MARKET MONITORING

Parcels Market Report

Market data and competitive conditions in the postal sector as at January 2023

Bundesnetzagentur

Parcels Market Report 2022

January 2023

**Bundesnetzagentur für Elektrizität, Gas,
Telekommunikation, Post und Eisenbahnen**

Section 315

Tulpenfeld 4
53113 Bonn
Tel: +49 228 14-0
Fax: +49 228 14-8872
Email: info@bnetza.de

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1 Introduction

An essential component of the Bundesnetzagentur's market monitoring in the postal sector is the annual market survey. Companies active in postal services are asked to provide information about their economic situation, including their revenue and parcel volume figures. The companies' obligation to furnish information is set out in section 45 of the Postal Act (PostG) and Article 4 of Regulation (EU) 2018/644 of 18 April 2018 on cross-border parcel delivery services (EU Parcel Regulation).

The results of the annual survey are included in the activity reports and other regular publications on the Bundesnetzagentur's letters and parcels markets.

This Parcels Market Report covers the parcels market figures from the survey years 2021 and 2022 and it shows and analyses the economic development based on time series. It also contains information on the structure and competition in the parcels market.

Further detailed postal market data is available on the Bundesnetzagentur website at www.bundesnetzagentur.de/Post-Marktdaten.

2 Parcel services definitions

The conveyance of goods by a parcel service, usually in an addressed packaging, is referred to as parcel shipment. Parcel services are characterised by a very high degree of standardisation and automation. For market monitoring purposes the Bundesnetzagentur uses a maximum weight of 31.5 kilograms per parcel even though maximum weights vary among the parcel service providers and can be up to 70 kilograms per parcel in individual cases. Setting a weight limit of 31.5 kilograms takes international regulations into account and provides for clearer distinction between the postal market and the freight and logistics markets. Parcel transit times are normally between 24 and 72 hours, but they are not guaranteed.

For the purposes of market monitoring and, in particular, to fully account for the effects of e-commerce, for the first time in the present report the provision of parcel services also includes the conveyance of small low-value goods (referred to as merchandise shipment/Warenpost), usually offered by mail service providers via letter delivery networks. Nevertheless, the focus of these items is on the merchandise as contents, which is why merchandise shipments are defined as parcels under the EU Parcel Regulation. However, it should be noted that generally there is a significant difference between a merchandise shipment and a parcel shipment as such in terms of transit time and traceability.

3 Market trends

There is a direct correlation between economic developments in the parcels market (including merchandise shipments, see above) and in e-commerce. Not least due to the coronavirus pandemic, revenues and volumes of the German parcel service providers saw strong growth extending into the year 2021, which was mainly driven by an increase in parcel shipments within Germany. In their 2022 forecast, however, the companies expect a slight decline in parcel volumes, with revenues remaining stable. This is likely to be due to the generally worse economic situation. Inflation caused by the enormous rise in energy costs combined with uncertainties, in particular related to the Russian war of aggression against Ukraine, have considerably reduced the demand for goods. On the other hand, the strong growth rates in the parcels market in 2019 and 2020 may have reflected anticipated effects, also caused by the pandemic, as a result of which the development is now returning to the original growth path.

As it was difficult for companies to assess the crisis-related changes in the economic environment in 2022, the actual figures for 2022 (survey conducted in 2023) may in fact differ from the forecast.

The absolute figures shown below have been rounded. The percentages have been calculated using non rounded revenue and volume figures for reasons of accuracy. The figures in the text, charts and tables may therefore differ slightly. The revenue and volume figures for 2022 are based on estimates that were derived from the 2022 forecast figures reported by the companies.

3.1 Overall revenues and volumes

In 2021, total revenues in the parcels market (domestic and international parcels) amounted to €18.73bn, an increase of around 20% from the previous year (2020: €15.61bn). Total parcel volumes rose by around 22% year-on-year from 3.70bn items in 2020 to 4.51bn items in 2021.

Based on the companies' forecasts, total revenues are expected to grow by 1.94% to €19.09bn in 2022, while parcel volumes are expected to decline slightly by 1.09% to 4.46bn items.

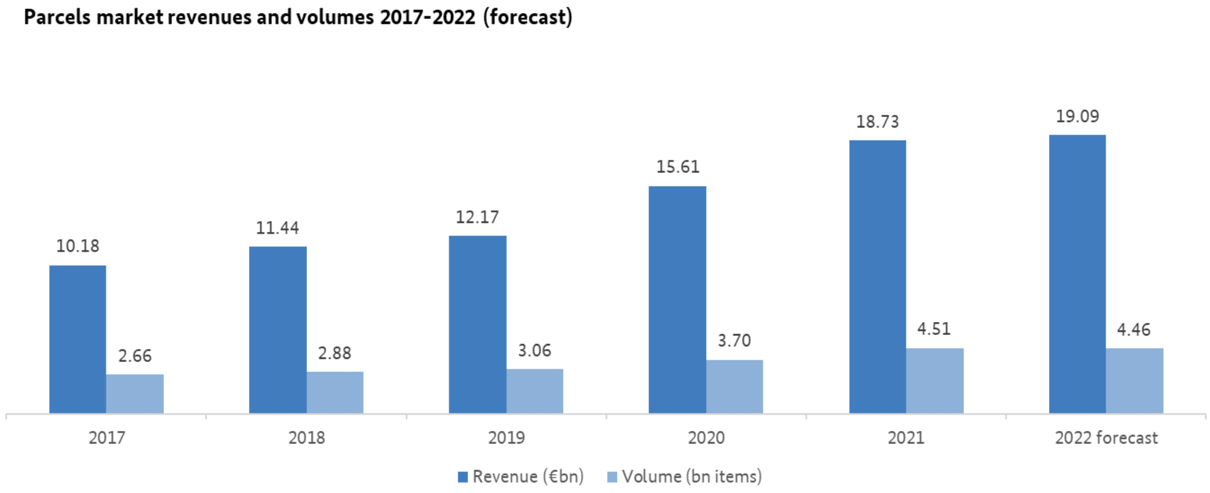

Figure 1: Parcels market revenues and volumes 2017-2022 (forecast)

3.2 Domestic and international parcels

The Bundesnetzagentur asks market participants to provide parcels market data broken down by volume of and revenue from both domestic and international parcels. As regards international parcels a further distinction is made between parcels sent abroad and parcels delivered to Germany from abroad.

International parcels made up 18% of total parcel revenue in 2021 (share of international parcels in 2020: 20%), while domestic parcels accounted for 82% of parcel revenue in 2021 (share of domestic parcels in 2020: 78%). Disproportionate growth in the domestic market thus led to a slight shift in the percentage shares.

International outbound parcels represented 16% of revenues in the period under review. Most of this revenue was from parcels to EEA (European Economic Area) countries. International inbound parcels made up 2% of total revenues and, again, most of these parcels came from EEA countries.

Domestic parcel revenue rose by 22.84% year-on-year from €12.44bn in 2020 to €15.28bn in 2021. For 2022, companies expect total revenues to grow by 2.68% to €15.69bn.

International parcel revenue increased by 8.78% year-on-year from €3.17bn in 2020 to €3.45bn in 2021. For 2022, a decline in revenue of 1.35% to €3.40bn has been registered. Again, forecasts could differ from the actual 2022 market data (survey conducted in 2023) (see above).

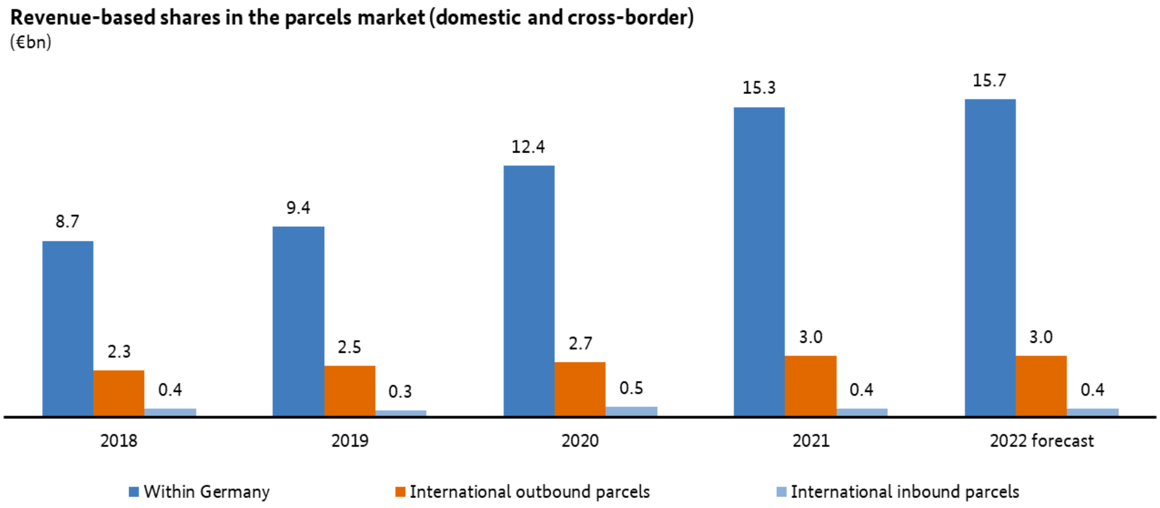

Figure 2: Revenue-based shares in the parcels market (domestic/cross-border)

Parcel volumes in 2021 were very similar (see Figure 3).

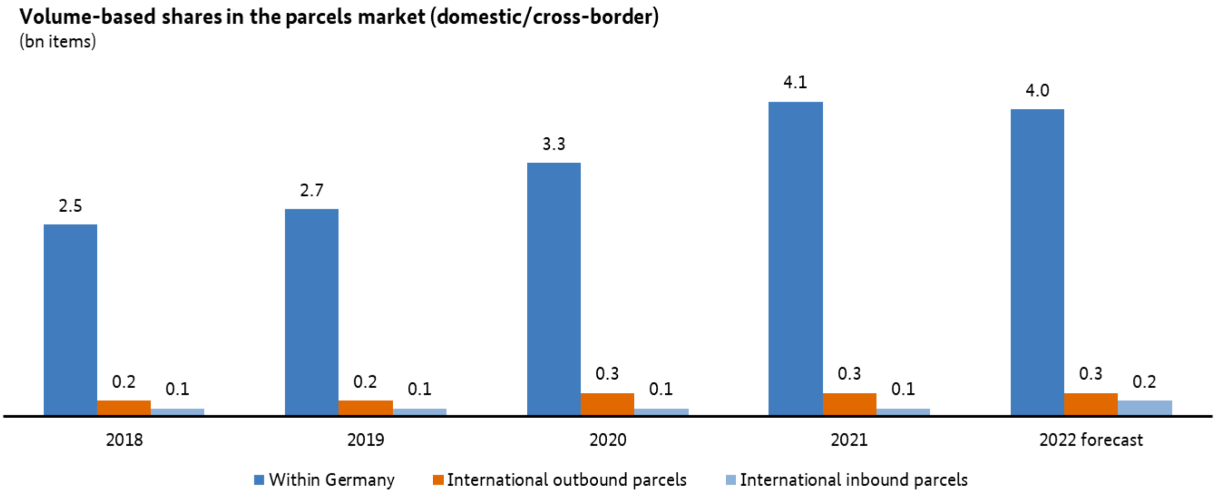

Figure 3: Volume-based shares in the parcels market (domestic/cross-border)

While in 2021 around 90% of all parcels were sent and delivered within Germany, the share of parcels sent to destinations outside Germany made up 7%, and 3% of all parcels were sent to Germany from abroad. The majority of these parcels were sent to and from EEA countries.

International parcels have a significantly higher revenue-based share (18%) and a relatively low volume-based share (10%), which is due to the high unit revenue associated with cross-border parcel delivery. By contrast, unit revenues for national parcel delivery are much lower.

As was the case with revenues, domestic parcel volumes saw higher levels of growth year-on-year than international parcels in 2021. The number of domestic parcels increased by around 22.53% from 3.31bn to 4.05bn, while in 2022 this figure is expected to decrease by around 1.36% to 4.00bn.

Parcel volumes in the international parcels market saw a year-on-year increase of around 17.39% from 0.39bn items in 2020 to 0.46bn items in 2021. Volumes for 2022 are expected to rise slightly by around 1.27% to 0.47bn items.

3.3 Parcel volumes broken down by parcel flows

E-commerce has a strong effect on developments in the parcels market (in particular in the business customer segment), which is why it is worth taking a closer look at domestic parcel volumes and revenues broken down by parcel flows. In this context, a distinction is made between parcels sent from business customers to private or business customers (B2X - business to consumer/business) and parcels delivered from private customers to private or business customers (C2X - consumer to consumer/business).

In general, the vast majority of parcels fall into the B2X segment. In 2021, the parcel volume share in the B2X segment was 95%, while the C2X segment accounted for 5%. The relevant revenue shares were 92% in the B2X segment and 8% in the C2X segment.

The differences in volume shares and revenue shares are due to price differences between B2X and C2X parcels. The per parcel revenue in the C2X segment (individual prices) is significantly higher than the unit revenue in the B2X segment (specifically agreed conditions).

In the B2X segment parcel service providers generated a total of €14.06bn[1] in revenue in 2021, which is an increase of 25.12% compared to the previous year (revenues in the B2X segment in 2020: 11.23bn). In the same period the relevant parcel volumes rose by 23.69%, from 3.08bn items in 2020 to 3.81bn items in 2021. For 2022, revenue is expected to increase at a much lower rate of 3.81% to €14.59bn, while parcel volumes are expected to decline slightly by 0.84% to 3.78bn (forecast 2022).

[1] Since not all of the companies participating in the survey reported their domestic revenues and parcel volumes broken down by B2X and C2X segments, the total of the B2X and C2X data does not add up exactly to the data shown in section 3.2.

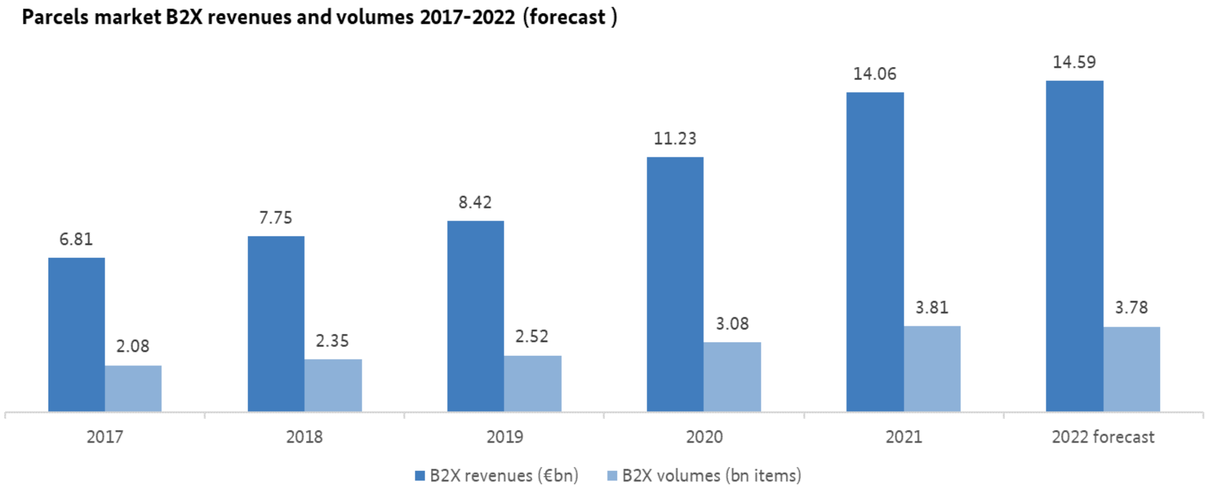

Figure 4: Parcels market B2X revenues and volumes 2017-2022 (forecast)

Revenues in the C2X parcels market went up from €1.15bn in 2020 to €1.20bn in 2021, which is an increase of 4.60%. For 2022, revenues are expected to decrease by 11.85% to €1.06bn (forecast 2022).

In terms of parcel volumes, a year-on-year 8.68% increase was registered for 2021, from 0.20bn items in 2020 to 0.22bn items in 2021. The companies also expect a decline in parcel volumes in the C2X segment for 2022, with the number of items going down by 11.48% to 0.19bn (forecast 2022).

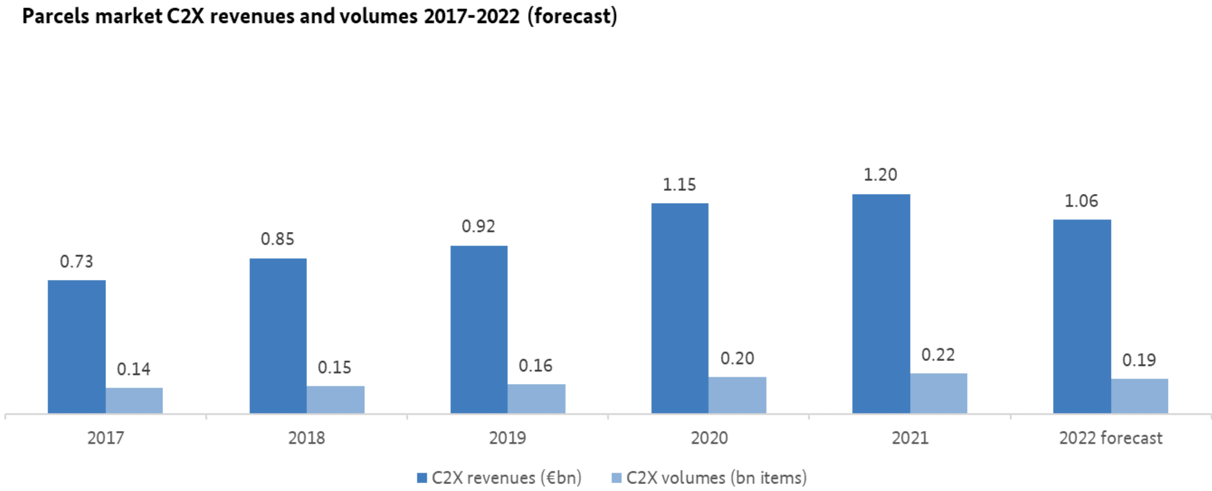

Figure 5: Parcels market C2X revenues and volumes 2017-2022 (forecast)

4 Access and delivery points

The parcel operators provide their customers with numerous access and delivery points, which include postal retail outlets/parcel shops, parcel lockers and parcel boxes. Parcel boxes are single or multiple metal lockers for receipt of parcels at family homes, apartment buildings and business premises.

The chart shows that the 12,322 parcel lockers of all the providers in 2021 were equipped with a total of just over 1,000,000 compartments for sending and receiving parcels. Given the rising parcel volumes the number of parcel lockers is expected to further increase in the coming years. Deutsche Post Group, for example, has announced plans to increase the number of its parcel lockers (Packstations) from around 7,000 in 2021 to 15,000 by 2023.[2] In 2022, the number of Deutsche Post Group Packstations had already grown to over 10,000.[3]

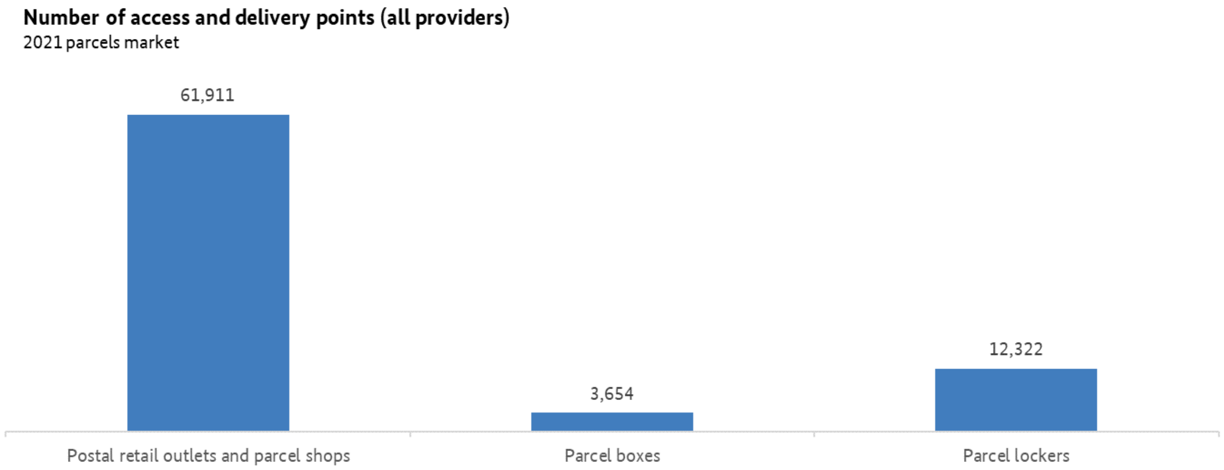

Figure 6: Number of access and delivery points in the 2021 parcels market (all providers)

[2] See https://www.dpdhl.com/de/presse/pressemitteilungen/2021/dhl-baut-packstationen-weiter-aus-15000-bis-2023.html, accessed on 11 April 2022, only available in German

[3] See Deutsche Post DHL Group | 25. Jul. 22: DHL eröffnet 10.000. Packstation in Deutschland (dpdhl.com), accessed on 16 January 2022, only available in German

5 Competitive conditions

5.1 Market shares

Unlike in the letters market, largely competitive structures prevail in the parcels market despite a high level of market concentration (see below). There are a total of six major parcel service providers in Germany, which we will look at more closely. In alphabetical order, these are Amazon, DPD, Deutsche Post DHL (DP DHL), GLS, Hermes and UPS. These six companies conveyed around 98% of all domestic and international parcels in 2021, which means that the market remains highly concentrated (see below).

Compared to 2020[4], there have been no changes in the market shares that would affect the ranges shown below. DP DHL still holds a market share of more than 40% (in terms of parcel volumes) and thus has a significant lead over its competitors, all of which hold market shares in the 5% to 15% range. Amazon, which has been active in the market as a provider of parcel services with its own parcel delivery structures since 2017, has seen particularly strong growth within this 5% to 15% range.

Figure 7: Parcel service providers' volume-based shares of the market in 2021 (domestic and international)

Overall, it is important to note that parcel volumes and parcel revenues grew significantly in the period from 2017 to 2022 (forecast 2022), by an annual average of 13.40% in terms of revenue and 10.90% in terms of volume (see above). However, a closer analysis shows that the individual parcel service providers have benefited differently from this development. This has led to slight shifts in market shares, particularly among the companies in the 5% to 15% range. The market development outlined could lead to further fundamental changes in the competitive structures in the future, especially given the market entry of Amazon as a vertically integrated platform provider. Since Amazon also has a significant demand for parcel services, it may be able to react to changes in the economic conditions for postal delivery much more flexibly than other parcel service providers.

[4] See Bundesnetzagentur, Parcels Market Report 2021, market share 2020

5.2 Market concentration

One way of describing a market's competitive conditions based on the market shares, without explicitly specifying the shares of the individual companies, is to use the concept of market concentration. Market concentration can be presented by way of concentration indices, examples of these being the concentration ratio shown below, the Herfindahl-Hirschmann Index (absolute concentration) and the Gini coefficient (relative concentration).[5] The Bundesnetzagentur will continue carrying out this form of competition analysis on a regular basis and include the results in its assessments of competition structures.

Based on the guidelines of the European Commission on the assessment of horizontal mergers[6] the following ranges are used for interpreting the Herfindahl-Hirschman-Index (HHI).

Interpretation of the HHI

HHI < 1000	low concentration
1000 < HHI < 2000	moderate concentration
HHI > 2000	high concentration

Table 1: Interpretation of the HHI

In 2021, the top six companies in the parcels market accounted for 97% of revenues (CR6 revenue 97) and 98% of total parcel volumes (CR6 volume 98), both remaining at a consistently high level.

In the period under review from 2017 to 2022 the HHI for both revenue and volume is around 3,000 and thus far above the threshold value of 2,000. Although Amazon's entry into the market has generally increased competition, the parcels market is still to be viewed as highly concentrated (see Table 2).

However, if you compare the parcels market HHI with the letters market HHI, which was at around 7,290 in 2021, [7] it becomes evident that, despite parcels market concentration being at a high level, the gap between the market leader DP DHL and the other market participants is not as significant in the parcels market as it is in the letters market. The slight HHI decrease in 2022 compared to 2021 indicates that Amazon's entry into the market has initially caused a slight shift of market shares towards the competitors of DP DHL.

[5] See Bundesnetzagentur, Parcels Market Report 2021, page 14 et seq.

[6] See Official Journal of the European Union, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, points 19-20, accessed on 10 January 2022 at https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:031:0005:0018:DE:PDF

[7] See Bundesnetzagentur, Letters Market Report 2022, page 16 et seq.

The slight HHI increase in 2021 compared to the previous years from 2017 to 2020 is mainly due to the fact that merchandise shipments have been included in the parcels market (see above). This is why comparing the indices over the entire period from 2017 to 2022 is only possible to a limited extent.

The Gini coefficients remain at a consistently high level during the entire period under review and confirm the trend of a highly concentrated parcels market. Again, including merchandise shipments in the calculations (see above) has an impact on the index levels, as the number of companies providing data has increased.

Concentration indices in the parcels market 2017-2022 (forecast)

Year	CR6 revenue	CR6 volume	HHI revenue	HHI volume	Gini coefficient revenue	Gini coefficient volume
2017	96	98	2,905	3,217	0.97	0.98
2018	94	97	2,731	3,181	0.97	0.97
2019	96	97	2,867	3,152	0.96	0.96
2020	96	98	2,651	2,970	0.96	0.96
2021	97	98	2,731	3,127	0.97	0.97
2022	99	99	2,532	2,893	0.97	0.97

Table 2: Concentration indices in the parcels market 2017-2022 (forecast)

6 Summary

The parcels market figures published in this report show that revenues and volumes rose significantly again in 2021. A key reason for this is e-commerce growth, which was boosted by the coronavirus pandemic in 2021 as well. By contrast, due to changes in the economic environment, the companies expect slightly declining parcel volumes with revenues remaining basically unchanged for the year 2022. It is yet too early to tell if this, in fact, reflects a change in trend or if the strong growth rates in 2019, 2020 and 2021 were merely anticipated effects, also caused by the pandemic, while the development will now return to the original growth path.

Apart from that, we can see that, although Amazon's entry into the parcels market has initially stimulated competition, market concentration remains high, with the six largest companies accounting for 97% of total revenues. Due to its significant lead over its competitors in terms of market shares DP DHL's market position remained unchallenged in 2021. However, a shift in market shares cannot be ruled out for the years to come and will depend, in particular, on the general development of e-commerce. Furthermore, it remains to be seen in what way the market will be impacted by the particular role of Amazon, which as a vertically integrated platform is both supplier and consumer in the parcels market.

The Bundesnetzagentur will continue carrying out the competition analyses described above on a regular basis and include the results in its assessments of competition structures.

In addition to this publication, data on the postal sector as a whole is also available at
www.bundesnetzagentur.de/Post-Marktdaten

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List of abbreviations

B2B	**Business to business**
B2C	**Business to consumer**
bn	**billion**
DPD	**Deutscher Paket Dienst**
DP DHL	**Deutsche Post DHL**
EEA	**European Economic Area**
EU Parcel Regulation	Regulation (EU) 2018/644 of 18 April 2018 on cross-border parcel delivery services
GLS	**General Logistics Systems**
HHI	**Herfindahl-Hirschmann Index**
UPS	**United Parcel Service**

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Tulpenfeld 4

53113 Bonn

Contact

Bundesnetzagentur

Section 315

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53113 Bonn

Postmarktdaten@bnetza.de

www.bundesnetzagentur.de

Tel: +49 228 14-0

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