Trends and drivers of international postal volumes

Dr. José Anson, UPU KCTT

20th Königswinter Postal Seminar, 14th November 2023
Before and after COVID-19: international postal tonnage

Q2:2023 vs Q2:2019
- 44.5%

No strong post-pandemic recovery in total international postal tonnage yet.

What underlying structural issues might hinder a significant rebound in international postal volumes?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international postal items

Q2:2023 vs Q2:2019 - 62.0%

No strong post-pandemic recovery in total number of international postal items, although the beginning of a slight recovery can be observed in 2023.

Lightweight items experienced the greatest impact from the 2020–2022 disruptions.

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international letter post tonnage

Q2:2023 vs Q2:2019 - 68.1%

No strong post-pandemic recovery in international letter-post tonnage.

The largest tonnage decline across the three main mail classes U, C and E: specific structural issues undermining traffic recovery after COVID-19?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international letter post items

Q2:2023 vs Q2:2019
- 67.1%

No strong post-pandemic recovery in the total number of international letter-post items.

Items experienced a slight rebound in H1:2023 compared to H1:2022. Could this signal a more robust recovery in H2:2023?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international parcel post tonnage

Q2:2023 vs Q2:2019
- 8.2%
Almost back to pre-pandemic international parcel post tonnage.

This mail class now holds the largest share of total international postal tonnage in H1:2023. But why is international parcel post the most resilient of all mail classes?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international parcel post items

Q2:2023 vs Q2:2019 + 19.9%

Strong post-pandemic recovery in international parcel post volumes, yet still relatively small share of total international postal items.

What distinguishes international parcel post from other mail classes, making it more resilient to the 2020–2022 disruptions?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international EMS tonnage

Q2:2023 vs Q2:2019 - 29.3%

No strong post-pandemic recovery in international EMS tonnage.

Premium services such as EMS may be the most affected by recent macroeconomic headwinds (e.g. global inflationary pressure), but other structural problems are probably also playing a role.

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Before and after COVID-19: international EMS items

The lack of strong post-pandemic recovery even more striking for the total number of EMS items.

Situation further deteriorated in H1:2023 compared to H1:2022. It’s imperative for EMS to identify new avenues for volume growth and address any structural impediments.
First key structural issue: end-to-end delivery times

End-to-end elapsed delivery times almost back to pre-pandemic levels for international letter post and parcel post: around 13 days

Not back to pre-pandemic delivery performance for EMS: around 8 days in H1:2023 compared to 5 days in H1:2019.

Smallest difference between EMS and other mail classes.

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Note: End-to-end elapsed delivery time (difference between event A and first delivery attempt, i.e. min(event H, event I)), shipper’s view without removing time in customs or weekends
Second key structural issue: international delivery reliability

Post-pandemic reliability challenge. End-to-end delivery times predictability not at pre-pandemic levels:
±13 days for letter and parcel post; ±7 days for EMS (Q2:2023).

COVID-19 outbreak most impacted letter post predictability.

What’s preventing return to the pre-pandemic performance?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Note: End-to-end elapsed delivery time (difference between event A and first delivery attempt, i.e. min(event H, event I)), shipper’s view without removing time in customs or weekends
Third key structural issue: international postal pricing


Parcel post rates increased by 35% only since Jan 2018.

EMS prices up by 33% between Dec 2019 and Feb 2022.

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Note: 1.8 billion actual postage prices analyzed in ITMATT messages
Fourth key structural issue: “TD to prices” pass-through

Use case: **pass-through analysis of the US self-declared TD rates.**

One would have **expected price increases to be limited to flows from G3 to G1.**

Reality: **price increases observed from G1 to G1, from G1 to G3, from G1 to G4, from G3 to G1, from G4 to G3 and from G4 to G4.**

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Consistency with econometrics: impacts far beyond COVID-19

<table>
<thead>
<tr>
<th>Shocks</th>
<th>Letter post</th>
<th>Parcel post</th>
<th>EMS</th>
<th>Cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 (Feb 2020)</td>
<td>-28.4%</td>
<td>-24.0%</td>
<td>-25.9%</td>
<td>-20.4%</td>
</tr>
<tr>
<td>New TDs (Jul 2020)</td>
<td>-36.8%</td>
<td>23.1%</td>
<td>13.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>STOP Act (Jan 2021)</td>
<td>-6.6%</td>
<td>-9.4%</td>
<td>-10.0%</td>
<td>4.7%</td>
</tr>
<tr>
<td>ICS2 R1 (Mar 2021)</td>
<td>-20.4%</td>
<td>-7.0%</td>
<td>-3.0%</td>
<td>3.3%</td>
</tr>
<tr>
<td>EU VAT IOSS (Jul 2021)</td>
<td>-33.7%</td>
<td>-11.9%</td>
<td>-14.3%</td>
<td>-5.1%</td>
</tr>
<tr>
<td>Ukraine conflict (Feb 2022)</td>
<td>-20.9%</td>
<td>-18.3%</td>
<td>-20.0%</td>
<td>-10.1%</td>
</tr>
</tbody>
</table>

Once controlled for all shocks, change in TD regime in July 2020 was having the largest single negative marginal impact of all factors under consideration.

Eco-systemic effects generated by changes in TD rates.

Source: UPU KCTT econometric modelling (Arellano-Bond dynamic panel data) and calculations for the 2018-2022 period (more than 5,000 bilateral flows on a monthly basis)
Fifth key structural issue: EU-27 inbound post-EAD & VAT

Q2:2023 vs Q2:2019 - 71.5%

No strong post-pandemic recovery in EU-27 international postal inbound volumes.

The impacts of the introduction of new EU-27 border security regulations – ICS2 R1 – and VAT taxation – IOSS – regime on e-commerce imports were negative.

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Sixth key structural issue: EU-27 outbound post-EAD & VAT

Q2:2023 vs Q2:2019 - 22.9%

No strong post-pandemic recovery in EU-27 international postal outbound volumes.

The impacts of the introduction of new EU-27 border security regulations – ICS2 R1 – and VAT taxation – IOSS – regime on e-commerce exports were also negative!

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Seventh key structural issue: Intra EU-27 post-EAD & VAT

Q2:2023 vs Q2:2019 - 11.1%

No strong post-pandemic recovery in intra-EU 27 postal volumes either!

The impacts of the introduction of new EU-27 border security regulations – ICS2 R1 – and VAT taxation – IOSS – regime on intra-European e-commerce were negative, too!

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
Q2:2023 vs Q2:2019 - 44.9%

No strong post-pandemic recovery in international postal exchanges between the rest of the world.

The introduction of new EU-27 border security regulations – ICS2 R1 – and VAT taxation – IOSS – regime had no impact on postal exchanges in the rest of the world.
Consistency with econometrics: impacts far beyond COVID-19

<table>
<thead>
<tr>
<th>Shocks</th>
<th>Letter post</th>
<th>Parcel post</th>
<th>EMS</th>
<th>Cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 (Feb 2020)</td>
<td>-28.4%</td>
<td>-24.0%</td>
<td>-25.9%</td>
<td>-20.4%</td>
</tr>
<tr>
<td>New TDs (Jul 2020)</td>
<td>-36.8%</td>
<td>23.1%</td>
<td>13.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>STOP Act (Jan 2021)</td>
<td>-6.6%</td>
<td>-9.4%</td>
<td>-10.0%</td>
<td>4.7%</td>
</tr>
<tr>
<td>ICS2 R1 (Mar 2021)</td>
<td>-20.4%</td>
<td>-7.0%</td>
<td>-3.0%</td>
<td>3.3%</td>
</tr>
<tr>
<td>EU VAT IOSS (Jul 2021)</td>
<td>-33.7%</td>
<td>-11.9%</td>
<td>-14.3%</td>
<td>-5.1%</td>
</tr>
<tr>
<td>Ukraine conflict (Feb 2022)</td>
<td>-20.9%</td>
<td>-18.3%</td>
<td>-20.0%</td>
<td>-10.1%</td>
</tr>
</tbody>
</table>

Source: UPU KCTT econometric modelling (Arellano-Bond dynamic panel data) and calculations for the 2018-2022 period (more than 5,000 bilateral flows on a monthly basis)

Beyond COVID-19 impact, ICS2 R1 third most negative impact and EU VAT IOSS second most negative marginal impact of all analyzed effects.

Eco-systemic effects at play again: platform economics effects.

At best a zero-sum game in the short term, likely undermining longer-term growth.
Impact of postal-related policies on predictability?

Do international postal-related policies and regulations play a pivotal role here?

What implications will the rollout of ICS2 R2 and ICS3 bring?

Are postal and logistics entities prepared for future electronic advanced data frameworks and import taxation systems?

How many MSMEs might see their digital trade prospects curtailed?

Source: UPU Postal Big Data and UPU KCTT modelling and calculations
More insights in the “State of the Postal Sector 2023”: report released on 5th October at UPU Strategy Summit during UPU 4th Extraordinary Congress in Riyadh (Saudi Arabia).

https://www.upu.int/en/Publications/2IPD/State-of-the-Postal-Sector-2023

Contact: jose.anson@upu.int