

Iceland's international investment position and balance on income

Iceland's international investment position (IIP) has changed sharply in the recent term. Both foreign assets and liabilities have mushroomed in the space of a very few years, but liabilities by considerably more than assets. Thus as a proportion of GDP, net IIP is very negative and net foreign liabilities at one of the highest levels in the world. At the same time as foreign liabilities have grown, net interest and dividend payments to abroad have soared and weigh heavily in the current account deficit. Doubts have been raised about the reliability of the data underlying estimates for net IIP and the current account deficit, including the presence of inconsistencies between flows and balances. It has sometimes been claimed that Iceland's foreign assets have been greatly underestimated and to some degree miscalculated.

This paper discusses the development of Iceland's foreign assets and liabilities in recent years and their relationship with the balance on income. It describes methodologies for recording data and attempts to identify possible shortcomings that could explain inconsistencies. Many countries are tackling comparable problems and the findings of international research in this field are discussed in the light of Iceland's situation.

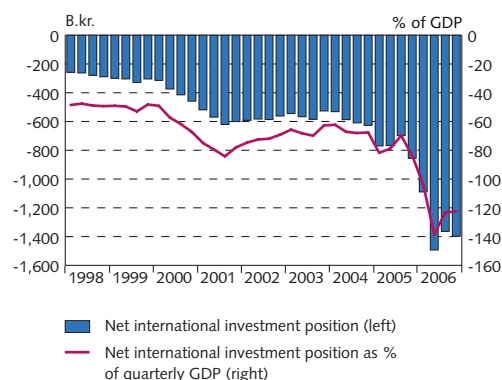
The authors' finding is that the compilation of balance of payments and IIP statistics is consistent with international standards and practices. Nonetheless, under certain circumstances it is apparent that the current methodology for estimating portfolio returns and net investment stock does not produce a sufficiently comprehensive picture. If changes in portfolio value were included in the balance on income, for example, the current account deficit for 2006 would have been significantly smaller than under the current methodology, but for 2005 it would have been larger. In the authors' view, communication might be enhanced by presenting estimates for net investment stock using the current cost method and market value method, alongside the IIP in its current form.

Introduction

Iceland's total foreign liabilities amounted to 5,916 b.kr. at the end of 2006, and foreign assets 4,518 b.kr. The net international investment position (IIP) was therefore negative by 1,397 b.kr., equivalent to 122% of GDP (see Chart 1). The net debt position, i.e. net liabilities excluding venture capital, was negative by 2,371 b.kr., equivalent to more than double GDP for that year.

As foreign assets and liabilities have grown, so has the share of the balance on income in the balance of payments over the past few years. Only a very few years ago merchandise trade dominated the balance of payments, but the income account has swollen following the liberalisation of capital movements and Iceland's increasingly globalised trade. Income receipts amounted to less than 7 b.kr. in 1996 but exceeded 167 b.kr. in 2006. Exports of goods and services barely doubled over the same period. Income expenditures, however, have outstripped receipts, growing from 18 b.kr. in 1996 to 268 b.kr. in 2006. The deficit on income accounted for roughly one-third of the current account deficit in 2006.

Chart 1
International investment position
Q1/1998 - Q4/2006



Sources: Statistics Iceland, Central Bank of Iceland.

1. Daníel Svavarsson is an economist at the Central Bank of Iceland Economics Department and Pétur Örn Sigurdsson an economist at the Statistics and IT Department. They would like to thank Arnór Sighvatsson, Ásgeir Danielsson, Jakob Gunnarsson, Tómas Örn Kristinsson and Tryggvi Pálsson for their comments on earlier drafts of this paper. The authors bear sole responsibility for any errors that may remain. The views expressed in this paper are those of the authors and do not necessarily reflect the views of the Central Bank of Iceland.

The scale of foreign investment and borrowing is not the only factor impacting Iceland's net IIP. In addition to these annual flows, two items are particularly important. First, the revaluation of foreign assets and liabilities in order to account for changes in the exchange rate and market value. Heavy foreign indebtedness heightens exposure to exchange rate volatility, which increasingly depends on foreign investor sentiment about the economic situation in Iceland. Second, returns on different classes of assets and debts vary, and so do asset risks, compounded by the fact that the methodology estimates of the value of assets depends upon their type. If the composition of the outward and inward investment stock differs, a mismatch can result between their respective returns. Thus net income might be heavily imbalanced even if the net investment position is close to balance. Different methodologies are used in revaluations of different components of the investment stock, and the same applies to estimates of returns. Thus the composition of assets and liabilities may affect the extent to which recorded statistics reflect their overall market value. This paper describes the development and composition of Iceland's foreign assets and liabilities, and how they are related to changes in the current account balance.

Box 1

Definitions of key concepts

Foreign assets and liabilities are classified according to the nature and scale of the investment in accordance with International Monetary Fund standards (IMF 1993). This Box explains the main concepts and their context in calculations of IIP.

Marketable securities. Investment by residents¹ in foreign equities and by non-residents in Icelandic equities is classified as portfolio investment provided that it does not exceed 10%. Units in mutual funds and debt instruments (bonds and notes) are also classified as portfolio investment.

Direct investment. If an investor acquires an active holding (defined as 10% or more of the equity capital), this is classified as direct investment. Once a direct investment relationship is established between a resident and non-resident company, all capital transactions between them are classified as direct investment, including loan transactions between a parent company and its affiliates.

Financial derivatives are swaps, forwards and futures, and options. Financial derivatives are inherently balanced on the asset and liability side when contracted, but a spread might occur due to price changes on settlement.

Other investments include trade credits and loans, currency and deposits.

Reserve assets are defined as foreign assets of the Central Bank which are accessible for intervention in the FX market.

1. Based on the domicile/residence of the investor.

The stock of foreign direct investment (FDI) is entered at book value while the annual FDI flow is recorded at transaction value.² A considerable discrepancy can occur between these two values when large shareholdings are acquired at a premium which the buyer decides to amortise on purchase. The investment is then entered in the balance sheet at the investor's book value rather than transaction value. Portfolio investments are entered at market value at the time of the transaction and the portfolio stock is stated at current market value.

Balance of payments

The balance of payments is divided into the capital and financial balance and the current balance.

Capital and financial balance = direct investment + portfolio investment + other capital + foreign reserves

The capital and financial balance shows flows of foreign assets and liabilities classified into direct investment, portfolio investment, other investment and the Central Bank's foreign reserves.

Current account balance = merchandise account + services account + balance on income + transfers

The current account balance shows exports and imports of goods and services, together with income and transfers.

Balance on income = dividends on equity investment + reinvested earnings + accrued interest + compensation of employees

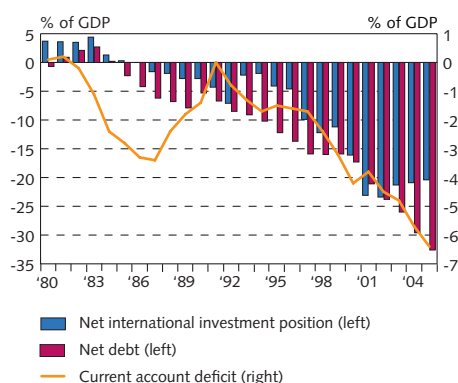
The balance on income comprises dividends and reinvested earnings from direct and portfolio investment, accrued interest on other investments and compensation paid to employees by employers in other countries. *Reinvested earnings* are total consolidated profit after dividends have been paid to shareholders and are defined as an additional investment in the case of companies in which the shareholding is classified as direct investment (i.e. more than 10%). Such an investment increases the company's equity capital. Likewise, an operating loss produces a negative return and depletes the equity capital. Dividend payments can also be so high that reinvested earnings are negative. A profit on a resident business owned by non-residents is entered as an expenditure in the balance on income. The sole purpose of the aggregation into dividends and reinvested earnings is to specify these expenditures. Current income and expenditures are therefore entered in the account irrespective of whether they take the form of a dividend payment or a reinvestment in the same company.

In the capital and financial account, securities investments are divided into equities and debt instruments. Investments in foreign equities for a shareholding of less than 10% are classified as portfolio investments. The return on such investments is captured in the balance of payments as dividend payments. Under the IMF methodology, an increase in the market value of such investments is not included, even if investors post such a rise in market value as income.

Income on debt instruments is accrued interest. For other investments, interest earned on loans to non-residents is also included in the balance on income. The only investment on which interest is not calculated is claims.

2. In their methodologies, the OECD and IMF recommend recording FDI at market value, while acknowledging the difficulties involving the valuation of unlisted companies. Lack of reliable data has hitherto hindered most countries, including Iceland, from recording FDI at market value. For comparability of data it is preferable that as many countries as possible agree on applying either market value or book value.

Chart 2
US net IIP and current account balance
Annual data 1980-2005



Sources: IMF, Lane & Ferretti (2006).

Issues regarding recording of foreign trade

Estimates of the balance of payments and IIP are based on international standards. Globalisation and the meteoric growth of cross-border capital flows have complicated data collection from so many different sources and slowed down processing of statistics. Thus in many cases the international standards are difficult to meet. Standards have come in for critical discussion in recent years. It has been pointed out that marked discrepancies can occur if the relative importance of direct and portfolio investment differs between countries. The diverse methodologies used to estimate these investments have a sizeable effect on the balance on income, as discussed later. The following section highlights certain questions and issues that have arisen in many countries including the US, UK, Sweden and New Zealand. It describes the findings of leading research in this field and examines the different underlying viewpoints.

Wide current account deficit and fairly negative IIP in the US, but positive balance on income

For many years the US has experienced a large and growing current account deficit. Provisional data indicate that the deficit in 2006 will exceed 6.5% of GDP (see Chart 2). Modest as this may seem compared with Iceland, the impact of a deficit of such size by the world's strongest economy is a cause of some concern. Opinions differ as to the sustainability of the US current account deficit. Some claim that it can go on growing without causing serious problems for the US economy, even though its persistent presence has led to heavy accumulation of foreign debt. They point out that, in spite of the deficit, the US balance on income has been positive on average in recent years.² Economists agree that part of the explanation lies in different methodologies for estimating different types of investment, in particular direct and portfolio investment. While some subscribe to the view – which is common in Iceland – that the discrepancy derives from underestimated asset value, others regard income expenditures as underestimated. Although conditions in Iceland differ in many ways from the problems faced in the US, there is doubtless a lesson to learn from them.

One focus of the debate about the US current account deficit has been returns on FDI. Official statistics indicate that US outward FDI investment yields more than double the return on inward FDI in the US (Gros 2006), while no significant difference is seen in other asset categories. As mentioned earlier, there are two types of return on direct investment: dividends paid to shareholders and reinvested earnings. On closer scrutiny it emerges that the return in the form of dividends from outward and inward FDI is similar. However, the return in the form of reinvested earnings is much higher from outward FDI. From 1984 to 2004, income receipts from reinvested earnings amounted to more than 1,100 billion US dollars on the US income account, but income expenditures a mere 20 billion dollars.

Gros (2006) argues that the discrepancy is probably too large for official statistics on reinvested earnings to be meaningful. He states

2. The total return on US outward investment was 5.3% in the first half of 2006, but on inward investment only 4.3% (Higgins, Klitgaard and Tille 2006).

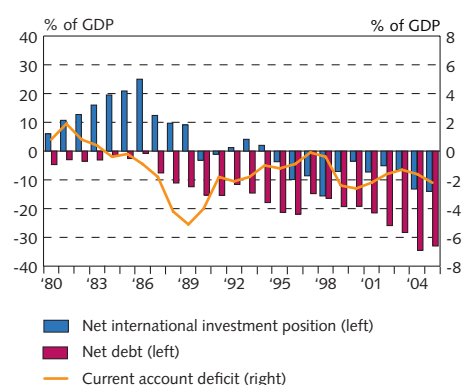
a variety of reasons. Most importantly, data on reinvested earnings from outward FDI are collected from surveys of American investors. For tax reasons they have no real incentive to understate their recorded profits, because these are not taxed in the US until they are realised. Foreign direct investors in the US, on the other hand, have an incentive to declare the lowest possible profit in order to minimise their tax payments (Gros 2006; Heath 2007). This hypothesis is supported by the fact that returns on inward portfolio investment in the US are considerably higher than on inward FDI. In the long run, foreign investors in the US must surely be unlikely to accept much smaller returns on their FDI in the US than in other countries. In a controversial article, however, Hausmann and Sturzenegger (2006a; 2006b) propose an explanation for the discrepancy between the development of net IIP and the balance on income in terms of "dark matter" that gives inward FDI in the US an advantage over that in other countries. Aspects of this dark matter include political stability and access to know-how. Consequently, the US should have little trouble in maintaining its present current account deficit, and even a growing one. The deficit is assumed to be self-funding through the positive balance on income, despite mounting debt.

Higgins *et al.* (2006), on the other hand, consider that if foreign debt continues to accumulate at an unchanged pace, the increasingly negative position will soon outweigh the positive returns on net FDI, resulting in a growing deficit on income.

Persistent UK current account deficit, yet net IIP is improving

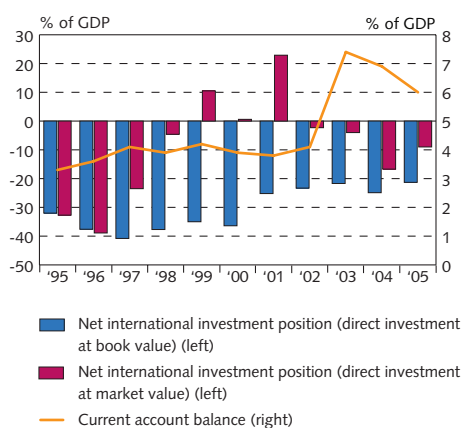
The UK has experienced a prolonged current account deficit. Over the past 20 years it has averaged the equivalent of 2% of GDP (see Chart 3) but in recent years the trade deficit has been worsening. Both foreign assets and liabilities have surged over the same period, by as much as 60% of GDP annually. Despite the persistent current account deficit and soaring foreign assets and liabilities, net IIP has only deteriorated marginally as a proportion of them (Whitaker 2006). If IIP is restated at market value, assets far exceed liabilities (Nickell 2006). The main reason for the growth in net foreign assets despite decades of deficit is the divergent composition and returns on the asset and liability sides. For many years, average returns on outward investment have been roughly 2% higher than on foreign debts. This bias in returns is largely explained by a considerable slant towards equities on the asset side, while interest-bearing instruments such as bonds and ordinary deposits predominate on the liabilities side. One of the main factors is that the UK's outward FDI has, on average, well surpassed inward FDI, with net assets in this category in the range 200-300 billion pounds sterling over the past six years. As in most other countries, returns on FDI have been higher than for other investments. By itself, the larger share of direct investments on the asset rather than the liability side explains part of the contradiction pointed out above. Interestingly, however, the situation in the UK and US appears to be similar in that returns on UK outward FDI seem to be greater than on inward FDI. In 2005, for example, outward FDI generated a return of 11% while inward FDI yielded 7%. If the FDI balance sheet is adjusted

Chart 3
UK net IIP and current account balance
Annual data 1980-2005



Sources: Lane & Ferretti (2006), OECD.

Chart 4
Sweden's net IIP and current account balance
Annual data 1995-2005



Sources: OECD, Sveriges Riksbank.

for market value, the return on the asset side falls to just over 5% and on the liabilities side to just over 3%, as Nickel (2006) has calculated. Nonetheless, a sizeable outward bias remains. Thus the sustainability of the current account deficit relies on maintaining a high proportion of equities in FDI and the continued presence of this largely unexplained difference between returns.

Sweden shows a current account surplus but little improvement in net IIP

Unlike the UK and US, Sweden has produced a sizeable current account surplus for some years (see Chart 4) which is largely explained in recent years by surpluses on the trade account. However, it has not been reflected in growth of foreign assets net of foreign liabilities. The accumulated current account surplus over the period 1989-2005 amounted to 995 billion Swedish kronor (SEK), while net IIP improved by only just over 50 billion SEK. Studies by Blomberg and Falk (2006) and Lane (2006) largely explain this in terms of differing returns on assets and liabilities, and exchange rate movements. Since both the foreign asset and liability stock have swollen in recent years, the current account balance has progressively less effect on the development of the net position. The impact of changes in the SEK exchange rate and equity price developments relative to international markets outweigh the contribution of the current account balance to IIP.³ At the end of 2005, Sweden's net outward investment stock amounted to 2,600 billion SEK. A depreciation of the SEK by 8% would have boosted the IIP by 208 billion SEK, compared with the current account surplus in 2005 of 188 billion SEK. The opposite effect would have applied had the Swedish krona appreciated. However, since the bulk of inward investment in Sweden is denominated in Swedish currency, movements in the SEK against foreign currency have no effect on its value.

Inward equity portfolio investment is considerably larger than outward portfolio investment. However, equity prices have risen by more in Sweden than in international markets. This item has therefore made a negative contribution to the net position for most of the period. The combined effect has been that Sweden's net IIP has not improved in pace with the large surplus shown on its current account balance in recent years.

Developments in New Zealand similar to Iceland

Economic developments in New Zealand in recent years have resembled those in Iceland in various ways (see e.g. Appendix 2 in *Monetary Bulletin* 2007/1). Its current account deficit has grown annually and was equivalent to 9% of GDP in 2005 (see Chart 5). Contrary to the pattern in the countries discussed above, the development of net IIP has tracked the current account deficit (see e.g. Medina, Munro and Soto (2006)). Net IIP was negative by the equivalent of 89% of GDP

3. It should be noted that the Swedish Central Bank, Sveriges Riksbank, records FDI at market value, and not book value like the Central Bank of Iceland. Converting FDI to book value would cause the net external position to deteriorate by more than 300 billion SEK from the beginning of 1989 to the end of 2005. Based on these calculations, as prescribed by the IMF, the current account balance has even less impact on Sweden's net IIP than the findings of Blomberg and Falk suggest.

in 2005 and balance on income negative by 7% of GDP (Edwards 2006). The main driver of the current account deficit – unlike Iceland until very recently – has been a deficit on income, not on the trade account. Heavy inflows of foreign capital are largely explained by close contact with Australia, the source of most of New Zealand's inward FDI. Large investments have been made in financial companies and other sectors which have recorded high profits in recent years. The result has been a strong outflow through reinvested earnings, which in turn has caused a sharp downturn in the balance on income. Similarly to Sweden, returns on outward investment have been considerably lower than on inward investment, averaging around 3% and 6% respectively in recent years (Edwards 2006).

Common characteristics

The above examples may be instructive for Iceland. As foreign liabilities and assets expand, minor changes in return on individual categories can have a large impact on the balance on income. Since the composition of assets and liabilities is rarely identical, their different rates of return may result in a positive balance on income even though net IIP is negative (and vice versa), provided that it is not seriously negative. Different weightings of FDI and equity portfolio investment can cause price developments to have a considerable impact on a country's net IIP, given the improbability that asset prices, exchange rates and interest rates will always develop in synchronisation. The impact will be greater, the larger the asset and liability stock. If assets and liabilities swell several times over, it can have a major effect on net IIP – or virtually none, as in the case of the UK.

International comparison

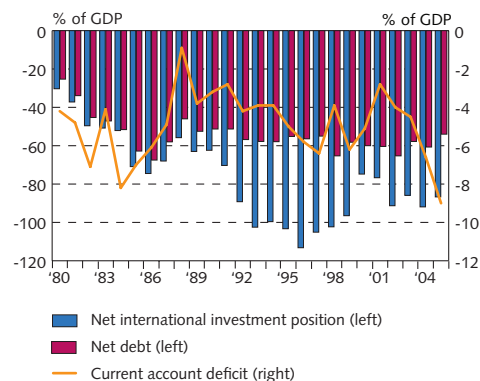
By international comparison, Iceland is in a league of its own in terms of both net foreign debt and net venture capital investment, as a proportion of GDP (see charts in Appendix).

The net IIP of many leading industrial countries is not dissimilar to the asset composition of hedge funds (Lane and Milesi-Ferretti 2006), in that the net debt position is negative but net equity investment⁴ is positive. In other words, most industrial countries are net foreign borrowers and use these funds for outward direct and portfolio investment. Among the G7 countries, only Japan has a positive net foreign debt position (with net equity investment equivalent to -2.2% of GDP in 2004 and net foreign debt of 22.5% of GDP in 2004,⁵ see charts in the Appendix).

In Iceland's case, outward equity investment is much greater than inward equity investment. Thus Iceland's net equity investment position is positive. As a proportion of GDP, Iceland has a very high level of outward equity investment, exceeded by only one country, the United Arab Emirates (see Chart b in the Appendix).

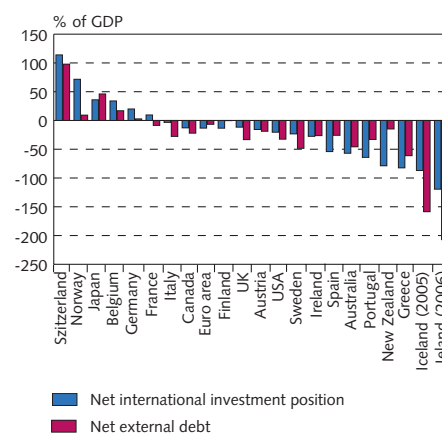
4. Equity investment is defined here as the total of direct investment and equity portfolio investment.
 5. Based on the database used by Lane and Milesi-Ferretti (2006), which is the largest containing comparable data on net IIP of most countries in the world. However, its data coverage extends only until 2004. Data compiled by the authors for 2005 indicate that Germany's net IIP was positive in 2005 (see Chart 6).

Chart 5
 New Zealand's net IIP and current account balance
 Annual data 1980-2005



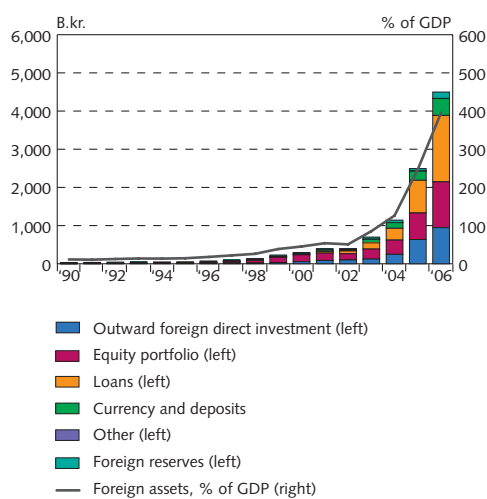
Sources: IMF, Lane & Ferretti (2006), OECD.

Chart 6
 Net IIP and external debt of selected advanced economies at end- 2005¹



1. And with data for Iceland for 2006.
 Sources: International Monetary Fund, central bank websites and statistics offices, Central Bank of Iceland.

Chart 7
Iceland's foreign assets
Annual data 1990-2006



Sources: Statistics Iceland, Central Bank of Iceland.

Recent development of assets and debts

For a clearer picture of Iceland's IIP, the composition of its assets and liabilities needs to be examined more closely.

Foreign assets

In 1995, Iceland's outward investment stock was equivalent to approximately 14.5% of GDP. Only eleven years later, in 2006, it had risen more than twenty-six-fold to 396% (see Chart 7). The composition of foreign assets has also changed substantially over this period. Reserve assets and trade credit once accounted for a significant portion of foreign assets but are now relatively unimportant. Instead, foreign lending has surged to 39% of foreign assets. The share of foreign equity has also almost doubled to roughly a fifth of the total foreign investment stock. On the other hand, inward equity investment accounts for only 6% of total foreign liabilities. Iceland's outward FDI was 946 b.kr. at the end of 2006, accounting for about 21% of the total.

Table 1 Composition of foreign assets 1995 and 2006

	Outward FDI	Equity portfolio	Debt securities	Loans	Currency and deposits	Trade credit	Foreign reserves
1995	19%	11%	10%	0%	13%	13%	34%
2006	21%	20%	6%	39%	10%	0%	4%

Lending by domestic credit institutions to foreign borrowers is one of the largest single contributors to this increase. Foreign lending amounted to 44 b.kr. in 2001 but had risen meteorically to 1,740 b.kr. in 2006. Pension funds' foreign portfolios have also soared to just over 442 b.kr. at the end of 2006, accounting for 10% of Icelandic residents' total foreign assets and 37% of foreign portfolio holdings.

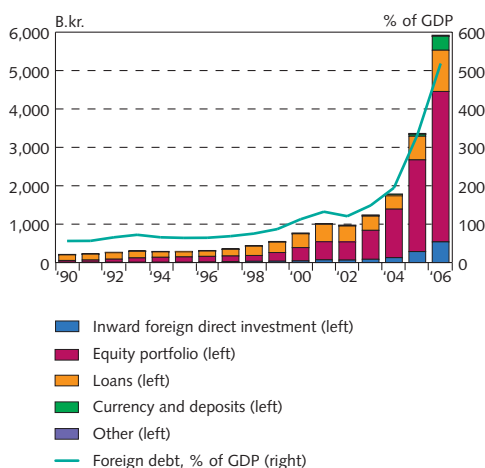
Extensive direct, portfolio and real estate investment by other Icelandic residents explains the rest of the growth in assets. Outward FDI and equity portfolio exceeded inward by 974 b.kr. at the end of 2006.

Outward investment has been predominately in banking and financial services, but also extends to the retail and services sectors, food production, pharmaceuticals and transport. Total outward FDI stock amounted to 635 b.kr. at the end of 2005, of which the three commercial banks and one investment bank accounted for 144 b.kr. Inward FDI totalled 286 b.kr. at the same time, 61 b.kr. of which was holdings in one commercial bank and one investment bank.

Foreign debt

Iceland's total foreign debt was equivalent to 518% of GDP at the end of 2006, up from 332% of GDP at the end of 2005 (Chart 8). Part of this substantial increase is explained by an 18.8% depreciation of the króna in 2006. Credit institutions accounted for 82% of Iceland's total foreign debt. Public sector debt amounted to 263 b.kr. at the end of 2006 while debt of other sectors (other credit institutions and businesses) was 516 b.kr.

Chart 8
Iceland's foreign liabilities
Annual data 1990-2006



Sources: Statistics Iceland, Central Bank of Iceland.

The increase in debt largely reflects the growth of the foreign investment stock. Icelandic banks have played a major role in brokering foreign capital for domestic investors and have invested extensively abroad on their own account. Also, a sizeable share of the banks' extra foreign debt has gone to fund domestic lending, some of which has then been used to invest abroad. Central and local government, on the other hand, were not responsible for the increase in foreign debt, because the public sector retired a substantial amount of its foreign

Table 2 Composition of foreign liabilities in 1995 and 2006

	Inward FDI	Equity portfolio	Debt securities	Loans	Currency and deposits	Trade credit	Other
1995	3%	0%	48%	46%	0%	2%	1%
2006	9%	6%	63%	16%	6%	0%	0%

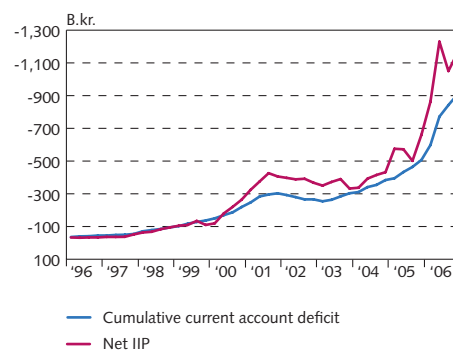
debt over the period.⁶

Current account deficit explains only part of worsening net IIP

A current account surplus indicates that part of national saving has been deployed on foreign investment or to prepay foreign debt. With a deficit, on the other hand, residents are overspending and accumulating foreign debt. Ideally, a cumulative current account surplus ought to be exactly matched by the development of net IIP. These two aggregates were in fairly close alignment until 2000 (see Chart 9). Until 1995, foreign borrowing and foreign investment were controlled by government agencies and both outward FDI and portfolio investment were rare. The European Economic Area (EEA) Agreement revolutionised access to foreign investment opportunities. In connection with privatisation of the banks, which was launched in 1998 and completed in 2003, there was a surge in both foreign assets and foreign debt.

The development of the debt position from 2000 onwards is considerably less favourable than the cumulative current account balance would appear to warrant. Chart 9 shows the cumulative current account deficit and the development of net IIP since 1996, when Iceland's foreign trade was broadly in balance. The main reason for the discrepancy lies in changes in the value of assets and liabilities. Over the period 2000-2002, for example, the slump in international equity prices may be expected to have wiped more than 72 b.kr. off the value of Iceland's foreign portfolios. Offsetting this in part, foreign equities increased in value by more than 21 b.kr. in domestic currency terms, due to depreciation of the króna.

Chart 9
 Cumulative current account deficit
 and development of net IIP



Sources: Central Bank of Iceland data and calculations.

6. In 2000, government foreign debt amounted to 167 b.kr. In 2005 it had risen to 172 b.kr., while total foreign debt of the economy had swollen by 2,592 b.kr. Government foreign debt increased by 91 b.kr. in 2006, largely due to a Treasury bond issue at the end of the year to boost the Central Bank's foreign reserves. Over the same period, Iceland's total foreign debt grew by 2,569 b.kr. Foreign debt of credit institutions has increased in pace with their expanding balance sheets. The banks' foreign debt amounted to 4,220 b.kr. at the end of 2006, compared with 453 b.kr. at the end of 2002.

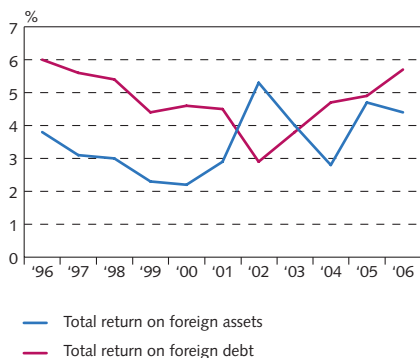
What contribution has outward investment made to the Icelandic economy?

The preceding discussion addresses Icelandic foreign investment and debt accumulation. It points out that soaring assets and debt in recent years have, on their own, increased the importance of the balance on income in the current account balance. In light of this development, it is interesting to examine the return on outward investment and the corresponding development of debt (Chart 10).

Has income from foreign investment increased in pace with the growth of the stock?

It is noteworthy that 41% of Iceland's foreign assets can be classified as equity investment, i.e. direct investment and portfolio in equities. Only 14.6% of debt falls into this category, however. As pointed out above, only one country has a higher proportion of its GDP tied up in outward equity investment. It might seem natural to infer that the return on outward investment is therefore higher than on foreign debt.

Chart 10
Return on foreign assets and debt
Return on weighted average



Sources: Central Bank of Iceland data and calculations.

Table 3 Average outward and inward rate of return 1996-2006

	Outward return (%)	Inward return (%)	Difference (%)
Total investment	3.5	4.8	-1.3
Direct investment	7.5	12.7	-5.2
Own funds	9.1	15.7	-6.6
Intracompany lending	3.0	4.5	-1.5
Securities ¹	1.4	4.6	-3.2
Equities	0.9	2.5	-1.6
Debt instruments	4.4	4.7	-0.3
Other investment	3.7	3.9	-0.2

1. Return on outward portfolio investment was obtained from a survey of Iceland's largest pension funds.

As Table 3 shows, returns on both inward and outward FDI are noticeably greater than for other categories. One reason is that FDI is recorded at book value and does not follow equity market price developments. Given the growth of both the outward and inward FDI stock, it is likely to be underestimated relative to market value. Another explanation for high returns on FDI is the generally higher degree of risk. It is natural for average return to be higher as a premium for investors. However, contrary to balance on income developments in the US and UK, the average return has been much higher on inward FDI in Iceland than on outward FDI.

Over the period 1996-2006, the average return on outward FDI was 7.5%. Inward FDI, on the other hand, produced an average return of 12.7%, an apparent difference of 5.2 percentage points (Table 3). Thus the average return on outward FDI would seem to be markedly poorer than on inward FDI. Bearing in mind that outward FDI accounts for a larger proportion of Iceland's foreign assets than inward FDI in foreign liabilities, the difference in return is clearly an important factor in the current account balance. The misalignment in returns derives from the much lower operating profit reported by foreign companies owned by residents compared with Icelandic companies owned by non-residents.

While Icelandic-owned foreign companies showed a lower profit than foreign-owned companies in Iceland, this is not to say that it was small, especially given that that outward FDI did not begin to snowball until 2000. Much outward FDI is therefore relatively new, and it may take the acquired companies several years to perform on target. Operating losses incurred by Icelandic-owned foreign companies over the period 1996-2006 are one of the main reasons that returns on outward FDI are weaker than on inward FDI. By the same token, robust profits by foreign-owned Icelandic companies in 2004-2006 strongly affect the average return.

The average return on outward FDI was 7.6% in 2004, and in 2005 it had risen to 13.5%, which is a fairly high ratio relative to other countries discussed in this paper. Return slipped back to 9.9% in 2006 (see Table 4). Average return on inward FDI was far higher over this period, measuring 32.4% in 2004, 31% in 2005 and 23.2% in 2006. In the US, by comparison, the return on outward FDI was 8% in the first half of 2006 and on inward FDI 5.1% (Higgins, Klitgaard and Tille 2006).

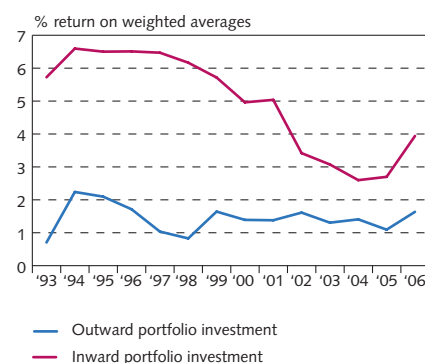
Table 4 Average outward and inward rate of return 2006

	Outward return (%)	Inward return (%)	Difference (%)
Total investment	4.5	5.7	-1.2
Direct investment	9.9	23.2	-13.3
Own funds	11.3	29.0	-17.7
Intracompany lending	2.6	3.3	-0.7
Securities	1.6	4.0	-2.4
Equities	1.2	1.2	0.0
Debt instruments	3.5	4.3	-0.8
Other investment	3.7	4.1	-0.4

The average return on portfolio investment and direct investment makes an instructive comparison. As Table 3 shows, the average return on outward portfolio investment over the period 1996-2006 was only 1.4%, compared with an average of 4.6% on inward portfolio investment (see Chart 11). Focusing on 2006 alone, the margin has narrowed but is still unfavourable to Icelandic investors by 2.4 percentage points (see Table 4). The difference is explained entirely by higher interest rates on Icelandic debt instruments than foreign ones, because the rate of return on inward and outward equity investment was the same in 2006.

An important consideration when comparing the average respective returns on direct and portfolio investments is the different methodologies used to measure them, which generally produce a much higher figure for the former. Low dividend payments and the absence of adjustment for market value are the most important factors.

Chart 11
Return on outward portfolio investment
and inward portfolio investment
Return on weighted average



Sources: Central Bank of Iceland data and calculations.

Is income from FDI underestimated or overestimated in the balance of payments?

In recent years a number of partly or wholly foreign-owned companies in Iceland have reported record profits. Iceland has witnessed one of the highest levels of outward FDI growth in the world and foreign portfolio holdings have expanded enormously. These and other trends have occurred at the same time as Iceland has shown a persistent current account deficit. Unsurprisingly, this development has provoked speculation among local and international analysts about whether the deficit gives a true picture of the external position. Both the expenditure and income side of the balance of income have been called into question and are summarised in Table 5.

Table 5 Issues concerning balance on income estimates

<ul style="list-style-type: none"> • Low dividend payments on portfolio investment and no allowance made for increases in market value. 	<ul style="list-style-type: none"> • Reinvested earnings from direct investment.
<ul style="list-style-type: none"> • Book value of shares in foreign associates and subsidiaries. 	<ul style="list-style-type: none"> • Foreign holding companies owned by residents.
<ul style="list-style-type: none"> • Posting of goodwill when foreign companies are acquired. 	<ul style="list-style-type: none"> • Residents' (private individuals') purchases of real estate abroad.

Reinvested income from direct investment

Low dividends on portfolio investment and higher profits from inward than outward FDI in recent years have brought reinvested earnings under increasing scrutiny. Accordingly, it is worth examining the origin of this concept and the economic significance of reinvested earnings.

It was not until 1997 that reinvested earnings were included as a separate FDI item in Central Bank of Iceland statistics.⁷ This was described in the December 1997 edition of the Central Bank's monthly statistics, *Hagtölur mánaðarins*:

"Note that the current account balance for previous years has been revised to include reinvested earnings from direct business investment in the balance on income. Only dividend payments have hitherto been classified as factor income, but all profit is now included as a dividend on FDI. Thus dividends and reinvested earnings are now entered in the balance of payments when they occur rather than on the date of payment. Resident investors' shares in the profits of foreign companies represent income, while non-resident investors' shares in the profits of domestic companies are posted as expenditure. Reinvested earnings less dividends are offset with a counter-entry in the capital and financial account under direct investment. Large losses by foreign-owned companies in Iceland in 1990-1993 reduce the current account deficit by 1-2 b.kr. annually. In recent years more profit has been shown on inward FDI than outward FDI, causing the current account balance to deteriorate."

In very recent years, the proportion of reinvested earnings has grown exponentially in data for inward FDI in Iceland. The proportion

7. The concept proved problematic for many countries and for a long time reinvested earnings could not be measured, since they were not recorded in payment systems (ITRS).

of reinvested earnings from outward FDI has increased by less over the same period. This development is shown in Table 6. The explanation is that the combined profit of partly or wholly foreign-owned companies in Iceland has greatly exceeded that of foreign companies partly or wholly owned by Icelandic residents.

Losses by foreign-owned companies in Iceland in 1999-2002 reduced the current account deficit for those years. By contrast, the combined profit of foreign-owned companies in Iceland in 2004-2006 was far greater than that of Icelandic-owned foreign companies, which caused the current account balance to deteriorate substantially, especially in 2005.

Table 6 Reinvested earnings and their impact on the current account

	<i>Reinvested earnings</i>		<i>Net</i>	<i>Current account balance excl. reinvested earnings</i>
	<i>Outward FDI</i>	<i>Inward FDI</i>		
1990	365	-762	1,127	-8,834
1991	114	-2,016	2,130	-18,119
1992	141	-1,833	1,973	-11,515
1993	194	-1,366	1,560	1,349
1994	-194	778	-972	9,492
1995	-187	160	-347	3,737
1996	360	931	-571	-8,129
1997	41	1,441	-1,400	-8,059
1998	138	1,127	-988	-38,812
1999	1,212	-3,794	5,006	-47,927
2000	419	-1,552	1,971	-71,410
2001	4,449	-2,394	6,843	-40,208
2002	12,547	-3,267	15,814	-3,279
2003	13,914	5,836	8,078	-48,193
2004	9,527	31,487	-21,960	-69,023
2005	54,302	61,794	-7,492	-157,296
2006	75,283	86,568	-11,285	-300,321

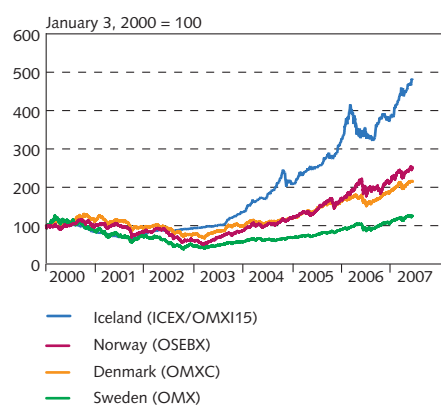
In m.kr.

Income receipts comprise dividends and reinvested earnings from direct investment, and accrued interest on other investments. Reinvested earnings are similar in character to accrued interest in that they are a measurement of accrued return which will be paid out later. Earnings are added to a company's capital until they are paid out as a dividend, or in the final event when the company is sold. Reinvested earnings are measured quarterly. The growing scale of income receipts and expenditures has made the balance of payments more volatile.⁸

In direct investments, reinvested earnings measure accrued income that strengthens the company's capital and thereby its market

8. Sveriges Riksbank takes the view that quarterly measurements of total profit should be calculated not from profit and loss account figures but as total profit less price adjustments and gains on sale of assets. The advantage of this method is that it reduces volatility. On the other hand, it probably still requires quarterly data from company accounts in order to be able to present an adjusted profit and loss account excluding volatile items, if necessary.

Chart 12
Equity indices in the Nordic countries
Daily data January 3, 2000 - May 18, 2007



Source: Reuters EcoWin.

value. As a rule a correlation may be expected between capital and market value, although the latter also reflects expected profits. A profit that is not paid out as a dividend is therefore entered both under receipts on the balance on income and as an investment in the capital and financial account. If a dividend is paid, the market value should decrease, all things being equal.

Portfolio investment⁹ is handled differently, because dividend payments are only entered as income without taking into account the reinvestment that ought to be reflected in higher market value of the equities. However, it could prove to be a time-consuming and complex process to estimate reinvestment on the basis of the respective funds' balance sheets, especially in the case of large portfolios such as units in foreign mutual funds. A conceivable but potentially volatile approach would be to present the estimated increase in equity prices as income, but this has not been done. Hitherto the methodology has involved regular reassessments of the asset position relative to market value. These considerations highlight how FDI and portfolio investment are treated using different methodologies. These different methodologies in the IMF *Balance of Payments Manual* (IMF 1993) can have an enormous impact, especially for a country that has large foreign portfolio holdings.

Net reinvested earnings in Iceland's balance on income were negative in 2004-2006 after being positive for the preceding five years (Table 6). The overall balance on income was also negative in 2004-2006 (see Chart 13), mainly as a result of the negative net IIP.

Although Iceland has substantial income receipts on outward FDI, these have not sufficed to offset expenditures to non-residents on their inward FDI in companies that are listed on OMX Iceland¹⁰ or unlisted. It should be noted that a large dividend paid by a single resident company that is wholly owned by one non-resident had a major effect on the reinvested earnings figures for 2003.

Hefty profits earned by many resident companies affected the reinvested earnings data for 2004-2006. Not all companies in Iceland in which non-residents have invested are listed on the stock exchange, but the development of the Main List (ICEX 15, now OMXI15, see Chart 12) indicates that many Icelandic companies have generated strong profits in recent years with correspondingly high returns for inward investors. Welcome as high profits may generally be, they do exert a negative effect on the balance on income.

Foreign holding companies owned by residents acquire holdings in resident companies

Ever since 1998, but especially since 2005, there has been a marked trend for foreign (holding) companies¹¹ that are at least partly owned by residents to acquire valuable shareholdings in companies listed on

9. An investment of less than 10% in equities and mutual fund units.

10. Iceland Stock Exchange was renamed OMX on April 3, 2007 when it merged into OMX Nordic Exchange.

11. In Iceland, "holding companies" is used as an umbrella term for a range of companies that may be very diverse in character. Some could qualify as Special Purpose Entities (SPEs) and others as offshore enterprises.

See *Glossary of FDI Terms*, <http://www.oecd.org/dataoecd/56/1/2487495.pdf>.

the stock exchange in Iceland. Their share in inward FDI in Iceland has grown substantially in recent years and one school of thought proposes ignoring announcements concerning such companies if they appear to be connected with residents in some way. It should be duly noted that Iceland's FDI statistics are compiled on the basis of the IMF and OECD methodologies, which recommend classifying residents and non-residents on the basis of their domicile. One data source for FDI statistics is announcements from companies listed on OMX Iceland.

Liberalised capital movements under the EEA Agreement, coupled with changes in the legal and institutional framework for the financial markets, and hence for the economy as a whole, have had an enormous impact on the scope and character of FDI. When capital movements were fully deregulated at the beginning of 1995, holding companies gradually emerged which had been established outside Iceland but partially or mostly owned by Icelandic residents. The 24.1% holding taken by Scandinavian Holding S.A. in FBA investment bank when it was privatised in 1998 can be described as setting the precedent.

Over the past two years, growing numbers of residents who own shares of 10% or more in companies listed on OMX Iceland, or in unlisted companies, have transferred their domestic holdings to foreign holding companies. For example, Iceland's outward and inward FDI statistics for 2005 were significantly affected by one resident's decision to transfer holdings in several Icelandic listed companies to a non-resident holding company. The effect on the balance on income was that the "foreign" investor's share in large profits posted by the resident company (in the form of both dividends and reinvested earnings) was recorded as income and investment by the country in which the holding company was domiciled. However, because the foreign holding company was owned by a parent company in Iceland, its profits were duly recorded in Iceland in the parent company's accounts and as income receipts in the balance on income, thus "turning full circle." Such transfers of holdings also need to be reflected in capital flows. Information is therefore acquired on the book value of holdings transferred to foreign holding companies, and a corresponding amount posted as inward FDI in the resident company.

A number of announcements were made in 2006 about the transfer of holdings in several valuable resident companies to foreign holding companies, which other things being equal will have a considerable effect on the balance on income over the years to come. In most cases, the underlying explanation for transferring the holdings is that Iceland levies capital income tax on the sale of equities, unlike many other European countries, for example the Netherlands.

There has been a growing trend for Icelandic companies and private investors to move their equity holdings abroad for the explicit purpose of avoiding capital income tax on their sale in Iceland. Although certain deferrals are allowed in Iceland, capital gains on sale of equities are broadly exempt from taxation in other European countries if certain conditions are met. Examples are Norway, Sweden, Denmark and the Netherlands. Although many other countries have no capital income tax on equity sales, many Icelandic residents have opted for

the Netherlands recently because its regulatory framework is easier and more convenient and other tax concessions are offered as well. Thus Iceland's low corporate income tax rate alone does not appear to sway resident investors when they decide where to domicile their companies.¹²

The viewpoint that all such transfers of holdings should be ignored raises a number of issues. First, accurate information is not always available about the owners of foreign holding companies. Although the spokesmen for these companies are generally Icelandic residents, and sometimes domiciled in Iceland as well, details of their ownership can be difficult to obtain. This is because the companies are domiciled outside Iceland and enquiries have to be directed to the relevant country, or to their spokesmen who may or may not be domiciled in Iceland. One main source of details about their ownership is prospectuses for IPOs by listed companies, but there may be a long lag between the time an investment is made in a listed company by a foreign holding company and the publication of an IPO prospectus.

Another point to remember is that most foreign holding companies owned by residents prepare their financial statements according to Icelandic accounting methods, so that their profits are returned in full to the Icelandic parent. The main change is that custodianship of investments in Icelandic resident companies is with foreign holding companies. Custodianship of shareholdings outside Iceland has no effect on the accounts of the Icelandic parent company.¹³

As illustrated above, transfer of investments in resident companies to foreign holding companies can have a major impact on FDI statistics. In this context, it may be noted that several reports on the Icelandic economy in 2006 drew attention to cross-ownership and concentration among Icelandic companies.¹⁴ In 2004, 8 companies owned 78% of Iceland's outward FDI stock, including one which owned 35%.

Low dividend payments and no account taken of increases in market value of portfolio investment

Many limited companies and mutual funds offer returns to investors in the form of possible gains in the market value of their shares instead of paying out dividends. Companies that pay dividends base them on the nominal share price, which gives a low dividend yield ratio. This is clearly illustrated by the pension funds' much higher returns on their foreign portfolio investments than the figures in Table 3 would suggest. In the pension funds' calculations, the bulk of the return is in higher market value, not dividends received.

12. This issue was also discussed (in Icelandic) in *Morgunblaðið* newspaper business supplement on January 11 (p. 12) and January 25, 2007 (p.8).

13. Bill No. 685/2007 on Income Tax (capital gains on sales of equities), which was presented to the last session of parliament, would have abolished taxation of companies' equity portfolios on fulfilment of certain conditions. It would have greatly reduced or eliminated the advantages of transferring portfolios to foreign holding companies. Parliament did not reach an agreement on its passage before the recession in March 2007.

14. See e.g. the Merrill Lynch report *Icelandic banks: credit curves to steepen*, September 20, 2006.

As mentioned earlier, balance of payments figures do not include any possible increase in market value of portfolio investments. This is consistent with the methodology in the IMF's *Balance of Payments Manual* (IMF 1993), which states that holding (capital) gains and losses are not classified as income on investments but as part of the value of the investments.¹⁵ Various complications would arise if changes in the value of foreign securities were included in balance on income calculations. Some commentators consider it undesirable to measure value changes because negative returns would need to be measured in a market downswing.

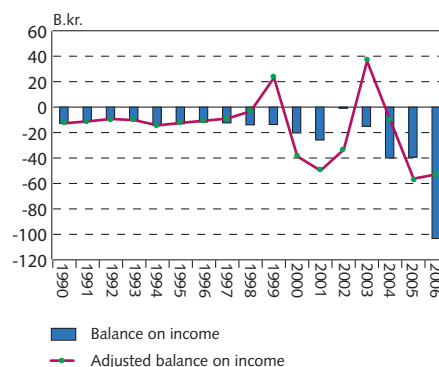
In fact it is fairly easy to estimate the impact of including these factors in balance on income calculations. Chart 13 shows the development of the balance on income over the period 1990-2006 and an estimate of the possible development if changes in equity prices had been calculated as returns. Price changes are calculated as the residual product of changes in the stock (which is entered at market value), annual flows, the exchange rate of the króna and other adjustments. As the Chart shows, the two aggregates do not diverge noticeably over the first part of the period, but after 1997 the adjusted balance of income shows much more volatility than the conventional measurement. Since net balance on income is either much more positive or more negative during individual periods, it cannot be taken for granted that one methodology would necessarily give a more favourable picture of the position than the other. Chart 14 shows the impact on the current account balance of including changes in the market value of equities in the balance on income. On the basis of these calculations, the current account deficit was quite sharply overestimated in 2006. Including market value increases in portfolio returns would show a current account deficit equivalent to 22.3% of GDP instead of 27.7%. However, the current account deficit would then have been strongly underestimated in 2005 and over the period 2000-2003.

Resident companies' subsidiaries and associates are rarely listed on stock exchanges

It has been claimed that Iceland's outward FDI stock is underestimated because, in line with IMF standards, it is entered at book value and not market value. Resident companies' foreign subsidiaries and associates are rarely listed on foreign stock exchanges. This complicates any assessment of the impact that other methodologies would have on FDI statistics.

Iceland's inward FDI stock, which is currently entered at book value, would probably increase significantly if it were entered at estimated market value. The value to capital ratio of foreign-owned listed domestic companies provides an indication of whether market and book value diverge more in Iceland than elsewhere. However, a substantial proportion of inward FDI in Iceland is in unlisted companies. The three local aluminium producers (Alcan Iceland, Norðurál and Al-

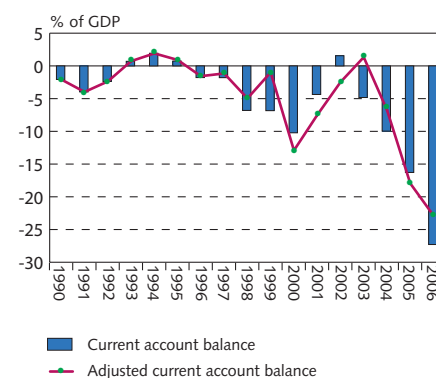
Chart 13
Balance on income including
and excluding equity price movements¹



1. Including current transfers.

Sources: Central Bank of Iceland data and calculations.

Chart 14
Current account balance including
and excluding equity price movements



Sources: Central Bank of Iceland data and calculations.

15. The IMF's Balance of Payments Manual is currently under review. Definitions and methodologies for evaluating direct and portfolio investment are among the possible changes (see IMF (2004)). However, the review has not been concluded.

coa Iceland), for example, are not listed on OMX Iceland. Investment in the metals sector accounted for 38 b.kr. of total inward FDI of 252 b.kr. at the end of 2005.

Amortisation of goodwill

Direct investment flows in a given year are not necessarily reflected in the difference between stocks at the beginning and end of that year. The reason is that stocks are entered on an accounting basis but flows on a payments basis. One explanation for discrepancies between flow and stock sizes has been that residents have paid a premium for acquisitions over and above their value as given in annual financial statements, stemming from estimated goodwill which is subsequently amortised. Changes in other values such as the exchange rate of the króna also exert an impact. To cite one example, in 2004 a domestic company acquired a foreign company for 86 b.kr. However, the capital of the foreign company was only 58 b.kr., creating a sizeable discrepancy between the acquisition price, which is one element in the aggregate flow, and the book value of capital, which together with loans forms the asset stock.

Icelanders' purchases of overseas property

In the debate about conceivable underestimates of Icelandic residents' foreign assets, it has been mentioned that a large number of Icelanders are known to have invested in residential property, e.g. in Spain and Florida. Under Central Bank rules on purchases of property abroad, which entered into effect on September 1, 1990, residents were allowed to acquire real estate in other countries. Initially the maximum purchase price was restricted to 3.75 m.kr. The limit was raised on January 1, 1991 and again later that year, then abolished on January 1, 1993. A survey of foreign real estate ownership was made in 1991 and 1992. Another survey was conducted in 1994, but the data turned out to be flawed. In the balance of payments, net flows on real estate purchases are measured from currency flows based on domestic financial institutions' International Transaction Reporting System (ITRS) data, but these figures are no longer substantial relative to business FDI. The scope of real estate transactions has proved difficult to estimate, partly because they are not stated specifically on tax returns and therefore cannot be mined from Internal Revenue data. An estimate could be made by sampling tax returns or conducting a more comprehensive survey among businesses and households. A measurement of the net real estate stock would probably reveal sizeable assets abroad. However, the liability side would probably increase as well, since real estate purchases tend to be financed with mortgages, in many cases with a loan-to-value ratio of 80-90%.

Pension funds' foreign portfolio returns probably underestimated, but stock figures capture changes in market value

As mentioned above, there is a marked discrepancy between measured returns on pension funds' foreign portfolio investments and changes in their estimated portfolio value. The dividend payments on foreign portfolios that pension funds have reported have generally been very low. The measured return in the balance of payments has been around

2%, while pension funds have published figures in the range 10-20% for their foreign portfolio returns. These include increases in market value, stated in Icelandic currency. Pension funds have explained their low dividend receipts in terms of how uncommon dividend payments are in global financial markets. However, changes in market value are captured by stock figures, i.e. in IIP statistics. It has often been claimed that a better arrangement would be to state the increase or decrease in market value in the quarterly balance of payments statistics, so that changes in the market value of portfolios would also appear there and not only in the year-on-year stock figures.

Summary

Iceland has recorded a large current account deficit in recent years and the balance on income accounted for a substantially greater share of it in 2006. Various questions arise concerning collection of data on income receipts and expenditures and their relationship to the underlying asset and liability stocks. Some regard Iceland's deficit on income to be greatly overestimated. Even if the balance on income were measured differently, it is not certain that this would affect the current account deficit as drastically as is sometimes imagined. The reason is that the impacts are captured on both the asset and the liability sides. However, it seems likely that residents' foreign assets are underestimated by current methodologies. Outward FDI has been enormous in recent years and in some cases highly leveraged. Because the debts are fairly well known values but the value of the assets is more ambiguous and estimated using quite conservative methodologies, some discrepancy could occur. The same applies to estimates of inward FDI in Iceland. That amount is rather lower, so the net impact could be sizeable.

The Central Bank follows international standards in compiling its balance of payments statistics. As described above, there is a considerable disparity between the methodologies used to estimate returns on FDI and portfolio investment. The question arises whether international standards should be modified, for example to take into account changes in the market value of portfolios. Arguably, the low level of income receipts on portfolio investment is at odds with robust demand for foreign securities in recent years. However, taking full account of changes in market value could generate volatility in the balance of payments which would be completely unrelated to inward and outward payment flows. Thus no obvious solution is in sight for ensuring full consistency between the development of income receipts and expenditures and the underlying asset and liability stocks.

The proportion of outward FDI that is entered at book value is more than double the share of inward FDI in the gross debt of the economy (see Tables 1 and 2). Assuming that book value is lower than actual market value (which many indicators would suggest is the case), the deficit on net IIP is overestimated, but it is difficult to state precisely by how much, since the bulk of the investment stock is in unlisted companies. Notwithstanding the lack of methodology for estimating the "market value" of unlisted companies, various approaches may be applied to produce a working approximation. Alongside the statistics that are currently published in the IIP survey, it would be possible to

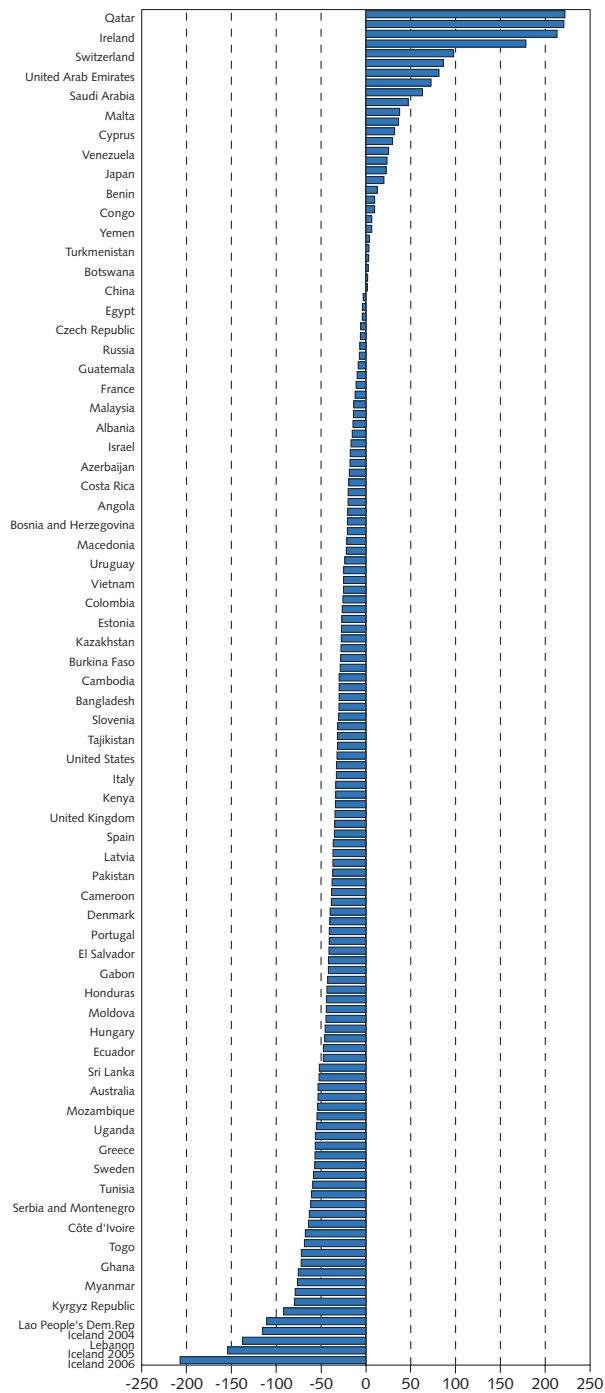
present, for example, stock figures for outward and inward FDI stated using the current cost method and market value method. These presentations could, for example, be based on the methodology currently used in the US (see e.g. Kozlow 2002).

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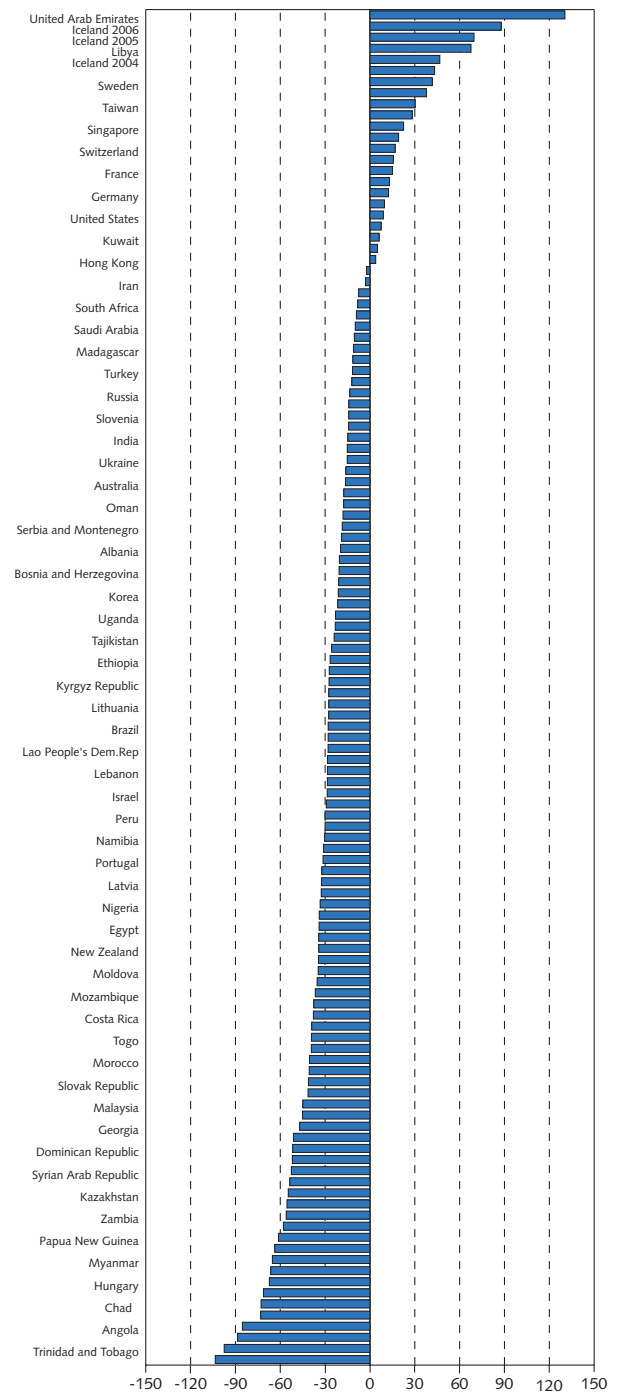
Appendix 1

Chart A
Net debt as % of GDP
Comparison of 139 countries in 2004¹



1. Data for Iceland 2004-2006, Luxembourg (2880% of GDP) and Brunei (720% of GDP) are omitted from the chart.
Sources: Lane and Ferretti (2006), Central Bank of Iceland.

Chart B
Net equity investment as % of GDP
Comparison of 122 countries in 2004¹



1. Data for Iceland 2004-2006, Ireland (-240% of GDP) is omitted from the chart.
Sources: Lane and Ferretti (2006), Central Bank of Iceland.

