

Adjustment of Domestic Value Added: Need for Close Cooperation between the National Bank (MNB) and the Statistical Office (HCSO) – Trade Balance Example

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Abstract

Both users' needs and the harmonization of international methodological standards require decrease in data inconsistencies between financial and non financial accounts and through sectors. This work puts a pressure on NCB's and NSI's in order to cooperate with each other since they both collect and compile data for macroeconomic statistics. In Hungary this close cooperation between the national bank (MNB) and the statistical office (HCSO) started in the late 1990s and includes several fields of financial and non financial accounts. In the field of balance of payments statistics the introduction of a direct survey system in 2008 made it possible for BOP compilers in the MNB to get more data for individual companies than under the previous ITRS system and check them at company level. From 2011 onwards the legal possibility for the MNB to access to individual data of foreign trade in goods and services collected by the HCSO strengthened the common work on macroeconomic statistics. During this process a special emphasis is put on investigating goods and services transactions together with their financing items from at least two points of views: (i) differences between them may result in serious errors and omissions, (ii) foreign trade data collected by the HCSO may include incorrect value added information because of the presence of VAT registrations. The treatment of this phenomenon in the first step included a macro level adjustment for this component and in the second step it was extended by micro level adjustments due to widening empirical and methodological knowledge and the increasing legal possibilities. This paper shows why VAT registrations cause problems as regards the consistency of macroeconomic statistics and, as a consequence, how the close cooperation between the MNB and the HCSO on this topic may help aforementioned users' needs and harmonization.

Keywords: data quality, VAT registration, cooperation, company level checking

1. Introduction

One of the important tasks of a modern state is to provide extensive statistics about different aspects of the country's life and operation. This justifies the large scope of data collecting required by public institutions upon law from different public and private players. One of the most comprehensive statistics is the framework of financial and non financial accounts. There are different practices in the world as regards tasks and legal possibilities of public institutions in data collecting and releasing, the most common way, however, seems to be that data for financial and non financial accounts are mainly collected by NCB's and NSI's, respectively. At the same time balance of payments statistics, which methodologically correspond with the rest of the world account of financial and non financial accounts, are mainly published by NCB's, so there are common fields in non financial accounts and balance of payments, mainly foreign trade in goods and services. As a result, NSI's collect and (partly) NCB's release their data. The overall need for harmonization of financial and non financial

accounts, and particularly the consistency of balance of payments, requires strong cooperation between these institutions. This paper shows via an interesting example of VAT registrations how the different aspects of globalization affect this cooperation.

2. Globalization

One of the main visible features of the globalization is the operation of multinational enterprises. They establish affiliates and branches in different countries throughout the world, using legal possibilities for their own purposes. National statistical authorities collect data on their operations only in the resident country although their transaction cannot be understood without knowledge of their overall activities.

This makes a challenge for statistical authorities, both at national and international level, as regards ensuring that the main goal of (economic) statistics, i.e. describing and showing (economic) processes in well-chosen numbers and indices, will continue to be carried out. Users' needs and important reporting burdens also strengthen this requirement. At international level as regards our recent topic it mainly results in methodological harmonization between financial and non financial accounts including their special fields: foreign trade in goods and services, foreign direct investment, securities statistics or balance of payments etc. An important step on this way is the elaboration and harmonized introduction of new international statistical standards (SNA2008, ESA2010, BPM6, BD4, MSITS2010 etc.). The work, of course, should and does not stop at this point: issues of globalization make it necessary to clear more exactly the important issues of application of these new standards related to topics as global production and sale chains or off-shore activities (see e.g. the activity of Task Force on Global Production managed by international organizations).

At national level these developments should drive to better use of available data and, as a consequence, the closer coordination between NCB's and NSI's. As it was mentioned, usually both institutions collect data on different parts of financial and non financial accounts – the requirement is that they should be more reconciled in order to decrease inconsistencies between these accounts and especially in balance of payments. This requirement meets both users' needs and the harmonization of international methodological standards. In fact, as another result of globalization, this work may be helped by growing technical and informatical assistance but it is probably driven at least by managerial decisions and legal possibilities.

3. Cooperation in Hungary

Origins of the cooperation between NCB and NSI in Hungary, called MNB and HCSO, respectively, goes back to years of 1990's. The formal agreement was signed in 2002 but the work had begun earlier. Here we tend to focus on issues of balance of payments since they give very illustrative examples of this cooperation.

Until 2008 the compilation of balance of payments of Hungary were mainly based on a settlements based system (ITRS). As it is well-known, this system is closed in itself so formally may fulfil the consistency of balance of payments but methodologically and practically it has own serious drawbacks since it may miss important transactions which should be included. Getting rid of some of these drawbacks concerned directly the cooperation between the MNB and the HCSO.

Firstly, both institutions deal with and release data for FDI. Data are traditionally collected by the MNB for this area but, as a result of ITRS, figures for reinvested earnings could not be received via this way. The cooperation between two institutions

resulted in a new direct survey on FDI introduced in 1999 and releasing data on reinvested earnings in 2004. Its important feature is that the direct surveys make the FDI data reconciliation possible at *company* level for numerous enterprises and so enterprise groups. Reported data are checked and completed by information received from tax office upon law. The main point, however, is that the necessary company level data are collected by the MNB.

Secondly, at the end of 1990's Hungary should have faced the appearance of SPE's. In those years it was possible to establish off-shore entities by law in Hungary and upon this legal source their data reported directly or indirectly to the MNB. These data, however, were netted out of balance of payments data since they mainly could be considered simply as financial transactions through resident entities without any substantive connection to the resident economy. From 2006 onwards, however, operating an off-shore entity was no longer possible by law but the essence of this phenomenon, i.e. resident status in an economy without any real activity, still exists. Since the presence of SPE's in Hungary affects data collected and released both by the MNB and the HCSO, the cooperation on this topic also has begun. As a result, also from 2006 onwards the MNB releases separated balance of payments data for SPE's and non SPE's (and together for both), and maintains a common register for SPE's together with the HCSO since their data also should be removed from GDP data. This work is also made at company level.

All in all, these fields of the cooperation, on the side of the MNB, can be built on data collected by the MNB *itself*. Data for SPE's can mainly be found under FDI or at least under financial account and related incomes in the balance of payments and their data are collected traditionally by the MNB. Moreover, the possibility of data reconciliation and checking at company level extended when the MNB introduced an overall survey based data collecting system instead of ITRS in 2008. It was also a strong cooperation between the MNB and the HCSO since 2004 because they had to divide the responsibility for instruments and sectors in the balance of payments as regards who collects data from a given or an another one.

As a result, the company level data check became more extended for the MNB in the case of many instruments although data collected for e.g. goods and services via ITRS system are totally missing under the new data collecting system. It looked like an iterative process: the closer cooperation between the MNB and the HCSO made the introduction of survey based data collection system more possible for the MNB and this itself also required and also requires more closer cooperation as regards data not collected by the MNB in any form and any more at all. This issue is addressed by the next chapter.

4. The case of VAT registrations

It should be mentioned first that the third important field of the cooperation was the compilation of goods and services data in the balance of payments upon data collected by the HCSO. This, started in 2003 after some years of preparation, in the case of goods was dated back to 1995. In the case of services it was done in two steps in 2004 and 2005 and there was no dating back. This step, however, made the external issue of the difference between goods and (to less extent) services data collected by the MNB via ITRS and the HCSO via their own data reports internal in the balance of payments.

Methodologically this difference should be the financing, mainly trade credits, of the deviation between the physical movements of goods (as measured by foreign trade statistics collected by the HCSO) and the settlement of invoices (as measured by

settlements based data collected by the MNB). After the Hungary's joining the EU the calculated trade credits moved in one way, became larger step by step and finally unrealistic. To make balance of payments data more transparent, in 2005 the MNB moved the main part of these trade credits to net errors and omissions. Reclassifying turnover in trade credits into statistical errors and its size automatically led to a significant increase in the gap between net financing liabilities calculated from the bottom up and from the top down in the balance of payments. This discrepancy was observable continuously in the MNB's press releases and released balance of payments data.

At the same time a special cooperation has started with the HCSO for detecting the source of this phenomenon. It came to light soon that this issue concerns both the national accounts and the balance of payments. It was and still is a common interest to handle this problem adequately.

So far one important source could be found: the appearance of VAT registration in Hungary. After joining the EU, the community law made it easy for non resident firms to establish in Hungary registrations only for VAT purposes, without physical presence. The turnover through these registrations does not belong to Hungary but since the intra EU foreign trade is based on the Intrastat system and its register links to VAT register (at national level), these VAT registrations will be data providers for NSI's while there is no settlement transaction reported by them since they belong to non resident enterprises and physically they do not operate in the resident economy¹.

The practical problem is with them that the turnover of these registrations usually has (large) positive balance while it does not form a part of the resident GDP². In Hungary in the first step the HCSO made a macro level estimation for this difference and it was released first in 2008 in the balance of payments and national accounts. This, however, raised the broader question of the accessibility of the MNB to foreign trade goods and services data collected by the HCSO at company level.

As it was mentioned, from 2008 onwards the data check at company level could be extended to the majority of financial accounts and related incomes. In many cases, however, the goods and services data collected by the HCSO would be missing from this check if there were no legal accession for MNB to them.

Specially in the case of VAT registrations it became clear that a macro level estimation is not enough to handle this issue since there are different relative balances (to turnovers) throughout these registrations and at least some (in optimal case all) of them should be estimated at individual level. The revision of the first estimations was made and released in 2011 and at the same time the MNB has received legal access to these individual data collected by the HCSO (but not to the individual VAT data behind). As a third step, in 2012 there was another refinement of this estimation, based on individual data to a larger extent.

In the EU a technically similar issue is observable in the case of customs representatives because of the European customs system regulation. Since custom documents may be presented by resident firms on behalf of their non resident clients, they may contain prices including costs, e.g. software costs, and profit components attributable to these non resident clients. As a result, resident foreign trade data also

¹ This issue, although shortly and mainly in the context of quasi-transit trade, was discussed in UNECE (2011), Chapter 9. The scope of VAT registrations, however, should not be restricted to the quasi-transit phenomenon since these registrations can be employed in any trade transaction if it is legally possible in a country.

²See Bánhegyi (2011).

record value added belonging to non resident economies from this issue, so it also should be removed from these data and this adjustment also needs separate information of these costs at company level. Both the MNB and the HCSO also experienced this kind of problem.

The relevance and importance of these issues altogether in Hungary is shown in the following table.

Trade balance revisions in Balance of Payments and National Accounts as a percent of GDP

	2004	2005	2006	2007	2008	2009	2010	2011
Status 2012	-0.5	-1,3	-1.9	-2.1	-2.1	-2.7	-3.5	-4.7
Status 2011	-0.5	-1.3	-1.9	-2.1	-2.1	-2.7	-3.5	-4.0
Before 2011	-0.5	-1.3	-1.3	-1.5	-1.5	-1.6	-2.0	

The work is going on as regards further refinement of the estimation related to VAT registrations. The main result, however, along with the important reduction of statistical errors in balance of payments and national accounts, is that from 2012 onwards the experts of the MNB and the HCSO analyze together regularly the data for large enterprises or enterprise groups in order to make the quality of data in different macroeconomic statistics better³. It should, however, be told that the original problem is not totally solved, there are still errors and omissions remaining after this adjustment, although it was undoubtedly an important step forward.

Beside better understanding the activities of VAT registrations and examining changes in the structure and accounts of multinational enterprises after the economic crisis in more details, further possible sources of statistical errors relating to the data collected by the MNB and the HCSO should be found and investigated and the quality of collected data and the estimation methods should be improved to diminish the discrepancies.

At last, but not at least, this issue raises the question whether foreign trade data themselves, at least on macro level, should be also adjusted in national publications because of VAT registrations in order to be more appropriate for users' needs. Since foreign trade data are used, in addition to balance of payments and national accounts purposes, among others for short term indicator for GDP, users other than official statisticians may address this issue to compilers of foreign trade data.

³Moreover, experts of the MNB released the first statistical research based on comprehensive micro level dataset (see Mariann Endrész, Győző Gyöngyösi, Péter Harasztosi, 2012). This paper investigates currency mismatch in the Hungarian corporate sector. The analysis is based on the use of both foreign trade statistics and balance of payments data at company level.

5. Concluding remarks

The reduction of inconsistencies in macroeconomic statistics due to VAT registrations may help users of these statistics, for using micro data and switching different databases will be in the future a commonly applied method of statistical analysis serving monetary and fiscal policy. The need for more sophisticated use of statistical data highlights the responsibility of statisticians of elaboration and at the same time application the comparable and well documented methodology of data. The residency concept of foreign trade data differs from that of the balance of payments and national accounts because of existence of VAT registrations, so compilers of these macroeconomic statistics should pay attention to produce data of good quality and clear their methodological background. In Hungary this work has begun and the main goal is that it serves more and more users' needs as far as possible in the given circumstances.

This adjustment is also very important from the point of view of the work and research going on the topic of the trade in value added (about this issue see Ahmad 2012, and Johnson-Noguiera 2012). This process requires national input-output or supply-use tables and these figures would be miscalculated if data sources, i.e. national accounts data contained value added belonging to non resident economies.

It should be also noted that if every country involved in these issues made similar and appropriate adjustments on their collected data, bilateral or multilateral inconsistencies would not emerge by this process. If only two countries are concerned with this kind of transaction, they both will make the same adjustment on their exports or imports, respectively, while there are three countries involved, figures after adjustment will reflect a normal triangle transaction and so on. This point shows on the need for international cooperation to handle this topic consistently in all countries involved.

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