Current-Account Asymmetries in U.S.–EU Statistics[1]

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Abstract

The United States and the European Union are the foremost trading partners in the world, with total bilateral current-account transactions exceeding $1.8 trillion in 2017, as reported by the U.S. Bureau of Economic Analysis (BEA) and the Statistical Office of the European Union (Eurostat). In 2017, the 28 Member States of the European Union accounted for more than 26 percent of U.S. current-account transactions, while the United States accounted for more than 23 percent of EU current-account transactions with countries outside the EU (extra–EU). The current account, a major component of a country's balance of payments accounts, shows economic transactions of an economy with the rest of the world and provides valuable information about how economies are intertwined globally. Persistent bilateral asymmetries—differences in the statistics reported by the United States and the EU Member States—have led to questions about the interpretation of the statistics by data users. A reduction in these asymmetries would be a major step towards increasing confidence in the statistics. This paper presents an overview of findings on asymmetries in current-account statistics for the EU and individual Member States as reported by Eurostat, and for the United States as reported by BEA. A quantitative analysis of the largest asymmetries in these accounts is accompanied by a discussion of the different concepts and methods underlying the EU and U.S. statistics that help explain the causes of these asymmetries. Current-account transactions are compiled and presented in the balance of payments framework based on conceptual and presentational guidelines promulgated by the International Monetary Fund (IMF) in *Balance of Payments and International Investment Position Manual, 6th edition* (hereafter cited as "BPM6"). Standard presentations of the statistics recommended in BPM6 facilitate comparisons of the current-account statistics published by different countries. This paper focuses on the components with the largest asymmetries, trade in services and cross-border primary income flows, about which there is little documentation in international literature as to the underlying reasons for the asymmetries. The analysis of asymmetries is based on a comparison of the values reported by two countries for the same set of bilateral trade transactions.

Keywords Current account, balance of payments, international trade in services, primary income, current-account asymmetries, international comparability

JEL Code F14

1. This paper was jointly prepared by the Bureau of Economic Analysis (BEA) and Eurostat.

1. Introduction

The United States is the foremost economic partner of the European Union. According to BEA, more than 26 percent of total U.S. current-account transactions can be attributed to the European Union. Likewise, according to Eurostat, about 23 percent of total extra-EU current-account transactions can be attributed to the United States, with even higher shares for primary income, for which the United States accounts for more than 32 percent. Additionally, close to 30 percent of the European Union's worldwide trade in services is with the United States. Given the importance of this relationship, internationally comparable data on balance of payments statistics between the two counterparts are extremely important. In theory, the bilateral transactions of the current account reported by two trading partners should balance each other. For example, EU exports to the United States should equal U.S. imports from the European Union, and EU imports from the United States should equal U.S. exports to the European Union. Consequently, current-account surpluses/deficits should be mirrored by the respective current-account deficits/surpluses of the partner statistics. In reality, however, two data sources for any bilateral statistics rarely provide the same results, and asymmetries remain an important issue on the global level and between individual pairs of economic counterparts. Asymmetries are caused by several factors, such as different data collection systems that result in different source data and different estimation methods, as well as methodological and conceptual differences. Economic transactions may be captured by only one compiler, they may be recorded with different values, or there may be different geographical identification of the counterpart. The "true" values are usually unknown and could lie between the two partner estimates or even outside that range. Significant asymmetries cloud the interpretation of the statistics.

This analysis is dedicated to measuring the extent of asymmetries occurring in selected data on the U.S.–EU current account, which hampers the comparison of both statistical products and contributes significantly to overall global asymmetries. Through the analysis of two major components, in addition to the broader current account, we will get a more conclusive picture of U.S.–EU current-account asymmetries and why they exist. In this context, a joint Eurostat/BEA study[2] paved the way forward by analyzing asymmetries of the U.S.–EU international trade in services in 2017. It identified several contributing factors, including different concepts/classifications and methodological approaches. As the nature of asymmetries is multidimensional and reflects a multitude of national compilation practices in the 28 EU Member States and in the United States, the authors ask what the EU and U.S. compilers of balance of payments statistics could do to reduce asymmetry levels in the specific components of their current accounts. Eurostat, the European Central Bank (ECB), the IMF and other international organizations have encouraged countries to address persistent bilateral asymmetries by engaging with major trading partners to understand differences in concepts, definitions, and compilation practices.[3]

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2. The study, "Transatlantic Trade in Services: Investigating Bilateral Asymmetries in EU-U.S. Trade Statistics," was also published by Eurostat, available at https://ec.europa.eu/eurostat/documents/7870049/8544118/KS-GQ-17-016-EN%20N.pdf/eaf15b03-5dcf-48dd-976f-7b4169f08a9e.

3. See, for example, "Revisiting Global Asymmetries—Think Globally, Act Bilaterally," Prepared by the IMF Statistics Department for the 28th Meeting of the IMF Committee on Balance of Payments Statistics (2015), www.imf.org/external/pubs/ft/bop/2015/pdf/15-08.pdf.

For comparison's sake, all data and results in this paper are expressed in U.S. dollars (USD).[4,5] Thus, exchange rate effects could create a minor bias in the results. The comparisons are conducted on unadjusted data. Credit and debit flows are compared separately in nominal or absolute differences; total asymmetries are measured as the sum of absolute differences.[6] To avoid misinterpretation, the analysis applies an EU perspective, meaning that asymmetries are calculated as EU credits (exports/receipts) less U.S. debits (imports/payments) and EU debits (imports/payments) less U.S. credits (exports/receipts). This view should not misconstrue the origin of the asymmetries, which is usually multidimensional. Quantitative assessments of asymmetries at first sight involve two countries, but the search for the underlying causes appears generally more complex, possibly involving additional countries and requiring a sound understanding of the applied compilation methods, concepts, and recording practices to avoid premature conclusions.

EU data on international trade in services come from Eurostat's balance of payments database[7] which is compiled vis-à-vis major economic counterparts, including the United States, on a quarterly basis. This allows a high degree of timeliness, although more detailed geographical breakdowns are available from annual data on international trade in services and foreign direct investment. Both references can be applied equally and do not change the general conclusions in this paper. The corresponding U.S. data are taken from the BEA publication database on U.S. international transactions, available for the European Union and with a country breakdown for all 28 EU Member States in trade in services and seven EU Member States in primary income.[8] BEA also has a database in which direct investment income is available for all 28 Member States.[9]

For analytical purposes, it is appropriate to examine the most recent time series. This analysis uses annual statistics between 2013 and 2017. For the ensuing in-depth analysis, the analysis focuses on 2017 to illustrate the issues for the reader without imposing an additional time dimension on the analysis.

4. In this report, the EU and Euro Area countries' data were converted to USD using the exchange rates from dataset ert_bil_eur_a at http://ec.europa.eu/eurostat/data/database.

5. Eurostat published the results of this joint study in April 2019 (Eurostat (2019)), available at https://ec.europa.eu/eurostat/web/products-statistical-reports/-/KS-FT-19-003. In some cases the analysis presented in this working paper differs from the analysis in the Eurostat report, which was based on values stated in euros, because of changes in exchange rates over the period of analysis, 2013 to 2017.

6. The difference between exports/credits reported by country X and (mirror) imports/debits reported by its partner country Y in absolute terms. This allows for adding up differences for analytical purposes and avoids canceling effects, which are inherent to nominal differences.

7. European Union and euro area balance of payments–quarterly data (BPM6 basis), dataset bop_c6_q, http://ec.europa.eu/eurostat/data/database, data accessed in October 2018.

8. U.S. International Transactions Accounts and International Services, https://apps.bea.gov/iTable/iTable.cfm?reqid=62&step=1&isuri=1, data accessed in October 2018.

9. Direct Investment and Multinational Enterprises, https://apps.bea.gov/iTable/iTable.cfm?ReqID=2&step=1.

2. Quantitative evidence of current-account asymmetries

2.1 Measuring U.S.–EU current-account asymmetries

The balance of payments records all economic transactions between residents and non-residents during a given period. It consists primarily of two major accounts—the current account and the financial account. The current account of an economy records all its cross-border transactions in goods and services, as well as income and transfer payments to/from the rest of the world. Current-account statistics are published for each of its components and with a geographical breakdown with trading partners. EU exports to the United States should ideally mirror U.S. imports from the European Union; likewise, EU imports from the United States should be equal to U.S. exports to the European Union.

However, in practice, completely symmetric statistics rarely occur, and therefore, we observe bilateral asymmetries in the statistics that could effectively hamper economic interpretation of the statistics. The perspective of this paper is from the EU statistics; therefore, asymmetries of EU exports to the United States are called "export or credit asymmetries" and asymmetries of EU imports from the United States are called "import or debit asymmetries." In U.S. mirror statistics, the inverse view applies.

The Eurostat and BEA data releases from October 2018 confirm considerable asymmetries between the EU and U.S. current accounts for the period 2015 to 2017 (table 1). While the EU current-account balances show a significant surplus, the U.S. current account also shows a surplus. Looking at the credits and debits reveals that the diverging views stem mostly from asymmetries in the values for payments from the European Union to the United States (EU debits/U.S. credits).

Table 1. Bilateral current accounts and their components in U.S. and EU statistics, 2015–2017
[Millions of dollars]

	EU	2015	2016	2017	U.S.	2015	2016	2017
Current account	**Balance**	**156,277**	**165,239**	**173,749**	**Balance**	**14,393**	**10,069**	**13,210**
	Credit	944,178	905,139	991,799	Debit	873,514	890,989	955,491
	Debit	787,901	739,900	818,051	Credit	887,907	901,058	968,701
Goods	**Balance**	**182,926**	**172,021**	**186,808**	**Balance**	**–157,351**	**–148,148**	**–152,597**
	Credit	446,290	430,284	455,388	Debit	431,046	419,103	437,406
	Debit	263,363	258,263	268,580	Credit	273,695	270,955	284,809
Services	**Balance**	**13,288**	**–2,568**	**14,435**	**Balance**	**54,857**	**56,079**	**51,437**
	Credit	250,095	248,668	265,345	Debit	174,245	179,163	191,968
	Debit	236,806	251,236	250,911	Credit	229,102	235,242	243,405
Primary income	**Balance**	**–39,017**	**–4,935**	**–12,354**	**Balance**	**111,883**	**98,820**	**108,281**
	Credit	217,964	194,854	236,316	Debit	240,718	262,936	288,020
	Debit	256,981	199,789	248,670	Credit	352,601	361,756	396,301
Secondary income	**Balance**	**–921**	**720**	**–15,140**	**Balance**	**5,003**	**3,318**	**6,088**
	Credit	29,830	31,332	34,749	Debit	27,506	29,787	38,097
	Debit	30,751	30,612	49,889	Credit	32,509	33,105	44,185

Credit = Exports/receipts; Debit = Imports/payments; Balance = Credits minus debits.
Source: BEA, Eurostat

For example, in 2017, the European Union recorded $818 billion in total current-account payments to the United States, while the United States showed $969 billion in total receipts from the European Union. At the same time, the European Union recorded $992 billion in total receipts from the United States, while the U.S. data showed only $955 billion in total payments to the European Union. The European Union recorded a current-account surplus of $174 billion in 2017, while the United States recorded a surplus of $13 billion.

The origins of this contradiction become more evident when looking into the balances of the current-account components. In 2015 and 2017, it was the services component that showed a surplus in both sets of statistics (the same applied to secondary income in 2016). For 2017, Eurostat published a services surplus of $14 billion to the United States, while BEA recorded a surplus of $51 billion to the European Union. Although the other components appear directionally consistent (showing opposite signs in their respective component balances), differences in the underlying gross transactions appear significant, indicating that contradictory balances are not the only feature of asymmetric statistics.

Table 2. U.S.–EU Current Account Asymmetries, by Component, 2015–2017
[Millions of dollars, percent of total transactions]

	2015	2016	2017
Credit asymmetries (nominal)			
Current account	**70,663**	**14,150**	**36,308**
Goods	15,244	11,181	17,982
Services	75,850	69,505	73,377
Primary income	–22,754	–68,082	–51,704
Secondary income	2,324	1,545	–3,348
Debit asymmetries (nominal)			
Current account	**–100,006**	**–161,158**	**–150,649**
Goods	–10,332	–12,692	–16,229
Services	7,704	15,994	7,506
Primary income	–95,620	–161,967	–147,631
Secondary income	–1,758	–2,493	5,704
Total asymmetries (absolute)			
Current account	**170,669**	**175,308**	**186,958**
Goods	25,575	23,873	34,211
Services	83,554	85,500	80,883
Primary income	118,374	230,049	199,334
Secondary income	4,082	4,038	9,052
Total asymmetries (%)			
Current account	**9.9**	**10.7**	**10.3**
Goods	3.6	3.5	4.7
Services	17.2	17.1	15.7
Primary income	24.9	58.3	41.1
Secondary income	6.7	6.5	10.7

Nominal credit asymmetries = EU credit minus U.S. debit;
Nominal debit asymmetries = EU debit minus U.S. credit;
Total asymmetries = sum of credit and debit asymmetries in absolute values;
Positive nominal asymmetries represent EU values higher than the U.S. mirror statistics;
Negative nominal asymmetries represent EU values lower than U.S. mirror statistics.
Source: BEA, Eurostat

Generally, EU current-account credits are higher than the corresponding U.S. mirror statistics and EU current-account debits are lower than the U.S. mirror statistics. EU debit asymmetries in the current account also appear far more prominent than EU credit asymmetries (table 2).

While the European Union recorded credit asymmetries in the current account of $36 billion with the U.S. mirror statistics in 2017, debit asymmetries accounted for more than $151 billion in the same year. Credit asymmetries are driven by services exports ($73 billion in 2017), while debit asymmetries are accounted for almost exclusively by primary income payments to the United States ($148 billion in 2017). In overall terms, asymmetries are highest in the primary income account, which accounts for more than 40 percent of total asymmetries over time. Asymmetries in services are the second highest, and account for around 17 percent of the total asymmetries.

For trade in goods, exports reported by both the European Union and the United States are higher than mirror imports, which is the common situation on the global level where the world has a trade "surplus" with itself and is due to the slightly better data coverage for exports than for imports.[10] However, especially in relative terms, asymmetries for goods are much smaller than for services and primary income, which account for almost 90 percent of the overall measured (absolute) asymmetries in the component accounts. This suggests that a focused approach on these two components is appropriate to formulate explanations as to:

1. Why EU services exports to the United States are generally higher than U.S. mirror statistics (and whether EU services imports really correspond well to U.S. data)
   (see section 2.2);
2. Where the contradictory balances in services arise (see section 2.3);
3. Why EU income payments to the United States (but also EU income receipts from United States) are generally lower than U.S. mirror statistics (see section 2.4).

2.2 Analyzing asymmetries in U.S.–EU trade in services

2.2.1 Overall patterns

According to EU statistics, from 2013 to 2017, the total value of U.S.–EU services trade transactions (credits and debits) rose 12 percent from $462 billion in 2013 to $516 billion in 2017. In USD terms, annual growth in services was highest in 2014, at 9 percent (table 3). Total transactions declined in 2015, and then returned to positive growth of around 3 percent in both 2016 and 2017. In general, an increase in services trade transactions value raises the potential for an increase in asymmetries, but over time, total asymmetries did not increase.

10. The IMF Committee on Balance of Payments regularly presents, in its Annual Reports, asymmetries at the world level, which show that global goods exports are consistently higher than global goods imports. See, for example, IMF Committee on Balance of Payments Statistics Annual Report 2017, at www.imf.org/en/Publications/Balance-of-Payments-Statistics/Issues/2019/02/19/IMF-Committee-on-Balance-of-Payments-Statistics-Annual-Report-2018-46590.

Table 3. Asymmetries and Dynamics of U.S.–EU Trade in Services, 2013-2017
[Millions of dollars, except where noted]

		2013	2014	2015	2016	2017
Asymmetries, nominal	Credit	83,522	87,275	75,850	69,505	73,377
	Debit	13,378	23,237	7,704	15,994	7,506
	Total	96,900	110,512	83,554	85,500	80,883
Share of gross flows (EU) (%)	Credit	34.1	34.0	30.3	28.0	27.7
	Debit	6.2	9.5	3.3	6.4	3.0
	Total	21.0	22.0	17.2	17.1	15.7
Growth in services (EU) (%)	Credit		5.0	–2.7	–0.6	6.7
	Debit		12.8	–3.5	6.1	–0.1
	Total		8.7	–3.1	2.7	3.3
Growth in asymmetries (%)	Credit		4.5	–13.1	-8.4	5.6
	Debit		73.7	–66.8	107.6	–53.1
	Total		14.0	–24.4	2.3	–5.4

Asymmetries measured in absolute terms; Asymmetries as a percentage of gross flows and growth rates year-on-year calculated using EU figures; Credit and debit flows reflect the EU perspective.
Source: BEA, Eurostat

The relative share of total asymmetries to total gross flows in services declined from above 20 percent to below 16 percent in 2017, although asymmetry patterns appear very different for exports and imports to and from the United States. Export asymmetries declined, on average, over the period despite an average increase in export value from 2013 to 2017 in both the EU-reported and US-reported data. Import asymmetries are smaller than export asymmetries, but they change quite a bit over the period, increasing and decreasing by more than 50 percent each year. This indicates diverging growth patterns in the EU-reported and US-reported data. It also appears noteworthy that reported EU trade in services generally exceeds reported U.S. trade in services, consequently showing overall nominal asymmetries with a positive sign (table 3).

A comparison of sub-items reveals some difficulties in comparing the standard presentation of services in the EU statistics with the U.S. statistics. BPM6 suggests 12 components for gross transactions in international trade in services, with additional supplementary items (BPM6, Appendix 9). In EU statistics, a residual component is added for services not allocated. BEA, on the other hand, publishes only 9 service components (BEA (2014), para. 10.54). Three components are either partially captured under different categories in the balance of payments (manufacturing services on physical inputs owned by others) or registered under different services components (construction and personal, cultural and recreational services). These deviations complicate a direct comparison of bilateral component data for services, as the resulting asymmetries could be attributed in part to these differences in classification (table 4).

Table 4. Nominal Asymmetries in U.S.–EU Trade in Services, by Component, 2017

[Millions of dollars]

	Credit (EU)	Debit (U.S.)	Asymmetry
Services, export	**265,345**	**191,968**	**73,377**
Manufacturing services on physical inputs owned by others	2,391	n.a.	n.a.
Maintenance and repair services n.i.e.	4,741	C	n.a.
Transport	38,485	35,666	2,819
Travel	29,599	42,902	–13,303
Construction	1,353	338	1,015
Insurance and pension services	9,054	12,224	–3,170
Financial services	29,949	13,370	16,579
Charges for the use of intellectual property n.i.e.	24,066	22,993	1,073
Telecommunications, computer, and information services	33,558	10,492	23,066
Other business services	86,044	42,282	43,762
Personal, cultural, and recreational services	4,475	n.a.	n.a.
Government goods and services n.i.e.	1,362	C	n.a.
Services not allocated	269	n.a.	n.a.

	Debit (EU)	Credit (U.S.)	Asymmetry
Services, import	**250,911**	**243,405**	**7,506**
Manufacturing services on physical inputs owned by others	2,980	n.a.	n.a.
Maintenance and repair services n.i.e.	6,607	8,634	–2,027
Transport	23,922	26,324	–2,402
Travel	28,051	40,468	–12,417
Construction	993	C	n.a.
Insurance and pension services	5,070	4,485	585
Financial services	24,209	34,699	–10,490
Charges for the use of intellectual property n.i.e.	30,218	50,357	–20,139
Telecommunications, computer, and information services	21,192	13,847	7,345
Other business services	102,937	63,196	39,741
Personal, cultural, and recreational services	2,407	n.a.	n.a.
Government goods and services n.i.e.	2,273	1,395	878
Services not allocated	50	n.a.	n.a.

For U.S. debits, construction has been reclassified in U.S. statistics from other business services to the respective standard item; For U.S. credits this reclassification is not possible because the value of construction exports to the European Union is confidential; Personal, cultural and recreational services are included in other business services in the U.S. statistics and could not be separated. (n.a.) not available, (C) confidential, (n.i.e.) not included elsewhere.

Source: BEA, Eurostat

2.2.2 The geographical profile of asymmetries in services

BEA publishes a full geographical breakdown of U.S. trade in services with all 28 EU Member States.[11] This allows for a more comprehensive geographical analysis of asymmetries in this component.

Table 5. Nominal asymmetries in U.S.–EU Services, 2017
[Millions of dollars]

	Export asymmetries	Import asymmetries
Belgium	6,038	2,444
Bulgaria	27	-299
Czechia	453	186
Denmark	3,476	703
Germany	14,341	13,997
Estonia	170	-77
Ireland	728	4,469
Greece	-654	-173
Spain	C	C
France	16,841	9,403
Croatia	122	-219
Italy	-1,867	-382
Cyprus	C	-19
Latvia	88	-120
Lithuania	-348	-118
Luxembourg	3,655	4,369
Hungary	1,298	656
Malta	C	C
Netherlands	3,518	4,028
Austria	351	659
Poland	1,342	-1,104
Portugal	-40	25
Romania	378	-170
Slovenia	101	-31
Slovakia	C	-53
Finland	1,502	-44
Sweden	3,306	1,561
United Kingdom	16,841	-31,875

Negative asymmetries represent EU figures that are lower than their U.S. mirror;
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
(C) confidential.
Source: BEA, Eurostat

11. Table 2.3 U.S. Trade in Services, by Country and by Type of Service, https://apps.bea.gov/iTable/iTable.cfm?reqid=62&step=9&isuri=1&6210=4.

Based on 2017 data, the Member States with the most significant services asymmetries with the United States are the United Kingdom, Germany, and France. Belgium, Luxembourg, the Netherlands, and Ireland also showed relatively large asymmetries with the U.S. mirror statistics. These seven Member States accounted for around 86 percent of the total asymmetries in that year. While the EU export asymmetries with the United States came predominantly from the United Kingdom, Germany, France, and Belgium, EU import asymmetries were particularly related to the statistics of the United Kingdom, Germany, France, and Luxembourg (table 5). A prevailing pattern in all mentioned EU countries except the United Kingdom is that the country figures appear higher than the corresponding U.S. figures (showing positive nominal asymmetries). U.K. import asymmetries with the United States, on the other hand, resulted from lower U.K. services imports from the United States compared to U.S. exports to the United Kingdom (negative nominal asymmetries).

2.2.3 Travel

Travel covers goods and services acquired for personal use or business motives by travelers during their visits abroad, or by non-resident visitors to the reporting economy. The EU figures are significantly lower than the corresponding U.S. mirror statistics for both exports and imports. EU travel exports were $30 billion in 2017 (table 4), while the United States recorded $43 billion in travel imports; in the same year EU travel imports from the United States were $28 billion compared to $40 billion in travel exports in U.S. statistics. The major differences occurred in the bilateral statistics with the United Kingdom, Italy, and France, which together accounted for more than 50 percent of the observed asymmetries and for 50 percent of the value of the transactions (figure 1). The overall prominence of asymmetries in the travel category is high and assumes a quantitative impact of around 12 percent of total asymmetries in the services components.

Differences in the published data between countries can be attributed to the fact that travel is typically measured using different data sources. Generally, travel is estimated from a volume component (number of travelers) and an expenditure component (average expenditures by travelers). The data sources used by partner countries could reflect different sample coverages, reporting thresholds, and aggregation methods, which could explain potential differences between countries' mirror statistics. Expenditure surveys additionally could contain a reporting bias (underreporting of expenses) that could blur the picture and complicate international comparisons. While compilers from the United Kingdom, France, and Italy use household or other specialized surveys (passenger surveys) to derive both the volume and expenditures components of travel,[12] the U.S. compiler is able to employ administrative data sources from the U.S. Department of Homeland Security (DHS) on the number of travelers entering the United States from other countries, along with an expenditure survey conducted by the U.S. Department of Commerce (BEA (2014), para. 10.92) for the average expenditures by travelers.

12. Estimates of travel services produced by the UK Office for National Statistics (ONS) are based primarily on the International Passenger Survey (for more information, see ONS Methodological Notes, at www.ons.gov.uk/file?uri=/economy/nationalaccounts/balanceofpayments/methodologies/balanceofpayments/balanceofpaymentsmethodologicalnotes.pdf). Estimates of travel services produced by the French Institut national de la statistique et des études économiques (INSEE) are derived from the National Transport and Travel Survey (see www.insee.fr/en/metadonnees/source/operation/s1367/processus-statistique).

Some European compilers supplement traditional data sources with payments and credit card data from data collection of banks (for example, Germany[13]), or mobile phone data (for example, Estonia[14]). While tourist entries (with or without visa requirement) into the United States have been well covered by DHS data, in Europe new promising administrative data sources will come into effect by 2021, allowing European compilers to employ possibly more comprehensive administrative data sources to complement their surveys, such as the European Travel Information and Authorization System database.

Even administrative records can be subject to error, however, as collection systems are developed for non-statistical purposes and changes over time may impact the consistency of the data collected. For example, in 2018 BEA revised its estimates of travel exports for 2015 to 2017 to address an undercount of foreign visitors to the United States in BEA's source data that resulted from a technical issue.[15] The revised statistics are reflected in this analysis. BEA is currently reviewing its methodologies for measuring travel in light of asymmetries with partner countries and, as part of this review, will engage with other countries to discuss respective methods and data sources.

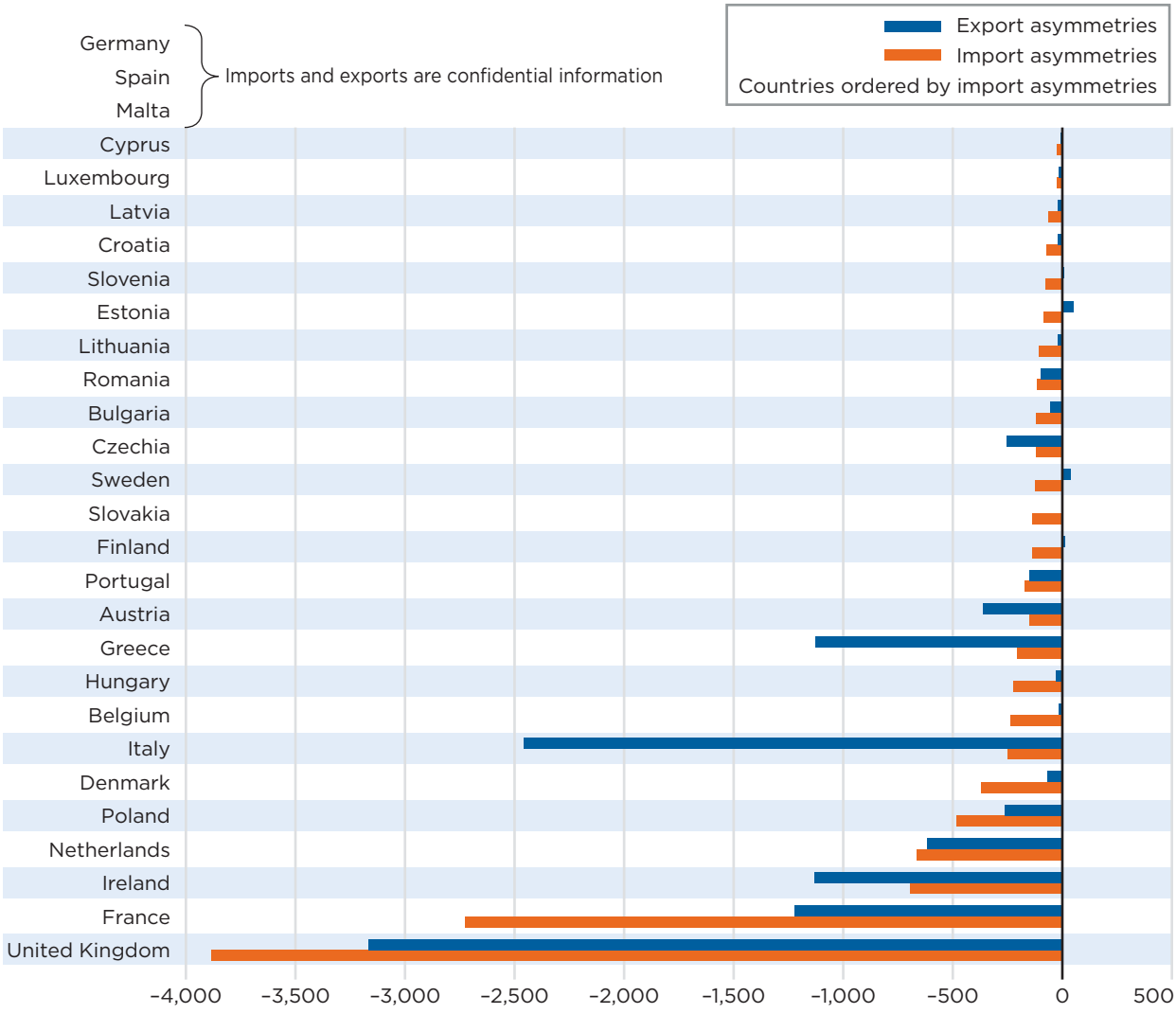
The current asymmetries in travel appear, therefore, to be driven by different compilation methods and data sources (surveys, administrative or other sources). It must, however, be emphasized that the administrative sources from immigration show comparative advantages especially for travel exports (foreign residents traveling in the compiling country), while other data sources such as credit card information and mobile phone data could ideally complement the capture of travel imports (residents of the compiling country traveling abroad) via household surveys. The advantages of administrative sources for compiling travel exports suggests that countries could benefit from an exchange of such data in the future.

13. See Deutsche Bundesbank, Zahlungsbilanzstatistik, Statistisches Beiheft zum Monatsbericht, 11/2018, at www.bundesbank.de/resource/blob/768932/9af30bd140607f476cf6433c3977fb90/mL/2018-11-zahlungsbilanzstatistik-data.pdf.

14. See Eesti Pank, Methodology for the compilation of international travel statistics, http://statistika.eestipank.ee/failid/mbo/valisreisid_eng.html.

15. See "Adjustments to address a problem with source data for travel and transport services" in Berman, Xin, and Weinberg, "Annual Update of the U.S. International Transactions Accounts" *Survey of Current Business* (July 2018), https://apps.bea.gov/scb/2018/07-july/0718-annual-update-international-transactions.htm.

Figure 1. Nominal asymmetries in U.S.–EU travel services, EU Member States, 2017
[Millions of dollars]

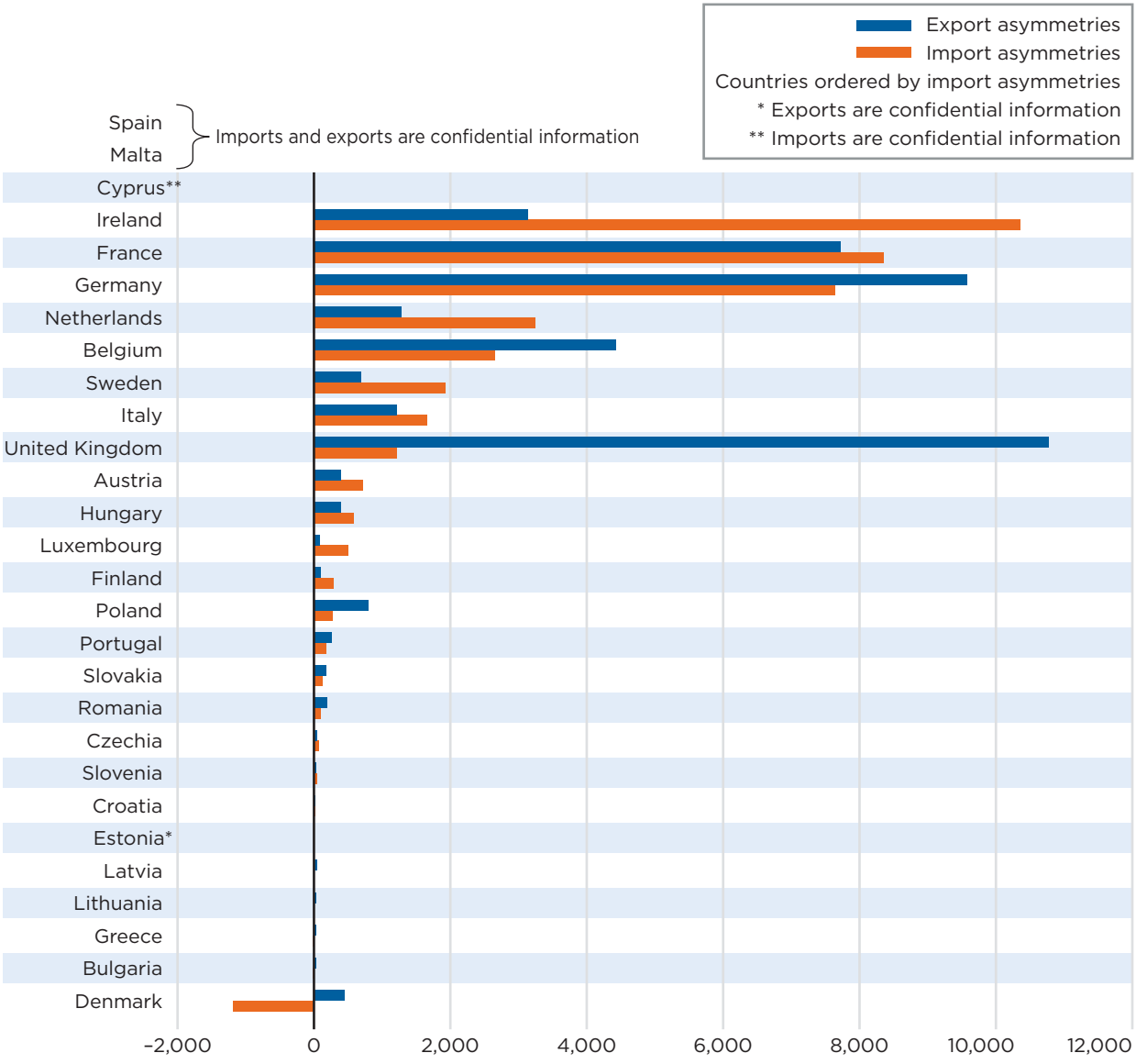


Negative asymmetries represent EU figures that are lower than their U.S. mirror.
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

2.2.4 Other business services

Other business services are a sub-item of services that show the largest asymmetries between EU and U.S. statistics. Other business services include the standard balance of payments sub-items of: (1) research and development services, (2) professional and management consulting services, and (3) technical, trade-related, and other business services (BPM6, para. 10.147-10.151). EU figures on other business services appear generally higher than their corresponding U.S. mirror statistics. This applies both to exports and imports. Altogether, the measured asymmetries in this item account for around 39 percent of total asymmetries in services.

Figure 2. Nominal asymmetries in U.S.–EU other business services, EU Member States, 2017
[Millions of dollars]



Negative asymmetries represent EU figures that are lower than their U.S. mirror.
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

According to EU statistics, the EU exports of other business services to the United States were $86 billion in 2017 (table 4), while the United States recorded only $42 billion in corresponding imports; in the same year European Union imports from the United States were $103 billion, compared to $62 billion of exports in U.S. statistics.[16] The major differences came from the bilateral statistics with the United Kingdom, Germany, Ireland and France, which together account nearly 70 percent of the observed asymmetries for other business services.

EU credits are higher than those of the United States for all three sub-items of other business services, while EU debits are higher than U.S. credits for research and development services, as well as technical, trade-related, and other business services. Only for professional and management consulting services are U.S. credits higher than EU debits; this item is also the one with most significant values of bilateral transactions and one with the lowest relative asymmetries. When looking at the bilateral country data, it appears that UK exports and Irish imports in other business services are most asymmetric, while Germany and France also show significant bilateral asymmetries for both exports and imports with the United States (figure 2).

An Office for National Statistics (ONS) study of U.S.–U.K. asymmetries also showed asymmetries in both U.K. exports and imports of other business services for 2016, and noted that the lower asymmetries for imports occurred due to offsetting effects in the sub-items (ONS (2018), para. 3.4.3). For U.K. exports, ONS reported higher figures for all three sub-items, while for U.K. imports, a negative asymmetry in professional and management consulting services was largely offset by a positive asymmetry in technical, trade-related, and other business services (ONS (2018), figure 5). The research and development services sub-item shows little evidence of asymmetries (U.K. figures are only slightly higher than the U.S. mirror statistics, for both exports and imports).

As other business services are compiled from survey data, differences in sample coverage, reporting thresholds, and scope of implied samples might explain major differences (BEA (2014), para. 10.131; ONS (2018), table 3.3).

An additional aspect to consider is that the different U.S. classification practices in this item explain a portion of the asymmetries with EU mirror statistics; BEA currently records the BPM6 standard components of construction and parts of personal, cultural, and recreational services under this item, while EU statistics record them according to the BPM6 standard presentation as separate services items (BEA (2014), para. 10.130). BEA plans to introduce changes to its presentation of trade in services statistics in the future to address these inconsistencies. However, this factor does not explain the higher EU figures, as it would reduce the U.S. mirror statistics even more. Consistent with the U.K. study, we would conclude that differences appear driven by compilation methods and data sources.

16. Construction has been excluded from U.S. other business services debits in order to make figures more comparable; however, for U.S. credits this reclassification is not possible because construction exports to the European Union are confidential.

2.2.5 Telecommunications, computer and information services

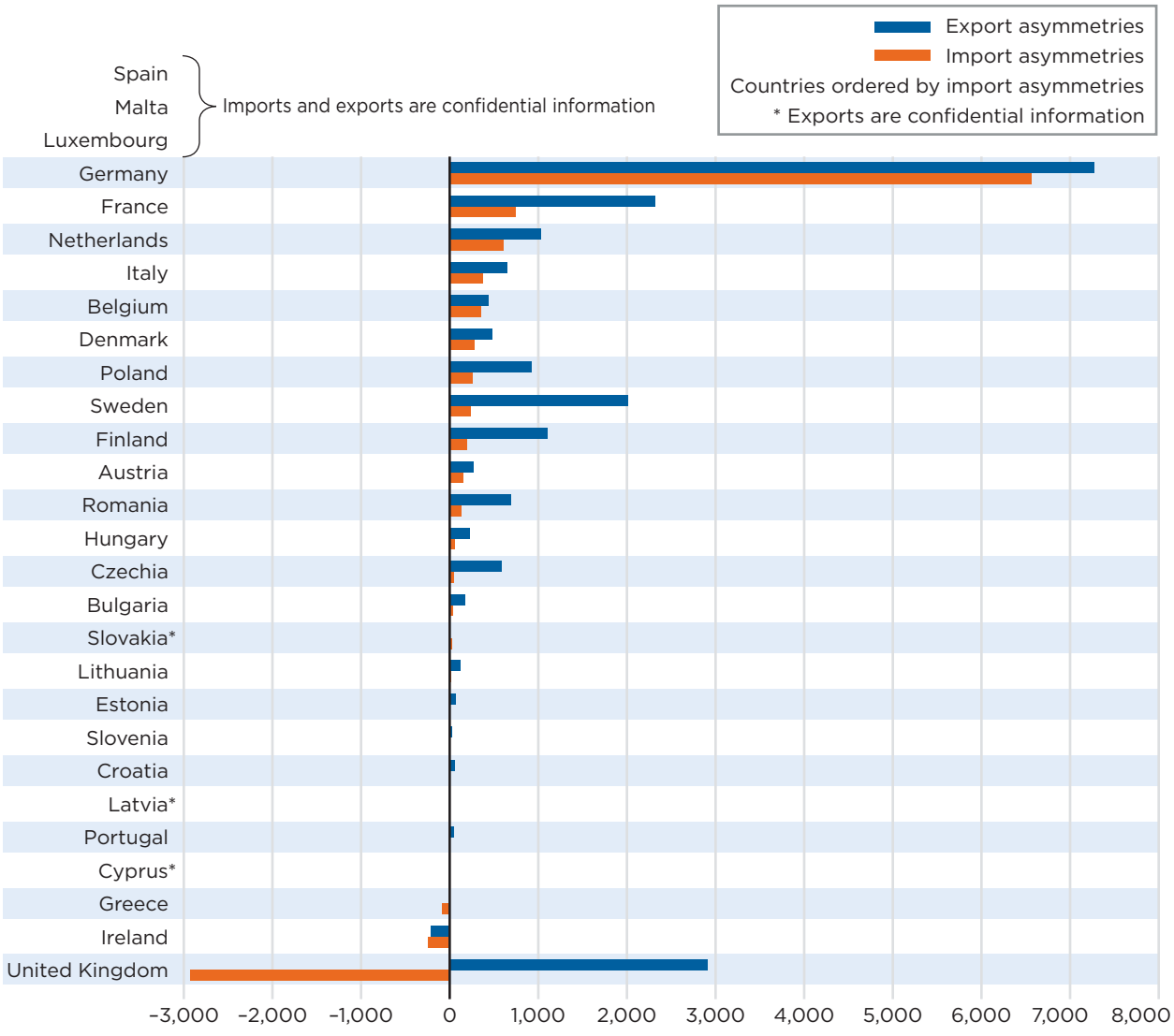
Like other business services, EU figures on telecommunications, computer, and information (TCI) services appear generally much higher than their corresponding U.S. mirror statistics. According to EU statistics, the EU exports of TCI services to the United States were $34 billion in 2017 (table 4), while the U.S. recorded only $10 billion in corresponding imports. In the same year, EU imports from the United States were $21 billion compared to $14 billion of exports to the European Union in U.S. statistics. The export asymmetries in TCI services account for 20 percent of total export asymmetries, while import asymmetries in TCI services account for only 7 percent. The major differences came from the bilateral statistics with Germany and the United Kingdom (figure 3).

Both German exports and imports appear higher than their U.S. mirror statistics, while only U.K. exports appear higher (U.K. imports are lower than U.S. mirror exports). For the U.K. data, the export asymmetry is driven by computer services and information services, according to ONS; differences in survey coverage might explain these asymmetries to some extent (ONS (2018), para. 3.4.2).[17] German data come from monthly direct reports (European Central Bank (2016), p.131), while BEA primarily uses its quarterly and benchmark surveys of U.S. international services transactions (BEA (2014), para. 10.125). Consequently, asymmetries in this item seem to be data source-driven or might stem from information asymmetries between statistical compilers[18] or misreporting that could result in different geographical allocation of services.

17. ONS uses data from its International Trade in Services (ITIS) survey to compile this item (ONS (2018), Table 3.2). Computer services exclude the provision of packaged non-customized software on magnetic media. These are recorded under trade in goods.

18. Information asymmetries occur when a statistical compiler in one country has different information than a statistical compiler in the partner country. This type of asymmetry can occur when information is collected on business surveys because compilers "may receive conflicting information on their respective surveys of residents" (Garber, Peck, Howell (2018), "Measuring Bilateral Asymmetries").

Figure 3. Nominal asymmetries in U.S.–EU telecommunication, computer and information services, EU Member States, 2017 [Millions of dollars]



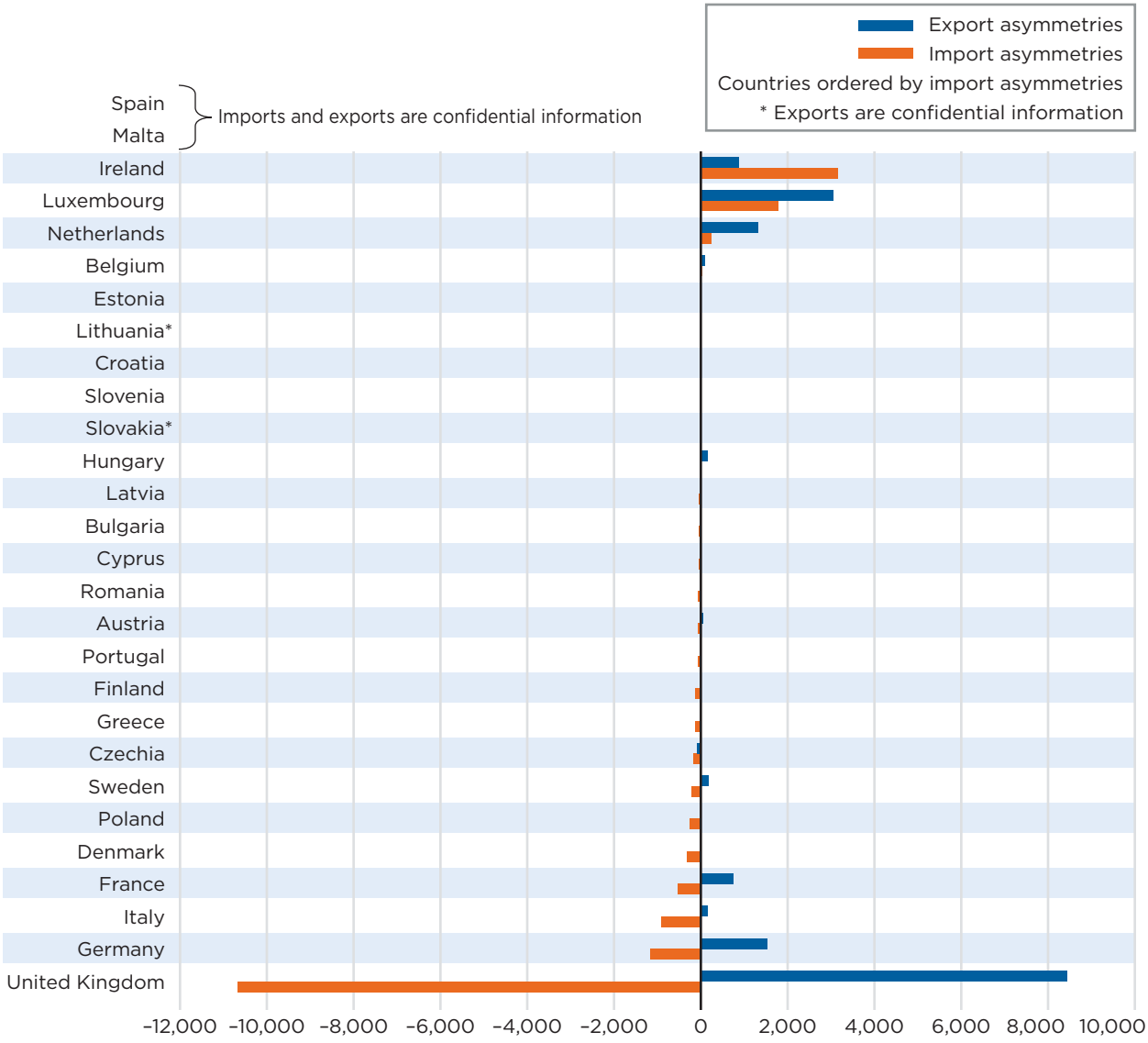
Negative asymmetries represent EU figures that are lower than their U.S. mirror.
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

2.2.6 Financial services

For financial services, asymmetries follow two different patterns: EU exports are higher than the U.S. mirror statistics, while EU imports are lower than the U.S. mirror statistics. In 2017, EU financial services exports to the United States were $30 billion (table 4), while U.S. imports from the European Union were only $13 billion. On the other hand, EU imports of financial services were $24 billion, whereas the United States recorded exports of $35 billion to the European Union (figure 4).

These asymmetries originate particularly from the United Kingdom, Luxembourg, and Ireland—all Member States that are regarded as prominent international financial centers. As U.S. figures do not contain any estimates of financial intermediation services indirectly measured (FISIM), this omission can explain in part the observed differences when U.S. data are lower than their EU mirror. Consequently, the introduction of FISIM estimates to U.S. statistics would reduce EU export asymmetries but would worsen EU import asymmetries. (U.S. FISIM exports to the European Union would increase, widening the gap with the much lower EU mirror statistics.) BEA is currently developing estimates of FISIM, which are currently captured indistinguishably in the primary income account (BEA (2018)). Similarly, many EU countries include margins on buying and selling transactions in reported financial services statistics, while the United States does not. While this is a gap in the U.S. statistics, the small size of these transactions in the data reported by the United Kingdom and other partner countries suggests the omission contributes only marginally to the asymmetries for financial services.

Figure 4. Nominal asymmetries in U.S.–EU financial services, EU Member States, 2017
[Millions of dollars]



Negative asymmetries represent EU figures that are lower than their U.S. mirror.
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

Except for the missing FISIM and margins elements in U.S. financial services, the major differences to U.K. statistics appear to be driven by data sources. The United Kingdom uses a range of sources (such as the Bank of England, International Trade in Services (ITIS) Survey, Financial Services survey, Bank for International Settlements data, etc.[19]), while BEA compiles this item from its quarterly and benchmark surveys of international financial services transactions and international selected services transactions.[20] Differences in

19. ONS (2018), Table 3.1

20. BEA's international services surveys are available at www.bea.gov/international-surveys-us-international-services-transactions.

survey samples and sizes, applied reporting thresholds, and the frequency of such survey exercises could explain these asymmetries in general, although different partner country allocation in the source data could also play a prominent role in overemphasizing the role of the abovementioned EU financial centers (especially the United Kingdom) in U.S. statistics (intermediary bias).[21]

However, such intermediary bias could also apply to EU statistics as the United States is also an important financial center. Alternatively, information asymmetries on the part of the U.K. compiler on its financial services imports from the United States could also explain the prominently lower U.K. imports. A BEA report on trade in services asymmetries also noted that the pattern of asymmetries exhibited for U.S.–EU (and for U.S.–U.K.) financial services is not unusual, as it is not uncommon for statistics for exports of services estimated from survey data to exceed the mirror import statistics reported by the partner country (Garber, Peck, and Howell (2018)).

For the sake of completeness, it should be noted that slightly different territorial definitions apply to U.S. and U.K. statistics, although the quantitative impact is considered minor (ONS (2018)). While BEA includes the British Crown Dependencies (Jersey, Guernsey, Isle of Man) as part of the economic territory of the United Kingdom, ONS does not consider them part of the United Kingdom.

Financial services statistics compiled by Luxembourg, on the other hand, are generally higher than the U.S. mirror statistics for both exports and imports. Compilers in Luxembourg have access to transaction-level data reported by banks resident in Luxembourg, which may provide more complete coverage than survey-based data sources; a detailed comparison of the respective source data could shed light on their relative strengths and weaknesses.

2.2.7 Charges for the use of intellectual property

While exports of charges for the use of intellectual property (CIP) show good coherence in EU and U.S. statistics, imports are subject to major asymmetries. In 2017, EU exports of CIP services to the United States were $24 billion, while U.S. imports from the European Union were $23 billion (table 4). On the other hand, EU imports of CIP services were $30 billion, whereas the United States recorded exports of $50 billion to the European Union. From the bilateral statistics, the lower EU import figures come particularly from Ireland and the United Kingdom (Figure 5).

The ONS data are collected via the ITIS survey (ONS International Trade in Services Statistics metadata). The Irish Central Statistics Office (CSO) data for most of the main services categories, including information on intellectual property products, are collected on electronic surveys (CSO International Trade in Services

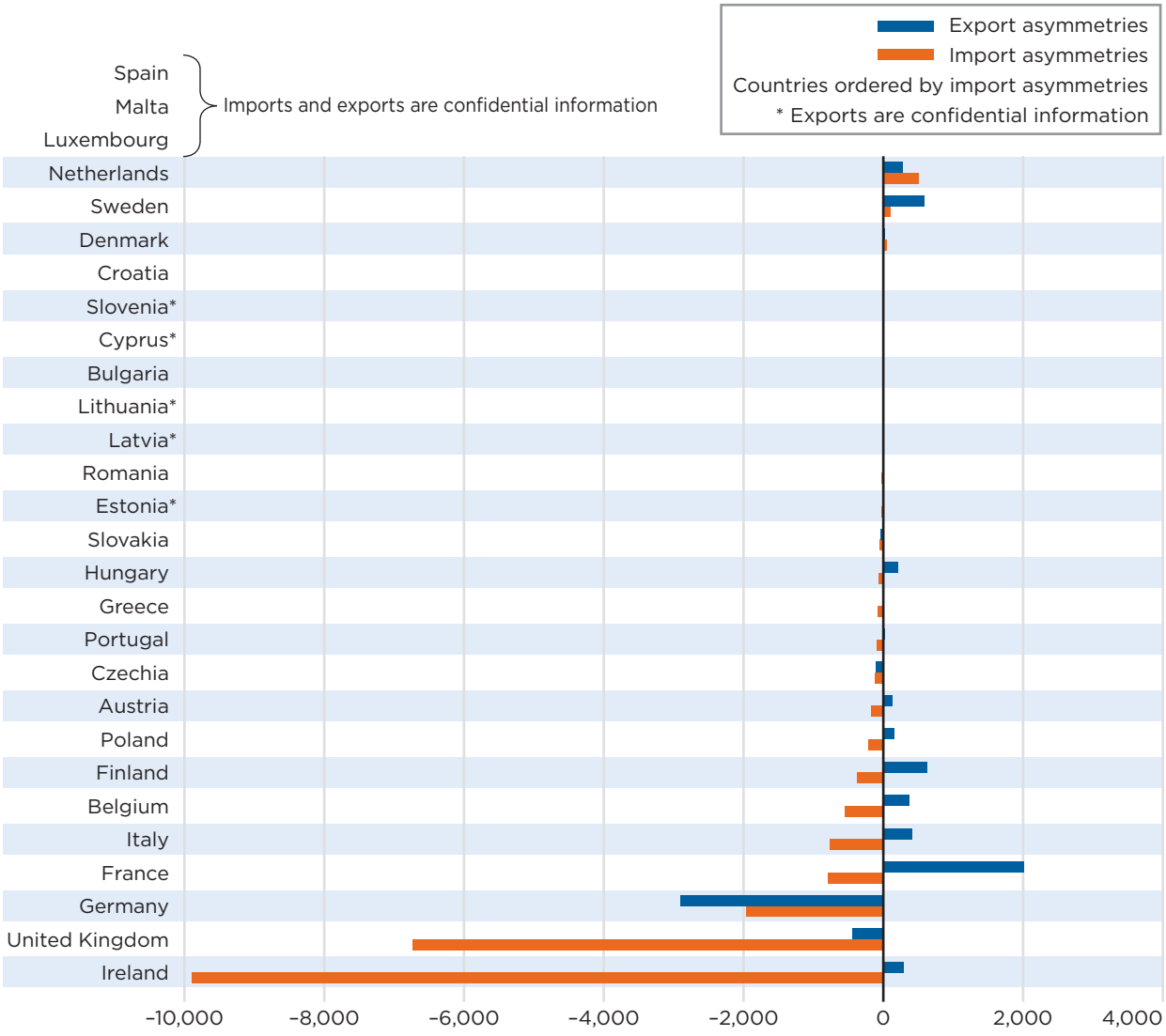
21. Intermediary bias exists when services transactions are reported vis-à-vis a large financial center rather than vis-à-vis the country where the purchaser or seller is actually located. This is similar to biases more commonly discussed with regard to portfolio investment statistics, including "custodial bias," where transactions are reported vis-à-vis major custodial or investment management centers, and "transactional bias," where transactions "tend to be concentrated in major international financial centers" (Bertaut, Griever, and Tryon (2016), p. A63).

Statistics metadata). U.S. statistics for this item are based on survey data from BEA's quarterly and benchmark services surveys (BEA (2014), para. 10.121). As discussed for other service categories, this means that asymmetries could be the result of differences in sample coverage and reporting populations.

Another likely source of asymmetries is that U.S. statistics for CIP include transactions for the outright sale, rights to use, and rights to reproduce and distribute intellectual property, because these transactions are not separately identifiable in BEA's source data.[22] For example, BEA includes licenses to use audio-visual and related products, such as books, movies, and sound recordings in CIP (BEA (2014), para. 10.58) whereas according to BPM6 these should be classified in personal, cultural, and recreational services (BPM6, table 10.4). In the same vein, outright sales of the outcomes of research and development (such as patents, copyrights, and industrial processes and designs) are included in the U.S. statistics under CIP when they should be included under research and development services (a sub-item of other business services). Similarly, outright sales of marketing assets (such as franchises and trademarks) are included in CIP, whereas they should be reclassified to the capital account (BEA (2014), para. 10.111). As a result, the CIP item in U.S. statistics appears overestimated, as some transactions are recorded in CIP that should be recorded under different services sub-items, partly explaining the higher U.S. figures.

22. BEA recently made changes to its international services surveys that will enable it to record these transactions according to the international guidelines in the future. For more information, see "Plans to Enhance BEA's Trade in Services Statistics" in Garber, Peck and Howell, "Understanding Asymmetries between BEA's and Partner Countries' Trade Statistics," *Survey of Current Business* (February 2018), https://apps.bea.gov/scb/2018/02- february/0218-asymmetries-in-bilateral-trade-statistics.htm.

Figure 5. Nominal asymmetries in U.S.–EU charges for the use of intellectual property services, EU Member States, 2017 [Millions of dollars]



Negative asymmetries represent EU figures that are lower than their U.S. mirror.
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

2.2.8 Manufacturing services on physical inputs owned by others

The EU Member States measure manufacturing services on physical inputs owned by others (goods for processing) according to the BPM6 standard; that is, goods sent abroad for further processing, labelling, packaging, etc. without a change in ownership are excluded from trade in goods and instead the service fee is included under trade in services. In U.S. statistics, a change of ownership is imputed when goods received for processing or sent abroad for processing enter or leave the United States and thus the values of the exports and imports of goods are recorded under trade in goods in U.S. statistics (BEA (2014), para. 10.56).

Consequently, this practice triggers asymmetries in both goods and services with the EU statistics. The quantitative impact appears, however, to be minor. In 2017, manufacturing services transactions reported by Eurostat vis-à-vis the United States were around $2–$3 billion (table 4), which for both export and import asymmetries accounted for between 2 to 3 percent of total asymmetries.

2.2.9 Other services items

Asymmetries in **transport services** are very modest. EU exports are slightly higher than the U.S. mirror imports, and EU imports are slightly lower. This could indicate the "classical" information asymmetry, which compilers naturally face about their imports, driven by available data sources.

Although the United States does not measure pension services (BEA (2014), para. 10.58), asymmetries in the category **insurance and pension services** are not indicative of such a gap, as U.S. imports are higher than the EU export data. (For U.S. exports the asymmetry is much smaller.) The asymmetry can therefore not be exclusively explained by these deviations from the BPM6 standard.[23]

2.3 Contradictory signs in the services balances

As mentioned earlier, the balances in services show the same signs in EU and U.S. statistics. Both claim to have a surplus (net exports) with each other. In 2017, the EU net exports were $14 billion, smaller than the U.S. net exports of $51 billion. When bilateral balances carry the same sign as their mirror statistics it is difficult to interpret the statistics. Therefore, a closer look into bilateral statistics helps to identify where these contradictory messages arise.

In 2017, at least 13 Member States claimed to be net exporters with the United States, while the United States made the same claims with these countries (table 6).[24] The most prominent example of this inconsistency is the asymmetry between the United Kingdom and the United States (table 6). In 2017, the United Kingdom reported net exports in services to the United States of $42 billion, while BEA reported net exports of $13 billion to the United Kingdom. To a smaller extent, France reported net exports of $6 billion with the United States while BEA reported net exports of $2 billion with France.

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23. Pension services are excluded due to a lack of available source data. However, cross-border pension services are believed to be small.

24. On the contrary, both Austria and the United States record small net imports with one another.

Table 6. U.S.–EU Balances in Services, 2015-2017

[Millions of dollars]

	EU Member States balances			U.S. balances		
	2015	2016	2017	2015	2016	2017
Belgium	3,385	3,160	3,499	352	174	95
Bulgaria	153	236	263	0	–114	63
Czechia	–86	195	368	48	–43	–101
Denmark	467	–119	307	1,603	2,258	2,466
Germany	5,134	2,570	3,015	–1,635	–1,896	–2,672
Estonia	133	142	173	67	65	74
Ireland	–30,621	–38,653	–33,439	26,237	31,076	29,698
Greece	1,607	1,236	1,481	–1,820	–2,097	–2,185
Spain	C	C	C	962	449	–63
France	3,457	4,852	5,728	3,504	3,232	1,711
Croatia	206	133	274	121	129	68
Italy	2,006	1,637	1,601	–1,567	–2,482	–3,086
Cyprus	282	491	630	15	C	C
Latvia	38	45	97	66	68	111
Lithuania	–13	33	51	–271	–265	–282
Luxembourg	–5,984	–4,575	–5,519	4,726	4,105	4,804
Hungary	–81	524	524	158	168	118
Malta	C	C	C	–501	–477	–492
Netherlands	–12,046	–13,613	–6,658	6,070	5,188	6,125
Austria	301	213	–162	4	–70	–147
Poland	896	1,049	1,620	660	537	826
Portugal	376	334	868	–402	–622	–932
Romania	450	572	808	–409	–191	–240
Slovenia	43	41	37	120	108	95
Slovakia	79	48	149	210	C	C
Finland	430	895	1,168	–224	–325	378
Sweden	–842	–167	–677	2,789	2,864	2,421
United Kingdom	42,164	35,485	42,029	14,209	14,520	12,697

Balances = Credits minus debits (exports minus imports).
(C) confidential.
Source: BEA, Eurostat

At the sub-item level, the contradictory signs occurred especially for financial services, telecommunications, computer and information services, and charges for the use of intellectual property with the United Kingdom and France. Financial services appear most prominent in showing contradictory signs in the U.K. and U.S. statistics (table 7).

Table 7. U.S. Services Balances with the United Kingdom and France, 2017

[Millions of dollars]

	U.K. balance with U.S.	U.S. balance with U.K.	France balance with U.S.	U.S. balance with France
Services	**42,029**	**12,697**	**5,728**	**1,711**
Manufacturing services on physical inputs owned by others	–19	n.a.	–529	n.a.
Maintenance and repair services n.i.e.	35	563	–979	1,423
Transport	4,493	–843	2,465	–1,494
Travel	–812	2,238	1,905	–401
Construction	160	n.a.	53	n.a.
Insurance and pension services	4,783	–749	11	–214
Financial services	12,154	6,546	545	743
Charges for the use of intellectual property n.i.e.	848	4,985	2,631	165
Telecommunications, computer, and information services	3,333	2,668	1,213	360
Other business services	16,389	–2,315	–1,794	1,154
Personal, cultural, and recreational services	1,764	n.a.	206	n.a.
Government goods and services n.i.e.	–1,099	–397	–1	–23
Services not allocated	0	n.a.	2	n.a.

Balance = Credits minus debits; positive sign means net exports; negative sign means net imports.

(n.a.) not available.

Source: BEA, Eurostat

2.4 Primary income: asymmetries in U.S.–EU cross-border income

2.4.1 Overall patterns

Total U.S.–EU primary income transactions (credits plus debits) rose and fell between 2013 and 2017; growing in 2014 and 2017 and declining in 2015 and 2016, according to the EU statistics in USD terms (table 8). While the levels of U.S.–EU primary income transactions fluctuated, total asymmetries increased in 2015 and 2016 while decreasing in 2014 and 2017. The relative share of total asymmetries to gross flows increased from 13 percent in 2014 to 58 percent in 2016 before declining to 41 percent in 2017. The asymmetries are present for both credits and debits, although debit asymmetries (EU payments to the United States) appear far more prominent than credit asymmetries (EU receipts from the United States). While U.S.–EU primary income asymmetries improved in 2017, EU cross-border flows in primary income to the United States were generally significantly lower than their U.S. mirror statistics, consequently showing negative values for nominal asymmetries.

Table 8. Asymmetries and Dynamics of U.S.–EU Primary Income Flows, 2015–2017
[Millions of dollars, except where noted]

		2013	2014	2015	2016	2017
Asymmetries, nominal	Credit	–26,888	–23,559	–22,754	–68,082	–51,704
	Debit	–39,497	–38,547	–95,620	–161,967	–147,631
	Total	66,385	62,106	118,374	230,049	199,334
Share of gross flows (EU) (%)	Credit	–12.6	–10.5	–10.4	–34.9	–21.9
	Debit	–14.0	–12.5	–37.2	–81.1	–59.4
	Total	13.4	11.6	24.9	58.3	41.1
Growth in income (EU) (%)	Credit		5.6	–3.2	–10.6	21.3
	Debit		9.2	–16.6	–22.3	24.5
	Total		7.7	–10.9	–16.9	22.9
Growth in asymmetries (%)	Credit		–12.4	–-3.4	199.2	–24.1
	Debit		–2.4	148.1	69.4	–8.9
	Total		–6.4	90.6	94.3	–13.4

Negative asymmetries represent EU figures that are lower than their U.S. mirror;
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

Investment income accounts for the overall asymmetries in primary income. The investment income asymmetries are concentrated in direct investment and portfolio investment income. While direct investment income asymmetries were especially driven by the EU payments (debits) to the United States, portfolio investment income asymmetries were driven by EU receipts (credits) from the United States (table 9). In both cases the EU figures are much lower than their U.S. mirror statistics.

Table 9. Nominal Asymmetries in U.S.–EU Primary Income, by Component, 2017
[Millions of dollars]

	Credit (EU)	Debit (U.S.)	Asymmetry
Primary income	**236,316**	**288,020**	**–51,704**
Compensation of employees	3,053	1,189	1,864
Investment income	233,149	286,831	–53,682
Direct investment	106,586	100,933	5,653
Portfolio investment	102,939	168,551	–65,612
Other investment	23,624	17,347	6,277

	Debit (EU)	Credit (U.S.)	Asymmetry
Primary income	**248,670**	**396,301**	**–147,631**
Compensation of employees	2,255	474	1,781
Investment income	246,410	395,827	–149,417
Direct investment	107,534	231,858	–124,324
Portfolio investment	112,320	140,781	–28,461
Other investment	26,556	23,141	3,415

Negative asymmetries represent EU figures that are lower than their U.S. mirror;
Positive asymmetries represent EU figures that are higher than their U.S. mirror.
Source: BEA, Eurostat

For the geographical profile of asymmetries in total primary income, BEA publishes comparable figures with the eight Member States—Belgium, Germany, France, Italy, Ireland, Luxembourg, the Netherlands and the United Kingdom—that have the largest transactions with the United States. EU Member States do not publish income payments with the United States from portfolio liabilities[25] and Luxembourg prefers to keep its bilateral income data with the United States confidential. This analysis focuses on the above-mentioned eight EU Member States.

Direct investment income payments from Ireland, the Netherlands, and the United Kingdom to the United States are significantly lower than their mirror U.S. income receipts statistics; direct investment income receipts by the Netherlands from the United States are higher than the U.S. income payments statistics. Portfolio investment receipts by Belgium and the United Kingdom are lower than the equivalent U.S. income payments to these countries.

Table 10. Nominal Asymmetries in U.S.–EU Investment Income, selected EU Member States, 2017
[Millions of dollars]

	Direct Investment income		Portfolio Investment income		Other Investment income	
	Credit	Debit	Credit	Debit	Credit	Debit
EU	**5,653**	**–124,324**	**–65,612**	**–28,461**	**6,277**	**3,415**
Belgium	–6,640	–,943	–21,336	n.a.	–121	–272
Germany	–751	–2,387	–1,554	n.a.	2,368	2,554
France	–2,091	–587	–537	n.a.	681	408
Italy	403	–803	576	n.a.	5	–29
Ireland	–9,418	–48,521	n.a.	n.a.	n.a.	n.a.
Luxembourg	C	C	C	n.a.	C	C
Netherlands	18,710	–36,264	1,418	n.a.	–278	898
United Kingdom	–3,243	–12,278	–17,912	n.a.	877	–224

Credit = Income receipts; Debit = Income payments.
(C) confidential, (n.a.) not available.
Source: BEA, Eurostat

It is often helpful when analyzing income asymmetries to expand the discussion to include asset and liability positions, the underlying sources of the income, from the international investment position (IIP) statistics. Investment income asymmetries can be influenced by bilateral asymmetries in the position statistics (contagion effect),[26] such as differences in geographical allocation. In the case of portfolio investment, income is often derived from positions, making the income asymmetries directly subject to asymmetries in the positions. In our analysis, it is assumed that financial positions in assets and liabilities create income; for a given

25. The underlying reasons are information asymmetries among balance of payments compilers about non-resident holders of domestic liabilities and their related income payments.

26. For more on the contagion effect in the financial accounts, see Eurostat (2016), p.11.

compiling economy, assets abroad will trigger income receipts to the resident investor (investment income credit), while domestic liabilities held by the non-resident investor will trigger income payments to those investors (investment income debit).[27]

From the evidence presented earlier, we have shown that:

1. EU debit asymmetries reflect the lower EU payments in investment income to the United States, specifically from **direct investment** and **portfolio investment income**;
2. EU credit asymmetries reflect the lower EU **portfolio investment income** to the United States;
3. Debit asymmetries in direct investment income are driven mostly by lower payments reported by Ireland, the Netherlands, and the United Kingdom, to the United States; and
4. Credit asymmetries in portfolio investment income are driven mostly by lower receipts reported by Belgium and the United Kingdom from the United States.

2.4.2 Direct investment income

EU receipts of direct investment income from the United States are slightly higher than the U.S. payments to the European Union, resulting in positive nominal asymmetries of $6 billion (table 9). However, EU direct investment income payments to the United States are much lower than the mirror U.S. receipts from the European Union, leading to a significant negative asymmetry of –$124 billion in 2017.

In 2017, the Netherlands and the United Kingdom recorded payments (debits) in direct investment income to the United States of $40 billion and $29 billion, respectively, while U.S. receipts from these countries were $76 billion and $41 billion (table 11). Ireland recorded $3 billion in payments to the United States in the EU statistics, while BEA recorded $52 billion in income receipts from Ireland. Thus, U.S.–Irish statistics are the major driver in U.S.–EU asymmetries for direct investment income. As such, special attention will be paid to Ireland and the Netherlands in the discussion of direct investment income asymmetries.

Direct investment income payments from the Netherlands and Ireland to the United States look relatively small compared to their U.S. mirror statistics. While Dutch income payments amounted to 52 percent of U.S. mirror receipts, Irish income payments were 6 percent of U.S. mirror receipts (table 11). However, looking at the position statistics from the IIP tells a different story (table 12). In the position statistics, the Dutch liability position exceeds the mirror U.S. asset position by $68 billion (or 7 percent). Lower income payments on a larger position seems counterintuitive; generally, higher positions result in higher income and vice versa. The Irish statistics show a similar pattern where Irish debits are only 6 percent of the mirror U.S. credits while the Irish liability position accounted for 77 percent of the mirror U.S. asset position. These inconsistencies between asymmetries observed in the income statistics and the position statistics present further challenges to analyzing the causes of the asymmetries.

27. A more comprehensive analytical presentation is given in BPM6, Box 6.4.

Table 11. U.S.–EU Direct Investment Income, selected EU–28 Member States, 2017
[Millions of dollars]

	EU-28		United States	
	Credit	Debit	Debit	Credit
EU-28	**106,586**	**107,534**	**100,933**	**231,858**
Belgium	1,699	3,223	8,339	6,166
Germany	12,292	3,769	13,043	6,156
France	8,908	2,423	10,999	3,010
Italy	1,048	654	645	1,457
Ireland	1,323	3,283	10,741	51,804
Luxembourg	n.a.	n.a.	12,881	36,825
Netherlands	34,256	39,819	15,546	76,083
United Kingdom	17,224	29,033	20,467	41,311

(n.a.) not available.
Source: BEA, Eurostat

As noted in the beginning of this section, EU credit asymmetries with the United States are relatively small at $6 billion. In the case of Ireland, Irish credits were 12 percent of U.S. debits while the Irish asset position from the IIP exceeds the mirror U.S. liability position by $100 billion. Again, the assumption would be that higher positions result in higher income; however, that is not shown in the Irish statistics. The asymmetries observed in the Dutch credits and asset position are in the same direction and both exceed their U.S. mirror statistics by a wide margin.

Table 12. U.S.–EU Direct Investment Positions, selected EU–28 Member States, 2017
[Millions of dollars]

	EU-28		United States	
	Assets	Liabilities	Liabilites	Assets
Belgium	55,015	88,552	103,451	54,954
Germany	296,144	132,057	310,190	136,128
France	268,076	106,181	275,470	85,572
Italy	42,866	13,742	29,285	30,708
Ireland	248,166	345,435	147,834	446,383
Luxembourg	C	C	410,729	676,418
Netherlands	1,020,407	1,005,162	367,145	936,728
United Kingdom	C	C	540,922	747,571

IIP records net positions in assets and liabilities.
(C) confidential.
Source: BEA, Eurostat

While there may be numerous reasons for direct investment income asymmetries between the United States and members of the European Union, this paper focuses on the three largest issues.

1. **Information asymmetries between statistical compilers** in two countries can lead to asymmetries.
2. **Estimates for income from other foreign affiliates**, especially those outside of the reporting country, are difficult to determine but vital to the accuracy of direct investment statistics, particularly when multinational enterprises have long and complex ownership structures.
3. **Different methodologies** used by each compiler can also impact the statistics.

First, information asymmetries between statistical compilers in two countries can lead to differences in partner country attribution. In direct investment statistics, these information asymmetries are generally related to the organizational structures of multinationals but can also be related to the timing of transactions or ownership levels. Information asymmetries are generally the result of different reporting to each national compiler by multinational enterprises. Since the organizational structure of multinational enterprises are often closely held information by the company, there is no publicly available source for the compiler to verify and validate the structures reported. If the multinational enterprise reports a different structure to the partner country, the compiler has no way of knowing since the confidentiality restrictions in place to protect the data prevent the compiler from sharing company-specific information.

Information asymmetries can lead to bilateral asymmetries but the overall global asymmetry of one country may not be impacted since a positive asymmetry with one partner country is often offset by a negative asymmetry with another partner country. For the United States, the overall asymmetry in 2017 for countries reporting bilateral positions to the IMF Coordinated Direct Investment Survey was 15 percent for U.S. assets and 16 percent for U.S. liabilities, implying that income and position statistics overall are more often misclassified by partner country rather than under- or overstated in aggregate.

Second, estimates of income from equity investments in other foreign affiliates are difficult to determine but vital to the accuracy of direct investment statistics. Multinational enterprises often have long and complex ownership structures that can span numerous countries and involve special purpose entities. BPM6 instructs national compilers to record direct investment income from directly-owned foreign affiliates in the first country in the ownership chain outside of the reporting country (BPM6, para. 11.47). However, this income should also include the income from equity investments in other foreign affiliates further down the ownership chain as well, since income from those enterprises is due to its direct investor. The national compiler must be able to "look through" the multinational's ownership chain to correctly estimate the income and position for the entities below their country in the multinational enterprises' structures.

BEA collects balance sheet and income statement data for each foreign affiliate of U.S. multinationals in its activities of multinational enterprises data collection program.[28] These data provide information on the amount of equity investment in other affiliates for the income and position statistics. In 2016, the most recent year available, income from these equity investments in other foreign affiliates accounted for 95 percent of net income for the foreign affiliates of U.S. multinationals in the Netherlands. This implies that nearly all income recorded by Dutch affiliates of U.S. multinationals was derived from investments in foreign affiliates in countries other than the Netherlands. The values for the United Kingdom and Ireland were 61 percent and 50 percent, respectively. Given the values noted earlier for the EU debit asymmetry in these countries, this issue is likely to be contributing to the asymmetry between the U.S. and EU statistics.

Third, different methodologies used by each compiler can also impact the statistics. One methodological difference between the European Union and United States involves different methods of determining direct investment relationships. BPM6 recommends that direct investment transactions and positions be classified according to the immediate host or investing economy (BPM6, para. 4.156). The OECD Benchmark Definition of Foreign Direct Investment, 4th edition (hereafter cited as "BMD4"), recommends identifying direct investment relationships according to the Framework for Direct Investment Relationships (FDIR) (BMD4, Annex 4). However, BD4 also presents two alternative methods to FDIR—the Participation Multiplication Method (PMM)[29] and the Direct Influence/Indirect Control Method (DIIC).[30] The three methods describe possible approaches to establishing direct investment relationships based on the degree of influence and control, however, the outcomes can be different. BEA applies the PMM method while EU compilers mostly use the FDIR or DIIC methods. While this methodological difference is important to note, we do not expect that it is responsible for a meaningful portion of the direct investment income asymmetries.

2.4.3 Portfolio investment income

U.S.–EU asymmetries in portfolio investment income are characterized by systematically higher U.S. data. This applies both to EU receipts and payments from and to the United States, although differences for receipts are higher than payments. As mentioned above, primary income statistics are based on income flows generated from financial assets and liabilities. Resident holdings in foreign assets would therefore trigger income receipts; non-resident holdings in domestic liabilities trigger income payments to the rest of the world.

Imprecisions or information asymmetries on financial holdings across countries have a direct impact on the primary income account. Although geographical partner country allocation of resident holdings of portfolio investment assets is generally more accurate than that of foreign holdings of resident portfolio investment liabilities, the ways data are collected determine whether an intermediary or custodial bias prevails.

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28. BEA's surveys of U.S. multinational enterprises and their foreign affiliates are available at www.bea.gov/surveys/diasurv.

29. Previously referred to as the "United States System."

30. Previously referred to as the "EU method."

Partner country allocation can be obtained by applying the **transactor approach** or the **creditor/debtor approach**. Data collection systems for financial transactions that apply the transactor approach commonly do not have information on the country of the end investor, and instead identify the financial intermediary or custodian bank that settles the transaction. Consequently, geographical breakdowns obtained from data collection systems applying the transactor approach run a high risk for a custodial bias. In contrast, the creditor/debtor approach identifies the country of the end investor behind the financial transaction, which is essential when the country of the end investor and financial intermediary are not identical. However, the latter approach is more difficult to implement as it requires far more detailed financial reporting (security-by-security) and comes with considerable resource impacts (for example, IT resources and data quality management).

In the above context, partner country allocations of liabilities appear, in practice, more difficult than assets. Geographical breakdowns are manifested in the combination of investor country and country of issuer—for assets the investor country is the reporting economy, so resident investors can be easily approached for their holdings abroad. Microdata on these assets (based on international securities identifiers) allow the country where these securities were issued to be identified. For liabilities, the issuer country is the reporting economy, so resident issuers can be approached on their liabilities incurred, although with less comprehensive information about the holder of these securities. As securities are usually registered with international custodial services and traded on stock exchanges, they can be subject to dynamic trading. This implies that the investor country might change more frequently, and is not always known to the issuer, while the country where the custodian is domiciled usually remains stable (transactor approach). This poses an information asymmetry to the national compiler—the resident population of investors in the reporting economy can be directly approached on their asset holdings, while the geographical data on liabilities must be collected from liabilities surveys, international custodial services, or mirror information available through partner country statistics (such as the partner country's resident investment in the compiling economy's liabilities).

The IMF Coordinated Portfolio Investment Survey (CPIS) provides mirror information based on the securities holdings statistics of participating countries. The CPIS database gathers information about financial assets held by the residents of the reporting economies with other countries. These data can be used as helpful mirror statistics to national compilers to estimate geographical breakdowns of their liabilities held abroad. However, their accuracy is subject to the number of participating countries, their applied data collection methods (preferably creditor/debtor approach), and their coverage in reported financial instruments.

In the European Union, security-by-security reporting has been introduced that allows the identification of all assets held/issued by EU residents via standardized international identifiers known as ISIN. By combining data of assets with mirror statistics of partner countries a full geographical picture becomes available within the European Union, and additionally, for intra-EU liabilities (Amann, Anacki, Buckmann, and Lavrador (2015)). The comprehensive security-by-security reporting is supported by a securities reference database maintained by the ECB in cooperation with shared data quality management processes run via the Member

States (European Central Bank (2010)). EU statistics are supplemented by CPIS data for non-resident holders outside the European Union and their portfolios in EU securities to overcome the potential custodial bias.

The U.S. compiler, on the other hand, covers its portfolio investment statistics entirely via surveys on assets and liabilities. The view on EU resident holdings of U.S. securities is obtained from annual security-by-security liability surveys which are complemented by 5–year benchmark surveys (Department of the Treasury et al. (2018), Chapter 2, p. 33). Although the U.S. compiler deems them more comprehensive than the available international mirror statistics from CPIS,[31] portfolio investment surveys bear shortcomings due to the aforementioned potential custodial bias (Brandner, Cai, Judson 2012, p. 6). The custodial bias can be directly illustrated from the high asymmetries with EU partners that domicile international custodial services (table 10), such as Clearstream and Euroclear (Department of the Treasury et al. (2018), p.13).

As concerns comparable geographical breakdowns for liabilities, the overall dilemma is characterized by a situation where both stakeholders are in possession of detailed data on their resident holdings in foreign assets, which would be necessary for fully symmetric bilateral statistics with the partner. Without exchange of such microdata, asymmetries are likely to persist. Furthermore, by comparing country statistics that mix the two approaches (transactor and creditor/debtor) and contain a custodial bias, information asymmetries of compilers regarding the geographical profile of their liabilities held abroad are reflected in bilateral data asymmetries in financial positions. These effectively affect data on income, derived from such positions.

31. For example, CPIS data do not include reserve holdings, which are important for U.S. statistics on liabilities. Also, not all countries participate in the CPIS. For a full review, see Bertaut, Griever, and Tryon (2006), www.federalreserve.gov/pubs/bulletin/2006/crossbordersecurities/default.htm.

3. How to deal with asymmetries in U.S.–EU statistics

3.1 Summary of patterns and causes for asymmetries

3.1.1 Summary of the previous findings

From the data evidence it can be concluded that the U.S.–EU current-account statistics are facing considerable asymmetries that have understandably raised questions about the accuracy of these statistics. It has been shown that the current accounts of the European Union and United States send contradictory information to users about the size of cross-border transactions (both claim to be net exporters to each other), and that the services accounts are fostering this unfortunate situation. In numerical terms, the largest asymmetries are in primary income. Consequently, we looked more closely into the sub-items of the services and primary income accounts to identify asymmetry patterns and possible underlying causes.

Our investigations concentrated on identifying major patterns in the data evidence and as possible sources of the asymmetries observed. EU country statistics were used in this context to facilitate our search for the major causes, and where possible, to allow tentative conclusions on under- or overestimation.

U.S.–EU asymmetries in services are based on diverging data, particularly in travel, other business services, TCI services, financial services, and CIP. Asymmetries in primary income are based on divergences in direct and portfolio investment income. On the EU side, it was the United Kingdom, France, Germany, Ireland, the Netherlands, Luxembourg and Belgium that showed the largest differences with their U.S. mirror statistics. It should be mentioned, however, that these are also countries with the highest values of transactions with the United States. In particular, U.S.–U.K. asymmetries in financial services produced the contradictory balances in the services accounts, resulting from higher U.K. exports to the United States and higher U.S. imports to the United Kingdom.

3.1.2 Multidimensionality of asymmetries

With the data evidence and with our investigations of the compilation processes, recording practices, capture methods, and data sources used, we do not conclude that either the EU or U.S. statistics are inferior. Rather, the observed asymmetries are a mixture of contributing factors that partly add up and partly offset each other, and have to be analyzed by each component and country. This suggests a multidimensional analytical approach built upon dimensions such as source data, collection methods, compilation concepts, and recording practices related to current-account components and geographical dimensions.

Asymmetries in the services account are to a large extent data source-driven or relate to the implied data collection methods. This applies especially to the compilation of the heterogeneous sub-items of the services accounts. Compilation of these items is usually built on household or specialized surveys with varying frequencies. Comparing the results of such surveys in statistics clearly produces differences due to sampling methods, frequencies, and sample sizes applied by each compiler. To validate accuracy, it appears essential

that these survey data are complemented with benchmark information from administrative or other sources. In the context of travel, the additional use of administrative data from immigration services and visa and travel information allows U.S. travel exports to appear more comprehensive than EU mirror imports. Some EU compilers, on the other hand, complement their compilation with other data sources, such as mobile phone records or credit card information, that improve coverage of EU travel services in general.

U.S. other business services statistics are subject to recording practices deviating from the BPM6 recommendations, although these cannot sufficiently explain the observed patterns of the much lower U.S. transactions in this category. The residual element in the sub-item "technical trade-related and other business services" could foster different recording practices, but there is no conclusive indication for overestimation of EU statistics or underestimation of U.S. statistics.

Asymmetries in TCI services appear mostly data source driven. Asymmetries are greatest for trade between the United States and Germany. The data reported by Germany, which are higher, are based on high-frequency data sources. However, asymmetries may also persist because of differences in partner country attribution.

There may be an intermediary bias in financial services estimates that overemphasizes exports to financial centers such as the United Kingdom and the United States; this source of asymmetry could impact both the U.S. and EU data. Asymmetries in financial services also result from BEA's omission of FISIM as a standard financial services item; while the introduction of FISIMestimates would improve the asymmetries between U.S. imports and EU exports, it would worsen the asymmetries between U.S exports and EU imports.

U.S. CIP statistics are also subject to recording practices deviating from the BPM6 recommendations. We find that these differences in the way BEA records transactions for CIP (because of source data limitations) also contributes to the asymmetries. Asymmetries would likely be reduced if BEA fully adopted the recording of intellectual property transactions recommended in BPM6.[32]

Asymmetries in primary income originate predominantly from direct and portfolio investment income and are related to differences in data collection methods, as well as different methodologies used by the compilers. This leads to different partner country attribution in direct investment income due to different methods to determine direct investment relationships and the difficulty in accurately collecting income for the complete ownership chain of multinational corporations. Information asymmetries between compilers also contribute to the asymmetry in direct investment income, especially regarding geographic attribution of investment positions. Portfolio investment income asymmetries can be partly attributed to the applied data collection methods for positions data. U.S. portfolio investment contains a custodial bias that is illustrated by large financial positions with EU Member States that domicile international custodial services (Belgium, Luxembourg, and the United Kingdom) (Brandner, Cai, Judson (2012), p. 6).

32. BEA plans to reclassify certain intellectual property transactions with upcoming changes to its presentation of trade in services statistics. This reclassification will likely reduce asymmetries in charges for the use of intellectual property and other services categories.

3.1.3 Identified causes

Data sources and collection methods

The use of different data sources and data collection methods appears to be an important reason for asymmetric data. The prevailing collection systems and sources represent compilers' access to information within the limits of their national situation. Consequently, sample surveys appear an appropriate method when a comprehensive data collection (census) is not feasible. Survey coverage/population, reporting thresholds, aggregation methods and the general reporting bias in surveys clearly pave the way for differences with mirror statistics, as there is usually little or no international coordination possible. The allocation by partner country remains at the discretion of the survey framework and the chosen sample reporting population is difficult to reconcile with international partners due to confidentiality restrictions.

Compiler information asymmetries about the rest of the world

In international transactions such as balance of payments transactions, where national statistical products are related to each other, compiler information asymmetries about the rest of the world pose a fundamental challenge to compilation. Data sources at hand generally reflect the limitations of a national perspective, as data can only be collected domestically. Furthermore, they leave geographical allocation of transactions largely to the reporter. Therefore, the occurrence of statistical bias (for example, intermediary, custodial, and reporting) becomes a logical consequence, leading to different views on the geographical profile of international transactions. The establishment of international databases has helped to address some of these limitations, but they are usually focused on certain statistical fields (such as the European System of Central Bank's Centralised Securities Database or CSDB[33]).

Different compilation methods

Different methods explain asymmetries where standard items are recorded differently from the BPM6 recommendations. When compiling direct investment income, methodological differences exist because the BMD4 specifies three methods of identifying direct investment relationships. These result in different methods to capture foreign direct investment positions. While the United States applies PMM, most EU compilers use FDIR, which would lead to asymmetries related to the inclusion of different entities in the statistics. Enumerating these differences, however, is challenging.

Deviations from the current statistical standards

To a minor extent, U.S.–EU current-account asymmetries can also be related to deviations from the BPM6 standard. U.S. statistics currently do not include certain elements in the compilation of international services, such as manufacturing services on physical inputs owned by others, pension services, and FISIM. This com-

33. For more information, see European Central Bank (2010), www.ecb.europa.eu/pub/pdf/other/centralisedsecuritiesdatabase201002en.pdf.

plicates not only international comparison with partner statistics, but also triggers asymmetries in different components of the current account.

Different geographical definitions

To a lesser extent, differences in geographical definitions can contribute to asymmetries between U.S. and EU statistics. For example, the U.S. geographical concept of the United Kingdom does not align with the geographical concept used by ONS, which could particularly impact the symmetric recording of financial services. Similarly, for the EU compilers, the economic territory of the United States contains the 50 states, the District of Columbia, Puerto Rico and Navassa but excludes the U.S. Virgin Islands and other U.S. territories and possessions, which are included in the U.S. economic territory by BEA. The impact of this difference, however, should be very minor.

3.2 Approaches to overcoming asymmetries

Approaches to address asymmetries should follow the identified causes supported by data evidence. This can be achieved by top-down and bottom-up approaches. In both cases, a high degree of coordination is indispensable, which is not easily obtained in practical terms. Furthermore, there appear to be limits to a full reconciliation when it comes to addressing "structural" causes, such as data collection methods and data sources.

1. Top-down strategies

Top-down strategies would focus on the manipulation and correction of the EU aggregates beyond the justification from the underlying country statistics, in order to adjust for known shortcomings. This would require a high degree of agreement and coordination between Eurostat and BEA, as it would impact the geographical profile of the accounts in both sets of statistics. From Eurostat's point of view, adjustments made to the EU aggregates would have to be explained to the public, as they would implicate a breach in coherence to the underlying country statistics of the Member States. Therefore, top-down approaches—although more easily implemented—are not Eurostat's most favored way forward.

2. Bottom-up strategies

Instead of manipulating the aggregate, bottom-up approaches would target bilateral reconciliation at the country level. This would require establishing communication between each of the EU Member States and BEA. This approach allows a direct comparison of compilation practices between the involved counterparts, and results in adjustment at the source, that is, in country statistics rather than the EU aggregate. Through quantitative analysis, the components with the largest asymmetries could be identified as targets for bilateral reconciliation. Additional analysis on rates of return for direct investment could also be undertaken for bilateral statistics. This would help to further the direct investment asymmetry analysis by evaluating whether the income derived on the investment in a country is reasonable, especially by comparing rates of return bilaterally with the average for all investment or across regions or to similar size countries. However, in many

cases, reconciliation might prove impractical, for example, in terms of data sources, surveys, confidentiality, estimation practices, and applied concepts.

3. High-level agreements

High-level cooperative agreements may be needed to facilitate greater levels of statistical cooperation beyond what is possible through the EU and U.S. bilateral consultation conducted at technical levels, as statisticians usually do not have the means of making high-level decisions with strategic and resource impact. Such agreements could also entail the sharing of data and possibly data sources, in order to improve the mirror view on national statistics. For this, a less restrictive legal framework would be needed to freely exchange confidential data among statisticians for data quality purposes across borders.

4. New innovative data sources

New data sources are currently being investigated by some EU Member States in an effort to enlarge the coverage of survey data. This includes the use of credit card information or mobile phone data for compiling travel services, as well as the use of a common micro database on securities reference data for compiling financial account positions and deriving income estimations. Allowing access to new administrative data sources from immigration services could also help tackle underestimation in EU travel services in the future.

5. International coordination in interpreting the manuals and data exchange

The use of different recording practices, particularly in the compilation of primary income, suggests the need for more international coordination and possible clarifications in the manuals. This especially relates to the applied concepts of identifying direct investment relationships, and possible exchange of microdata. Similarly, this would require the inclusion of BEA in EU technical working groups.

4.0 Conclusions

From the earlier findings it can be concluded that completely symmetric statistics in the U.S.–EU current accounts are not feasible. Structural issues are data source-related (surveys) and methodological (direct investment relationships).

Data source-driven factors can only be addressed by enlarging the possible spectrum of data sources with administrative data or new innovative approaches in collecting relevant information from public sources. New data sources increase coverage and improve the accuracy of geographical information. Exchange of information, bilateral reconciliation exercises and international coordination would certainly also improve the impact of different recording practices and methods but could not abolish it. While bilateral reconciliation exercises face their limitations when it comes to agreeing on data sources, recording practices, or methods, international coordination involving international institutions could prove more effective in addressing such issues. However, bilateral reconciliation efforts contribute effectively to an exchange of views among compilers and possibly lead to changes in methods (maybe even data sources). Ideally, these bilateral encounters could effectively serve to eliminate contradictory information in bilateral statistics as a priority.

The alignment of U.S. current-account statistics to the standard presentation of the BPM6 would support international comparability, and in some instances, even reduce asymmetries with EU counterparts (for example, FISIM and goods for processing). Additionally, the alignment of national definitions of economic territories in partner country statistics (such as the definition of the United Kingdom used in U.S. statistics) could be beneficial. The custodial/intermediary bias in financial data applies generally to all compilers, although EU statistics provide micro databases (such as securities holdings and centralized securities database) that support more harmonization in its financial account. This is particularly relevant for primary income statistics, where additional international databases (such as the CPIS) could serve as a benchmark to reduce a potential custodial bias in source data, even when deemed incomplete.

The extent of non-publishable data, particularly in EU statistics, has unjustifiably created an image of unreliable data among users,[34] although flagging information in some Member States was motivated by either quality reservations about the exposed data, or risk of revealing confidential information to the public. However, in terms of quality reservations, Eurostat recommends using mirror statistics as benchmark information, and revise flagging practices in such instances to the benefit of better analytics and comparability of EU statistics.

34. For example, because portfolio investment income debits for EU Member States are not reported by Eurostat (as shown in table 10 above), a study by Felbermayr and Braml (2018) determined that the asymmetries between EU and U.S. current account statistics were likely due to misreporting in European data. See Felbermayr, G. and M. Braml (May 2018) "On the EU-U.S. Current Account," EconPol Policy Report, no. 7, ifo Institute: Munich, www.econpol.eu/sites/default/files/2018-07/EconPol_Policy_Report_07_2018.pdf.

With bilateral reconciliation exercises being conducted in the short run, more international coordination and data exchange in the medium term, and a dedicated quest for new innovative data sources and international databases in the long run, we believe that these asymmetries could be better tackled, although not eliminated completely. These ambitions, however, would put a further strain on statistical compiler resources, with budgetary and resource constraints counteracting in some countries more than others.

References

Amann M., M. Anacki, D. Buckmann , and I. Lavrador (2015). *Securities Holdings Statistics Database (SHSDB): The new ESCB micro database on holdings of securities*, Bank for International Settlements, Basel, www.bis.org/ifc/events/ifc_isi_2015/010_amann_paper.pdf.

Bertaut Carol, W. Griever and R. Tryon (May 2006). "Understanding U.S. Cross-Border Securities Data," *Federal Reserve Bulletin*, vol. 92, pp. 59–75, www.federalreserve.gov/pubs/bulletin/2006/crossbordersecurities/default.htm.

Brandner E., F. Cai, and R. Judson (May 2012). "Improving the Measurement of Cross-Border Securities Holdings: The Treasury International Capital SLT," *Federal Reserve Bulletin*, vol. 98, pp. 1–28, www.federalreserve.gov/pubs/bulletin/2012/articles/CrossBorder/crossborder.htm.

Bureau of Economic Analysis (October 2018). "Developing Estimation of Trade in FISIM Methodology consistent with National Account Methodology," presented at the 31st meeting of the IMF Committee on Balance of Payments Statistics in Washington, D.C., www.imf.org/external/pubs/ft/bop/2018/pdf/18-18.pdf.

Bureau of Economic Analysis (2014). *U.S. International Economic Accounts: Concepts and Methods*, Washington, D.C, www.bea.gov/sites/default/files/methodologies/ONE%20PDF%20-%20IEA%20Concepts%20Methods.pdf.

Department of the Treasury, Federal Reserve Bank of New York, and Board of Governors of the Federal Reserve System (April 2018). "Foreign Portfolio Holdings of U.S. Securities as of June 30, 2017," Department of the Treasury, Washington, D.C., https://ticdata.treasury.gov/Publish/shla2017r.pdf.

European Central Bank (November 2016). *European Union Balance of Payments and International Investment Position Statistical Sources and Methods*, www.ecb.europa.eu/pub/pdf/other/eubopintiinvposstmeth201611.en.pdf.

European Central Bank (February 2010). "The 'Centralised Securities Database' in brief." *ECB Bulletin*, Frankfurt am Main, Germany, www.ecb.europa.eu/pub/pdf/other/centralisedsecuritiesdatabase201002en.pdf.

Eurostat (April 2019). "Current account asymmetries in EU-US statistics." Luxembourg, https://ec.europa.eu/eurostat/web/products-statistical-reports/-/KS-FT-19-003.

Eurostat (2016). "Consistency between national accounts and balance of payments statistics." Luxembourg, https://ec.europa.eu/eurostat/statistics-explained/index.php/Consistency_between_national_accounts_and_balance_of_payments_statistics.

Garber M., T. Peck, and K. Howell (February 2018), "Understanding Asymmetries Between BEA's and Partner Countries' Trade Statistics," *Survey of Current Business* 98, https://apps.bea.gov/scb/2018/02-february/0218-asymmetries-in-bilateral-trade-statistics.htm.

Howell, K., R. Obrzut, and O. Nowak (November 2017). "Transatlantic Trade in Services: Investigating Bilateral Asymmetries in EU-U.S. Trade Statistics." Bureau of Economic Analysis working paper, Washington, D.C., www.bea.gov/system/files/papers/WP2017-10.pdf.

International Monetary Fund (2009), *Balance of Payments and International Investment Position Manual*, 6th ed. Washington, D.C. (cited as "BPM6"), www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf.

Office for National Statistics (August 2018). "Asymmetries in trade data: extending analysis of U.K. bilateral trade data." United Kingdom, www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/articles/asymmetriesintradedatadivingdeeperintoukbilateraltradedata/extendinganalysisofukbilateraltradedata.

Organisation for Economic Co-operation and Development (2008). OECD *Benchmark Definition of Foreign Direct Investment*, 4th ed. Paris (cited as "BMD4"), www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf.