



HM Revenue  
& Customs

# **A Reconciliation of Asymmetries in Trade-in-Goods Statistics Published by the UK and Other European Union Member States**

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## 1 Introduction

Asymmetries are the differences between the published trade statistics of partner countries. Due to each country collecting data on their own international trade-in-goods for both imports and exports, in theory the 'mirror flow' collected by the partner countries should match. In reality, it is often the case that the figures do not match and this is referred to as an 'asymmetry'.

For example, there may be a difference between what the United Kingdom (UK) records as arrivals<sup>1</sup> from France, and France records as dispatches<sup>2</sup> to the UK. This difference or asymmetry can be measured.

For trade-in-goods between the European Union (EU) Member States, trade information is collected via the Intrastat<sup>3</sup> survey and is controlled by EU Statistical legislation which aims to harmonise the classifications and collection. However, there remain legitimate reasons why asymmetries still exist. More information, including causes, can be found in the [overview of asymmetries](#) paper published on UKTradeInfo.

The Trade Statistics unit, in HM Revenue & Customs (HMRC), carries out regular analyses of the asymmetries between the UK and the EU, and occasional analyses of the differences with other major trading partners. This information is used as part of the quality assurance work on the trade data and to investigate discrepancies.

This paper is an asymmetry study covering trade in goods between the UK and the EU for the calendar year 2014. The data used in the compilation of this report has been extracted from the [Comext database](#).

## 2 Measures of Asymmetries

There are two types of asymmetries for EU trade that are referred to in this report: the **arrivals asymmetry** and the **dispatches asymmetry**.

The **arrivals asymmetry** is the difference between the declarant country's arrivals from the partner country and the partner country's dispatches to the declarant country. If this asymmetry is positive it means that the declarant country's arrivals from the partner country are greater than the partner country's dispatches to the declarant country.

The **dispatches asymmetry** is the difference between the declarant country's dispatches to the partner country and the partner country's arrivals from the declarant country. If this asymmetry is positive it means that the declarant country's dispatches to the partner country are greater than the partner country's arrivals from the declarant country.

As an example, the UK's arrivals asymmetry with Germany is the comparison between what the UK records as arrivals from Germany and what Germany records as dispatches to the UK. If the value of UK arrivals minus German dispatches is negative, it suggests that the UK is recording less goods as received from Germany than Germany is recording as sent to the UK.

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<sup>1</sup> The term used to describe goods imported by an EU Member State from another EU member state.

<sup>2</sup> The term used to describe goods exported by an EU Member State to another EU member state.

<sup>3</sup> Intrastat was introduced in 1993 to replace customs declarations for trade between EU member states following the introduction of the single market.

If we use D to represent the declarant country and P to represent the partner country, we can set out the main indicators used by Eurostat<sup>4</sup> to calculate asymmetry. Note that for the purposes of this report the UK will always be the declarant.

### **Indicators of Asymmetry**

#### **(1) Absolute Asymmetry:**

$$= | \text{Value (D)} - \text{Value (P)} |$$

This is the absolute difference between the value of a flow and its mirror value.

#### **(2) Relative Asymmetry (%):**

$$= \frac{\text{Value (D)} - \text{Value (P)}}{0.5 (\text{Value (D)} + \text{Value (P)})} \times 100$$

The relative asymmetry looks at the difference between the value reported by the declarant country and the value reported by the partner country with respect to the mean of those two flows. This method makes no assumption about which value (D or P) is the correct value and instead looks at the asymmetry with respect to the mean of the two values.

#### **(3) Share of Total Absolute Asymmetry (%):**

$$= \frac{| \text{Value (D)} - \text{Value (P)} |}{\sum | \text{Value (D)} - \text{Value (P)} |} \times 100$$

This percentage dictates the contribution a country or chapter is having on the absolute total of the asymmetries within a certain flow, e.g. Chapter 45 may be responsible for 10 per cent of the total UK arrivals asymmetry.

Note: The values used within the tables in this report are quoted in Euros. UK declarations are made in pounds sterling and converted to Euros by Eurostat. The data that Eurostat receives from each Member State is compiled in the local currency and is then converted to Euros using a monthly exchange rate.

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<sup>4</sup> Eurostat is the statistical office of the European Union situated in Luxembourg.

**Unallocated trade:** Whilst the vast majority of trade declared between EU Member States provides detail at value, product and country levels, there is provision for member states to apply suppressions. This means that full details may be provided to Eurostat, but only to be published at a less detailed level.

For trade reported by the declarant (UK arrivals and dispatches), there is some trade 'not allocated' to a country. For example 'countries & territories not specified in the framework of Intra-Community trade' and 'countries & territories not specified for commercial or military reasons in the framework of Intra-Community trade' are identified as 'unallocated'.

For trade reported by our EU partners (arrivals and dispatches), the chapter total does not add up to the country total and is therefore referred to as unallocated.

## 3 UK Asymmetries with the EU, 2014

### 3.1 UK arrivals asymmetries by partner country

Table 3.1 shows that the largest asymmetry in arrivals is with Germany, with a €5.4 billion negative asymmetry. This accounted for a 21% share of the total absolute asymmetry. Further investigation shows that the total absolute asymmetry with Germany at chapter level is €7.8 billion, of which Chapter 88 (Aircraft, spacecraft and parts thereof) accounted for 12% of this asymmetry.

The largest relative asymmetry is with Malta at 46% and this has a value of €59.3 million. Further investigation has revealed that the total absolute asymmetry with Malta at chapter level is €119.4 million of which Chapter 30 (Pharmaceutical Products) accounted for 47% of this asymmetry.

The total asymmetry for 2014 has decreased from -€20.2 billion in 2013 to -€15.4 billion, a drop of €4.8 billion or 24%.

Similar to 2013, there is significant positive asymmetry for trade 'not allocated' to a country. The total EU dispatches to the UK corresponds to the sum of the dispatch figures of each individual country, but on the arrivals side there remains £3.5 billion of trade unallocated. This means that some goods entering the UK are not allocated a partner country. As described previously this is due to certain trade with countries being suppressed for reasons of confidentiality whilst the total trade is the total calculated by Eurostat including the confidential trade for partner countries.

**Table 3.1 Asymmetries between UK arrivals from the EU and EU dispatches to the UK (Jan - Dec 2014)**

Country	UK arrivals from EU (€m)	EU dispatches to UK (€m)	Asymmetry (€m)	Absolute asymmetry (€m)	Share of total absolute asymmetry (%)	Relative asymmetry (%)
Germany	73,674.5	79,117.9	-5,443.5	<b>5,443.5</b>	20.8	-7.1
Netherlands	39,956.7	44,074.9	-4,118.2	<b>4,118.2</b>	15.7	-9.8
Belgium	25,513.9	29,500.0	-3,986.1	<b>3,986.1</b>	15.2	-14.5
Poland	9,528.0	10,562.1	-1,034.1	<b>1,034.1</b>	3.9	-10.3
Denmark	5,539.3	6,530.0	-990.7	<b>990.7</b>	3.8	-16.4
Ireland	14,562.5	13,620.6	941.9	<b>941.9</b>	3.6	6.7
Slovakia	2,379.4	3,318.2	-938.7	<b>938.7</b>	3.6	-33.0
Czech Republic	5,806.1	6,684.7	-878.6	<b>878.6</b>	3.4	-14.1
France	29,937.8	30,777.5	-839.8	<b>839.8</b>	3.2	-2.8
Spain	16,269.1	16,972.0	-702.9	<b>702.9</b>	2.7	-4.2
Sweden	9,369.1	8,871.8	497.2	<b>497.2</b>	1.9	5.5
Italy	20,444.0	20,939.2	-495.2	<b>495.2</b>	1.9	-2.4
Romania	1,832.7	2,152.7	-320.0	<b>320.0</b>	1.2	-16.1
Austria	3,824.1	4,112.7	-288.6	<b>288.6</b>	1.1	-7.3
Lithuania	1,181.3	918.2	263.1	<b>263.1</b>	1.0	25.1
Portugal	2,781.7	2,943.9	-162.2	<b>162.2</b>	0.6	-5.7
Finland	2,915.5	3,037.7	-122.2	<b>122.2</b>	0.5	-4.1
Greece	861.6	979.9	-118.3	<b>118.3</b>	0.5	-12.9
Luxembourg	547.5	453.7	93.8	<b>93.8</b>	0.4	18.7
Hungary	3,016.4	3,105.0	-88.6	<b>88.6</b>	0.3	-2.9
Slovenia	388.8	475.5	-86.6	<b>86.6</b>	0.3	-20.1
Croatia	83.7	151.6	-68.0	<b>68.0</b>	0.3	-57.8
Estonia	218.5	286.3	-67.8	<b>67.8</b>	0.3	-26.9
Malta	158.7	99.3	59.3	<b>59.3</b>	0.2	46.0
Bulgaria	437.4	489.0	-51.6	<b>51.6</b>	0.2	-11.1
Cyprus	163.7	138.1	25.6	<b>25.6</b>	0.1	16.9
Latvia	495.0	511.7	-16.6	<b>16.6</b>	0.1	-3.3
Unallocated	3,511.9		3,511.9	<b>3,511.9</b>	13.4	200.0
<b>Total</b>	<b>275,398.7</b>	<b>290,824.2</b>	<b>-15,425.5</b>	<b>26,211.3</b>	<b>100.0</b>	<b>-5.4</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular country

### 3.2 UK arrivals asymmetries by commodity

Table 3.2 (a) shows the top ten chapters in order of their contribution to the total absolute asymmetry. These chapters have the greatest difference in the value of arrivals reported by the UK and the value of dispatches reported by the EU.

Similar to the years 2011 and 2012, the chapter showing the greatest asymmetry was Chapter 85 (Electrical machinery and equipment). This chapter shows a negative asymmetry of €2.2 billion, which represents a 9% share of the total absolute asymmetry for all chapters. Further analysis shows that the total absolute asymmetry by country for this chapter is €4.7 billion, with the Netherlands accounting for 34% of this amount.

For 2014 the top ten chapters account for 43% of the total absolute asymmetry for all chapters. Trade that is not allocated to a chapter is responsible for a negative asymmetry of €4.1 billion and 17% of the total absolute asymmetry.

**Table 3.2 (a) Top ten chapters by share of total absolute asymmetry (Jan - Dec 2014)**

Chapter	UK arrivals from EU (€m)	EU dispatches to UK (€m)	Asymmetry (€m)	Absolute Asymmetry (€m)	Share of total absolute asymmetry (%)
85	24,014.1	26,194.2	-2,180.1	<b>2,180.1</b>	9.1
99	120.7	1,553.1	-1,432.4	<b>1,432.4</b>	6.0
84	33,032.0	34,431.7	-1,399.7	<b>1,399.7</b>	5.8
88	3,646.4	5,044.7	-1,398.3	<b>1,398.3</b>	5.8
29	6,179.4	5,350.2	829.2	<b>829.2</b>	3.4
73	4,116.2	4,924.9	-808.8	<b>808.8</b>	3.4
27	13,636.7	12,965.2	671.5	<b>671.5</b>	2.8
87	48,813.9	49,416.7	-602.9	<b>602.9</b>	2.5
90	7,835.7	8,377.4	-541.7	<b>541.7</b>	2.3
94	3,888.6	4,421.7	-533.1	<b>533.1</b>	2.2
Sum of top 10	145,283.7	152,679.9	-7,396.3	<b>10,397.8</b>	43.2
Sum of others	130,115.1	134,018.2	-3,903.1	<b>9,541.0</b>	39.6
Unallocated		4,126.1	-4,126.1	<b>4,126.1</b>	17.1
<b>Total</b>	<b>275,398.7</b>	<b>290,824.2</b>	<b>-15,425.5</b>	<b>24,064.9</b>	100.0

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

Table 3.2 (b) shows the top ten chapters by positive relative asymmetry. Unlike the previous table which measures the largest asymmetries, this table focuses on the level of asymmetry with respect to the mean of the two flows.

Chapter 93 (Arms and ammunition) shows the largest positive relative asymmetry of 89%. This effectively means that the asymmetry is greater than the mean of the two flows. Further analysis on this chapter is not appropriate as the majority of the positive asymmetry relates to unallocated trade.

Chapter 26 (Ores, slag and ash) is the next largest relative asymmetry in the table at 56%. Further analysis shows that the total absolute asymmetry by country for this chapter is €426 million, with Germany attributing to 59% or €249m of this amount.

**Table 3.2 (b) Top ten chapters by positive relative asymmetry (Jan - Dec 2014)**

Chapter	UK arrivals from EU (€m)	EU dispatches to UK (€m)	Asymmetry (€m)	Relative Asymmetry (%)
93	358.0	137.4	220.7	<b>89.1</b>
26	648.4	364.3	284.1	<b>56.1</b>
47	401.3	294.6	106.7	<b>30.7</b>
10	802.3	594.6	207.8	<b>29.7</b>
25	496.3	392.5	103.8	<b>23.4</b>
17	1,005.8	811.3	194.6	<b>21.4</b>
15	1,137.4	920.2	217.2	<b>21.1</b>
36	70.6	58.8	11.8	<b>18.3</b>
24	404.8	341.9	62.9	<b>16.9</b>
96	1,220.0	1,040.0	179.9	<b>15.9</b>
Sum of top 10	6,545.0	4,955.6	1,589.5	<b>27.6</b>
Sum of others	268,853.7	281,742.6	-12,888.9	<b>-4.7</b>
Unallocated		4,126.1	-4,126.1	<b>-200.0</b>
<b>Total</b>	<b>275,398,738</b>	<b>290,824,233</b>	<b>-15,425,496</b>	<b>-5.4</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter



Table 3.2 (c) shows the top ten chapters by negative relative asymmetry rather than positive relative asymmetry.

The largest asymmetry here is Chapter 99 (Other Products) with the UK recording arrivals of €121 million against EU dispatches of €1.6 billion. Although this is a large asymmetry and features as the second largest absolute asymmetry in Table 3.2 (a), this is to be expected due to the miscellaneous nature of this chapter. Different Member States use Chapter 99 in different ways and in the absence of harmonisation, asymmetries are to be expected. The countries contributing the most to this asymmetry are Ireland (30%), Germany (30%) and Belgium (26%).

The second largest asymmetry was recorded in Chapter 89 (Ships, Boats) at negative €266.4 million. This is a notoriously tricky area due to the complex nature of ownership and the timing of changes to ownership. EU legislation allows Member States to record specific movement of goods using different methodologies, which invariably leads to asymmetries.

**Table 3.2 (c) Top ten chapters by negative relative asymmetry (Jan - Dec 2014)**

Chapter	UK arrivals from EU (€m)	EU dispatches to UK (€m)	Asymmetry (€m)	Relative Asymmetry (%)
99	120.7	1,553.1	-1,432.4	<b>-171.2</b>
89	175.2	441.5	-266.4	<b>-86.4</b>
14	4.5	7.1	-2.7	<b>-45.7</b>
03	631.6	997.7	-366.1	<b>-44.9</b>
80	32.8	50.7	-18.0	<b>-43.0</b>
46	6.2	8.8	-2.7	<b>-35.7</b>
43	52.7	73.7	-20.9	<b>-33.2</b>
66	11.3	15.8	-4.5	<b>-33.1</b>
88	3,646.4	5,044.7	-1,398.3	<b>-32.2</b>
63	368.8	478.6	-109.8	<b>-25.9</b>
Sum of top 10	5,050.1	8,671.8	-3,621.8	<b>-52.8</b>
Sum of others	270,348.7	278,026.3	-7,677.6	<b>-2.8</b>
Unallocated		4,126.1	-4,126.1	<b>-200.0</b>
<b>Total</b>	<b>275,398.7</b>	<b>290,824.2</b>	<b>-15,425.5</b>	<b>-5.4</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

### 3.3 UK dispatches asymmetries by partner country

Table 3.3 shows that the largest asymmetry in dispatches is also with Germany, with a €2.4 billion absolute asymmetry. This accounted for a 15% share of the total absolute asymmetry. The largest absolute asymmetries outside of Germany are with Ireland and France, which account for 9% and 7% of the total absolute asymmetry respectively.

## EU Asymmetry Report 2014 data

The largest relative asymmetries were with Lithuania (99%), Cyprus (37%) and Slovakia (30%) of which the largest actual difference of €723.9 was also with Lithuania. Further analysis at a chapter level revealed that Chapter 85 (Electrical machinery and equipment) accounted for 50% of the total absolute asymmetry with Lithuania

**Table 3.3 Asymmetries between UK dispatches to EU and EU arrivals from the UK (Jan - Dec 2014)**

Country	UK dispatches to EU (€m)	EU arrivals from UK (€m)	Asymmetry (€m)	Absolute asymmetry (€m)	Share of total absolute asymmetry (%)	Relative asymmetry (%)
Germany	37,419.6	39,847.0	-2,427.4	<b>2,427.4</b>	14.9	-6.3
Ireland	22,038.0	20,637.7	1,400.2	<b>1,400.2</b>	8.6	6.6
France	22,812.2	21,670.9	1,141.3	<b>1,141.3</b>	7.0	5.1
Spain	10,890.1	11,888.3	-998.3	<b>998.3</b>	6.1	-8.8
Belgium	15,647.2	16,640.8	-993.6	<b>993.6</b>	6.1	-6.2
Netherlands	27,623.0	26,695.9	927.0	<b>927.0</b>	5.7	3.4
Sweden	6,743.0	7,543.1	-800.1	<b>800.1</b>	4.9	-11.2
Lithuania	367.8	1,091.8	-723.9	<b>723.9</b>	4.4	-99.2
Italy	10,721.0	10,282.4	438.6	<b>438.6</b>	2.7	4.2
Czech Republic	2,534.2	2,940.1	-405.9	<b>405.9</b>	2.5	-14.8
Austria	2,005.5	2,358.0	-352.5	<b>352.5</b>	2.2	-16.2
Slovakia	572.5	770.6	-198.1	<b>198.1</b>	1.2	-29.5
Poland	4,732.7	4,555.9	176.8	<b>176.8</b>	1.1	3.8
Portugal	1,646.4	1,817.9	-171.6	<b>171.6</b>	1.1	-9.9
Romania	1,160.8	1,331.9	-171.1	<b>171.1</b>	1.0	-13.7
Cyprus	543.9	373.6	170.3	<b>170.3</b>	1.0	37.1
Finland	1,982.1	1,820.5	161.6	<b>161.6</b>	1.0	8.5
Hungary	1,496.1	1,376.5	119.6	<b>119.6</b>	0.7	8.3
Malta	504.8	390.2	114.6	<b>114.6</b>	0.7	25.6
Denmark	3,433.7	3,544.5	-110.8	<b>110.8</b>	0.7	-3.2
Bulgaria	548.6	444.2	104.4	<b>104.4</b>	0.6	21.0
Estonia	332.7	434.2	-101.4	<b>101.4</b>	0.6	-26.5
Latvia	414.9	330.7	84.3	<b>84.3</b>	0.5	22.6
Croatia	175.8	218.3	-42.5	<b>42.5</b>	0.3	-21.6
Greece	1,221.8	1,250.5	-28.7	<b>28.7</b>	0.2	-2.3
Luxembourg	264.0	255.6	8.4	<b>8.4</b>	0.1	3.2
Slovenia	301.0	306.9	-5.9	<b>5.9</b>	0.0	-1.9
Unallocated	3,925.9		3,925.9	<b>3,925.9</b>	24.1	200.0
<b>Total</b>	<b>182,059.0</b>	<b>180,817.8</b>	<b>1,241.2</b>	<b>16,304.7</b>	<b>100.0</b>	<b>0.7</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

### 3.4 UK dispatches asymmetries by commodity

Table 3.4 (a) shows the top ten chapters in order of their contribution to the total absolute asymmetry. These chapters have the greatest difference in the value of dispatches reported by the UK to the value of arrivals reported by the EU.

The chapter showing the greatest asymmetry was Chapter 27 (Mineral fuels, mineral oils). This chapter shows a positive asymmetry of €3.0 billion, which represents a 14% share of the total absolute asymmetry for chapters. The next greatest asymmetry relates to chapter 30 (Pharmaceutical Products), with a positive asymmetry of €2.1 billion and a 10% share of the total absolute asymmetry.

Further analysis of Chapter 27 reveals that the total absolute asymmetry by country is €6.5 billion. The Netherlands accounts for 41% of this asymmetry, with France the next highest accounting for 19%.

For 2014 the top ten chapters account for 52% of the total absolute asymmetry for chapters. Trade that is not allocated to a chapter is responsible for a negative asymmetry of €3.5 billion and accounts for 17% of the total absolute asymmetry.

**Table 3.4 (a) Top ten chapters by share of total absolute asymmetry (Jan - Dec 2014)**

Chapter	UK dispatches to EU (€m)	EU arrivals from UK (€m)	Asymmetry (€m)	Absolute asymmetry (€m)	Share of total absolute asymmetry (%)
27	32,509.5	29,513.7	2,995.8	<b>2,995.8</b>	14.4
30	13,370.5	11,309.2	2,061.3	<b>2,061.3</b>	9.9
85	12,727.4	13,866.4	-1,139.0	<b>1,139.0</b>	5.5
99	358.4	1,387.6	-1,029.2	<b>1,029.2</b>	4.9
88	6,118.4	5,244.0	874.5	<b>874.5</b>	4.2
87	17,271.1	17,915.3	-644.2	<b>644.2</b>	3.1
40	1,763.5	2,327.1	-563.6	<b>563.6</b>	2.7
62	2,508.3	1,944.7	563.6	<b>563.6</b>	2.7
29	5,042.7	5,543.5	-500.8	<b>500.8</b>	2.4
61	2,130.7	1,691.4	439.3	<b>439.3</b>	2.1
Sum of top 10	93,800.4	90,742.8	3,057.6	<b>10,811.1</b>	52.0
Sum of others	88,258.6	86,555.2	1,703.4	<b>6,470.8</b>	31.1
Unallocated		3,519.8	-3,519.8	<b>3,519.8</b>	16.9
<b>Total</b>	<b>182,059.0</b>	<b>180,817.8</b>	<b>1,241.2</b>	<b>20,801.7</b>	<b>100.0</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

Table 3.4 (b) gives the top ten chapters by positive relative asymmetry.

Like 2013, Chapter 93 (Arms and ammunition) has the highest asymmetry in the table at 131%, with differences in how countries choose to suppress trade in this chapter being a notable factor in causing this asymmetry.

Chapter 67 (Prepared feathers and down) is the second largest asymmetry in the table, although the difference at €14.5 million is relatively small, reflecting the lower level of trade in this commodity.

Chapter 57 (Carpets and other Textile Floor Covering) is the next largest with a 61% relative asymmetry. Further analysis shows that the total absolute asymmetry for this chapter by country is €106 million with the countries contributing the most to the asymmetry being the Netherlands (47%) and Ireland (25%).

The largest actual differences in reported trade amongst these chapters lies in Chapter 54 (Strip and the like of man-made textile materials) at €172.4 million and a relative asymmetry of 38%.

**Table 3.4 (b): Top ten chapters by positive relative asymmetry (Jan - Dec 2014)**

Chapter	UK dispatches to EU (€m)	EU arrivals from UK (€m)	Asymmetry (€m)	Relative asymmetry (%)
93	165.2	34.3	130.9	<b>131.3</b>
67	29.1	14.6	14.5	<b>66.2</b>
57	202.4	107.7	94.7	<b>61.1</b>
66	14.5	8.4	6.0	<b>52.6</b>
53	20.4	12.3	8.1	<b>49.2</b>
50	19.8	12.5	7.3	<b>45.0</b>
54	537.5	365.0	172.4	<b>38.2</b>
46	4.6	3.2	1.4	<b>36.1</b>
65	123.7	88.3	35.4	<b>33.4</b>
12	341.6	247.5	94.1	<b>31.9</b>
Sum of top 10	1,458.7	893.9	564.8	<b>48.0</b>
Sum of others	180,600.4	176,404.1	4,196.2	<b>2.4</b>
Unallocated		3,519.8	-3,519.8	<b>-200.0</b>
<b>Total</b>	<b>182,059.0</b>	<b>180,817.8</b>	<b>1,241.2</b>	<b>0.7</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

Table 3.4 (c) lists the top ten chapters by negative relative asymmetry.

Chapter 80 (Tin and articles thereof) has the highest negative relative asymmetry at -121% however the corresponding value of £50.6 million is quite low in comparison to other chapters in the table. Further analysis revealed that Germany (56%) and the Netherlands (37%) make up 93% of this asymmetry.

The second largest relative asymmetry in the table is for Chapter 99 (Other Products) at -118% or €1 billion. Further analysis shows that the total absolute asymmetry for this chapter by country is a similar figure at €1.35 billion and that Ireland is the largest contributor at 67%. As mentioned in the commentary for Table 3.2 (c), this is to be expected due to the discretion that Member States have regarding this chapter.

**Table 3.4 (c) Top ten chapters by negative relative asymmetry (Jan - Dec 2014)**

Chapter	UK dispatches to EU (€m)	EU arrivals from UK (€m)	Asymmetry (€m)	Relative asymmetry (%)
80	16.6	67.2	-50.6	<b>-120.9</b>
99	358.4	1,387.6	-1,029.2	<b>-117.9</b>
26	36.8	112.3	-75.5	<b>-101.3</b>
47	100.7	194.7	-94.0	<b>-63.6</b>
08	198.9	380.9	-182.1	<b>-62.8</b>
43	21.6	41.1	-19.6	<b>-62.5</b>
79	57.3	99.8	-42.5	<b>-54.1</b>
40	1,763.5	2,327.1	-563.6	<b>-27.6</b>
20	370.0	485.9	-115.9	<b>-27.1</b>
17	369.7	483.2	-113.5	<b>-26.6</b>
Sum of top 10	3,293.4	5,579.9	-2,286.5	<b>-51.5</b>
Sum of others	178,765.7	171,718.1	7,047.5	<b>4.0</b>
Unallocated	0.0	3,519.8	-3,519.8	<b>-200.0</b>
<b>Total</b>	<b>182,059.0</b>	<b>180,817.8</b>	<b>1,241.2</b>	<b>0.7</b>

Source: Comext database, extracted 3<sup>rd</sup> August 2016

\* Unallocated is trade that is not assigned to a particular chapter

## 4 Conclusions

### UK Arrivals

For the calendar year 2014 the total asymmetry recorded between UK arrivals from the EU and EU dispatches to the UK was €15.5 billion. The asymmetry in 2013 was €20.2 billion, suggesting that the data recorded by both the UK and its partner countries is converging. This is despite the fact that the overall level of trade for UK arrivals has increased by €18 billion (7%) and for EU dispatches by €13 billion (5%).

The country contributing the most to the total absolute asymmetry (ignoring whether it is a positive or negative asymmetry) is Germany. This is the same as the calendar year 2011, 2012 and 2013, although the German share has actually progressively decreased from 32% to 21%. In value terms, the difference between the UK arrivals from Germany and the German dispatches to the UK stands at €5.5 billion.

Other countries that have a significant asymmetry in value terms are the Netherlands and Belgium, with both having an approximate asymmetry of €4 billion. These two countries account for 31% of the UK's total absolute asymmetry which is significantly different to 2013 where the two countries only accounted for 16%.

At a commodity level the largest asymmetries are with Chapter 85 (Electrical machinery and equipment) and Chapter 99 (Other Products). The absolute asymmetries in these chapters are €2.2 billion and €1.4 billion respectively. In terms of relative asymmetry, there hasn't been much change in comparison to 2013, 2012 and 2011 with Chapter 93 (Arms and ammunition) remaining the largest positive relative asymmetry at 89% and Chapter 99 (Other Products) the largest negative figure at -171%. Again, these are due to the suppression of figures with arms and ammunition and the miscellaneous nature of the heading "other products".

### UK Dispatches

The total asymmetry in 2014 between UK dispatches to the EU and EU arrivals from the UK is €1.2 billion. The asymmetry in 2013 was €9 billion and there has therefore been a considerable decrease of 87%. The overall level of trade for UK dispatches has increased by €4.8 billion (3%) whilst the EU arrivals have decreased by €5.6 billion (3%). This has resulted in a significant fall in the relative asymmetry in 2014 to 0.7% from -5% in 2013.

Germany still accounts for the largest share of the total absolute asymmetry although it has fallen notably from 38% in 2013 to 15% in 2014. The actual difference in UK dispatches to Germany against German arrivals from the UK is €2.4 billion. The total absolute asymmetry with Germany at chapter level is €6.7 billion with Chapter 88 (Aircraft, spacecraft and parts thereof) accounting for 27% of this asymmetry. Other countries with large absolute asymmetries are Ireland (€1.4billion) and France (€1.1billion).

At a commodity level the largest asymmetries are in Chapter 27 (Mineral fuels, mineral oils) and Chapter 30 (Pharmaceutical Products). These chapters account for 14% and 10% of the total absolute asymmetry respectively. The asymmetry in Chapter 27 has risen significantly from €0.8

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billion in 2013 to €3 billion in 2014, an increase of 268%. The main rises in asymmetry were with the Netherlands (€1.1) and France (€0.8) due to increases in already notably positive asymmetries. Asymmetries with Germany also contributed to this (€1.0), however an earlier large negative asymmetry was reduced to a more balanced figure. Further analysis reveals there may be classification differences with crude oil in particular with the Netherlands and France.

## 5 Annexes

### 5.1 Annex 1: HS 2 Chapter Descriptions

Chapter	Description
01	LIVE ANIMALS
02	MEAT AND EDIBLE MEAT OFFAL
03	FISH AND CRUSTACEANS, MOLLUSCS AND OTHER AQUATIC INVERTEBRATES
04	DAIRY PRODUCE; BIRDS' EGGS; NATURAL HONEY; EDIBLE PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED
05	PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED
06	LIVE TREES AND OTHER PLANTS; BULBS, ROOTS AND THE LIKE; CUT FLOWERS AND ORNAMENTAL FOLIAGE
07	EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS
08	EDIBLE FRUIT AND NUTS; PEEL OF CITRUS FRUITS OR MELONS
09	COFFEE, TEA, MATÉ AND SPICES
10	CEREALS
11	PRODUCTS OF THE MILLING INDUSTRY; MALT; STARCHES; INSULIN; WHEAT GLUTEN
12	OIL SEEDS AND OLEAGINOUS FRUITS; MISCELLANEOUS GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER
13	LAC; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS
14	VEGETABLE PLAITING MATERIALS; VEGETABLE PRODUCTS NOT ELSEWHERE SPECIFIED OR INCLUDED
15	ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES
16	PREPARATIONS OF MEAT, OF FISH OR OF CRUSTACEANS, MOLLUSCS OR OTHER AQUATIC INVERTEBRATES
17	SUGARS AND SUGAR CONFECTIONERY
18	COCOA AND COCOA PREPARATIONS
19	PREPARATIONS OF CEREALS, FLOUR, STARCH OR MILK; PASTRYCOOKS' PRODUCTS
20	PREPARATIONS OF VEGETABLES, FRUIT, NUTS OR OTHER PARTS OF PLANTS
21	MISCELLANEOUS EDIBLE PREPARATIONS
22	BEVERAGES, SPIRITS AND VINEGAR
23	RESIDUES AND WASTE FROM THE FOOD INDUSTRIES; PREPARED ANIMAL FODDER
24	TOBACCO AND MANUFACTURED TOBACCO SUBSTITUTES
25	SALT; SULPHUR; EARTHS AND STONE; PLASTERING MATERIALS, LIME AND CEMENT
26	ORES, SLAG AND ASH
27	MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES



28	INORGANIC CHEMICALS; ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE-EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES
29	ORGANIC CHEMICALS
30	PHARMACEUTICAL PRODUCTS
31	FERTILISERS
32	TANNING OR DYEING EXTRACTS; TANNINS AND THEIR DERIVATIVES; DYES, PIGMENTS AND OTHER COLOURING MATTER; PAINTS AND VARNISHES; PUTTY AND OTHER MASTICS; INKS
33	ESSENTIAL OILS AND RESINOIDS; PERFUMERY, COSMETIC OR TOILET PREPARATIONS
34	SOAP, ORGANIC SURFACE-ACTIVE AGENTS, WASHING PREPARATIONS, LUBRICATING PREPARATIONS, ARTIFICIAL WAXES, PREPARED WAXES, POLISHING OR SCOURING PREPARATIONS, CANDLES AND SIMILAR ARTICLES, MODELLING PASTES, 'DENTAL WAXES' AND DENTAL PREPARATIONS WITH A BASIS OF PLASTER
35	ALBUMINOIDAL SUBSTANCES; MODIFIED STARCHES; GLUES; ENZYMES
36	EXPLOSIVES; PYROTECHNIC PRODUCTS; MATCHES; PYROPHORIC ALLOYS; CERTAIN COMBUSTIBLE PREPARATIONS
37	PHOTOGRAPHIC OR CINEMATOGRAPHIC GOODS
38	MISCELLANEOUS CHEMICAL PRODUCTS
39	PLASTICS AND ARTICLES THEREOF
40	RUBBER AND ARTICLES THEREOF
41	RAW HIDES AND SKINS (OTHER THAN FURSKINS) AND LEATHER
42	ARTICLES OF LEATHER; SADDLERY AND HARNESS; TRAVEL GOODS, HANDBAGS AND SIMILAR CONTAINERS; ARTICLES OF ANIMAL GUT (OTHER THAN SILKWORM GUT)
43	FURSKINS AND ARTIFICIAL FUR; MANUFACTURES THEREOF
44	WOOD AND ARTICLES OF WOOD; WOOD CHARCOAL
45	CORK AND ARTICLES OF CORK
46	MANUFACTURES OF STRAW, OF ESPARTO OR OF OTHER PLAITING MATERIALS; BASKETWARE AND WICKERWORK
47	PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD
48	PAPER AND PAPERBOARD; ARTICLES OF PAPER PULP, OF PAPER OR OF PAPERBOARD
49	PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRODUCTS OF THE PRINTING INDUSTRY; MANUSCRIPTS, TYPESCRIPTS AND PLANS
50	SILK
51	WOOL, FINE OR COARSE ANIMAL HAIR; HORSEHAIR YARN AND WOVEN FABRIC
52	COTTON
53	OTHER VEGETABLE TEXTILE FIBRES; PAPER YARN AND WOVEN FABRICS OF PAPER YARN
54	STRIP AND THE LIKE OF MAN-MADE TEXTILE MATERIALS
55	MAN-MADE STAPLE FIBRES

56	WADDING, FELT AND NONWOVENS; SPECIAL YARNS; TWINE, CORDAGE, ROPES AND CABLES AND ARTICLES THEREOF
57	CARPETS AND OTHER TEXTILE FLOOR COVERINGS
58	SPECIAL WOVEN FABRICS; TUFTED TEXTILE FABRICS; LACE; TAPESTRIES; TRIMMINGS; EMBROIDERY
59	IMPREGNATED, COATED, COVERED OR LAMINATED TEXTILE FABRICS; TEXTILE ARTICLES OF A KIND SUITABLE FOR INDUSTRIAL USE
60	KNITTED OR CROCHETED FABRICS
61	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED
62	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED OR CROCHETED
63	OTHER MADE-UP TEXTILE ARTICLES; SETS; WORN CLOTHING AND WORN TEXTILE ARTICLES; RAGS
64	FOOTWEAR, GAITERS AND THE LIKE; PARTS OF SUCH ARTICLES
65	HEADGEAR AND PARTS THEREOF
66	UMBRELLAS, SUN UMBRELLAS, WALKING-STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF
67	PREPARED FEATHERS AND DOWN AND ARTICLES MADE OF FEATHERS OR OF DOWN; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR
68	ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS
69	CERAMIC PRODUCTS
70	GLASS AND GLASSWARE
71	NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES, PRECIOUS METALS, METALS CLAD WITH PRECIOUS METAL, AND ARTICLES THEREOF; IMITATION JEWELLERY; COIN
72	IRON AND STEEL
73	ARTICLES OF IRON OR STEEL
74	COPPER AND ARTICLES THEREOF
75	NICKEL AND ARTICLES THEREOF
76	ALUMINIUM AND ARTICLES THEREOF
78	LEAD AND ARTICLES THEREOF
79	ZINC AND ARTICLES THEREOF
80	TIN AND ARTICLES THEREOF
81	OTHER BASE METALS; CERMETS; ARTICLES THEREOF
82	TOOLS, IMPLEMENTS, CUTLERY, SPOONS AND FORKS, OF BASE METAL; PARTS THEREOF OF BASE METAL
83	MISCELLANEOUS ARTICLES OF BASE METAL
84	NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF
85	ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES

86	RAILWAY OR TRAMWAY LOCOMOTIVES, ROLLING-STOCK AND PARTS THEREOF; RAILWAY OR TRAMWAY TRACK FIXTURES AND FITTINGS AND PARTS THEREOF; MECHANICAL (INCLUDING ELECTRO-MECHANICAL) TRAFFIC SIGNALLING EQUIPMENT OF ALL KINDS
87	VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING-STOCK, AND PARTS AND ACCESSORIES THEREOF
88	AIRCRAFT, SPACECRAFT, AND PARTS THEREOF
89	SHIPS, BOATS AND FLOATING STRUCTURES
90	OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASURING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; PARTS AND ACCESSORIES THEREOF
91	CLOCKS AND WATCHES AND PARTS THEREOF
92	MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES OF SUCH ARTICLES
93	ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF
94	FURNITURE; BEDDING, MATTRESSES, MATTRESS SUPPORTS, CUSHIONS AND SIMILAR STUFFED FURNISHINGS; LAMPS AND LIGHTING FITTINGS, NOT ELSEWHERE SPECIFIED OR INCLUDED; ILLUMINATED SIGNS, ILLUMINATED NAME-PLATES AND THE LIKE; PREFABRICATED BUILDINGS
95	TOYS, GAMES AND SPORTS REQUISITES; PARTS AND ACCESSORIES THEREOF
96	MISCELLANEOUS MANUFACTURED ARTICLES
97	WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES
99	OTHER PRODUCTS

## 5.2 Annex 2: Glossary

Arrivals	Goods imported into an EU Member State from another EU Member State.
Asymmetries	Differences between the trade recorded by countries, e.g. the difference between what the United Kingdom records as an arrival from Germany and what Germany records as a dispatch to the United Kingdom.
Comext	Eurostat's Trade Statistics database, which contains standardised trade data from all EU Member States.
Dispatches	Goods exported from an EU Member State to another EU Member State.
Exports	Goods exported to non EU countries, but often used to describe EU trade as well.
Imports	Goods imported from non EU countries, but often used to describe EU trade as well.
Intrastat	Survey of trade in goods between EU Member States.
MTIC	Missing Trader Intra-Community (VAT Fraud), see <i>Carousel</i> fraud.
Statistical value	On export, the value of the goods at the place and time they leave the statistical territory of the exporting Member State. On import, the value of goods at the place and time they enter the statistical territory of the importing Member State.
Threshold	The Intrastat system has thresholds including an exemption threshold (above which traders must submit declarations giving details of their trade with the rest of the EU). In the UK there is also a delivery terms threshold (a simplification where only traders above this threshold must submit details on delivery terms and costs in order to calculate <i>statistical value</i> ).