

COVID-19 air passenger recovery phases and forecast

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The COVID-19 pandemic has brought global air passenger traffic to a halt, with government support propping up the few remaining flights. Even for those in the industry who have successfully navigated through prior crises, the current situation is unprecedented in reach, duration, and severity. Most concerning for business managers are the uncertainty and lack of reliable indicators to help plan their organization's recovery. With this report, our aim is to help managers understand how the pandemic may unfold based on what we are now seeing, how air traffic could recover, and—most importantly—what concrete steps they can take to prepare their organization for the recovery.



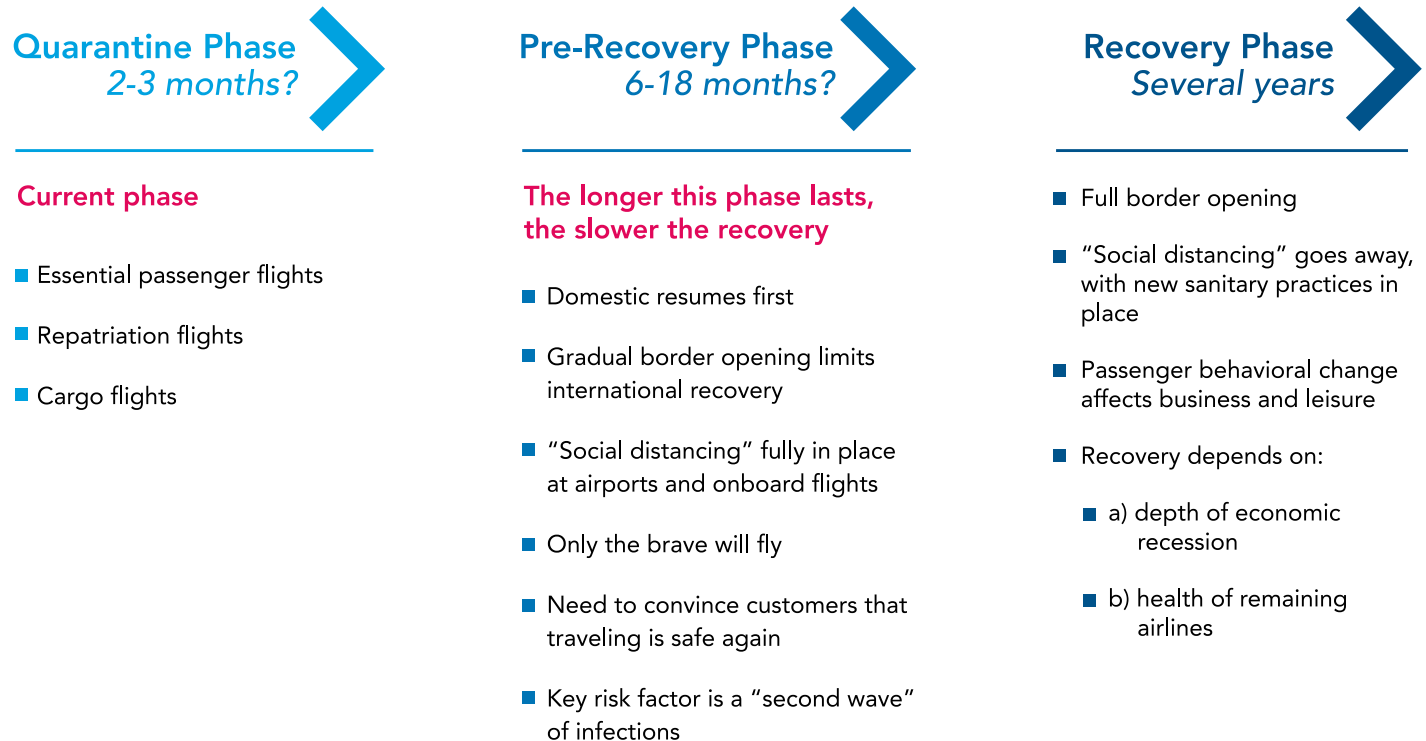
Recovery phases

The first question is when will a recovery start? For a full traffic recovery to take hold, we must progress from the current “quarantine phase” to a “full recovery phase” (Exhibit 1). As of this writing, many countries are planning to ease quarantine restrictions to allow their economies to restart, at which point they will enter a “pre-recovery phase” that will last until there is either a treatment or cure for COVID-19. This phase will start at different times in different countries, depending on the country’s ability to flatten the curve of infections, which is why border re-openings will be gradual.

Air travel will slowly return during the “pre-recovery phase,” and it is this phase that organizations need to prepare for now. The shorter this phase lasts, the faster we expect air traffic to recover. While medical experts indicate a vaccine could be a year or more away, as of this writing, there are encouraging signs that an effective treatment may be available before the end of the year.

Exhibit 1: COVID-19 traffic recovery phases

The timing and shape of recovery depends on our ability to control or mitigate the pandemic.



Recovery forecast

There is much discussion about what the air traffic recovery from COVID-19 will look like, and whether it will be shaped like a “V”, “U”, “L”, or some other shape. However, this discussion does not help managers make informed decisions about their business. What organizations should be most concerned with is what the next 12 to 24 months could look like for their business. To this end, ICF has prepared a COVID-19 traffic recovery forecast that quantifies the impact on traffic (by world region) over the coming years relative to pre-crisis levels.

As experienced forecasters, we are aware of the challenges in developing a reliable forecast at a time when key questions influencing supply and demand cannot be answered. For starters, we are not concerned with precise traffic numbers but rather want to give managers an **order of magnitude** for what the near-term traffic shortfall will be. This order of magnitude is more meaningful than knowing whether the recovery will be shaped like a “V” or a “U.” Our forecast is informed by a broad range of inputs from respected third parties and our own analyses, and it assumes that the pandemic ends by early 2021 (Exhibit 2).

Exhibit 2: Forecast inputs, assumptions, and modeling approach

	Pre-recovery (2020-2021)	Recovery (from 2022)
Inputs	<ul style="list-style-type: none"> Equity research reports from major investment banks for airlines, airports, lessors, and OEMs Airline news on fleet, staffing, restructuring, etc. Government bailout announcements Segment passengers from IATA PaxIS (2019 baseline) 	<ul style="list-style-type: none"> IMF COVID-19 updated GDP forecast by country or world region
Assumptions	<ul style="list-style-type: none"> Cure or treatment is available in 1Q 2021 Load factors are well below pre-crisis levels until there is a treatment or cure (however, load factors recover quickly thereafter, in line with past crises) 	<ul style="list-style-type: none"> Historical relationship between GDP and passenger growth (i.e., income elasticity of demand) remains unchanged
Approach	<ul style="list-style-type: none"> Bottom-up Rely on equity reports and industry news Driven by capacity and load factor assumptions 	<ul style="list-style-type: none"> Top-down Rely on the GDP and income elasticity assumptions Recovery profiles sense-checked against prior recoveries for reasonableness

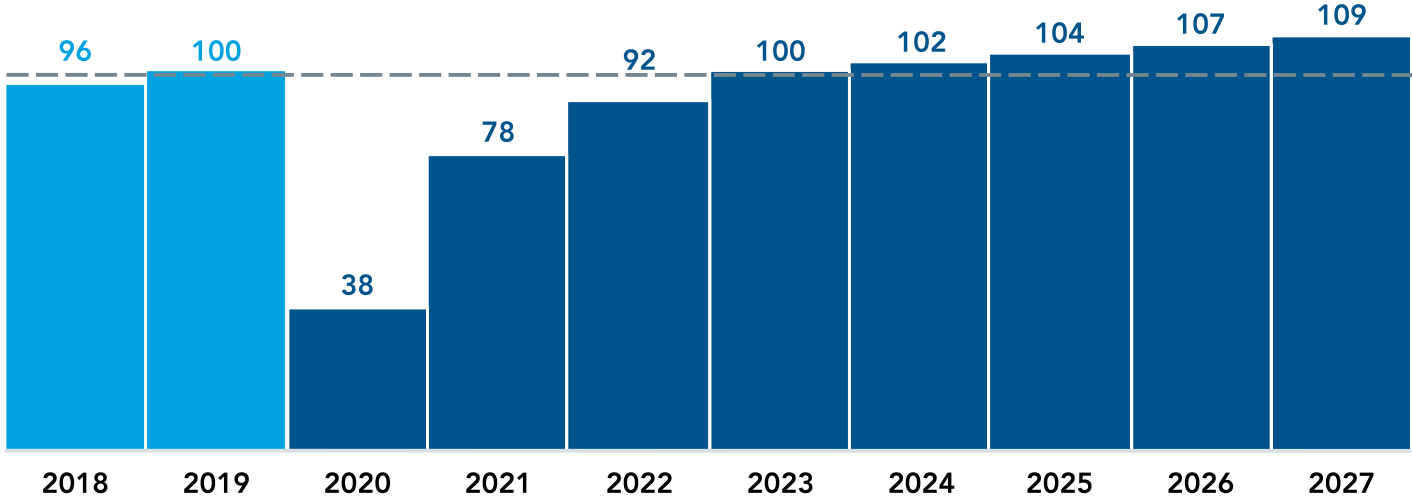


Given these considerations, we are forecasting global passenger demand to recover in about four years, with the recovery led by domestic and regional markets, and long-haul traffic lagging a year or two behind (Exhibit 3). However, **our industry’s biggest challenge will be overcoming an unprecedented demand drop in 2020 and 2021.**

Industry stakeholders’ business models—be they airlines, airports, or suppliers—have large fixed and semi-fixed cost structures that are not designed to withstand a drop in demand of this magnitude. Companies will need to take significant steps to “right-size” their business to make it through the “pre-recovery phase” and be well-positioned for the ensuing recovery.

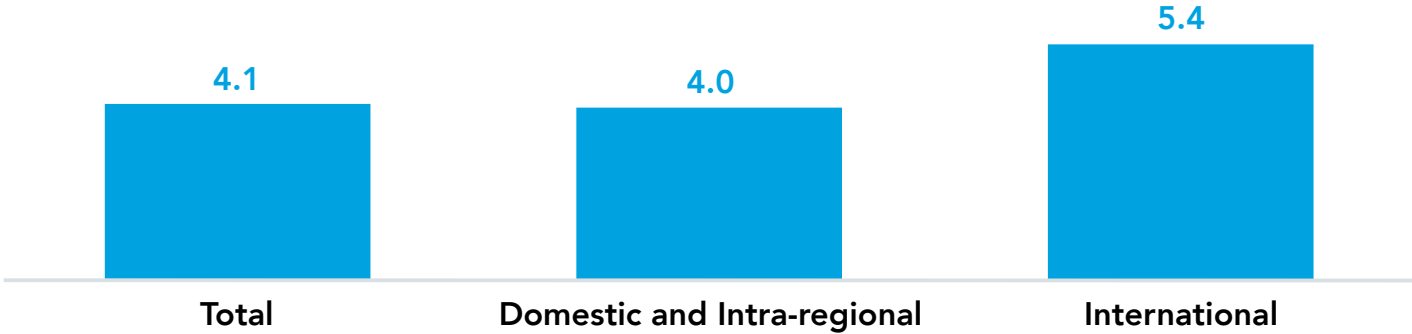
Exhibit 3: Global passenger forecast (Indexed, 2019 = 100)*

**This forecast assumes that a cure or treatment is available in Q1 2021*
Source: ICF analysis



Years to recover pre COVID-19 traffic

Source: ICF analysis

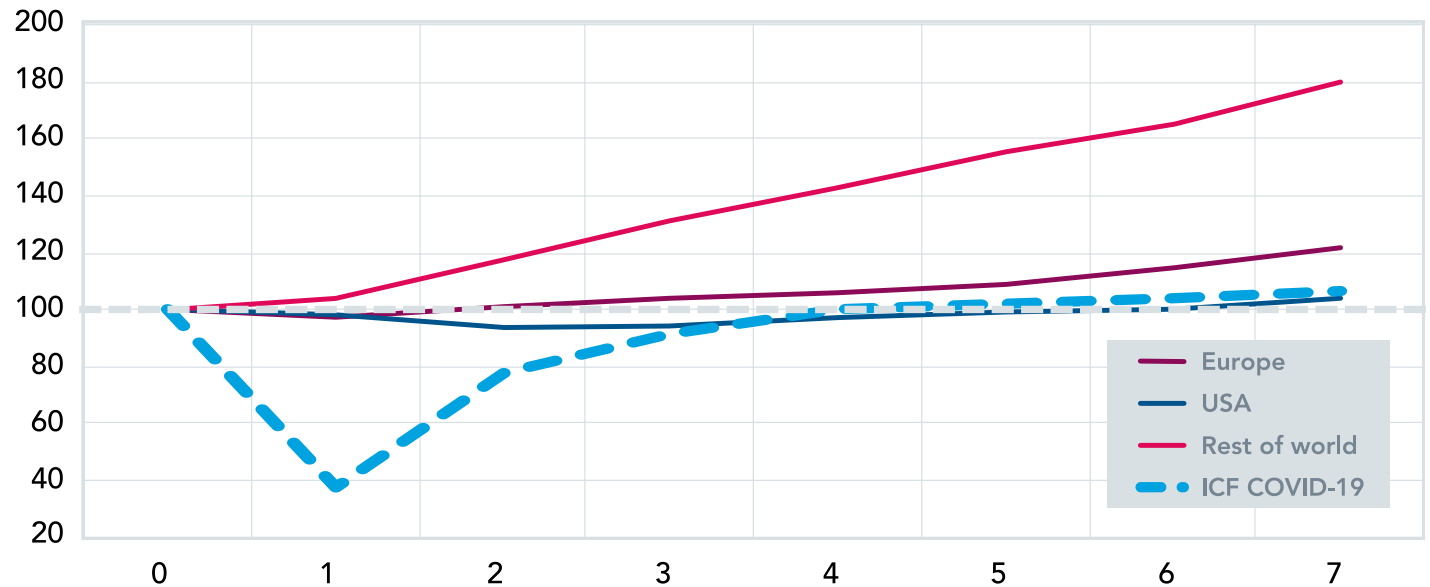


To put 2020 and 2021 in perspective, we have compared our recovery forecast to what happened after the Great Recession of 2008 (Exhibit 4). We do not show the impacts of past pandemics since they pale in comparison to COVID-19 and do not provide any useful insights. The United States required over six years to return to pre-recession levels, while Europe recovered within a year and the rest of the world kept growing.

Exhibit 4: Recovery from Great Recession (2008/2009) vs. COVID-19 (Air Passengers, indexed: pre-crisis = 100)

Source: ICF analysis using IATA PaxIS

Aviation has shown resilience in past crises, but this crisis is very different.



Aviation’s resilience in past crises is a testament to its critical role in the global economy. The COVID-19 crisis is very different from the Great Recession for various reasons, and these will undoubtedly make for a more challenging recovery:

- **Severe global impact.** Aviation activity has shut down on a global level.
- **Economic recession.** The economic impact is expected to be much greater than in 2008, with the IMF expecting global GDP to contract 3% in 2020.
- **No China this time.** Global air traffic’s resilience in 2008 was thanks to China’s strong growth engine, which accounted for significant traffic growth on its own, supported commodity exports in emerging markets, and afforded an abundance of cheap credit in advanced economies.

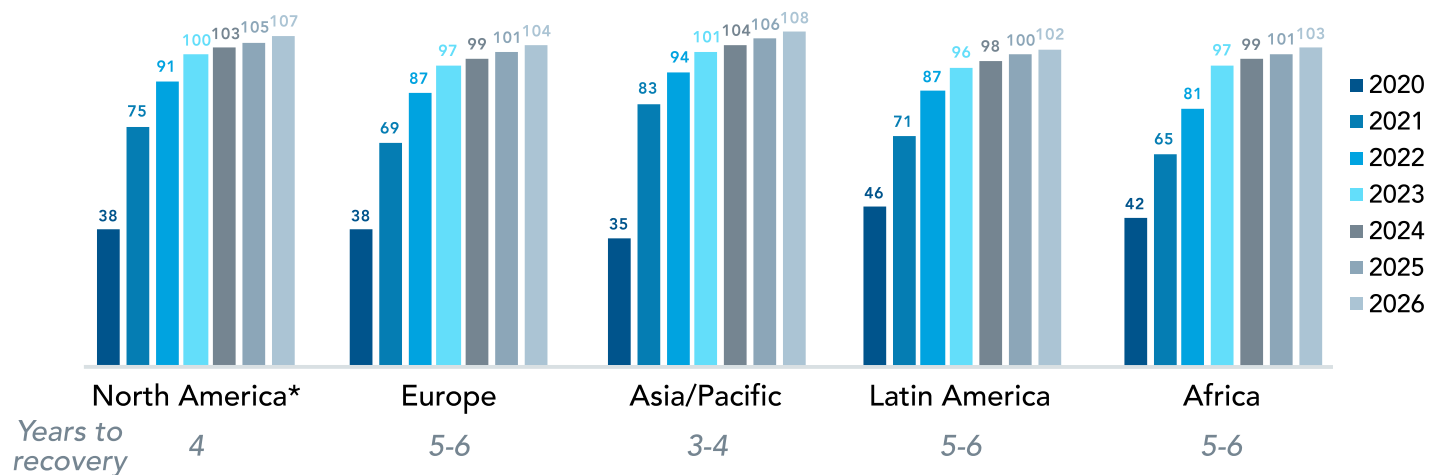
- **Supply-side constraints.** The unprecedented demand drop in 2019 and 2020 is causing aircraft order cancellations and retirements unlike anything in past recessions, and is already forcing airlines into bankruptcy or liquidation, resulting in less excess capacity during the recovery.
- **Behavioral change.** Past recessions have led to a loss in business-related traffic. The 2001 recession led to a loss of short-haul business traffic in the United States, and the 2008 recession led to a down-gauge of business travel from premium to economy classes. Will 2020 be remembered as the year video-conferencing finally took off, permanently displacing some business travel?

No region is immune to the current fall-off in demand and all can expect a challenging 2021. We do, however, anticipate different recovery speeds beyond 2021 as we move into a “full recovery phase,” with Asia-Pacific reaching pre-crisis traffic soonest, while Latin America and Africa are forecast to recover last (Exhibit 5).

Exhibit 5: Global passenger forecast by world region (Indexed: 2019 = 100)

Source: ICF analysis

Recovery timing will vary by region, with North America and Asia/Pacific expected to recover first



*North America excludes Mexico

Traffic recovery rates by region are driven by GDP forecasts and income elasticities, but are influenced by other explanatory drivers such as the mix of domestic and regional versus long-haul traffic, the financial health of each region’s airlines coming into the crisis, and the availability of substitutes. (Exhibit 6).

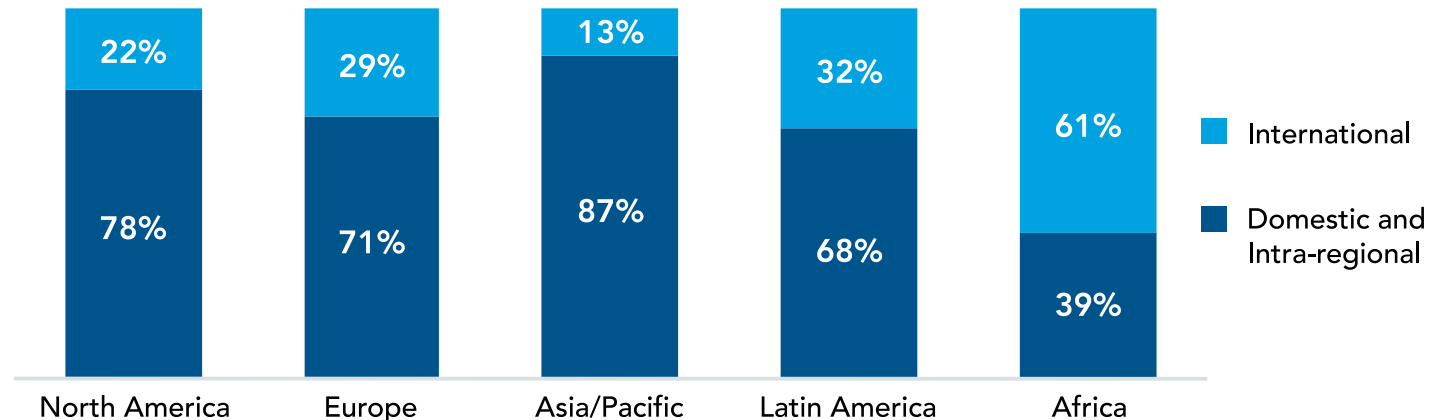
Exhibit 6: Explanatory drivers by region

North America	Europe	Asia/Pacific	Latin America	Africa
<ul style="list-style-type: none"> ✓ Airlines in good financial shape entering crisis ✓ Airlines already underwent consolidation ✓ Airline bailouts ✓ Large domestic market 	<ul style="list-style-type: none"> ✓ Airline bailouts ✓ Select airlines in good financial shape ✗ Airline capacity consolidation ✗ Low GDP growth ✗ Rail competition ✗ Brexit ✗ "Flight shaming" trend 	<ul style="list-style-type: none"> ✓ China GDP still well above world average ✓ Increased China outbound travel ✓ India latent growth potential ✓ Very large domestic markets in China and India ✓ Many national airlines with state backing ✗ Some markets reliant on budget long-haul leisure 	<ul style="list-style-type: none"> ✓ Several large domestic markets ✓ No substitutes to aviation ✓ Strong VFR links to NAM and EUR ✗ Deteriorating GDP before COVID-19 throughout region ✗ Over-reliance on commodities and China ✗ Several airlines with weak balance sheets ✗ Limited state aid to airlines 	<ul style="list-style-type: none"> ✓ Immature markets with latent demand ✓ Strategic importance to China ✗ Overly reliant on non-African airlines ✗ Weak GDP outlook in major economies ✗ Security concerns (health, terrorism)

Given the expectation that domestic traffic will recover before international traffic, the tighter economic linkages that typically exist among countries within the same region, and with the expected reduction in wide-body aircraft fleets as airlines retire, park, or cancel wide-body orders, we expect regions with a higher proportion of domestic and intra-regional traffic to recover sooner. This benefits Asia, the Pacific, and North America, which have very large domestic and regional markets, but it slows the recovery in Africa and Latin America (Exhibit 7).

Exhibit 7: Segment passenger mix by world region

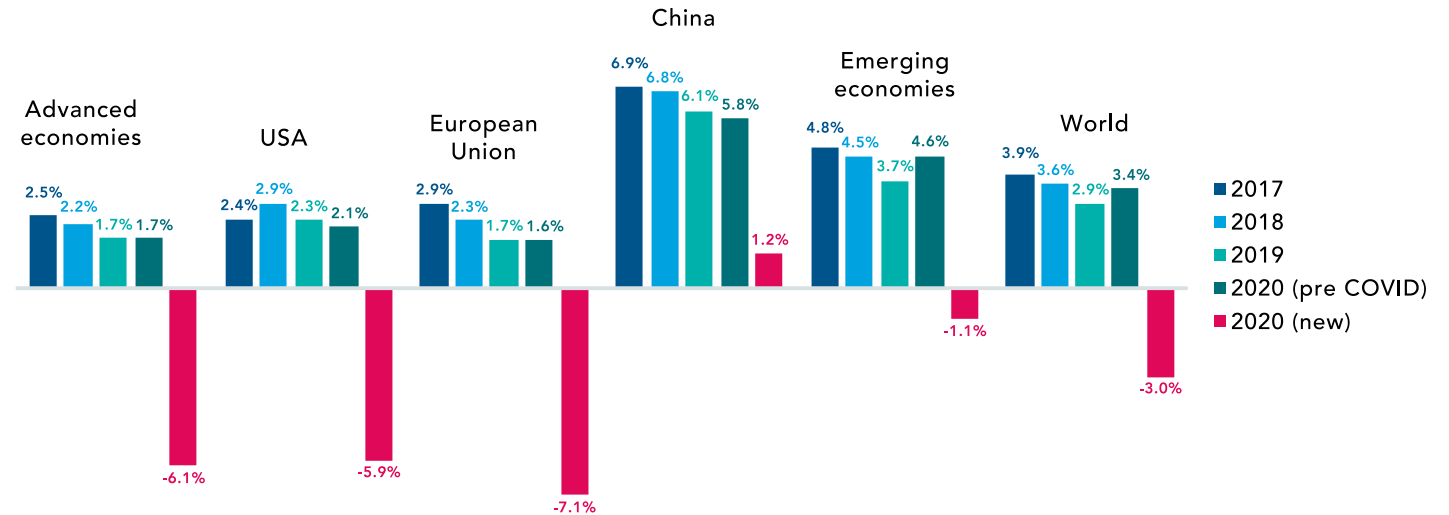
Source: ICF analysis



It bears reminding that COVID-19 surfaced just as economies in China and advanced economies were slowing. The latest outlook is for the world to enter a recession this year, with the full scale of its impact still unknown (Exhibit 8).

Exhibit 8: GDP by world region

Source: IMF World Economic Outlook, April 2020



We recognize that there will be significant variance within each region. Individual countries or airports will recover at different speeds depending on demand-side factors such as the health of the economy, the mix of domestic and international travel, passenger segmentation, and supply-side factors such as the state of airlines serving the market.

Actions to mitigate COVID-19’s impact and speed up the recovery

The sharp drop in near-term demand should not be a cause for despair. Rather, it should serve as a call-to-action. Business managers have many weapons in their arsenal to help mitigate the impact from a drop in demand, and they can influence the shape and speed of the recovery. Aviation will recover and “social distancing” will fade into memory, but in the meantime, there are specific actions that businesses can take as we enter the “pre-recovery phase” (Exhibit 9).

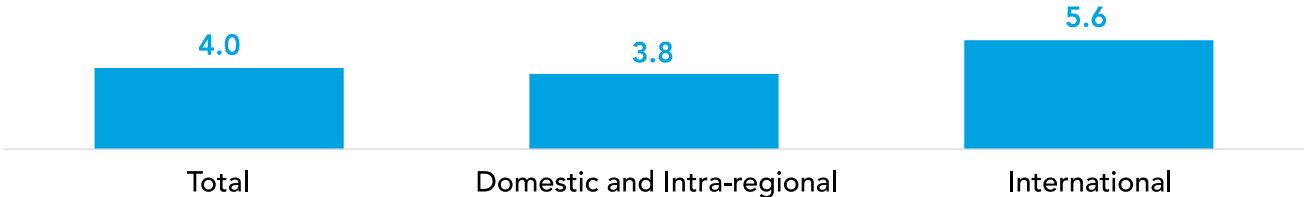
Exhibit 9: Representative actions by industry segment

Stakeholder	Actions
Airlines	<ul style="list-style-type: none"> ■ Network realignment and fleet optimization to serve market segments likely to prove most resilient during a pre-recovery with the lowest cost ■ 360-degree assessment of cost savings opportunities that prioritize bigger-ticket items with the biggest near-term cost savings (e.g., crew productivity, distribution fees and sales commissions, onboard product, MRO supply chain needs and inventory levels, facility downsizing, and remote work) ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence (including actions to ensure cleanliness and relaxed ticket restrictions to give passengers more peace of mind)
Airports	<ul style="list-style-type: none"> ■ Facility needs assessment to identify opportunities for partial facility closures to reduce Opex and defer Capex ■ Air service recuperation and development strategy to promote routes that should be more resilient during the “pre-recovery phase,” including financial incentives ■ Adapted commercial program and contracts to balance tenant viability with revenue generation ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence ■ Updated continuity of operations plans to better prepare for future disasters
Destination Marketing Organizations	<ul style="list-style-type: none"> ■ Air service retention and development strategy to promote destination during the pandemic ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence
Industry Associations	<ul style="list-style-type: none"> ■ Coordinated efforts to build awareness of market conditions and best practices on health safety protocols ■ Develop new standards for recovery and the new normal ■ A positive and proactive role in consumer, citizen, and policymaker engagement
MRO	<ul style="list-style-type: none"> ■ Accelerated MRO IT Mobile solutions to support distancing and headcount efficiency ■ Plans to optimize and sell off surplus inventory

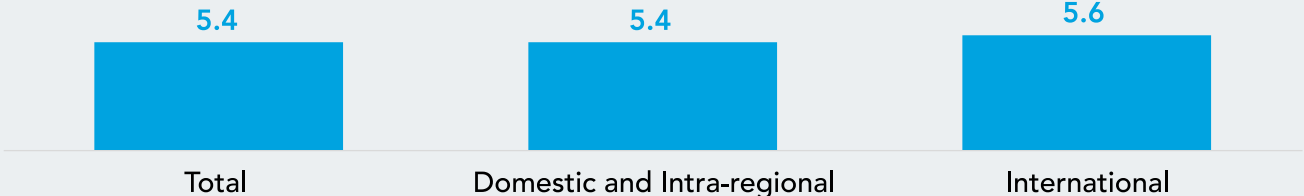


Years to recover pre COVID-19 traffic

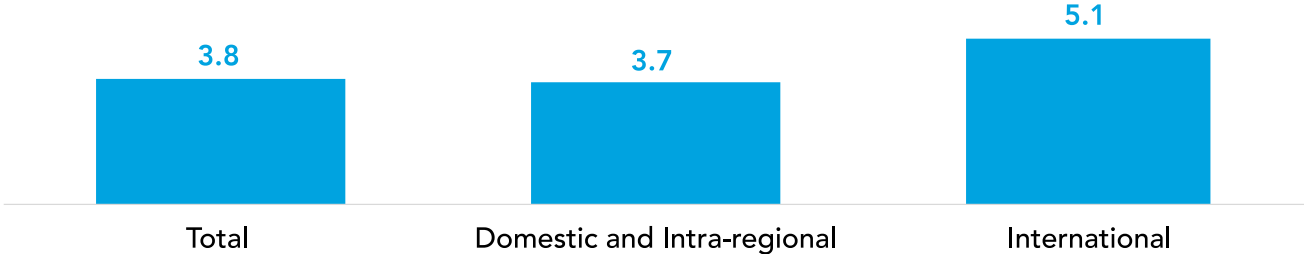
North America*
**North America excludes Mexico*



Europe



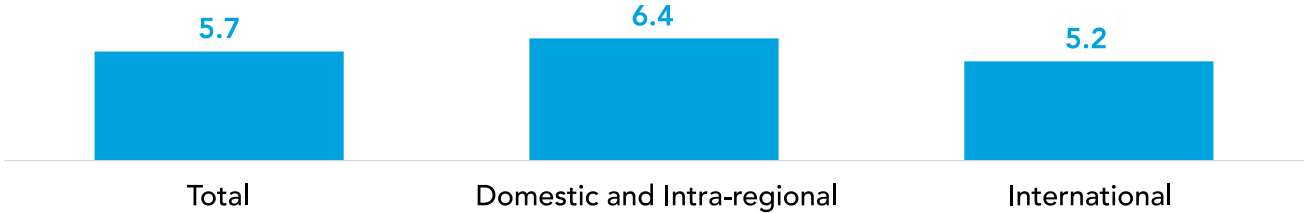
Asia/Pacific



Latin America and Caribbean



Africa



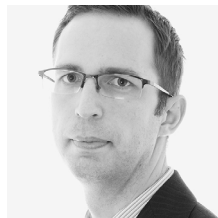
Source: ICF analysis

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