

# INTERNATIONAL DELIVERY PRICES: GLOBAL E- COMMERCE AND UPU TERMINAL DUES - APPENDIX

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## APPENDIX

### Estimation of global postal volumes

To estimate the size of financial transfers caused by the UPU terminal dues system, one requires information about international flows of letter mail. In particular, financial transfers stem from bilateral flows of all letter mail up to 2kg (both in terms of number of items and total weight), split by letter format (P, G, E) between designated postal operators. This information is not available in the public domain. We therefore construct our own dataset based on publicly available data and reasonable assumptions about the performance of the global mail markets.

Whereas we have information on aggregate flows of cross-border letter post items between regions, we do not know how these flows are disaggregated among the countries within the regions. Additionally, we do not have information about the product mix (the distribution of letter formats). Therefore, we use a number of proxies to approximate mail flows subject to UPU

terminal dues. The process of estimating bilateral mail flows is shown in Figure 1 and described in detail below.

*First*, we obtain estimates of the total inbound and outbound mail flows (in terms of a number of items) for individual countries. The starting point for this is readily available data from the UPU statistical database<sup>1</sup>. 2013 is the latest year for which we have a broad coverage of data from the UPU statistics database. Therefore, we use this as a reference.

If we cannot find information for a specific country or territory in the UPU dataset from 2013, we turn to UPU statistics from other years. When neither of these sources can provide us with an estimate, we use domestic sources such as national regulatory authorities and designated operators. For seven additional countries with data for domestic, but not cross-border, letter volumes we construct our own cross-border volume estimates by using a reasonable ratio of cross-border to domestic letter mail volumes<sup>2</sup>. This results in a dataset of

<sup>1</sup> UPU Postal Statistics Database, [http://pls.upu.int/pls/ap/ssp\\_report.main?p\\_language=AN&p\\_choice=BROWSE](http://pls.upu.int/pls/ap/ssp_report.main?p_language=AN&p_choice=BROWSE)

<sup>2</sup> The ratios used are based on information from previous years regarding the relationship between domestic and cross-border mail volumes.

inbound and outbound volumes (number of items) for 180 countries and territories.

Second, we collect data on inter- and intraregional flows, i.e. how much is sent from a given region (e.g. Western Europe) to another region (e.g. Asia-Pacific). This data is for 2016 and is provided by the UPU and other sources. The regional data is in tonnage. To estimate the volume of letters in terms of number of items, we have used additional information on the number of items per kilogram of mail for each regional flow and product category<sup>3</sup>. This exercise provides us with estimates of relative flows in volume for each region, i.e. the proportion of a specific bi-regional flow out of the total global flow.

Third, we make an important assumption about proportional regional participation, where we depart from the ratios calculated in step two and apply them to inter-regional mail flows. By applying this assumption, we can estimate data points for each bilateral mail flow (from country to country) as a percentage of the global cross-border mail flow in 2013, see the box below. While this methodology fails to account for factors such as distance and international relations<sup>4</sup>, it is the best available

approximation of bilateral flows and does not suffer from further data gaps.

**Bilateral mail flow percentages**

Mail stream between *different* regions:

$$X_{ij} = \frac{O_i}{O_A} \times \frac{I_j}{I_B} \times X_{AB}$$

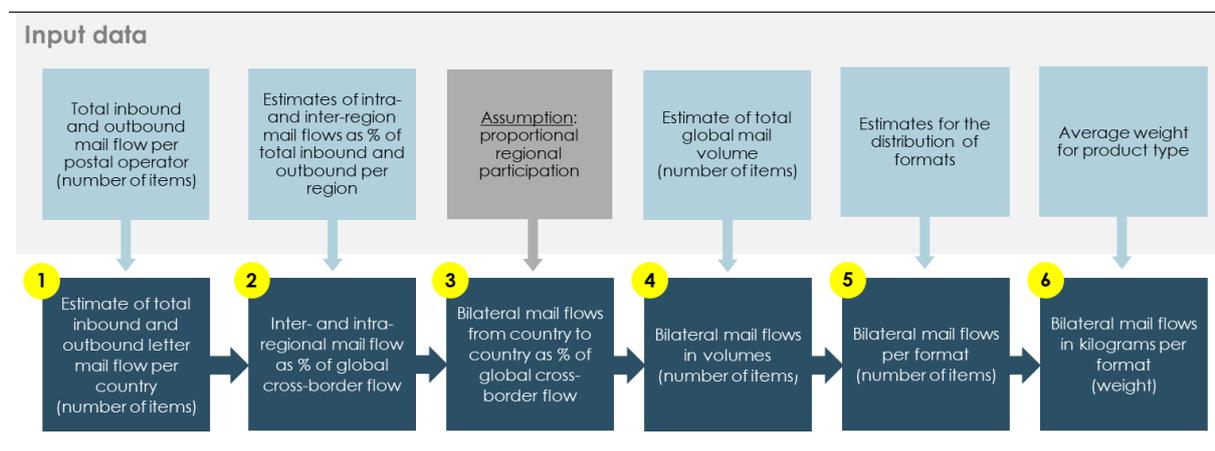
Mail stream between the same region:

$$X_{ij} = \frac{O_i}{O_A} \times \frac{I_j}{I_A \times (1 - (\frac{I_i}{I_A}))} \times X_{AA}$$

Where  
 $X_{ij}$  = percentage of world's mail flow that goes from country i to country j  
 $X_{AB}$  = percentage of world's mail flow that goes from region A to region B  
 $X_{AA}$  = percentage of world's mail flow that goes within region A  
 $O_i$  = total outbound mail flow from country i  
 $O_A$  = total outbound mail flow from region A  
 $I_j$  = total inbound mail flow to country j  
 $I_B$  = total inbound mail flow to region B  
 $I_A$  = total inbound mail flow to region A

Source: Copenhagen Economics

**Figure 1 Estimating bilateral flow volumes**



Source: Copenhagen Economics

Where this information is not available, a ratio is constructed based on assumptions regarding the similarity of countries (i.e. countries of similar size can be expected to have the same ratio between domestic and cross-border flows)

<sup>3</sup> UPU, (2014), POC C3 LPRG 2014.2 Doc 4a, “Results of the items per kilogramme (IPK) study” (committee document)

<sup>4</sup> Factors such as distance, international relations, and a common language can be important for the mail exchange between certain countries.

*Fourth*, we convert each bilateral flow (until now measured as a percentage of the global flow of international mail) into an estimate in terms of volumes (number of items). We do this by multiplying the bilateral percentage with the global volume of international mail.

*Fifth*, we split each bilateral mail flow according to the different letter formats (P, G, E). To do this, we use a UPU survey among 49 designated postal operators that contains regional estimates for the distribution of formats (in percentage of number of items and weight)<sup>5</sup>. This study also provides estimates of the average weights per format. By assuming that the distribution of P, G and E items in a specific bilateral mail flow between two regions is the same as the distribution of P, G and E items in the total interregional mail flow between the same two regions, this provides us with a per-format estimate of letter mail volumes for each bilateral mail stream.

*Sixth*, as the final step, we apply the average weight for each product type (from the UPU study referred to above) to get the bilateral flows measures in kilograms.

Based on this, we can estimate bilateral cross-border flows of letter post items between 145 countries and territories worldwide. Note that we assume in our estimations that all bilateral volumes are using the terminal dues system. In addition, we do not take ETOE agreements or similar arrangements into account.

Depending on the size and structure of bilateral mail flows, the current design of the terminal dues system affects designated operators differently. For example, large outbound flows of cross-border mail may imply that designated postal operators experience large positive transfers on the outbound side. Similarly, in combination with a negative difference between actual terminal dues received and the equivalent domestic postage rate, large inbound may imply that designated postal operators experience large negative transfers on the inbound side.

### Estimation of the counterfactual price

To estimate the size of the financial transfer, we need to calculate each country's counterfactual price – the price that would exist in the absence of terminal dues. *First*,

we describe how we gathered the price data. *Second*, we describe how we use this data to calculate the counterfactual price.

### Updated postage rates

Data on domestic postage rates have been updated with the most recent data, where possible. When possible, we collected postage prices for different weights of P, G and E formats. In particular:

- 20g, 50g, 100g for small letters (P).
- 20g, 50g, 100g, 250g, 500g for large letters (G).
- 20g, 50g, 100g, 250g, 500g, 1kg, 2kg for bulky letters and small packets (E).

For 32 key countries, the postage rates have been researched online directly on the postal operator's website. For Finland and Sweden, we updated these as of January 2019, see Figure 2 and Figure 3 respectively. The 30 remaining countries are updated as of January 2017. For the remaining countries we use data provided by the UPU which contains prices for 2014, see Figure 4. To adjust for inflation, we assume a 2 per cent price increase per annum.

**Figure 2 Prices in Finland (EUR)**

Weight	Letters (P)	"Flats" (G)	Packets (E)
20g	1.5	1.5	1.5
50g	1.5	1.5	1.5
100g	2.2	2.2	2.2
250g		3	3
500g		6	4.12
1kg			4.12
2kg			4.12

Source: Posti (2018) Letter Mail Services – Price List for Cash Services from May 4<sup>th</sup>, 2018; Posti (2018) Parcel Services and Express Freight – Contract Prices

<sup>5</sup> UPU, (2014), POC C3 LPRG 2014.2 Doc 4a, "Results of the items per kilogramme (IPK) study" (committee document)

**Figure 3 Prices in Sweden (SEK)**

Weight	Letters (P)	"Flats" (G)	Packets (E)
20g	9	9	23.45
50g	9	9	23.45
100g	18	18	23.45
250g		36	23.45
500g		54	35.69
1kg			49.81
2kg			66.32

Source: Postnord (2018) Varubrev; Postnord (2018) Postage rates for domestic letters

**Figure 4 Postage rate sources**

Source	Number of countries
Online postal operators' website	32: AT, AU, BE, BG, CA, CH, CN, CZ, DE, DK, EE, ES, FI, FR, GB, HK, HR, IE, IN, IS, IT, JP, NL, NO, NZ, PL, PT, RU, SE, SG, TH, US
UPU estimates	113

Source: Copenhagen Economics; UPU (2015) Statistics and Accounting Guide

When selecting the letter mail products for which to collect price information from national postal operators' websites, the aim is to always select a product with dimensions as close as possible to the maximum dimensions allowed by the UPU for the three letter mail formats (E, P, G). However, the maximum allowed letter

dimensions on the operators' websites are sometimes smaller than the maximum allowed dimensions in the UPU system. This means that, for example, a letter post item close to the G-format maximum dimensions allowed by the UPU would exceed the maximum letter mail dimensions for some operators and thereby classify as a parcel. This was the case for 5 countries (DE, EE, IT, NL, NZ). Using the parcel prices would in these cases result in significantly higher postage rates compared to the cheaper letter mail prices.

In these instances, we have chosen to use the cheaper letter product, i.e. the item with slightly smaller maximum dimensions. There are two main reasons for this:

1. Consistency and easier comparison with previous results, where letter rates were used for all countries.
2. We apply a conservative approach. As not all cross-border packets will have the maximum UPU dimensions, applying the parcel rates would thus overestimate the difference between the actual and the counterfactual terminal dues rates.

### Counterfactual prices

Domestic prices for last-mile handling of cross-border letter post items are not readily available in the public domain. As a proxy for the counterfactual terminal dues, we therefore depart from the domestic (end-to-end) single-piece postage rates. To reflect the price charged for the last-mile handling of domestic letter mail, rather than end-to-end price, we apply an adjustment factor of 70 per cent<sup>6</sup>.

It may well be that applying a share of the domestic postage rates for single-piece letters does not correctly reflect the counterfactual price for last-mile handling of cross-border letter post items. Reasons for this could be that domestic postage rates for single-piece letters are regulated, or that low price elasticity of demand for single-piece letters results in higher prices.

Nevertheless, since information about special tariffs<sup>7</sup> (which may constitute a better starting point) often is

<sup>6</sup> This adjustment factor is the same as used by the UPU for the calculation of uncapped terminal dues for operators in the target system. source: UPU (2012), UPU terminal dues system for the period 2014-

2017, Joint Council of Administration and Postal Operations Council report.

<sup>7</sup> Special tariffs are work-sharing discounts applicable to the distribution of bulk mail

not available in the public domain, we consider the single-piece rates to be a valid starting point similar to what has been done in previous studies<sup>8</sup>.

Instead of estimating a simple linear relationship between two prices – that of a 20g domestic small priority letter and that of a 175g domestic large priority letter, as UPU does<sup>9</sup> – we use several prices per letter mail format to calculate the counterfactual terminal dues rates. By using three tariffs (i.e. three weight steps) for small letters, five tariffs for large letters and seven tariffs for small packets, we can calculate counterfactual terminal dues rates that mirror the actual situation better than what would have been the case if only two tariffs would have been used.

To calculate an average rate (i.e. the counterfactual terminal dues rate) per format, we make assumptions about the distribution of weights within each format. These assumptions are primarily based on a UPU study from 2014<sup>10</sup> containing estimated distributions of items across different weight steps for each letter format P, G and E. Once the weight distribution for each format is established, it is straightforward to calculate a counterfactual terminal dues rate per item for each format.

### Terminal dues rates

The current UPU system for terminal dues is a two-tiered system dating back to 1989<sup>11</sup>. It consists of four groups of countries, see Figure 5. Each group belonging to one of two different systems: the target system and the transitional system.

The *transitional system* mainly applies to exchanges of international letter mail to, from, or between designated operators in countries traditionally considered “developing” (group IV). The *target system* mainly governs the exchange of letter post items between designated operators in countries and territories previously thought of as “industrialised” (groups I, II and III). In 2010, countries and territories classified as “developing” started to join the target system. In 2016, China joined the target system.

**Figure 5 Universal Postal Union groups**

Group	Number of countries and territories in the group	Description
I	41	Countries in target system prior to 2010
II	37	Joined target system in 2010 and 2012
III	39	Joined target system in 2016
IV	103	Apply transitional rates

Source: UPU (2017) Decisions of the 2016 Istanbul Congress, page 251-257

Countries in the transitional system can opt in to the target system, but not the other way around. The terminal dues received by a designated postal operator for the last-mile handling of cross-border letter post depend on the terminal dues group to which it belongs as well as on the terminal dues group to which the sending postal operator belongs. As of 2016, countries or territories that are part of the target pay each other target rates, while terminal dues to, from, and between countries or territories in the transitional system are paid transitional rates, see Figure 6.

**Figure 6 Terminal dues rate type by origin and destination group**

Paying country or territory (origin)	Receiving country (destination)	Rate Paid
Target	Target	Target
	Transition	Transition
Transition	Target	Transition
	Transition	Transition

Source: UPU (2017) Decisions of the 2016 Istanbul Congress

<sup>8</sup> See for example Campbell, James (2014), “Estimating the effects of UPU terminal dues 2014-2017”

<sup>9</sup> See UPU (2014), International Bureau Circular 112

<sup>10</sup> UPU, (2014), POC C3 LPRG 2014.2 Doc 4a, “Results of the items per kilogramme (IPK) study” (committee document).

<sup>11</sup> WIK (2010) Study on the External Dimension of the EU Postal Acquis, page 218

### The transitional system

For the transitional system, the UPU prescribes rates (for delivering inbound letter mail) that have both per item and per kilogramme components. These per item and per kilogramme rates are equal to the minimum level (i.e. the floor rate) of the target system for any given year. There is one rate for P and G letter items, and a separate rate for E letter items.

Terminal dues rates are calculated as a fixed rate per kilogramme if the total inbound flow from a certain country is less than 75 tonnes per annum. This is done by assuming an average number of items per kilogramme of mail and setting one per kilogramme rate for transition countries. If the total inbound flow from a certain country is above 75 tonnes per annum, a fixed per-item rate is applied in combination with a fixed per-kilogramme rate.

### The target system

For the target system, the P and G rates (for delivering inbound letter post) are based on 70 per cent of the domestic tariff for a 20-gram priority small letter and a 175-gram priority large letter in the destination country, though subject to caps and floors (per item and per kilogram). The E rates are calculated from the P/G format line at 375 grams. The *level* of the floors and caps depends on group classification (I, II or III). There is also a limit depending on the size of mail flows where a fixed per kilogram rate will apply if the total inbound mail flow is less than 75 tons.

In practice, however, caps and floors are so close to each other that the terminal dues received by target countries are often a fixed rate that is not aligned with their domestic tariffs.

The schedule of terminal dues rates applicable to the different groups is laid out in Figure 7. In addition, terminal dues in the target system are adjusted based on the quality of service of mail delivery.

### Calculation of target rates

To calculate the current terminal dues rates for countries in the target system, the UPU makes use of domestic prices which are later related to pre-defined caps and floors. We need information about two reference tariffs:

- The tariff for a 20 g small (P) priority letter post item in the domestic service, converted into SDR (DP1)
- The tariff for a 175 g large (G) priority letter-post item in the domestic service, converted into SDR (DP2)

According to the UPU Convention, the terminal dues rate per P and G item before caps and floors is 70 per cent times the tariff of the 0-20g small letter (DP1) times 0.01 (10 grams assumed to be the average weight for a small letter<sup>7</sup>). To calculate per-kilogram rates, as a first step, a linear relationship between weights and tariffs is assumed and calculated. These two rates (per item and per kilogram) are then applied to an item of average weight (the reference weight is assumed by the UPU to

**Figure 7 Schedule of terminal dues rates**

Mail flow	Terminal dues 2018 for P and G, SDR	Terminal dues 2018 for E, SDR
Intra group I	Cap: 2.585/kg + 0.331/item (<75 tons: 6.249/kg) Floor: 1.774/kg + 0.227/item (<75 tons: 4.472/kg)	Cap: 1.584/kg + 0.705/item (<75 tons: 6.249/kg) Floor: 1.089/kg + 0.485/item (<75 tons: 4.472/kg)
Intra group II and between groups I and II	Cap: 2.064/kg + 0.264/item (<75 tons: 6.249/kg) Floor: 1.774/kg + 0.227/item (<75 tons: 4.472/kg)	Cap: 1.313/kg + 0.584/item (<75 tons: 6.249/kg) Floor: 1.089/kg + 0.485/item (<75 tons: 4.472/kg)
Intra group III and between groups I, II and III	Cap: 1.831/kg + 0.234/item (<75 tons: 6.249/kg) Floor: 1.774/kg + 0.227/item (<75 tons: 4.472/kg)	Cap: 1.198/kg + 0.533/item (<75 tons: 6.249/kg) Floor: 1.089/kg + 0.485/item (<75 tons: 4.472/kg)
To, from, and between group IV	<75 tons: 4.472/kg >75 tons: 1.774/kg + 0.227/item	<75 tons: 4.472/kg >75 tons: 1.089/kg + 0.485/item

Source: UPU (2017) *Decisions of the 2016 Istanbul Congress*, pages 158-162

be 91.9 grams in the current system), to get the *uncapped terminal dues* rate for an average P and G item, see Figure 8. For the E item, the uncapped terminal dues are calculated from this P/G format line at 375 grams.

If the uncapped terminal dues rates for the reference weight are higher than the cap, the capped rates will be used. If the uncapped terminal dues rates for the reference weight are lower than the floor, the floor rates will be used. Finally, if the uncapped terminal dues rates for the reference weight are between the cap and the floor, then a *target rate* is calculated based on the *uncapped terminal dues*.

The target rate is calculated by multiplying the per item and per kilogram floor rates by a ratio of uncapped revenue and floor revenue, see the blue box below. This means that if domestic tariffs in one country are higher than the floor rates, that postal operator will get a higher add-on to the floor rate (but not higher than the cap).

For each bilateral mail flow, the effective rate will depend on

- (i) the group to which a postal operator belongs,
- (ii) from which country the inbound mail flow is coming, and
- (iii) whether or not the terminal dues for the bilateral flow in question is subject to a cap or floor.

**Target rates**

The *target terminal dues* rates per kilogram are calculated as:

$$R_w = 70\% \times \frac{M \times (W_{avg} - 0.01) + DP_1}{R_{wfl} \times W_{avg} + R_{ift}} \times R_{wfl}$$

Similarly, the *target terminal dues* rates per item in are calculated as:

$$R_i = 70\% \times \frac{M \times (W_{avg} - 0.01) + DP_1}{R_{wfl} \times W_{avg} + R_{ift}} \times R_{ift}$$

where,

$M$  = constant rate of change =  $(DP_2 - DP_1) / (0.175 - 0.01)$  (this is the slope in the diagram in Figure 8)

$DP_1$  and  $DP_2$  = domestic postage rates without VAT for 0-20g P and 100-250g G

$W_{avg}$  = the average weight of a letter post item, set at 91.9g

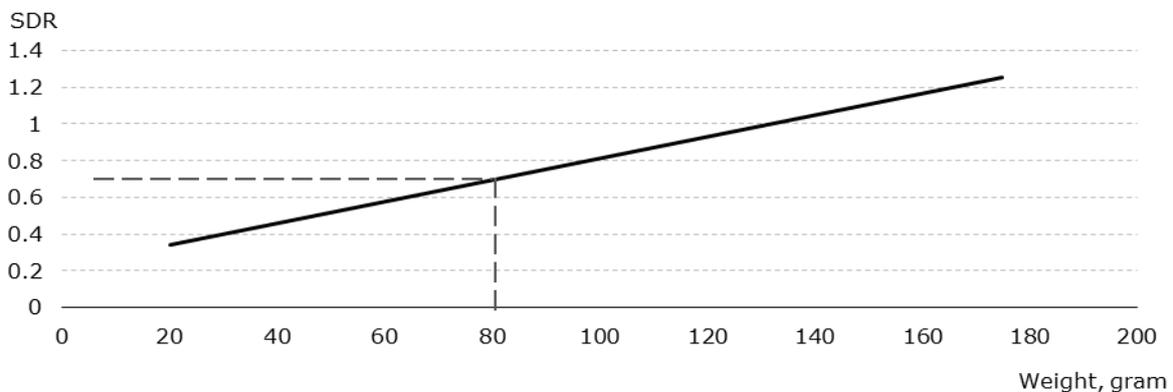
$R_{wfl}$  = floor rate per kilogram

$R_{ift}$  = floor rate per item

Source: UPU (2017) *Statistics and Accounting Guide*; UPU (2016) *2016 Istanbul Acts, Universal Postal Convention*

**Calculating the terminal dues disadvantage**

**Figure 8 Calculation of uncapped terminal dues rate**



Source: Copenhagen Economics; UPU (2015) *Statistics and Accounting Guide*

We calculate the terminal dues disadvantage using two methods: first, we carry out a top down estimation, where we use public data on shipment costs, profit margins and terminal dues to calculate the relative disadvantage. Second, we carry out a bottom up estimation, where we use public data on terminal dues rates and the prices from our mystery shopping investigation.

For both our methods we investigate the terminal dues disadvantage for three profit margin scenarios:

- A lower profit margin of 1.4 per cent. This was the average profit margin of Finnish retailers in 2016<sup>12</sup>.
- A higher profit margin of 4.4 per cent. This was obtained by Swedish retailers with 50-99 employees in 2015<sup>13</sup>.
- A medium profit margin of 2.9 per cent (the average of the lower and higher profit margins)

We use the product weights to calculate the terminal dues rates. For the counterfactual (domestic rates) rates we use the rates we obtained from the domestic operators' websites (see Figure 2 and Figure 3). For the product weights that lie between two data points (say, a weight of 150 grams) we calculate the domestic counterfactual price by computing a line between the two surrounding data points, taking the price where this line crosses the weight.

### Top down approach

To calculate the terminal dues disadvantage using the top down approach we first estimate the shipment cost as a percentage of total turnover, using publicly available data and our contacts. From Finland, we get a shipment cost of between 8.2 – 10.9 per cent of turnover<sup>14</sup>. This gives us shipment costs representing an average of 9.6 per cent of turnover in Finland. In Sweden, shipment costs accounts for 5.8 per cent to 7.3 per cent of total turnover<sup>15</sup>. This gives us shipment costs representing 6.6 per cent of total turnover on average in Sweden. The average of these two averages is 8.1 per cent. We multiply this figure with 0.75, which gives us 6 per cent. We use this as our estimate of shipment costs as a percentage of total turnover for Finnish and Swedish e-

retailers. To investigate the robustness of our results, we also carry out the top down calculation for 1) with an average shipment cost of 8.1 per cent of total turnover, which we multiply with 0.5 and 1 and 2) a lower bound of shipment costs of 5.8 per cent and an upper bound of 10.9 per cent. We report these results later in the appendix.

Second, we calculate the terminal dues as a percentage of domestic shipment fee for both Finland and Sweden. We calculate the terminal dues disadvantage as a percentage of domestic shipment fee as 1 minus the above number.

Third, we calculate the terminal dues disadvantage as a percentage of turnover by multiplying the shipment cost as a percentage of turnover by the terminal dues disadvantage as a percentage of domestic shipment fee for Finland and Sweden. To get one figure, we take the average across Finland and Sweden. We divide this figure with the three profit margin scenarios to estimate the terminal dues disadvantage for each of the scenarios.

### Bottom up approach

For the bottom up approach, we first calculate the nominal difference between the terminal dues and the domestic shipment fee for each of our investigated products for Finland and Sweden. To get one number, we take the average of the figures across Finland and Sweden for each of the items.

Second, we calculate the nominal profit for each of the three profit scenarios by multiplying the three profit margins by the price of the products.

Third, to calculate the terminal dues disadvantage, we divide the difference between terminal dues and domestic fees by each of the three calculated profits.

### Consistency of top down approach

We investigate how robust our top down approach is by replacing our shipment cost estimate 1) with an average shipment cost of 8.1 per cent of total turnover, which we multiply with 0.5 and 1 and 2) a lower bound of

<sup>12</sup> Kaupan Liitto (2018) Kaupan kannattavuus tunnuslukujen valossa, page 9

<sup>13</sup> Svensk Handel (2019) Nyckeltal för detaljhandeln, page 7

<sup>14</sup> We got this number from a contact in Kaupan Liitto in an email on 5<sup>th</sup> February 2019.

<sup>15</sup> [https://www.svenskhandel.se/globalassets/\\_gammalt-innehall/rapporter/2014/finansiella-nyckeltal-2014.pdf](https://www.svenskhandel.se/globalassets/_gammalt-innehall/rapporter/2014/finansiella-nyckeltal-2014.pdf), page 46

shipment costs of 5.8 per cent and an upper bound of 10.9 per cent.

Figure 9 shows our results for 1). We find that even with the high profit, low ratio (0.5) the terminal dues disadvantage represents a significant proportion of e-retailer's profits. Our lowest value is for the sports shoes for which the terminal dues disadvantage is equal to 29 per cent of the e-retailer's profit.

Figure 10 shows our results for 2). We find that even with the high profit, low shipment cost scenario the terminal dues disadvantage represents a significant

proportion of e-retailers' profits. Our lowest value is the sports shoes for which the terminal dues disadvantage is equal to 32 per cent of the e-retailer's profit.

**Figure 9 Robustness of top down method: range of terminal dues disadvantage for different shipment cost multiplication terms**

	Lower difference between domestic shipment fees and terminal dues	Higher difference between domestic shipment fees and terminal dues
Lower profit scenario	0.93 - 1.85	1.41 - 2.83
Medium profit scenario	0.45 - 0.89	0.68 - 1.36
Higher profit scenario	0.29 - 0.59	0.45 - 0.90

Source: Copenhagen Economics analysis

Note: this table illustrates the average terminal dues disadvantage relative to the profit margin for Finnish and Swedish e-retailers using the top down approach, with shipment costs of 8.1 per cent of total turnover which we multiply with 0.5 to 1, and a profit margin range from a lower bound of 1.4 per cent to an upper bound of 4.4 per cent.

**Figure 10 Robustness of top down method: range of terminal dues disadvantage for different shipment costs**

	Lower difference between domestic shipment and terminal dues	Higher difference between domestic shipment and terminal dues
Lower profit scenario	1.00 - 1.88	1.53 - 2.87
Medium profit scenario	0.48 - 0.91	0.74 - 1.39
Higher profit scenario	0.32 - 0.60	0.49 - 0.91

Source: Copenhagen Economics analysis

Note: this table illustrates the average terminal dues disadvantage relative to the profit margin for Finnish and Swedish e-retailers using the top down approach, with shipment costs ranging between 5.8 and 10.9 per cent of total turnover and a profit margin range from a lower bound of 1.4 per cent to an upper bound of 4.4 per cent.

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