative, foreign investors have unwound their foreign investment channelled through Finland, which decreases both Finland's inward and outward FDI. The Bank of Finland has made an assessment of pass-through investment for 2002–2013.

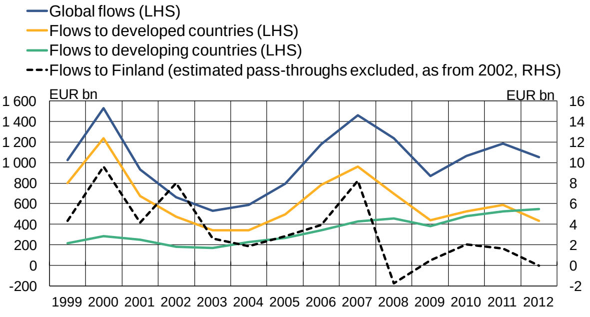
In 2012, FDI flows from Finland amounted to EUR 5.9 bn, which was EUR 2.3 bn more than in 2011. Excluding pass-throughs, outward FDI was EUR 0.2 bn lower than in the previous year.

The post-2008 change in FDI flows from Finland has been in the opposite direction from FDI flows to Finland. In 2008–2012, Finland's outward FDI was EUR 2.6 bn higher on average than in 2002–2007. However, growth in outward FDI in the recent years is partly explained by expansion of Finnish enterprises' business activities abroad and changes in the funding of foreign investment enterprises since 2008. Finnish investors are increasingly providing direct funding to foreign investment enterprises, and these no longer raise independent funding from the financial markets to the same extent as before. This is also reflected in the growth in pass-through investment.

In the first half of 2013, pass-through investment was a negative EUR 0.6 bn. Excluding pass-throughs, foreign investors withdrew EUR 1.2 bn of capital from Finland.

FDI from Finland – excluding pass-throughs – totalled EUR 1.7 bn in the first half of 2013. However, no conclusions on year-level developments can be drawn on the basis this data.

Chart 2. FDI flows to Finland and global FDI flows, 1999–2012



Sources: Bank of Finland and UNCTAD.

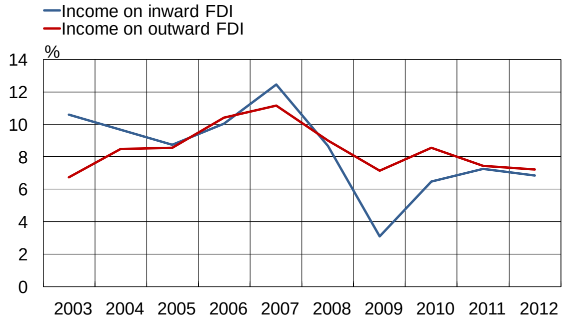
FDI flows to Finland[4] have largely followed global patterns in recent years. FDI flows to both Finland and developed countries[5] started to contract in 2012, after a recovery in previous few years.

In 2012, for the first time ever, developing countries [6] surpassed developed countries as a target for FDI. At the end of 2012, developing countries accounted for 52% of global FDI flows. This is partly explained by the fact that the largest decline in global investment flows occurred in developing countries.

1.2 FDI income contracted in 2012

In 2012, foreign investors' income on FDI to Finland totalled EUR 4.9 bn, and Finnish investors' income on outward FDI was EUR 7.9 bn.

Chart 3. FDI income relative to average investment stock, 2003–2012



Source: Bank of Finland.

Relative to the average investment stock, income on both inward and outward FDI contracted in 2012 from

[4] Investment flows to Finland excluding pass-throughs in 2002–2012.

[5] According to UNCTAD, developed economies are Australia, Bermuda, Canada, Gibraltar, Iceland, Israel, Japan, New Zealand, Norway, Switzerland, the EU countries and the United States.

[6] According to UNCTAD, developing economies are all economies that do not fall under the category of developed or transition economies.

the previous year. Average FDI income in both directions contracted by an exceptional amount in 2008–2009, after which it increased for a few years. In 2012 average FDI income started to decline slightly and was 6.9% for Finland's inward FDI and 7.2% for outward FDI.

1.3 Sweden still on top in terms of inward and outward FDI

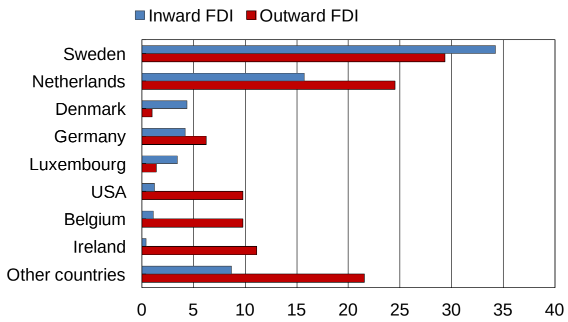
At the end of 2012, the stock of FDI to Finland totalled EUR 73.3 bn, of which equity capital accounted for about EUR 58 bn and other capital for about EUR 15 bn.[7]

At the end of 2012, the stock of FDI from Finland amounted to EUR 114.7 bn. Of this, equity capital accounted for about EUR 104 bn and other capital for about EUR 10 bn.

On the basis of the immediate investor country, capital from Sweden made up by far the largest share of Finland's inward FDI at the end of 2012, ie EUR 34 bn or about 47% of the stock. The Netherlands was another major investor country (22% of the investment stock). The EU countries accounted for 94% of the stock of Finland's inward FDI, and the euro area countries for only 39%.

Sweden and the Netherlands were also the most significant immediate host countries in terms of Finland's outward FDI. Ireland increased its importance as a host country in 2012 relative to the previous years, while Belgium lost some of its importance. These changes were due to intra-group capital arrangements. The EU countries accounted for 80% and the euro area countries for 50% of the stock of Finland's outward FDI.

Chart 4. Finland's FDI stocks by country, end-2012



Source: Bank of Finland.

[7] For listed companies, the value of equity capital is recognised at market value and for other enterprises at book value. The FDI item other capital consists largely of intra-group loans and deposits, and trade credits.

Box 1. New standards bring changes to FDI compilation

Analysing foreign direct investment (FDI) statistics has become more difficult due to internationalisation of groups and increased complexity of their internal holding and financing structures. The new statistical standards of OECD and IMF constitute a response to this challenge.

1.1 Application of the new standards starts in 2014

Globalisation has led to increased complexity of enterprises' holding and financing structures, which has markedly increased the amount of so-called pass-through investment in foreign direct investment (FDI) (see the definition of pass-through investment in section 1, footnote 3). As a result, current international FDI statistics tend to reflect multinational groups' internal holding and financing structures rather than foreign investment, as was previously the case.

The Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF) have published new standards for foreign direct investment and balance of payment statistics (OECD Benchmark Definition of FDI, 4th Edition [BD4], and IMF Balance of Payments and International Investment Position Manual, 6th Edition [BPM6]). Publication of statistics in compliance with the new standards is scheduled to start in 2014.

The particular objective of the new statistical standards is to eliminate 'inflation' of FDI data due to capital passing through groups' internal holding and financing units. This is achieved by netting debt items between fellow enterprises according to the revised directional principle. The standards also aim to facilitate identification of the ultimate investing country.

The following sections discuss the impact of the changes to the statistical standards on Finland's FDI figures by using year-2012 data[8].

1.2 The statistical changes reduce Finland's inward and outward FDI

The changes to the statistical standards reduce the stocks of FDI both to and from Finland (Table 1). The stock of inward FDI contracts by about 12%, and the stock of outward FDI by approximately 7%. The total impact of the change is EUR 8,513 m in both directions, ie the impact is the same for both Finland's inward and outward FDI.

[8] The Bank of Finland has combined its former three annual balance of payment surveys (the surveys *SSU* = direct investment abroad, *SSS* = direct investment into Finland and *SVA* = foreign assets and liabilities) into a single survey *Balance of payments annual survey on foreign financial assets and liabilities (BOPA)*. The reform enables compilation of FDI statistics in compliance with the new statistical standards. Year-2012 data is the first set of data reported in line with the new standards. Another aim of the reform is to reduce companies' reporting burden and to clarify and harmonise the reporting process.

Table 1. Finland's FDI stocks according to directional principle of current (BPM5/BD3) and new standards (BPM6/BD4[9]), end-2012

	BPM6/BD4 EUR m	*BPM5/BP3 EUR m*	*New/Current %*
Inward FDI	*64,737*	*73,250*	*88*
Outward FDI	*106,228*	*114,741*	*93*

Analysis of the impact of the changes to the statistical standards on equity capital items draws on data for 2012 (Tables 2 and 3). The stock of equity capital remains unchanged after the changes because the data do not include equity investment between fellow enterprises.

Table 2. Finland's inward FDI stock, end-2012

	BPM6/BD4 EUR m	*BPM5/BD3 EUR m*
Inward FDI	***64,737***	***73,250***
Equity	***57,878***	***57,878***
Debt	***6,858***	***15,372***
+ Liabilities to direct investors	*14,008*	*14,008*
– Assets in direct investors (reverse invest-ment)	*–9,771*	*–9,771*
+ Liabilities to fellow enterprises abroad		*11,134*
+ Liabilities to fellow enterprises abroad (non-resident ultimate controlling parent)	*8,555*	
– Assets in fellow enterprises abroad (non-resident ultimate controlling parent)	*–5,934*	

[9] Figures in compliance with the new statistical standards (BPM6/BD4) are based on the Bank of Finland's assessment.

Table 3. Finland's outward FDI stock, end-2012

	BPM6/BD4 EUR m	BPM5/BD3 EUR m
Outward FDI	***106,228***	***114,741***
Equity	***104,269***	***104,269***
Debt	***1,959***	***10,472***
+ Assets in direct investors	*23,602*	*23,602*
– Liabilities to direct investors (reverse investment)	*–20,855*	*–20,855*
+ Assets in fellow enterprises abroad		*7,725*
+ Assets in fellow enterprises abroad (resi-dent ultimate controlling parent)	*1,791*	
– Liabilities to fellow enterprises abroad (resident ultimate controlling parent)	*–2,579*	

The decrease in the stock of FDI is explained by a change in debt capital items. According to the directional principle of the current FDI and balance of payment standards, inward FDI (EUR 11,134 m) includes all debt capital liabilities to fellow enterprises abroad. Correspondingly, according to the directional principle of the new statistical standards, inward FDI includes only debt liabilities to fellow enterprises abroad where the ultimate controlling parent is resident abroad (EUR 8,555 m). Liabilities to fellow enterprises abroad where the ultimate controlling parent is resident in Finland (EUR 2,579 m) are transferred to reverse (negative) investment in outward FDI.

According to the current standards' directional principle, outward FDI (EUR 7,725 m) comprises all debt capital claims on fellow enterprises abroad, while the new standards stipulate that outward FDI only comprises debt claims on fellow enterprises abroad where the ultimate controlling parent is resident in Finland (EUR 1,791 m). Claims on fellow enterprises abroad where the ultimate controlling parent is not resident in Finland (EUR 5,934 m) are transferred to reverse (negative) investment in inward FDI.

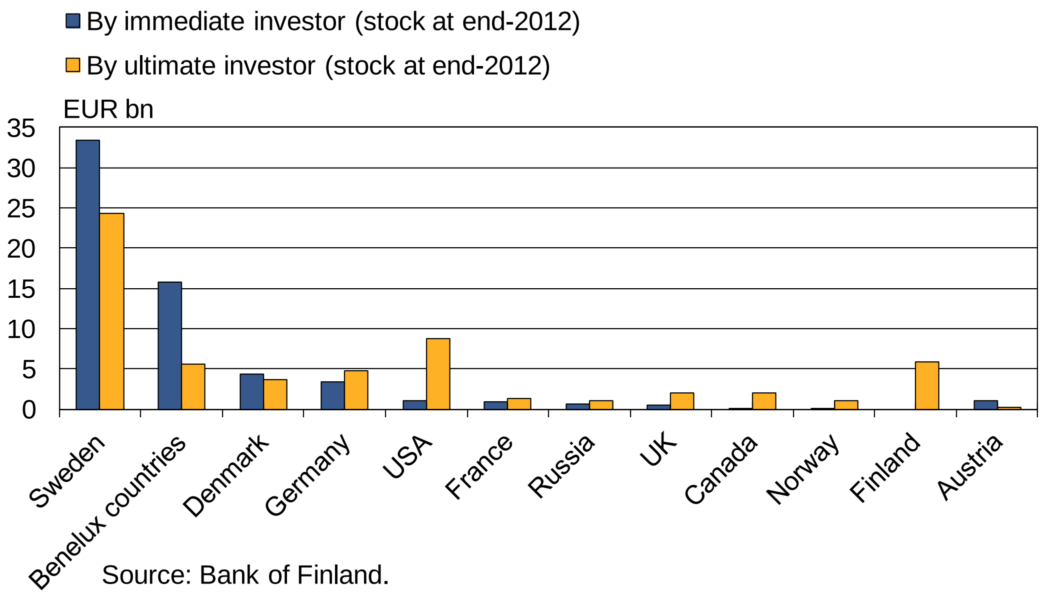
The sum of the transferred items, EUR 8,513 m (= 5,934 + 2,579), reflects the absolute impact of the statistical changes on FDI stocks. However, the changes do not affect the net FDI position, which is EUR 41,491 m according to both the old and the new statistical standards.

1.3 The statistical changes enable more extensive country analysis of inward FDI

The new statistical standards enable country-specific analysis of FDI according to the residence of the ultimate investor and of the ultimate controlling parent. FDI statistics have traditionally been compiled only on the basis of the residence of the immediate investor.

The following analysis (Chart 5) draws on country-specific stock data based on an assessment by the Bank of Finland and calculated according to the revised directional principle.

Chart 5. Finland's inward FDI according to new standards by residence of immediate and ultimate investor



Source: Bank of Finland.

Based on the residence of the immediate investor, the stock of FDI from Sweden to Finland amounts to EUR 33.3 bn and the stock of FDI from the Benelux countries totals EUR 15.8 bn. However, viewed from the perspective of the residence of the ultimate investor, the respective figures are EUR 24.3 bn and 5.5 bn. In other words, inward FDI stocks from both Sweden and the Benelux countries are considerably smaller according to the ultimate investing country than according to the immediate investor country. Consequently, one can say that a considerably larger share of FDI into Finland is made through Sweden and the Benelux countries than what is actually managed in these countries. Hence, it can be concluded that Sweden and the Benelux countries act as pass-through countries for FDI into Finland.

On the other hand, the stock of FDI to Finland from the United States is larger when viewed on the basis of the ultimate investing country (EUR 8.7 bn) than on the basis of the immediate investor country (EUR 1.1 bn). This means that a larger share of FDI into Finland is managed in the USA than what is made immediately into Finland.

Finnish investors also manage the bulk of Finland’s inward FDI. At the end of 2012, Finnish investors managed about EUR 5.8 bn of the stock of

FDI to Finland. This is explained by the fact that Finnish investors placed capital in Finland through their foreign fellow enterprises. Thus Finnish investors were the third most important source of Finland's inward FDI stock at the end of 2012.

2 Finland’s portfolio investment inflow moderates

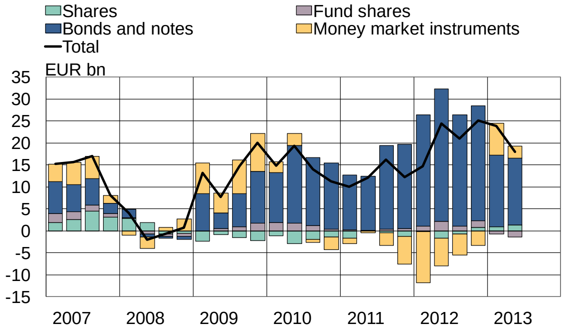
Sales of Finnish securities abroad were slightly weaker in the first half of 2013 than in the year-earlier period. Capital inflows especially relating to sales of monetary financial institutions’ (MFIs) bonds and notes eased. Finland’s outward portfolio investment was roughly unchanged, but investors have shifted from bonds and notes to shares.

2.1 Inward portfolio investment

Cumulative portfolio investment flows to Finland contracted slightly in the second quarter of 2013, but are still considerable by long-term standards. In 2012, foreign investors’ purchases of Finnish securities totalled over EUR 25 bn on net, which is more than twice the amount for the previous year. Foreign investors have continued to show an interest in Finnish securities in 2013; in the first half of 2013 portfolio investment inflows amounted to about EUR 11 bn.

Inward portfolio investment derived mainly from bonds and notes, which totalled EUR 26 bn on net in 2012. In the first half of 2013, new inward investment decreased slightly from the previous year.

Chart 6. Inward portfolio investment, net cumulative flows by instrument, 2007/I–2013/II (four-quarter moving totals)

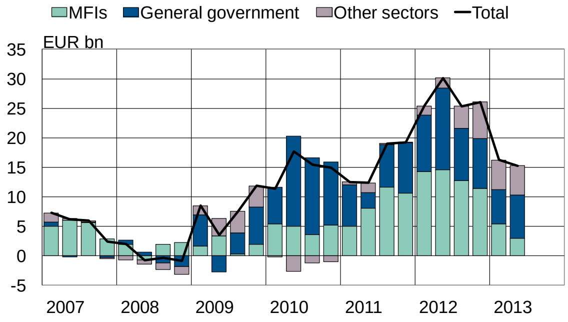


Source: Bank of Finland.

Foreign investors’ cumulative investment in Finnish money market instruments declined throughout 2012. Cumulative investment flows turned positive in the first half of 2013, as foreign investors scaled up their purchases of Finnish short-term debt securities.

Differences between issuer sectors have decreased as regards sales of bonds and notes to foreign investors, and monetary financial institutions (MFIs) have become much less important in the first half of 2013. In 2012, long-term debt securities issued by MFIs still accounted for the bulk of Finnish bonds and notes sold abroad.

Chart 7. Inward portfolio investment, net cumulative flows of bonds and notes by issuer sector, 2007/I–2013/II (four-quarter moving totals)



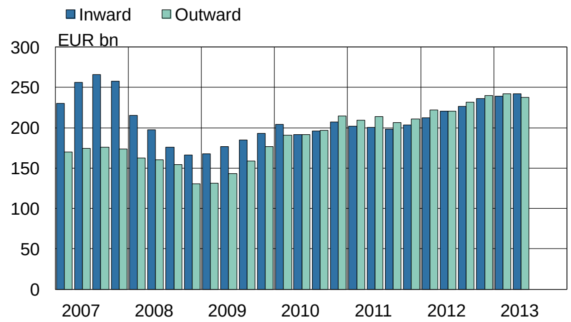
Source: Bank of Finland.

Foreign investors' investment in Finnish securities increased by EUR 5.6 bn in the first half of 2013, and at the end of June the investment stock totalled EUR 242 bn. About a quarter of the investments were made in shares and the rest in debt securities. Bonds and notes account by far for the largest share of inward portfolio investment. Exchange rate changes have reduced the investment stock in the course of 2013 by a few percent. Valuation items have been negative, particularly for debt securities.

2.2 Outward portfolio investment

Finnish investors have reduced their investments in foreign securities in the first half of 2013. Repatriations from bonds and notes and money market instruments amounted to almost EUR 4 bn. Investment in foreign shares was in turn just under EUR 3 bn on net. Therefore, as a whole, Finnish investors scaled down their holdings of foreign securities in the first half of 2013 by over EUR 1 bn. On the basis of cumulative investment flows, Finnish investors have recently started to put slightly more focus on shares in their investment allocation.

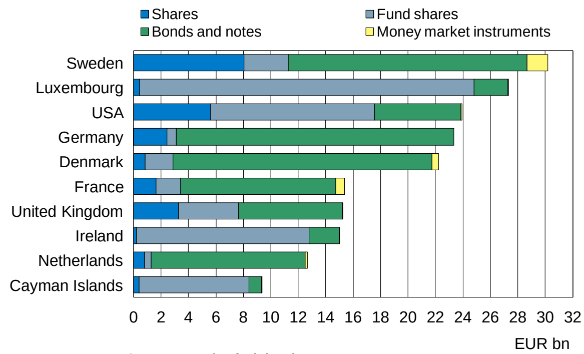
Chart 8. Stock of Finland's portfolio investment, quarterly data, 2007/I–2013/II



Source: Bank of Finland.

The market value of outward portfolio investment declined slightly in the first half of 2013. At the end of the second quarter, the total value of investments was EUR 238 bn. The decrease in the outward investment stock was largely due to negative net investment in bonds and notes and negative exchange rate and valuation developments in these instruments.

Chart 9. Geographical breakdown of Finland's outward portfolio investment: stock 30 June 2013



Source: Bank of Finland.

As in the previous years, the primary market for Finnish investors was Sweden, where purchases mainly focused on bonds and notes and shares. Sweden was followed by Luxembourg, which is the residence of several fund management companies. The United States has also become a more important host country for portfolio investment other than in money market instruments. Canada has also attracted an increasing amount of investment from Finland, mainly in bonds and notes. Denmark has risen to the level of the traditional host countries in recent years, while France's share in Finland's outward portfolio investment has declined notably.

Until a few years ago, the BRIC countries were still growing rapidly as host countries for outward portfolio investment, but China is the only BRIC country that has maintained that status among Finnish investors. Finland's outward portfolio investment in Brazil, Russia and India has decreased by almost 50% since 2010. On the other hand, Finnish investors have increased their investments in a number of developing Asian economies, such as the Philippines, Malaysia and Thailand, and in the Middle East in Turkey and the United Arab Emirates. In South America Colombia and Peru, among others, are constantly increasing in attractiveness to investors.

2.3 Interest and dividend income flows remained stable

In the first half of 2013, interest and dividends paid to foreign investors on portfolio investment in Finland totalled EUR 4.2 bn. Interest on bonds and notes constituted by far the largest share of investment income paid abroad, and these payments have been increasing already for several years. Dividends paid on foreign shareholders lag far behind the peak of 2008 when dividend outflows totalled EUR 3.9 bn in the first two quarters of the year.

Table 4. Finland's outward and inward portfolio investment by investment type, first half of 2013

EUR m

	Investment stock, 31 December 2012	Net capital flows, January-June 2013	Exchange rate and other valuation changes, January-June 2013	Investment stock, 30 June 2013	Dividends and interest, January-June 2013
Finnish portfolio investment abroad					
Shares	31,664	2,627	663	34,954	614
Fund shares	74,242	–158	948	75,033	183
Bonds and notes	130,058	–2,918	–2,654	124,486	1,336
Money market instruments	3,974	–932	17	3,059	21
Total	239,938	–1,380	–1,025	237,532	2,155
Foreign portfolio investment in Finland					
Shares and fund shares	58,537	–231	261	58,568	1,869
Bonds and notes	154,950	9,633	–5,464	159,119	2,302
Money market instruments	22,849	1,693	–276	24,266	52
Total	236,336	11,095	–5,478	241,953	4,223

Source: Bank of Finland.

Interest and dividends received by Finnish investors on outward portfolio investment amounted to EUR 2.2 bn in the first half of 2013. Interest paid on bonds and notes made up the largest share of the payments. Interest and dividend inflows have remained relatively stable since the drop in 2009 in all investment categories except money market instruments. Interest paid on money market instruments have decreased along with the contraction of the investment stock.

3 Current account deficit contracted

The current account posted a deficit of EUR 1.2 bn in the first half of 2013, decreasing from the year-earlier period. The current account was strengthened by a surplus on the trade account and in services. By contrast, the deficits on the income account and in current transfers had a negative impact on the current account position.

3.1 Trade account in surplus

In balance of payment terms, the trade account posted a surplus, totalling EUR 0.7 bn, in the first half of 2013. In the two previous years the trade account has posted deficits at annual level. Exports and imports of goods have remained steadily at stabile levels in the two previous years, albeit imports contracted more than exports in the second quarter of 2013, which was reflected in the trade account surplus.

Finland’s most important trading partners in the first half of 2013 were Sweden, Russia and Germany.

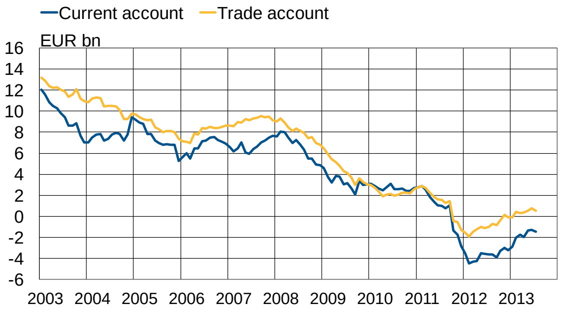
Table 5. Current account, 2008–2013/I–II

EUR m		2008	2009	2010	2011	2012	January–June 2013
Current account	Net	4,855	3,048	2,709	–2,831	–3,199	–1,168
Goods	Net	6,789	3,033	2,558	–1,257	–92	707
	Credit	65,890	45,103	52,478	56,855	57,161	28,280
	Debit	59,100	42,070	49,920	58,112	57,253	27,573
Services	Net	,676	389	287	133	–1,492	346
	Credit	21,692	19,967	20,388	20,924	21,957	10,719
	Debit	21,016	19,579	20,101	20,791	23,449	10,373
Income	Net	–996	1,316	1,524	–112	–280	–890
	Credit	15,778	10,811	13,393	13,408	13,443	7,087
	Debit	16,774	9,495	11,869	13,520	13,723	7,977
Current transfers	Net	–1,613	–1,689	–1,660	–1,594	–1,335	–1,331
	Credit	1,663	1,625	1,703	2,107	2,434	1,043
	Debit	3,276	3,314	3,363	3,701	3,769	2,374

Source: Bank of Finland.

After a period of contraction, the 12-month rolling sums of the current account and the trade account have shown a slight increase starting from the first half of 2012. This trend continued in the first half of 2013 when the 12-month rolling sum of the trade account shifted into surplus, while that of the current account remained negative.

Chart 10. Current account and trade account, 12-month rolling sum, 2003–2013



Source: Bank of Finland.

3.2 Services

After having shown a deficit in 2012, the services account shifted into a slight surplus in the first half of 2013, totalling EUR 0.3 bn. Transport, travel and IT services were still the most important services items. Of these, transport and travel services have traditionally recorded deficits. The deficit on travel services totalled EUR 0.5 bn in the first half of 2013. The strongest increase in services items was recorded in the category ‘other business services’.

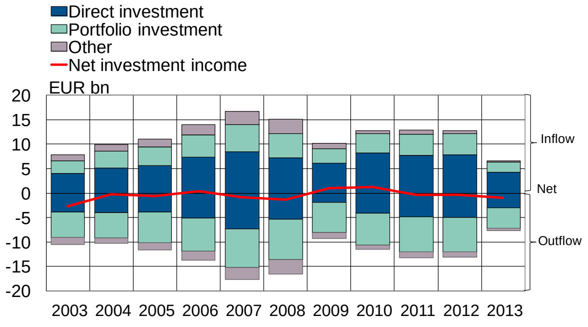
3.3 Investment income and current transfer outflows exceeded inflows

Investment income was outward on net, in the amount of EUR 0.9 bn. This trend, which has continued since 2011, weakened the current account in the first half of 2013. The most important investment income items are direct investment income on equity and interest, and portfolio investment income on dividends and interest. Income paid to Finnish investors on portfolio investment abroad totalled EUR 2.5 bn, while income paid to foreign investors on portfolio investment in Finland was EUR 4.6 bn. Hence, dividend and interest payments on portfolio investment recorded net outflows of EUR 2.1 bn.

Income on direct investment was inward on net, in the amount of EUR 1.5 bn. Income paid to foreign investors on direct investment in Finland totalled EUR 3.4 bn, while income paid to Finnish investors on direct investment abroad was EUR 4.9 bn.

Income on other investment was outward on net, in the amount of EUR 0.2 bn.

Chart 11. Net investment income by investment type, 2003–2013/I–II



Source: Bank of Finland.

The current account was also weakened in the first half of 2013 by current transfers, which recorded net outflows of EUR 1.3 bn. Current transfers include private and public transfers quid pro quo. Public transfers that include eg current transfers between governments and international organisations accounted for the largest share of current transfer outflows.

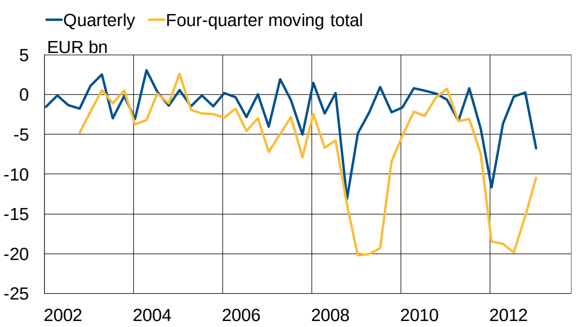
Box 2. Balance of payments more accurate due to revisions

Data on Finnish portfolio investment liabilities in the balance of payments have been revised on the basis of an alternative methodology. The revisions reduce the balance of payments net errors and omissions.

The sum of the components of the balance of payments (BOP) – current account, capital account and financial account – is by definition zero. However, this is rarely realised in practice, and the statistical discrepancy is recorded as a separate BOP item, net errors and omissions. This residual item consists of data that cannot be allocated elsewhere in the BOP, erroneously recorded data and other deficiencies and inconsistencies. In the long term, the cumulated residual item should approach zero.

The residual item has traditionally been small in the Finnish BOP, but especially since the end of 2008 net errors and omissions have increased and the cumulated residual item has been negative (Chart 12).

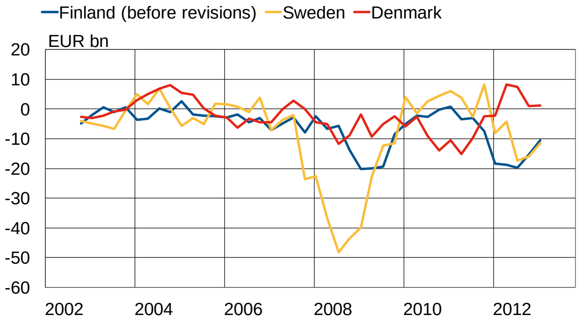
Chart 12. Net errors and omissions in Finland's balance of payments, quarterly data, before revisions, 2002–2013/I



Source: Bank of Finland.

The increase in the residual item has not been just a Finnish problem; net errors and omissions have also increased in other EU countries since 2008. In addition to Finland, the negative trend also obtains eg in Sweden and Denmark (Chart 13) and in many other European countries.

Chart 13. Net errors and omissions in Finland (before revisions), Sweden and Denmark, 2002–2013/I



Source: Bank of Finland and Eurostat.

An expert group at the Bank of Finland has been analysing the reasons for the growing residual item using several different approaches.[10] One of the specific areas of analysis featured the statistical compilation of portfolio investment liabilities and the question of whether the current BOP compilation method overestimates the share of foreign holdings in total portfolio investment liabilities. A residual method[11] based on alternative sources proved that the current statistical method indeed overestimates foreign portfolio investment liabilities. The first significant revisions were published in March 2013[12] and

[10] See Finland's balance of payments – Annual review 2011–2012/I–II,http://www.suomenpankki.fi/en/tilastot/maksutase/Pages/vuosikatsaukset.aspx.

[11] See description of the methodology, .http://www.suomenpankki.fi/en/tilastot/maksutase/Documents/Appendix_methodology_30092013_en.pdf.

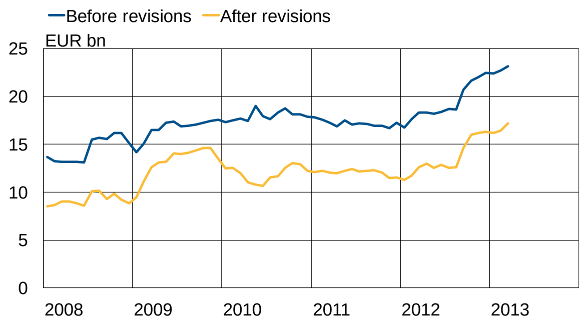
[12] See the monthly BOP news release, March 2013, Appendix 'Revisions improve balance of payments', http://www.suomenpankki.fi/en/tilastot/maksutase/Documents/Appendix_methodology_27032013_en.pdf.

concerned data on the foreign liabilities of the central government and monetary financial institutions (deposit banks and other MFIs in financial intermediation). In data for the period 2008 to the third quarter of 2013, the correction of the cumulated residual item was EUR 4.4 bn. Revisions to these sectors have been extended to the last quarter of 2012 and the first quarter of 2013, and the cumulated residual item has improved further, by about EUR 1.2 bn. All in all, the revisions to the data for these sectors have improved the cumulated residual item by EUR 5.6 bn.

Revisions to the corporate sector's portfolio investment liabilities

In addition to the central government and MFIs, enterprises also make up an important borrower sector. The corporate sector is more heterogeneous and involves more difficult statistical problems than the central government or banks, and so the sector posed its own challenges also for the residual method. For example, selecting the right source for total debt issuance requires considerably more careful consideration than the straightforward solutions for the central government and banks. In the end, revisions to the stock of bonds and money market instruments were quite sizeable, EUR 2.6 bn on average (Chart 14).

Chart 14. Non-financial corporations' foreign liabilities, 2008–2013/I, before and after revisions



Source: Bank of Finland.

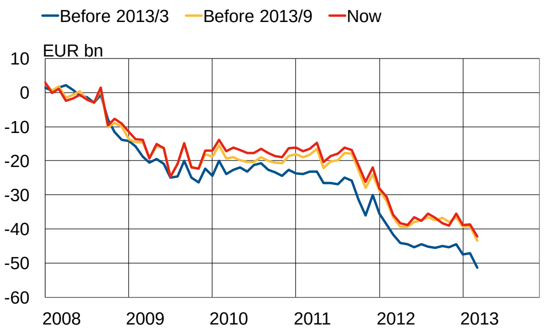
Revisions to flow data were small, so that the corporate sector improved the residual item by just EUR 0.8 bn, which was less than the Bank of Finland estimated in March 2013. However, in the case of the corporate sector, revisions to foreign liabilities reflected a change in the level of debt rather than changes in investment behaviour, and the revisions have a greater impact on Finland's net international investment position than on net errors and omissions. Excluding equity items, Finland's net foreign debt decreased from EUR 77 bn to EUR 70 bn at the end of the first quarter of 2013.

The corporate sector analysis also involved foreign equity liabilities. In this item, the greatest challenges were posed by unlisted shares. Eventually, the residual analysis could only be applied to listed shares, so that unlisted shares had to be excluded from the analysis. The results of the analysis of listed shares showed that the current method does not cause significant errors, so there is no need for a revision here.

The impact of the revisions on net errors and omissions

On the basis of spring 2013 revisions and the new revisions published now, the total correction in the residual item cumulated from 2008 to the first quarter of 2013 was about EUR 6.4 bn (see Chart 15 which also shows other revisions with effect from 2012).

Chart 15. Cumulated net errors and omissions, 2008–2013/I, before and after revisions



Source: Bank of Finland.

Next revisions

Bank of Finland now continues to revise these sectors' data on portfolio investment liabilities. This will be accomplished by revising data for the previous quarter according to the publication schedule of an important data source – Statistics Finland's financial accounts. The Bank of Finland estimates the revisions to the stock of foreign portfolio investment liabilities already in the monthly statistical release, but revisions to flow data are at the moment not published before the quarterly revision to the statistics. The aim is to develop a method that enables forecasting of revisions to flow data and faster calculation of revisions affecting net errors and omissions.

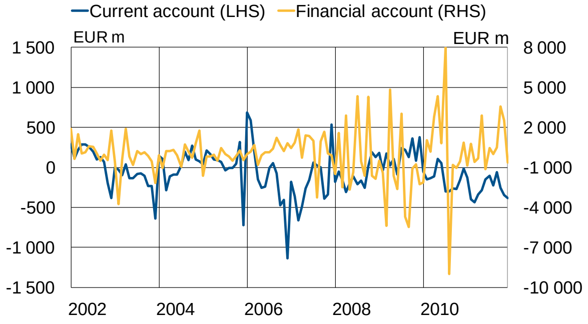
Box 3. Analysis of revisions to the current account reveals inaccuracy in initial data releases

The initial releases of current account data are based on preliminary data and estimations, which are supplemented and revised over time. Revisions reveal that there is systematic under- or overestimation, especially in the initial releases of goods and services data.

Revisions – ie improvements in the accuracy of statistical data already published – are a normal feature of statistical production and result in improved quality of statistics. Source data available at the time of the initial statistical release are not entirely comprehensive, and so they are complemented with estimates. Revisions already carried out also need to be examined afterwards. Analysis of the size and direction of revisions can reveal eg systematic under- or overestimation in the initial statistical versions and enables comparison of the quality of statistics on the basis of different methods.

There are two main reasons for revisions: improved data accuracy and error correction. The financial account has been subject to substantial revisions, especially in recent years, due to error corrections. Revisions to the current account have in turn been considerably smaller in size, yet often more consistent in terms of direction. This gives cause for a more thorough examination of the reasons for revisions to the current account in particular. This section focuses on revisions to data on the two biggest current account items: trade in goods and services.

Chart 16. Difference between initial and final data on current and financial accounts, 2002–2011



Sources: Bank of Finland, Statistics Finland and National Board of Customs.

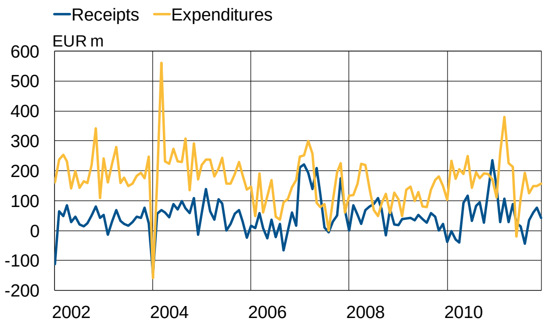
The National Board of Customs always publishes preliminary data on foreign trade of goods within 39 days after the end of the statistical month. These data comprise the first information reported on the current account. Monthly statistics may be subject to changes during subsequent months. The final figures for each statistical year are always published at the end of August the next year. Finnish Customs reported that in 2002–2011 the deviation between the preliminary and the final data averaged 1.3% for exports and 4.0% for imports.[13]

Statistics Finland compiles statistics on international trade in services on the basis of annual and quarterly inquiries. The annual inquiry usually covers approximately 2,000 enterprises, and the preliminary results are available at a lag of six months. The quarterly inquiry covers about 300 enterprises and the data are available for the balance of payments at a lag of two months. Since the monthly preliminary data on the current account need to be obtained before the

[13] Quality of Finnish Custom's foreign trade statistics in 2011; see http://www.tulli.fi/en/releases/ulkomaankauppatilastot/tiedotteet/kuluvavuosi/quality_14092012/index.html.

quarterly statistics on international trade in services are prepared, the Bank of Finland produces estimations of goods trade on the basis of time series. The estimations are largely based on previous-month data as regards the calculation of service aggregates. An estimated aggregate is broken down into subitems according to their relative shares in the previous year. If there is bias in the previous-month data, eg due to incomplete quarterly data, the bias has a direct impact on estimations.

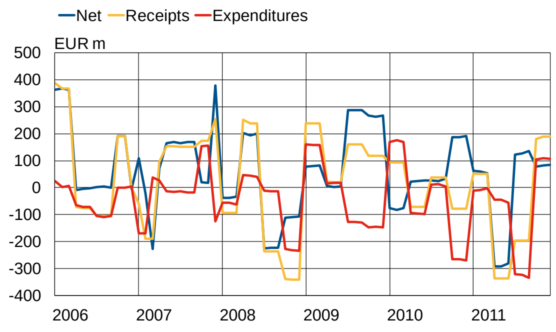
Chart 17. Difference between final and initial data on receipts and expenditures for goods trade, 2001–2011



Sources: Bank of Finland and National Board of Customs.

Looking at data on trade in goods, Finnish Custom's revisions lead to a negative net revision of about EUR 100 bn between the preliminary and the final current account data. In data for 2002–2011, revisions between the initial and final data averaged about EUR 161 m for expenditures and EUR 54 m for receipts. As can be inferred from the National Board of Custom's own statistics, most of the revisions are done in connection with the release of the National Board of Custom's final annual statistics.

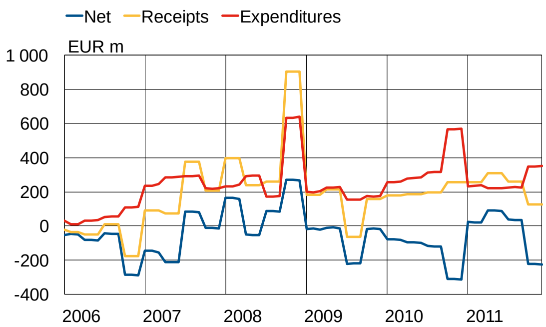
Chart 18. Revisions to receipts and expenditures for services trade based on quarterly data on international trade in services



Sources: Bank of Finland and Statistics Finland.

As for services, changes to services trade figures estimated by the Bank of Finland, after receipt of quarterly data on international trade in services, are significant, but are distributed fairly evenly on both sides of zero. In 2006–2011, these changes averaged EUR 19 m for receipts and EUR –43 m for expenditures (net revision EUR 62 m). Considering the level of dispersion, one can say that the Bank of Finland's services trade forecasts predict Statistics Finland's quarterly data on international trade in services fairly well. This is logical, since the bulk of monthly data used in estimating services data forecasts are based on these quarterly data by Statistics Finland.

Chart 19. Revisions to receipts and expenditures for services trade based on annual data on international trade in services



Sources: Bank of Finland and Statistics Finland.

Changes to the quarterly data in connection with the annual data on international trade in services are not as evenly spread on both sides of zero. The revisions have averaged at about EUR 190 m for receipts and about EUR 241 m for expenditures (net revision EUR 51 m). In considering the dispersion, the net revision can be regarded as reasonable, but revisions to receipts and expenditures are both continuously relatively large.

Table 6. Services subitems subject to largest revisions on the basis of annual data

	Receipts		Expenditures	
	Mean, EUR m	Standard deviation	Mean, EUR m	Standard deviation
Computer services	69.65	132.00	30.07	22.40
Services between affiliated enterprises, not identified elsewhere	20.85	27.19	35.22	22.32
Research and development services	6.07	5.27	39.91	66.31
Merchanting	26.99	84.93	10.28	15.09
Transport services	9.29	14.62	25.61	21.31
Advertising, market research and public opinion polling	5.29	2.56	23.15	26.35
Construction abroad and project deliveries abroad	16.52	36.43	6.96	18.43

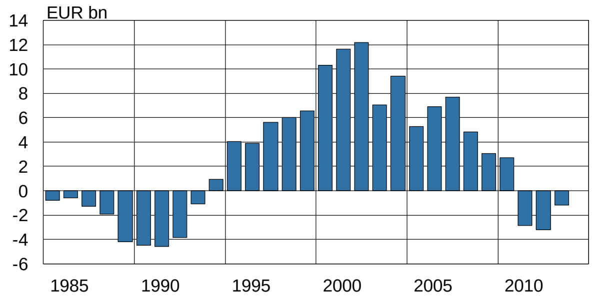
Source: Bank of Finland.

Systematic revisions between the initial and final data on trade in goods and services cause problems for the users of statistics. Researchers and the media alike actively follow Finland’s current account and often draw far-reaching conclusions on the situation for the Finnish economy already on the basis of initial monthly data releases.

Can users of statistical data take into account almost certain revisions to statistics? In general, do they need to be aware of systematic revisions, or should producers of statistics strive for the greatest possible data accuracy already in the initial data releases by a wider use of estimation methods? These and other questions associated with the quality of statistics are being addressed jointly by the authorities involved in the compilation of balance of payments – the National Board of Customs, Statistics Finland and the Bank of Finland.

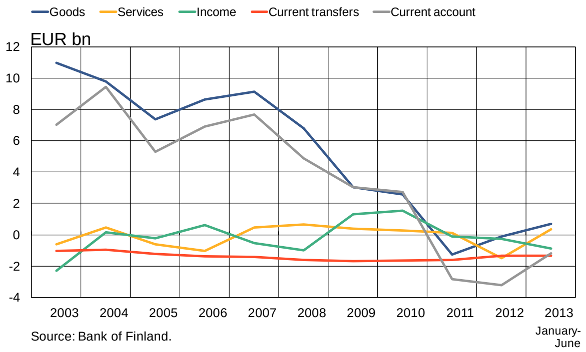
Appendix 1. Charts

Chart 20. Current account, 1985–2013/I–II



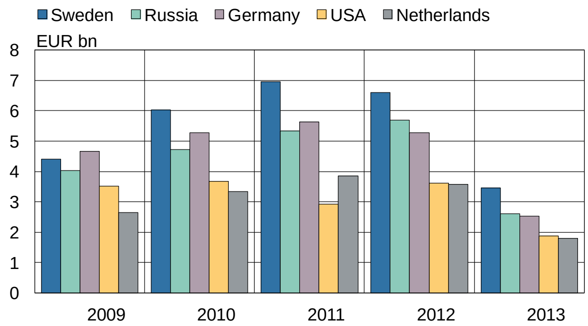
Source: Bank of Finland.

Chart 21. Current account by subitems, net, 2003–2013/I–II



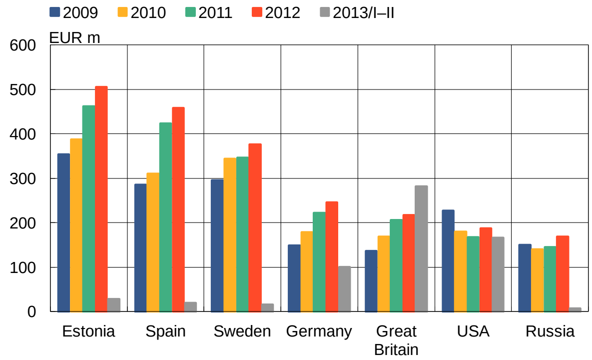
Source: Bank of Finland.

Chart 22. Goods export by country, 5 largest countries, 2009–2013/I–II



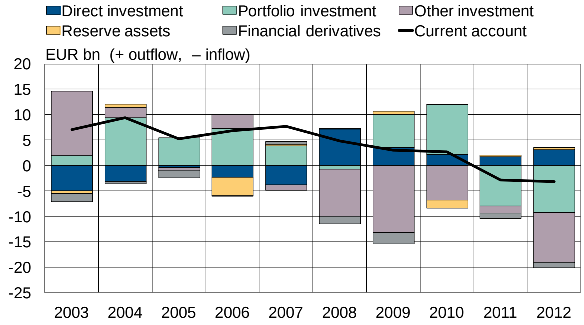
Source: Bank of Finland.

Chart 23. Expenditure on travel abroad, 2009–2013/I–II



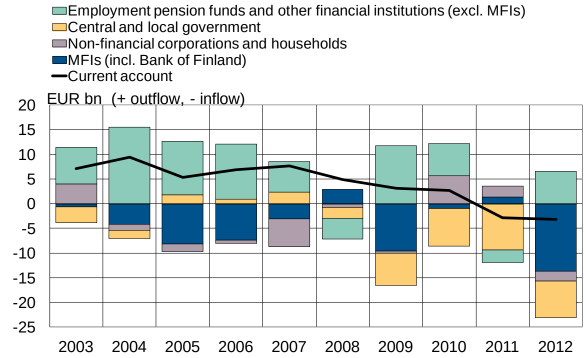
Sources: Bank of Finland and Statistics Finland.

Chart 24. Capital movements by investment type, 2003–2012



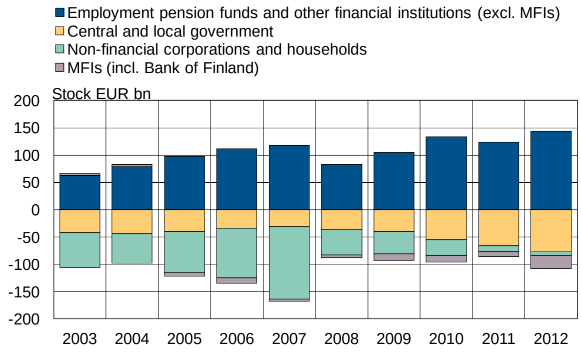
Source: Bank of Finland.

Chart 25. Capital movements by sector, 2003–2012



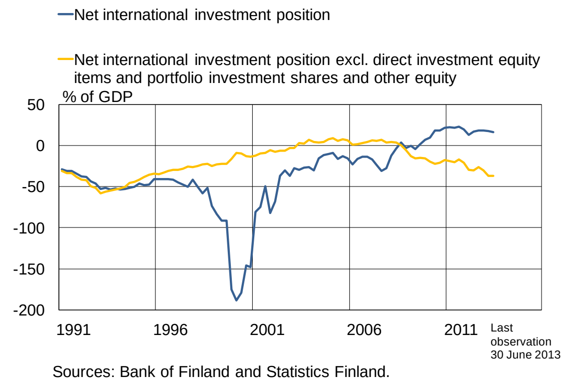
Source: Bank of Finland.

Chart 26. Finland's external assets and liabilities by sector, 2003–2012



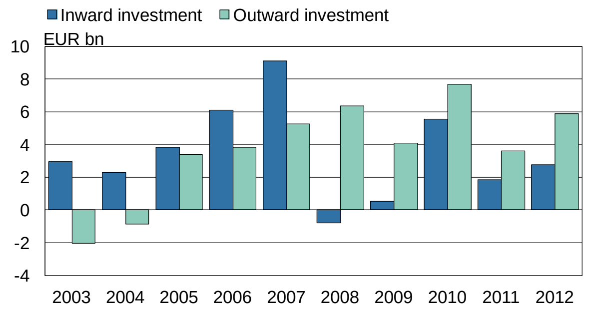
Source: Bank of Finland.

Chart 27. Finland's net international investment position (assets – liabilities), 1991–2013/I–II



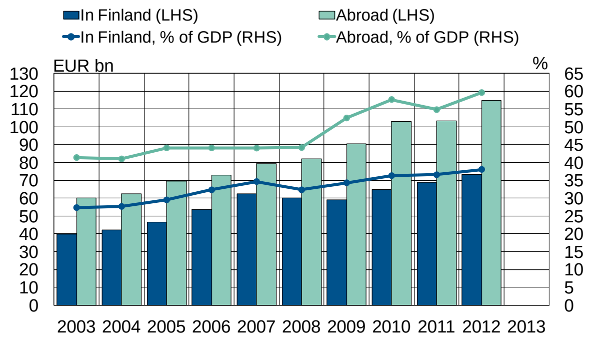
Sources: Bank of Finland and Statistics Finland.

Chart 28. Finland's direct investment, net capital flows, 2003–2012



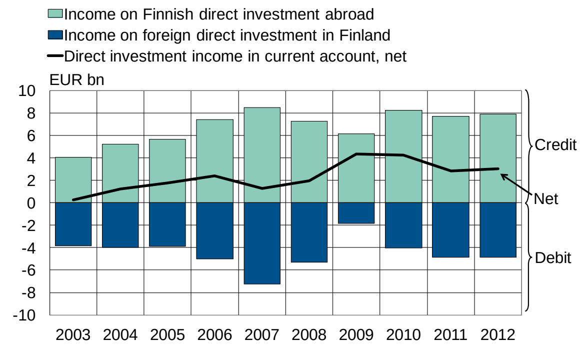
Source: Bank of Finland.

Chart 29. Direct investment, stock, 2003–2012



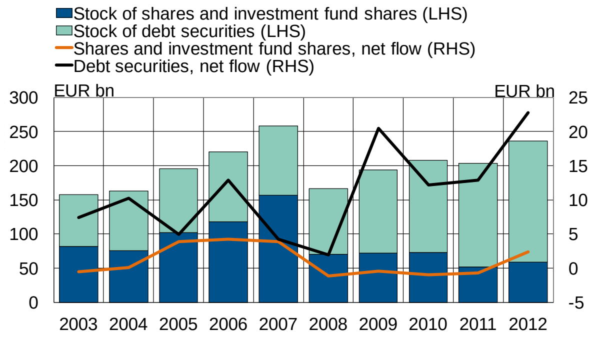
Source: Bank of Finland.

Chart 30. Direct investment income, 2003–2012



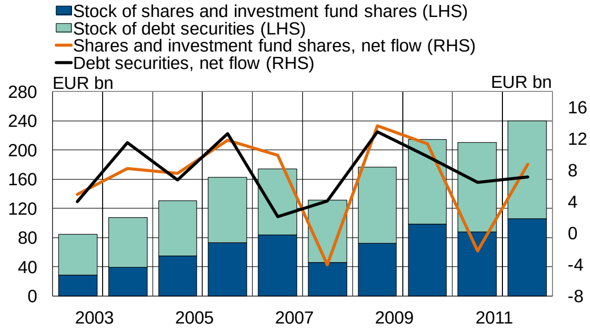
Source: Bank of Finland.

Chart 31. Inward portfolio investment, 2003–2012



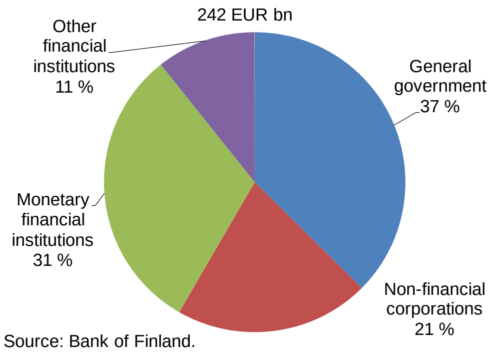
Source: Bank of Finland.

Chart 32. Outward portfolio investment, 2003–2012



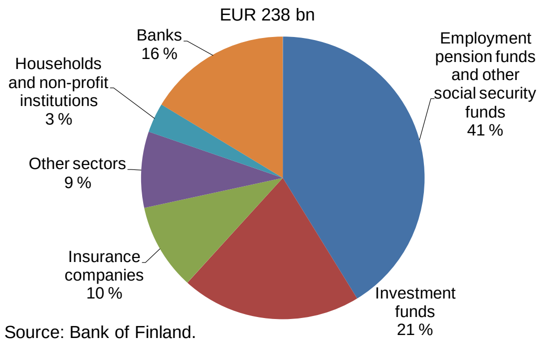
Source: Bank of Finland.

Chart 33. Inward portfolio investment by issuing sector: stock of investment at 30 June 2013



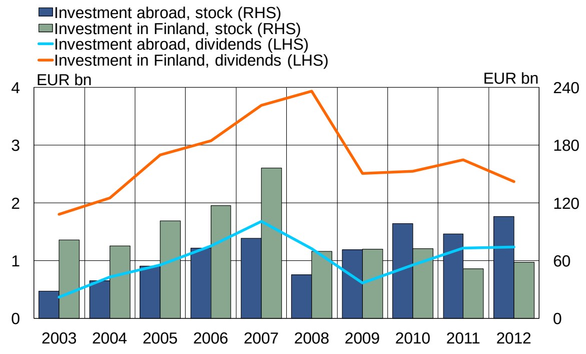
Source: Bank of Finland.

Chart 34. Outward portfolio investment by sector: stock of investment at 30 June 2013



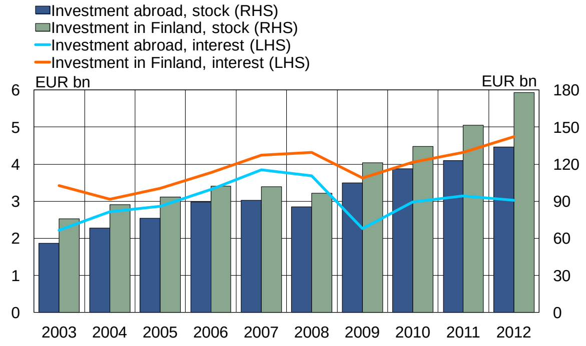
Source: Bank of Finland.

Chart 35. Portfolio investment, shares and fund shares, stock and dividends 2002–2012



Source: Bank of Finland.

Chart 36. Portfolio investment, debt securities, stock and interest 2003–2012



Source: Bank of Finland.