

FDI survey on Special Purpose Entities (SPEs) in Luxembourg: the case for monthly granular data¹

Paul Feuvrier

Central Bank of Luxembourg, LUXEMBOURG

paul.feuvrier@bcl.lu

Abstract

In 2012, Central Bank of Luxembourg set up an original FDI survey on SPEs, which are of major importance in Luxembourg and on which the 2008 SNA introduced a detailed classification. Quarterly Balance Sheets are reported along with monthly Security by Security positions. Granular collected “stocks” make it possible to estimate transactions, FX and price effects requested by the IMF Sixth Edition of Balance of Payments Manual (BPM6), thanks to the implementation of ad-hoc editing and imputation rules. Last, investment incomes are derived by combining the survey and SPEs P&L (administrative data), so that the burden is reduced for companies.

Key words: Foreign Direct Investment, Balance of Payments, International Investment Position.

¹The views expressed do not necessarily reflect those of Central bank of Luxembourg.

1. Introduction

Section 2 of this note provides basic data on FDI in Luxembourg and illustrates the weight of Special Purpose Entities in Luxembourg economy, the SPEs being defined under section 3. Luxembourg survey strategy on FDI is presented under sections 4 and 5. The derivation of transactions from positions at micro data is discussed under section 6 and the derivation of investment income under section 7. Quality checks are also performed on semi aggregated figures (section 8). Section 9 concludes with the overall benefit of granular data for Macroeconomic Statistics and the need for an international standard (which could be the Legal Identity Identifier) to identify counterparts to financial transactions.

2. Luxembourg FDI and SPEs data at a glance

For various reasons, multinational enterprises frequently set up Special Purpose Entities in Luxembourg for their inward and outward Direct Investment. SPEs gross FDI positions are indeed ten times higher than those of the rest of the economy. Thus, accurately accounting for these SPEs is essential for the quality of Luxembourg and also European FDI statistics. SPEs do not really follow the usual FDI pattern, where tangible and stable investments from abroad generate economic activity in the non financial sector. Besides, the evolution of SPEs activity is hardly correlated to the Luxembourg and European business cycles.

Luxembourg FDI position in December 2014 (EUR billions)

Gross FDI Asset position	Gross FDI Liability position	Economic sector
70	97	Banks, non financial companies
2 080	1 462	Special Purpose Entities

Source: Central Bank of Luxembourg
http://www.bcl.lu/en/statistics/series/09_iip/index.html

SPEs do not only impact FDI but also Portfolio Investment and Other Investment. For instance many Luxembourg SPEs issue debt on behalf of their mother company and lend the proceeds to other affiliates so that only the asset side is recorded as FDI, the liability being a Portfolio Investment operation. Besides, SPEs aggregate Balance Sheet is much bigger than that of other Luxembourg financial institutions.

Few Luxembourg SPES are classified S.11 Non-financial corporations and S.125 - Other financial intermediaries but the overwhelming majority is classified S.127 - Captive financial institutions. To simplify, most Luxembourg SPEs do not operate on open markets and can therefore not be considered Other financial intermediaries.

Luxembourg financial institutions in December 2014 (EUR billions)

Financial institutions	Balance Sheet	SNA 2008 sector
Central Bank of Luxembourg	117	S.121
Credit Institutions	738	S.122
Money Market Funds	224	S.123
Non monetary Funds	3 420	S.124
Securitization Vehicles	139	S.125, S.127
SPEs not included elsewhere	5 506	Few S.11, Few S.125, Overall S.127

Source: Central Bank of Luxembourg

3. OECD (tentative) definition of a Special Purpose Entity

SPEs set up by the private sector are dealt with in SNA 2008 under § 4.55 to 4.61 but a detailed definition is missing. OECD Benchmark Definition of FDI (fourth edition) goes a bit further under § 6.2:

An enterprise is usually considered as an SPE if it meets the following criteria:

- i) The enterprise is a legal entity,*
 - a) formally registered with a national authority; and*
 - b) subject to fiscal and other legal obligations of the economy in which it is resident.*
- ii) The enterprise is ultimately controlled by a non-resident parent, directly or indirectly.*
- iii) The enterprise has no or few employees, little or no production in the host economy and little or no physical presence.*
- iv) Almost all the assets and liabilities of the enterprise represent investments in or from other countries.*
- v) The core business of the enterprise consist of group financing or holding activities, that is – viewed from the perspective of the compiler in a given country – the channeling of funds from non-residents to other non-residents. However, in its daily activities, managing and directing plays only a minor role.*

In line with SNA 2008 and the IMF Sixth Edition of Balance of Payments Manual (BPM6), recent European legal acts on FDI statistics require isolating SPEs from remaining FDI. Some International Organizations would even “look through” SPEs in the FDI analysis of either a country or a regional zone. However even this “consolidation” cannot be achieved without a comprehensive statistical coverage of SPEs.

4. A dual FDI collection system

Due to the almost only financial nature of SPEs assets and liabilities, it is necessary to perform an infra annual data collection to keep track of this population, which balance sheet often changes very fast. Thus, Foreign Direct Investment statistics in Luxembourg are collected:

- through a traditional complete annual survey, as far as banks and the non financial industry are concerned,
- through a somewhat lighter quarterly/monthly survey, as far as Special Purpose Entities are concerned.

Each survey strategy has its strengths and weaknesses (reflecting the traditional tradeoff between accuracy and timeliness).

Sources of FDI statistics in Luxembourg (simplified presentation)

Population covered	Survey strategy	Strengths	Weaknesses
Banks, non financial companies	Annual FDI survey	All necessary variables included in the survey & definitions fully compliant with international standards	Annual reports submitted 6 months after the end of the reference year
Special Purpose Entities	Infra annual survey	Security by Security monthly reports available one month after the end of the reference month Full quarterly Balance Sheet available one month after the end of the reference quarter	Accounting practices possibly not always compliant with statistical standards, Possibly large revisions due to the non availability of end of year financial statements before March or April the following year.
		Many variables derived (not really a weakness!)	

Source: Central Bank of Luxembourg

The distinction between SPEs and non financial companies involves a close cooperation between Central Bank of Luxembourg and National Statistical Office (STATEC), which is in charge of the Business Register and the above mentioned annual FDI survey on non financial companies.

5. Integration of quarterly and monthly SPEs reports (micro data)

5.1. Survey strategy on SPEs

5.1.1. Overall strategy

SPEs provide Central bank of Luxembourg with two reports:

- A quarterly full balance sheet, without any detail on security positions,
- A monthly security by security report including information on counterpart country (first counterpart), currency and economic sector. Most reported securities are equities without ISIN, the ISIN code being the International Securities Identification Number widely used to identify tradable securities.

Reporting framework of Luxembourg SPEs

√= detailed breakdown

	Country	Currency	Economic sector	Maturity	Freq.
1-Assets					
1-Loans to affiliated entities	√	√	√	√	Q
1-Bank deposits	√	√	√	√	Q
1-Bonds and bills held	Security by security				M
1-Equities held	Security by security				M
1-Fixed assets	√				Q
1-Remaining assets	√				Q
1-Financial derivatives	√				Q
1-Total assets					
2-Liabilities					
2-Borrowing from affiliated entities	√	√	√	√	Q
2-Borrowing from banks	√	√	√	√	Q
2-Debt securities issued	Security by security				M
2- Short sales of securities	Security by security				M
2-Capital, reserves, provisions and results	Security by security				M
2-Remaining liabilities	√				
2-Financial derivatives	√				
2-Total liabilities					

Source: Central Bank of Luxembourg

5.1.2. Derivation of monthly Balance Sheets

We derive the Balance Sheet of months which are not end of quarter by integrating quarterly and monthly reports:

- Linear interpolation of quarterly Balance Sheet on non security items,

- Monthly security by security reporting on security items,
- Fine tuning on non security items to get total assets = total liabilities.

5.1.3. Derivation of monthly transactions

The final step is the derivation of monthly flows based on those (derived) monthly balance sheets.

- Derivation of transactions (details below) for each item,
- Fine tuning on non security items to get total transaction assets = total transaction liabilities.

5.2. Why such a strategy ?

Before 2012, the SPEs position was calculated as an updated “sum of flows” system where FDI transactions were recorded through an International Transaction Reporting System (banks) and official publications.

The new SPEs survey strategy was implemented in 2012. Yet a similar survey had been performed with success on Luxembourg Investment Funds and on Luxembourg banks (though with more details) already in 2009. This success was an incentive for us to enlarge the reporting population to SPEs, despite the fact that the contribution of SPEs to FDI (and no longer overall to Portfolio Investment and Other Investment like banks, investment funds and securitization vehicles) somewhat changed the picture.

Second, we performed some tests before launching the survey towards potential reporters, in most cases not the companies themselves but instead accounting firms or provider of corporate services. An alternative survey pattern that we tested was the collection of quarterly transactions on all items. The outcome of the test was that most potential reporters (overall accountants) preferred to return monthly positions instead of quarterly transactions, the “statistical transactions” being not really concepts with which accountants were familiar with. Often, the information was not even available to reporters.

5.3. From the first layout (2012-2014) to the second layout (2015 onwards)

Taking into account that resident SPEs used to have little reporting obligations, Central bank of Luxembourg implemented a step by step approach, with a first layout between 2012 and 2014 and a second one starting from 2015. The major changes from the first to the second layout were the inclusion of “pure holdings”

in the scope of the survey on the one hand and a more detailed data collection on FDI on the other hand. The FDI details were necessary to comply with the IMF Sixth Edition of Balance of Payments Manual (BPM6).

New layout of SPE survey in 2015

Type of company	Balance Sheet threshold	Layout 0 (2012-2014)	Layout 1 (2015 onwards)
Companies issuing debt instruments or granting/receiving inter-company loans	Total B/S \geq 500 EUR millions	Yes	Yes
“Pure holdings” Companies holding only participating interests (equity) and financed only through capital	Total B/S \geq 500 EUR millions	No	Yes
All companies	Total B/S < 500 EUR millions	No	No
Security by security reporting on capital, reserves, provisions and results		No	Yes
Details on type of FDI: - vis-à-vis affiliates - vis-à-vis shareholders - vis-à-vis sister companies		No	Yes

Source: Central Bank of Luxembourg

6. Derivation of transactions from positions

6.1. On loans and borrowings

The derivation of transactions from loans broken down by currency is straightforward. In most cases, the loans are correctly reported at nominal value (as required by BPM6). The variations of positions are then simply corrected for FX developments and write-downs, the remaining part being a transaction. In the instance below, we have a negative derived transaction, because the depreciation of the EUR vis-à-vis the USD more than offsets the increasing position denominated in EUR.

Derivation of transactions in EUR from positions in USD

Currency of reporting for the whole report = EUR

Currency of denomination of the loan = USD

	08/2014	09/2014	Average in September 2014
1 € = .. \$	1.3188	1.2583	1.2914
Reported position (in EUR)	100	103	
Position (in USD)	131.9	129.6	
Variation position (in USD)		-2.3	
Derived transaction (in EUR)		-1.8	

Source: Central Bank of Luxembourg

6.2. On bonds and bills

We suppose that the respondent holds a bond, which carries a monthly accrued income of 1. This accrued income is recorded in both current account (credit) and financial account (increase of assets), the bond being valued at dirty price. The distribution of the coupon (December on the instance) generates a withdrawal of capital and has no effect on the current account.

Derivation of transactions on bonds and bills

	September	October	November	December
Outstanding amount	103	104	105	100=106-6
Nominal	100	100	100	100
<i>Accrued coupon (current account)</i>		1	1	1
<i>Paid coupon</i>		0	0	6
Derived transaction		1	1	-5=1-6

Source: Central Bank of Luxembourg

6.3. On equities

The derivation of transactions from equity positions often proves to be much trickier and warrants the edition of large variations of positions. We give below some corresponding concrete instances. In the instances below, we do not consider any further FX development to simplify the matter but those FX developments are of course taken into account in the IT derivation process.

Equity positions outstanding amounts are collected at Security by Security basis along with quantities, which thus gives the share price. When the quantity is unchanged from one month to another, the variation of position is easily explained by FX and price development (revaluations and impairments).

6.3.1. Impairments

By definition, an impairment does not bring about any transaction but a price effect only.

Derivation of transactions on equities

Impairment

	August	September
Outstanding amount	10 000	6 000
Number of shares	100	100
Transaction		0
Price effect		-4 000

Source: Central Bank of Luxembourg

6.3.2. Increase in capital through issuance of new shares

A standard capital increase brings about a more or less parallel increase of the number of shares and outstanding amounts, so that the system generates a transaction.

Derivation of transactions on equities

Increase in Capital through issuance of new shares

	August	September
Outstanding amount	10 000	100 000
Number of shares	100	1 000
Transaction		90 000
Price effect		0

Source: Central Bank of Luxembourg

6.3.3. Perception of share premiums

Yet the capital increase may also be generated by the perception of a share premium. If so, the number of shares remains unchanged so that the system does not, ex ante, derive any transaction. Yet in statistical terms the share premium perceived is indeed a transaction, which needs to be generated “by hand”.

Derivation of transactions on equities

Increase in Capital through the perception of a share premium

	August	September
Outstanding amount	10 000	100 000
Number of shares	100	100
Transaction ex ante		0
Transaction ex post		90 000
Price effect ex ante		90 000
Price effect ex post		0

Source: Central Bank of Luxembourg

6.3.4. Distribution of superdividends

BPM6 § 11.27 clarifies that “*Exceptional payments by corporations (including quasi-corporations such as branches) to their shareholders that are made out of accumulated reserves or sales of assets should not be treated as dividends. Such exceptional payments, sometimes called superdividends, are treated as withdrawals of equity, and therefore recorded in the financial account.*”

As a matter of fact Luxembourg SPEs often pay or receive such “superdividends”. In accordance with BPM6, we remove the corresponding transactions from the current account and include them in the financial account. As for the share premiums, the variation of outstanding amount is not matched by a corresponding variation of quantities, which requires a “manual” correction.

**Derivation of transactions on equities
Distribution of a superdividend**

	August	September
Position - Outstanding amount	10 000	4 000
Position - Number of shares	100	100
Financial Account Transaction ex ante		0
Financial Account Transaction ex post		-6 000
<i>Current Account Transaction ex ante</i>		6 000
<i>Current Account Transaction ex post</i>		0

Source: Central Bank of Luxembourg

6.4. Preferred equity certificates

Bonds or equities?

Luxembourg SPEs issue a high amount of preferred equity certificates, which are complex hybrid instruments used for tax purposes (allowing a deduction of interest expenses). BPM6 § 5.46 states that they should be classified as **debt securities** “*Nonparticipating preferred stocks or shares are those that pay a fixed income but do not provide for participation in the distribution of the residual value of an incorporated enterprise on dissolution. These shares are classified as debt securities.*”

Direct Investment or Portfolio Investment?

Broadly speaking, the functional classification of “standard” liquid or even negotiable securities is Portfolio Investment. The majority of those standard securities bear an ISIN code.

The classification is not so obvious for non-standard; non ISIN bearing securities. Indeed, BPM6 § 6.28 foresees that debt (including debt securities) between “*other financial intermediaries except insurance corporations and pension funds*” are “*excluded from direct investment and classified under portfolio or other investment*”.

As has been previously emphasized, taking into account that at least the liability side of the balance sheet is not carried out in open markets, SPEs issuing equity certificates, as most Luxembourg SPEs (other than securitization vehicles and investment funds), are considered captive financial institutions S.127 instead of

other financial intermediaries S.125. Strictly speaking, BPM6 § 6.28 exclusion from Direct Investment would therefore not work and the certificates might remain under Direct Investment.

However, we came to the conclusion that Luxembourg equity certificates would remain under **Portfolio Investment**.

By reflecting on this issue, we took into account, the European decision regarding the functional category of investment fund shares. In a pragmatic approach, it is recommended that investment fund shares issued in the euro area/EU along with holdings of (at least European) investment funds shares are always classified Portfolio Investment. Another strong point of this convention is that it prevents asymmetries between Portfolio Investment assets and liabilities, for instance for a user of IMF Coordinated Portfolio Investment Survey (CPIS).

The picture of debt securities is not so different: both debt securities and investment shares are indeed in most cases tradable and as such qualify for Portfolio Investments. There are some cases where the securities are held by a limited number of investors or even a single one so that both the BPM6 and BD4 would recommend a classification under Direct Investment. However the distinction between influential and not influential investors in Luxembourg bonds or investment funds would be difficult to estimate, because it touches upon the liability side of Portfolio Investment. Broadly speaking, all reporters of the Luxembourg financial industry (banks, investment funds, securitization vehicles, etc...) were instructed since the very beginning of the Security by Security reporting that the compiler did not care about the geographical counterpart of securities issued (liability side). Indeed, the non-resident part is calculated by the so called residual approach, resident holdings being withdrawn from the total issued. This method wouldn't work anymore if debt securities would bear different functional categories, taking into account that most equity certificates do not bear an ISIN code.

We reckoned that the BPM6 convention adopted for investment fund shares would also be relevant for debt securities, the pattern being very similar.

7. Derivation of SPEs FDI income

Flows of income must be consistent with corresponding SPEs positions. As for the transactions and in order to reduce the reporting burden, most investment income items are not collected but instead derived from administrative sources. The derivation is done in three steps:

- P&L from the central Balance Sheet gives the flows of income by company (table below), the income on debt securities being not used at this stage.
- Income on debt securities is indeed calculated at Security by Security basis, with the debtor approach defined under BPM6 § 11.52: *Interest accrual on a debt*

instrument is determined for the entire life by the conditions set at inception of the instrument. Interest accrual is determined using the original yield-to maturity. This “statistical” income usually does not match the accounting one, at least on the credit side. Let’s take the instance of an old plain vanilla AAA bond, bearing a 5% coupon rate. With the debtor approach, the annual income is 5 but in accounting terms (closer to the acquisition approach, which reflects market conditions and expectations at the time of acquisition), it can be 1 or even negative, the bond being usually purchased well above par.

- Flows of income are finally broken down by SNA 2008 economic sector, country, and maturity by using quarterly balance sheets.

Financial statements are unfortunately available quite late. Besides, they do not provide infra annual data. This is a problem overall for dividends, the distribution of which displaying a highly seasonal pattern.

Integration of administrative sources (P&L) and stat. reporting (survey data)

Situation on 31/12/2013

	<i>B/S EUR billions</i>	Type of income receivable / payable	Source	Source for breakdown by SNA 2008 economic sector, country & maturity
ASSETS				
1 - Inter-company loans	1 678	D41 interest	P&L	SPE reporting*
1 - Debt securities held	97	D41 interest	SBS	SPE reporting
1 - Equities held	3 234	D42 dividends	P&L	SPE reporting
1 - Derivatives	14	None		
1 - Other	482	None		
Total assets	5 506			
LIABILITIES				
2 - Inter-company loans (received)	1 653	D41 interest	P&L	SPE reporting*
2 - Debt securities issued	706	D41 interest	SBS	SPE reporting
2 - Capital, share premiums, reserves and results	2 762	D42 dividends	P&L	SPE reporting
2 - Derivatives	13	None		
2 - Other	371	None		
Total liabilities	5 506			

* A small proportion of debt between affiliated financial corporations reclassified as Other Investment in accordance with BPM6 § 6.28 (valid for position, transaction and income)
Source: Central Bank of Luxembourg

8. Statistical integration of SPEs performing intra-group activities

The easiest SPE pattern is a multinational company setting up a single SPE in Luxembourg to channel funds in a third country. The contribution of this SPE to the Luxembourg international investment position (iip) should be zero.

Of course, the organization chart of enterprise groups is much more complex: usually tens of interlinked entities are active in Luxembourg and only a “consolidation” of those entities displays the “zero net iip pattern”.

The “consolidation” exercise should also take into account possible valuation inconsistencies: Company A holds a participation in company B, but company A records the participation at book value while company B is valued at market price. If so, an adjustment needs to be performed at “group” level.

Each restriction of international group to Luxembourg entities should display both a small contribution to Luxembourg net iip and accordingly a small contribution to Luxembourg current account (through investment income). Making sure that this pattern is respected forms an essential part of the quality management on the SPEs reporting.

9. Conclusion and way forward

9.1. Why granular data?

9.1.1. Reconciliation at national or international level

To what respect is it relevant to collect granular data for the compilation of macroeconomic statistics? As has been previously emphasized, the compiler is in a much comfortable situation to monitor the changes and to perform consistency checks. For instance, if a resident company ENT1 purchases another resident company ENT2, the liability position of the later should match the asset one of the former. This reconciliation is much easier if ENT1 identifies ENT2 through the identification number used by the national compiler to identify ENT2.

Let's complicate the matter and suppose that ENT2 is a foreign entity. The reconciliation turns much trickier because statistical confidentiality would often not allow the international sharing of information. If it is still possible to perform the reconciliation, it will be much more effective if the identification number is recognized by the foreign country as well, the less effective alternative being to identify the company through its name.

9.1.2. Easier for the reporter as well

Not only compilers but also reporters benefit from such international identifications. Indeed, the reporting (in Luxembourg at least) is much lighter if a standard is used and the compiler can derive relevant information from external sources.

Variables to report at Security by Security basis

Bond held by a Luxembourg company

ISIN bond	Non ISIN bond
Nominal	Nominal
Outstanding amount	Outstanding amount
	Ad hoc identification number
	Issuer country
	Sector of the issuer
	Date of issue
	Date of final maturity
	Periodicity of coupon payment
	Date of last coupon paid
	Coupon rate
	Currency of the security

Source: Central Bank of Luxembourg

9.2. Increasing use of standards in Statistics to identify counterparties

ISIN is a standard for Portfolio Investment and official statisticians widely and successfully use it in the framework of a Security by Security data collection.

As far as Other Investments are concerned, an increasing number of countries use a credit register for statistical purposes. In other words, the “loan by loan” survey strategy may become as common as the “security by security” in the medium run.

As far as Direct Investments are concerned, both the IMF and European authorities have been performing reconciliation exercises for long to make national data consistent with each other. Those exercises involve the analysis of detailed operations, but an international standard similar as the ISIN used in Portfolio Investment is missing so far.

Reporting of micro data for External Statistics

	Reporting of granular data	Current/future standard to identify counterparties	Status
Direct Investment	Security by Security and loan by loan	Legal Entity Identifier	To be developed?
Portfolio Investment	Security by Security	ISIN	Already in force in most countries
Financial Derivatives	Instrument by Instrument	Legal Entity Identifier	To be developed?
Other Investment	Loan by Loan	Legal Entity Identifier	Credit Register used in many countries
Reserve Assets	Overall includes above mentioned instruments		

Source: Central Bank of Luxembourg

9.3. Using the Legal Entity Identifier (LEI) for Macroeconomic Statistics?

The long term target would be to create and maintain a worldwide register of financial entities and of their financial links. This is not a new idea. For instance, the European RIAD (Register of Institutions and Affiliates Database) system provides reference data relevant for both statistics and market operations. Lines between various domains become blurred.

Further to the G-20 Legal Entity Identifier (LEI) initiative, a uniform global system to identify parties to financial transactions is being implemented. This new international standard will first and foremost be used as an information system for risk management. Yet the LEI might also help statisticians linking financial entities at national and international level.

It goes without saying that the LEI will not fix all the statistical quality problems overnight. One of the LEI related challenges will be the identification of foreign branches, to be recorded as separate units, but not legally independent from the “parent”.

BPM6 § 3.6 Transactions recorded in the balance of payments are interactions between a resident and a nonresident institutional unit. (...) The flows between the branch and its parent enterprise are shown as interactions between institutional units, with a branch recognized as a separate institutional unit (a quasi-corporation).

To conclude, Luxembourg strategy on FDI collection system was to progress towards higher granularity and higher frequency. In spite of all the above mentioned limitations, it proved successful. Yet the value added of the strategy will be much higher when an international standard is used to identify counterparties.

References

Claassen, P. and van den Dool, G. (2013), “The Effects of Including SPEs on BOP and FDI Statistics”, *De Nederlandsche Bank, twenty-sixth meeting of the IMF Committee on Balance of Payments Statistics*.

Financial Stability Board (2012), “A Global Legal Entity Identifier for Financial Markets”.

Financial Stability Board (2014), “Global Shadow Banking Monitoring Report 2014”.

International Monetary Fund (2009), “Balance of Payments and International Investment Position Manual Sixth Edition (BPM6)”.

Neudorfer, P. (2013) “Managing the quality of the ECB’s enhanced ‘Register of Institutions and Affiliates Database’ (RIAD)”, “Meeting of the Group of Experts on Business Registers, organized by UNECE, Eurostat and OECD”.

Quirós, G. (ECB), Gruetz, J. (Eurostat), Van de Ven P. (OECD) (2013), “Report by the Task Force on Head Offices, Holding Companies and Special Purpose Entities”.

Pellegrini, V. (Chair) (2013), “Valuation of FDI positions final report”, *ECB Statistics Paper Series*.

UNECE, Eurostat, OECD (2011) “The impact of globalization on national accounts”