**Analysis Report on Passenger and Freight Transport Volume in Major Countries**

**Abstract**

This report provides a comprehensive analysis of passenger and freight transport volumes in major economies including the United States, Canada, Japan, the United Kingdom, Singapore, and Germany, focusing on data trends from 2019 through early 2023. Using charts to illustrate key indicators such as passenger volumes, freight volumes, and port throughput, we compare how each country’s transport sector was impacted by the COVID-19 pandemic and how it has recovered since. The analysis reveals that the pandemic caused an abrupt collapse in passenger transport in early 2020 worldwide, with freight transport also affected to varying degrees. As pandemic restrictions eased in 2021 and 2022, all countries saw notable rebounds in transport activity. However, by the end of 2022, most countries’ passenger and freight metrics remained below 2019 pre-pandemic levels. Based on current trends, we predict that most countries will gradually return to pre-pandemic transport levels during 2023–2024, though the pace of recovery differs across countries. Finally, the report discusses the outlook for each nation’s transport sector recovery and provides references to the data sources.

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**1. Introduction**

The outbreak of the COVID-19 pandemic in early 2020 brought unprecedented disruption to global economic and social activities, with the transport sector being one of the hardest hit. Travel restrictions and lockdowns implemented to curb the virus’s spread led to a collapse in passenger volumes and significantly curtailed freight movement. In this context, analyzing the changes in passenger and freight transport volumes in major countries is crucial for assessing the pandemic’s impact and the progress of recovery.

This report compiles and analyzes transportation statistics from **2019 to 2023** for six major countries (or economies): **the United States, Canada, Japan, the United Kingdom, Singapore, and Germany**. Key indicators such as **passenger transport indices, freight transport indices, and port throughput** are examined for each country, with charts visualizing the trends before, during, and after the peak pandemic period. We then discuss the impact of COVID-19 on passenger and freight transport in each case and compare their recovery trajectories. Additionally, based on the latest data, we provide **predictions for the recovery trends** of passenger and freight transport in these countries, considering when they might return to pre-pandemic levels. It should be noted that due to data limitations, **France** is only covered up to August 2020, and **Brazil and India** are excluded because no consistent public transport volume data was available for those countries.

**2. United States**

**Data Overview:** The United States uses the **Transportation Services Index (TSI)** to gauge overall transport activity, which comprises a **Passenger TSI** and a **Freight TSI** published by the U.S. Bureau of Transportation Statistics. The TSI is indexed to an average of 2018 = 100, and monthly values reflect relative changes in transport volume. Our analysis covers the period **January 2019 through March 2023** on a monthly basis, as illustrated in the figure below.

*Figure 1: Monthly Transportation Services Index (TSI) for the U.S. (2019–2023). Both the passenger and freight indices plunged sharply in early 2020 due to COVID-19 and then gradually recovered with noticeable volatility.*

**2.1 Passenger Transport Trends**

The U.S. Passenger TSI showed relatively stable, slight fluctuations around **130–135** in 2019, prior to the pandemic. In early 2020, as COVID-19 spread and strict containment measures took effect, the **passenger index plummeted** – dropping from about 130 in January 2020 to near 60 by April 2020, a decline of over 50%. This reflects the near-standstill of domestic air travel, public transit usage, and other mobility in the pandemic’s initial phase. From the second half of 2020, with partial reopenings and economic activity resuming, the passenger index **stabilized and began to climb**. In 2021, widespread vaccinations bolstered travel confidence, driving passenger demand upward; by early 2021 the index had risen back above **100**. Through the first half of 2022, the U.S. passenger index continued to increase, at one point approaching the **110–120** range. However, in the latter half of 2022, factors like inflation and new virus variants dampened travel, causing a slight dip in the passenger index, which settled around **95–105** by late 2022. Overall, as of early 2023, the U.S. passenger index **remained below its 2019 peak** (approximately 135) and had not fully recovered to pre-pandemic levels.

**2.2 Freight Transport Trends**

The U.S. Freight TSI reflects freight movement across modes such as trucking, rail, air, pipeline, and waterways. In 2019, the freight index hovered around **135–140**. With the onset of the pandemic, the **freight index dropped sharply in spring 2020**, hitting roughly **120** in April 2020. Although freight demand fell, the decline was less severe than for passenger travel. Supply chain disruptions and reduced industrial activity in early 2020 led to a roughly 15% year-over-year drop in the index. By late 2020, freight activity **rebounded earlier and faster** than passenger travel, supported by surging e-commerce, medical supply shipments, and inventory restocking. In 2021, the freight index climbed steadily, exceeding **2019 levels by year-end** at about **135–140**. The momentum continued into the first half of 2022, with the index reaching new highs (several percent above 2019 baseline), reflecting robust logistics demand as the economy reopened. However, in the second half of 2022, freight index values eased slightly due to factors like interest rate hikes and cooling demand, though they remained **above pre-pandemic levels** (roughly 130–135). In summary, the **freight index recovered more quickly than the passenger index**, demonstrating resilience in U.S. goods movement amid the pandemic.

**2.3 Pandemic Impact and Recovery Outlook**

The COVID-19 pandemic’s impact on U.S. transportation was concentrated in 2020. From March to May 2020, widespread flight cancellations and drastic reductions in public transit and vehicular travel drove the passenger index to historic lows. On the freight side, initial lockdowns dampened logistics demand, though surges in online shopping and essential goods helped partly offset the decline. The U.S. government provided relief (e.g., airline payroll support) to help transport industries through the crisis. By 2022, virtually all pandemic-related mobility restrictions had been lifted in the U.S. In a **September 19, 2022** interview on CBS, President Joe Biden declared “the pandemic is over” in the U.S., reflecting confidence in a return to normalcy. With travel demand rebounding, the U.S. passenger index rose significantly in 2022. However, structural changes such as increased remote work and delayed business travel mean passenger volumes still lag 2019 levels. Looking ahead, according to the International Air Transport Association (IATA), **global air travel demand is expected to fully return to 2019 levels by 2024**. For the U.S., domestic travel volumes are projected to reach **pre-pandemic baselines by 2023–2024**, assuming current trends persist. Freight volumes, buoyed by long-term growth in e-commerce and logistics, have essentially recovered and should maintain stable growth. Overall, the U.S. transport sector is on track to **fully recover by around 2024**, regaining its pre-COVID vitality barring unforeseen setbacks.

**3. Canada**

**Data Overview:** Canada’s transport statistics come from Statistics Canada’s “Transportation Activity Indicators” dataset. Key metrics analyzed include **international passenger counts** (split into travel between Canada and the U.S. vs. travel between Canada and other overseas destinations), **commercial vehicle cross-border freight volumes**, and **container throughput at major ports**, covering **January 2019 to March 2023** on a monthly basis. The following analysis uses trend charts to illustrate changes in Canada’s passenger and freight transport over this period.

**3.1 Passenger Transport Trends**

Canada’s passenger transport data encompass both international and domestic travel. Focusing first on **international passenger flows**: in 2019, the monthly number of travelers between Canada and the United States averaged around **4–5 million**, while those between Canada and non-U.S. overseas destinations were about **1–1.5 million** per month. With the pandemic’s onset in March 2020, these figures fell precipitously. In **April 2020**, for example, monthly Canada-U.S. travelers plunged to roughly **200,000**, a tiny fraction of the millions pre-pandemic; travelers to other overseas countries virtually dropped to zero. As shown in Figure 2, starting from mid-2021, when international travel restrictions gradually eased, cross-border passenger numbers have been **steadily recovering**. By March 2023, monthly Canada-U.S. passenger volumes had rebounded to about **4.39 million**, roughly **over 80%** of 2019 levels for that month, and passengers flying to overseas destinations reached around **1.2 million** per month, approximately **70–80%** of pre-pandemic levels.

*Figure 2: Canada’s international passenger numbers (monthly, in thousands). The blue line represents travelers between Canada and the U.S., and the orange line represents travelers between Canada and non-U.S. overseas destinations. Both indicators hit bottom in April 2020 and have since gradually climbed as vaccination and border reopening progressed.*

In addition to international travel, Canada’s **domestic passenger traffic** saw similar swings. For example, **air travel** (domestic plus international enplanements at Canadian airports) plummeted during the pandemic. Total air passengers in Canada fell by nearly 70% in 2020 compared to 2019; 2021 saw a rebound of roughly 20%, but absolute passenger numbers remained far below pre-pandemic levels. **Rail passenger** volumes (e.g., VIA Rail intercity services) also dropped by over 30% in 2020 and then grew modestly in subsequent years. In aggregate, Canada’s **total passenger volumes** (including road travel) hit bottom in 2020 and rose through 2021–2022 as health restrictions loosened, but **full recovery was still pending** by the end of 2022.

**3.2 Freight Transport Trends**

Two representative indicators for Canada’s freight movement are **cross-border commercial truck traffic** and **port container throughput**. The former reflects trucking freight flows between Canada and the U.S., while the latter indicates international maritime trade through Canadian ports. In 2019, roughly **400,000 commercial vehicles** crossed the Canada-U.S. border each month carrying goods, and the four major Canadian container ports handled around **500–600 thousand TEUs** (twenty-foot equivalent units) of containers per month. After the pandemic hit in early 2020, freight was deemed essential and not completely halted, but significant declines were observed. **Commercial truck traffic** dipped somewhat in spring 2020 — at one point falling to around **300,000 trucks/month** — although the Canada-U.S. land freight corridor remained largely operational, so the drop was smaller relative to passenger flows. **Port throughput**, being more exposed to global supply chain shocks, saw a sharper impact: in Q2 2020, Canadian ports’ container volumes were about 20% lower year-on-year, with monthly throughput sliding from over 500k TEU to around **400k TEU**.

*Figure 3: Canada’s freight transport indicators (monthly). The green line is the number of commercial trucks crossing between Canada and the U.S. (in thousands), and the purple line is total container volume at four major ports (in thousand TEUs). Both metrics dipped in spring 2020 and began recovering in mid-2021, stabilizing by 2022.*

From mid-2021 onward, as North American economic activity picked up, **cross-border trucking** quickly **returned to pre-pandemic levels**. By 2021, Canada-U.S. truck traffic was back to around 400k per month and remained stable through 2022. **Port container throughput** experienced a **strong rebound in 2021**, even approaching 2019 peaks at times. However, as the global shipping boom cooled in 2022, port volumes eased slightly. On an annual basis, 2022’s port throughput was still a few percentage points shy of 2019. In sum, Canada’s freight volumes are now **close to pre-pandemic levels**, with cross-border land freight notably steady, and port volumes showing some volatility but overall trending back towards normal.

**3.3 Pandemic Impact and Recovery Outlook**

Canada closed its borders and restricted non-essential travel in March 2020, a move that devastated passenger travel—international volumes nearly fell to zero. Only in 2021, as key destinations like the U.S. reopened, did Canadians begin traveling abroad again in any significant numbers. In May 2022, the Canadian government announced a **full relaxation of COVID-19 controls**, essentially ending domestic restrictions, and by then over 95% of eligible Canadians were vaccinated. This led to a surge in travel demand, with aviation picking up rapidly, though the sudden rebound caused challenges such as airport congestion and delays in summer 2022, indicating strains in ramping the transport system back up from a standstill. Starting in **2023**, Canada’s transport sector appears to be entering a phase of steadier recovery. Current projections suggest that international passenger flows might reach or near 2019 levels by the summer of 2024, and domestic air and rail travel should also gradually normalize. On the freight side, given the stable demand and tight integration of North American supply chains, Canadian freight volumes are expected to remain **on a modest growth trajectory**, with port throughput influenced by global trade dynamics but generally improving. Overall, the outlook for Canada’s transport sector is **optimistic**, though contingent on the global pandemic situation and economic environment.

**4. Japan**

**Data Overview:** Japan’s transport data are derived from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) statistics. We focus on key passenger metrics for **air and rail** and freight metrics including **domestic cargo volume** and **port throughput**. Passenger volumes are measured in number of passengers (in thousands), and freight in tonnage (in thousands of tons). Since Japan provides detailed monthly data, we primarily examine year-on-year total changes, supplementing with early 2023 trends. The analysis covers **2019–2022** full-year data, with brief notes on the situation in early 2023.

**4.1 Passenger Transport Trends**

Japan’s passenger volumes were hit extremely hard by the pandemic. Figure 4 compares the annual passenger volumes for Japan’s **domestic air travel**, **international air travel**, and **domestic rail travel** from 2019 to 2022. In 2019, Japan’s domestic air passengers numbered about **101,873 thousand** (i.e., ~101.9 million), international air passengers were **21,434 thousand** (~21.4 million), and domestic rail passengers (JR and major private railways) were approximately **25,190 thousand** (25.19 billion, if interpreted as passenger-kilometers) – though the last figure appears to be the number of rail passengers in thousands, roughly 25.19 million trips. **2020** saw these figures collapse due to Japan’s state of emergency declarations and reduced mobility: **domestic air** passengers fell to **33,768 thousand** (33% of prior year), **international air** to just **798 thousand** (under 4% of 2019), and **rail passengers** to **17,670 thousand** (~70% of 2019). In **2021**, as the pandemic situation somewhat stabilized, domestic travel began to recover – domestic air passengers rose to **49,695 thousand** (+47% year-on-year), and rail to **18,805 thousand** – while international air remained depressed at **1,761 thousand** due to continued border restrictions. By **2022**, there was a marked improvement: domestic air carried **90,662 thousand** passengers (89% of 2019 levels), international air increased to **9,514 thousand** (~44% of 2019), and rail passengers reached **21,053 thousand** (84% of 2019). Clearly, **domestic travel** in Japan rebounded much faster, whereas **international travel** remained far below pre-pandemic scale.

*Figure 4: Japan’s passenger volumes by mode (annual totals). Orange = domestic air, red = international air, pink = domestic rail. All categories saw steep declines in 2020; domestic air and rail have since risen year by year, reaching between half to three-quarters of pre-pandemic levels by 2022; international air is recovering most slowly, at roughly 40% of 2019 in 2022.*

In the first months of 2023, Japan’s passenger transport continued to improve. According to MLIT, **Jan–May 2023** domestic air travel already exceeded **37 million** passengers, about 90% of the same period in 2019; international air passenger numbers climbed month by month, with monthly international travelers surpassing **1 million** by May 2023, indicating strong momentum. Domestic rail travel also maintained growth in early 2023. Nevertheless, as of mid-2023, **domestic passenger volumes** in Japan are close to pre-pandemic levels, whereas **international passenger volumes** still have a significant gap to close, possibly requiring another 1–2 years to fully recover.

**4.2 Freight Transport Trends**

The changes in Japan’s freight volumes during the pandemic were relatively moderate overall, but there were differences by mode. **Domestic freight transport** (mainly road and rail freight total tonnage) reached **781,345 thousand tons** in 2019 (~781 million tons). In 2020, amid economic contraction, it dropped to **428,032 thousand tons**, though this figure seems too low (it might not represent a direct comparison due to data units; in index terms, domestic freight volume in 2020 was ~**-12.9%** vs 2019). **International freight** for Japan is largely via maritime trade. Japan’s port cargo throughput totalled about **339,876 thousand tons** in 2019 (~339.9 million tons). In 2020, it declined to **304,338 thousand tons** (a ~10.5% drop year-on-year), rebounded to **323,758 thousand tons** in 2021 (+6.4%), and edged down to **319,944 thousand tons** in 2022 (-1.2%). Thus, Japan’s port throughput fell in 2020 and then roughly stabilized in 2021–2022 at slightly below pre-pandemic volume. **Air freight**, by contrast, saw growth during the pandemic: with much passenger bellyhold capacity lost, demand for dedicated freighters soared. Japan’s international air cargo volume increased in 2020–2021 and remained high in 2022 (around **957,990 tons** in 2022, vs 1,083,740 tons in 2019, so slightly below 2019).

In summary, **domestic freight** in Japan declined in 2020 and has not fully returned to 2019 levels yet; **seaborne trade** dipped and then held steady through 2021–22; and **air freight** actually benefited from pandemic-driven logistics demand. Data from early 2023 continues this pattern: Japanese ports saw slightly higher throughput in the first two months of 2023 compared to the previous year, though global demand softness limited growth; domestic freight volumes have been gradually rising in line with industrial output.

**4.3 Pandemic Impact and Recovery Outlook**

Japan implemented some of the world’s strictest border controls in the pandemic’s initial stage, virtually halting international tourist and business arrivals; as a result, international flights operated with extremely low loads, severely impacting the aviation sector. Domestically, the government’s “Go To Travel” subsidy campaign briefly boosted local tourism in late 2020, but repeated infection waves limited its overall effect. From late 2022, Japan began easing entry restrictions, and by **October 2022** the country largely restored visa-free entry for foreign visitors. Since then, international flight demand has rapidly rebounded. As of now, domestic travel in Japan is essentially back to normal, and even mask-wearing mandates in public have been lifted. It is expected that in **2023**, Japan’s domestic passenger volumes will reach or even slightly exceed 2019 levels, while international passenger volumes may not fully recover until **2024–2025**. On the freight side, Japan’s economic recovery has been relatively modest, so domestic freight volume growth will likely mirror GDP growth (slow and steady). Port throughput will depend on global trade; if external demand improves, volumes could re-attain the highs seen in 2018–2019 in the coming years. In conclusion, Japan’s transport sector is on a path to recovery, with **domestic transport rebounding strongly** and **international transport** gradually catching up, though the latter will require time and supportive external conditions.

**5. United Kingdom**

**Data Overview:** The United Kingdom’s transport statistics are taken from the UK Government’s “Transport Statistics Great Britain” annual reports. Given that the UK faced multiple pandemic waves in 2020–2021 with significant shifts in travel patterns, we examine broad indicators such as **total passenger journeys** and **total freight volume**, along with domestic travel distances. Because UK data are reported in varied units, we use **annual totals** (passengers in million journeys, freight in million tonnes) to compare 2019 (pre-pandemic), 2020 (pandemic shock), and 2021 (initial recovery).

**5.1 Passenger Transport Trends**

Passenger transport in the UK went through a **rollercoaster** during the pandemic. In 2019, total passenger journeys in the UK were around **93.1 billion** (including all modes). In 2020, one would expect a sharp drop due to lockdowns; however, the reported total was **109.5 billion** journeys, which is actually **higher than 2019**. This counterintuitive result likely reflects differences in statistical definitions: the annual figures include private car usage. In 2020, while public transport ridership plummeted, private vehicle use did not fall as steeply (and car trip distances even rose for some periods), partially offsetting declines in public transit journeys. In 2021, as restrictions eased, public transport ridership started to return, and private driving growth moderated, resulting in a slight decrease to **105.4 billion** passenger journeys (down from 2020 but still above 2019). Breaking it down: **UK air travel** saw **73.7 million** passengers in 2020, down from about 85 million in 2019 (assuming the “0.85” in the data is 85.0) and then further down to **64.3 million** in 2021, indicating that international travel recovery was lagging. Rail and bus use in 2020 dropped by over 60%, and while they improved in 2021, they remained far below pre-pandemic levels. On the other hand, **domestic road traffic (private vehicle kilometers)** in the UK fell in 2020 (around 580 billion km, vs 645 billion km in 2019) but then surged to **873 billion km** in 2021, significantly above 2019. This suggests that during the pandemic, people opted to drive when possible rather than use public transit, leading to an increase in private car mileage even as total travel patterns shifted.

**5.2 Freight Transport Trends**

Total freight volume in the UK also declined under the pandemic. In 2019, UK domestic freight volume was about **408.2 million tonnes**; this fell to **373.2 million tonnes** in 2020 and further to an estimated **~360 million tonnes** in 2021. For international trade, combined with Brexit effects and pandemic disruptions, UK import volumes dropped to **240.9 million tonnes** in 2020 (about 10% down from 2019’s 268.7) and export volumes to **132.3 million tonnes** (down ~5% from 139.5 in 2019). In 2021, external trade freight remained subdued: imports stayed around 240.9 million tonnes and exports around 132.3 million tonnes, slightly lower. Consequently, **UK port throughput** fell from **503.99 million tonnes** in 2019 to **465.30 million tonnes** in 2020, and an incomplete figure of around **360 million tonnes** is shown for 2021 (this number seems low, possibly incomplete data; but qualitatively, there was a further reduction). The sharp drop by 2021 may be partially attributable to new post-Brexit trading arrangements kicking in after the transition period. Notably, about **95%** of the UK’s freight (by volume) is carried by sea. Overall, both UK domestic freight and port trade volumes in 2020–2021 remained below pre-pandemic levels.

**5.3 Pandemic Impact and Recovery Outlook**

The UK was among the worst-hit countries in Europe during the initial phase of the pandemic in 2020. National lockdowns from March 2020 caused passenger travel to plunge—public transport use in April 2020 was under 10% of normal (for Tube and buses in London), and road traffic was down by roughly two-thirds. Multiple lockdowns in 2021 (particularly early in the year) meant that, despite vaccine rollout, travel demand stayed suppressed until mid-year. On **July 19, 2021 (“Freedom Day”)**, most domestic restrictions were lifted in England, after which public transport usage began a more noticeable rebound. By 2022, domestic travel within the UK was largely restriction-free, though international travel rules (testing/quarantine) remained until March 2022. Once those were lifted, aviation and cross-border travel saw a strong resurgence: UK Civil Aviation Authority data show **218 million** airport passengers in 2022, nearly triple 2021’s volume, though still only about 75% of 2019’s level, underscoring that the international air market is still in recovery. For 2023, we expect UK total passenger journeys to further approach pre-pandemic numbers. Notably, **domestic road traffic has fully recovered** and even exceeded 2019, whereas **public transport** (rail, urban transit) may take longer to win back riders. In freight, Brexit and global supply issues moderated the recovery of trade volumes, so near-term growth in import/export tonnage may be limited. However, as global shipping picks up and UK-EU trade procedures settle, UK ports’ throughput could gradually rise in coming years. In summary, the recovery of the UK’s transport sector can be characterized as **gradual to moderate** compared to some peers; a complete return to 2019 levels may not materialize until around 2024.

**6. Singapore**

**Data Overview:** Singapore’s transport data are drawn from the Singapore Department of Statistics releases. As a major aviation hub and seaport in Southeast Asia, Singapore’s transport trends are indicative of broader regional impacts. We focus on **urban public transport usage** (Mass Rapid Transit [MRT], Light Rail Transit [LRT], public buses, and point-to-point taxis/private hire cars) measured by average daily ridership, as well as **air and sea freight throughput**, comparing 2019–2022 annual averages to assess the pandemic’s impact and recovery.

**6.1 Passenger Transport Trends**

Public transport in Singapore exhibited steady growth pre-pandemic. In 2019, the combined average daily ridership of the MRT and LRT was about **3,384,000**, public buses carried **4,099,000** daily riders, and point-to-point transport (taxis and private hire cars) made **772,000** trips per day. In 2020, the “Circuit Breaker” lockdown and subsequent restrictions caused ridership to plunge: MRT+LRT daily ridership fell to **2,023,000** (-40% year-on-year), bus ridership to **2,878,000** (-30%), and taxi/PHC trips to **516,000** (-33%). In 2021, as the local pandemic situation stabilized, these indicators stopped declining and began to recover: MRT+LRT averaged **2,100,000** daily (up from 2020 but still below 2019), buses **3,008,000**, and point-to-point **554,000**. **2022** saw a marked rebound after Singapore fully resumed normal activities and reopened its borders; MRT and LRT daily ridership jumped to **2,745,000**, surpassing 2019’s level, bus ridership rose to **3,461,000** (close to pre-pandemic volume), and taxis/PHCs were at **582,000** daily (an improvement, though not yet back to 2019’s peak).

*Figure 5: Singapore’s average daily ridership for land transport (in thousands). The bar clusters compare MRT (orange), LRT (orange, minor), Bus (red), and P2P Taxi+PHC (pink) in years 2019–2022. It shows the sharp drop across all modes in 2020, followed by yearly increases; by 2022, MRT and bus usage have exceeded pre-pandemic levels, while taxi/PHC is still somewhat below.*

In addition to domestic transport, as an international aviation hub, Singapore’s cross-border passenger flows saw dramatic swings. Changi Airport handled over **68.3 million** passengers in 2019. In 2020, that collapsed to **11.2 million** (16% of 2019), and in 2021 it fell further to **3.94 million**. Only in **2022**, with borders reopening, did Changi’s passenger volume rebound to **21.93 million**, about 32% of 2019. This illustrates that while Singapore’s local public transit largely recovered by 2022, its international air travel segment was still in the early stages of revival.

**6.2 Freight Transport Trends**

As a trade-dependent economy, Singapore’s freight throughput experienced a downturn and then an upswing. In **seaborne freight**, Singapore’s port handled about **626.5 million** tonnes of cargo in 2019 (including 37.2 million TEUs of containers). In **2020**, global trade slowdown led to a volume drop to **590.7 million** tonnes (-5.7%). In **2021**, international trade roared back, and Singapore’s port volume rose to **599.6 million** tonnes (+1.5%), with container throughput hitting a record 37.4 million TEUs. In **2022**, due to a cooling global economy, port throughput dipped to **578.2 million** tonnes (-3.6%), slightly below 2020 levels. **Air freight**, on the other hand, performed strongly during the pandemic: Singapore’s air cargo throughput was around **1,083,740 tonnes** in 2019. It decreased to **824,579 tonnes** in 2020 (-23.9%), but then surged to **1,011,806 tonnes** in 2021 (+22.5%), surpassing 2019. In 2022 it eased to **957,990 tonnes**, still higher than the 2019 figure by a small margin. The chart below shows the trajectories of Singapore’s sea and air freight volumes for 2019–2022.

*Figure 6: Singapore’s seaborne vs. airborne freight throughput (annual). The yellow line represents port cargo throughput (million tonnes), and the orange line represents air freight volume (million tonnes). Both indicators fell in 2020 and rebounded in 2021; the port saw a slight pullback in 2022, while air freight was just below 2021 but above 2019.*

**6.3 Pandemic Impact and Recovery Outlook**

The pandemic’s impact on Singapore, an open economy, was comprehensive and immediate. During the 2020 Circuit Breaker, MRT daily ridership plunged to under 300,000 (less than one-tenth of normal), and Changi Airport’s traffic hit record lows. However, thanks to effective pandemic control and strong fiscal support, Singapore gradually restored domestic normalcy in 2021 and fully **reopened its borders in April 2022**, allowing the return of international travelers. Consequently, 2022 saw a clear revival of Singapore’s public transport and economic activity. Entering 2023, MRT and bus ridership in Singapore have continued to grow, even surpassing pre-pandemic peaks, demonstrating a robust recovery in urban mobility. On the aviation front, according to ICAO projections, Asia-Pacific international flights will surge in 2023–2024, and Singapore’s Changi Airport is expected to reach **pre-pandemic levels by 2024**. In maritime freight, Singapore’s port, as a regional hub, stands to benefit quickly from any upswing in global trade. With major Asian economies (like China) reopening, **2023** should see Singapore’s port volumes growing again, potentially approaching the record levels of 2019. In summary, Singapore’s transport sector has moved beyond the worst of the pandemic: **local passenger transport is fully recovered and even hitting new highs**, and international passenger and freight segments are steadily on the mend, likely to regain their pre-COVID track within the next 1–2 years.

**7. Germany**

**Data Overview:** Germany’s transport data come from the Federal Statistical Office (Destatis). We consider high-level indicators that reflect overall activity: the **passenger transport index** and **freight transport index** (both using 2000 as the base year = 100), as well as changes in **seaport throughput**. The indices can be viewed relative to 2019 as a benchmark, and seaport figures are given as percentage changes by year (2019–2022 vs previous year). German data are primarily annual; here we emphasize year-on-year changes around the pandemic period.

**7.1 Passenger Transport Trends**

Germany’s passenger transport index (2000=100) stood at **112** in 2019, indicating the passenger transport volume was 12% above the year 2000 baseline. In 2020, with the pandemic’s impact, the passenger index fell to **88.2** (a drop of about 21% from 2019), and in 2021 it edged up to **88.6**, only slightly above 2020. This shows that as of 2021, Germany’s overall passenger transport volume was still depressed. The reason lies in the prolonged lockdowns and travel restrictions in 2020, which sharply curtailed mobility, and though 2021 saw vaccine rollouts, a renewed winter wave and cautious consumer behavior kept travel demand low. By mode, in 2020 German public road transport (buses, trams) passenger counts fell around 30%, rail passenger-kilometers fell nearly 50%, and air travel dropped over 75%. 2021 brought some improvement but remained far below 2019 levels. Thus, as of the end of 2021, **Germany’s passenger transport sector had not yet shaken off the pandemic-induced slump**.

**7.2 Freight Transport Trends**

Germany’s freight transport index (2000=100) was **136.5** in 2019, dipped to **131.1** in 2020 (-4.0%), then rose to **137.4** in 2021, slightly exceeding the 2019 value. So Germany’s overall freight volume was less affected than passenger transport and had fully recovered (and even surpassed pre-pandemic output) by 2021. This resilience reflects Germany’s industrial base and the strong rebound in global goods trade in 2021. By mode, in 2020 German road freight ton-kilometers fell about 3%, rail freight tonnage about 4%, but **waterway freight** (inland shipping) actually increased by 1% (helped by favorable river conditions). In 2021, freight demand surged, especially in the latter half, driven by export orders and inventory restocking. The freight index hit a new high in 2021, indicating that despite some supply chain bottlenecks, Germany’s logistics sector performed robustly. Regarding **seaport throughput**, taking 2018 as a baseline: 2019 saw a -0.8% change, 2020 -1.4%, 2021 +3.2%, and 2022 -7% (all relative to the prior year). This implies German seaports had a small decline in 2019, another dip in 2020, growth in 2021, then a drop in 2022, likely due to the war in Ukraine and other factors. Overall, **Germany’s freight volumes have essentially recovered and even slightly exceeded pre-pandemic levels**, though new challenges emerged in 2022.

*Figure 7: Germany’s passenger vs. freight transport indices (using 2019 as reference = 100 for illustration). The yellow bars (Passenger Index) drop from 100 to ~79 then inch up to ~79.1 for 2019, 2020, 2021; in contrast, the orange bars (Freight Index) go from 100 to ~96 to ~100.7, showing freight rebounded above 2019 while passenger transport remained well below.*

**7.3 Pandemic Impact and Recovery Outlook**

Germany implemented strict lockdowns from March to April 2020. “Stay-at-home” orders led to a collapse in commuting and travel, with passenger transport plunging. After a brief respite in summer 2020, another wave hit in late 2020, and restrictions persisted into early 2021, keeping passenger mobility low. It wasn’t until 2022 that Germany lifted most COVID measures, allowing urban transit and long-distance travel to noticeably pick up. We expect that in **2022–2023**, domestic passenger travel in Germany has continued to increase steadily, but given headwinds like high energy prices and capacity constraints in rail, **a full return to 2019 passenger levels may not occur until 2024**. On the freight side, German manufacturing orders cooled in late 2022, but with supply chain snarls easing and a recovery in China, German exports in 2023 could improve, sustaining freight transport demand. Therefore, German freight volumes are likely to remain at or slightly above pre-pandemic levels in coming years, whereas passenger volumes will lag slightly. All in all, Germany’s transport sector has passed the worst of the pandemic: freight has led the recovery, and passenger transport is gradually following, with an anticipated full recovery by the mid-2020s.

**8. Conclusion**

In summary, the **COVID-19 pandemic dealt an unprecedented blow to the transport industries of major countries**, but the extent of impact and the pace of recovery have varied. In 2020, passenger transport volumes globally were halved or worse: the U.S., Canada, Japan, the UK, etc., all saw air and public transport use nosedive by over 50%, and Singapore’s international passenger traffic virtually disappeared. Freight transport fared better than passenger overall; in some countries like Germany, freight volumes only dipped slightly and rebounded quickly. Through 2021–2022, as mass vaccination campaigns rolled out and “living with the virus” strategies took shape, transport indicators in all countries showed significant rebounds. **North America** (U.S., Canada) saw steady recoveries in both passenger and freight, with freight indices in particular approaching or exceeding pre-pandemic levels. **East Asia** (Japan, Singapore) achieved rapid recoveries in domestic transport, though international passenger volumes remain substantially below 2019. **Europe** (UK, Germany) presented a mixed picture: Germany’s freight surged back, but its passenger transport lagged; the UK’s recovery was somewhat slower, influenced also by Brexit-related factors.

Although the second half of 2022 brought new challenges (Omicron waves, economic uncertainties) that momentarily tempered the transport recovery, by 2023 the transport sector in each of these countries has generally **regained positive momentum**. Based on current trends, we anticipate that **the U.S. and Germany** may be among the first to basically return to 2019 transport levels around 2023–2024, followed closely by **Canada and Singapore**, while **Japan and the UK** might complete their recovery slightly later, by about 2024. It’s important to note that different transport modes will continue to recover at different speeds – **international air travel** is likely to be the last segment to fully rebound, whereas **trucking and container shipping** are already near normal levels. In the post-pandemic era, governments should pay attention to new patterns in transport demand, such as the lasting effect of remote work on public transit and shifts in freight flows due to supply chain reconfiguration.

Overall, the global transport sector is emerging from its deepest trough and is on a path toward **gradual recovery and normalization**. By comparing the data and policy responses of major countries, we gain a clearer understanding of the breadth of the pandemic’s impact and the resilience of transport systems, which provides valuable lessons for handling similar crises in the future. With continued international cooperation and sharing of best practices, the world’s transportation networks are expected to fully regain their pre-pandemic vibrancy in the near future.

**世界主要国家客运货运量分析报告**

**摘要**

本报告对美国、加拿大、日本、英国、新加坡和德国等世界主要经济体的客运和货运量进行了综合分析，重点关注2019年至2023年初期间的数据趋势。通过绘制客运量、货运量以及港口吞吐量等指标的图表，对各国在新冠肺炎（COVID-19）疫情冲击下的交通运输业变化进行了对比研究。分析结果表明，疫情在2020年初对全球交通运输造成了严重冲击，各国客运量均大幅下滑，货运量也受到影响。但随着2021年至2022年各国疫情防控措施逐步放宽，运输指标出现明显反弹。然而，大部分国家的客运和货运指标在2022年底仍未完全恢复至2019年疫情前的水平。根据当前趋势，我们预测多数国家将在2023年至2024年期间逐步接近并恢复至疫情前的交通运输水平，但不同国家的恢复速度存在差异。报告最后就各国交通运输业的复苏前景进行了展望，并给出了数据来源索引。

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**1 引言**

2019年底暴发的新冠肺炎疫情在2020年初迅速席卷全球，对各国经济和社会造成巨大影响，交通运输行业首当其冲。各国为遏制病毒传播采取了旅行限制、边境管控等措施，导致客运量断崖式下降，货物流通也受到不同程度冲击。在此背景下，分析主要国家的客运和货运量变化对于评估疫情影响和复苏进程具有重要意义。

本报告基于**2019年至2023年**各国官方交通运输统计数据，对**美国、加拿大、日本、英国、新加坡和德国**六个主要国家（或经济体）的客运指数、货运指数以及港口吞吐量等关键指标进行了整理和分析。通过图表展示各国在疫情前后的运输量变化趋势，并深入讨论疫情对客货运的冲击以及各国恢复进度的比较。此外，报告结合最新数据对各国客运和货运的**恢复趋势进行了预测**，讨论未来可能的恢复时间节点。需要说明的是，由于数据获取限制，**法国**仅有截至2020年8月的部分数据，**巴西和印度**缺乏公开的客货运量数据，因此未纳入本次详尽分析。

**2 美国**

**数据概览：美国交通运输数据采用运输服务指数（Transportation Services Index, TSI）进行衡量，包括客运指数**（TSI Passenger）和**货运指数**（TSI Freight）两部分，由美国交通统计局提供。TSI以2018年平均水平为基准（100），月度指数反映运输活动的相对变化。分析区间为**2019年1月～2023年3月**的月度指数值，如图所示。

*图1：2019年至2023年美国运输服务指数（TSI）月度变化趋势图。客运指数和货运指数均在2020年初因COVID-19疫情出现断崖式下跌，随后逐步回升但波动明显。*

**2.1 客运量趋势**

美国TSI客运指数在疫情前（2019年）保持在**130-135**左右的水平，并呈现平稳小幅波动。2020年初，受疫情蔓延及严格防疫措施影响，**客运指数急剧下滑**：从2020年1月的约130骤降至2020年4月的历史低点（接近**60**的水平），降幅超过50%。这反映出美国国内航空旅客、公共交通出行等在疫情初期几乎陷于停滞。自2020年下半年开始，随着局部解封和经济活动缓慢重启，客运指数**止跌回升**。进入2021年，疫苗接种推广带来的出行信心提升进一步推动客运需求增长，指数在2021年初回升到**100以上**。2022年上半年，美国客运指数持续增长，一度接近**110-120**的水平。但到了2022年下半年，由于通胀压力以及病毒变种导致出行意愿反复，客运指数出现小幅下滑，在**2022年底保持在约95-105**之间的相对稳定水平。总体而言，截至2023年初，美国客运指数仍**未恢复到2019年疫情前的高点**（约135）。

**2.2 货运量趋势**

美国TSI货运指数包括公路、铁路、航空、管道和海运等货运活动。2019年美国货运指数基准在**135-140**附近波动。受疫情影响，**2020年春季货运指数大幅下挫**，2020年4月跌至接近**120**的水平。尽管货运需求下降幅度不及客运，但供应链中断和消费收缩仍使货运指数同比下降约15%。2020年底开始，随着线上消费和医疗物资需求增加，货运指数**率先反弹**。2021年美国货运指数稳步上升，并在2021年底超过**2019年水平**，达到约**135-140**。2022年上半年货运指数继续攀升，数值一度创下新高（超过2019年基准约5%）。这与经济重启后库存补货和消费反弹带来的物流需求旺盛有关。然而2022下半年受加息和需求放缓影响，货运指数有所回落，但仍维持在**高于疫情前的水平**（约130-135）。总体看，美国货运指数的恢复速度**快于客运**，在疫情后的供应链重组中展现出较强韧性。

**2.3 疫情影响与恢复展望**

新冠疫情对美国交通运输业的冲击集中在2020年。2020年3月至5月，美国大量航班停飞、城市公共交通乘客锐减，客运指数在此期间降至历史谷底。货运方面，初期工业产出下降令物流需求萎缩，但随后电商和家庭消费模式的改变部分抵消了冲击。美国政府在2020-2021年推出多轮纾困法案，支持航空业等交通企业渡过难关。进入2022年，美国各项防疫限制基本解除。美国总统拜登于**2022年9月19日**接受CBS采访时宣布“疫情在美国的大流行已经结束”。这一表态反映出官方对经济社会全面复常的信心。随着出行需求恢复，美国客运指数在2022年明显回升，但由于商业差旅恢复滞后以及远程办公普及等结构性变化，短期内客运量仍低于2019年水平。展望未来，根据国际航空运输协会（IATA）的预测，**全球航空客运需求有望在2024年恢复至疫前水平**。美国作为成熟市场，国内客运量预计在**2023-2024年**回到2019年的基准线。而货运量由于电商物流的长期增长动力，已基本恢复并可能在未来保持平稳增长。综合判断，美国交通运输业有望在2024年前后**全面恢复**至疫情前水平并继续增长。

**3 加拿大**

**数据概览：加拿大交通运输统计数据来源于加拿大统计局“交通运输活动指标”表格。本报告选取其中反映客运和货运的重要指标，包括国际旅客人数**（分为往来美国和其他国家）、**商用车辆货运量**以及**主要港口集装箱吞吐量**等，时间范围覆盖**2019年1月～2023年3月**的月度数据。下面通过趋势图对加拿大客运和货运的变化进行分析。

**3.1 客运量趋势**

加拿大的客运统计涵盖国际和国内出行多个方面。首先来看**国际旅客流动**：2019年，加拿大往返美国的月均旅客量在**400万～500万人次**水平，而前往除美国以外目的地的国际旅客约为**100万～150万人次**每月。受疫情影响，这两项指标在2020年3月以后急剧下降。尤其是**2020年4月**，加美之间月度旅客仅剩约**20万**人次，远低于2019年同期的数百万规模；赴其他海外目的地的旅客更是几乎清零。如图2所示，自2021年中期起，随着国际旅行限制逐步放松，跨境旅客数量呈现**持续恢复**趋势。截至2023年3月，加拿大往返美国的月旅客量已回升至约**440万人次**，达到2019年同期的**80%以上**；而赴海外其他国家的月旅客也恢复到约**120万人次**，大约为疫情前水平的**70-80%**。

*图2：加拿大国际旅客人数（月度，千人）。蓝线表示加拿大与美国之间旅客人数，橙线表示加拿大与除美国外其他国家之间旅客人数。2020年4月两项指标均跌至低谷，随后随疫苗推广和边境开放逐步回升。*

除国际旅客外，加拿大国内客运也经历了类似波动。以**航空客运**为例，疫情期间加拿大国内及国际航班乘客总数锐减。根据统计，2020年加拿大航空旅客总量比2019年下降了近70%；2021年有所反弹，增幅约为20%，但乘客量仍远低于疫前。铁路客运（主要指VIA Rail长途客运）在2020年也下滑超过30%，随后稳步回升。总体而言，加拿大**总客运量**（包括国内公路出行等）在2020年跌至谷底，2021-2022年随着防疫措施放宽而回升，但**全面恢复尚需时日**。

**3.2 货运量趋势**

加拿大货运统计的两个代表指标为**跨境商用车辆货运量**和**集装箱港口吞吐量**。前者主要反映加美两国间公路货物流通情况，后者则代表国际海运贸易。2019年，加拿大每月有约**40万车次**的商用车辆往来美国运送货物，而四大主要港口的集装箱吞吐量月均在**50万～60万标准箱（TEU）左右。2020年初疫情暴发后，尽管货运被列为必要活动未完全中断，但仍出现显著下降。商用车辆货运在2020年春季略有下滑，不过由于美加之间公路货运保持基本运转，降幅相对客运较小，月车次一度降至30万左右**。**港口吞吐量**受全球供应链冲击更为明显：2020年二季度加拿大港口集装箱量比2019年同期下降约20%，月度吞吐量从50多万TEU降至**40万TEU**出头。

*图3：加拿大货运量指标（月度）。绿色线为加美间商用车辆数（千辆），紫色线为四大港口集装箱吞吐量（千标准箱）。可以看出2020年春季两指标下降，2021年中开始回升，到2022年趋于稳定。*

进入2021年下半年后，随着北美经济复苏，**公路货运量恢复至疫情前水平**。加拿大-美国间商用货车通行量在2021年中即回升到月均40万车次左右，并在2022年基本保持稳定。港口集装箱吞吐量则在2021年出现**报复性增长**，一度接近2019年的峰值。但是2022年全球航运市场趋于降温，加拿大港口吞吐量略有回落。全年来看，2022年港口累计吞吐量仍比2019年略低几个百分点。总体来说，加拿大货运量已相对接近疫前水平，尤其跨境陆路货运相当稳定，而港口吞吐量受国际贸易形势影响波动稍大。

**3.3 疫情影响与恢复展望**

加拿大在2020年3月关闭边境、限制非必要旅行，对客运造成毁灭性打击，国际旅客量几乎降为零。2021年后随着美国等主要目的地逐步开放，加拿大旅客外出人数才缓慢增长。2022年5月，加拿大政府宣布**全面放宽疫情管控措施**，国内各项限制基本解除，疫苗接种率在成年人口中超过95%。这使得出入境旅行大幅回暖，航空市场开始重建信心。但由于航班运力恢复需要时间，加拿大机场在2022年夏季出现拥堵和延误的问题，显示出运输系统从停摆到重启的阵痛。**2023年起**，加拿大交通运输有望进入平稳恢复阶段。根据当前趋势预测，加拿大国际旅客流量可能在2024年夏季达到或接近2019年的水平，国内航空和铁路客运也将逐步恢复常态。货运方面，由于北美供应链联系紧密且需求稳定，预计加拿大货运量将在未来保持**小幅增长**，港口吞吐量受全球贸易波动但总体趋势向好。值得注意的是，加拿大交通业的恢复还取决于全球疫情演变和经济环境，但总体前景**乐观**。

**4 日本**

**数据概览：日本的交通运输数据来源于日本国土交通省（MLIT）官方统计。本报告选取了日本航空**和**铁路**的客运量，以及**国内货运**和**港口吞吐量**等指标。其中客运量以人次计（千人次），货运量以重量计（千吨）。由于日本公布的月度数据较详细，本文主要关注年度总量变化，并补充2023年前几个月的趋势。分析涵盖**2019年至2022年**完整年度数据，并简述2023年初的恢复情况。

**4.1 客运量趋势**

日本客运量受疫情冲击极为明显。图4比较了日本国内航空、国际航空和国内铁路在2019-2022年的旅客发送量。2019年，日本国内航空客运量约为**1.018亿人次**，国际航空为**2143万**人次，国内铁路（JR和私铁的长途客运）约为**2.519亿**人次。**2020年**，由于日本从4月开始多次发布紧急事态宣言，居民出行大幅减少，**国内航空**旅客锐减至**3377万**人次，仅为上年的33%；**国际航空**更是跌至**不到800万**人次，不及上年的4%；**铁路客运**也降至**1.767亿**人次，约为2019年的70%。**2021年**，随着疫情有所缓和，日本国内出行开始恢复，国内航空客运增加至**4969万**人次（同比+47%），铁路客运也略有增长；国际航空受制于边境管制仍低迷，仅有**176万**人次。但**2022年**形势明显好转：国内航班运输旅客达**9066万**人次，已恢复到疫情前的89%；国际航线旅客增至**951万**人次，约为2019年的44%；铁路客运量回升至**2.105亿**人次，达到疫前的84%。可见，日本国内交通市场复苏较快，而出入境国际客运恢复相对缓慢。

*图4：日本客运量按运输方式（年度）。橙色=国内航空，红色=国际航空，粉色=国内铁路。2020年各项客运量大幅下滑；此后国内航空和铁路逐年回升，到2022年接近疫前水平的一半至四分之三；国际航空恢复最慢，2022年仅为2019年的约四成。*

2023年前几个月，日本客运继续改善。据日本国土交通省统计，**2023年1-5月**国内航空客运量已超过**3700万人次**，相当于2019年同期的约90%；国际航空客运量则逐月攀升，到2023年5月月度国际旅客已突破**100万人次**，显示出强劲的反弹势头。国内铁路客运在2023年初也保持增长。但总体而言，截至2023年中，日本的**国内客运量**正在逼近2019年水平，而**国际客运**仍有显著差距，完全恢复可能还需要1-2年时间。

**4.2 货运量趋势**

日本货运量的变化在疫情期间相对温和，但不同运输方式存在分化。**国内货物运输**（主要指公路和铁路货运总量）在2019年达到**78.13亿吨**（781,345千吨），2020年受经济收缩影响降至**42.80亿吨**（428,032千吨）。这里的巨大降幅可能包含统计口径变化或单位换算因素，需谨慎理解；若按指数看，2020年日本国内货运量指数以2019年=100计，下降了约**12.9%**。**国际货物运输**方面，日本主要通过海运进行进出口。以港口吞吐量衡量，2019年日本港口货物吞吐总量约为**33.99亿吨**，2020年降至**30.43亿吨**（同比-10.5%），2021年回升到**32.38亿吨**（+6.4%），2022年略降为**31.99亿吨**（-1.2%）。可见，日本港口货物吞吐量在2020年下降后，基本在2021-2022年维持在接近疫前略低的水平。**航空货运**在疫情期间反而出现增长：由于国际客机腹舱运力锐减，货机需求旺盛，2020-2021年日本航空货运量上升，2022年仍保持高位（约**96万**吨）。

总体来说，日本**国内货运**在2020年受到冲击，之后有所恢复但尚未回到2019年水平；**海运进出口**在疫情后期保持相对稳定；**航空货运**受电商和防疫物资运输带动实现增长。2023年初的数据延续了这一趋势：日本港口2023年前2个月吞吐量同比略有增加，但受全球需求走弱影响增速有限；国内货运量则随着工业生产恢复逐步提升。

**4.3 疫情影响与恢复展望**

日本在疫情暴发初期对国际旅客实施了世界上最严格的入境管制之一，这使得国际航班客座率长期处于低位，航空业损失惨重。为刺激经济，日本政府在国内推出了“Go To Travel”补贴计划，短暂带动了2020年下半年的国内旅游，但随后疫情反复使效果有限。2022年下半年开始，日本逐步放宽入境限制，到**2022年10月**基本恢复外国游客免签入境政策，国际航线客流随之快速反弹。目前，日本国内交通出行已基本恢复正常，公共场所也不再强制要求佩戴口罩。预计**2023年全年**日本国内客运量将接近甚至略超2019年水平，而国际旅客有望在**2024-2025年**恢复至疫前规模。货运方面，日本经济复苏相对温和，国内货运量预计将随GDP增长而小幅提升；港口吞吐量取决于全球贸易走势，若外需改善，未来几年有可能重新达到2018-2019年的峰值水平。综上，日本交通运输业已走上复苏正轨，但国际旅游和贸易的恢复仍需要时间和外部环境配合。

**5 英国**

**数据概览：英国的交通运输统计来自英国政府发布的《英国交通统计年报》（TSGB）。鉴于英国2020-2021年受到数轮疫情冲击，出行模式变化较大，我们选取客运人数**和**货运总量**作为宏观指标，并重点关注国内运输里程等细分数据。由于英国统计口径与他国有所不同，此处数据以**年度总量**（客运以人次、货运以万吨）表示，比较2019年（疫情前）、2020年（疫情冲击）和2021年（初步恢复）的情况。

**5.1 客运量趋势**

英国的客运量在2020年疫情暴发后经历了**过山车式**变化。2019年英国全年客运总量约为**93.1亿人次**（包括各种交通方式），2020年在疫情封锁的影响下大幅下降。然而统计数据显示2020年客运总量约**109.5亿人次**，较2019年**反而增加**。这一反常现象可能归因于统计口径差异：年报口径下包含了私家车出行，2020年公共交通乘客锐减但私人驾车出行的里程有所上升，使乘用车出行量部分抵消了公共交通的降幅。2021年，随着防疫措施逐渐放松，公共交通乘客开始回流，但私家车出行里程的增长放缓，客运总量微降至**105.4亿人次**。具体分方式看，**2020年英国航空旅客**仅为**7370万人次**，较2019年的约8500万人次有所减少；**2021年航空旅客**进一步降至**6430万人次**，表明国际旅行恢复滞后。铁路和公交在2020年均下降超过六成，2021年有所回升但远未达到疫前水平。另一方面，**英国国内公路出行里程**在2020年受到封锁影响下降（全年约5800亿公里，低于2019年的6450亿公里），但到了2021年显著反弹至**8730亿**公里，超过疫前水平。这反映出疫情期间民众倾向于自驾出行，从而推高了私家车的使用量。

**5.2 货运量趋势**

英国货运总量在疫情期间也有所下降。2019年英国国内货运总量约为**19.6亿吨**（196百万吨），2020年降至**17.6亿吨**，2021年进一步降至约**16.0亿吨**。进出口方面，受英国“脱欧”和疫情双重影响，2020年英国进口货物量为**2.409亿吨**（较2019年减少约10%），出口货物量为**1.323亿吨**（减少约5%）。2021年英国对外贸易货运继续低迷，进口2.409亿吨基本与上年持平，出口约1.323亿吨略有下降。这使得**英国港口吞吐量**从2019年的**5.04亿吨**大幅降至2020年的**4.65亿吨**，2021年进一步降至估计**3.73亿吨**左右。其中2021年数字偏低可能是由于英欧贸易在脱欧过渡期结束后的适应性波动。当年英国港口货物吞吐的\*\*95%\*\*以上仍由海运承担。整体来看，英国国内货运和港口贸易在2020-2021年均未恢复到疫前水平。

**5.3 疫情影响与恢复展望**

英国是2020年疫情初期欧洲受创最严重的国家之一，从2020年3月起实行全国封锁，客运出行骤降。当年4月英国地铁、公交使用率跌至不到正常水平的10%，公路交通流量也降低约三分之二。2021年英国多次封城，直到当年7月才宣布“自由日”解除大部分限制。这期间公共交通一直低迷，而私家车出行相对恢复较快。2022年英国国内出行基本解禁，但国际旅行直到3月才取消所有检测和隔离要求，因此2022年航空和国际客运迎来大幅反弹。据英国民航局统计，2022年英国机场客流量达2.18亿人次，是2021年的近3倍。不过这仍只相当于2019年的75%，显示国际航空市场尚在爬坡。预计2023年英国总客运量将进一步接近疫前水平，其中**国内公路交通已完全恢复**甚至略有增长，而**公共交通**（铁路、地铁等）可能需要更长时间吸引乘客回归。货运方面，由于英国在脱欧后贸易格局调整，短期内进出口货运量增长有限。但随着全球航运回暖和英国与欧盟贸易程序理顺，英国港口吞吐量有望在未来几年缓慢增长。总体而言，英国交通运输业的复苏在欧洲主要国家中属于**中等偏缓**，完全恢复到2019年水平可能要到2024年左右。

**6 新加坡**

**数据概览：新加坡交通运输数据来自新加坡统计局的官方发布。新加坡作为东南亚的航空枢纽和海运中心，其客运和货运数据具有代表性。本报告关注陆上公共交通客运**（地铁、轻轨、公车和点对点出租车等）的日均乘客量，以及**航空和海运货运吞吐量**等指标，比较2019-2022年的年均水平，评估疫情冲击和恢复情况。

**6.1 客运量趋势**

新加坡的公共交通在疫情前一直呈增长态势。2019年，新加坡地铁和轻轨系统日均乘客量合计约**338.4万**人次，公共巴士日均乘客量约**409.9万**，点对点交通（包括出租车和私召车）日均完成**77.2万**次载客。2020年受到疫情“断路器”封锁影响，客运量大幅下滑：当年地铁+轻轨日均客流降至**202.3万**（同比-40%），巴士降至**287.8万**（-30%），出租车/私召车降至**51.6万**（-33%）。2021年，随着本地疫情趋稳，这些指标止跌回升：地铁+轻轨日均**210.0万**，巴士**300.8万**，点对点**55.4万**，较2020年均有增长但仍低于疫前。**2022年**新加坡全面恢复正常生活后，公共交通客流出现显著反弹。地铁和轻轨日均乘客达到**274.5万**，已超过2019年水平；公共巴士日均**346.1万**，也逼近疫前规模；出租车和私召车合计日均**58.2万**，较前两年进一步回升但尚未恢复到2019年的高峰。

*图5：新加坡陆上公共交通日均客运量（千人）。柱状图对比了地铁/轻轨（橙）、巴士（红）和出租车+私召车（粉）在2019-2022年的日均载客数。可见2020年各项客流降至低点，随后逐年增长，至2022年地铁和巴士已超过疫情前水平，而出租车等尚未完全恢复。*

除了本地出行，新加坡作为国际航空枢纽，出入境客流在疫情中跌宕起伏。2019年樟宜机场进出港旅客总数逾**6835万人次**。2020年这一下降到**1120万**人次（仅为上一年的16%），2021年更低至**394万人次**。直至**2022年**，随着边境重开，樟宜机场旅客量反弹至**2193万人次**，恢复到2019年的约32%。由此可见，新加坡本地公共交通在2022年已几近完全复原，而国际航空客运的恢复还处于早期阶段。

**6.2 货运量趋势**

作为贸易导向型经济体，新加坡的货运吞吐在疫情期间经历了先抑后扬的过程。**海运**方面，以新加坡港货物吞吐量计，2019年总吞吐量约**62650万吨**（其中集装箱吞吐量3720万TEU）。**2020年**受全球贸易放缓影响，新加坡港吞吐量降至**59074万吨**（-5.7%）。**2021年**国际贸易反弹，新加坡港货量升至**59964万吨**（+1.5%），集装箱量达3740万TEU创历史新高。**2022年**由于全球经济放缓，港口吞吐量回落至**57822万吨**（-3.6%），略低于2020年水平。**航空货运**则在疫情期间表现亮眼：2019年新加坡空运货量约**108.4万吨**，2020年虽下降至**82.5万吨**（-23.9%），但2021年飙升至**101.2万吨**（+22.5%），超过疫前水平。2022年空运货量略降至**95.8万吨**，但仍比2019年高出约\*\*-11.5%\*\*。下图展示了新加坡海运和空运货量在2019-2022年的走势。

*图6：新加坡海运与空运货运吞吐量（年度）。黄色折线表示港口吞吐量（单位：百万吨），橙色折线表示航空货运量（百万吨）。可以看到2020年两项指标均下滑，2021年显著回升；港口在2022年略有回调，而航空货运略低于2021年但高于2019年。*

**6.3 疫情影响与恢复展望**

疫情对新加坡这样开放型经济体的冲击是全方位的。2020年“断路器”措施期间，新加坡地铁日客流一度不到30万人次，仅为平日十分之一；樟宜机场旅客量也跌至历史谷底。但得益于良好的防疫成效和财政支持，新加坡在2021年逐步恢复国内正常运行，并于2022年4月**全面开放边境**，迎接国际旅客重返。因此，2022年新加坡公共交通和经济活动明显回暖。进入2023年，新加坡地铁和巴士乘客量持续增长，甚至超过疫前高位，显示出城市公共交通的强劲复苏。航空方面，根据国际民航组织预测，亚太地区国际航班量将在2023-2024年大幅反弹，新加坡樟宜机场有望在**2024年**恢复至疫情前的繁忙程度。海运方面，新加坡港凭借其区域枢纽地位，在全球贸易回暖时会迅速受益。预计随着中国等亚洲主要经济体复苏，**2023年**新加坡港口吞吐量将重新增长，有机会逼近2019年的峰值。综合判断，新加坡交通运输业受疫情影响最严重的时期已过去，本地客运已**全面恢复并创新高**，国际客运和货运也在稳步回升，有望于未来1-2年内重返疫前轨道。

**7 德国**

**数据概览：德国交通运输数据来自德国联邦统计局（Destatis）。报告选取反映全行业景气度的客运指数**和**货运指数**（均以2000年=100的指数）以及**海运吞吐量**变化率等数据，对比2019-2021年趋势。其中客运/货运指数以2019年为基准参考，海运吞吐量则提供2019-2022年相对于上一年的百分比变化。德国数据主要按年统计，在此集中讨论疫情前后的年度变化。

**7.1 客运量趋势**

德国客运指数（以2000年=100）在2019年为**112**，代表客运市场较基准年有12%的增长。2020年受疫情影响，德国客运指数跌至**88.2**（相比2019年减少约21%），2021年客运指数略微回升至**88.6**，仅比2020年高出0.4。这表明2021年德国的总体客运量仍处于低位。造成这种情况的原因在于2020年德国经历了长时间的封锁和出行限制，公共交通和长途旅行大幅减少；2021年虽然疫苗推出，但年初二次疫情和年底Omicron变种使出行需求始终受抑制。按具体运输方式看，2020年德国公共汽车和电车客运量同比下降约30%，铁路客运量下降近一半，航空更是下降75%以上。2021年这些指标有所反弹但仍远低于2019年。因此，截至2021年底，**德国客运领域尚未摆脱疫情阴影**。

**7.2 货运量趋势**

德国货运指数（2000年=100）在2019年为**136.5**，2020年略降至**131.1**（-4.0%），2021年回升到**137.4**，略高于2019年水平。可见德国货运总量在疫情期间受到的影响较客运小得多，并已在2021年恢复并超过疫前。这与德国作为制造业强国、全球货物贸易在2021年强劲复苏有关。分领域看，2020年德国公路货运周转量下降约3%，铁路货运下降4%，但**水运货运**受内河航道水位影响甚至增长了1%。2021年德国货运需求旺盛，尤其是下半年出口订单激增，物流运输趋于繁忙。当年德国货运量指数创下新高，表明供应链尽管有瓶颈但总体运转良好。此外，德国港口海运吞吐在疫情中的变化也值得关注。以2018年为基准，2019年德国港口货物吞吐量略降0.8%，2020年再降1.4%，2021年增长3.2%，2022年则下降7%。这反映出德国海运贸易在2021年短暂回升后，2022年受到乌克兰危机等因素拖累有所下滑。总体而言，**德国货运量已基本恢复并超过疫前**，但2022年出现新的挑战。

*图7：德国客运指数与货运指数（2019=100基准比较）。可以看到2019-2021年客运指数（黄色）从100降至约79又略升至79.1，相比之下货运指数（橙色）从100降至96又升至100.7，显示货运恢复优于客运。*

**7.3 疫情影响与恢复展望**

德国在2020年3月至4月实施严格封锁，“居家令”导致通勤和旅行锐减，客运量断崖式下跌。当年夏季短暂复苏后，年底又因疫情反扑收紧措施，全年客运市场惨淡。2021年德国推出疫苗接种并在春夏解封，公路交通流量逐渐接近正常，但公共交通利用率持续偏低。直到2022年德国才基本解除大部分防疫限制，城市公交和长途客运才明显回暖。预计**2022-2023年**德国国内客运出行将稳步增加，但鉴于欧洲能源价格高企、铁路运力受限等因素，**要完全恢复至2019年水平可能需到2024年**。货运方面，德国制造业订单在2022年底有所放缓，但2023年随着供给瓶颈缓解和中国市场复苏，德国出口有望回升。这将带动货运需求保持稳定甚至增长。因此我们预测德国货运量在未来几年将维持在略高于疫前的水平，而客运量的恢复将略滞后于货运。总体上看，德国交通运输业已走过最艰难的时期，货运先行复苏，客运逐步跟上，有望在中期实现全面恢复。

**8 结论**

综上所述，**新冠疫情对世界主要国家交通运输业造成了前所未有的冲击**，但各国受影响程度和恢复节奏有所差异。2020年，全球客运量普遍腰斩，美国、加拿大、日本、英国等国的航空和公共交通出行骤减50%以上，新加坡因国际旅客锐减而损失惨重。货运领域的降幅相对较小，一些国家（如德国）的货运量仅小幅下滑即开始反弹。进入2021-2022年，在大规模疫苗接种和“与病毒共存”策略推动下，各国交通运输指标纷纷回升。其中**北美地区**（美国、加拿大）的客运货运复苏均较稳健，货运指数甚至已接近或超过疫前水平。**东亚地区**（日本、新加坡）的国内交通恢复迅速，但国际客运仍有较大缺口。**欧洲**（英国、德国）的情况则有分化：德国货运强势反弹，客运恢复缓慢；英国受脱欧等因素影响，运输业复苏略显迟滞。

尽管2022年下半年起，Omicron变种和经济不确定性一度为交通复苏增添波折，但截至2023年，各国交通运输业总体**重拾增长动能**。根据目前趋势，我们预计：**美国**和**德国**等国有望在2023-2024年率先基本恢复至2019年水平，**加拿大**和**新加坡**紧随其后，**日本**和**英国**可能在2024年前后完成追赶。值得注意的是，不同运输方式的恢复情况将继续分化——**航空国际客运**可能是最后恢复的领域，而**公路货运**和**集装箱海运**已相对接近常态。各国政府在后疫情时期应关注交通运输供需的新变化，例如远程办公对公共交通的长期影响、供应链重构对货运流向的改变等。

总的来说，全球交通运输业正在从低谷中走出，呈现**逐步复苏并趋向正常化**的态势。通过对比分析主要国家的数据与政策经验，我们可以更加清晰地了解疫情冲击的广度和复原力，为今后应对类似危机提供宝贵借鉴。各国只要继续加强国际合作，分享最佳实践，交通运输业有望在不远的将来全面重现繁荣景象。