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TABLE OF CONTNETS	1
INTRODUCTION	2
RESEARCH CHALLENGEAPPROACH AND DATA SOURCESABOUT ROCKPORT ANALYTICSCONTACT	2 4
EXECUTIVE SUMMARY	5
THE GLOBAL ECONOMY	7
THE GLOBAL ECONOMY SUFFERS A COVID-INITIATED MAGNITUDE 9 EARTHQUAKE THE COVID-INITIATED RECESSION UNLIKE TYPICAL RECESSIONSGLOBAL OUTLOOK: VACCINES BRING HOPE BUT MUCH WORK NEEDS TO BE DONE	8
BUSINESS TRAVEL OUTLOOK: THE COVID-19 PANDEMIC BRINGS GLOBAL BUSINES TRAVEL ACTIVITY TO A HALT IN 2020	
OVERVIEW REGION BY REGION COVID-19 IMPACTS? LOOKING PAST THE PANDEMIC: HOW LONG WILL IT TAKE BUSINESS TRAVEL TO RECOVER? GLOBAL TRAVEL INFRASTRUCTURE SILVER LINING OF THE COVID-19 PANDEMIC? Overall Infrastructure	16 18 21
BUSINESS TRAVEL AROUND THE GLOBE	23
NORTH AMERICA	24 25 26
GBTA BTI™	29
BUSINESS TRAVEL BY INDUSTRY SECTOR	30
A LOOK BACK AT LAST YEAR'S GLOBAL GBTA BTI™ OUTLOOK: HOW DID WE DO? .	33
COUNTRY PROFILES	34
BUSINESS TRAVEL SPENDING IN THE WORLD'S TOP MARKETS	35
APPENDIX I -SUMMARY OF SPENDING GROWTH BY COUNTRY	53
APPENDIX II -BUSINESS TRAVEL BY DETAILED INDUSTRY SECTOR	55
APPENDIX III -APPROACH, METHODOLOGY, DATA SOURCES AND DEFINITIONS	56
APPROACH, METHODOLOGY, DATA SOURCES, AND DEFINITIONS	56 57



The 2020 GBTA BTI™ Outlook – Annual Global Report and Forecast is an exhaustive study of business travel spending and growth covering 73 countries across 44 industries. Now in its 12th year, the report and companion database have become a critical planning tool throughout the industry.

Introduction

Research Challenge

Business travel is a term that encompasses many activities executed in support of any number of business objectives: sales, training, customer support, incentives, professional development, and operations, to name but a few. Depending upon the type of organization, business travel can have many perspectives. For example, travel suppliers see it as a significant source of revenue and a primary market segment. Corporate management sees business travel as both a critical business investment and a controllable expense. Travel managers view it as a resource optimization and duty of care challenge. Policymakers see travel as a generator of jobs, income, and tax revenue. Finally, veteran road warriors see it as an important part of their everyday jobs.

To better understand the value of a business function, you need to measure it. But the activity of business travel lacked a comprehensive global description and a set of metrics from which travel managers, suppliers, and facilitators could plan for the future. In 2009, the Global Business Travel Association (GBTA) embraced this challenge by producing the first-ever study of global business travel activity. The result was an exhaustive analysis of business travel spending, productivity, and growth that originally covered 75 countries across 48 industries over fifteen years, including a rolling 5-year projection. The analysis has been enhanced and updated each year since then. GBTA has once again updated the study for 2020-2021, as well as its projections and companion database.

Dissecting the impact of the coronavirus pandemic is obviously the biggest story and challenge to understanding where we are at this moment and how quickly we can recover in the years ahead. The recent development and nascent distribution of a vaccine marks a critical milestone in that recovery, but there is a long road ahead. Business and business travel must navigate the fallout of the pandemic - a global recession, constricted trade, a myriad of mitigation policies, the financial blow to travel suppliers and whole new level of duty of care. We must also weigh the potential longer-term and lasting impacts of the pandemic on how businesses and employees communicate, where they choose to locate, and when face-to-face meetings are safe again. Tracking business travel performance and planning for the near and long-term has never been so important.

Approach and Data Sources

Rockport Analytics' research has focused on the *demand* side of the business travel market. Measures such as industry sales, business travel spending, and travel productivity have been developed from the business traveler backwards to the corporate sponsor and travel supplier. Moreover, our comprehensive definition of business travel includes all kinds of trips and trip purposes, as well as all categories of trip spending - not just those reimbursed by the



sponsoring organization. Most readily available measures of business travel typically emanate from the supply side, such as airline, hotel, or rental car data. None are comprehensive nor can they easily distinguish between business and leisure activity. Moreover, they typically do not cover unreimbursed expenditures.

The nature and detail of the business travel metrics contained in this report and its accompanying database are largely dictated by available data from both secondary and primary sources. Supplier-based information from airlines, hotels, and rental car companies has been reconciled with demand-side sources from governments, traveler research panels, and travel management companies, all in an effort to create the most comprehensive view of business travel. For a complete list of data sources, please see the appendix at the end of this document.

What determines and drives business travel? There are eight distinguishing characteristics that influence the level and rate of growth of business travel in our analysis:

- Size of the economy The level of general economic activity is paramount.
- Land mass, population, and business dispersion Larger countries with widely dispersed populations require more travel to facilitate economic and business development.
- Industry mix countries whose economies are dominated by sectors that are more travelintense by nature will have greater amounts of business travel relative to jobs, output, or population.
- Technology and the productivity of business travel Business travel is a material/service input to virtually every industry. Like other inputs, it is subject to gains/losses in productivity.
- Degree of export dominance countries with large trade sectors (Brazil, Germany, Japan, and Indonesia) will tend to engage in more international business travel. Countries where economic activity is dominated by consumption (US, India) will be more prone to domestic business travel.
- *Physical location* Countries that are far from their markets or suppliers will require relatively more business travel to succeed.
- Infrastructure development Is the transportation and hospitality infrastructure sufficient for business travel to flourish?
- Environmental, tax, security, health, and regulatory policy Do governments help or hinder business travel?

Our view of the contribution of business travel to each country-sector combination has been established by analyzing trends in the business travel "purchasing" behavior of 48 sectors across 75 countries over a period of more than 15 years. By modeling trends of the level of business travel spending per dollar of industry sales (a measure of business travel productivity) over time, we are able to extend these factors into the future. The combination of industry sales (macroeconomic environment), projections, and trends in business travel spending per dollar (business travel intensity and productivity) are key factors in generating the resulting forecasts of business travel spending.



About Rockport Analytics

Rockport Analytics, LLC (www.rockportanalytics.com) is a research and analytical consulting firm providing high quality quantitative and qualitative research solutions to business, government, and non-profit organization clients across the globe. Rockport's focus is on creative and actionable research in the travel and tourism market. We provide fast, nimble service in a transparent environment.

Rockport Analytics' capabilities include:

- Market Analysis and Forecasting
- Economic Impact Assessment, Tourism Satellite Accounting, and Economic Development
- Market Modeling and Decision Support Tools
- Project Feasibility Assessment
- Primary Research and Secondary Research Synthesis
- Stakeholder Surveys internal and external

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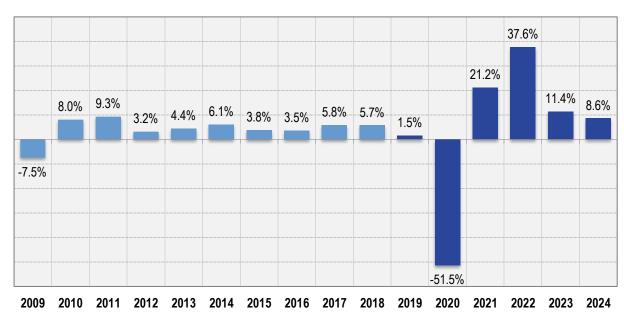
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Executive Summary

- At this writing, about 2.2 million lives have been lost to COVID-19 since the start of the pandemic. The devastation to families, health care systems, government budgets, businesses, employment, trade, and travel can be likened to a 9-point magnitude earthquake. COVID has touched virtually every country on earth and every population cohort within. Yet, the impact has been quite divergent. That is, some countries, cohorts, and industries have suffered more than others.
- Since April 1st, 2020, global spending on business travel plummeted 68% over the same period from 2019. When accounting for a relatively normal first quarter of 2020 we estimate global spending on business travel fell 52% for the full calendar year 2020 to \$694 billion, down from \$1.4 trillion in 2019. The losses and impact on travel suppliers are unprecedented. The 2020 business travel spending losses will be 10x times larger than those following 9/11 or the Great Recession of 2008.
- Coming into 2020, business travel activity had grown for 10 consecutive years, an average of 5.1% growth per year. Business travel activity began to slow in 2019, however, as increasing barriers to trade and geopolitical tensions led to a global economic slowdown. Total business travel spending reached \$1.4 trillion in 2019, growing only by 1.5% over 2018 levels.
- The impact of COVID on regional business travel has been divergent as well. We expect North American and Western Europe will fare the worst over the period with expenditures on business travel activity plummeting -60% and -58.2% respectively. From the period between April 1st and the end of the year, North America business travel spending fell 79.3% and Western Europe's spending fell 77%. Asia Pacific will fare slightly better with an expected 44% decline for the full year and -52% between April 1st and the end of the year. Latin America and Eastern Europe will both witness declines between 45% and 50% in 2020

Global Business Travel Spending Growth: Trend & Forecast (2009-2024)





(59% and 63%, respectively, between April 1st and the end of the year). We expect business travel activity in the Middle East and Africa will be the least impacted by the pandemic in 2020 with spending falling 39.2%, or 51.7% between April 1st and the end of the year.

 The COVID-19 recession has been quite different than past downturns. Typical recessions result in service sectors suffering greater declines than manufacturing. In the COVID recession, the public health response needed to slow transmission and resulting behavioral changes have dramatially reduced face-to-face interactions. This wounded sectors like wholesale and retail trade, hospitality, restaurants, and arts & entertainment. Moreover, many of those sectors are less prone to remote work. Manufacturing, on the other hand, has fared much better during the pandemic.

Total Business Travel Spending (BTS): Top 15 Markets (2020)

Country	Total BTS	Annual
	(\$ Millions	Growth
	USD)	in BTS
China	\$236,618	-38.0%
United States	\$121,686	-61.1%
Japan	\$32,709	-49.7%
Germany	\$30,631	-60.9%
United Kingdom	\$20,284	-61.7%
France	\$19,192	-55.8%
India	\$18,043	-56.4%
Korea, South	\$17,151	-54.3%
Italy	\$14,402	-59.5%
Brazil	\$14,130	-53.1%
Canada	\$12,523	-51.3%
Turkey	\$11,427	-25.4%
Netherlands	\$10,998	-49.5%
Spain	\$10,697	-55.5%
Australia	\$9,791	-59.0%
Global Total	\$694,359	-51.5%

Source: GBTA, Rockport Analytics

- These relative sector impacts will affect the shape of the business travel recovery as well. The most heavily impacted sector, not surprisingly, has been accommodations and food services activities with business travel in the sector plummeting an estimated 65% globally in 2020. Other heavily impacted sectors include administrative and support services, transportation and warehousing, and finance and insurance. Sectors of the economy that have fared better through the pandemic include real estate services, education, manufacturing and information and technology.
- Many questions remain around the speed and shape of the recovery in business travel activity following the precipitous decline in 2020. Uncertainty around numerous factors make forecasting a "return to normal" for business travel a monumental task. Far and away the most critical factor will be the production and dissemination of a COVID-19 vaccine. Being able to inoculate the public and significantly slow the spread of the disease is primary to business travelers to feel safe and ready to return to the road.
- Our baseline 2021 forecast projects a 21% gain in business travel spending following a 52% decline in 2020. Most of the gains are likely to come towards the end of the year as inoculation of the global population ramps up. These gains will accelerate in 2022 as the world enters the mid-to-late stages of recovery. This includes a significant pick-up in group meeting activity and international business travel. We expect annual spending growth to slow in 2023 and 2024, but to remain well above the historical average growth with annual business travel spending eclipsing \$1.4 trillion by the end of 2024 just below its prepandemic peak of \$1.43 trillion.



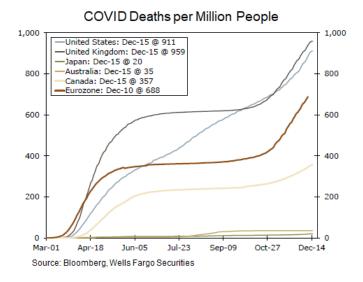
The COVID-19 Pandemic Has Caused One of the Most Severe Economic Downturns of the Last 150 Years. The Global Economic Impact Can Only Be Compared to the Great Depression and the Two Periods Following World War I and World War II.

The Global Economy

The Global Economy Suffers a COVID-Initiated Magnitude 9 Earthquake and Begins a Long, Slow, and Divergent Ascent

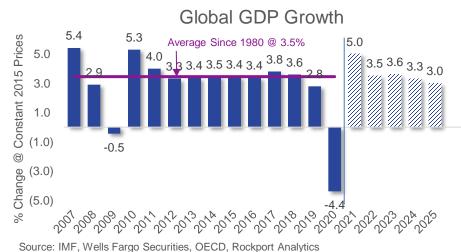
At this writing, more than 2.2 million lives have been lost to COVID-19 since the start of the pandemic. The devastation to families, health care systems, government budgets, businesses, employment, trade, and travel can be likened to a 9-point magnitude earthquake. COVID has touched virtually every country on earth and every population cohort within. Yet, the impact has been quite divergent. That is, some countries, cohorts, and industries have suffered more than others.

Moreover, some countries have been faster and more comprehensive in applying mitigation policies. In the aggregate, global economic growth, trade activity, and business travel have



fallen off a cliff in 2020. Businesses and business travelers must navigate the fallout of the pandemic -a global recession, constricted trade, a myriad of mitigation policies, the financial blow to travel suppliers, and a whole new level of duty of care.

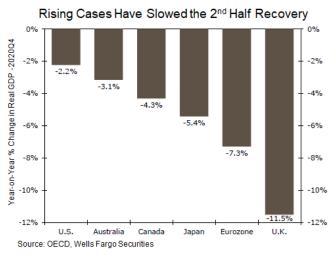
The economic damage is palpable. Global real GDP will decline by an estimated 4.4% in 2020, an unprecedented decline. The -0.5% decline during the trough of the Great Recession pales in comparison. The second quarter of 2020 has been dubbed the "Great Lockdown" as countries around the world closed their economies to help flatten the curve of ascending cases. In fact,



the decline would have been much worse had it not been for the adept and unprecedented fiscal, monetary, and regulatory responses among developed and emerging economies alike.

Country re-openings during April and May brought a sharp





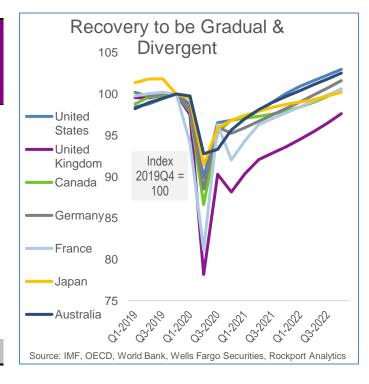
rebound in economic growth during 2020Q3 and to a lesser extent Q4, albeit not nearly enough to cover Q2's losses. Moreover, the recent spike in cases in the US, across Europe, and in many developing countries (e.g., Brazil, India, South Africa) during the 4th quarter will likely stall, if not reverse, some of the improvement made earlier in the year. It will also hinder progress in the first half of 2021.

The recent development and nascent distribution of at least two vaccines at the time of this publication marks a critical milestone in the recovery, an inflection point

from which to view the recovery. Still, there is a long road ahead before sufficient numbers are inoculated to reach herd immunity, confidence is restored, and normalcy begins to return.

Unlike Typical Recessions, the Great Lockdown's Impact Varied by Country, Demographic Cohort and Industry Sector. The Recovery will be Likewise.

Country	Peak-to-	Expected
	Trough Loss	Return to
	in Real GDP	Pre-
	Due to	COVID
	COVID-19	Peak
United States	-10%	Q3-2021
United	-22%	Q2-2023
Kingdom		
Euro Area	-15%	late-2022
Australia	-7%	Q1-2022
Canada	-13%	Q3-2022
Germany	-12%	Q3-2022
France	-19%	Q4 2022
China	-10%	Q2-2020
Brazil	-11%	Q2-2023
Russia	-4%	Q2-2022
India	-25%	Q2-2022
Source: OECD, Wells Analytics	Fargo Securities, IMF	F, Rockport



While COVID has clearly thrust the global economy into recession, its impacts are atypical of previous recessions. The depth and breadth of the COVID recession varies greatly by country, industry and across the sprectrum of households and businesses.

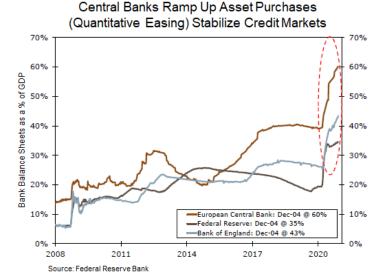


Since COVID, the divergence in performance across countries has been marked. China and other Asian economies experienced the economic shock early and they have been largely successful in combatting the spread of the virus. As a result, the economic outlook in those countries is brighter. In contrast, the Eurozone and the UK are likely to relapse in the near term due to rising cases and the reinstitution of at least partial restrictions. Meanwhile, growth in the US also appears to be downshifting as cases rise and restrictions are turned back on. Many emerging economies experienced steep declines in economic activity at the outset of the pandemic. COVID cases in many of these markets remain elevated, dampening near-term economic expectations. Still, other countries were already hampered by weaker fundamentals (e.g., Turkey, South Africa and Brazil) and the pandemic made these challenges even worse. Recovery for these markets will likely be even more of an uphill slog.

The difference across countries is mostly a function of four factors. First, the initial timing and spread of the virus, as well as, the speed at which mitigation efforts were implemented, set the stage for public health impacts to pour over into the economy. Contrast the arc of COVID in countries such as the US, the UK, France and Germany with that of China, South Korea, or Australia, the latter acting earlier and more decisively. This established the depth and breadth of the hole from which public health and economic policy had to climb.

The second factor was the degree to which fiscal and monetary policy measures were brought to bear on the economic effects of the Great Lockdown, namely job losses, business failures, consumer spending, and credit markets. The International Monetary Fund (IMF) counted more

than \$6 trillion in direct tax and spending measures worldwide in response to the pandemic through October. Fiscal measures announced so far in advanced economies amount to more than 9% of GDP, with another 11% of GDP coming from monetary policy actions such as direct equity injections, asset purchases, loans, and credit guarantees. With the exception of China, many emerging markets were in a less advantageous position to apply monetary (due to currency constraints or high debt levels) or fiscal (due to deficits) support.



Unemployment compensation, direct payments to households and businesses, eviction moratoriums, and other credit protections were among the fiscal policy levers deployed in varying degrees across advanced and emerging economies. Meanwhile, central banks began to quickly inject liquidity into credit markets. For example, the Reserve Bank of Australia lowered its policy rate and announced \$100 billion (Australian Dollars) in additional government bond purchases (i.e., quantitative easing). The Bank of England also increased its asset purchase target by £150 billion (to £895 billion), and the European Central Bank has commited €2.5 trillion to its Pandemic Emergency Purchase Program to date. Finally, while the US Federal Reserve has not announced any new measures as of yet, an increase in the pace of asset purchases



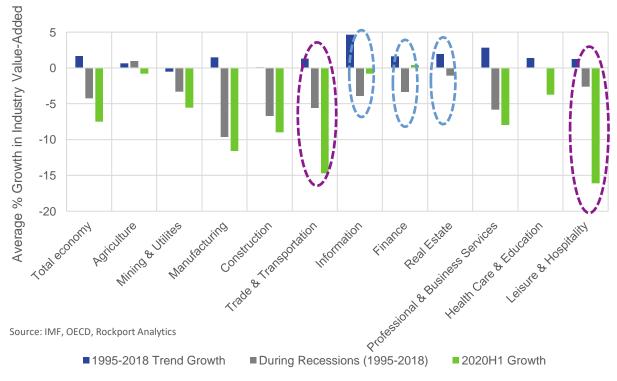
cannot be ruled out. Central banks' balance sheets have expanded at a torrid pace during 2020 (see chart on previous page), an indication of the seriousness of COVID's impact on the global economy.

The third factor had to do with the speed and extent of reopening measures. Indeed, the partial reopening of economies in Q2 provided a significant snap-back in hiring, business revenue, and tax receipts. Unfortunately, full relief was short lived as combined with colder temperatures, these measures also brought on second viral waves and accompanying new closures/restrictions.

A fourth factor that separated countries had to do with the behavior of its citizens relative to restrictions and other public health guidelines. Passive measures became politicized in some countries which clearly hurt compliance.

The COVID-19 recession has been quite different than past downturns. Typical recessions result in service sectors suffering greater declines than manufacturing. In the COVID recession, the public health response needed to slow transmission and resulting behavioral changes have dramatially reduced face-to-face interactions. This wounded sectors like wholesale and retail trade, hospitality, restaurants, and arts & entertainment. Moreover, many of those sectors are less prone to remote work. Manufacturing has also fared worse than previous recessions given the challenges of workplace spread of COVID-19 and signficant supply chain disruptions.





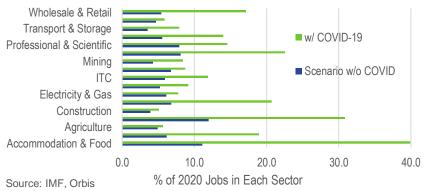


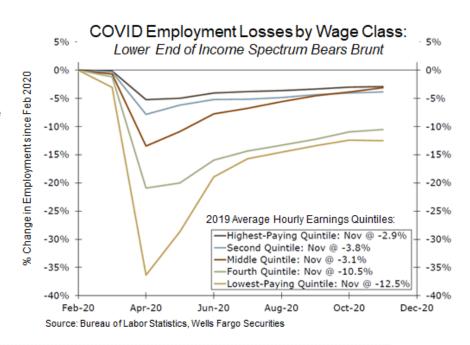
The chart on the previous page contrasts the difference among industries between long-term trend growth (blue bar), typical performance during recessions (gray), and the COVID recession (green). Circled in purple are those sectors that have suffered the most from COVID, in general and relative to what might be expected during a typical recession with Trade & Transportation, Leisure & Hospitality among the hardest hit. Contrast that with Information, Finance and Real Estate (circled in light blue), industries that can more easily support remote work and have less exposure to COVID's public health restrictions.

Layoffs were immediate and businesses began to close, particularly as the crisis lingered on. According to an International Labour Organization study, the loss in global work hours during Q2 compared to the end of 2019 was equivalent to 400 million full-time jobs. Contrast that with a loss of 155 million full-time jobs in 2020Q1, the result of a slowing global economy entering into 2020 and the beginning of the pandemic in late-February and March. The majority of these hour/jobs losses were in retail, accommodation and food services, arts and recreation, and transportation -also industries closely tied to leisure and business travel (see chart on previous page).

Trade, Transportation, Arts and Recreations, and Accommodation & Food Services are also among those sectors that have: (a) created the most jobs in the past decade; and (b) employed workers who are paid less than average wages. These trends have led to lower income households being disproportionately impacted by the pandemic (see chart at right). Note the sharp contrast in COVID-initiated job losses between those at the higher end of the pay scale and those at the lower end. In November, employment levels in the bottom income quintile were down 12.5% compared to only 2.9% employment losses among the highest paid quintile. This has a profoundly negative effect on consumer spending. In the US, about 40% of all jobs reside in the bottom two pay scale quintiles. While COVID-oriented

Share of Jobs at Risk Due to Business Failure







unemployment benefits have recently been extended, uncertainty remains around whether these benefits will carry workers through to the other side of the crisis leaving the nascent recovery that started in Q3 in jeopardy.

Global Economic Outlook: Vaccines Brings Hope but Much Work Needs to be Done

While the focus of the previous section has been on the divergence created by the COVID recession, the task of recovery will be a shared experience. Countries will clearly start at different points depending upon the extent of their damage and degree of scarring, but the challenges faced among advanced and emerging economies are the same.

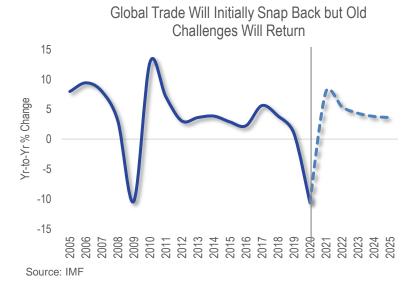
First and foremost is continuing to navigate the public health crisis itself. The existence of the Pfizer BioNTech and Moderna vaccines (at the time of this publication), plus other promising vaccines and therapies, is the necessary condition for a return to normalcy. Howver, the speed at which the vaccines are accepted and distributed is critical to the pace of recovery. In addition, if the resolve for masking, social distancing and other mitigation efforts wane, recovery will be hindered.

The global economy must also overcome the scarring brought on by the COVID recession. Business failures and bankruptcies, plummeting labor force participation rates, supply chain and trade disruption, and consumer retrenchment are among the fallout that must be addressed in the recovery. Reducing these scars is the very definition of what it will take to return to economic normalcy.

Finally, the underlying structural challenges that dogged the global economy before the COVID recession remain intact. Aging populations among developed economies, rising debt burdens in emerging markets, the structural slow-down in China's growth, poverty and inequality, crumbling infrastructure, climate change and labor market skill mismatches are all among the challenges that were dragging on growth before 2020. In many cases, COVID has exacerbated these

economic tests - e.g., poverty, inequality and debt burdens. These challenges will still be there even after the global economy reclaims its pre-COVID peak.

Global Trade Will Snap Back From the Great Lockdown but Pre-Pandemic Challenges Persist



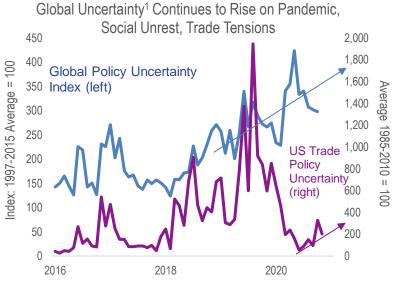


Global trade is expected to contract by almost 11% this year (see chart on the previous page). This is of course a result of the Great Lockdown which temporarily froze the movement of people and goods in March and April. As the year progressed, the movement of freight (goods) began to rebound but travel, particualry international, remains anemic. There is also the issue of supply chain shifts as firms look to rebuild supplier relationships and establish new sources of supply, many of which will be in-country.

What is somewhat lost in viewing trade in the aggregate is just how much tourism-driven

exports and imports -and the countries dependent upon themwere crushed by the pandemic. The trade recovery will be particularly difficult for tourism-dependent economies, where restrictions on international travel remain in place and the population's fear of infection lingers even after vaccine distribution begins. Economies such as Greece, Italy, Mexico and Turkey are some countries that come to mind.

As vaccine distribution and other mitigation efforts begin to stem COVID infection rates, trade will bounce back paticularly on the goods side of the ledger. Services



Source: Baker, Bloom and Davis, Rockport Analytics

trade, specifically the travel component, will take longer. Moreover, the trade policy challenges that existed prior to the pandemic have yet to be resolved. The rise in protectionism in many markets, unresolved trade and political friction between the US and China, China's continued economic rebalancing (away from exports) and the fallout from Brexit will again weigh on trade's potential to fuel overall economic recovery and act as a governor on business travel.

Outlook: Recovery from the Great Lockdown and the Unprecedented COVID Recession Has Already Begun and Will Accelerate in 2021

Global growth is expected to decline by 4.4% in 2020. The good news is an economic recovery is already underway, albeit very uneven across countries and sectors. In fact, performance has already shown a sharp snap-back from the Great Lockdown of Q1-Q2. The bad news is many reopenings happened too quickly/broadly and many countries let down their guard with respect to passive mitigation efforts during the second half of the year. This, combined with colder weather in the Northern Hemisphere, has unfortuantly caused a second viral wave. The spike in cases, hospitalizations and mortality has, in turn, pushed policymakers to reinstate some

¹ Policy Uncertainty (GEPU) Indexes are GDP-weighted average of national indices for 18 countries that reflects the relative frequency of domestic newspaper articles containing terms pertaining to the economy, policy, and uncertainty.



restrictions on movement, social gatherings, retail and restaurant capacity. Invariably, this will show up in the economic statistics during Q4 and 2021Q1, slowing recovery progress.

As a result, global growth is projected to reach only 5% in 2021, not quite enough to regain the pre-COVID peak. Growth among advanced economies (elephants) is expected to fall by -5.8% this year and rebound in 2021 by only 3.8% in 2021. For the US, growth is projected to contract by -3.7% in 2020 before advancing to a 3.6% clip in 2021. A deeper contraction (-7.4%) is

Global Growth ² Climbs Out of COVID Recession											
% change in Real GDP	2018	2019	2020e ³	2021f⁴	2022f	2023f	2024- 2025f				
World	3.3	2.8	-4.4	5.0	3.5	3.3	3.0				
Advanced (elephants)	2.2	1.7	-5.8	3.8	2.5	2.1	1.7				
Eurozone	1.8	1.3	-7.4	3.6	2.9	1.6	1.4				
Japan	0.3	0.7	-5.3	2.8	1.9	0.9	0.7				
United Kingdom	1.3	1.5	-11.2	4.2	3.0	3.0	1.6				
United States	3.0	2.2	-3.7	3.6	4.0	2.3	1.8				
Emerging Markets (gazelles)	4.5	3.7	-3.3	6.0	5.5	5.0	4.7				
Brazil	1.3	1.1	-5.9	3.0	2.3	2.4	2.2				
China	6.7	6.1	2.2	8.2	7.0	6.1	5.7				
India	6.1	4.2	-9.6	6.9	5.5	4.9	7.2				
Russia	2.5	1.3	-4.3	2.8	2.2	2.0	1.8				
Source: IMF, IHS Markit, OECD, World Bank, Rockport Analytics											

expected in the Eurozone for 2020, reflecting a sharper COVID-driven downturn than in many other advanced economies. We expect a growth bounce-back of 3.6% in 2021, in part stronger because of a lower base. The COVID recession will push UK growth down by -11.2% in 2020. Due to a slower pandemic response, a less forceful policy reaction, and ongoing Brexit uncertainty the UK will see only 4.2% growth in 2021, pushing economic recovery to pre-COVID levels until 2023.

Meanwhile, emerging (gazelle) economies will lose -3.3% in 2020 followed by a 6.0% outturn (amount produced) in 2021, primarily on the strength of Asian market performance. China, India, Indonesia and others were able to control their COVID outbreaks sooner and managed their reopenings more effectively than other emerging economies. China's apparent success in controlling the spread of virus suggests it is well-positioned to lead the global economic rebound. Indeed, China is the only major economy for which we expect positive GDP growth in 2020 (+2.2%). In 2021, China's GDP is expected to rebound sharply, advancing by 8.2%.

For countries such as South Korea, Singapore, Japan and Australia, trade links to China should boost their 2021 recoveries. In the meantime, countries troubled by weaker economic fundamentals and/or political uncertainty (e.g., South Africa, Brazil and Turkey) will face more difficult recoveries. When the global economy does fully recover from the COVID recession, we expect emerging economies to retake their position as primary drivers of global economic growth.



² Real GDP at constant July 2020 exchange rates

³ e = estimate

⁴ F = forecast

The global business travel sector has been impacted like no other sector by the COVID-19 pandemic. Government restrictions, tightening corporate travel policy and business travelers' shifting behavior in the wake of the virus have slowed business travel activity to a crawl in 2020.

Forecast Risks: Pandemic Resurgences Are Obvious Risk. There Are Others As Well.

The basic risk associated with COVID resurgance is both obvious and palpable. Supply constraints and logistics challenges surrounding the vaccines could set back the fledgling recovery already underway. On the other hand, better than expected progress on the vaccine front could suggest that growth will exceed expectations. Mishandled reopenings and a failure to comply with mask wearing, social distancing and other protocols could also delay and extend the recovery. Meanwhile, advances in coronavirus therapies could take pressure off of public health systems and help speed recovery.

Other downside risks include the premature withdrawal of fiscal support for consumers, businesses, and local governments or poor targeting/implementation of those measures. Likewise, sudden friction in credit markets or the failure to extend existing debt could set back activity even further. Rising social unrest could also throw sand in the wheels of recovery. While the causes vary by country (e.g., racial justice, inequality, poverty, food security) more (and more forceful) instances could damage sentiment and weigh on economic activity. Finally, the pre-COVID risks of trade policy uncertainty, rising debt burdens and geopolitical risks remain problems that the global economy must address all while recovering from the pandemic.

Business Travel Outlook: The COVID-19 Pandemic Brings Global Business Travel Activity to a Halt in 2020

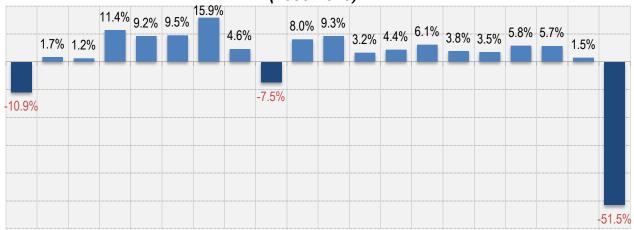
Overview

Coming into 2020, business travel activity had grown for 10 consecutive years, an average of 5.1% growth per year. Business travel activity began to slow in 2019, however, as increasing barriers to trade and geopolitical tensions led to a global economic slowdown. Total business travel spending reached \$1.4 trillion in 2019, growing only by 1.5% over 2018 levels. Global business travel activity remained subdued through the first quarter of 2020, with global spending up only +0.2% over the first quarter of 2019. **This moderate rate of growth came to a screeching halt in early 2020 as the COVID-19 pandemic applied the brakes to business travel activity globally**. Asia-Pacific was the first region impacted as the virus took hold in China in February and March. The Coronavirus epidemic quickly escalated to a global pandemic, as case numbers rose rapidly in every corner of the globe in March and April. The rapid escalation in case numbers forced stay-at-home orders, business closures and travel restrictions in most countries in an attempt to curb the virus's spread.



Likewise, corporate management quickly pivoted to work-from-home policies and the use of technology to help stem potential losses from the valuable face-to-face interaction between co-workers, clients, suppliers and partners that is so critical to a company's ability to thrive. As these shifts came to bear, many would-be in-person meeting shifted online. Travel management policies tightened such that only the most critical of business travel took place. Virtually all meeting and event travel was cancelled or postponed indefinitely.

Global Business Travel Spending Growth (2000-2020)



2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

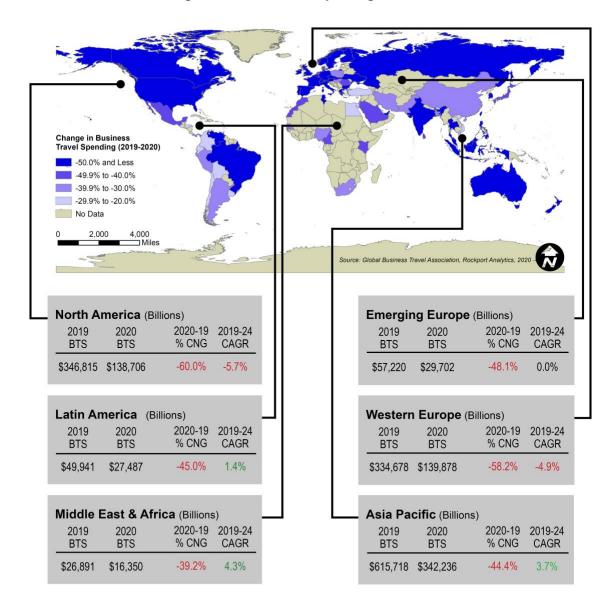
Unfortunately, these shifts were less temporary than anyone hoped for and have carried with us through 2020. Since April 1st, 2020, global spending on business travel plummeted 68% over the same period from 2019. When accounting for a relatively normal first quarter of 2020 we estimate global spending on business travel fell 52% for the full calendar year 2020 to \$694 billion, down from \$1.4 trillion in 2019. The losses and impact on travel suppliers are unprecedented. The 2020 business travel spending losses will be 10x times larger than those following 9/11 or the Great Recession.

2020 Region by Region COVID-19 Impacts

While every part of the world has been impacted by the pandemic, business travel has suffered relatively worse in some regions and relatively better in others. The table below highlights the impact that the COVID-19 pandemic is expected to have on business travel spending in 2020 in each major region across the globe. We expect North America and Western Europe will fare the worst over the period with expenditures on business travel activity plummeting -60% and -58.2% respectively. From the period between April 1st and the end of the year, North America business travel spending fell 79.3% and Western Europe's spending fell 77%. Asia Pacific will fare slightly better with an expected 44% decline for the full year and -52% between April 1st and the end of the year. APAC will be buoyed by relatively better performance in China. However, markets like Singapore and Hong Kong, heavily reliant on international business travel, will see spending plummet by at least 80% in 2020. Latin America and Emerging Europe will both witness declines between 45% and 50% in 2020 (59% and 63%, respectively, between April 1st and the end of the year). We expect business travel activity in the Middle East and Africa (MEA) will be the least impacted by the pandemic in 2020 with spending falling 39.2%, 51.7% between April 1st and the end of the year.



Percent Change in Business Travel Spending Between 2019 and 2020

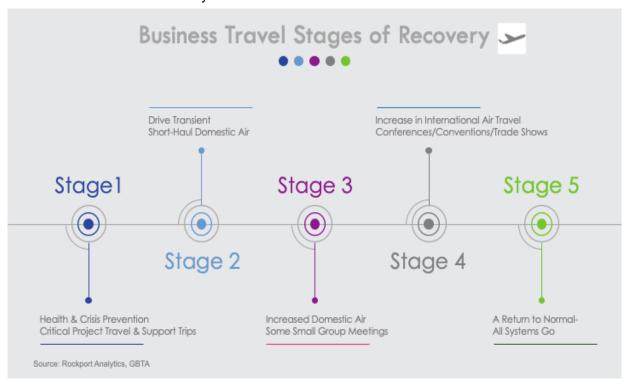




We expect business travel recovery in all global markets to occur in phases as vaccines are deployed, government and corporate travel restrictions loosen, and business travelers become more comfortable to returning to the normal work lives.

Looking Past the Pandemic: How Long Will it Take Business Travel to Recover?

Many questions remain around the speed and shape of the recovery in business travel activity following the precipitous decline in 2020. Uncertainty around numerous factors make forecasting a "return to normal" for business travel a monumental task. Far and away the most critical factor will be the production and dissemination of a COVID-19 vaccine. Being able to inoculate the public and significantly slow the spread of the disease is primary to business travelers to feel safe and ready to return to the road.



The good news is that as of the date of this release (January 2021) numerous vaccines have shown to be effective and countries around the globe are distributing the vaccines but the rollout thus far has been slow. One vaccine from Pfizer Inc. and BioNTech SE and another from Moderna Inc. are both about 95% effective in preliminary analyses of tens of thousands of clinical trials. The third, from AstraZeneca Plc, is approximately 70% effective on average, according to an early analysis of trial data⁵. The UK was the first country to make the Pfizer/BioNTech vaccine available in December with 138,000 front line workers being vaccinated in the first week of its availability. The global vaccine rollout will not be without its challenges, which include:



⁵ https://www.pbs.org/wgbh/nova/article/third-covid-vaccine-astrazeneca-oxford-effective-cheap/

500m

Total 1.01 billior

- 1. **Production Challenges**: The more vaccines that are approved the better as it will be a challenge to produce enough shots to meet global demand. Pfizer says it expects to
 - have 50 million doses, globally, (enough to vaccinate 25 million people) by the end of 2020 and another 1.3 billion doses in 2021. As vaccines are being tested, manufacturers have been ramping up the production of vials, needles and other equipment.
- 2. **Transport & Storage**: Different temperature requirements among the vaccines must be maintained through transport which further complicates distribution.
- 3. **National Controls**: Who gets the vaccine first will partially be driven by which countries make deals with drug manufacturers. The US, the European Union and UK made advance orders and purchased hundreds of millions of doses of multiple vaccine candidates in 2020, upsure of which is a second control of the control o

Source: Duke University Launch and Scale Speedometer

How Many Covid-19 Vaccine

Doses Has The U.S. Secured?

110m

100m

100m

100m

100m

Number of doses of Covid-19 vaccines secured

by the U.S. as of November 20, 2020

AZD1222 (University of Oxford AstraZeneca)

SARS-CoV-2 Vaccin (Sanofi-GSK)

BNT162b2 (Pfizer & BioNTech)

JNJ-78436735 (Johnson & Johnson)

> mRNA-1273 (Moderna)

NVX-CoV2373

multiple vaccine candidates in 2020, unsure of which would come to market.

4. Public Hesitancy to Take the Vaccine: Herd immunity is necessary to drastically slow the spread of the virus and this depends on immunity among a large percentage of the population. Should the public not widely adopt vaccination, the virus may be more difficult to eradicate.

While the success of the global vaccine rollout will be the most important factor impacting the outlook for global business travel, there are numerous other aspects to consider with regards to business travel's recovery over the next five years:

- What will duty of care policies look like?
- Will travelers remain reticent to travel even after worldwide vaccination?
- Will the rapid adoption and change of how many firms use meeting technology lead to a permanent change in the demand for business travel?

The table to the right presents findings from GBTA's December 2020 member polling and summarizes expected differences in travel managers' share of travel budgets from 2019 when compared to expectations for 2021. It is important to note that this represents the change in allocation of budget and not the change in actual budget amounts. Conferences, trade shows and industry events are (not surprisingly) expected to see

Share of Corporate Travel Budgets By Trip Purpose: 2019 vs 2021 Anticipated

	2019	2021	Difference
Conferences, trade shows, and industry events	18%	13%	-5%
Internal company meetings with colleagues	21%	15%	-6%
Sales/account management meetings with current or prospective customers	24%	30%	6%
Service trips (such as repairs, training or equipment installation) with current customers	15%	20%	5%
Supplier meetings	7%	6%	-1%
Employee training and development	9%	8%	-1%
Other	6%	8%	2%

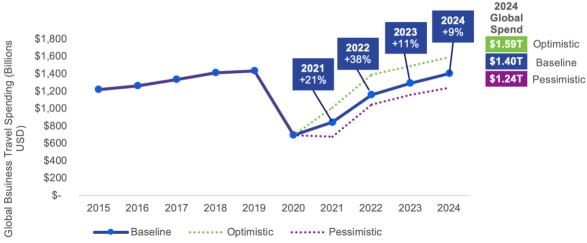


the largest downward adjustment in budgets from 2019 to 2021, followed by internal company meetings with colleagues, many of which will likely be moved online. Sales and service/support trips will both take on a larger share of travel budgets in 2021.

Given the uncertainty of the vaccine rollout and these additional factors, this year's global BTI™ Forecast inherently has a larger "cone of uncertainty" than in years past. Our baseline expectation is that the vaccine rollout will continue on a fairly accelerated trajectory and while we expect there to be hiccups along the way, the baseline forecast assumes that there are no major setbacks in the production or distribution of the vaccine.

Our baseline forecast projects a 21% gain in business travel spending in 2021 following a 52% decline in 2020. Most of the gains are likely to come towards the end of the year as inoculation of the global population ramps up. These gains will accelerate in 2022 as the world enters the mid-to-late stages of recovery described in the *business travel stages of recovery* on page 18 of this report. This includes a significant pick-up in group meeting activity and international business travel. We expect annual spending growth to slow in 2023 and 2024 but remain well above the historical average growth with annual business travel spending eclipsing \$1.4 trillion, just below its 2019 pre-pandemic peak of \$1.43 trillion.

Business Travel Spending Projections 2020-2024: Baseline Vs Additional Scenarios



Given the extreme uncertainties surrounding the global recovery highlighted on the previous page, we have also provided two global forecast scenarios- one optimistic and one pessimistic. In the optimistic scenario, global inoculation occurs much faster than anticipated, corporate travel policy allows employees to get back on the road sooner than expected, countries open up their borders to inbound travelers and pent-up demand from missing over a year of critical business interactions sends business travel activity soaring back. In this optimistic scenario, we expect global business travel spending to reach nearly \$1.6 trillion in 2024, 11% higher than the pre-pandemic peak. In the pessimistic scenario, the vaccine rollout is slower than expected and firms remain reticent to send workers back on the road. The rapid adoption of online meeting technology leads firms to be more cautious in sending employees out on the road and less critical business trips are substituted for virtual meetings. In this scenario we expect global business travel spending to reach only \$1.24 trillion by 2024.



Global Travel Infrastructure Development Could be a Silver Lining of the COVID-19 Pandemic

One silver lining of the pandemic is the heightened potential for infrastructure development around the world. We expect transportation infrastructure will be a cornerstone of public policy and a key to economic recovery in many regions around the globe over the next few years. The US is a prime example with the incoming Biden Administration pushing a major infrastructure package that is planned to be unveiled in February.

The quality of travel and transportation infrastructure is paramount to the long-term health of the corporate travel sector. It reduces costs for businesses, saves time and improves employee satisfaction. Travel markets with robust travel infrastructures have an edge over competitors as high-quality infrastructure promotes economic growth and greater overall prosperity. A 2016 study from the US Congressional Budget Office (CBO) found that for every 1% increase in public capital increases, the long-term level of private sector output grows by .06%.

Travel Infrastructure Ranking Among the Top 20 Global Business Travel Markets

I ravel Infras	inking Amo	ong the Top	20 Global	Business i	ravei wark	ets		
Country / Economy	Business Travel Spending Rank	Overall	Roads	Railroad	Port	Air Transport	Differ 2010	ink rence -2011 9-2020
China	1	36	45	24	52	66	14	A
United States	2	13	17	12	10	10	2	A
Germany	3	8	22	16	18	28	-6	V
Japan	4	5	5	1	5	5	6	A
United Kingdom	5	11	36	31	21	36	-3	•
France	6	9	18	15	20	24	-5	V
India	7	70	48	30	49	59	16	
South Korea	8	6	9	4	11	8	12	A
Italy	9	18	53	35	46	55	13	
Brazil	10	78	116	86	104	85	-16	V
Canada	11	26	30	27	26	37	-17	V
Spain	12	7	11	9	16	18	7	
Australia	13	29	34	29	37	23	-7	V
Netherlands	14	2	2	6	2	3	5	
Russia	15	50	99	17	47	52	-3	V
Indonesia	16	72	60	19	61	56	10	
Turkey	17	49	31	56	44	31	7	
Belgium	18	14	56	36	9	19	7	A
Sweden	19	19	20	40	17	13	-9	V
Austria	20	10	6	10	89	39	10	A
Average		27	36	25	34	33		

We have updated the report with the latest findings from the World Economic Forum's Global Competitiveness Report (2019-20) on the state of infrastructure in our top-20 global business travel markets. These key measures of infrastructure include the health of travel infrastructure – the quality of roads, railways, ports and air transportation. The table above highlights the

⁶ US Congressional Budget Office, The Macroeconomic and Budgetary Effects of Federal Investment, June 2016, pp. 24-25.



infrastructure rankings of the top-20 (ranked by total 2019 business travel spending) business travel markets in the world. The rankings in each category are based on that country's ranking among the 141 countries covered in the WEF report. Only the top-20 business travel markets are included above, while the ranking metric is that of all 141 countries covered in the WEF study.

Overall Infrastructure

Seven of the top-20 business travel markets – Germany, Japan, France, South Korea, Spain, the Netherlands and Austria – rank within the top-10 for the quality of overall infrastructure. Four countries in our top-15 list also rank amongst the top-20 in terms of Air Transport: the Netherlands (#3), Japan (#5) and South Korea (#8) and the U.S. (#10). The top-20 business travel markets rank relatively high in the quality of rail, averaging a rank of 25. However, they receive relatively less favorable rankings in the quality of Roads, Ports and Air Transportation, averaging rankings of 36, 34, and 33, respectively.

Emerging markets continue to make strides in improving transportation infrastructure, which is key to the development and growth of their business travel sectors. China has led the way with its ambitious "belt and road" initiative to improve connectivity throughout the country and within the region. Over the last 10 years, China has grown from #50 in its global ranking in quality of travel infrastructure to the 36th ranked country in the world. Similarly, other emerging markets have taken enormous strides in developing their infrastructure over the last 10 years – India has advanced 16 spots in the rankings, Turkey 7 spots in the rankings and Indonesia 10 spots in the rankings. Brazil on the other hand, continues to allow transportation infrastructure to deteriorate, falling 16 spots over the last 10 years. Russia's rakings have also slid but a more modest 3 spots over the last ten years



Business Travel Around the Globe

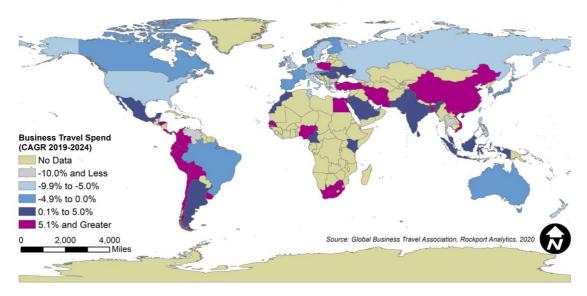
Spending on global business travel totaled \$1.43 trillion in 2019, an increase of 1.5% from \$1.41 trillion in 2018. Trade tensions and business uncertainty led to weakness in global business travel growth with annual regional growth ranging from 0% in Latin America to 2.7% in Emerging Europe. The Asia Pacific region continued to make up the largest share of business travel followed by North America and Europe. These three regions made up 90% of global business travel activity in 2019.

Our baseline forecast projects that we will not regain the pre-pandemic levels of business travel by 2024. We expect that over the next five years (including 2020's decline), global business travel will decrease by an annual average of -0.4%. Western Europe and North America, two of the regions hit the hardest by the pandemic, are expected to see average declines of -4.9% and -5.7% respectively. Business travel in regions such as the Middle East & Africa (MEA) and Asia Pacific (APAC) will manage to see positive growth over the period and regain 2019 peaks before the end of the forecast period. We expect compound annual growth rates in business travel spending of 4.3% and 3.7% respectively in MEA and APAC, respectively. Business travel in Asia Pacific, which has fared



relatively better through the pandemic, will help to buoy global travel activity over the forecast horizon.



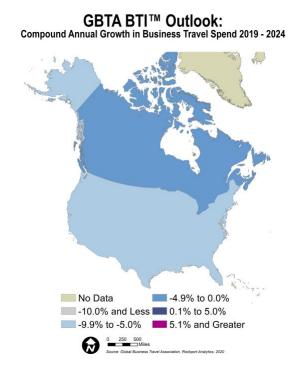




North America

Business travel spending in North America reached \$346.8 billion in 2019, an increase of 2.5% from the previous year. Spending by US business travelers, which totaled more than 90% of spending in the region, hit \$313 billion in 2019, growing by 2.7%. Canada and Mexico made up the remaining 9% of the region's business travel activity totaling \$33.7 billion. Growth in business travel spending in Mexico was curbed by a contracting economy and a decline in industrial activity in 2019. Growth in Canadian business travel also remained subdued as economic growth decelerated.

The slowdown in global growth and increasing barriers to trade were also significant headwinds for the region in 2019. During the first quarter of 2020, the US, Mexico and Canada signed the USMCA trade agreement which was set to go into effect on July 1, 2020. The trade agreement's implementation has stalled, however, because of border closings brought about by the pandemic. A full implementation of the agreement, while far from perfect, would likely play an influential role in business travel recovery in the region.



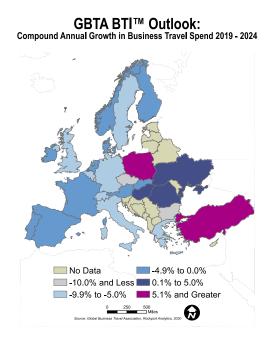
The United States has been ground zero for the pandemic with major surges throughout the fall and now the largest surge in the world- with cases, hospitalizations and deaths all rising sharply heading into 2021. We expect that business travel in North America will be the hardest hit in the world in 2020 following a 61% decline in the US, a 51% decline in Canada and a 44% decline in Mexico. These impacts are likely to persist well into 2021 and with business travel recovery not likely coming to the region until the back half of the year.

Another key determinant of business travel activity will be the direction of US public policy as the Biden Administration transitions into the White House. We expect President-Elect Biden to lead much more liberal trade and immigration policies which should help quell many of the trade disputes and disjointed foreign policies that acted as governors on businesses travel over the last few years. It will be critical for the new administration to implement a cohesive strategy to keep the public safe and give businesses and their employees the confidence they need to resume cross-border trade and activity. A coordinated vaccination campaign across the US and North America will of course be paramount to ensuring a rapid return to pre-pandemic economic activity.

Western Europe

Western European business travel made up roughly 23.4% of global business travel spending in 2019. The region's market share over the years has fallen four percentage points since its 2010 peak when it made up more than 27.3% of the globe's business travel expenditures. Business travel activity in Western Europe totaled \$334.7 billion in 2019 an increase of only 1.3% vs. 2018. Business travelers in the six largest markets in the region – Germany, UK, France, Italy, Spain and the Netherlands – spent a combined \$256.2 billion on business travel activity, 76.7% of regional expenditures.





The European Commission estimates a decline of 7.8% in Euro-Area GDP in 2020 before growing 4.2% this year and 3% in 2022. We expect business travel spending in Western Europe to end 2020 down 58.2% from 2019 levels. Europe has been hit particularly hard by the pandemic with most of the continent shut down in the beginning of spring to slow the spread of the virus. To date the virus has infected over 18 million people in the EU and taken the lives of nearly 500,000. An extended second wave also looms over the region with case numbers mounting in early 2021.

Another factor weighing on spending in Western Europe is the dependence of many companies and countries on intra-regional travel and economic activity. The dizzying array of country restrictions and policies from the outset of the pandemic made it very difficult for travelers to follow. In October, the European Commission added a common approach to travel measures in the EU that includes color-coded mapping of high-risk countries to provide travel guidance for EU members and to make it

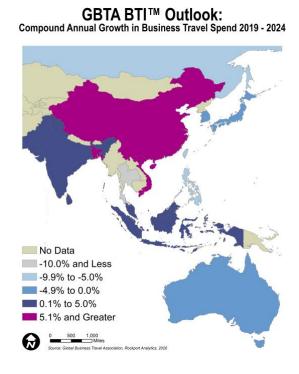
easier to track and understand intra-regional travel guidance and restrictions.

Asia Pacific

In 2019, business travel spending in the Asia Pacific region made up 43% of global business travel

and for the last two decades it had been expanding at an annual average rate of 7.3% - significantly faster than the global annual average rate of 4.5% over the same period. There was a significant reversal in this trend in 2019, however, as business travel in the region increased by only 1%, significantly slower than the global average. The dramatic slowdown in business travel activity was driven by weaker domestic demand, a slowing investment in infrastructure and geopolitical tensions and trade disputes between the US and China.

Annual business travel spending in China totaled \$381.7 billion in 2019, growing at a muted rate of only 0.9%. The trade disputes with the US halted the country's business travel growth, which for the last two decades had been growing at an average annual rate of nearly 14%. China's importance for the region and the globe is undeniable, making up 62% of the region's total business travel spending and more than a quarter (26.6%) of the globe's business travel spending. Japan also experienced declines in business travel which stemmed from trade disputes with the US and a slowdown in manufacturing at





home. Despite these slight declines in 2019, Japan remained the fourth largest business travel market in the world. Japan's business travel activity reached nearly \$65 billion, accounting for 10.6% of the region's total.

Asia Pacific was the first region to experience shutdowns in both domestic and international business travel due to the COVID pandemic. The outbreak, which began in Wuhan, China, spread across the APAC region and as of April 30th 2020, at least one case of COVID-19 had been reported in every country in Asia. Because of numerous factors including strict government controls, a high adoption rate of wearing masks, a large domestic supply of personal protective equipment and stringent testing protocols, China and many other countries in the region were able to better control the virus which has allowed for fewer restraints on business travel through the summer and fall as case numbers in the rest of the world were rising drastically. We expect business travel spending declines to total 44% in Asia Pacific in 2020, significantly lower than the expected declines of 58% in Western Europe and 60% in North America. China will fare even better than most in the region given the early control of the virus and a more domestically focused business travel market, with projected 2020 spending declines of only 38%. The hardest hit markets in the region will include those that are dependent on international business travel like Singapore which is set to decline by 82% in 2020. Business travel in Hong Kong, likewise, will plummet by 84% in 2020.

Latin America

Latin America had the weakest business travel growth in the world in 2019, declining slightly to \$50 billion. Declines were driven by political crisis in Venezuela and recessions in both Argentina and Ecuador. All three of these markets saw business travel activity plummet in 2019. Other markets in the region were unable to pick up the slack with business travel unable to grow by more than 4.1% in any country.

Brazil continues to be the most important economy in the region and the 10th largest business travel market in the world despite sluggish growth. Brazil remains plagued with a lack of productivity growth, failing infrastructure and tax distortions that act as a governor on its corporate sector and overall business travel activity. It has also been one of the countries hardest hit by the pandemic. The first case of COVID-19 appeared in Brazil in February 2020 and as of the writing of this report, the country had at least a quarter of the total cases worldwide.



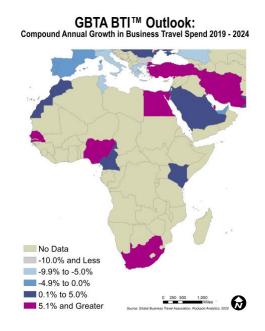
As of December 2020, Brazil, Argentina and Colombia all rank in the top 15 countries with the most confirmed cases to date. Despite the rising case numbers in Brazil and the rest of Latin America, we don't expect business travel expenditures to fall as much as 2020 spending in North America and Europe. This trend has been driven by more domestically focused business travel activity and fewer national restrictions on travel than other parts of the world. Latin American business travel spend will drop 45% in 2020, compared to a 51.5% drop globally. Spending growth is expected to average 1.4% over the five-year forecast period for Latin America, significantly better than the -0.4% decline forecasted globally.



The Middle East, Emerging Europe & Africa

In 2019, the MEA region reached nearly \$27 billion in business travel spending, an increase of 2.6% compared to 2018. Although growth in the region slowed down compared to 2018's increase of 7.0%, they were the second-best performing region in the globe. Business travel activity was strong in most African Countries where growth rates ranged from 12.6% in Egypt to 0.7% in Morocco. The Sub-Saharan nations of Nigeria (9.9%), Kenya (6.6%) and South Africa (4.0%) all performed better than the region's average. However, spending growth in Qatar, Kuwait, Bahrain, Saudi Arabia and the UAE, all slowed in 2019 as oil prices fell.

The declines in business travel expenditures in 2020 were less severe in the Middle East and Africa than in the rest of the world, as COVID-19 case numbers haven't seen the same spikes that have plagued North America and Europe. There is also relatively less discretionary business travel (e.g., meetings and events travel) that occurs in the region so there are



relatively fewer trips that can be cut without jeopardizing normal business operations. We expect the MEA to grow business travel expenditures at a compound annual rate of 4.3% in the period between 2019 and 2024, outperforming all other regions of the globe over the period.

In 2019, business travel spending in Emerging Europe totaled \$57.2 billion, growing 2.7% vs 2018. Despite growth in this region remaining relatively flat vs 2018, the region managed to perform better than all other regions across the globe. The Ukraine (9.7%), Turkey (4.5%) and Romania (3.1%) all had growth rates that were stronger than the region's average. Business travel in Russia remained almost as weak as in 2018 growing by only 2%. Slow growth was the result of a VAT rate hike and a slowdown in government spending. Poland and the Czech Republic were unable to maintain the double-digit growth achieved in 2018 with spending in Poland remaining flat and the Czech Republic growing business travel spending by only 1.3%.

Through the spring of 2020, most Eastern European countries managed to contain the COVID outbreak, but cases ballooned during the last quarter of the year. Five countries in the region are now among the top-25 countries in total cases worldwide. As of the first two weeks in December 2020 Slovenia, Lithuania and the Czech Republic had some of the worst outbreaks in the world in terms of average number of daily cases per capita. The world is also keeping a close eye on Russia's development of its vaccine, Sputnik V, which was registered in August for emergency use. Russia has been criticized for rushing Sputnik V to market but passed final Phase III trials in December and over 200,000 Russians have taken the shot. We expect business travel spending to decline by 48% to \$29.7 billion across Emerging European markets in 2020, recovering back to \$57.2 billion by 2024.



Share of Regional Business Travel Spend by Country

	gional Bu					
Region / Country	BTS 2019 (million US\$)	% of Region 2000	% of Region 2019	% of Region 2020	% of Region 2024	% Point Change 2000-2024
Asia Pacific	\$615,718	100.0%	100.0%	100.0%	100.0%	
China	\$381,746	19.7%	62.0%	69.1%	70.8%	51.1%
Japan	\$64,990	45.8%	10.6%	9.6%	8.1%	-37.7%
South Korea	\$37,533	10.4%	6.1%	5.0%	4.3%	-6.12
India	\$41,349	4.2%	6.7%	5.3%	5.9%	1.72
Other	\$90,100	19.9%	14.6%	11.0%	10.9%	-9.0%
North America	\$346,815	100.0%	100.0%	100.0%	100.0%	
United States	\$313,070	92.9%	90.3%	87.7%	87.6%	-5.37
Other	\$33,745	7.1%	9.7%	12.3%	12.4%	5.35
Vestern Europe	\$334,678	100.0%	100.0%	100.0%	100.0%	
United Kingdom	\$52,980	18.6%	15.8%	14.5%	15.4%	-3.27
ltaly	\$35,571	13.2%	10.6%	10.3%	10.2%	-3.12
Germany	\$78,396	19.6%	23.4%	21.9%	21.3%	1.72
France	\$43,403	12.9%	13.0%	13.7%	13.8%	0.92
Spain	\$24.051	5.6%	7.2%	7.6%	7.8%	2.23
Netherlands	\$21,772	6.9%	6.5%	7.9%	7.8%	0.92
Other	\$78,506	23.3%	23.5%	24.1%	23.8%	0.65
Emerging Europe	\$57,220	100.0%	100.0%	100.0%	100.0%	
Russia	\$19,906	25.6%	34.8%	25.0%	24.6%	-1.05
Turkey	\$15,324	35.8%	26.8%	38.5%	36.3%	0.5%
Poland	\$6,771	13.4%	11.8%	14.3%	15.8%	2.45
Czech Republic	\$3,988	8.2%	7.0%	3.6%	3.9%	-4.35
Other	\$11,232	17.0%	19.6%	18.7%	19.5%	2.5%
Latin America	\$49,942	100.0%	100.0%	100.0%	100.0%	
Brazil	\$30,106	53.9%	60.3%	51.4%	50.7%	-3.12
Colombia	\$4,442	7.7%	8.9%	11.5%	12.3%	4.6%
Chile	\$3,829	6.0%	7.7%	10.3%	10.9%	4.9%
Peru	\$3,856	5.2%	7.7%	9.6%	9.5%	4.32
Venezuela	\$1,320	7.7%	2.6%	0.9%	1.0%	-6.7%
Argentina	\$2,424	12.0%	4.9%	5.8%	5.6%	-6.32
Other	\$3,965	7.6%	7.9%	10.5%	9.9%	2.35
Middle East & Africa	\$26,891	100.0%	100.0%	100.0%	100.0%	
South Africa	\$6,079	20.1%	22.6%	24.8%	23.9%	3.85
Saudi Arabia	\$2,601	13.7%	9.7%	9.5%	9.6%	-4.13
Israel	\$3,305	14.6%	12.3%	12.4%	12.1%	-2.5%
Egypt	\$1,789	14.2%	6.7%	7.8%	7.8%	-6.45
United Arab Emirates	\$2,389	6.9%	8.9%	6.2%	6.4%	-0.5%
Other	\$10,728	30.6%	39.9%	39.3%	40.3%	9.7;



GBTA BTI™

GBTA's headline measure of the current and projected level of business travel is the GBTA BTI™ (Business Travel Index™). This index of business travel activity has been created for total global business travel as well as for every major business travel market in the world. The GBTA BTI™ is indexed on a base year of 2005 and is derived from total business travel spending.

The COVID-19 pandemic will lead to a sharp decline in the Global GBTA BTI™ with the index falling from 202 in 2019 to a value of 98 (just below its 2005 base level of 100) in 2020. While we expect a significant snapback in the index in 2021 and 2022, we do not expect the index to fully recover until 2025. The graph below demonstrates the clear positive correlation between the Global BTI™ and Global Output. Generally speaking, business travel activity rises and falls with global output. However, there is a notable break in the trend in 2020 as the pandemic will impact business travel to a much greater degree than it will impact overall economic activity.

Global GBTA BTI™ and Global Sales (Indexed)

The table on the following page highlights the BTI™ performance among the top-15 business travel markets in the world along with country-level forecasts of BTI™ for each market. Across all 15 markets, we expect business travel recovery through 2024 with business travel rebounding across markets in 2021 and 2022 and growth generally slowing into the out years of the forecast. The table also highlights the cumulative growth in each market's BTI™ from 2019 (pre-pandemic) to 2024. We expect the 2024 BTI™ value for most of the top 15 markets to be lower than its cyclical peak in 2019. Two notable exceptions are China and India, which are expected to end 2024 with BTI values above their 2019 peaks. In the case of China, we expect business travel to regain its peak by 2022.



GBTA BTI™ Outlook: Top 15 Business Travel Markets

	Rank	2018	2019	2020	2021	2022	2023	2024	GBTA BTIM Total Percent Change (2019-2024)	GBTA BTIM Compound Annual % Change (2019-2024)
China	1	683	689	427	534	750	852	941	36.6%	8.1%
% Growth		9.2%	0.9%	-38.0%	25.2%	40.3%	13.6%	10.4%	00.07	V.1/1
United States	2	130	134	52	62	84	91	97	-27.5%	-7.7%
% Growth		4.3%	2.7%	-61.1%	18.9%	35.0%	9.0%	6.6%		
Germany	3	198	200	78	91	123	134	141	-29.3%	-8.3%
% Growth	·	7.6%	1.1%	-60.9%	17.0%	34.7%	8.6%	5.8%	2007	0.07
Japan	4	114	114	57	66	90	98	105	-7. <mark>8%</mark> .	-2.0
% Growth	T	2.3%	-0.4%	-49.7%	14.5%	36.7%	9.2%	7.2%	- ' - '	-2.0
United Kingdom	5	142	145	56	68	93	103	110	-24.2%	6.7%
% Growth	,	3.7%	2.1%	-61.7%	22.7%	36.4%	10.2%	7.3%	-24.271	-0.173
France	6	156	159	70	84	113	123	132	.17.3 ₂ /.	4.6%
% Growth	Ü	6.1%	2.0%	-55.8%	19.5%	34.6%	9.1%	6.6%	 	1.0/
India	7	432	452	197	248	358	418	476	5.3%	1.3%
% Growth	1	6.3%	4.8%	-56.4%	25.7%	44.5%	16.5%	14.1%	5.57	1.0%
Korea, South	0	179	177	81	97	129	140	149	45 Av	(0)
% Growth	8	5.6%	-1.3%	-54.3%	20.0%	33.3%	8.8%	6.0%	15.7%.	1.2%
Italy	0	126	124	50	60	80	87	93	25.54	7.6
% Growth	9	6.1%	-1.3%	-59.5%	19.0%	33.7%	8.9%	6.3%	-25.5%	-7.1%
Brazil	40	244	249	117	144	193	210	225		, .
% Growth	10	-3.9%	2.1%	-53.1%	22.8%	34.1%	9.1%	7.3%	300	-2.5%
Canada	44	164	164	80	96	130	142	150		, ,
% Growth	11	3.0%	0.3%	-51.3%	20.3%	35.5%	8.7%	6.2%	-8 <mark>35</mark> .	-2.2%
Spain	40	164	165	74	87	118	130	139		
% Growth	12	8.0%	0.9%	-55.5%	17.8%	36.0%	10.2%	7.2%	15.8%	-1.2%
Australia	40	182	184	75	89	127	148	163	.	
% Growth	13	0.7%	1.1%	-59.0%	18.6%	41.9%	16.9%	10.0%	·11.31/.	-3. <mark>0%</mark>
Netherlands	4.4	148	153	77	91	122	133	142		10
% Growth	14	9.4%	3.0%	-49.5%	17.6%	34.6%	9.2%	6.6%	-6.0	-1.8
Russia	15	217	221	82	102	136	147	156	20.14	0.00
% Growth	15	1.7%	2.0%	-62.7%	24.0%	33.0%	8.1%	6.2%	-29.4%	-8.3%
GBTA Global BTI™		199	202	98	119	164	182	198	2.4	0.5
% Growth		5.7%	1.5%	-51.5%	21.2%	37.6%	11.4%	8.6%	-2.13	-0.5%
Global Sales Index		191	192	175	188	202	216	231	20.2%	'

Source: GBTA, Rockport Analytics



Business Travel by Industry Sector

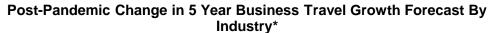
Another key element of GBTA's business travel database is our estimate of global travel spending by industry. Business travel is a critical input to virtually every industry and business, even as some industries use travel much more intensely than others. As business travel and the global economy recover from the severe impacts of the COVID-19 pandemic, it is important to put the industry impacts on business travel in perspective as well. The industry performance analysis can give travel managers information to better understand how their organization's business travel spending differs from the average of all firms in their sector. It can also illustrate how their sector fared during the 2020 downturn compared to other sectors and how quickly they might expect a rebound in travel demand. Lastly, the data can help travel suppliers to better allocate their marketing resources by targeting industry segments that have better prospects over the next five years.

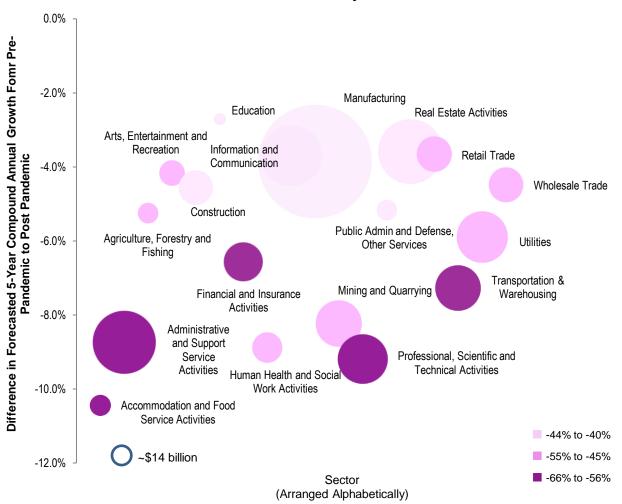
In 2019, manufacturing remained the largest aggregate business travel sector in the world with spending totaling \$441.4 billion comprising 31% of all business travel expenditures. The manufacturing sector ranked 5th in travel intensity on a per-dollar of sales basis, requiring 11% more business travel per dollar of revenue than that of the average firm. The next three largest sectors in 2019 were Real Estate Activities, Administrative and Support Service Activities and Information & Communication.

Profile of Sales and Business Travel Spending by Industry											
	Total Sales	Business Travel Spending BTS Growth Outlook			vth Outlook						
Industry	2019 Sales (bn US\$)	2019 BTS (mn US\$)	2019 BTS % of Total	2000-2019 BTS CAGR	2020-2019 % change	2020-2024 CAGR	Industry Status				
Accommodation and Food Service Activities	\$2,421	\$15,082	1.1%	1.5%	-65.1%	21.6%	Emerging				
Administrative and Support Service Activities	\$6,722	\$134,345	9.4%	1.0%	-57.8%	19.1%	Mature				
Agriculture, Forestry and Fishing	\$2,895	\$14,009	1.0%	0.0%	-54.9%	18.5%	Low Priority				
Arts, Entertainment and Recreation	\$8,752	\$21,440	1.5%	14.6%	-51.6%	18.6%	Low Priority				
Construction	\$6,624	\$39,512	2.8%	3.4%	-49.1%	18.8%	Low Priority				
Education	\$4,499	\$4,470	0.3%	0.0%	-42.4%	22.8%	Emerging				
Financial and Insurance Activities	\$8,506	\$51,243	3.6%	4.7%	-55.0%	17.7%	Low Priority				
Human Health and Social Work Activities	\$4,855	\$29,987	2.1%	27.4%	-52.8%	18.6%	Low Priority				
Information and Communication	\$14,267	\$126,075	8.8%	6.8%	-47.8%	19.2%	Mature				
Manufacturing	\$49,137	\$441,396	30.8%	5.1%	-49.1%	19.3%	Star				
Mining and Quarrying	\$11,431	\$72,701	5.1%	49.3%	-50.9%	17.7%	Low Priority				
Professional, Scientific & Technical Activities	\$5,414	\$83,287	5.8%	4.3%	-55.6%	18.0%	Mature				
Public Admin and Defense, Other Services	\$4,918	\$13,700	1.0%	-5.6%	-49.1%	18.2%	Low Priority				
Real Estate Activities	\$9,815	\$141,606	9.9%	7.3%	-46.9%	19.9%	Star				
Retail Trade	\$5,439	\$41,977	2.9%	9.6%	-53.5%	21.2%	Emerging				
Transportation & Warehousing	\$8,036	\$70,968	5.0%	4.4%	-55.7%	21.5%	Emerging				
Utilities	\$5,542	\$89,130	6.2%	2.5%	-54.7%	18.4%	Mature				
Wholesale Trade	\$6,758	\$40,338	2.8%	1.0%	-52.8%	18.0%	Low Priority				
Grand Total ►	\$166,031	\$1,431,265	100.0%	4.4%	-51.5%	19.2%					



While business travel has been disrupted across sectors in 2020, these impacts have not been uniform. We expect the pandemic will lead to shifts in business travel activity not only on a region-by-region basis but also from industries that have been more exposed to the pandemic and towards those that continue to be more resilient through the health crisis. The most heavily impacted sector, not surprisingly, has been accommodations and food services activities with business travel in the sector plummeting an estimated 65% globally in 2020. Other heavily impacted sectors include administrative and support services, transportation and warehousing, and finance and insurance. Sectors of the economy that have fared better through the pandemic include real estate services, education, manufacturing and information and technology.





^{*} The size of the bubble depicts the total 2019 Business Travel Spend
The color of the bubble depicts the percent decline in business travel spending from 2019 to 2020
The Y axis depicts the difference in last year's forecasted 5-year compound annual growth compared to the compound annual growth rate from 2019 to 2024.

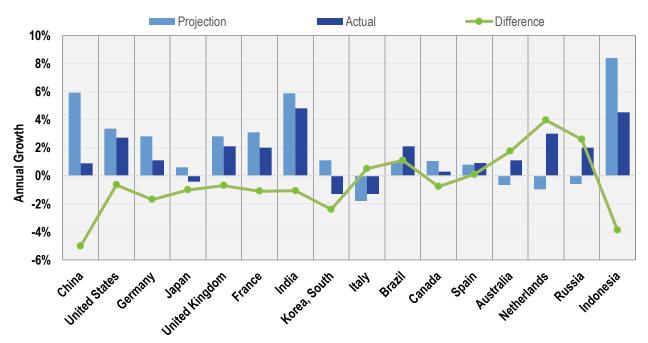


A Look Back at Last Year's Global GBTA BTI™ Outlook: How Did We Do?

Our business travel forecasts can be inaccurate for several reasons including shifting trends and external shocks to the forecast model (i.e., unforeseen circumstances that impact business travel activity). Given the potential to "miss" on our forecasts, and to improve our forecasting capabilities in future years, we feel it is important to look at how our model for assessing the future of global business travel is holding up against reality.

The graph below highlights the GBTA BTI™ Outlook for the top-15 business travel markets in the world. It also compares *last year's forecast* for 2019 business travel growth with the *actual 2019 growth rates* reported in this year's study. In aggregate, we overestimated total business travel spending growth by 1.6 percentage points in 2019. Global spending grew 1.5% against a forecast of 3.1%. The overall miss to the downside was the result of an escalation of trade wars in the latter half of 2019. The range of our misses for the top-15 markets were from -5% (China) to +2.6% (Russia). The impact on China was a direct result of US-China tariffs and trade tensions that weren't lifted until the January 2020 Phase I trade agreement.

2019 Business Travel Spending Annual Growth



Source: GBTA, Rockport Analytics

Country and Rank Order, from Left to Right



Country Profiles

Business Travel Spending in the World's Top Markets

Using the master data cube created during the *Global GBTA BTI™ Outlook 2020 - 2024*, we developed a profile of the top business travel markets around the world. We present current levels of business travel spending, past trends, and our outlook through 2024 on one page for each country. We also break out travel spend by aggregate industry segments, to help identify which sectors drive business travel activity in each market. In the industry table, we also categorize each sector by "status," a way to group industries according to business travel opportunity. Finally, the 2019 GBTA BTI™ for each country is highlighted along with our expectation of where that index will be in five years' time.

Definition of Industry Status Groupings	Large Industry	Small Industry
High Projected GBTA BTI™ Growth	Star	Emerging
Lower Projected GBTA BTI™ Growth	Mature	Low Priority

What is Included in the Country Profile Tables?

GBTA BTI™

2019: **689** | 2024: **941**

The most current business travel index figure and our expectation for the final year of our forecast. Total Business Travel Spending (BTS) by Industry

Forecasted compound annual growth in BTS over the forecast period

	Pro								
*********	Aggregate				Total Sales Business Travel Spending				
Industry	Industry Sectors		2019 Sales (bn US\$)	2019 BTS (mn US\$)	2019 BTS % of Total	2020-2019 % ch	2020-2024 CAGR	Industry Stat	us
Manufacturing	L	l J	\$1,671	\$21,026	26.8%	-62.1%	16.2%	Star	
Professional, Scien	ntific and Technical Activities		\$318	\$15,693	20.0%	-62.7%	17.6%	Star	Industry
Utilities			\$236	\$7,679	9.8%	-61.1%	16.0%	Matur	performance
Financial and Insu	rance Activities		\$452	\$5,708	7.3%	-57.7%	15.1%	IVIALUE:	-
Information and Co	ommunication		\$592	\$5,441	6.9%	-59.7%	13.1%		segment
Transportation & V	Varehousing		\$440	\$5,151	6.6%	-61.6%	17.8%	Otal	defined in
Human Health and	Social Work Activities		\$470	\$4,123	5.3%	-57.2%	14.5%	Low Price	the table
Real Estate Activit	ties		\$412	\$3,535	4.5%	-58.5%	16.0%	Emerg	above
Construction			\$374	\$2,158	2.8%	-58.6%	15.0%	Low Priority	/
Wholesale Trade			\$281	\$1,923	2.5%	-61.5%	13.5%	Low Priority	1
Retail Trade			\$140	\$1,576	2.0%	-61.4%	16.9%	Emerging	
Agriculture, Forest	ry and Fishing		\$279	\$1,466	1.9%	-61.8%	15.0%	Low Priority	<u>/</u>
Administrative and	Support Service Activities		\$211	\$1,078	1.4%	-56.3%	14.9%	Low Priority	<i>(</i>
Arts, Entertainmen	nt and Recreation		\$308	\$642	0.8%	-61.0%	14.5%	Low Priority	1
Mining and Quarry	ring		\$68	\$507	0.6%	-57.7%	12.9%	Low Priority	1
Accommodation ar	nd Food Service Activities		\$36	\$489	0.6%	-59.2%	12.2%	Low Priority	/
Education			\$79	\$185	0.2%	-75.5%	31.9%	Emerging	
Public Admin and I	Defense		\$434	\$15	0.0%	-57.1%	15.3%	Low Priority	<u>/</u>
	Grand Total ►		\$6,801	\$78,396	100.0%	-60.9%	16.0%		



Appendix I -Summary of Spending Growth by Country

Summary of Spending Growth by Country

	Business Travel Spend (Annual Growth 2019)	Business Travel Spend (Annual Growth 2020)	Business Travel Spend (CAGR 2000- 2019)	Business Travel Spend (CAGR 2019- 2024)
Western Europe Total	1.3%	-58.2%	3.7%	-4.9%
United Kingdom	2.1%	-61.7%	2.8%	-5.4%
Switzerland	0.5%	-54.5%	3.0%	-5.2%
Sweden	2.2%	-63.3%	3.5%	-7.2%
Spain	0.9%	-55.5%	5.1%	-3.4%
Portugal	-0.9%	-57.5%	2.8%	-4.6%
Norway	1.3%	-51.2%	4.8%	-0.6%
Netherlands	3.0%	-49.5%	3.4%	-1.4%
Italy	-1.3%	-59.5%	2.5%	-5.7%
Ireland	5.4%	-53.1%	4.5%	-3.4%
Greece	-0.3%	-61.3%	1.9%	-6.5%
Germany	1.1%	-60.9%	4.7%	-6.7%
France	2.0%	-55.8%	3.7%	-3.7%
Finland	1.6%	-53.6%	4.1%	-3.1%
Denmark	0.8%	-50.0%	3.4%	-2.1%
Belgium	1.0%	-65.2%	3.3%	-8.3%
Austria	1.2%	-53.5%	4.5%	-3.1%
North America Total	2.5%	-60.0%	1.6%	-5.7%
United States	2.7%	-61.1%	1.5%	-6.2%
Mexico	2.1%	-44.0%	2.8%	1.1%
Canada	0.3%	-51.3%	3.5%	-1.7%
Middle East & Africa Total	2.6%	-39.2%	5.3%	4.3%
Tunisia	-1.2%	-58.5%	3.2%	-7.0%
South Africa	4.0%	-33.3%	5.9%	5.5%
Senegal	1.5%	-39.8%	6.4%	6.2%
Saudi Arabia	1.2%	-40.3%	3.4%	4.1%
Qatar	-2.9%	-25.1%	13.3%	9.2%
Nigeria	9.9%	-36.0%	8.7%	5.2%
Morocco	0.7%	-46.6%	4.4%	0.5%
Kuwait	-4.1%	-40.5%	7.5%	4.1%
Kenya	6.6%	-40.9%	7.1%	2.2%
Jordan	1.0%	-40.9%	6.4%	2.3%
Israel	5.1%	-38.5%	4.3%	4.0%
Iran	-5.0%	-38.5%	6.7%	11.1%
United Arab Emirates	0.8%	-57.9%	6.7%	-2.2%
Egypt	12.6%	-28.8%	1.2%	7.6%
Cameroon	2.2%	-42.8%	5.7%	4.3%
Bahrain	-3.2%	-42.1%	7.3%	2.3%



	Business Travel Spend (Annual Growth 2019)	Business Travel Spend (Annual Growth 2020)	Business Travel Spend (CAGR 2000- 2019)	Business Travel Spend (CAGR 2019- 2024)	
Latin America Total	0.0%	-45.0%	4.8%	1.4%	
Venezuela	-34.3%	-82.0%	-0.9%	-16.5%	
Uruguay	1.4%	-24.4%	4.9%	6.2%	
Peru	2.3%	-31.6%	7.0%	5.8%	
Panama	3.3%	-32.2%	6.4%	5.2%	
Honduras	4.1%	-27.8%	4.2%	5.1%	
Ecuador	-4.0%	-27.2%	3.6%	6.0%	
Costa Rica	1.2%	-26.3%	6.0%	7.0%	
Colombia	-0.6%	-28.6%	5.7%	8.2%	
Chile	2.6%	-26.4%	6.2%	8.9%	
Brazil	2.1%	-53.1%	5.5%	-2.0%	
Bolivia	2.0%	-25.9%	5.8%	5.6%	
Argentina	-5.3%	-33.8%	0.0%	4.5%	
Emerging Europe Total	2.7%	-48.1%	7.2%	0.0%	
Ukraine	9.7%	-52.7%	9.1%	0.1%	
Turkey	4.5%	-25.4%	5.6%	6.3%	
Slovakia	2.1%	-55.2%	7.6%	-2.2%	
Russia	2.0%	-62.7%	8.9%	-6.7%	
Romania	3.1%	-44.6%	9.3%	2.3%	
Poland	0.0%	-37.5%	6.5%	5.9%	
Hungary	2.3%	-39.3%	5.0%	2.5%	
Czech Republic	1.3%	-73.3%	6.3%	-11.1%	
Bulgaria	1.8%	-76.7%	7.0%	-15.4%	
Asia Pacific Total	1.0%	-44.3%	7.2%	3.7%	
Vietnam	2.5%	-27.2%	10.4%	10.5%	
Thailand	0.2%	-78.2%	5.2%	-16.7%	
Taiwan	-0.2%	-66.6%	2.0%	-9.1%	
Sri Lanka	1.6%	-44.9%	7.3%	1.4%	
South Korea	-1.3%	-54.3%	4.3%	-3.4%	
Singapore	-1.0%	-82.3%	4.3%	-18.7%	
Philippines	5.8%	-66.8%	5.9%	-6.5%	
Pakistan	2.2%	-38.8%	5.2%	4.8%	
New Zealand	0.6%	-62.5%	4.9%	-6.9%	
Malaysia	0.5%	-51.7%	5.6%	0.6%	
Japan	-0.4%	-49.7%	-0.7%	-1.6%	
Indonesia	4.5%	-50.5%	8.8%	2.3%	
India	4.8%	-56.4%	9.9%	1.0%	
Hong Kong	-1.1%	-83.9%	1.8%	-21.8%	
China	0.9%	-38.0%	13.9%	6.4%	
Bangladesh	11.1%	-34.5%	7.3%	5.5%	
Australia	1.1%	-59.0%	5.0%	-2.4%	
Grand Total	1.5%	-51.5%	4.4%	-0.4%	



Appendix II

Business Travel By Detailed Industry Sector

	Ton Lir	Top Line Performance			Business Travel Spending (BTS)			
Industry	2019 Industry Sales (billions)	% of Sales Total	2019-2024 CAGR	2019 BTS (billions)	% of BTS Total	2019-2024 CAGR	Business Travel Productivity Growth 2019-2024	
Real Estate Activities	\$9,815	5.9%	5.5%	\$141.6	9.9%	1.9%	-2.0%	
Administrative and Support Service Activities	\$6,722	4.0%	4.7%	\$134.3	9.4%	-3.3%	-5.6%	
Professional, Scientific and Technical Activities	\$5,414	3.3%	4.1%	\$83.3	5.8%	-3.0%	-5.0%	
Energy Mining	\$7,649	4.6%	4.3%	\$54.3	3.8%	-1.9%	-4.3%	
Water Supply, Sewerage, Waste Management	\$3,110	1.9%	3.5%	\$53.8	3.8%	-3.1%	-4.8%	
Financial and Insurance Activities	\$8,506	5.1%	4.3%	\$51.2	3.6%	-2.9%	-5.1%	
IT and Information Services	\$5,876	3.5%	6.9%	\$50.6	3.5%	1.5%	-3.1%	
Furniture, Other Durables, Repair and Installation	\$4,564	2.7%	4.0%	\$47.5	3.3%	-0.1%	-2.6%	
Chemical and Pharmaceuticals	\$3,575	2.2%	7.9%	\$44.3	3.1%	4.3%	-1.5%	
Transport Equipment	\$4,533	2.7%	3.7%	\$43.5	3.0%	0.8%	-1.7%	
Retail Trade incl Motor Vehicles	\$5,439	3.3%	3.8%	\$42.0	2.9%	0.1%	-2.4%	
Manufacture of Paper and Paper Products	\$1,620	1.0%	8.3%	\$42.0	2.9%	5.6%	-0.8%	
Wholesale Trade, except of Motor Vehicles	\$6,758	4.1%	2.8%	\$40.3	2.8%	-1.8%	-3.3%	
Construction	\$6,624	4.0%	5.3%	\$39.5	2.8%	0.2%	-3.2%	
Electricity, Gas, Steam and Air Conditioning	\$2,432	1.5%	4.3%	\$35.3	2.5%	-1.2%	-3.7%	
Manufacture of Textiles	\$2,227	1.3%	4.6%	\$32.0	2.2%	-3.6%	-5.9%	
Manufacture of Fabricated Metal Products	\$2,237	1.3%	3.2%	\$31.4	2.2%	-1.6%	-3.4%	
Human Health and Social Work Activities	\$4,855	2.9%	4.6%	\$30.0	2.1%	-1.4%	-4.0%	
Telecommunications	\$3,012	1.8%	2.2%	\$28.1	2.0%	-4.6%	-5.2%	
Manufacture of Tobacco Products	\$2,067	1.2%	4.9%	\$25.4	1.8%	-2.4%	-5.1%	
Manufacture of Basic Metals	\$3,375	2.0%	6.4%	\$25.4	1.8%	-2.1%	-5.7%	
Manufacture of Machinery and Equipment	\$2,760	1.7%	3.1%	\$24.1	1.7%	-2.1%	-3.7%	
Publishing Activities	\$2,791	1.7%	9.5%	\$24.0	1.7%	4.2%	-2.6%	
Audiovisual and Broadcasting	\$2,587	1.6%	7.8%	\$23.4	1.6%	2.6%	-2.8%	
Arts, Entertainment and Recreation	\$8,752	5.3%	3.0%	\$21.4	1.5%	-0.8%	-2.6%	
Manufacture of Leather and Related Products	\$3,832	2.3%	6.9%	\$21.2	1.5%	3.8%	-1.4%	
Rubber, Plastics, and Mineral	\$3,257	2.0%	3.7%	\$19.7	1.4%	-3.6%	-5.3%	
Air Transport	\$1,565	0.9%	2.6%	\$18.7	1.3%	-1.1%	-2.6%	
Manufacture of Electrical Equipment	\$3,577	2.2%	4.9%	\$18.4	1.3%	0.2%	-3.0%	
Mining of Metals and Stone	\$3,782	2.3%	4.0%	\$18.4	1.3%	0.9%	-1.8%	
Manufacture of Coke and Refined Petroleum	\$2,303	1.4%	9.2%	\$16.8	1.2%	1.3%	-4.6%	
Land Transport and Transport Via Pipelines	\$2,026	1.2%	4.6%	\$16.7	1.2%	-0.7%	-3.6%	
Accommodation and Food Service Activities	\$2,421	1.5%	0.8%	\$15.1	1.1%	-5.3%	-4.9%	
Warehousing and Support Activities	\$1,659	1.0%	4.1%	\$14.6	1.0%	-3.4%	-5.4%	
Agriculture, Forestry and Fishing	\$2,895	1.7%	1.8%	\$14.0	1.0%	-2.3%	-3.1%	
Postal and Courier Activities	\$1,739	1.0%	4.8%	\$13.9	1.0%	2.0%	-1.5%	
Public Admin and Defense, Other Services	\$4,918	3.0%	4.9%	\$13.7	1.0%	-0.2%	-3.3%	
Manufacture of Wearing Apparel	\$2,685	1.6%	9.3%	\$12.1	0.8%	4.0%	-2.6%	
Food and Beverages	\$2,516	1.5%	-0.1%	\$12.0	0.8%	-1.3%	-1.0%	
Manufacture of Computer, Electronic and Optical	\$1,771	1.1%	1.8%	\$10.8	0.8%	-0.7%	-1.8%	
Printing and Reproduction of Recorded Media	\$1,093	0.7%	3.3%	\$8.8	0.6%	-2.8%	-4.4%	
Water Transport	\$1,047	0.6%	5.0%	\$7.1	0.5%	0.2%	-3.1%	
Manufacture of Wood and of Products of Wood	\$1,145	0.7%	10.2%	\$6.1	0.4%	6.3%	-1.3%	
Education	\$4,499	2.7%	5.3%	\$4.5	0.3%	5.5%	1.0%	
Grand Total	\$166,031	100.0%	4.7%	\$1,431	100.0%	-0.4%	-3.4%	



Appendix III

Approach, Methodology, Data Sources, and Definitions

The overriding objective of this research initiative has been to create a process for developing credible estimates of the size, growth, contribution of business travel to companies, industries and countries around the world. This analysis was first completed in 2009, yielding a first-ever definitive and comprehensive measure of its kind. This process must obviously produce defensible results — results consistent with both the foundation data sources and any reputable aggregate or crosscheck measures published by other recognized sources.

This second measure (growth) is critical and gives us an important look at the changes to business travel over time. A continual updating of the analysis will help us understand how macroeconomic events, economic development, and other factors affect business travel. The key is to build a process that is both credible and repeatable, utilizing all appropriate data. Updating the estimates of business travel activity requires re-executing this established process to reflect updates of the integral data sources.

Principal Data Sources

Measuring the size, growth and contribution of business travel is neither a simple nor precise task. For one, data inputs are relatively scarce, particularly outside the United States and certain Western European countries. Moreover, each data source tends to tell only a portion of the business travel story. Detailed searches have uncovered no comprehensive view of business travel volume or spending. Even in cases where travel metrics were available, they tended to cover either total travel or leisure travel only.

Much of the supply-side data that we assembled during the initial stages of the research did not make the trip purpose distinction either. For example, revenue and/or capacity metrics from hotels or airlines generally do not distinguish a business traveler from a leisure traveler. The same is true for rental cars and restaurants. This type of supply-side data provided many important sanity checks but was insufficient to provide specific detailed insight that was additive towards a comprehensive view of business travel activity.

The second most critical data sourcing problem was the inconsistency of definitions across sources. Promising datasets that appeared to be ideal later proved to be less useful because of definitional inconsistencies surrounding industries, geography, or what constituted business travel itself. Indeed, something as simple as a different definition of a business trip sometimes thwarted attempts to use an otherwise robust data input. Obviously, the reconciliation of seemingly similar sources was paramount in compiling our final estimates.

Principal sources include:

- D.K. Shifflet & Associates Travel Panel TRAVEL PERFORMANCE/Monitor SM
- A 2009 bespoke survey of financial management (CFOs & Controllers) from a representative sample of US public and private companies. Over 500 completed interviews captured



information regarding travel and entertainment (T&E spending, as well as the commitment to travel management programs, policies, and personnel).

- The US Bureau of Economic Analysis
- International Air Transport Association (IATA)
- The US Department of Commerce's National Travel & Tourism Office
- The US Department of Transportation BTS Statistics
- STR Global
- German National Tourist Board
- IPK International
- Boeing (BCA)
- United Nations/World Tourism Organization (UNWTO)
- National Input/Output Accounts for 48 of the 73 countries analyzed in the study (Source: typically, Ministry of Commerce or Statistics)
- Various international government sources, including Ministries of Transportation, Tourism, & Commerce
- IHS Markit's Global Macroeconomic data, analysis and forecasts
- Rockport Analytics travel industry expertise

Methodology & Approach

We have assembled an extensive data repository from which to build estimates of global business travel activity. The inventory of sources included many of the private and public datasets that are commonly used to describe economic and travel industry performance in many contexts. Moreover, a comprehensive literature search provided a list of related research efforts that helped guide the final development of our methodology in each phase of the project. Each phase began with an effort to understand and reconcile the differences between and among the pertinent data sources.

The development of our global database of business travel spending by country (73) and industry (44) required that we build a "sources and uses" view of the industries that both buy and sell travel services. That is, Rockport put together a four-dimensional sectoral matrix: travel suppliers/sellers (rows), travel buyers (columns), time (2000-2019), and country. The values within each cell describe the sales of a seller's services (e.g., hotels) to each buying industry (e.g., utilities). For example, airlines constitute one of the critical seller rows. Across the airline row, each one of the 44 buying industries' total purchases of airline tickets is compiled.

The derivation of our initial estimates of business travel spending required that we apply the business travel purchase matrixes to published levels of total sales for each (buying) sector in each country. The total sales database was once again sourced from IHS Markit. The final estimates of business travel spending by country and sector required that Rockport fold in other data inputs covering total travel volume and spending in each country, where available. Countries such as the US, UK, Germany and others were compared and adjusted according to sources such as the UNWTO, DK Shifflet & Associates, WTTC and IPK International. Moreover, the Ministries of Tourism for some of the countries provide estimates of overall travel, sometimes separated into leisure and business purposes. Where available and consistent, these sources were used as critical cross-checks. A major



revision was made to the industry measurements in last year's study as the industry classifications in the source data were converted from the United Nations' ISIC Rev. 3.1 to ISIC Rev. 4.7 While this did not impact the overall levels of business travel spend it did require mapping all industries included in the data matrix to the new ISIC rev. 4 sectors. This also led to different measurements of spend for some sectors as the new totals are reflective of the current industry definitions published by the United Nations.

Typically, our business travel spending projections are created using a three-step approach. First, the business travel purchase coefficients for each sector/country pair were forecasted from 2018 using a time series approach that considers trends in travel intensity, productivity, and the impact of business cycles. Next, a projection of industry sales in each country was sourced from IHS Global Insight. Combining these two inputs resulted in an initial forecast of business travel spending. The final step required reconciliation with other forecasts of business travel activity from sources such as IATA, STR, Boeing, UNWTO, American Express, IPK International and others. Changes in the initial forecasts were made where Rockport deemed appropriate, all towards a final set of reconciled projections.

This year we added a fourth step to the forecast methodology as we had to account for the extraordinary losses to business travel activity due to the pandemic that would not be directly accounted for using the traditional methodology. This step included collecting data on country-level air and hotel bookings from ADARA, OAG, IATA and STR. These data sources were reconciled against one another in order to assess the country-by-county declines in business travel activity since the start of the COVID-19 pandemic in Q1. The declines were then overlaid onto the modeled values and adjusted on a case-by-case basis.

Definitions

The resulting global travel database, forecasts, and report created from this research effort can be used to inform many strategic and tactical decisions. Users among the travel manager, buyer and supplier community should, however, be certain to consider what the estimates do and do not include, particularly when comparing the findings to other external or internal measures.

The first definition is that of business travel itself. Our objective was to be as comprehensive as possible, resulting in the inclusion of all kinds of business trips and trip spending, including trips booked within and outside managed travel programs:

- Day trips and overnight trips
- Domestic and outbound international trips (an "origin" perspective of business travel)
- Trips on behalf of sales, operations, training, conventions/meetings, maintenance/repair, incentives, and customer service
- Trip spending included all categories -air, hotel, rental car, other ground transportation, personal vehicles, food and beverage, entertainment, and miscellaneous expenses

Another important definitional note revolves around the use of US dollars to represent business travel spending. Comparisons across countries required that local currencies be converted to US dollars using prevailing exchange rates. Moreover, all dollar values are expressed in current or nominal terms. This means the effects of inflation are included in both the estimates of industry sales and business travel spending.



⁷ https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf