



BoF Online

4 • 2011

**Effects of the new statistical
standards on Finland's FDI
positions**

Topias Leino

*The opinions expressed in this paper are those of the author
and do not necessarily reflect the views of the Bank of
Finland.*



Bank of Finland

Financial Stability and Statistics

26 May 2011

Contents

1	Introduction	4
2	The two core principles for calculating FDI	6
2.1	The asset/liability principle	6
2.1.1	Analytical use of asset/liability based FDI data	9
2.2	The (revised) directional principle	9
2.2.1	Rationale and interpretation of directional principle-based FDI data	14
2.2.2	The revision's impact on Finland's inward and outward FDI positions on an aggregate level	16
3	Analytical breakdowns of Finnish FDI data	18
3.1	FDI by counterpart country	18
3.1.1	FDI by immediate counterpart country	18
3.1.2	FDI by ultimate investing country	21
3.1.3	Cross-tabulation of FDI by ultimate investing country and by immediate counterpart country	23
3.1.4	FDI by ultimate host country	25
3.2	FDI by industrial classification	25
3.3	Special purpose entities (SPEs)	27
3.4	Other possible breakdowns	29
4	Concluding remarks	30
	Appendix 1. Data tables	32
	Appendix 2. Central concepts of FDI	36

BoF Online

Editor-in-Chief

Mika Pösö

ISSN

1796-9123 (online)

Postal address
PO Box 160
FI-00101 HELSINKI, FINLAND

Street address Snellmanin aukio
Phone +358 10 8311
Fax +358 9 174 872

Email
firstname.surname@bof.fi
www.bof.fi

Swift SPFB FI HH
Business ID 0202248-1
Domicile Helsinki

List of charts

Chart 1. Direction of direct investment relationship	10
Chart 2. FDI according to directional principle: investments between direct investor and direct investment enterprise	11
Chart 3. Fellow enterprises	11
Chart 4. FDI according to revised directional principle: fellow enterprise investments	12
Chart 5. The directional principle: problems in identifying pass-through funds	15
Chart 6. Finland's inward FDI position by immediate counterpart country at end-2008, BPM6/BD4 vs. BPM5/BD3, mEUR	19
Chart 7. Finland's outward FDI position by immediate counterpart country at end-2008, BPM6/BD4 and BPM5/BD3, mEUR	20
Chart 8. Finland's inward FDI position at end-2008 by country of ultimate investing country and immediate counterpart country, BPM6/BD4, mEUR	21
Chart 9. Finland's outward FDI position at end-2008 by country of ultimate controlling investor, BPM6/BD4	23
Chart 10. Finland's inward FDI position at end-2008 by industry, BPM6/BD4 and BPM5/BD3, mEUR	26
Chart 11. Finland's outward FDI position at the end of 2008 by industry, BPM6/BD4 and BPM5/BD3, mEUR	27

List of tables

Table 1. Finland's FDI according to asset/liability principle	6
Table 2. Finland's international investment position at end-2008, mEUR	7
Table 3. Standard presentation of Finland's FDI positions at end-2008 according to asset/liability principle, mEUR	8
Table 4. Finland's inward FDI according to directional principle	13
Table 5. Finland's outward FDI according to directional principle	13
Table 6. Finland's FDI positions at end-2008 according to directional principle, mEUR	16
Table 7. Finland's inward FDI position at end-2008, mEUR	16
Table 8. Finland's outward FDI position at end-2008, mEUR	17
Table 9. Finland' inward FDI at end-2008 by immediate counterpart country (ICC) and ultimate investing country (UIC), BPM6/BD4, mEUR	24

1 Introduction

The compilation of Foreign Direct Investment ¹ (FDI) statistics is largely based on international standards set by the OECD and the IMF. The Bank of Finland, responsible for compiling official FDI statistics for Finland, is currently applying the 3rd edition of the OECD's *Benchmark Definition of Foreign Direct Investment (BD3)* and the 5th edition of the IMF's *Balance of Payments and International Investment Position Manual (BPM5)*.

Since the publication of these standards in mid-1990s, the increased globalization of economies and the growing complexity of multinational enterprises have led to a significant increase in the number of cross-border transactions regarded as FDI. Meanwhile, an increasing share of recorded FDI transactions are no longer related to actual *investments* (in the traditional sense), but to various types of *pass-through transactions* where multinational enterprises channel funds through their affiliates in one country to those in other countries for the purpose of facilitating group financing or gaining administrative, tax, regulatory or other such advantages.

To adapt the statistical standards to the changing economic and financial realities and to retain the traditional meaning of FDI statistics, the OECD and IMF published revised versions of their statistical standards for FDI; the OECD its 4th edition of *the Benchmark Definition of FDI (BD4)* in 2008 and the IMF its 6th edition of the *Balance of Payments and International Investment Position Manual (BPM6)* in 2009.

The Bank of Finland, along with many other national compilers of FDI statistics, is currently in the process of implementing these new standards in its FDI data collection and compilation system. The process, which is coordinated at European level jointly by the European Central Bank and the Eurostat, is due to be completed by 2014.

The purpose of this paper is to present an overview on how the new standards change the calculation and presentation of FDI statistics and to illustrate the effects of these changes on Finland's FDI positions, based on 2008 data. The specific focus of the paper is on *FDI positions* (or *FDI stocks*). Corresponding changes will also be implemented for *FDI flows* (or *FDI transactions*) and on *FDI income* data, but these are not explicitly covered in this paper.

The paper is organized as follows. The second chapter presents the two alternative (or core) principles for calculating FDI, namely *the asset/liability principle* and *the directional*

¹The concept of FDI and some other central concepts discussed in this paper are briefly explained in Appendix 2.

principle. Although both calculation principles were present already in the currently applied standards (BPM5 and BD3), it is useful to review them in this context.

The asset/liability principle is crucial, since the new standards recommend applying this principle *primarily* in presenting aggregated data on FDI in the context of Balance of Payments (BoP) and International Investment Position (IIP) statistics, whereas the currently applied standards recommend the directional principle as the primary method and the asset/liability principle as an *alternative*.

The directional principle is also relevant, as the new standards present a revision to the calculation methodology of the directional principle with the aim of better segregating *pass-through funds* related to investments realized between *fellow enterprises*.² The data presented in this paper show that this revision has a moderate but significant impact on Finland's inward and outward FDI positions.

The third chapter focuses on different analytical breakdowns of FDI data which, according to the new standards, are to be calculated according to the directional principle. The paper shows the effect of the revision of the directional principle on Finland's FDI positions by country and by industry. The chapter also briefly discusses some of the new breakdowns that are recommended in the revised standards.

The fourth chapter summarizes the main conclusions of this paper.

The data presented in this paper are based on the Bank of Finland's annual and monthly Balance of Payments surveys complemented by data from a separate *fellow enterprise survey*, conducted in 2009, in order to quantify the impacts of the revised standards before their actual implementation. All the presented data relate to year-end positions in 2008.³

² That is, two enterprises that have the same direct investor (common parent) without either being a direct investor in the other.

³ Please note that the data presented in this paper are not strictly comparable with the data in the Bank of Finland's regular publications on FDI. This is due to differences in data collection methodology and possible revisions that occurred in the 'regular' data after they were disseminated for this paper. However, the presented data on FDI are intended to be comparable with the BPM6/BD4 compliant data that the Bank of Finland is committed to publish in 2014, after the new standards are fully implemented in the data collection and compilation system. The underlying raw data are also compatible with data submitted by Bank of Finland for the IMF's Coordinated Direct Investment Survey.

2 The two core principles for calculating FDI

2.1 The asset/liability principle

The asset/liability principle refers to the presentation of FDI data where financial claims on and obligations to all FDI counterparties (i.e. *foreign direct investors, foreign direct investment enterprises and foreign fellow enterprises*) are recorded depending on whether they relate to an asset or a liability from the perspective of the reporting economy.

Consequently, in Finland, direct investments by Finnish entities abroad are recorded as *FDI assets* and direct investments by foreign entities in Finland as *FDI liabilities*. The calculation of FDI according to the asset/liability principle is elaborated in the table below.

Table 1. Finland's FDI according to asset/liability principle

FDI ASSETS =	FDI LIABILITIES =
<i>Investments by Finnish direct investors in direct investment enterprises abroad</i>	<i>Investments by foreign direct investors in direct investment enterprises in Finland</i>
+	+
<i>Reverse investments by Finnish direct investment enterprises in their direct investors abroad</i>	<i>Reverse investments by foreign direct investment enterprises in their direct investors in Finland</i>
+	+
<i>Investments by Finnish enterprises in their fellow enterprises abroad</i>	<i>Investments by foreign enterprises in their fellow enterprises in Finland</i>

The revised standards recommend applying the asset/liability principle in presenting aggregated data on FDI in the context of Balance of Payments (BoP) and International Investment Position (IIP) statistics, whereas the alternative *directional principle* (discussed in chapter 2.2) is recommended primarily for analytical breakdowns of FDI data.⁴ The currently applied standards, on the contrary, more generally recommend applying the directional

⁴ E.g. *FDI by country or by industry*.

principle as the primary method for all FDI data, whereas the asset/liability approach is presented as an alternative.

The Bank of Finland has thus far applied the directional principle for presenting both aggregated and disaggregated data on FDI. The changeover from directional to asset/liability approach would thus constitute a break in some series of aggregated data on FDI to/from Finland. This is illustrated in table 2, which presents Finland's international investment position at the end of 2008 by functional investment categories. In the table, direct investments are presented on both the *asset/liability* (A/L) and *directional* (DP) based.

Table 2. Finland's international investment position at end-2008, mEUR

<i>Investment category</i>	<i>Assets</i>		<i>Liabilities</i>		<i>Net (= A - L)</i>	
	<i>(DP)</i>	<i>(A/L)</i>	<i>(DP)</i>	<i>(A/L)</i>	<i>(DP)</i>	<i>(A/L)</i>
<i>Direct Investments</i>	78 494	125 373	51 754	98 632	26 740	26 740
<i>Portfolio Investments</i>		129 246		177 462		-48 216
<i>Loans and deposits</i>		76 981		81 866		-4 885
<i>Trade credits</i>		5 967		5 351		616
<i>Other debt liabilities</i>		11 190		5 142		6 048
<i>Financial derivatives</i>		93 235		92 972		263
<i>Reserve assets</i>		5 994		-		5 994
TOTAL	401 107	447 986	414 547	461 425	-13 440	-13 440
	<i>(DP)</i>	<i>(A/L)</i>	<i>(DP)</i>	<i>(A/L)</i>	<i>(DP)</i>	<i>(A/L)</i>

DP = direct investments calculated according to directional principle (as defined in BPM6/BD4),

A/L = direct investments calculated according to the asset/liability principle

The asset/liability based FDI figures are significantly greater than the corresponding *directional* figures. This is because, unlike the directional principle, the asset/liability principle does *not* incorporate offsetting of certain investment transactions. In other words, the asset/liability based figures are in gross terms whereas the directional principle based figures are in net terms (the methodology and rationale for netting some assets and liabilities under the directional principle will be discussed in chapter 2.2).

Naturally, the changeover from *directional* approach to asset/liability approach also affects the totals of international investment position assets and liabilities. However, the net of these two (i.e. *net international investment position*) is by definition the same regardless of which

calculation principle is applied to direct investments. This is due to the calculation methodology of the directional principle, where some investments by resident entities abroad are technically not treated as assets but as *negative liabilities*, and likewise some investments by foreign entities not as *liabilities* but as *negative assets* (as will be shown in chapter 2.2).

To underline the composition of FDI data, the new standards recommend that *the standard presentation of FDI according to the asset/liability principle* show separately investments made by *direct investors*, *direct investment enterprises* and *fellow enterprises* (table 3). Moreover, in the standard presentation, the data should be disaggregated by instrument type into *equity* and *debt instruments* (intra-group debt).

Table 3. Standard presentation of Finland's FDI positions at end-2008 according to asset/liability principle, mEUR

FDI ASSETS		FDI LIABILITIES	
of Finnish direct investors in direct investment enterprises abroad		of Finnish-based direct investment enterprises to foreign direct investors	
EQUITY	79 861	EQUITY	37 316
DEBT INSTRUMENTS	27 604	DEBT INSTRUMENTS	21 612
of Finnish direct investment enterprises in direct investors abroad (reverse investments)		of Finnish direct investors to foreign direct investment enterprises (reverse investments)	
EQUITY	3	EQUITY	0
DEBT INSTRUMENTS	9 323	DEBT INSTRUMENTS	28 435
of Finnish enterprises in their fellow enterprises abroad		of Finnish enterprises to their fellow enterprises abroad	
EQUITY	0	EQUITY	0
DEBT INSTRUMENTS	8 581	DEBT INSTRUMENTS	11 268
where UCP is resident in Finland*	3 457	where UCP is non-resident*	7 276
where UCP is non-resident*	5 124	where UCP is resident in Finland*	3 993
TOTAL	125 373	TOTAL	98 632

*) Investments between fellow enterprises are here further broken down by residency of the ultimate controlling parent (UCP). This breakdown is not according to the standard presentation but is recommended as a supplementary item. The breakdown is essential in calculating FDI according to revised directional principle.

2.1.1 Analytical use of asset/liability based FDI data

The asset/liability recording is applied on FDI primarily in presenting overall aggregate measures of FDI in the context of Balance of Payments (BoP) and International Investment Position (IIP) statistics. In the reporting economy, the aggregates of *FDI assets* and *FDI liabilities* indicate the overall volume of foreign assets and foreign liabilities that are classified as FDI.

The asset/liability recording is consistent with the recording of other functional investment categories in the Balance of Payments (BoP) and international investment position (IIP) statistics as well as with other components of national accounts. The presentation of FDI according to the asset/liability approach is also in line with the presentation of normal enterprise balance sheet data. This facilitates comparisons between datasets.

The BPM6 notes that FDI data according to the asset/liability principle are needed to *adequately monitor flows and positions*, and indicates asset/liability data to be of particular interest in the event that a country experiences a currency or other financial crisis.

On the other hand, the asset/liability approach may not be well suited for many other uses of FDI statistics. For example, asset/liability data may not be useful for evaluating a country's attractiveness to foreign investors or the level of its economic expansion abroad or, more generally, for analysing FDI from a real economic perspective. This is because *FDI assets* and *FDI liabilities* may largely consist of funds that merely pass through the FDI entities without much 'real economic' linkage to the host countries of these entities. Nor does the asset/liability recording provide information on the control centre of the FDI flows and positions. For such analytical purposes, *directional principle* based FDI data would arguably be more suitable.

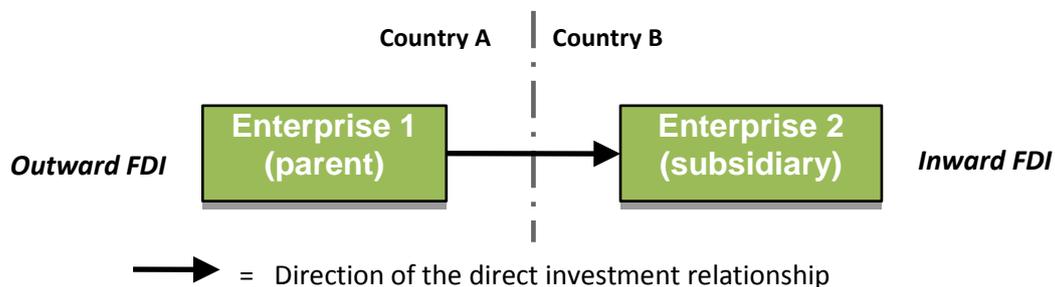
2.2 The (revised) directional principle

The directional principle refers to the presentation of FDI where the data are organized according to the direction of the direct investment relationship. The direction is *inward* if the influence that gave rise to the direct investment originated abroad and *outward* if the influence originated in the reporting economy.

The rationale in determining the direction of direct investment relationship is relatively straightforward in investments between a *direct investor* and a *direct investment enterprise*. The new and the currently applied standards of FDI are uniform in this respect.

Since direct investor is, by definition, an entity that exerts *significant influence* (at least 10% of voting power) or *control* (over 50% of voting power) over the direct investment enterprise, the standards define the direction of the direct investment relationship as being *from* the direct investor *to* the direct investment enterprise. Consequently, investments between a direct investor and its direct investment enterprise are recorded in the country of the direct investor as *outward FDI* (*direct investments abroad*) and in the country of the direct investment enterprise as *inward FDI* (*direct investments in the reporting economy*). This is elaborated in the chart 1 below.

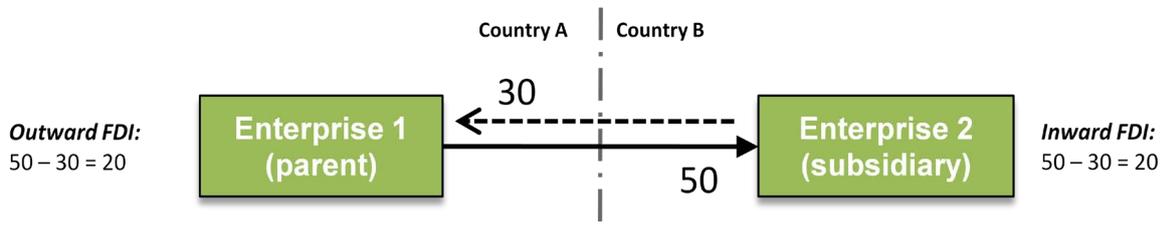
Chart 1. Direction of direct investment relationship



Here, enterprise 1 (parent) has at least 10% voting power in enterprise 2 (subsidiary). Consequently enterprise 1 is by definition a direct investor in enterprise 2. Investments between enterprises 1 and 2 are, under the directional principle, recorded in country A as outward FDI and in country B as Inward FDI.

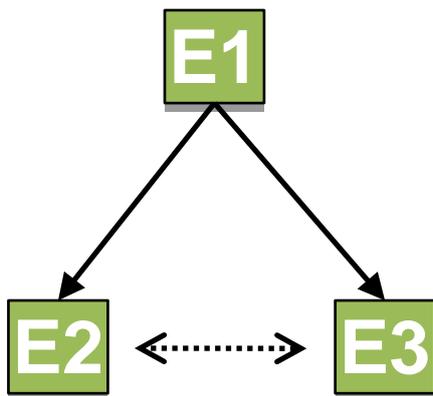
A distinctive feature in recording FDI according to the directional principle is that the data are in net value terms. Once the direction of direct investment relationship is established, investments by the direct investment enterprise in its direct investor (i.e. *reverse investments*) are deducted from initial investments by the direct investor and the result is recorded as *outward* or *inward FDI*, depending on the reporting country. This is elaborated in chart 2 below.

Chart 2. FDI according to directional principle: investments between direct investor and direct investment enterprise



Here, enterprise 1 (E1) in country A makes an equity investment of 50 units in enterprise 2 (E2) in country B. This gives E1 with at least 10% of the voting power in E2 (solid rightward arrow), and hence establishes the direct investment relationship between E1 and E2. Under the directional principle, the transaction is recorded in country A as a positive entry of 50 units in outward FDI and in country B correspondingly as inward FDI. Next, E2 provides an intra-group loan of 30 units to its parent E1 (leftward dashed arrow). Under the directional principle, this reverse investment is recorded in country A as a negative entry in outward FDI and in country B as a negative entry in inward FDI. The two investment transactions result in a net investment of 20 units from country A to country B, which is recorded in country A as outward FDI and in country B as inward FDI.

Chart 3. Fellow enterprises



Here, enterprises E2 and E3 are fellow enterprises, with enterprise E1 being their common direct investor. Note that the common direct investor is not necessarily the immediate direct investor (as in the example), but be higher in the ownership chain.

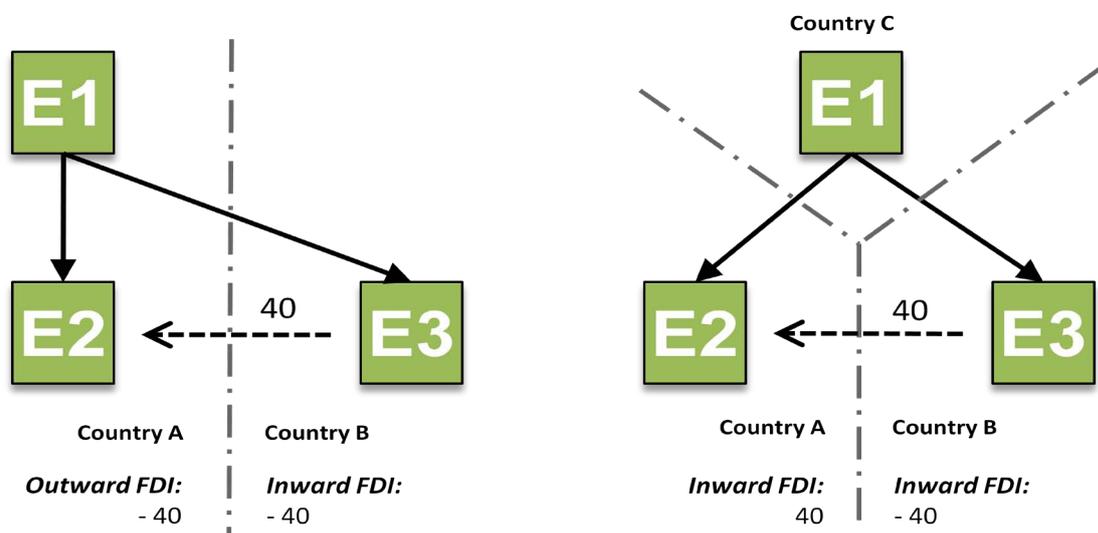
In addition to investments between *direct investors* and *direct investment enterprises*, FDI includes investments where neither counterparty has significant influence or control over the other. This is the case in investments between *fellow enterprises*.⁵ Since neither has at least 10% voting power in the other, the determination of the direction of direct investment relationship is less straightforward.

The currently applied FDI standards recommend applying the asset/liability approach for fellow enterprise investments even under the directional principle presentation of FDI. Thus all the assets in foreign fellow enterprises are to be recorded as *outward FDI* and all the liabilities to foreign fellow enterprises as *inward FDI*. This methodology does not acknowledge the concept of negative inward FDI or negative outward FDI (in investments between fellow enterprises).

⁵ That is, two enterprises with the same direct investor (or 'common parent') without either being a direct investor in the other.

The new standards introduce a revised version of the directional principle, where the directional principle is extended to cover investments between fellow enterprises. Under this 'extended directional principle', the direction of the direct investment relationship between fellow enterprises is determined by the residency of their *ultimate controlling parent enterprise* (UCP).⁶ Investments between resident and non-resident fellow enterprises are recorded as *outward FDI* whenever the UCP is resident in the reporting economy and as *inward FDI* whenever the UCP is resident abroad. With this revised calculation methodology, 'negative investments' between fellow enterprises are now possible (chart 4).

Chart 4. FDI according to revised directional principle: fellow enterprise investments



In the left-side example, the fellows' UCP is resident in country A and the direction of the direct investment relationship is from country A to country B. An investment by enterprise E3 in its fellow enterprise E2 is hence recorded in country A as a negative outward FDI and in country B as a negative inward FDI. In the right-side example, the UCP is a non-resident of both countries A and B. An investment by enterprise E3 in its fellow enterprise E2 is thus recorded in both countries A and B as inward FDI; in country A as a positive and in country B as a negative entry.

The changeover from the directional principle of BPM5/BD3 to the extended directional principle of BPM6/BD4 has two important implications for directional FDI data.

Firstly, since more investments are netted out than previously, the calculated FDI flows and positions tend to be smaller than under the previous standards. In fact, they must be smaller if any of the investments between resident and non-resident fellow enterprises are determined to flow in the opposite direction relative to the direct investment relationship.

Secondly, the new calculation methodology results in national FDI data, calculated according to the directional principle, being inconsistent on a bilateral basis. That is, *outward*

⁶ That is, the enterprise at the top of the ownership chain, which is in control of the enterprise in question.

FDI of country A to country B may not equal to *inward FDI* of country B from country A, not even if A and B use the same calculation method and identical raw data. This is the case if the UCP is non-resident in both reporting countries, in which case the two countries make opposite entries for *inward FDI* (as in the right-side example of chart 4).⁷

Tables 9 and 10 below summarize the calculation of FDI according to the directional principle of BPM6/BD4 and BPM5/BD3. The side of the item in the asset/liability presentation is indicated in parentheses.

Table 4. Finland's inward FDI according to directional principle

= INWARD FDI (BPM6/BD4)	= INWARD FDI (BPM5/BD3)
+ Investments by foreign direct investors in direct investment enterprises in Finland (liabilities)	+ Investments by foreign direct investors in direct investment enterprises in Finland (liabilities)
- Reverse investments by Finnish direct investment enterprises in their direct investors abroad (assets)	- Reverse investments by Finnish direct investment enterprises in their direct investors abroad (assets)
+ Investments by foreign enterprises in their fellow enterprises in Finland where UCP is resident abroad (liabilities)	+ Investments by foreign enterprises in their fellow enterprises in Finland (liabilities)
- Investments by Finnish enterprises in their fellow enterprises abroad where UCP is resident abroad (assets)	

Table 5. Finland's outward FDI according to directional principle

= OUTWARD FDI (BPM6/BD4)	= OUTWARD FDI (BPM5/BD3)
+ Investments by Finnish direct investors in direct investment enterprises abroad (assets)	+ Investments by Finnish direct investors in direct investment enterprises abroad (assets)
- Reverse investments by foreign direct investment enterprises in their direct investors in Finland (liabilities)	- Reverse investments by foreign direct investment enterprises in their direct investors in Finland (liab.)
+ Investments by Finnish enterprises in their fellow enterprises abroad where UCP is resident in Finland (assets)	+ Investments by Finnish enterprises in their fellow enterprises abroad (assets)
- Investments by foreign enterprises in their fellow enterprises in Finland where UCP is resident in Finland (liabilities)	

⁷ There are of course other factors that may cause asymmetries in bilateral data.

2.2.1 Rationale and interpretation of directional principle-based FDI data

Since the directional principle incorporates netting of certain investments, the calculated FDI figures tend to be notably lower than under the asset/liability principle. If the netted items are substantial, the calculated figures may show nearly zero FDI or even negative FDI, even in the case of substantial direct investments. This raises questions as to the rationale and interpretation of directional principle-based FDI data.

The new standards do not provide exact instructions on interpretation. Rather, they describe the different contexts in which the directional principle is meant to apply.

The Benchmark Definition of FDI (BD4) notes that *massive investment flows into and out of a country may not be of primary interest to analysts of direct investment if they reflect merely pass-through or round-tripping of direct investment funds. Therefore, users seeking to analyse the economic impact of FDI from the perspective of the direction of influence/control would rather focus on investments recorded according to the directional principle (instead of asset/liability based data).*

The BD4 also notes that *an increase in inward investment implies additional capital injected in to the economy and, thus, is likely to have an impact on its economic performance. On the other hand, the size of outward investment transactions indicates the extent of penetration of the resident direct investors in other markets.* The BD4 specifically highlights the use of the directional principle in analytical breakdowns of FDI data.

The Balance of Payments manual (BPM6) states that *data on a directional principle basis are useful because they assist in understanding the motivation for the flows and they take account of control and influence. In the directional presentation, reverse investments can be seen as equivalent to the withdrawal of investment. The directional principle may be particularly useful for an economy with large values of pass-through funds or round-tripping.*

The above descriptions outline the two roles that FDI data based on the directional principle are meant to fulfil. Firstly, the directional principle addresses the problem of *pass-through funds and round-tripping*⁸ by netting out *reverse investments* and some *investments between fellow enterprises* from overall FDI. The directional principle thus provides a better measure of FDI for analysis where such *pass-through funds* should be excluded.

The second role of the directional principle is to provide information on control and influence over direct investments by arranging the data based on the direction of the direct

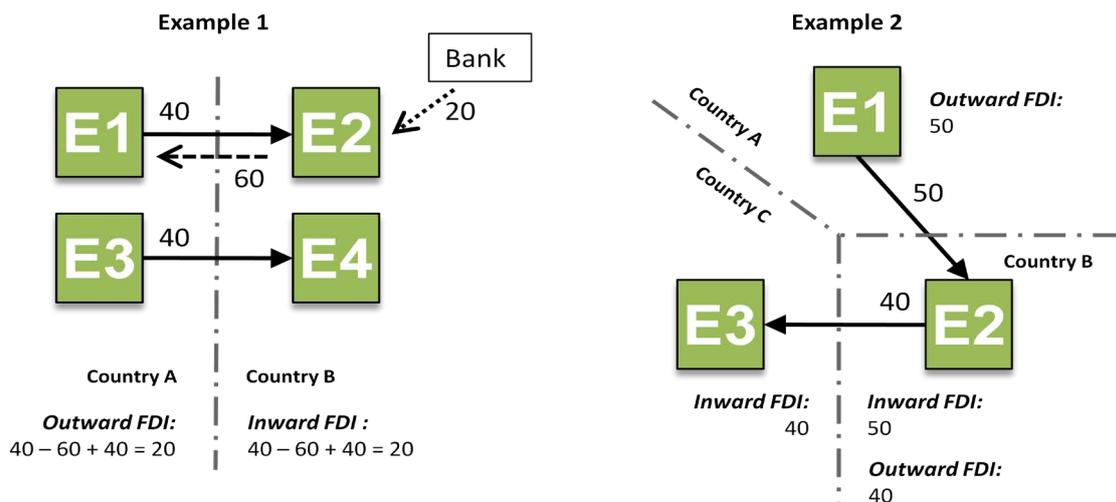
⁸ Round-tripping refers to the channelling of local funds abroad and the subsequent return of these funds to the local economy in the form of direct investment. It is thus a form of pass-through funding.

investment relationship. *Inward FDI* describes (net) direct investments that are controlled (or influenced) by entities abroad and *outward FDI* (net) direct investments that are controlled (or influenced) by entities in the reporting economy.⁹

It is arguable that the revised calculation methodology of the directional principle better accounts for *pass-through funds* than the previous methodology and that the resulting data provide more meaningful measures of 'genuine' levels of inward and outward FDI. This is because also funds passing through fellow enterprises are now accounted for.

However, a caveat is called for regarding the very idea of the directional principle. Since offsetting of *reverse investments* and *some investments between fellow enterprises* is not a direct, but rather an indirect, method of accounting for pass-through funds, in practice the directional principle may understate or overstate the share of 'genuine' FDI in the data. Two examples of such cases are presented in chart 5 below.

Chart 5. The directional principle: problems in identifying pass-through funds



In example 1 both enterprises E1 and E3 in country A make an equity investment of 40 units in their subsidiaries E2 and E4 in country B. Next, E2 raises a loan of 20 units from a local bank and then passes on 60 units of its funds to its parent E1. Under the directional principle recording this transaction is treated as reverse investment of 60 units, which completely offsets the initial investment by E1, but also part of the investment by E3. Here, the directional principle incorporates offsetting of transactions that are in fact unrelated, thus understating the share of 'genuine' FDI in the data.

In example 2 enterprise E1 in country A makes an equity investment of 50 units in its subsidiary E2 in country B. Next, E2 uses 40 units of the funds initially invested by E1 for making an equity investment in its subsidiary E3 in country C. Clearly, there would be a rationale for treating these investment transactions as 'FDI passing-through country B'. However the directional principle recording does not capture this, inflating both inward and outward FDI of country B.

⁹ It is worth noting that *control* (or *influence*) is assumed here to be exerted either by *immediate direct investors* (in investments between direct investors and direct investment enterprises) or by *ultimate controlling investor* (in fellow enterprise investments).

2.2.2 The revision's impact on Finland's inward and outward FDI positions on an aggregate level

Table 6 presents Finland's FDI positions at the end of 2008 calculated according to the directional principle of BPM5/BD3 and the revised directional principle of BPM6/BD4.

Table 6. Finland's FDI positions at end-2008 according to directional principle, mEUR

	BPM6/BD4	BPM5/BD3	New / Old (%)
INWARD FDI	51 754	60 870	85%
OUTWARD FDI	78 494	87 611	90%

The data show that moving from the directional principle of BPM5/BD3 to the revised directional principle of BPM6/BD4 results in a decrease of about 15 percent in aggregate inward FDI and about 10 percent in Finland's aggregate outward FDI position. In absolute terms, however, the impact of the changeover is the same for both inward and outward FDI data (EUR 9 117 million).

Tables 7 and 8 below elaborate the underlying causes of differences between datasets by showing the calculation of the positions.

The inward and outward positions in the form of equity are not affected by the revision of the directional principle. This is reasonable, since the data do not include equity investments between fellow enterprises.¹⁰

Table 7. Finland's inward FDI position at end-2008, mEUR

	BPM6/BD4	BPM5/BD3
INWARD FDI	51 754	60 870
Equity	48 138	48 138
Debt instruments =	3 616	12 732
+ <i>Liabilities to direct investors</i>	+ 10 788	+ 10 788
- <i>Assets in foreign direct investors (reverse investments)</i>	-9 323	-9 323
+ <i>Liabilities to foreign fellow enterprises</i>		+ 11 268
+ <i>Liabilities to foreign fellow enterprises where UCP is resident abroad</i>	+ 7 276	
- <i>Assets in foreign fellow enterprises where UCP is resident abroad</i>	-5 124	

¹⁰ By definition, an enterprise could have an equity position in its *fellow enterprise* if that position would entitle it to less than 10 percent of the voting power.

Table 8. Finland's outward FDI position at end-2008, mEUR

	BPM6/BD4	BPM5/BD3
OUTWARD FDI	78 494	87 611
Equity	79 861	79 861
Debt instruments =	-1 367	7 750
+ Assets in direct investment enterprises	+ 27 604	+ 27 604
- Liabilities to direct investment enterprises (reverse investments)	-28 435	-28 435
+ Assets in foreign fellow enterprises		+ 8 581
+ Assets in foreign fellow enterprises where UCP is resident in Finland	+ 3 457	
- Liabilities to foreign fellow enterprises where UCP is resident in Finland	-3 993	

The decrease in positions is explained by the change in debt instrument positions. Under the directional principle of BPM5/BD3, all liabilities to foreign fellow enterprises (EUR 11 268 million) are recorded as inward FDI, whereas under the BPM6/BD4 *inward FDI* includes only those where the ultimate controlling parent is resident abroad (EUR 7 276 million). Fellow enterprise liabilities where the UCP is resident in Finland (EUR 3 993 million) are moved to *outward FDI* with a negative sign.

Assets in foreign fellow enterprises (EUR 8 581 million) are, under BPM5/BD3, all recorded as outward FDI whereas, under BPM6/BD4, outward FDI includes only fellow enterprise assets where the UCP is resident in Finland (EUR 3 457 million). Fellow enterprise assets where the UCP is resident abroad (EUR 5 124 million) are moved to inward FDI with a negative sign.

The sum of the items that have been moved from one side to the other equal EUR 9 117 million (= 5 124 + 3 993), which is the impact of the changeover in absolute terms.

3 Analytical breakdowns of Finnish FDI data

The purpose of this chapter is to present the changes the new manuals introduce with regard to different analytical breakdowns of FDI data.

Some of the breakdowns, such as *FDI by immediate counterpart country* or *FDI by industry sector*, are familiar from previous editions of the standards. However, the figures in these 'old' breakdowns have been revised considerably due to the application of the revised directional principle of BPM6/BD4 (see chapter 2.2).

Additionally, the revised standards describe some new breakdowns of FDI data that are also discussed here. Some of these breakdowns are presented with data, while some are only discussed descriptively.

3.1 FDI by counterpart country

The breakdowns of FDI by counterpart country provide information on geographical distribution of FDI. *Inward FDI by counterpart country* provides information on the source countries of FDI and *outward FDI by counterpart country* on the host countries.

3.1.1 FDI by immediate counterpart country

Traditionally FDI has been determined on an immediate counterpart basis. This can be regarded as a starting point also for the new standards. Country breakdowns of FDI are thus presented, by default, on the basis of country of immediate counterpart rather than country of ultimate counterpart (i.e. country of ultimate investor or ultimate host country).

In breakdowns by immediate counterpart country, the impact of the revised directional principle varies considerably from country to country. Broadly speaking, the size of the impact is determined by the volume of investments between fellow enterprises and by the locations of the ultimate controlling parent enterprises. Consequently, the differences in figures based on BPM5/BD3 versus BPM6/BD4 can be substantial for some countries while for others it may be negligible.

Chart 6. Finland's inward FDI position by immediate counterpart country at end-2008, BPM6/BD4 vs. BPM5/BD3, mEUR

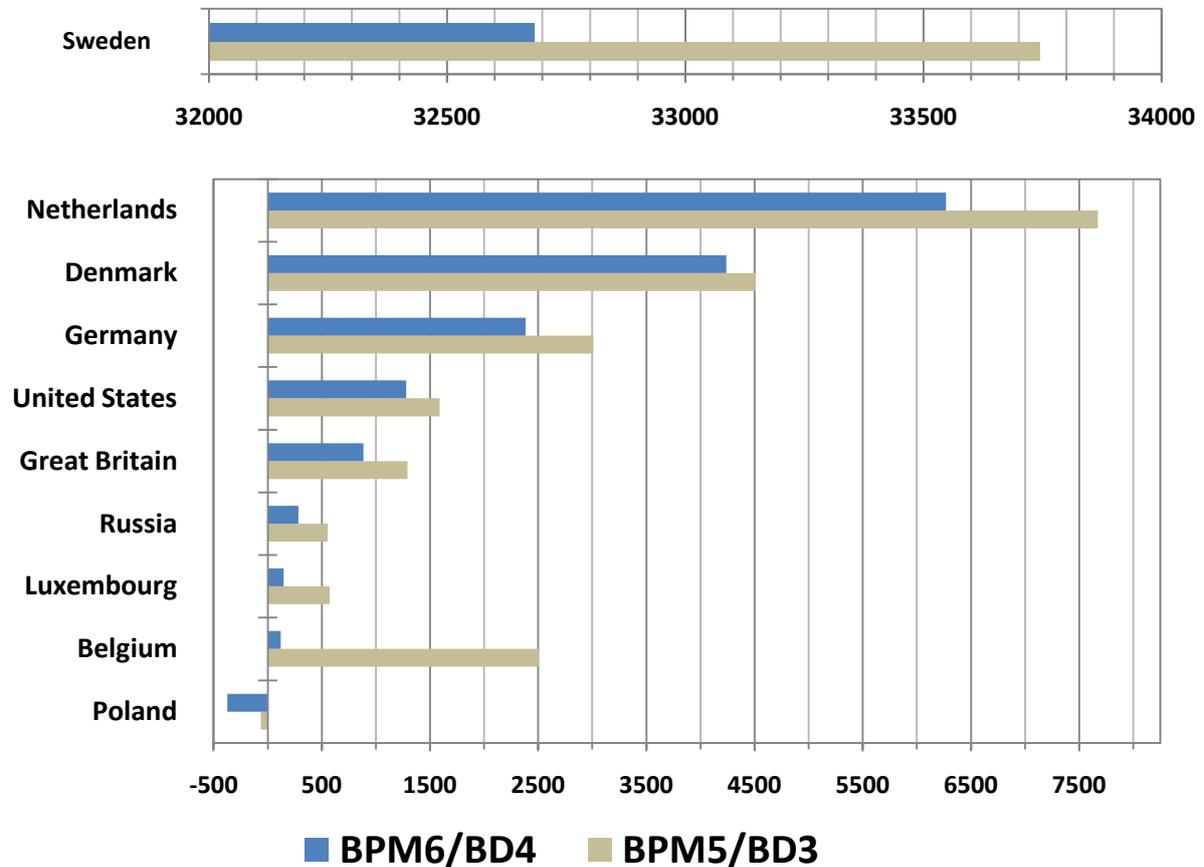


Chart 6 presents Finland's inward FDI positions at the end of 2008 by country of immediate counterpart. The chart includes countries where the impact of the changeover from BPM5/BD3 to BPM6/BD4 is greatest in absolute terms.¹¹ The data show that Belgium, the Netherlands and Sweden are the three countries that are most affected in absolute terms by the changeover from BPM5/BD3 to BPM6/BD4. Belgium's figure is reduced from EUR 2.5 billion to EUR 0.1 billion – a massive reduction in both absolute and relative terms. The figure for the Netherlands is reduced from EUR 7.7 billion to EUR 6.3 billion and the figure for Sweden from EUR 34 billion to EUR 33 billion. The figure for Luxembourg is reduced significantly (ca. 74 percent) relative to the figure calculated according to the BPM5/BD3. The position vis-à-vis Poland is EUR 0.4 billion negative.

¹¹ See table 10 in annex 1 for data on a more comprehensive set of countries.

Chart 7. Finland's outward FDI position by immediate counterpart country at end-2008, BPM6/BD4 and BPM5/BD3, mEUR

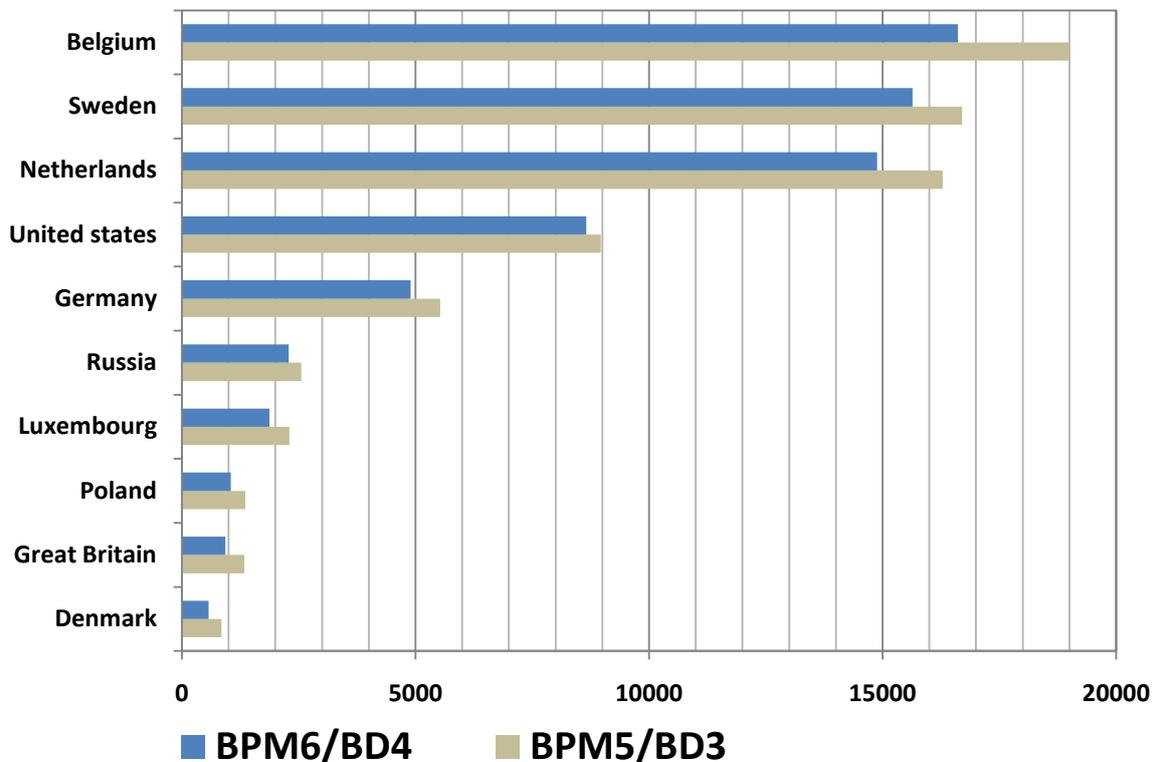


Chart 7 presents the corresponding breakdown for outward FDI ¹² with the same countries as in the previous chart. Since technically the changeover from BPM5/BD3 to BPM6/BD4 implies reversing the direction of some of the fellow enterprise investments and attaching a negative sign, the changeover has the same absolute impact on both investment directions. Naturally, the relative impact of the changeover is less for country breakdowns of outward FDI, where the initial stocks of FDI are generally larger.

Countries mostly affected by the revision of the directional principle, namely Belgium, the Netherlands, Luxembourg and Sweden, are also known to host intra-group service centers that provide treasury or cash-pooling facilities for groups operating in Finland. Due to the nature of their operations, these entities tend to hold large amounts of assets and liabilities vis-à-vis their fellow enterprises. On this basis, the revised directional principle seems to be effective in netting out pass-through funds related to intra-group financial operations by means of these entities.

¹² See table 11 in Annex 1 for data on more comprehensive set of countries.

3.1.2 FDI by ultimate investing country

In addition to country breakdowns by immediate counterpart country, the data requirements of the new standards also enable the breakdown of FDI data by ultimate investing country (UIC). The ultimate investor, for this purpose, is the ultimate controlling parent enterprise, which is identified by moving up the ownership chain through the *controlling links*¹³ until an enterprise is reached that is not controlled by another enterprise. The ultimate investing country is the country where the ultimate controlling investor is resident.

Chart 8. Finland's inward FDI position at end-2008 by country of ultimate investing country and immediate counterpart country, BPM6/BD4, mEUR

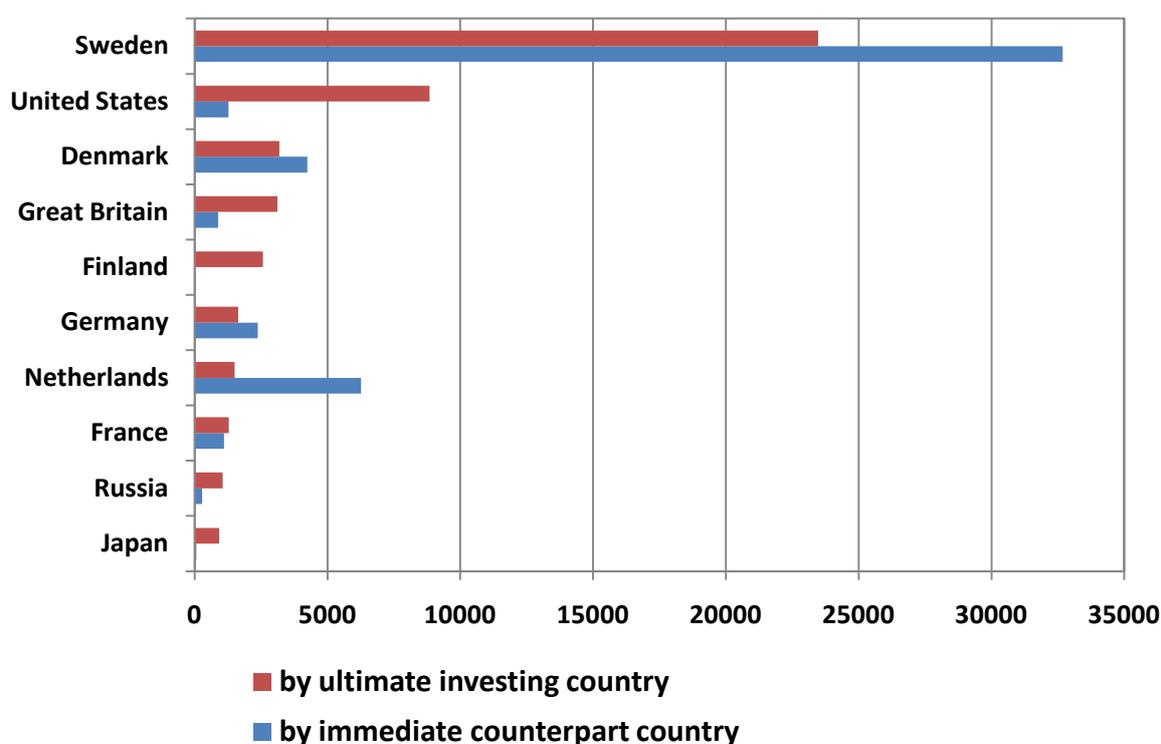


Chart 8 above presents Finland's inward FDI position at the end of 2008 by immediate counterpart country and by ultimate investing country. The chart includes the ten most significant countries in terms of ultimate control (size of the stock). The data are calculated according to the revised directional principle of BPM6/BD4.¹⁴

The chart shows some countries, such as Sweden and the Netherlands, where the inward FDI position by UIC is considerably lower than the corresponding position on the immediate

¹³ Ownership of more than 50% of voting power.

¹⁴ See table 12 in Annex 1 for data on differences between BPM6/BD4 and BPM5/BD3 based positions.

counterparty basis. In other words, significantly more FDI funds are invested via these countries in Finland than what are ultimately controlled by direct investors in these countries. This suggests that countries such as Sweden and the Netherlands act as pass-through countries for FDI in Finland.¹⁵

On the other hand, the inward FDI positions of ultimate controlling investors in countries such as the United States and Great Britain are considerably larger than the corresponding positions on an immediate counterparty basis. Direct investors in these countries thus ultimately control a significantly greater share of Finland's inward FDI stock than the amount of FDI that is immediately controlled by investors in these countries. On an immediate counterparty basis, the United States was 6th and Great Britain 7th largest direct investor country in Finland at the end of 2008 while on an ultimate investing country basis they were 2nd and 4th, respectively.

Interestingly, Finnish direct investors also ultimately control a significant share of Finland's inward FDI stock. At the end of 2008 around EUR 2.6 billion of the inward FDI stock of Finland was ultimately controlled by Finnish direct investors, as these funds were invested by their affiliated enterprises abroad. In a sense, Finnish ultimate direct investors were the fifth most significant direct investors in Finland at the end of 2008.¹⁶

Breakdown of outward FDI by ultimate investing country

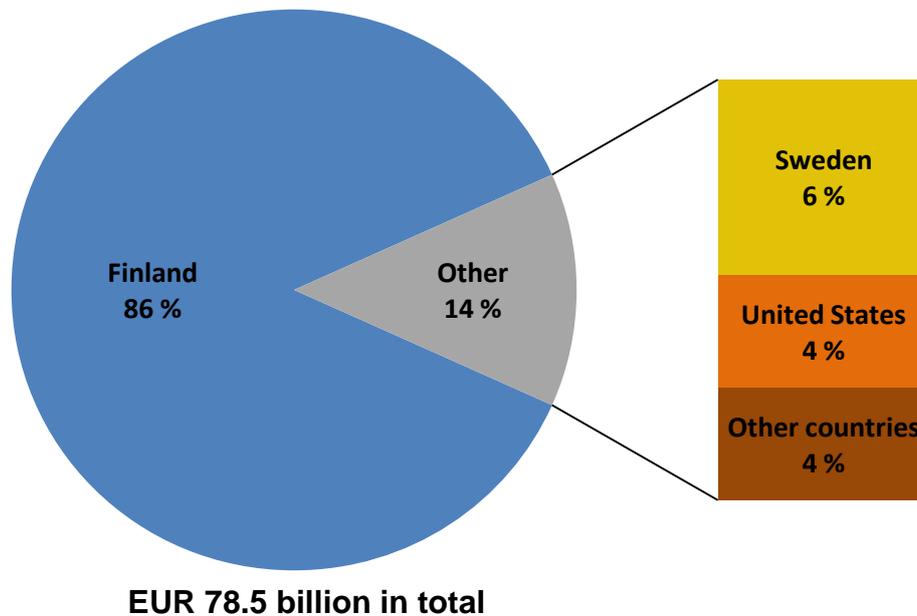
Besides providing new insight on inward FDI data, breakdowns by country of ultimate controlling investors can also be done for outward data. Chart 9 below presents such a breakdown for Finland's outward FDI position. The chart shows that around 86 percent of Finland's total outward FDI position (immediately invested by Finnish direct investors) is also ultimately controlled by Finnish investors. The remaining 14 percent, or around EUR 11 billion, is ultimately controlled by foreign investors. These funds can be regarded as capital

¹⁵ The amount of FDI funds passing through these countries to Finland is possibly even greater than what the difference between the two stocks suggests. This is because ultimate direct investors in these countries may also invest in Finland via some third countries. For example, if some Swedish ultimate direct investors invest in Finland via third countries, the funds related to these investments are not included in Finland's inward FDI stock *immediately controlled by Swedish direct investors*. In principle, the inward FDI stock immediately controlled by Swedish direct investors may not include any funds that are also ultimately controlled by Swedish investors, in which case Finland's inward stock immediately controlled by Swedish direct investors would only include funds that ultimate direct investors in other countries pass through Sweden.

¹⁶ If the inward FDI position had been calculated according to the directional principle of BPM5/BD3, the share of Finnish direct investors would have been as much as EUR 6.6 billion (see table 12 in Annex 1). Applying the revised directional principle of BPM6/BD4 thus nets out around EUR 4 billion of fellow enterprise investments where the ultimate controlling parent is resident in Finland.

that ultimate direct investors abroad pass-through Finland to their direct investment enterprises abroad.

Chart 9. Finland's outward FDI position at end-2008 by country of ultimate controlling investor, BPM6/BD4



3.1.3 Cross-tabulation of FDI by ultimate investing country and by immediate counterpart country

The country distribution of FDI can be further analyzed by cross-tabulating inward FDI position by ultimate investing country and by immediate counterpart country. This provides information on how the FDI funds are channeled to the reporting country.

Table 11 below presents such a cross-tabulated breakdown for Finland's inward FDI position. The immediate counterpart countries are listed in rows and countries of ultimate investors in columns. The data show how much FDI ultimately controlled by direct investors in the country in the column are immediately invested from the country in the row. The highlighted cells indicate funds that are ultimately controlled and immediately invested from the same country.

The data provide information on which countries ultimate direct investors use in channeling FDI to Finland. The interpretation of negative values is basically the same as for a one-dimensional breakdown by immediate counterpart country (that is, direct investors

have relocated more capital from their Finnish direct investment enterprises to affiliated enterprises abroad than they have invested in the Finnish enterprises).

Table 9. Finland' inward FDI at end-2008 by immediate counterpart country (ICC) and ultimate investing country (UIC), BPM6/BD4, mEUR

Immediate c.c. (ICC)	Ultimate investing country (UIC)											Total capital
	SE	US	DK	GB	FI	DE	NL	FR	RU	JP	Other countries	
SE	23675	3728	47	2096	1928	201	28	43	C	C	1024	32683
NL	49	1541	-14	70	1141	282	951	259	C	263	1379	6269
DK	-3	118	3248	13	-10	C	-4	C	C	C	860	4237
DE	-30	578	-27	55	133	1562	49	128	C	C	-117	2383
US	-147	1501	-5	-4	-110	-5	-35	35	C	C	101	1281
FR	25	95	-9	-4	44	C	140	645	C	C	-20	1105
GB	-7	-52	-4	717	-38	-4	318	-4	C	-67	27	883
IT	-9	-1	-8	-3	6	-13	7	25	C	C	348	365
CH	-3	-30	-1	0	C	8	27	0	C	28	184	196
RU	-18	-27	-7	6	-107	-7	-21	-4	465	3	-2	284
CA	-1	C	-1	0	-14	-1	-2	0	C	C	116	133
AT	-2	0	-2	-1	2	-3	3	7	C	C	361	368
BE	-17	133	-6	-2	-463	-493	0	23	C	C	143	121
ES	-9	53	-8	-4	-2	-18	3	4	C	C	124	148
NO	-8	0	-2	64	C	-2	-7	-1	C	C	310	272
LU	C	1071	0	115	292	0	C	C	C	C	-1483	146
Other countries	-41	138	-18	0	-161	10	-51	5	256	-57	800	881
Total capital	23474	8845	3184	3120	2565	1638	1507	1285	1057	922	4155	51754

Abbreviations: SE Sweden, NL Netherlands, DK Denmark, DE Germany, US United States, FR France, GB Great Britain, IT Italy, CH Switzerland, RU Russia, CA Canada, AT Austria, BE Belgium, ES Spain, NO Norway, LU Luxembourg, FI Finland and JP Japan; C Confidential data

The table allows, for instance, the following conclusions:

- 1) Virtually all of Finnish inward FDI that is ultimately controlled by Swedish direct investors (ca. EUR 23.5 billion on net) are immediately invested from Sweden. The same applies roughly also to Danish and German direct investors.
- 2) American and British ultimate investors control most of their FDI funds in Finland via intermediate countries, such as Sweden, the Netherlands and Luxembourg.
- 3) Finnish ultimate direct investors channel FDI funds to Finland mainly via their direct investment enterprises in Sweden (EUR 1.9 billion), the Netherlands (EUR 1.1 billion) and Luxembourg (EUR 0.3 billion).
- 4) Less than half (ca. EUR 0.5 billion) of investments that Russian direct investors ultimately control in Finland are immediately invested from Russia.

3.1.4 FDI by ultimate host country

The breakdown of FDI by ultimate host country (UHC) has seeming similarities to the breakdown of FDI by ultimate investing country (UIC, see ch. 3.1.2). From the methodological point of view, the two breakdowns are nonetheless substantially different. While in UIC breakdown the aim is to allocate inward FDI stock to a single entity (the ultimate controlling parent enterprise), in the UHC breakdown the aim is to allocate outward FDI stock to all directly *and* indirectly owned foreign direct investment enterprises.

Various methodologies have been proposed on how to allocate outward FDI by ultimate host country, but no internationally agreed methodology for the breakdown exists for the moment. Even though the breakdown is mentioned in the Benchmark Definition of FDI (BD4), it does not provide any guidance for the compilation. The BD4 points out that the FDI breakdown by UHC is in the *research agenda*.¹⁷

3.2 FDI by industrial classification

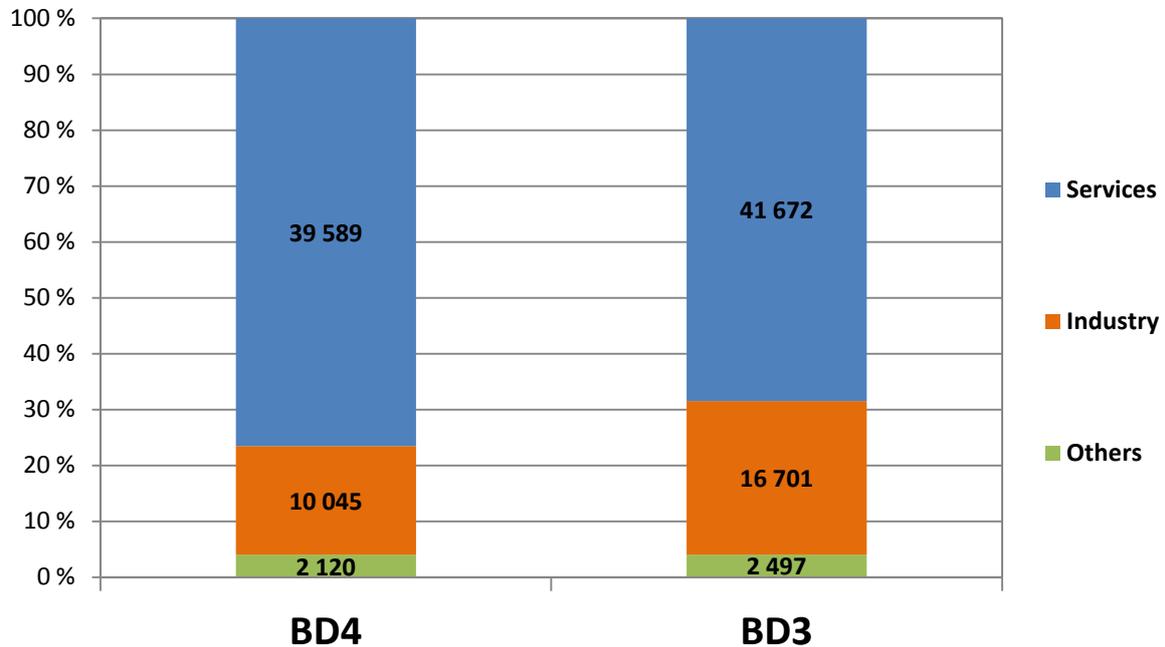
Finland's inward and outward FDI positions can be broken down based on the industrial classification of the Finnish-based counterpart.

The classification is based on national Standard Industrial Classification, which in turn is based on the European Union classification of economic activities (NACE). The Bank of Finland has recently implemented the changeover from *NACE 1.1* based classifications to the revised *NACE Rev. 2* based classifications. However, at the time of writing this paper, the disseminated FDI data by industry is still largely based on the old classification standard. This also applies to the data below.

Chart 10 presents Finland's inward FDI position at the end of 2008 with a rough industry breakdown into *services*, *industry* and *others*. The position has been calculated based on both the directional principle of BPM5/BD3 and the revised directional principle of BPM6/BD4.

¹⁷ The BD4 describes the difficulties related to allocating outward FDI by ultimate host country as follows: *Attempts to allocate investments to ultimate host countries are hampered by difficulties related to the inter-changeability of money – linking specific sources of funding with specific uses – and by the fact that direct investments made by intermediate enterprises in ownership chains may reflect not only funding provided by direct investors, but also funding that these enterprises may, in turn, have obtained from other sources, such as local owners or lenders. Consequently, more work needs to be done to determine whether it is possible to develop reallocation schemes of outward investments.*

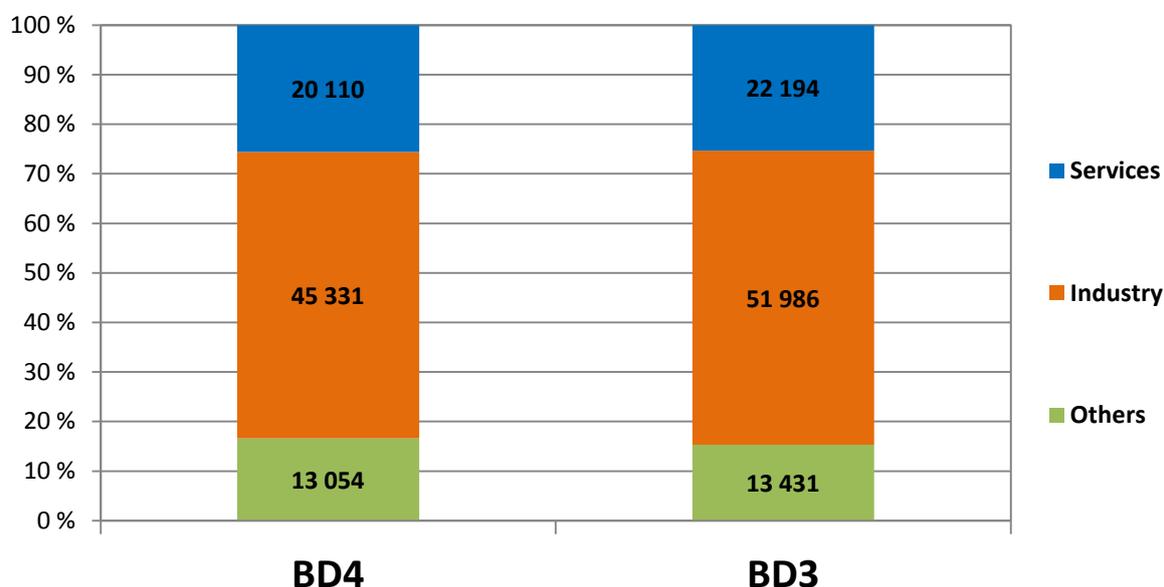
Chart 10. Finland's inward FDI position at end-2008 by industry, BPM6/BD4 and BPM5/BD3, mEUR



The chart indicates that the changeover to BPM6/BD4 increases the relative size of services in the total inward position from around 68% to 76%, and reduces the relative size of industry from around 27% to 19%. In absolute terms, the size of the inward FDI position in services diminishes by some EUR 2.1 billion and in industry by some EUR 6.7 billion.

Chart 11 below presents the same rough industry breakdown for the outward FDI position. In relative terms, the changeover does not have an equally significant impact on outward FDI data as on inward FDI, since the initial outward position is significantly larger than the inward position (as mentioned, in absolute terms the changeover has exactly the same impact on both investment directions). As regards outward FDI, the industry share decreases and the service share increases by a mere 1%.

Chart 11. Finland's outward FDI position at the end of 2008 by industry, BPM6/BD4 and BPM5/BD3, mEUR



Breakdown by industry of the foreign counterparty is not currently possible, since this data are not collected. The Bank of Finland has not yet decided whether to collect and disseminate such data.

3.3 Special purpose entities (SPEs)

Multinational enterprise groups (MNEs) may include enterprises that do not participate in virtually any productive activity within the group, but whose predominant activities are related to the channelling of funds from affiliated enterprises abroad to other affiliated enterprises abroad.¹⁸ In the context of FDI statistics, such enterprises are referred to as *special purpose entities* (SPEs).

The revised Benchmark Definition of FDI (BD4) notes that SPEs are often used as devices to raise capital or to hold assets and liabilities, and they usually do not undertake significant production. For example, a direct investor in country A may route its direct equity investments in country C through its *holding company* in country B.

¹⁸ The term *affiliated enterprise* refers to all enterprises that are in a foreign direct investment relationship with each other.

The assets held by SPEs are not necessarily always in the form of equity, but they can also participate in the channelling of loans within a multinational group.

Currently there is no universal definition of SPEs in the context of FDI statistics. However, the BD4 provides general criteria to assist compilers of FDI data to identify SPEs. Application of these criteria to Finnish SPEs is presented in the box below.

General criteria for identifying Finnish SPEs

(In accordance with the general criteria of the OECD Benchmark Definition of FDI, 4th Ed.)

A Finnish-based enterprise is considered as an SPE if it meets the following criteria:

- 1) The enterprise is a legal entity; formally registered in Finland and subject to legal obligations in Finland
- 2) The enterprise is ultimately controlled by a non-resident parent, directly or indirectly
- 3) The enterprise has no or few employees, little or no production in Finland and little or no physical presence in Finland
- 4) Almost all the assets and liabilities of the enterprise represent investments in or from other countries
- 5) The core business of the enterprise consists of group financing or holding activities, that is -- viewed from the Finnish perspective -- the channeling of funds from non-residents to other non-residents. However, in its daily activities, managing and directing plays only a minor role.

By definition, all or almost all of foreign assets and foreign liabilities held by SPEs are regarded as pass-through funds. Consequently, it would be meaningful to segregate all SPE-related funds from other (or 'genuine') FDI.¹⁹ This can be seen as a more direct method (as compared to the directional principle calculation) of excluding pass-through funds from FDI data. However, it does not account for pass-through funds that are related to investments in enterprises that do not meet the SPE criteria.

The BD4 recommends that standard presentations of FDI statistics (according to both the asset/liability principle and the directional principle) should present a breakdown of total FDI into 1) *FDI excluding resident SPEs* and 2) *FDI of resident SPEs*. Additionally, the inward and outward FDI data according to the directional principle should be compiled by "*excluding resident SPEs and looking through non-resident SPEs*" on a supplemental (voluntary) basis.

The compilers of Finnish FDI statistics are aware of some Finnish enterprises that would probably meet the criteria for SPEs. However, there has been no systematic data collection so far in this connection, and hence no data on Finnish SPEs can be presented at this point.

¹⁹ As illustrated in chapter 2.2, the directional principle fails to offset all the funds that can be regarded as 'passing-through'.

The Bank of Finland has plans to compile and disseminate data on resident SPEs by 2014. Most likely, the data on resident-SPEs will be based on official registers, which would imply no additional reporting burden for the reporting entities.

The suggested supplementary presentation where the directional FDI data are calculated by *excluding resident SPEs and looking through non-resident SPEs* is not in the current plans of the Bank of Finland.

3.4 Other possible breakdowns

In addition to the breakdowns discussed above, international community of FDI experts have proposed some other breakdowns that would be useful for analytical purposes. Two of these are briefly discussed below.

FDI by type

The Benchmark Definition (BD4) identifies four types of operations that qualify as FDI:

- 1) purchase/sale of existing equity in the form of mergers and acquisitions (M&A),
- 2) greenfield investments [establishment of new enterprises],
- 3) extensions of capital [in already existing direct investment enterprises],
- 4) financial restructurings [various forms of ownership and other financial restructurings within multinational enterprise groups].²⁰

Since the implications of FDI for some real economic variables, such as production, employment and turnover, may differ significantly depending on the type of FDI, this breakdown would probably be of analytical interest.

The BD4 has a recommendation to disseminate and compile data on M&A transactions of FDI on a supplementary (voluntary) basis. Greenfield investments, extensions of capital and financial restructurings require further research, according to BD4.

Even though all the above-mentioned types of FDI are included in the Bank of Finland's FDI data, the segregation of these items is not currently possible. The Bank has no concrete plans to compile and disseminate segregated data on M&As or on other types of FDI. The compilation of such data would imply rather significant extensions to the survey questionnaires and/or more systematic reliance on publicly available information and on commercial register data.²¹

²⁰ Notes in brackets added.

²¹ No official statistical register for M&As exists in Finland at present.

Total financing of FDI (and MNEs)

Total financing of FDI is a topic currently under discussion among FDI experts. The broad idea is to develop statistics that would more thoroughly describe the overall financing of multinational enterprises (MNEs). In addition to the financing provided to local affiliates by foreign parent enterprises in the form of direct investment, such statistics might also show other types of cross-border finance as well as funds provided by local financiers.

By going beyond the financial concepts/standards developed in the context of Balance of Payments and International Investment Position statistics, this scheme could eventually bring FDI statistics conceptually and methodologically closer to *Statistics on Activities of MNEs* (also known as *Foreign Affiliate Statistics*).

4 Concluding remarks

The purpose of this paper is to provide an overview on the changes that the new statistical standards of FDI imply for calculating and presenting FDI data and to show what impact these changes have on Finland's FDI positions based on 2008 data.

The revised standards recommend compiling and disseminating two types of FDI data, based on two different calculation principles.

The data calculated according to *the asset/liability principle* show *FDI assets* and *FDI liabilities* of enterprises resident in the compiling economy vis-à-vis all their possible FDI counterparties (i.e. *foreign direct investment enterprises, foreign direct investors and foreign fellow enterprises*). The new standards recommend the asset/liability principle for presenting aggregate data on FDI in the context of Balance of Payments (BoP) and International Investment Position (IIP) statistics.

The data according to the *directional principle* present FDI as either *outward FDI* or *inward FDI*, depending on whether the influence that gave rise to the direct investment originated in the reporting economy or abroad. The calculation of FDI according to the directional principle incorporates the offsetting of some FDI assets and FDI liabilities so as to exclude funds that merely *pass-through* FDI entities, and hence provide FDI data that would better reflect the economically meaningful level of FDI. The new standards recommend the directional principle approach for detailed analytical breakdowns of FDI data.

The Bank of Finland has thus far applied the directional principle exclusively in its regular FDI publications. The data presented in this paper regarding Finland's FDI positions at the

end of 2008 indicate that the application of the asset/liability approach for FDI aggregates would increase Finland's reported FDI assets by around 60 percent and FDI liabilities by around 90 percent.

The new standards also introduce a revision to the calculation methodology of the directional principle so as to account for such pass-through funds that are related to investments realized between fellow enterprises. The data presented in this paper suggest that this revision reduces the total inward and outward FDI positions of Finland by some 10 – 15 percent (based on 2008 data). In breakdowns of Finnish FDI data by counterpart country, the impact of the revision varies considerably from country to country.

In addition, the new standards introduce some new analytical breakdowns for FDI data. The breakdown of *inward FDI according to ultimate investing country* provides information on countries in which inward FDI positions are ultimately controlled. The data presented in this paper show, among other things, that while only EUR 1.3 billion of Finland's inward FDI position was directly controlled by American direct investors, over EUR 8.8 billion was controlled by them *ultimately* at the end of 2008.

Information on ultimate investing countries can also be used in analyzing the indirect channeling of FDI funds. The data presented in this paper suggest that foreign direct investors channel funds to Finland in particular via direct investment enterprises in Sweden, the Netherlands, Denmark and Luxembourg.

A more direct method of excluding pass-through funds in the data, as suggested by the new standards, is to identify enterprises that meet the criteria for *special purpose entities* (SPEs) and to exclude from the data all of their FDI assets and FDI liabilities. However, this method does not account for pass-through funds in enterprises other than SPEs.

By revising the calculation of the directional principle and by fully integrating the concepts of *ultimate investors* and *SPEs* into FDI statistics, the new standards put particular emphasis on developing FDI data that are more meaningful from a real economy perspective. It is nonetheless arguable that the new standards also leave room for further development in this respect. The on-going methodological work regarding the concepts of *ultimate host country* and *total financing of FDI* may in future give new tools for better analysis of FDI and multinational enterprises from both the financial and real economy perspective.

Appendix 1. Data tables

Table 10. Finland's inward FDI stock at end-2008 according to BD4 and BD3 by immediate counterpart country, mEUR

Country	BD4	BD3	BD4 / BD3 * 100%	BD4 – BD3
Sweden	32 683	33 744	97%	–1 061
Netherlands	6 269	7 674	82%	–1 405
Denmark	4 237	4 514	94%	–277
Germany	2 383	3 011	79%	–628
United States	1 281	1 590	81%	–309
France	1 105	1 257	88%	–152
United Kingdom	883	1 291	68%	–408
Jersey	392	392	100%	0
Austria	368	425	87%	–57
Italy	365	470	78%	–105
Russia	284	554	51%	–270
Norway	272	384	71%	–112
Switzerland	196	395	50%	–199
Spain	148	214	69%	–66
Luxembourg	146	572	26%	–426
Canada	133	149	89%	–16
Belgium	121	2 505	5%	–2 384
Japan	62	98	63%	–36
Ireland	28	171	16%	–143
Brazil	–67	–13	515%	–54
Australia	–83	6	–1 383%	–89
China	–115	–11	1045%	–104
Poland	–374	–64	584%	–310
Other countries	1 037	1 543	67%	– 506
TOTAL	51 754	60 870	85%	– 9 116

BOF ONLINE

Table 11. Finland's outward FDI stock at end-2008 according to BD4 and BD3 by immediate counterpart country, mEUR

Country	BD4	BD3	BD4 / BD3 * 100%	BD4 – BD3
<i>Belgium</i>	16 611	18 996	87%	–2 385
<i>Sweden</i>	15 640	16 700	94%	–1 060
<i>Netherlands</i>	14 882	16 287	91%	–1 405
<i>United States</i>	8 658	8 967	97%	–309
<i>Germany</i>	4 898	5 527	89%	–629
<i>Russia</i>	2 285	2 556	89%	–271
<i>Luxembourg</i>	1 873	2 299	81%	–426
<i>China</i>	1 835	1 939	95%	–104
<i>Estonia</i>	1 156	1 214	95%	–58
<i>Canada</i>	1 156	1 171	99%	–15
<i>Poland</i>	1 043	1 353	77%	–310
<i>United Kingdom</i>	930	1 338	70%	–408
<i>Hungary</i>	835	925	90%	–90
<i>Norway</i>	712	824	86%	–112
<i>Singapore</i>	711	711	100%	0
<i>Denmark</i>	570	846	67%	–276
<i>Brazil</i>	554	608	91%	–54
<i>France</i>	531	683	78%	–152
<i>India</i>	510	527	97%	–17
<i>Spain</i>	463	529	88%	–66
<i>Austria</i>	459	517	89%	–58
<i>Latvia</i>	365	379	96%	–14
<i>Lithuania</i>	356	356	100%	0
<i>Other countries</i>	1 461	2 361	62%	–900
TOTAL	78 494	87 611	90%	–9 116

BOF ONLINE

Table 12. Finland's inward FDI stock at end-2008 according to BD4 and BD3 by ultimate investing country, mEUR

<i>Ultimate Investing Country</i>	<i>BD4</i>	<i>BD3</i>	<i>BD4 / BD3 * 100%</i>
<i>Sweden</i>	23 474	23 882	98%
<i>United States</i>	8 845	9 961	89%
<i>Denmark</i>	3 184	3 228	99%
<i>United Kingdom</i>	3 120	3 320	94%
<i>Finland</i>	2 565	6 558	39%
<i>Germany</i>	1 638	2 446	67%
<i>Netherlands</i>	1 507	1 739	87%
<i>France</i>	1 285	1 559	82%
<i>Russia</i>	1 057	1 146	92%
<i>Japan</i>	922	943	98%
<i>Switzerland</i>	855	1 354	63%
<i>Luxembourg</i>	583	1 168	50%
<i>Canada</i>	531	566	94%
<i>Norway</i>	407	418	97%
<i>Italy</i>	366	392	93%
<i>Belgium</i>	299	327	91%
<i>Austria</i>	-18	136	-13%
<i>Other countries and unknown</i>	1 129	1 668	75%
TOTAL	51 754	60 870	84%

BOF ONLINE

Table 13. Finland's outward FDI stock at end-2008 according to BD4 and BD3 by country of the ultimate controlling parent (UCP), mEUR

Country of the UCP	BD4	BD3	BD4 / BD3 * 100%
<i>Finland</i>	67 929	71 921	94%
<i>Sweden</i>	4 899	5 307	92%
<i>United States</i>	2 859	3 980	72%
<i>United Kingdom</i>	280	479	58%
<i>Switzerland</i>	C	508	C
<i>Germany</i>	C	1 189	C
<i>Denmark</i>	C	44	C
<i>France</i>	C	542	C
<i>Italy</i>	C	389	C
<i>Japan</i>	C	20	C
<i>Luxembourg</i>	C	830	C
<i>The Netherlands</i>	C	479	C
<i>Norway</i>	C	195	C
<i>Other countries</i>	267	717	37%
TOTAL	78 494	87 611	89%

C = Confidential data

Appendix 2. Central concepts of FDI

Foreign direct investment (FDI)

Foreign Direct Investment (FDI) is a category of investment that reflects the objective of establishing a lasting interest by an enterprise resident in one economy (direct investor) in an enterprise that is resident in another economy (direct investment enterprise). Direct investment arises when an investor resident in one economy makes an investment that gives it *control* or *significant influence* over the management of an enterprise that is resident in another economy. In operational terms, *control* or *significant influence* are determined to exist when an investor owns directly or indirectly 10% or more of the voting power of an enterprise resident in another economy. Foreign direct investment refers to the flows and positions that arise between parties that are in a direct investment relationship and that are located in different economies (see also *Framework for Direct investment Relationships*).

Framework for Direct investment Relationships

The Framework for Direct investment Relationships is a generalized methodology, presented in the OECD Benchmark Definition of FDI, for identifying and determining the extent and type of direct investment relationships. The framework highlights enterprises that are in direct investment relationships with each other. Broadly speaking, an enterprise is in a direct investment relationship with its 1) direct and indirect direct investors, 2) direct and indirect direct investment enterprises and 3) fellow enterprises. Typically, enterprises in a direct investment relationship belong to the same enterprise group.

Enterprise group

An enterprise group consists of all the enterprises under the control of the same owner.

Affiliated enterprise

Affiliated enterprises are enterprises in a direct investment relationship (see *Framework for Direct Investment relationships*).

Foreign direct investor

Foreign direct investor is an entity resident in one economy that has acquired, either directly or indirectly, at least 10% of the voting power in an enterprise resident in another economy.

Foreign direct investment enterprise

Foreign direct investment enterprise is an enterprise resident in one economy and in which an investor resident in another economy owns directly or indirectly 10% of the voting power.

Fellow enterprises

Fellow enterprises are two enterprises that are related through the *Framework of Direct Investment Relationships*, without either being a direct investor in the other, but with both being directly or indirectly influenced by the same enterprise in the ownership hierarchy (the common parent).

Ultimate controlling parent, Ultimate investor

Ultimate controlling parent enterprise (or *ultimate investor*) is the direct investor on top of the ownership chain that is in control of the enterprise in question. It is identified by proceeding up the immediate direct investor's ownership chain through the controlling links (ownership of more than 50% of the voting power) until an enterprise is reached that is not controlled by another enterprise.

Reverse investment

Reverse investments are financial claims acquired by direct investment enterprises in their direct investors.

Pass-through funds, pass-through transactions

Pass-through funds (or 'funds in transit') are funds that pass through an enterprise resident in an economy to an affiliated enterprise in another economy, so that the funds do not stay in the economy of the resident enterprise.