

Economic and financial accounts for monetary and economic policy

Luigi Federico Signorini; Discussant

*Director of statistics, research department, Banca d'Italia.*¹

Ladies and Gentlemen,

It is a privilege to have been given this opportunity to comment on two very rich and interesting papers. As the papers cover, though briefly, many important topics, the discussion will have to be selective to be minimally meaningful within reasonable time and space constraints.

While different in scope and content, the two papers by Messrs Stockton and Sándor have a similar structure. Both, like Caesar's Gaul, are divided *in partes tres* (net of introductory remarks). Part I is an overview of the development of financial accounts (and, in Stockton's case, of national accounts more generally) in, respectively, the US since the early 20th century, and post-socialist Hungary. Part II gives an overview of the use of financial (and economic) accounts in the two countries in the conduct of monetary policy, and illustrates certain aspects with examples. Part III covers a number of special topics in greater detail. The last parts of the two papers are different, however, in that Stockton is more interested in giving examples of the use of external statistics as a complement to the system of national accounts; whereas Sándor makes suggestions concerning possible methodological modifications to the system itself.

I shall touch on Part I only briefly. Here the two national viewpoints are as different as they could be. The US has the longest tradition in financial accounts (although, as Stockton reminds us, Europe's proto-economists may have developed vaguely similar ideas centuries earlier²), and the development of basic concepts and uses of financial accounts, at least in the early stages, overlaps to a large extent with theoretical and methodological work done at the Federal Reserve. Hungary's story, on the other hand, is typical of many central European countries which switched to a market economy little more than a decade ago. The work done in Hungary in seven years, in preparation for accession to the EU, is impressive. The wide range of policy-oriented uses of financial accounts and the quality of the methodological contributions, as documented in Sándor's paper, bear witness to the remarkable achievements of the national bank's statisticians.

I may perhaps mention at this point that Italy was a very early follower in the development of financial accounts after WWII. The Bank of Italy's Annual Report for 1948 included a highly simplified table of financial flows with a limited number of sectors (see Picture 1). The Report for 1964 contained the first

¹ I wish to thank Riccardo Bonci, Riccardo De Bonis, Eugenio Gaiotti, Andrea Generale, Giuseppe Parigi, Gabriele Semeraro, Roberto Tedeschi, Ignazio Visco, Francesco Zollino for helpful input, suggestions and comments. The opinions expressed in this discussion are those of the author and do not necessarily reflect the views of the Banca d'Italia.

² In addition to Petty and others, one might also mention Quesnay with his *Tableau Économique*, complete with institutional sectors, macro-level real flows and counterpart financial flows.

fully-fledged financial accounts (for the year 1963), as well as a more limited set of data for 1950-62³. A driving force in the early development of aggregate financial statistics in Italy was the prevalence of Keynesian theory, with its emphasis on macro aggregates. In America, also the pre-Keynesian tradition in business cycle research, based on the work of Mitchell and others, was important.

Much more recently, the development of euro-area accounts has been a challenge for the ECB and ESCB. The integration of highly developed, but to some extent dissimilar, national statistical traditions into one euro-area framework for financial accounts is still in progress. Data on the main financial assets and liabilities, as well as on saving, financing and investment, are regularly published for the main sectors of the euro-area economy. But a fully-fledged system of financial accounts for the euro area is still some time away. A huge amount of methodological work has been done, though it may not yet fully show in the published data. In the process, national financial accounts have also developed and improved further. Fully harmonised FA data exist for 12 of the 15 current member countries.

I now turn to the second part of both papers, concerning the use of financial accounts in the conduct of monetary policy. This subject cannot be exhausted in a brief discussion—and at this table I am surely the least qualified to speak authoritatively on this. I shall, however, make a few broad points as a general reaction to the two papers.

It would appear that there are basically three possible roles for financial accounts in the context of monetary policy-making: (1) as input for day-to-day (or month-to-month) policy decisions; (2) as data for structural analysis and research; and, (3) as an instrument for data cross-checking. Every central bank does a bit of each, but in varying degrees. My impression from the papers is that in Hungary, and to an extent in America, the use of financial accounts as immediate input for policy decision is much emphasised. I think that a similar paper from the ESCB might have put greater emphasis on the substantial research done here in the past few years on the subject of financial structures and their impact on the channels of transmission of monetary policy⁴.

This is not to say that financial accounts play no type-1 role in Europe. The Governing Council of the ECB is regularly briefed on financial developments and trends based on financial accounts data, and this is clearly part of the body of evidence that is considered in evaluating price developments. The Monthly Bulletin carries a quarterly regular analysis of those data. However, perhaps the emphasis has so far been more on qualitative judgement than formal projections. The type of medium-term analysis that is found, e.g. in an article that appeared in the Monthly Bulletin of August, 2002⁵ is perhaps more salient in the ESCB tradition of financial accounts use.

³ A brief history is in Banca d'Italia (2003). Several later Governors of the Bank of Italy seem to have been directly involved in the early development of the Italian financial accounts. Bank folklore has it that Paolo Baffi, Governor in 1975-79, spent months at the Federal Reserve in 1956 to study the American flow-of-funds accounts; Baffi also described the early Italian financial tables in an IMF paper (Baffi, 1957). Antonio Fazio, the current Governor, worked on, among other things, the inclusion of financial flows in the Bank's first econometric model (Fazio et al., 1970).

⁴ A very comprehensive work on this subject is ECB (2002a).

⁵ ECB (2002b). In this particular case the analysis covers the period 1995-2001.

To an extent this may be an issue of presentation. Some of the indicators that are mentioned in Sándor's paper, or close relations, would be thought of in the ESCB as monetary data or counterparts to monetary aggregates, rather than financial accounts data proper. But if there is, as I am inclined to think, some truth in this difference of emphasis, this may be an interesting point to discuss.

Let me offer just two remarks on this, and leave the rest to the floor. First, monetary policy making is a high-frequency process for which every last piece of updated information is vital. Financial accounts are typically quarterly series which are compiled with a lag. The current 120-day lag may be shortened somewhat in the future (Hungary, we learn, does better), but there is a limit to that. The compilation of financial accounts is inherently complex. To be reliable and complete, it has to rely on a body of very diverse original sources, to use an array of estimation methods, and to satisfy a complex structure of consistency checks. From the European perspective, such data appear better suited to provide sound background knowledge than last-minute updates; while high-frequency financial data, amply and promptly available at the European level, are of more immediate relevance for day-to-day decisions. Let me point out in this regard that, although gaps in high-frequency real data for Europe are often cited, the situation is very different for financial data. The ECB/ESCB can rely on data collected from banks and other financial institutions that are monthly, timely, very detailed, and, I venture to add, very accurate. While improvements are still possible and, indeed, under way (especially for non-banks), the mass of timely information that these data offer on the financial sector, and its counterparty sectors, is remarkable.

My second remark is that the special emphasis that the Eurosystem has put on structural analysis in the first few years of its existence is justified in view of the large amount of uncertainty that existed on the functioning of monetary policy in a new currency environment, and the need to ensure the establishment of a single set of financial markets. While many uncertainties have disappeared since 1999, and the single money market has functioned as such from day one, other parts of the European financial structure are still diversified and complex enough to warrant special attention to structural issues in economic analysis and research for years to come.

Some convergence in type-1 uses of financial accounts may occur; within the ESCB, some of us are thinking about further development of financial-accounts based short-to-medium term analysis. But financial accounts will always remain, I believe, principally a precious instrument for a well-founded structural analysis, thanks to their comprehensiveness and methodological soundness.

Which brings me to the third role of financial accounts in monetary policy making (and beyond), namely, that of providing a way to check the consistency of data from independent sources. This point is treated in both papers, but I will refer mainly to Stockton's paper. Financial accounts are fundamentally based on double-entry accounting. In terms of stocks, every financial asset of one sector must appear as the financial liability of another. Similar constraints apply to transactions. When different sources are subjected to such systematic cross-checking, discrepancies often arise, and weaknesses in the underlying data are brought to light. Discrepancies serve two purposes. Firstly, they alert analysts and policymakers to potential tensions in the data, and thus they bring perspective and provide caveats. Secondly, they help statisticians to improve definitions as well as collection, estimation and compilation methods. No

statistics are perfect; gaps and pitfalls are always there, *in theory*; discrepancies are precious in that they are one way to see where the problems are important *in practice*.

There has been some useful statistical work on discrepancies in the ESCB⁶. An issue is to what extent discrepancies should be cleaned out of published data. Opinions and practices differ on this. Personally, I would recommend that compilers exercise statistical restraint. So long as adjustments based on reasonable, innocuous assumptions can be made, cleaned data will clearly be better for users. But this is often not the case. When discrepancies remain fundamentally unexplained, inherent weaknesses of the underlying data are better exposed than concealed, even though this may make life harder for users (or more embarrassing for compilers), until statisticians have found a way to understand and correct them.

Consistency checks are present everywhere in financial accounts, but the central focus for the analysis of discrepancies is the amount of saving, which constitutes, ideally, the link between economic and financial accounting. This point is treated in Stockton's paper with reference to the US. Before briefly commenting on this and providing a European perspective, one preliminary point to make is that we usually talk about American-style flow-of-funds accounts and European-style financial accounts as if they were the same thing, but they are not. The main difference is that FAs, as the name suggests, only consider financial assets, while FOFAs consider tangible assets (including consumer durables) as well. Thus, unlike in the American NIPA/flow-of-funds framework, in the European ESA95 framework one cannot directly compare two different measures of saving. The financial accounts provide only the difference between the net acquisition of financial assets and the net acquisition of financial liabilities.

That said, $\Delta FA - \Delta FL$ is the financial side of the excess of saving over real investment (the "net lending/net borrowing" item) found in the capital account. Therefore, one still has two different sources for the net funds raised by a generic sector. Let me re-write Stockton's equations (5) and (6) on p. 11:

$$S^{NIPA} = DPI - PO$$

$$S^{FOFA} = \Delta TA + (\Delta FA - \Delta FL)$$

Here S^{NIPA} and S^{FOFA} represent saving as measured in the income and product accounts, and in the flow-of-funds accounts, respectively. Disregarding consumer durables, these two measures of savings should, in principle, be equal. If the NIPA measure of investment is the same as the increase in FOF tangible assets, then:

$$S^{NIPA} - I_{real} = S^{FOFA} - \Delta TA = \Delta FA - \Delta FL$$

In ESA95 terminology, the leftmost and rightmost sides of this equation are called the capital and the financial account balancing items, *c.a.b.* and *f.a.b.*, respectively:

$$S^{NIPA} - I_{real} = c.a.b.$$

$$\Delta FA - \Delta FL = f.a.b.$$

⁶ See e.g. Marchese (2002).

Both items measure net funds raised by a generic sector; thus they should, again, be identical. If $I_{real} = \Delta TA$, then $S^{FOFA} - S^{NIPA} = f.a.b. - c.a.b.$; that is, the discrepancy between S^{FOFA} and S^{NIPA} is mirrored by the discrepancy between $f.a.b.$ and $c.a.b.$. Despite the theoretical equivalence the published EU data⁷ usually exhibit non-negligible discrepancies between these two items (see Table 1 for the Household sector).

It may be interesting to compare Europe's situation with America's. From Stockton's Fig. 4 it appears that, in recent years, the FOFA measure of household saving has been approximately 3% of disposable income larger than the NIPA figure (after correcting for durables). In EU member states the sign of the discrepancy varies (13 out of 55 non-zero figures are negative) and the amounts are generally smaller: in only 3 EU countries does the mean discrepancy between $f.a.b.$ and $c.a.b.$ exceed 3%.

I turn now to the last part of the two papers, where specific methodological points are raised. The issues are different and I have to make my comments separately.

Stockton shows three examples of the use of various external data, alongside national accounts, to add depth and detail to the information set of policymakers. The examples concern respectively: (a) an estimation of the dynamics of inventories; (b) the impact of stock market wealth on consumption; (c) the issue of measuring hourly productivity.

I'll skip example (b) to save space, but not because it is uninteresting, quite the contrary: I think there just would be no space here for an economically meaningful discussion of the very interesting results that are presented. As for the statistical aspects, I have just commented on certain issues concerning the comparison of financial and economic accounts. Let me only add very briefly that I find (b) a particularly illuminating example of the potential of micro data for policy-relevant analysis. I think this is an open field for development in the ESCB context; some NCBs may have experience to offer on this.

Turning to example (a), the estimation of inventories, this is a notoriously elusive piece of real economic statistics. Improving knowledge about it is thus an important ingredient for a better understanding of the cyclical situation. The paper addresses a fruitful area for investigation, which is even more valuable from a euro-area standpoint if one considers the uneven quality of data on inventories now available in real time in member states and therefore for the area as a whole⁸.

The paper shows how firm-level data can be used to gather detailed information on the industry composition of inventories. This is arguably policy-relevant if, for example, bottlenecks in some specific parts of the economy could exert a disproportionate influence on aggregate tensions. A specific example of the application of this method is provided. It shows that the recent business cycle saw a pronounced fall in the ratio of inventories of semiconductors and other electronic components to sales.

⁷ Available on line from Eurostat's *Newcronos* database.

⁸ One issue is that, unlike in the US, in some European countries the national account measure of real inventory change is partly constructed from discrepancies between income and expenditure estimations of GDP.

The general argument is convincing and the methodology interesting, although it is difficult to make in-depth comments from the methodological sketches provided in Stockton's account. Specifically it is not easy to understand how and how far independent information is used for the allocation of domestic absorption between consumption and inventory change, a point which is central to the method⁹. I would invite the speaker to expand a bit on this if there is time.

I would also push Stockton's argument in favour of using complementary sources on inventories one step further. While quantitative information on inventories, such as it is, is important, qualitative data are also useful. In order to assess the cyclical situation, one would like to know not just the level of inventories, but also whether it is above or below the level desired by firms. Regular evidence on voluntary vs. involuntary accumulation of inventories is available from qualitative surveys of firms. In such surveys, which are similar across Europe, firms are asked to report how current inventories compare with "normal". Although "normal" is not necessarily the same as "optimal", experience says that time series of standardised survey replies do provide insight. They are also useful for assessing the impact of statistical discrepancies in the national accounts statistics.

As an example, based on Italian data, Chart 1 compares the national-accounts measure of the contribution of inventory change to quarterly GDP growth, with survey data (normalised at 100 when inventories are, on average, "normal"), over the period 1995-2003. According to national accounts, in the last year and a half the growth in inventories has significantly contributed to overall GDP growth. This could be taken as a signal of a potential inventory overhang. However, survey data for end-2003 show inventories to be well below "normal" for raw materials and intermediate goods, and close to "normal" for finished goods. We have no model for translating this evidence into precise quantitative estimates of the inventory overhang¹⁰. Nevertheless, I do think such data offer a valuable qualitative contribution to the evaluation of the business cycle.

Stockton's third example concerns hourly productivity. Here the point is the notorious divergence, in the US, between two sets of data on hours worked: one based on establishment surveys, the other on household surveys. Which is used as a denominator in measures of output per hour makes a big difference to the results. Although there is little doubt that productivity in the US grew more in 1995-2004 than during the previous decade(s), the magnitude and timing of this acceleration is open to question.

There is little I can add to Stockton's discussion of the US case. However, from the point of view of statistical methodology I find the evidence he presents somewhat more disturbing than he appears to.

Stockton's argument is positive in tone: despite large differences in the information provided by separate sources, both show a long-run acceleration of productivity; therefore the case is proven beyond reasonable doubt. I readily accept his conclusion in this case. But it seems to me that such unambiguous

⁹ See page 9: the imposition of a structure of dynamics governing the evolution of inventories and consumption is mentioned without commenting on the way it is obtained and tested. In general, one wonders how much in the procedure is based on independent information and how much on the method of decomposition chosen.

¹⁰ Although attempts in this directions exist: see e.g. Sestito-Visco (1995).

signals are likely be the lucky exception rather than the rule here. On many equally important issues, the evidence may be much less clear, and a more accurate understanding of reality is therefore needed.

Let me illustrate this point with the example of transatlantic comparisons of per capita income and productivity. As is well known, per capita GDP in the European Union (15 current member states), in purchasing-power terms, stands at approximately 70% of per capita GDP in the US. This has changed little, if at all, in the past thirty years. Does this mean that Europe's workers are less productive? Not necessarily. The employment rate, for one thing, is lower in Europe (about 65% as against more than 70% in the US; 2002). So in terms of GDP per *worker* Europe is closer to America. Furthermore (and here's the rub), average hours worked per worker also appear to be fewer in Europe. There is a growing literature on comparisons of this kind. In a recent paper¹¹, for instance, Olivier Blanchard makes use of similar data to show (?) that product per *hour* in France is actually 105% of that in America. The figure he gives for Europe as a whole is 91%. He concludes that a lower per capita GDP is the result, not of lower productivity, but of a higher preference for leisure.

The economic interpretation is interesting, though debatable. One is perhaps reminded of Modigliani's famous remark that, on some extreme accounts, the Great Depression would appear to be just the product of a collective fit of laziness. More seriously, differences in the allocation of income between consumption of commodities and of leisure may result from inefficient regulation besides individual, or conscious collective, choice. (Blanchard only considers distortionary taxation as a possible constraint on individual choice in the long run, but various other possibilities spring to mind). Be that as it may, my point here is not about the economics, but about the statistical underpinnings for it.

The reason why I have put qualifiers and question marks in the above discussion is that I have serious doubts about the international comparability of data on hours worked. (Employment data may also be less than perfectly comparable, but the situation there seems much more favourable). There are several separate issues as regards working hours statistics. One is coverage: the set of workers considered should be consistent with national account definitions, the main point here being correct consideration of the self-employed. Another is definition. A recent OECD study¹² lists no fewer than six separate main concepts of hours of work. Specifically, contractual hours and actual hours worked sometimes differ markedly, and even the time trends may be different.

And, last but not least, there is the issue of sources and collection methods. Again, Ahmad et al (2003) document a wide variation in the main sources used for estimating hours worked across OECD countries. They include labour force surveys, establishment surveys, and administrative sources. National accounts are also often cited as a source, but these in turn usually rely on establishment surveys.

It is here that Stockton's paper brings bad news—or rather, that it shows that much needed statistical work lies ahead of us. Even within the US, data based on different sources paint significantly different

¹¹ Blanchard (2004). The paper also makes a number of further adjustments to account for, e.g., lower productivity of marginal workers.

¹² Ahmad et al (2003).

pictures of the same phenomenon. (No matter if the answer to one specific question is qualitatively unambiguous). One is led to conclude by implication that international comparisons must be very, very shaky. They are, however, important for policy-relevant discussions.

The good news is that in Europe an attempt to compile reliable, comparable figures on hours worked is well under way under the so-called EMU Action Plan. This is expected to bring a degree of certainty to comparisons within the Union. But the issue does not end at the boundaries of Europe. Much more international co-ordination, I think, would be in order.

Let me finally turn to the last part of Sándor's paper.

Sándor has three specific proposals for modifications to the ESA95 rules on financial accounts. They are: (a) introducing inflation accounting for interest-bearing financial assets; (b) spreading the effect of large debt assumptions by governments over several years; (c) treating reinvested earnings from portfolio foreign investment like those from direct investment.

The first proposal is the most extensively argued. When inflation is high and variable there is clearly a case for taking explicit account of the fact that part of interest payments only restores the real value of the principal. Without some correction for this, both the levels and the year-on-year variations of interest flows are misleading. Sándor argues this case quite convincingly and illustrates it with an example based on net lending by households in Hungary. When the appropriate correction for the erosion of real value of securities (principal) is made, the surplus of households is reduced and its time profile is significantly, if not dramatically, altered.

In Italy, as you might expect, this correction was the subject of much thinking and methodological work in the 1970s and 1980s, when inflation was high. Uncorrected financial flows painted an entirely misleading picture at the time. For instance, one subject of great concern and policy debate was the very high level of interest payments by non-financial corporations. While the concern was indeed legitimate, in view of the financial vulnerability of many, especially large, firms, and the high level of real interest rates in the early 1980s, the measure of this flow was highly distorted by the effect of inflation on nominal interest rates. The same fact exaggerated the effect of the subsequent restructuring of non-financial firms, which saw their profitability restored mainly through a reduction in interest expenditure: to a large extent the reduction in nominal interest flows paralleled that in inflation rates. Much the same applies to the government sector; whereas the large financial income flows that households thought they enjoyed – as the sector was a huge net creditor in the securities market – contained a fair amount of money illusion. The Bank of Italy developed, published and analysed adjusted data, very much along the lines that Sándor suggests, to set right some of these misperceptions¹³. Table 2 shows the adjustment for 1976-84.

¹³ For a full account see Bank of Italy (1985). An analytical treatment is presented in Rossi and Visco (1994).

The question is to what extent this is relevant when inflation is moderate and stable. The answer is: surely it is not as relevant as in different circumstances; but neither is it irrelevant. Chart 2 shows the net financial balances of non-financial corporations and households in Italy for 1995-2000. At least since 1998, the year-on-year variations of the nominal series are similar to those of the series corrected for inflation; but the levels do differ. For instance, in 2002 the net lending of the household sector was six per cent of GDP in nominal terms, and four per cent after the inflation correction. I argued before that structural analysis is a key use of financial accounts. For structural analysis, levels matter.

I therefore buy Sándor's argument that this is a subject worthy of more methodological and analytical thought. On the other hand I hesitate to endorse his suggestion that it should be made a part of ESA. First of all, flexibility as in SNA93 (every country as it pleases) is, I think, out of the question; harmonisation is crucial to the construction of EU-wide aggregates and to meaningful intra-EU comparisons. Secondly, the inflation correction is not a straightforward matter. Methodological mousetraps abound. The choice of the deflator, and other methodological choices, have to be arbitrary to some extent; what is appropriate for certain sectors, instruments, countries, or analytical uses, may not be for other sectors etc. Thirdly, and most importantly, nominal flows do represent reality in a non-trivial sense. To take again the example of non-financial corporations in 1980 Italy: it is true that a large share of interest payments by firms was, really, accelerated reimbursement of capital; but firms did have to find the financial resources to honour in practice this legal commitment when nominal interest fell due. This fact had a bearing on firms' financial fragility. It would be largely concealed by Sándor's proposed treatment, whereby actual interest payments would appear as a tacit revaluation (extension) of credit.

In conclusion, I would support more methodological work at the ECB/ESCB level, with a view to at least partial harmonisation of concepts, and perhaps the eventual publication of corrected balances alongside official financial accounts. I would not support at this stage changing statistical standards.

I shall comment more briefly on Sándor's two other proposals. Concerning large-volume debt assumptions, Sándor's argument is that the underlying liabilities are likely to have accumulated over time, and therefore the recording of the transaction whereby the government takes on these liabilities should likewise be spread over several years (i.e., backdated to some extent). This does not appear to me very convincing either in principle or in practice. In principle, the time of recording a transaction should reflect the development of the transaction itself. In this case the relevant transaction is not the accumulation of debt by some entity in the past (which was appropriately recorded by the financial accounts at the time), but the legislative decision to pass on the debt to the government; the correct time for recording this new fact is when the debt assumption actually takes place. In practice, the proposed treatment would be likely to open the way for much arbitrariness, which I think would not be advisable.

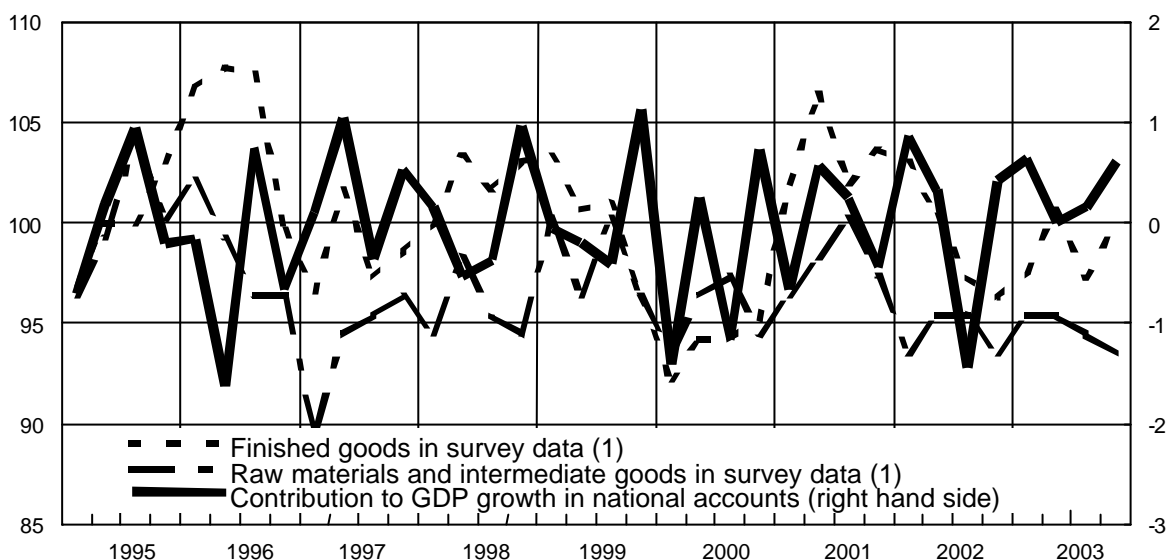
Concerning reinvested earnings, the reason for treating reinvested income from portfolio investment in a different way from FDI income is that in the latter case the investor is assumed to be fully or partly responsible for an explicit decision to reinvest, whereas with portfolio income the investor is basically passive and takes the dividend policy as given. This still seems to me reasonable. The point is interesting, however, and one wonders how current balances would change if a different convention were in place.

(Also, one should bear in mind that in practice the distinction between FDI and portfolio investment is partly conventional, too). I asked colleagues in the Balance of Payments unit to give me a rough idea of the order of magnitude of the flows involved for the euro area. One natural way to do so is by assuming that the ratio of reinvested earnings to equity stocks is the same for FDI and portfolio equity. Of course this ratio is not constant; for the euro area, it has oscillated in the past few years between approximately 1.5 and 3.5 per cent. Applying the same ratio range to portfolio equity on both sides of the IIP would yield, for 2001-2002, an estimated downward correction of the current account (income) balance of between €7 billion and €16 billion per year, and an opposite correction of the financial flows. The reason why the income correction is, on balance, negative, is that more euro-area equity is held as portfolio investment by non-residents than vice versa. This compares with a “net lending to the rest of the world” of €79 billion in 2002, and with a gross flow of capital income of the order of €250 billion. These are very much back-of-the-envelope calculations and are not meant to be quoted as data. But the impression they give is that we may not be talking about peanuts, even at the euro-area level. Whether there would be merit in going in this direction, despite the apparent reasonableness of the current conventions, is a question that I leave to the floor.

References

- Ahmad, N. F. Lequiller, P. Marianna, D. Pilat, P. Schreyer, and A. Wölfl (2003), *Comparing Labour Productivity Growth in the OECD Area: The Role of Measurement*. OECD Statistics working paper 2003/3.
- Baffi, P. (1957), *Monetary Analysis in Italy*. IMF Staff Papers, February.
- Banca d'Italia (1949), *Relazione del Governatore per l'anno 1948*.
- Banca d'Italia (1985), "The Inflation Adjustment of Financial Balances". *Economic Bulletin*, no. 1, October.
- Banca d'Italia (2003), *The Italian Financial Accounts*, June. Available on www.bancaditalia.it.
- Blanchard, O. (2004), *The Economic Future of Europe*. NBER Working paper no. 10310, February.
- European Central Bank (2002a), *Report on Financial Structures*.
- European Central Bank (2002b), "Saving, Financing and Investment in the Euro Area". *ECB Monthly Bulletin*, August.
- Fazio, A., G. Caligiuri, F. Cotula, and P. Savona (1970), *Un modello econometrico dell'economia italiana (MIBI). Settore monetario e finanziario*. Banca d'Italia.
- Marchese, G., with R. Bonci, (2002), "The value of discrepancies", *IFC Bulletin* no. 12, October.
- Rossi, N., and I. Visco (1994), "Private saving and the government deficit in Italy", in: A. Ando, L. Guiso, I. Visco (eds.), *Saving and the Accumulation of Wealth*, Cambridge, C.U.P.
- Sestito, P., and I. Visco (1995), "Actual and 'Normal' Inventories of Finished Goods: Qualitative and Quantitative Evidence from the Italian Manufacturing Sector", in *Economics, Econometrics, and the Link: Essays in Honor of Lawrence R. Klein*, Amsterdam, Elsevier.

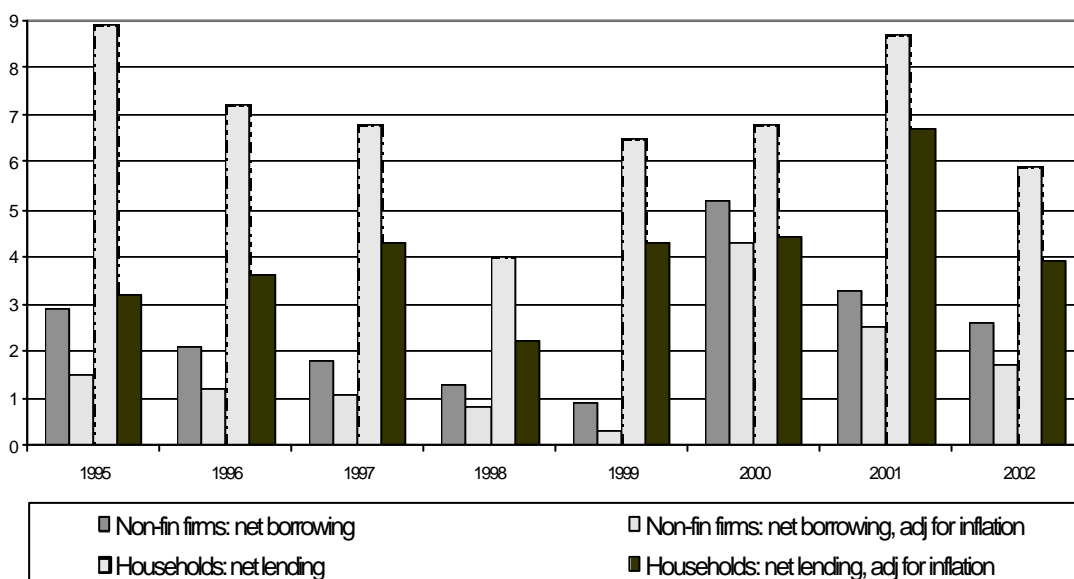
Italy: inventories, 1995-2003



(1) Survey of manufacturing firms; excess of firms responding “above normal” over firms responding “below normal”, in percent of all answers.

Sources: Isae; Istat.

Italy: net lending / net borrowing by sector, 1995-2002



Source: Banca d'Italia

Table 1

EU member states: discrepancy between c.a.b. and f.a.b. for households, 1995-2001

% of net disposable income

Year	AT	BE	DE	DK	ES	FI	FR	IT	NL	PT	SE	UK
1995	-	3.7%	0.0%	0.0%	1.3%	4.1%	2.9%	-0.7%	2.5%	0.5%	0.0%	0.8%
1996	-0.6%	7.6%	0.0%	0.0%	0.4%	7.2%	3.6%	-4.7%	2.2%	1.1%	0.0%	1.3%
1997	-0.1%	7.9%	0.0%	0.0%	0.3%	6.6%	3.0%	-1.1%	1.1%	2.7%	0.0%	0.8%
1998	2.4%	7.7%	0.0%	0.0%	0.3%	9.6%	1.5%	-1.7%	1.3%	0.1%	0.0%	-0.2%
1999	2.5%	8.5%	0.0%	0.0%	-0.1%	6.7%	2.4%	3.4%	1.5%	0.5%	0.0%	0.2%
2000	1.1%	7.1%	0.0%	0.0%	-0.3%	7.4%	-1.3%	6.0%	0.4%	-0.5%	0.0%	0.9%
2001	-0.3%	6.6%	0.0%	0.0%	1.6%	10.5%	1.0%	8.4%	0.5%	1.3%	0.0%	-0.3%
Mean	0.8%	7.0%	0.0%	0.0%	0.5%	7.5%	1.9%	1.4%	1.3%	0.8%	0.0%	0.5%
Mean ^(*)	1.2%	7.0%	0.0%	0.0%	0.6%	7.5%	2.2%	3.7%	1.3%	0.9%	0.0%	0.7%

(*) absolute values.

Source: Based on Eurostat. Newcronos

Table 2

Italy: net lending/net borrowing by sector, 1976-84

% of GDP

Year	Households		Non-financial corporations		Government	
	Adjusted for inflation	Unadjusted	Adjusted for inflation	Unadjusted	Adjusted for inflation	Unadjusted
1976	-0.6	13.9	-1.3	-8.3	2.1	-10.0
1977	4.7	13.9	0.3	-4.0	-1.5	-9.2
1978	7.6	15.6	-0.3	-3.6	-3.6	-10.3
1979	1.0	14.3	2.4	-2.4	0.9	-10.2
1980	-2.1	12.2	-2.5	-7.6	1.9	-10.1
1981	1.6	13.8	-1.9	-6.2	-3.0	-13.6
1982	3.1	14.6	-0.2	-3.9	-4.1	-14.7
1983	6.9	16.3	-1.6	-4.4	-5.3	-14.3
1984	9.2	16.7	-1.9	-4.0	-8.3	-15.6

Source: Banca d'Italia

Italy: National monetary balance sheets, 1946-1948

(reproduced from Banca d'Italia, 1949)

Bilancio monetario nazionale
(in miliardi di lire)

	ANNO 1946			ANNO 1947			ANNO 1948		
	IMPIEGHI		Differenza tra impieghi e raccolta (deficit residuo sulla circolazione)	IMPIEGHI		Differenza tra impieghi e raccolta (deficit residuo sulla circolazione)	IMPIEGHI		Differenza tra impieghi e raccolta (deficit residuo sulla circolazione)
	per il Tesoro	per l'azienda pubblica		per il Tesoro	per l'azienda pubblica		per il Tesoro	per l'azienda pubblica	
<i>Banca d'Italia (operazioni dirette col pubblico ed istituti speciali)</i>									
Anticipazioni a privati		0,9		9,9		1,9			
Prorogati pagamenti a privati		0,2		0,2					
Sconti diretti		0,1		0,3					
Risconto ammassi istituti e sezioni di credito agrario		13,4		36,0		3,4			
Risconto Consorzio sovvenzioni su valori industriali		1,6		13,3		1,9			
Depositi privati		16,2		59,9		0,7		29,9	
Vaglia, assegni ed altri impegni a vista		1,7		1,1		1,7			
		1,7	14,5		3,2	62,6		31,6	- 31,3
<i>Aziende di credito</i>									
Investimenti in B. T. O. ai fini del rapporto:									
diretti				36,2		73,8			
tramite B. I.				14,4		61,8			
Altri investimenti in B. T. O.	63,3			3,7		73,2			
Investimenti in altri titoli di stato	4,4			12,7		10,9			
Depositi presso il Tesoro	7,2			6,1		16,6			
	74,8			54,5		202,1			
Impieghi commerciali		256,2		365,9		349,1		349,1	
Eccedenza delle partite varie attive sulle partite varie passive		31,0							
		287,9		365,2		349,1			
Depositi fiduciari e c/c corrispondenza con clienti		291,5		310,8		508,4			
Vaglia e assegni		33,1		24,9		13,8			
Eccedenza delle partite varie passive sulle partite varie attive				1,1		28,4			

<i>Cassa depositi e prestiti</i>				-10,5	37,6		-19,2	79,5		6,3	2,6
C/c col Tesoro	61,0			18,9		152,9					
Investimenti in titoli di stato	0,9			9,7		10,9					
	61,9			28,6		163,8					
Altri investimenti		60,7		18,5	66,2	17,5	161,0				
<i>Istituti speciali e mercato finanziario</i>											
Emissioni azioni a pagamento	5,5			63,1		70,0					
Emissioni obbligazioni industriali	0,6			2,2		22,6					
Emissioni obbligazioni istituti spec.	15,2			16,8		43,2					
	21,3			82,1		135,8					
meno Investimenti delle aziende di credito in titoli non di stato (*)	10,7			5,1		15,8					
	10,7	15,0		75,4	75,4	120,1	120,1				
Sottoscrizioni del pubblico a B. T. O.	12,7			13,5		109,1					
Sottoscrizioni del pubblico ad altri titoli di stato ed Rifer.	62,1			14,5		5,6					
Depositi di conti non bancari presso il Tesoro	1,8			0,1		0,8					
	76,6			28,1		125,3					
TOTALI	219,6	317,9	478,5	518,9	527,7	450,3	686,7	985,6		- 28,7	
<i>C/c del Tesoro con la Banca d'Italia</i>											
Anticipazioni Banca d'Italia al Tesoro	19,4			16,4	19,5	10,6					26,6
C/c G.I.D. e diverse ratere della B. I.	22,9			22,9	108,2	203,2					161,0
Aiuti internazionali (*)	64,9	5,8	75,0	4,4	108,1	15,4	103,5	69,8	30,9	153,5	- 53,3
Voci minori del bilancio della B. I.	11,6	0,7		12,3		8,3		19,3			19,3
	117,8	6,2		56,0		137,5		137,5			137,5
TOTALI	337,4	324,1	553,5	574,9	635,9	597,8	826,2	1.123,1		174,9	
Incassi Stato p/ entrate bilancio (*)	304,7			293,8		285,2					
Differenza tra incassi e pagamenti minori di tesoreria (*)	15,0			24,3		8,5					
	319,7			318,1		293,7					
Pagamenti per spese di bilancio	642,0			590,3		1.000,1					

(*) Gli aiuti compresi nelle cifre degli impieghi.
 (**) Contorno del governo A.R.A.E., Impostazioni minori a valore su accreditamenti in c/ paga troppo e in c/ assegni, A.F.A., D.N.R.B.A., A.U.S.A., Istituto-ent., I.R.P.
 (***) Al netto degli aiuti internazionali contabilizzati in bilancio (50,9 miliardi per il 1946, 82,3 per il 1947, 75,4 per il 1948), del prestito della circolazione (24,5 miliardi per il 1946, e 34,3 per il 1947) e degli aiuti prestiti collaterali.
 (****) C/c del Tesoro con la Banca d'Italia, aiuti internazionali contabilizzati nella gestione di tesoreria, il debito flottante e l'emissione di titoli.