

**Twenty-Sixth Meeting of the  
IMF Committee on Balance of Payments Statistics  
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**FAQs on Conversion: Sign Convention**

**Prepared by the Statistics Department  
International Monetary Fund**



## A. Introduction

### FAQs on Conversion from *BPM5* to *BPM6*

1. The IMF Statistics Department (STA) published a set of FAQs to guide users through the conversion of balance of payments (BOP) and International Investment Position (IIP) data to a *BPM6* basis starting with the August 2012 editions of the IMF's *International Financial Statistics (IFS)* and the online Balance of Payments Statistics (BOPS) database. The *FAQs on Conversion from BPM5 to BPM6*<sup>1</sup> are organized into four sections covering (i) changes in methodology from *BPM5* to *BPM6* (impact on aggregates and individual accounts); (ii) changes in presentation; (iii) changes in STA's major publications for external sector statistics; and (iv) how to request assistance and further information.<sup>2</sup> FAQ #17 (in the Presentational Change section) describes the sign convention in *BPM6*.
2. At the 2012 BOPCOM meeting,<sup>3</sup> it was suggested that a more detailed illustration be given of the changes in the sign conventions used in *BPM5* and *BPM6*. This note addresses the BOPCOM request. It is organized as follows: Section B provides background information on the sign convention in *BPM6*, and Section C contains a set of FAQs that illustrate the sign convention.

## B. Background

### BOPCOM-04/35: Headings and Signs

3. During the 17<sup>th</sup> meeting of BOPCOM in October 2004,<sup>4</sup> the Committee agreed to the staff proposal to change the headings and signs in the BOP financial account in *BPM6* from "credit" and "debit" to the *SNA* terms "changes in assets" and "changes in liabilities". The *BPM6* terms were later refined to "net acquisition of financial assets" and "net incurrence of liabilities."
4. The new terminology and sign conventions for the BOP financial account are consistent with those for the IIP, i.e., a positive sign represents an increase, and a negative sign represents a decrease, in the asset or a liability account to which it relates. Thus, for "net acquisition of financial assets" in the financial account of the BOP, a plus sign denotes a net increase in financial assets while a minus sign refers to a net decrease in financial assets. Furthermore, the balance on transactions in net assets and net liabilities is calculated by

<sup>1</sup> Available at: <http://www.imf.org/external/pubs/ft/bop/2007/bpm6faq.pdf>.

<sup>2</sup> See also BOPCOM-12/04 (<http://www.imf.org/external/pubs/ft/bop/2012/25.htm>).

<sup>3</sup> Postponed from October 2012 to January 2013 due to Hurricane Sandy.

<sup>4</sup> See <http://www.imf.org/external/pubs/ft/bop/2004/17.htm>.

subtracting net incurrence of liabilities from net acquisition of financial assets, instead of adding credits and debits. The net balance on the financial account has the opposite sign in *BPM6* compared to *BPM5* (e.g., a net inflow in the financial account is represented with a minus sign in *BPM6*, whereas it has a positive sign in *BPM5*).

5. The rationale for changing the headings and signs was to bring the BOP in line with the IIP and the other changes in assets and liabilities account, as well as to harmonize the presentation of the financial account with other macroeconomic datasets, such as the SNA and government finance statistics.

### **Vertical Double-Entry Bookkeeping**

6. Though not emphasized for the financial account *presentation*, the accounting entries for credits and debits remain valid for transactions, i.e., the same rules for debit and credit apply as in business accounting. More specifically, increases in assets and decreases in liabilities equate with debits, and decreases in assets and increases in liabilities equate with credits. Further, in accordance with the double-entry in business accounting, an increase in an asset must be offset elsewhere in the current, financial, or capital accounts (such as by a decrease in another asset, an increase in a liability, an import, or a capital account inflow). Similar accounting rules apply for changes in liabilities.

### **The Presentation in *IFS* and *BOPSY***

7. With the change-over to the *BPM6* presentational basis in the August 2012 editions of the *IFS* and the online *BOPS*, gross credit and gross debit entries in the current and capital accounts are usually shown without signs in the respective column. For the most part, only balances in the accounts carry a negative sign.<sup>5</sup> In *BPM5*, all debit entries were designated with a negative sign.

8. The financial account continues to be presented with the breakdown into assets and liabilities separately for each instrument; direct investment is also presented on an assets and liabilities basis, unlike the directional principle in *BPM5*. The sign convention has changed as discussed above: a net increase in assets and a net increase in liabilities each have a positive sign.

### **C. Proposed Additions to the FAQs on Conversion**

9. The following set of additional FAQs is intended to help users interpret the figures in STA's publications according to the new presentation. STA's main users are country

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<sup>5</sup> Some individual accounts carry a negative sign under *BPM6*. For example, acquisitions of goods under merchanting are shown as negative goods imports, and losses by direct investment enterprises are shown as negative primary income on direct investment.

authorities, data redistributors, students, IMF internal users, and users from the academia and the business environment.

Q1: For time series presenting changes in financial assets, the signs in *BPM6* changed compared to the *BPM5* presentation, while for time series presenting financial liabilities the signs remained the same. Why is this the situation? More specifically, how do I interpret the *Plus 6.75* in portfolio investment (PI) assets in the BOP statement based on a *BPM6* basis as compared to the *Minus 6.75* on a *BPM5* basis?

In the financial account of *BPM6*, a positive sign for financial assets denotes a net increase in foreign assets; in this *BPM6* basis table below, the net increase of 6.75 in Q1 refers to the net increase in equity and investment fund shares held by deposit-taking corporations (5.02) and other sectors (1.73). More generally, in *BPM6* the financial account items are recorded on a net basis for financial assets and liabilities separately and reflect changes due to all credit and debit entries during the accounting period (see *BPM6* 3.31).

In *BPM5*, transactions are recorded in the financial account using the debit and credit presentation, where net debits have a negative sign and net credits a positive sign. The interpretation of increase or decrease depends on whether the change refers to an asset or a liability: a debit entry for an asset is an increase of this instrument; a debit for a liability is a decrease of this instrument. In the *BPM5* basis table below, the *negative* (i.e., debit) sign for assets/equity securities denotes an *increase* of 6.75 in the equity security assets held by deposit-taking corporations (5.02) and other sectors (1.73).

**Excerpt of BOP Statement According to *BPM6* Presentation:  
Financial Account – Net Acquisition of Financial Assets**

<b>Portfolio investment</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
<b>Net acquisition of financial assets</b>				
<b>Equity and investment fund shares</b>	<b>6.75</b>	<b>4.93</b>	<b>5.48</b>	<b>-1.88</b>
Central bank	0.00	0.00	0.00	0.00
<i>Monetary authorities (where relevant)</i>				
General government	0.00	0.00	0.00	0.00
Deposit-taking corporations, except central bank	5.02	-1.28	3.28	-0.80
Other sectors	1.73	6.21	2.20	-1.08

**Excerpt of BOP Statement According to *BPM5* Presentation:  
Financial Account – Assets**

Portfolio investment	Q1	Q2	Q3	Q4
<b>Assets</b>				
<b>Equity securities</b>	-6.75	-4.93	-5.48	1.88
Monetary authorities	0.00	0.00	0.00	0.00
General government	0.00	0.00	0.00	0.00
Banks	-5.02	1.28	-3.28	0.80
Other sectors	-1.73	-6.21	-2.20	1.08

Q2: With the change in signs, how do I interpret the *Minus 25.21* in other investment liabilities in the BOP statement based on *BPM6* as compared to the *Minus 25.21* based on *BPM5*?

In *BPM6*, a minus sign in the “net incurrence of liabilities” section of the balance of payments financial account denotes a net decrease in foreign liabilities; in the *BPM6* basis table below, the net decrease refers to a net decrease in currency and deposits liabilities of 28.84 of deposit-taking corporations and a net increase in currency and deposits liabilities of 3.63 of the central bank. In contrast to the current and capital accounts, the financial account registers transactions on a net basis, which are shown separately for financial assets and liabilities. More specifically, net transactions in financial assets shows acquisition of assets less reduction in assets, and net incurrence of liabilities show increases in liabilities less decreases in liabilities. Thus, the financial account items are recorded on a net basis for financial assets and liabilities separately and reflect changes due to all credit and debit entries during an accounting period (see *BPM6* 3.31).

In *BPM5*, transactions are recorded in the financial account under the headings of “debits” and “credits”, where net debits have a negative sign and net credits a positive sign. The interpretation of increase or decrease depends on whether the change refers to an asset or a liability: a debit for an asset is an increase in holdings of that asset; a debit for a liability is a decrease in that liability; a credit for a liability is an increase; a credit for an asset is a decrease. In the *BPM5* basis table below, the negative 25.21 (i.e., a debit) denotes a decrease in liabilities of 25.21, which is the result of a decrease (debit) in currency and deposits liabilities of banks (-28.84) and an increase (credit) in currency and deposits liabilities of the central bank (3.63).

**Excerpt of BOP Statement According to *BPM6* Presentation:  
Financial Account – Net Incurrence of Liabilities**

<b>Net incurrence of liabilities</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
<b>Currency and deposits</b>	<b>15.52</b>	<b>6.18</b>	<b>-25.21</b>	<b>-1.48</b>
Central banks	1.78	-0.17	3.63	-1.04
Short-term				
Long-term				
<i>Monetary authorities (where relevant)</i>	0.00	0.00	0.00	0.00
Short-term				
Long-term				
Deposit-taking corporations, except the central bank	13.73	6.35	-28.84	-0.43
Short-term				
Long-term				
<i>Of which:</i>				
<i>Interbank positions</i>				
General government	0.00	0.00	0.00	0.00
Short-term				
Long-term				
Other sectors	0.00	0.00	0.00	0.00
Short-term				
Long-term				

**Excerpt of BOP Statement According to *BPM5* Presentation:  
Financial Account – Liabilities**

<b>Liabilities</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
<b>Currency and deposits</b>	<b>15.52</b>	<b>6.18</b>	<b>-25.21</b>	<b>-1.48</b>
Monetary authorities	1.78	-0.17	3.63	-1.04
General government				
Banks	13.73	6.35	-28.84	-0.43
Other sectors				

Q3: Could you explain why the net financial account numbers have opposite signs for the years 2005–2008 in *BPM5* and *BPM6*?

In *BPM6*, the balance in the financial account was calculated by *subtracting* transactions in liabilities from transactions in assets, instead of *adding* both, like in *BPM5*. Also, there is a change in signs for transactions in assets (e.g., increases carry a positive sign under *BPM6* but carry a negative sign under *BPM5*), but not for transactions in liabilities (e.g., increases carry a positive sign under both *BPM6* and *BPM5*.) The absolute value for the balance in the financial account does not change because of this, but the balance on the financial account under *BPM6* has the opposite sign from that presentation based on *BPM5*.

#### ***BPM6 Presentation***

<b><i>Financial account (by functional category)</i></b>	<b>Net acquisition of financial assets</b>	<b>Net incurrence of liabilities</b>	<b>Balance</b>
Direct investment	-5	1	-6
Portfolio investment	-2	-8	6
Financial derivatives	21	13	8
Other investment	15	-4	19
Reserve assets	4		4
Total changes in assets/liabilities	33	2	
<i>Net lending (+)/net borrowing (-) (from financial account)</i>			<b>31</b>

#### ***BPM5 Presentation***

<b><i>Financial account (by functional category)</i></b>	<b>Credit</b>	<b>Debit</b>	<b>Balance</b>
Direct investment			6
Abroad	5		
In reporting country	1		
Portfolio investment			-6
Assets	2		
Liabilities		-8	
Financial derivatives			-8
Assets		-21	
Liabilities	13		
Other investment			-19
Assets		-15	
Liabilities		-4	
Reserve assets		-4	-4
<i>Net lending (-)/net borrowing (+) (from financial account)</i>			<b>-31</b>



Q4: How do I derive net lending/net borrowing from the financial account in *BPM6*?

The sum of the balances on the current and capital accounts represents the net lending (surplus) or net borrowing (deficit) by the economy with the rest of the world. This is conceptually equal to the net balance of the financial account (net change in financial assets minus net incurrence of liabilities, where a net increase in both financial assets and liabilities has a positive sign) (see also Q3). In *BPM6*, a positive figure reflects net lending and a negative figure reflects net borrowing.

Q5: How are net errors and omissions derived according to *BPM6* compared to *BPM5*, and does the sign of “net errors and omissions” change?

The BOP accounts are, in principle, balanced; imbalances result from imperfections in source data and compilation. This imbalance is labeled net errors and omissions.

Under *BPM5*, net errors and omissions are calculated as the sum of the balances on the current, capital and financial accounts, with the sign reversed. Under *BPM6*, it is calculated as the balance on the financial account minus the sum of the balances on the current and capital accounts. The sign for net errors and omissions does not change from the *BPM5* to the *BPM6* presentation.

As an example, if the current account balance is *plus 13*, the capital account balance is *minus 8*, and the financial account balance is *minus 12*, then net errors and omissions under the *BPM6* presentation is *minus 17* (see *BPM6*, paragraph 2.24). In *BPM5*, it would be the current account balance (*plus 13*) *plus* the capital account balance (*minus 8*) *plus* the financial account balance (*plus 12*), with the sign reversed. The resulting *BPM5* errors and omissions would therefore also be *minus 17*.

Mathematically, under both *BPM5* and *BPM6*, a negative figure of net errors and omissions indicates an overall tendency that:

- (a) the value of credits in the current and capital accounts is too high; and/or
- (b) the value of debits in the current and capital accounts is too low; and/or
- (c) the value of net increases in assets in the financial account is too low; and/or
- (d) the value of net increases in liabilities in the financial account is too high.

Q6: Using the example below, could you explain the differences in value and sign between *BPM5* and *BPM6* figures for direct investment?

In Q1:2010, in country A’s BOP, the following figures are published based on *BPM5* and *BPM6*:

Direct investment abroad (*BPM5*): -33.71

Direct investment assets (*BPM6*): 23.18

Direct investment in reporting economy (*BPM5*): 9.55

Direct investment liabilities (*BPM6*): -0.98

**Excerpt of BOP Statement According to *BPM6* Presentation**

<b><i>BPM6</i>: Assets/Liabilities Presentation</b>	<b>Q1: 2010</b>
<b>Financial account</b>	
<b>Direct investment</b>	24.16
<b>Net acquisition of financial assets</b>	<b>23.18</b>
Equity and investment fund shares	14.92
Equity other than reinvestment of earnings	11.75
Direct investor in direct investment enterprises	11.75
Direct investment enterprises in direct investor (reverse investment)	0.00
Between fellow enterprises	0.00
Reinvestment of earnings	3.16
Debt instruments	8.26
Direct investor in direct investment enterprises	14.67
Direct investment enterprises in direct investor (reverse investment)	-6.41
Between fellow enterprises	0.00
<b>Net incurrence of liabilities</b>	<b>-0.98</b>
Equity and investment fund shares	2.68
Equity other than reinvestment of earnings	4.55
Direct investor in direct investment enterprises	4.55
Direct investment enterprises in direct investor (reverse investment)	0.00
Between fellow enterprises	0.00
Reinvestment of earnings	-1.88
Debt instruments	-3.66
Direct investor in direct investment enterprises	0.46
Direct investment enterprises in direct investor (reverse investment)	-4.12
Between fellow enterprises	0.00

**Excerpt of BOP Statement According to *BPM5* Presentation**

<b><i>BPM5</i>: Directional principle</b>	<b>Q1: 2010</b>
<b>Financial account</b>	
<b>Direct investment</b>	-24.16
<b>Abroad</b>	<b>-33.71</b>
Equity capital	-11.75
Claims on affiliated enterprises	-11.75
Liabilities to affiliated enterprises	0.00
Reinvested earnings	-3.16
Other capital	-18.79
Claims on affiliated enterprises	-14.67
Liabilities to affiliated enterprises	-4.12
<b>In reporting economy</b>	<b>9.55</b>
Equity capital	4.55
Claims on direct investors	0.00
Liabilities to direct investors	4.55
Reinvested earnings	-1.88
Other capital	6.87
Claims on direct investors	6.41
Liabilities to direct investors	0.46

In *BPM6*, direct investment is presented on an assets and liabilities basis, compared to the directional principle presentation in *BPM5*. Under both *BPM5* and *BPM6*, direct investment data are presented according to the relationship between the investor and the entity receiving the investment: Under *direct investment enterprises in direct investor* (i.e., reverse investment), the reporting economy of the direct investment enterprises records the assets of the direct investment enterprises, and the reporting economy of the direct investor records the liabilities of the direct investor. The differences in value and sign between *BPM5* and *BPM6* figures for direct investment are therefore due to the re-arrangement of reverse investment.

In particular, in the above table, for Q1:2010, country A's direct investment enterprises decreased their debt instrument claims on their parent companies by 6.41; while the direct investment enterprises abroad decreased their claims on Country A's direct investors by 4.12 (i.e., resident direct investor liabilities decreased by 4.12).

In *BPM5*, reverse investment of resident direct investment enterprises was recorded on the liability side (in direct investment in the reporting economy), and reverse investment of nonresident affiliated enterprises vis-à-vis resident direct investors was recorded on the asset side (in direct investment abroad). In *BPM6*, reverse investment is re-arranged and classified according to the relationship between the investor and the entity receiving the investment.

Additionally, the financial account registers transactions on a net basis, which are shown separately for financial assets and liabilities (i.e., net transactions in financial assets shows acquisition of assets less reduction in assets).

Q7: In the World Economic Outlook (WEO), assets are recorded with a negative sign while IFS figures are recorded with a positive sign. When will these publications be aligned?

It is planned for WEO to implement the *BPM6* presentation during the calendar year 2014.

Q8: What is the rationale behind changing the sign convention in *BPM6*?

The rationale of changing the headings and signs was to integrate the BOP with the IIP and the other changes in assets and liabilities, as well as to harmonize the presentation of the financial account with other macroeconomic datasets such as the SNA and government finance statistics.

Q9: Do you have a numerical example that illustrates all the changes in presentation due to the sign convention?

The *BPM6 Compilation Guide*, Chapter 8 (*Cross-cutting Issues in Compiling BOP and IIP Statistics*)<sup>6</sup> includes a numerical example on the use of signs in balance of payments under *BPM6* versus the convention used in *BPM5*. It is repeated here for convenience. In the example, the following assumptions are made for the reported period of Country A:

- (i) Exports and imports of goods 150 and 200 units, respectively;
- (ii) Exports and imports of services 50 and 180 units, respectively;
- (iii) Investment income received 30 units and paid 110 units;
- (iv) Grants for current needs received 70 units;
- (v) Investment grants received 85 unit;
- (vi) Direct investment in equity capital received by resident enterprises 115 units;
- (vii) Purchase of debt securities issued by nonresidents 30 units;
- (viii) Disbursement of loans from nonresidents 75 units and repayment of principal for loans to nonresidents 40 units; and
- (ix) Disbursement by the central bank of 65 units of loan from the IMF used to increase the reserve assets.

<b>BPM6</b>			<b>BPM5</b>		
	Credit	Debit		Credit	Debit
<i>Current account</i>	+ 300	+ 490	<i>Current account</i>	+300	- 490
Goods	+ 150	+ 200	Goods	+ 150	- 200
Services	+ 50	+ 180	Services	+ 50	- 180
Primary income	+ 30	+ 110	Income	+ 30	- 110
Secondary income	+ 70		Current transfers	+ 70	

<sup>6</sup> See: <http://www.imf.org/external/pubs/ft/bop/2007/bop6comp.htm>.

<i>Current account balance (credit minus debit)</i>		-190	<i>Current account balance (credit plus debit)</i>		- 190
<i>Capital account</i>	+ 85		<i>Capital account</i>	+85	
Capital transfers	+ 85		Capital transfers	+85	
<i>Capital account balance (credit minus debit)</i>	+ 85		<i>Capital account balance (credit plus debit)</i>	+85	
	<b>Net acquisition of financial assets (NAFA)</b>	<b>Net incurrence of liabilities (NIL)</b>		<b>Credit</b>	<b>Debit</b>
<i>Financial account</i>	+ 110	+ 215	<i>Financial account</i>	+ 815	- 710
Direct investment, equity and investment fund shares		+ 115	Direct investment in reporting economy, equity	+115	
Portfolio investment, debt securities	+ 30		Portfolio investment, assets, debt securities		- 30
Other investment, currency and deposits	+ 150 - 200 + 50 - 180 + 30 - 110 + 70 + 85 +115 - 30 + 75 - 40		Other investment, assets, currency and deposits	+ 200 + 180 + 110 + 30 + 40	- 150 - 50 - 30 - 70 - 85 - 115 - 75
Other investment, loans		+ 75 - 40 + 65	Other investment, liabilities, loans	+ 75 + 65	- 40
Reserve assets	+ 65		Reserve assets		- 65
<i>Net lending (+)/ net borrowing(-) (NAFA minus NIL)</i>	- 105		<i>Financial account balance (credit plus debit)</i>	+ 105	

*Questions for the Committee:*

1. Do Committee members have comments on the FAQs on sign convention?
2. Do Committee members have suggestions for additional FAQs on conversion?