

# Brexit, Covid and UK International Parcel Volumes

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# 1. Introduction

Since 2020, shocks with impacts on the world economy : Covid, war in Ukraine.

→ effects on international trade

In UK: additional shock with Brexit.

Covid ⇒ recessions and decline in international trade, but quick economic recovery at end of 2022 for most countries.

In UK: broadly similar pattern.

This paper: focus on Royal Mail (RM) international parcel volume characterized by:

→ sharp decline since 2020

→ end of 2022 : around half of the pre-Covid level

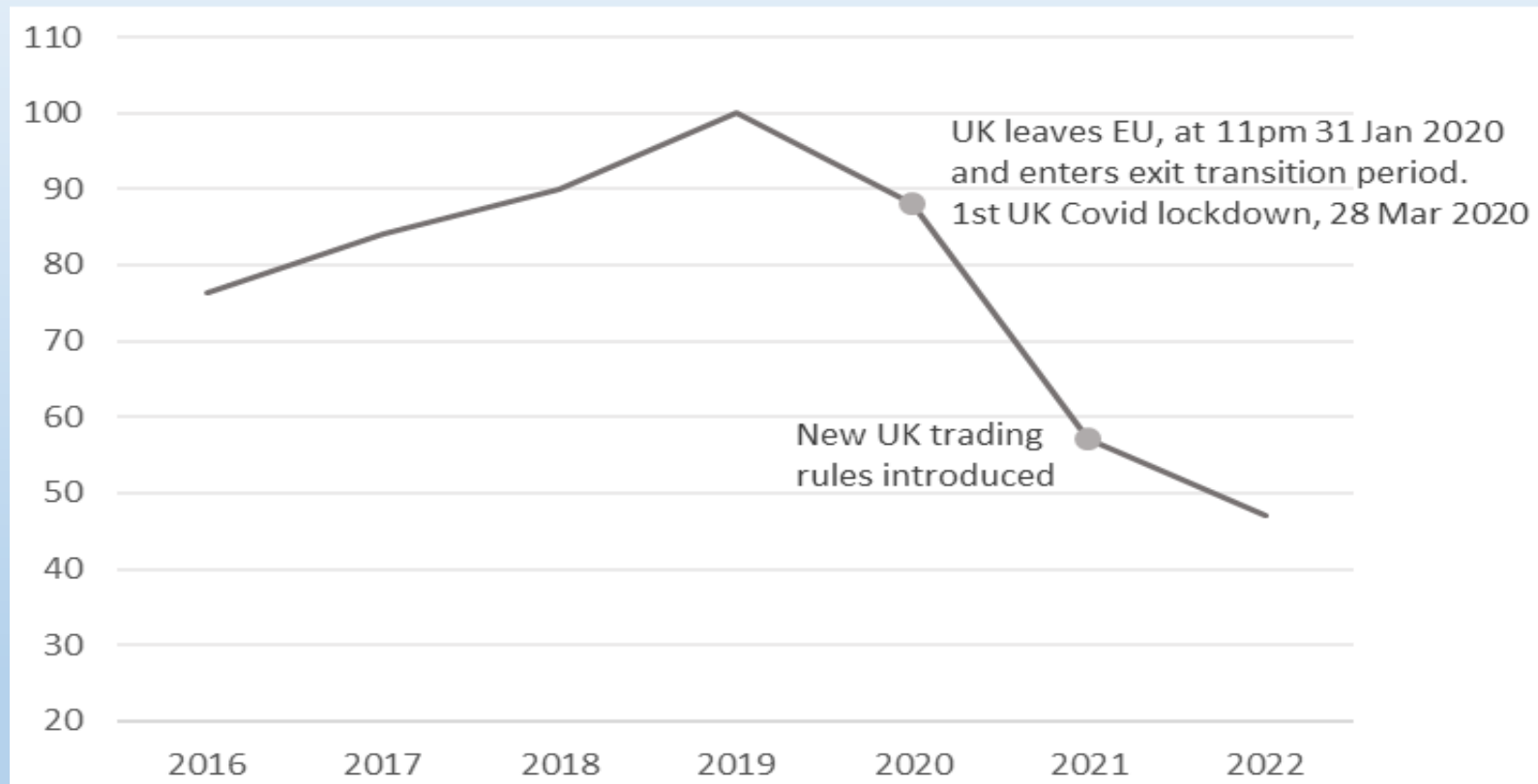
Econometric analysis, using time series, for import parcel volumes ( $\approx 70\%$  of RM international parcel volumes).

Examination of effects of Covid, changes in UK trading rules following Brexit, and postage prices.

## 2. Royal Mail international parcel trends

Parcels carried by RM: smaller light weight items whose average weight per item is less than half a kilogram.

**UK international parcel volumes, 2016 to 2022 (2019 =100)**

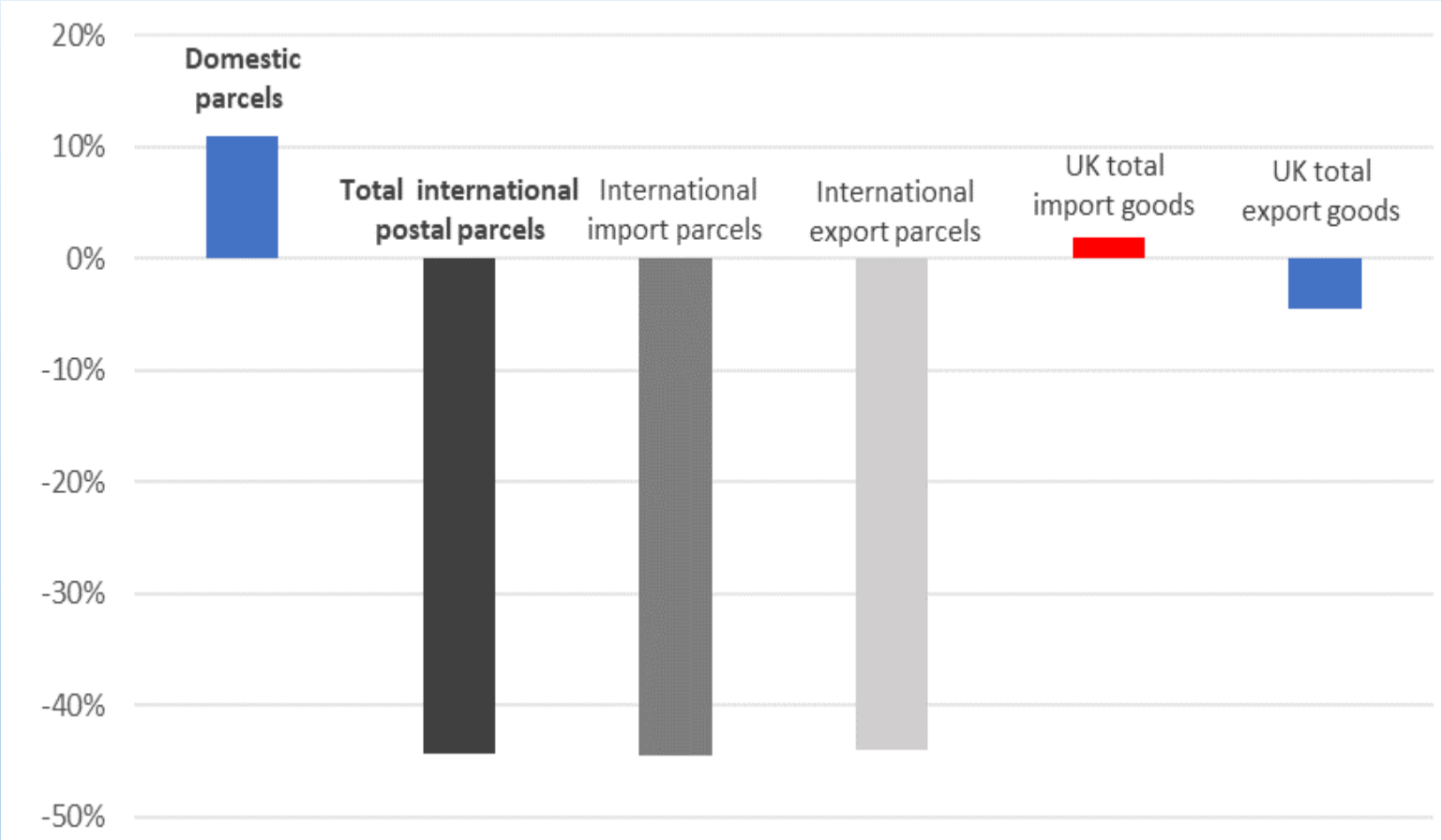


*Source:* Royal Mail international data excluding Parcelforce.

*Note:* Data for 2022 is an estimate using year-on year growth rates up to and including 2022 Q3.

Decline in international parcel volumes since 2019 : very much in contrast to the increase in RM domestic parcel volumes and the recovery in trade for UK goods.

**Royal Mail import and export traffic declines, 2019 to 2022**



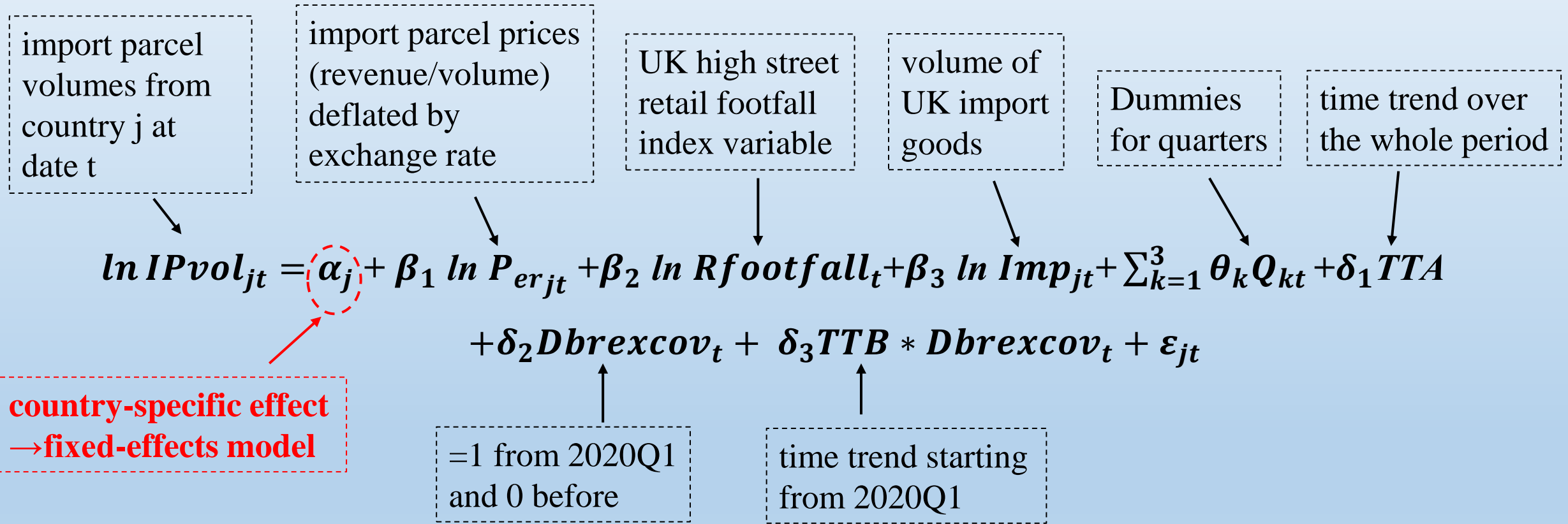
Source: Royal Mail and Office for National Statistics

## Potential reasons for the absence of a recovery in RM international parcel volumes:

- Covid related restrictions impacting demand  
Increase of e-commerce ( $> 0$  effect), but supply chain and production disruptions resulting in shortages and higher cost for some goods ( $< 0$  effect)
- Brexit and the new international trading rules that followed  
Changes in VAT (including the registration, processing and collection of VAT and abolition of Low Value Consignment Relief) and increased complexities for customs declarations
- Increases in the price of international postage

### 3. Modelling the Demand for Import Parcel Volumes

Data for RM import parcel volumes by individual countries for the period 2016q2 to 2022q3



# Estimation for a set of 15 countries representing around 85% of total import volume

	Coefficient	p-value
Constant	14.424	0.000
Fixed effects (not reported; significant)		
$\ln(P_{er})$	-1.076	0.000
$\ln(Imp)$	0.160	0.090
$\ln(Rfootfall)$	-0.280	0.000
Q1	-0.174	0.000
Q2	-0.325	0.000
Q3	-0.265	0.000
TTA	0.007	<b>0.255</b>
TTB*Dbrexcov	-0.056	0.000
Dbrexcov	0.148	<b>0.213</b>
<b>R<sup>2</sup></b>	<b>0.932</b>	

$\Delta price: +1\% \Rightarrow \Delta Imp_{parcel} : -1.08\%$   
 $\Delta Imp_{goods}: +1\% \Rightarrow \Delta Imp_{parcel}: +0.16\%$   
**effect of restrictions due to Covid:**  
 $\Delta Rfoot: +1\% \Rightarrow \Delta Imp_{parcel}: -0.28\%$   
**strong seasonality (vol. in Q4 higher)**  
**time trend non significant**  
**Impact of Brexit/Covid: large and negative on the import parcel trend rate of growth, but no shift in the level.**

## 4. Counterfactual simulations

**Scenario 1:** absence of Covid/Brexit

From 2020:

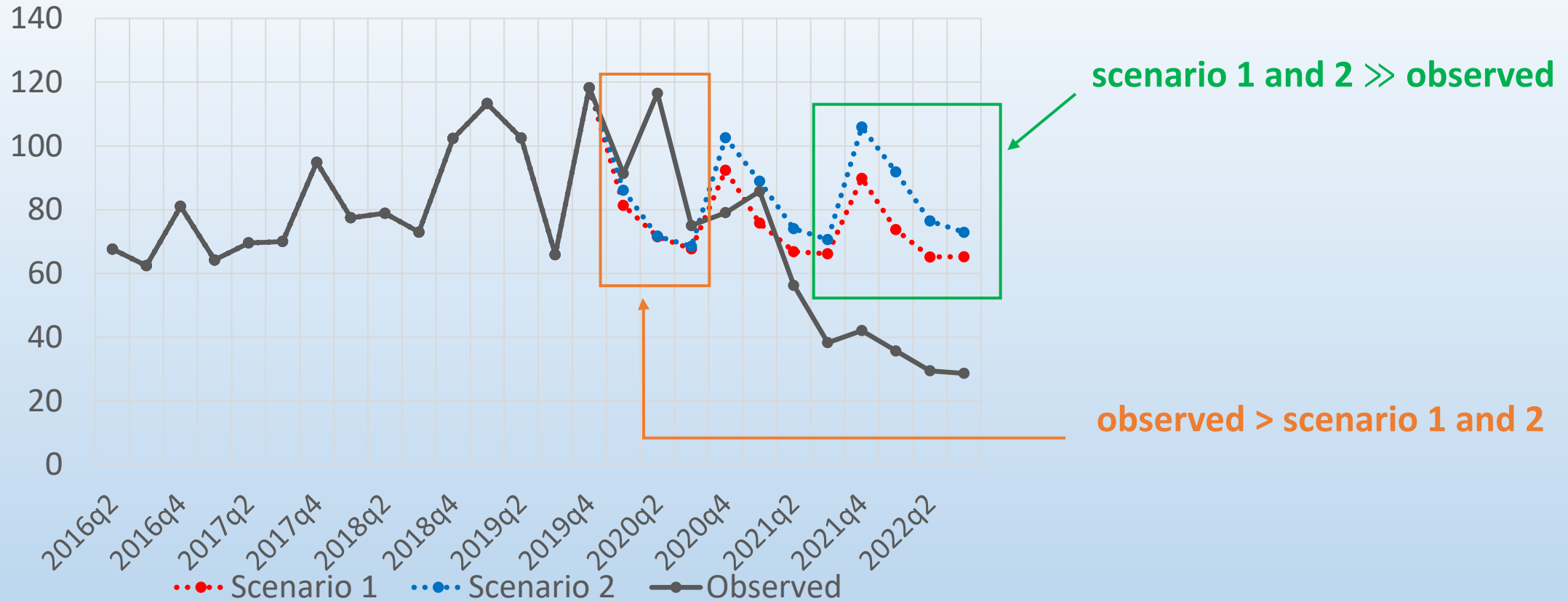
- ✓ *Rfootfall* : = mean values between 2017 and 2019
- ✓ *Imp and price*: evolves on the same QoQ basis as between 2017 and 2019
- ✓ *Dbrexcov* : = 0

**Scenario 2:** absence of Covid/Brexit and price remained around pre-Covid/Brexit period

- ✓ *Rfootfall, Imp and Dbrexcov*: idem scenario 1
- ✓ *Price*: = same levels as 2019



## Royal Mail import parcel volumes (2019 =100) and counterfactual scenarios



→ consistent with the effect of Covid : first positive, with an increase of demand for retail goods, then negative by supply chain disruptions and international trading conditions. Moreover, Brexit occurs in 2020, but new UK trading arrangements applied from 2021

## 5. Conclusion

Our analysis suggests that among the reasons for the decline and no recovery in RM international parcel volumes :

- postal pricing decisions have a minor role
- Covid and changes in trading rules following Brexit has a major role

Unfortunately, no possibility to distinguish the 2 effects Covid and Brexit

- If Covid dominates: recovery possible once supply chain disruptions fade away.  
But, trade in goods has recovered in UK  $\Rightarrow$  not compatible with this hypothesis.
- More likely, changes in trading rules after Brexit are the main factor:  
Changes in rules regarding VAT and more complexity in customs declarations  
 $\rightarrow$  greater impact on traditional postal customers in comparison to non-postal importers