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What Shall We Do with Pass-through?

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DNB's experiences with Special Financial Institutions

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Multinationals channel large financial flows across the globe, which have little or no relation to production activities. Such 'pass-through' activities are difficult to monitor for statisticians and may obscure the analysis of the financial side of the economy. Currently, DNB uses the concept of 'Special Financial Institutions' to get a view of pass-through capital and to allow for an adjustment of its Balance of Payments and International Investment Position statistics. When we replace this national concept by the standard concept of special purpose entities, we will add a nationality breakdown to enable a broader analysis of "pass-through". In case the future manuals might want to target at a more specific measurement of "pass-through" our current SFI concept might still serve as a source of inspiration.

Keywords: pass-through capital, special financial institutions, special purpose entities, ESA2010, BPM6, SNA2008, balance of payments, international investment position.

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1. Introduction

The last decades saw a surge in financial flows across the globe, partly driven by multinationals taking advantage of different legal and tax regimes. As a result, large amounts of capital and income flow in and out of countries with little to no relation to production activities. Such 'pass-through' flows can easily dominate statistics on cross-border financial linkages. As an example, the IMF CDIS dataset over 2014 shows the Netherlands to be the largest recipient of direct investment *in the world*, with the United States following as runner-up at a respectable distance. For a country ranked 17th globally in terms of GDP this is somewhat surprising. In fact, most of these investments consist of pass-through funds, which is illustrated by the balancing item in this equation: the Netherlands' outward direct investment position is even larger. While our country may not be typical, it is not entirely unique. Pass-through funds are sizeable in many economies across the globe.

For policymakers, having adequate statistics on such pass-through funds has grown ever more important. First, these statistics are necessary to enable international flow-of-fund analyses. Such analyses have gained in relevance since the recent global financial crisis of 2007-2008, which saw an unprecedented collapse in international capital flows after years of rising financial globalization (Milesi-Feretti and Tille, 2011). Statistics on pass-through funds are necessary to trace capital flows around the globe, connecting the dots from the originating country via pass-through countries to their ultimate destination. Conversely, not observing pass-through funds obscures policymakers' vision of the actual flow of capital, and can lead to faulty interpretation of the flows that are observed.²

Second, if left unidentified, pass-through funds have the potential to substantially distort national macro-economic statistics that may signal vulnerabilities, leading to their over- or underestimation.³ The relevance of such statistics – for instance, corporate sector debt levels in the context of the European Union's Macroeconomic Imbalance Procedure – has increased in recent years. In this case, pass-through funds need to be identified to properly *exclude* them from analyses as necessary.

The policy relevance of observing pass-through flows is confirmed by the work plan of the G-20 data gaps initiative, a broad effort aimed at addressing the statistics needs that were revealed by the crisis. The initiative lists improvements in both monitoring of global capital flows and sectoral analysis as important ambitions underpinning its action plan (Heath and Goksu, 2016). Furthermore, the importance of observing pass-through flows and separating them as necessary is confirmed by the BPM6 handbook for Balance of Payment compilers, which states that pass-through funds should be included in observed financial flows and recommends that countries compile separate supplementary data on them (IMF, 2009).

² E.g. this could cause a pass-through country to be mistaken for an originating country. Inter alia, this creates issues when compiling regional statistics, such as those for the Eurozone.

³ E.g. when pass-through entities are classified as non-financial corporations, and their intercompany debts are added to the debt level of the corporate sector.

That is not to say that compiling adequate statistics on pass-through funds is an easy task. The population of entities channeling pass-through flows can be large, fast-changing and therefore difficult to monitor. Moreover, due to the large flows involved, small errors in reported gross data can have a large impact on net statistics. In the Netherlands, the balance sheets of observed pass-through entities amounts to around EUR 3800 billion in 2015 - between 5 and 6 times Dutch GDP and larger than the banking sector.

So given the policy relevance of these statistics and the complexity of producing them, the question for policymakers and statisticians is: what shall we do with pass through? This paper examines this question from the perspective of De Nederlandsche Bank (DNB) as a compiler of Balance of Payments and International Investment Position statistics (BOP/IIP statistics). DNB has a long-standing tradition in observing pass-through funds dating back to the early 1950s when the concept of 'Special Financial Institutions' (SFIs)⁴ was developed. At the time, entities channelling funds from non-residents to other non-residents were deemed to be irrelevant for Dutch monetary policy, and labelled SFIs to be exempted from capital restrictions. The SFI-concept became obsolete over the years for monetary reasons, but has remained in use for statistical reasons.

The SFI concept has long placed DNB at the forefront of the identification of pass-through capital. But the international statistical community has caught up by introducing related concepts, such as *Special Purpose Entities* (SPEs) and captive financial institutions. The newest handbooks such as the UN's System of National Accounts (SNA2008), Eurostat's national accounts manual (ESA2010) and the IMF's Balance of Payments Manual (BPM6) provide new options to identify "pass-through". Fully aligning with these latest statistical guidelines means that the Netherlands will soon abandon its SFI concept, a move which will coincide with the implementation of a new integrated framework for the production of BOP/IIP statistics and sector accounts by DNB and Statistics Netherlands.⁵

The remainder of this paper is structured as follows. Section 2 describes our current approach in measuring SFIs' activities and their contribution to our BOP/IIP figures. Section 3 assesses this approach from the perspective of the latest statistical guidelines. Next, section 4 explains our planned new method for compiling pass-through statistics. Section 5 offers suggestions from our current SFI methodology on how to enhance the potential for future statistical frameworks to compile pass-through statistics. Finally, section 6 provides concluding remarks.

2. Current approach

'Special Financial Institutions'

The key role in DNB's approach towards pass-through is played by SFIs. SFIs come in all shapes and sizes. Some are stand-alone, others are part of 'clusters', or broader groups of entities with one ultimate controlling institution abroad. SFIs report

⁴ In Dutch: Bijzondere Financiële Instellingen.

⁵ See for more details: Bieleveldt and Claassen (2014).

individually to DNB on the basis of their own set of accounts, usually with the help of legal services providers operating on their behalf. These 'trust offices' are under the supervision of DNB. Nowadays, several types of SFIs are distinguished:⁶

- Financing companies issuing securities, borrowing from banks and attracting intercompany loans to provide financing to foreign subsidiaries;
- Holding companies owning shares of foreign subsidiaries;
- Royalty and licensing companies paying and receiving (sub-)licensing fees for the cross-border rights to use intellectual property (and similar intangible assets); and
- Vehicles securitizing portfolios of foreign loans.

Box 1 provides additional information on DNB's collection and compilation strategy of BOP/IIP statistics for SFIs, and describes some of the challenges involved.

Box 1. Sampling and compilation of data on SFIs

More than fifteen thousand SFIs are reporting to DNB which is far more than in any other Dutch ESA-sector. DNB relies on three mechanisms to maintain its reporting population of SFIs. First, it is mandatory for new SFIs to register themselves at DNB under Dutch statistical regulations, leading to a steady stream of new registrations. This works well for entities represented by trust offices, with whom we maintain close contact. In order to also detect SFIs without such representation our compilation team engages in periodical analyses of public data sources such as data on mergers and acquisitions – an activity locally referred to as *scouting*. Finally, Statistics Netherlands sometimes detects SFIs in their process of profiling non-financial corporations, which are communicated to DNB.

Given the large population of SFIs, it is not feasible to cost-effectively subject every entity to a full reporting regime. Therefore a subset of SFIs is required to provide extensive monthly and annual reports on transactions. All other SFIs report annually in a trimmed down 'benchmark survey', the information from which is subsequently used to revise earlier macro figures.

The selection of monthly reporting SFIs used to be based on a cutting of the tail approach, motivated by the fact that the distribution of SFI's assets and liabilities is highly skewed. Under this approach, all SFIs with assets over EUR 300 million were obliged to send in monthly reports. For all other SFIs a grossing up was included based on a benchmark survey (initially held every two years). As the incidence of mid-sized SFIs grew over time, however, an increasing number of monthly reporters were needed in order to maintain our desired coverage ratio of 90%. Another drawback was that the financial activities of large SFIs turned out to be not representative for those of small SFIs. Hence, the information from the benchmark survey increasingly led to rather large revisions.

To reduce the size of the revisions later on and to contain the processing costs for DNB, a stratified sampling approach was introduced in 2014. The top ranked SFIs were fully included, the bottom ranked SFIs fully excluded, and the mid-sized SFIs

⁶ Other pass-through entities, such as invoicing companies and leasing companies are of minor importance and are ignored in this paper.

randomly sampled.⁷ The sample is used to gross-up the figures. The past years have taught that the behavior of the sampled mid-sized SFIs is generally representative of the non-sampled population. Revisions based on the - benchmark survey (currently held on an annual basis) are still needed but are considerably smaller than before. There are, however, also costs involved, as the compilation process has become more complex. A practical problem is that large transactions in the mid-sized SFIs stratum, which occur sporadically, are magnified by the grossing up factor. This may lead to large swings in monthly and quarterly figures, which we aim to correct for in case we consider the transactions to be not representative.

Because of the complexity and unfavorable side-effects of the stratified sampling approach, we will change course. More specifically, we will return in 2017 to a cut-off approach in selecting our monthly reporting sample accepting a lower coverage ratio than before (about 66%). A provisional grossing up will be made using information from monthly reporting SFIs, and including an estimate for new entities to be established during 2017. These provisional SFI figures will then be finalized on the basis of the annual benchmark survey.

Generally speaking, data quality management is an important issue in the compilation of data on SFIs. Small errors in reported gross data can have a large impact on net BOP/IIP data due to the large size of flows and stocks. The SFI concept, being especially targeted at passing through, enables an effective quality check: large changes in net BOP/IIP data are by definition reporting errors, unless they can be explained by occasional specific domestic transactions. Although in principle reporting errors should be corrected at the micro level, in practice, given time and resource constraints, the quality of our BOP/IIP statistics is managed with macro adjustments. Net figures for income, transactions and positions are targeted, to prevent error driven volatile swings in these BOP/IIP items. The exact targets are based on information on SFIs' domestic transactions and positions extracted from a non-financial corporations survey by Statistics Netherlands.

Whether a new entity should be classified as SFI (or an existing entity reclassified as such) is determined on the basis of a decision tree, jointly developed by DNB and Statistics Netherlands. Key criteria, to be applied to a cluster's consolidated balance sheet, are:

- A SFI should be resident, but ultimately controlled by non-residents.
- At least 90% of a SFI's assets and liabilities should be foreign (for financing companies this criterion is only applied to their assets).
- A royalty and licensing company's revenues from export of royalties and licences should be at least 90% of total turnover.
- A securitization vehicle should be originated by a foreign bank (and at least 90% of its assets and liabilities should be foreign).
- The domestic turnover of a SFI should not exceed EUR 25 million.

Once identified, SFIs are pooled into a separate subsector within the financial sector statistics. DNB then essentially observes pass-through flows by assuming that all SFIs exclusively engage in pass-through activities, while other types of entities do

⁷ Carlier and Chaudron (2014).

not at all. Under this assumption, the sectoral totals for SFIs thus represent the observed pass-through flows in the Netherlands.

Figure 1 illustrates the resulting balance sheets and primary income flows for SFIs through time. The figure shows that the assumption of these entities exclusively engaging in pass-through activities is valid to a high degree: they generate rather large gross flows and stocks, but very small net flows and stocks. The chart in the right panel shows that large income flows are channeled through SFIs, between EUR 100 and 150 billion in recent years. A similar picture emerges when looking at SFIs' assets and liabilities, in the left panel. The domestic assets of SFIs are only EUR 100 billion (0.3% of total SFI assets).⁸

Figure 1. Pass-through activities by SFIs (EUR bln)



SFIs dominate in the FDI account, on the asset and liability side (respectively 78 % and 82% of total FDI). To a far lesser extent their activities show up in the Other Investment Account and the Portfolio Investment Account.

It should be noted that although the compilation of statistics on SFIs allows DNB to identify a large proportion of pass-through funds flowing through the Netherlands, it does not capture them perfectly. The main reason for this is that foreign multinational corporations also channel funds through the Netherlands via the balance sheets of local production affiliates, which are classified as non-financial corporations rather than SFIs. According to our estimates approximately one-third of the debt of Dutch non-financial corporations, equal to 40% of Dutch GDP, consists of pass-through funds. Although the size of these funds is relatively small compared to the balance sheets of Dutch SFI, they still result in a sizeable distortion of non-SFI balance sheet statistics.

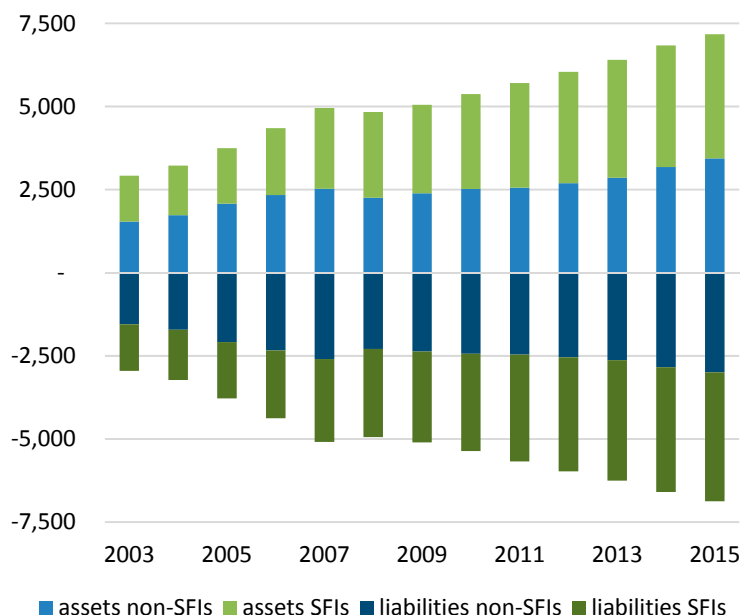
Quality and use of our BOP/IIP figures

Over the past decades DNB has collected data on SFIs' activities to adjust its BOP/IIIIP figures for pass-through funds. Until recently the official BOP/IIP dataset published at

⁸ This net position results from intercompany loans to Dutch production affiliates, participations in these affiliates and intellectual property rights on SFIs' balance sheets.

DNB's website and by international organizations had been based on adjusted figures from which SFIs were largely excluded: the large gross flows of SFIs were netted and only the net activities included in the BOP/IIP figures.⁹ This changed at time when the BPM6 handbook was implemented, which calls for inclusion of pass-through flows on a gross basis. Since then unadjusted BOP/IIP figures which include all SFIs' activities are nationally released as our official dataset. To provide users with the possibility to separate out pass-through funds, the BOP/IIP figures of SFIs are published as an "of which" item in the main statistical tables. Figure 2 shows the evolution of the Dutch international investment position on the basis of these figures.

Figure 2. International investment position (EUR bln)



Users thus have a choice in the figures they find most useful for their purpose. They can use unadjusted BOP/IIP figures including pass-through funds, or adjusted figures excluding pass-through funds. In practice, we see that the choice follows from users' objectives. Those primarily interested in regional and global capital flows generally opt for the first set. This includes the ECB and Eurostat, who compile euro area and EU BOP/IIP aggregates by summing up the contributions of all membership countries and need coherent symmetrical BOP/IIP statistics of all membership countries.¹⁰

Policymakers analyzing shadow banking have been a significant user of BOP/IIP-statistics on SFIs. Initial monitoring exercises conducted after the crisis typically utilized a broad definition of shadow banking activities, which led to the SFIs being

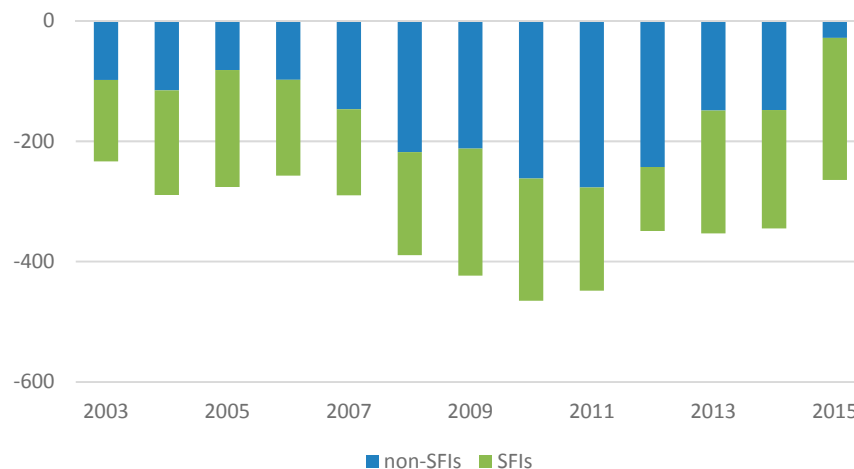
⁹ However, at the same time, data sets including gross data on SFIs were submitted to international organisations for compiling aggregates.

¹⁰ Capital passing through a Dutch SFI can be an inflow or an outflow at the euro area level. Not including this capital in the Dutch BOP/IIP figures would directly impact the size of the euro area BOP/IIP aggregates, and create asymmetries with non-euro area countries. Furthermore, capital passing through a Dutch SFI but remaining within the euro area should also be included in the Dutch BOP/IIP figures. This capital does not have a direct effect on the euro area BOP/IIP aggregates, but could push up the euro area errors and omissions.

included in shadow banking estimates. Based on the recently constructed, more targeted definition by the Financial Stability Board, SFIs have however been removed from the assumed scope of shadow banking (van der Veer et.al., 2015).

Finally, users primarily interested in the surveillance of national vulnerabilities generally prefer to use adjusted BOP/IIP figures. As pass-through funds are largely neutral to the Dutch economy and do not point to real economic vulnerabilities, including them can in several cases create misleading signals. For instance, external debt positions by pass-through entities count towards the national economies' external debt position, one of the 'auxiliary' indicators in the European Union's Macroeconomic Imbalances Procedure (MIP). This may easily lead to misperceptions of national vulnerabilities. Figure 3 shows how the interpretation of net external debt in the Netherlands is influenced by the inclusion of SFIs' activities. The decrease in net external debt for non-SFIs between 2011 and 2015 is much stronger than the MIP-indicator shows.

Figure 3. Net external debt (EUR bln)*

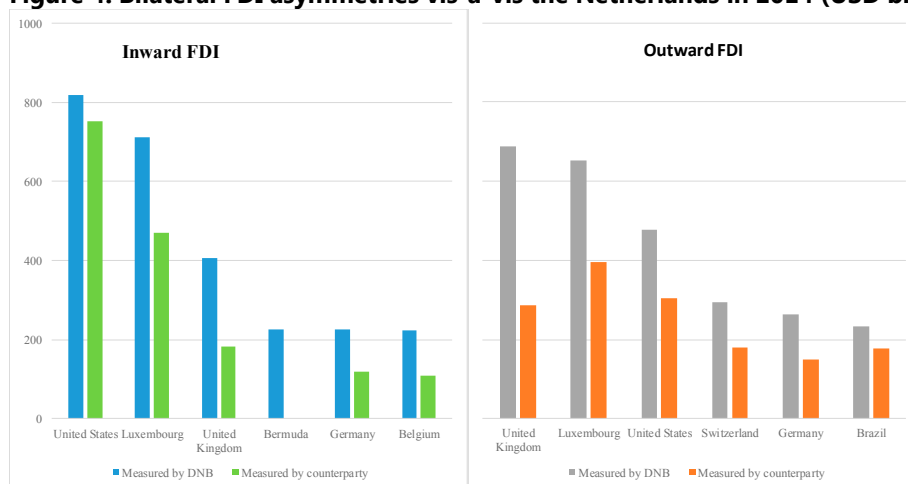


* Net external debt is calculated as external debt minus external assets in debt instruments. Debt includes intercompany loans, debt securities issued and other investment.

The quality of our official BOP/IIP dataset is determined by the quality of its components: the non-SFI data and the SFI data. Due to the large and volatile SFI population substantial efforts are needed to preserve the quality of the latter component. Occasionally, substantial revisions to the SFI data – and thus to the official BOP/IIP dataset – result from a few dormant SFIs suddenly increasing in size, and from newly incorporated large SFIs that are not immediately identified.

A comparison between the Netherlands and counterpart countries suggests that DNB is relatively complete in its observation of pass-through and other capital flows. Figure 4 shows so-called *mirror data* from the IMF's Coordinated Direct Investment Survey. The bilateral direct investment positions between the Netherlands and several relevant counterpart countries are compared. In most cases the positions as measured by DNB are substantially higher than those measured by the counterpart countries.

Figure 4. Bilateral FDI asymmetries vis-a-vis the Netherlands in 2014 (USD bln)



3. Aligning with the latest statistical guidelines

The publication of Eurostat's ESA2010 has prompted an evaluation by DNB of its current SFI-approach to identifying pass-through funds. This is because ESA2010 complicates the execution of our current approach, while at the same time providing suitable alternatives.

Under the previous edition of the European System of National and Regional Accounts (ESA1995), DNB and Statistics Netherlands dealt with the SFI population as a subsector of its other financial intermediaries sector (S.123). This approach facilitated the compilation process of SFI statistics as the sum of all activities of a single subsector of institutions. The 2010 edition of the framework (ESA2010) changes this. It provides a more detailed subdivision of the financial sector and changes guidance on certain classification rules. As a result, the population of SFIs is now spread over several sectors. Most are currently classified into the newly introduced sector captive financial institutions (S.127), which consists of financial corporations and quasi-corporations neither engaged in financial intermediation nor in providing financial auxiliary services, and where most of either their assets or their liabilities are not transacted on open markets. Securitization vehicles have meanwhile been classified into the new other financial intermediaries sector (S.125), which is more narrowly defined than its namesake under ESA1995. Others would have to be classified as non-financial corporations (S.11). This concerns three classification issues.

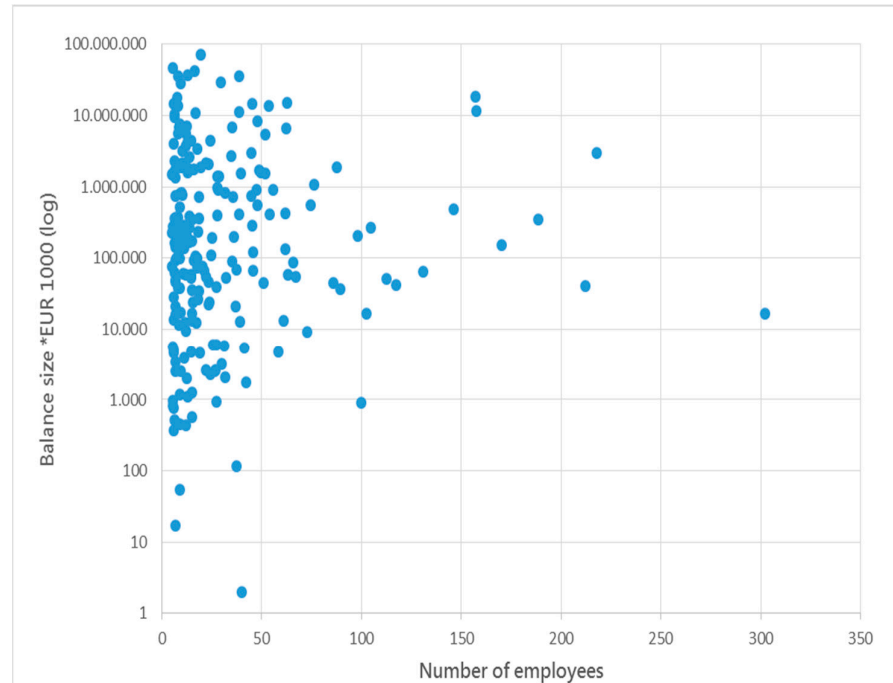
First, independent royalty and licensing companies holding intellectual property rights on their balance sheets are to be classified in the non-financial corporations sector (S.11) as these entities have substantial non-financial assets.

Second, DNBs current methodology implicitly assumes that all SFIs are institutional units.¹¹ This is indeed the case for all stand-alone SFIs, and for all clusters

¹¹ An institutional unit is an entity that can incur liabilities, engage in economic activities, has a meaningful set of accounts, and has autonomy of decision making. Other entities are called *artificial subsidiaries* and treated as an integral part of their parent's units. That is, unless they are resident in an economy different from that where the parent is resident.

without regular production affiliates. But it is not true for all SFIs. Some financing companies in the SFI population are subsidiaries of regular production affiliates. These entities meet the SFI balance sheet criterion, as they raise funds abroad from other sources than from their parents. However, following the latest statistical guidelines, these SFIs are artificial residents as they are linked to a resident parent and should be consolidated in S.11.

Figure 5. Employment of SFIs



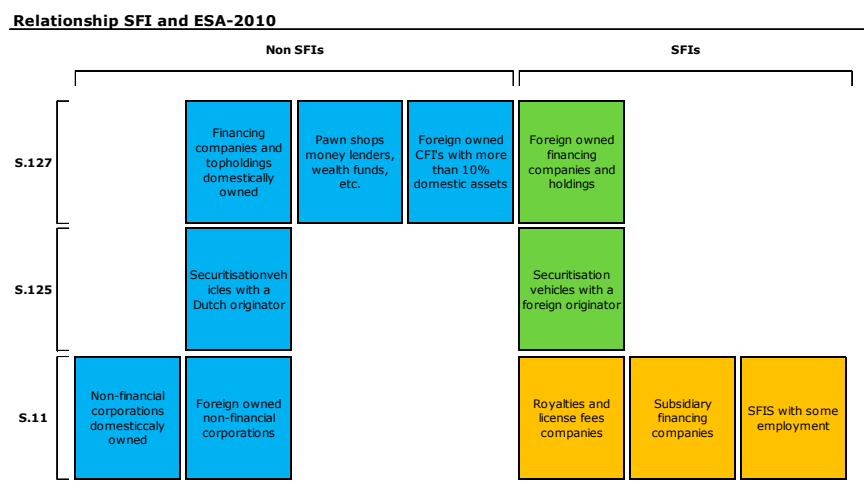
Third, and most substantially, several SFIs currently classified in S.127 as holding companies would qualify as head offices of non-financial corporations under the latest statistical guidelines, which requires them to be classified into to S.11.¹² An employment criterion is key in determining whether an entity classifies as a holding or head office. In 2013, a special taskforce on Head Offices, Holding Companies and Special Purpose Entities has given extra guidance on this, and has stated that employment of three or more persons should be seen as a first indicator for an institutional unit being a head office (ECB, Eurostat, and OECD 2013). Although in total SFIs' employment is rather limited (less than 9 thousand persons in 2015), individual SFIs can have some employed persons. The effect of the employment criterion on our sector classification, depends on the exact threshold that will be implemented. This is shown in figure 5 by plotting employment versus balance sheet size for individual SFIs. Around 240 individual SFIs have more than 5 employees, with combined assets of EUR 450 billion.¹³

As a result of such reclassifications, the population of SFI entities would be dispersed among S.127, S.125 and S.11. Figure 6 shows schematically where different types of SFIs are to be classified, in full alignment with the latest statistical guidelines.

¹² Head offices of financial firms would instead be moved to S.126, but these entities are less prevalent.

¹³ This is a lower limit, as some SFIs are consolidated into clusters.

Figure 6. Current classification of SFIs in S.125 and S.127



4. Identifying pass-through within the current statistical framework

Aligning to the latest statistical guidelines would have no implications for our official BOP/IIP dataset, as the total of pass-through funds would still be observed.¹⁴ Identifying pass-through funds within total capital flows, however, would be potentially problematic. This presents a problem specifically to users of macro-economic statistics that seek to exclude pass-through capital from their analyses. In order to maintain this functionality, we have looked into several options.

First, we could continue to compile pass-through statistics by grouping relevant entities into a single sector, by using S.127 for this purpose. However, the information content of such statistics would be greatly reduced compared to our current SFI statistics, as S.127 includes not only pass-through entities but also companies holding the shares of domestic enterprise groups, and some other types of captive financial institutions (see figure 6). Of the S.127 population, only the foreign owned S.127 entities can be seen as pass-through entities. Furthermore, the resulting statistics would not include SFIs in S.125 and S.11.

Second, we could label relevant entities in different ESA-sectors and use the label as a basis to compile statistics. A prime candidate for a label would in this case be the SPE concept, which is closely related to the SFI concept. The latest statistical guidelines introduce the SPE concept on the basis of a list of its typical characteristics.¹⁵

- SPEs have no employees and no non-financial assets;

¹⁴ The reclassification of SFIs does influence the BOP/IIP figures broken down by sector, but these data have not yet been published.

¹⁵ It is, at the same time acknowledged that there is no common definition. SNA2008 contains a similar list of characteristics, less strongly worded.

- SPEs have little physical presence;
- SPEs are always related to another corporation, often as a subsidiary;
- SPEs are resident in a territory other than the territory of residence of the related corporations;
- SPEs are managed by employees of another corporation which may or not be a related one.

Judged by these characteristics there is a substantial overlap with SFIs, and thus with pass-through capital. Compiling pass-through statistics based on SPE labelled entities would provide a better proxy for pass-through activities than statistics on the S.127 sector. However, this option would still be expected to have less information content relative to our current methodology. The SPE population comprises a subgroup of entities not involved in pass-through as it includes foreign holding companies in S.127 with substantial Dutch participations. Additionally, the SPE population excludes the existing pass-through entities reclassified to S.11. In short, SPE labelled entities are still a poorer proxy for pass-through entities than our SFI labelled entities. Another option – which would remedy this drawback – would be to simply use our existing SFI concept as a label across sectors instead. Such a SFI label however would not come with the international recognition that the SPE label does bring.

Third, a separate approach to identify pass-through funds would be through identification of the actual pass-through *activities* rather than *entities*. Such a methodology would relax the assumption that certain labelled entities exclusively engage in channelling pass-through funds while all other entities don't engage in this at all. Instead, it would involve identifying certain subsets of capital flows across all entities that could feasibly be interpreted as pass-through funds. For instance, the foreign assets of foreign-owned entities registered in the Netherlands could be interpreted as a proxy for pass-through funds. The potential increase in quality from this method is substantial, as it would also pick up the material pass-through activities undertaken by non-financial corporations – a category which our statistics based on the SFI concept currently do not capture. However, some aspects of pass-through may be easier to proxy in this manner than others. For instance, the foreign liabilities of the foreign-controlled entities are difficult to interpret being a mix of pass-through flows and 'genuine' investment flows.

Given these options, we have chosen to opt for a combination of the second and the third approach. We will implement the SPE label (second approach), which will allow us to compile comprehensive statistics on a group of institutions typically engaged in pass-through activities. Using the SPE concept brings the advantage of using an internationally harmonized concept that is understood across borders, at the cost of a less comprehensive coverage compared to our SFI population. Notably, the current SFIs which will shift to S.11 and which will not be labelled SPE will not be regarded as passing through. As a result our statistics will show The Netherlands to have higher figures of 'non-pass-through' FDI than before. These figures may also be more volatile than before because of the fast-changing nature of the pass-through funds that end up being included. Additionally, we will identify pass-through *activities*, irrespective of the classification of the entity (third approach). Thus, we aim to construct indicators for pass-through funds which also capture pass-through flows in the wider population of financial and non-financial entities – perhaps coming to a better coverage than we achieve today.

A key element in constructing such 'activity-based' indicators is observing the nationality of the financial and non-financial corporations reporting for our statistics, as this can make a large difference in the interpretation of observed capital flows. With this in mind we are planning to implement the voluntary ESA-sub-classification of domestic and foreign-owned entities. Such a sub-classification could also serve broader needs of data users. For instance, Dutch controlled entities are likely to draw the most interest from domestic policymakers, in particular in understanding their financial exposures and integration in global value chains. These users will also be helped with the proposed breakdown by nationality.

5. Enhancing pass-through identification in future statistical frameworks

The Dutch experience in compiling statistics on pass-through funds may also contribute to the further development of international frameworks on the subject. There is still room for international convergence on this point, as illustrated by the fact that BPM6 stops short of offering up such a framework and instead advocates the implementation of national solutions.

Developing an internationally consistent label for entities primarily involved in pass-through would be an interesting avenue to explore. The SPE concept provides a natural starting point for this, but has not been designed specifically for the identification of pass-through funds, as it excludes entities with little substance and furthermore lacks a balance sheet criterion. The SPE concept could either be adapted in the new handbooks by adding this criterion, or a SFI type of pass-through concept could be introduced.

In this regard, it could also be discussed how to weigh production and financial activities. It is not unusual that pass-through entities combine large balance sheets with some employment (and little production activities). This is the sizeable group of institutions that historically have been classified as SFI in the Netherlands, but will not be captured in the future as they are reclassified as non-financial corporations under the latest statistical guidelines. Drawing from the Dutch experience, a pass-through concept would ideally be inclusive of entities that have some physical presence but nevertheless primarily carry out pass-through activities. One way of achieving this would be to re-examine the definition of 'principal activity' of an entity, which is instrumental in determining its sectoral classification and by which entities combining minor value added with large balance sheets are considered non-financial companies.

Today, the statistical handbooks deem balance sheets characteristics as irrelevant in determining an institutional unit's principal activity, and instead take value added as a central measure. This methodology leads to outcomes which not always seem to reflect the dominant character of an entity. An entity with a EUR 10 bln balance sheet and ten employees is prima facie more likely to be financial than non-financial. Under a methodology where an entity's principal activity is co-determined by financial variables such as the size of its balance sheet, it would be easier to ensure that financial activities such as pass-through would be classified in the financial sector. Thus, also entities with a disproportionate balance sheet relative to their value added would be considered financial corporations and included as SPEs, bringing them under the umbrella of pass-through statistics. Of course, as a consequence also minor

(non-financial) value added would shift to the financial sector. Box 2 discusses further how production and financial activities could be weighed.

Box 2. Weighing production and financial activities

When an entity has both production and financial activities, there is obviously a dilemma. Either an entity is classified as a non-financial corporation (head office) which means that S.11 would include extra passing through activity. Or an entity is seen as a financial corporation (holding) which means that S.127 would include real activities. The table below gives a stylized example with two holdings that also have some employment.

	Employment (persons)	Foreign assets (EUR)	Domestic assets (EUR)
Holding A	1	10 mln	0.1 mln
Holding B	10	10 bln	0.1 bln

On the basis of their characteristics, only holding A will currently be classified as a financial corporation in S.127. However, holding B is, in relative terms, very similar, and has in absolute terms much larger pass-through activities. Classifying entity B as a head office, because of its employment of 10 persons, results in extra pass-through capital in S.11's balance sheet which may hamper the interpretability for users.

If an institutional unit's principal activity would be co-determined by its balance sheet, entities having very large balance sheets can be classified as financial corporations in S.127. From a user perspective, the drawbacks of shifting some limited employment and production activities to S.127 may be considered smaller than that of shifting large financial flows to S.11. Weighing both effects calls for specific relative thresholds, like total assets per employee, or the ratio of assets versus domestic turnover.

This issue is all the more relevant as it is unlikely to go away, and could very well grow in the future. It is conceivable that national tax authorities will require pass-through entities to increase their economic substance, given the G20 statement that multinationals should be taxed where economic activities take place and where value is created. In the Netherlands we already see an increasing number of SFIs creating substance, the wage sum almost tripling since 2005. If multinationals would respond by combining pass-through entities with small value generating activities the current definition would imply a large reclassification with limited economic meaning for users.

6. Concluding remarks

Although our SFI concept has worked well over the years in making adjustments for pass-through capital, it will be abandoned in the near future to fully align with the international guidelines adopting the SPE concept. We thus accept a less optimal identification of pass-through entities in order to harmonize our approach with international standards. In our future approach, we intend to make an adjustment for pass-through on the basis of the SPE concept and a nationality breakdown. Although

pass-through activities may be relatively large in the Netherlands as compared to GDP, such activities can also be found in other countries. Users of BOP/IIP figures in other countries may be hindered by similar, albeit probably smaller distortionary effects. A stricter definition of SPEs would reinforce the benefits of harmonisation using this concept. If users and compilers consider it important to get a better handle on pass-through capital in the next national accounts and BOP/IIP manuals, our 'old' SFI concept may still serve as a source of inspiration, being a concept specifically targeted at pass-through.

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