REVISION OF ITALY'S EXTERNAL STATISTICS – SEPTEMBER 2016

METHODOLOGICAL NOTE[1]

Following the reporting of foreign assets under the voluntary disclosure (VD) scheme instituted by Law 186/2014,[2] the first data to be revised were those on Italy's balance of payments (BOP) and international investment position (IIP) for the period starting in Q4 2009; the revisions were published in May 2016 in the Bank of Italy's Statistical Database and in *Supplements to the Statistical Bulletin* No. 26. The time series were then revised also for the years 1999-2009 and the new figures uploaded to the statistical database on 30 September 2016.

Below are details of the methodological approaches followed in the two stages of the statistical revisions, with a summary of the effects on the entire period.

1. Statistical revisions for the period 2009 to 2015

Unlike the tax shields of 2001-03 and 2009-10, the VD scheme did not envisage any mediation by financial intermediaries as taxpayers were not granted anonymity. All the data were therefore collected exclusively by the Italian Revenue Agency (*Agenzia delle entrate*) and the information available for compiling statistics on the foreign sector is therefore incomplete; for instance, there is no information on the percentage of the total represented by non-financial assets and there are no details of the types of financial instrument involved.

The official figures for the VD scheme are reported in Table 1. A total of €61.7 billion worth of assets were declared, of which €17.3 were repatriated to Italy and €44.4 held abroad .

Table 1: Voluntary disclosure – aggregate data
(million euros)

A) Stock of foreign assets disclosed*	**61,682**
B) Total repatriations (decrease in assets/inflows)	**17,328**
B1) repatriated to Italy before disclosure	*1,160*
B2) at time of disclosure	*16,168*
C) Stock of foreign assets at 31/12/2015 (after end of disclosure scheme; C=A-B)	**44,354**

Source: Based on Italian Revenue Agency data.
(*) The stock is the value at the time of disclosure, i.e. any time up to 30 November 2015.

Before the Revenue Agency data could be used to revise the statistics, the percentage of non-financial assets (personal property, jewellery, paintings, etc.) and claims on residents (e.g. euro banknotes) had to be estimated and excluded from the balance of payments and international investment position figures. This was done using the share of these assets in the total (about 15 per cent) computed on the basis of data for the 2009-10 tax shield.

[1] Prepared by S. Federico, E. Tosti (Statistical Analysis Directorate), G. Marocchi and S. Sabatini (Statistical Data Collection and Processing Directorate).

[2] The VD scheme allowed Italian resident taxpayers (physical persons, simple partnerships and non-commercial undertakings) to regularize, between January and November 2015, any unreported foreign capital and non-financial assets (property, etc.), held either directly or through trusts or other agencies, at 31 December 2013.

Other financial assets were divided type of instrument based on the average breakdown in the 2001-03 and 2009-10 tax shields.

Different criteria were adopted for the geographical breakdown depending on the type of financial instrument and the availability of data:

- for bank deposits we used the VD distribution by country, which is similar to that of the previous tax shields,
- for property, because the IIP data (household sector) and the 2009-10 tax shield figures were so close, we used the breakdown based on the latter, which contained a smaller percentage of 'unclassified',
- for portfolio securities the available country breakdowns were also based on the IIP (household sector) and the 2009-10 tax shield; in this case we used the former because the information was richer and of better quality,
- for other financial assets we used the distribution based on the IIP of the household sector, partly because not all of the detailed information needed was available for the previous tax shields.

The criteria used in the breakdown by financial instrument and by country, which are summarized in Table 2, were applied to the stock at end-December 2009 (the first Revenue Agency figure available) declared in the VD scheme. The statistics for the following period were revised using information on total investments collected from the VD scheme; the flows of each financial instrument were estimated (using the same distribution as for the stock[3]), as were the valuation adjustments (using coefficients drawn from IIP data for the household sector). Combining the end-2009 stock, the flows, and the value adjustments, we obtained the figures for the stock up to December 2015.

Table 2: Criteria for the breakdown by financial instrument and issuing country

Breakdown by financial instrument	Geographical breakdown for the various financial instruments	
Average of outcome of two previous tax shields (2001-03 and 2009-10)	Current account deposits	VD
	Property, shares of real rights and time shares	2009-10 shield
	Securities – shares	Households' IIP*
	Securities – debt instruments	Households' IIP*
	Other financial assets	Households' IIP*

(*) Including for the breakdown by sub-item (type of security, maturity, type of instrument included under other financial assets, etc.)

Lastly, we estimated the income earned from holding financial assets (assuming it was re-invested in full in the same asset) as well as the 'Financial Intermediation Services Indirectly Measured' (FISIM, liabilities) associated with foreign deposits. The coefficients used to estimate income and calculate FISIM were based on methodologies similar to those used to compile the BOP.[4] All the series estimated were attributed to the household sector (S14).

[3] Flows of disinvestment after 30 September 2014 are not included. We assumed that the first repatriation was of immediately liquid assets (deposits and euro banknotes) and that the second repatriation concerned other categories of financial instruments (except property) in proportion to the stock at end-2014.

[4] For details of the methodologies used see 'Manuale della bilancia dei pagamenti e della posizione patrimoniale sull'estero dell'Italia' available in Italian only on the Bank of Italy's website at http://www.bancaditalia.it/statistiche/manuale_bop_19mag16.pdf.

2. Statistical revisions for the period 1999 to 2009

Information drawn from taxpayers' returns could not be used for the period before end-2009. Consequently, with no information available on changes in the flows and stocks of unreported assets, the statistical revisions, which were made separately for each of the financial instruments in the VD scheme as estimated at end-2009,[5] were necessarily based on a number of hypotheses.

To establish our working hypotheses we first considered the negative correlation observed between flows of assets of the household sector as recorded in BOP statistics and errors and omissions. The latter in fact tend to have particularly high negative values at times of large increases in reported foreign assets (notably in 1999-2000 and 2005-06), suggesting a concurrent increase in unreported assets as well. In detail, our main working hypotheses were the following.

Hypothesis 1. Undeclared foreign assets are built up between the end of 1998 (when IIP series complying with the IMF's VI manual first became available) and the end of 2009; this is a large time window, with a high negative value for accumulated errors and omissions (-€95.0 billion). Taxpayers taking part in the VD scheme are unlikely to have taken part in the 2009-10 tax shield as the stocks declared at end-2009 under the scheme were extremely large; we can therefore assume that they, or at least some of them, did not participate in the 2001-03 tax shield either, and hence the revisions extend back before that period.

Hypothesis 2. Undeclared flows are estimated as a time invariant quota, for each instrument, of official flows recorded for households in the BOP. This quota represents the foreign assets that were missed when compiling the BOP; it was selected in order to obtain, after adding flows since 1998 (including reinvested income) and making valuation adjustments, the stocks reported under the VD scheme at the end of 2009. For the years in which there are negative flows (i.e. disinvestment) of a given financial instrument, the quota is set at zero; this is the same as assuming that no new foreign assets were built up in that instrument, except for those produced by reinvesting the income from previously accumulated stocks. The quota of undeclared flows is higher for deposits and medium-to-long-term debt securities (about 12 per cent) and lower for listed shares (about 6 per cent); its value is average for the other financial instruments.

Hypothesis 3. The income from unreported assets is entirely reinvested in the same instrument.

Hypothesis 4. Valuation adjustments are the result of comparing stocks and flows of the corresponding instruments held by the household sector in BOP and IIP data.

Hypothesis 5. The time series are initially revised on an annual basis. The monthly flows are then computed by weighting each financial instrument with the percentage incidence of monthly BOP data in the reference year; at the same time the quarterly stocks are computed for the IIP.

Again, all the estimated stocks and flows are attributed to the household sector (S14). The benchmark for calculating FISIM, in line with the current methodology, is the 1-month Euribor, while the interest rate on deposits is calculated as the weighted average of the overnight rate and the rate on deposits over 2 years (source: ECB).

[5] The series of unlisted shares and short-term debt securities were not revised as the amount disclosed under the VD scheme was negligible.

3. A summary of the effects of the revisions over the whole period 1999-2015

Combining the two stages of revision of the BOP and IIP time series we can assess the overall effect of the disclosure of previously undeclared foreign assets.

Regarding the international investment position, the foreign financial assets declared under the VD scheme increase progressively from €4.2 billion in 1999 to €51.0 billion at the end of 2014 (Table 3). Because stocks are calculated at market value they also reflect the performance of international financial markets, as shown by the movements recorded in 2008 following the drop in share prices.

Table 3: Impact of the VD scheme on foreign assets (stocks)

(million euros)

	Direct investment	Portfolio investment		Other investment		Total	Euro banknotes (stock repatriated)	Total assets
	Property	Shares & funds	Debt securities	Deposits	Other fi. assets			
1999	54	1,796	1,772	181	386	4,188		4,188
2000	114	5,293	1,958	417	791	8,573		8,573
2001	201	4,583	3,813	968	1,218	10,784		10,784
2002	228	4,692	4,441	984	1,618	11,962		11,962
2003	292	5,110	5,638	988	2,007	14,035		14,035
2004	427	6,564	6,438	1,002	2,419	16,850		16,850
2005	605	8,685	9,739	1,361	2,907	23,298		23,298
2006	772	10,849	10,093	3,240	3,321	28,274		28,274
2007	931	11,102	11,267	4,303	3,685	31,287		31,287
2008	1,024	9,080	11,934	5,263	3,920	31,221		31,221
2009	1,056	14,034	14,360	6,059	4,511	40,019		40,019
2010	1,159	16,933	14,686	6,426	4,629	43,833		43,833
2011	1,289	16,862	14,655	6,848	4,776	44,432		44,432
2012	1,419	19,300	15,933	7,027	4,901	48,580		48,580
2013	1,547	21,504	15,129	7,127	4,994	50,300		50,300
2014	1,625	22,276	15,777	6,137	5,009	50,825	170	50,995
2015	1,625	18,943	13,236	5,132	4,208	43,144	1,864	45,008

From the end of 2014 to the end of 2015 the total value decreases to €45.0 billion as a result of the repatriation of some assets. This figure represents the amount of foreign assets effectively remaining at the end of the VD scheme. At that date foreign assets consist for the most part of portfolio investments (€18.9 billion in shares and units of investment funds and €13.2 in debt securities) and other investments (€5.1 billion of deposits and €4.2 billion of other assets); direct investments account for a smaller amount (€1.6 billion, almost entirely in the form of foreign property).

When the foreign assets declared under the VD scheme are included, Italy's IIP deficit decreases from €432 billion to €387 billion at the end of 2015 (i.e. from 26.4 to 23.7 per cent of GDP; Table 4). The improvement in the IIP increases by 0.4 per cent of GDP in 1999, reaching a maximum of 3.2 per cent at the end of 2014.

Table 4: Impact of the VD scheme on the IIP

(million euros and per cent of GDP)

	NIIP (pre-revision)*	*% of GDP*	NIIP (revised)	*% of GDP*	Impact of VD on IIP (*% of GDP*)
1999	-58,203	*-5.0*	-54,015	*-4.6*	*0.4*
2000	-87,711	*-7.1*	-79,138	*-6.4*	*0.7*
2001	-74,865	*-5.8*	-64,081	*-4.9*	*0.8*
2002	-161,452	*-12.0*	-149,490	*-11.1*	*0.9*
2003	-181,170	*-13.0*	-167,135	*-12.0*	*1.0*
2004	-234,907	*-16.2*	-218,057	*-15.1*	*1.2*
2005	-253,375	*-17.0*	-230,077	*-15.4*	*1.6*
2006	-339,358	*-21.9*	-311,083	*-20.1*	*1.8*
2007	-372,059	*-23.1*	-340,772	*-21.2*	*1.9*
2008	-384,702	*-23.6*	-353,481	*-21.7*	*1.9*
2009	-390,876	*-24.9*	-350,857	*-22.3*	*2.6*
2010	-375,465	*-23.4*	-331,632	*-20.7*	*2.7*
2011	-358,327	*-21.9*	-313,895	*-19.2*	*2.7*
2012	-433,453	*-26.9*	-384,873	*-23.9*	*3.0*
2013	-456,556	*-28.5*	-406,256	*-25.3*	*3.1*
2014	-447,451	*-27.8*	-396,456	*-24.6*	*3.1*
2015	-432,155	*-26.4*	-387,147	*-23.7*	*2.8*

(*) data updated as at 30 September 2016 net of VD impact.

Regarding the BOP, the financial account includes purchases of foreign assets with capital declared under the VD scheme for a total of €33.9 billion between 1999 and 2015[6] (Table 5). The figure takes account of €45.0 billion of capital outflows up to 2013 (an average of about €3.0 billion a year, with a peak of almost €6 billion in 2005), which were partially offset by a surge in asset repatriations in 2015.

Financial account components include the counter-item of reinvested income, which also gives rise to an entry in the current account, on the surplus side, under investment income (for a cumulative value of €12.7 billion – an average of 0.7 billion a year). The amount of FISIM (liabilities) is small.

The revision had a considerable impact on BOP errors and omissions, which are traditionally large and of negative sign in Italy (a phenomenon usually associated with undeclared foreign assets). The cumulative value between 1999 and 2015 is reduced by €21.5 billion (from -€135.3 billion to -€113.8 billion). Errors and omissions decrease in absolute value in all the years except 2001, 2002 and 2008, when the increase was in any case extremely small.

The revision following the disclosure of assets under the VD scheme has not fundamentally altered the trend in errors and omissions except for 2015, the only year in which they change sign, although in absolute value they are much smaller.

[6] The amounts for 2014 and 2015 diverge slightly from the earlier estimate published in *Supplements to the Statistical Bulletin* No. 26, May 2016, owing to the reclassification of investment flows in the first three quarters of 214 as valuation adjustments in the first quarter of 2015.

Table 5: Impact of the VD scheme on the balance of payments

(million euros)

	Current account			Financial account	Errors and omissions		
	Services (debit)	Income (credit)	**Total (balance)**	**Total (balance)**	**Impact**	*E&O pre-revision**	*E&O revised*
1999	0	0	**0**	**4,188**	**4,188**	-26,738	-22,550
2000	4	183	**179**	**3,924**	**3,745**	-9,006	-5,261
2001	11	260	**249**	**3,037**	**2,788**	-559	2,229
2002	17	394	**377**	**1,547**	**1,170**	2,158	3,328
2003	12	472	**460**	**2,536**	**2,076**	-16,107	-14,031
2004	10	558	**548**	**1,947**	**1,399**	-6,231	-4,832
2005	11	696	**685**	**5,919**	**5,234**	-24,480	-19,246
2006	23	942	**919**	**5,344**	**4,425**	-16,438	-12,013
2007	49	1,059	**1,011**	**4,651**	**3,640**	-4,640	-1,000
2008	89	866	**776**	**2,259**	**1,482**	15,888	17,370
2009	42	827	**785**	**1,939**	**1,154**	-8,833	-7,679
2010	23	977	**954**	**1,844**	**890**	-29,949	-29,059
2011	15	1,125	**1,110**	**2,180**	**1,071**	-17,175	-16,104
2012	-8	1,108	**1,116**	**1,904**	**788**	-9,091	-8,303
2013	-17	1,089	**1,106**	**1,747**	**641**	-3,518	-2,877
2014	-10	1,097	**1,107**	**277**	**-830**	10,765	9,935
2015	-14	1,028	**1,042**	**-11,331**	**-12,373**	8,690	-3,683
Total 1999-2015	**257**	**12,681**	**12,424**	**33,912**	**21,488**	**-135,264**	**-113,776**

(*) data updated as at 30 September 2016 net of VD impact.

Figure 1: Impact of disclosed assets on errors and omissions: annual data (1999-2015)

(billion euros)