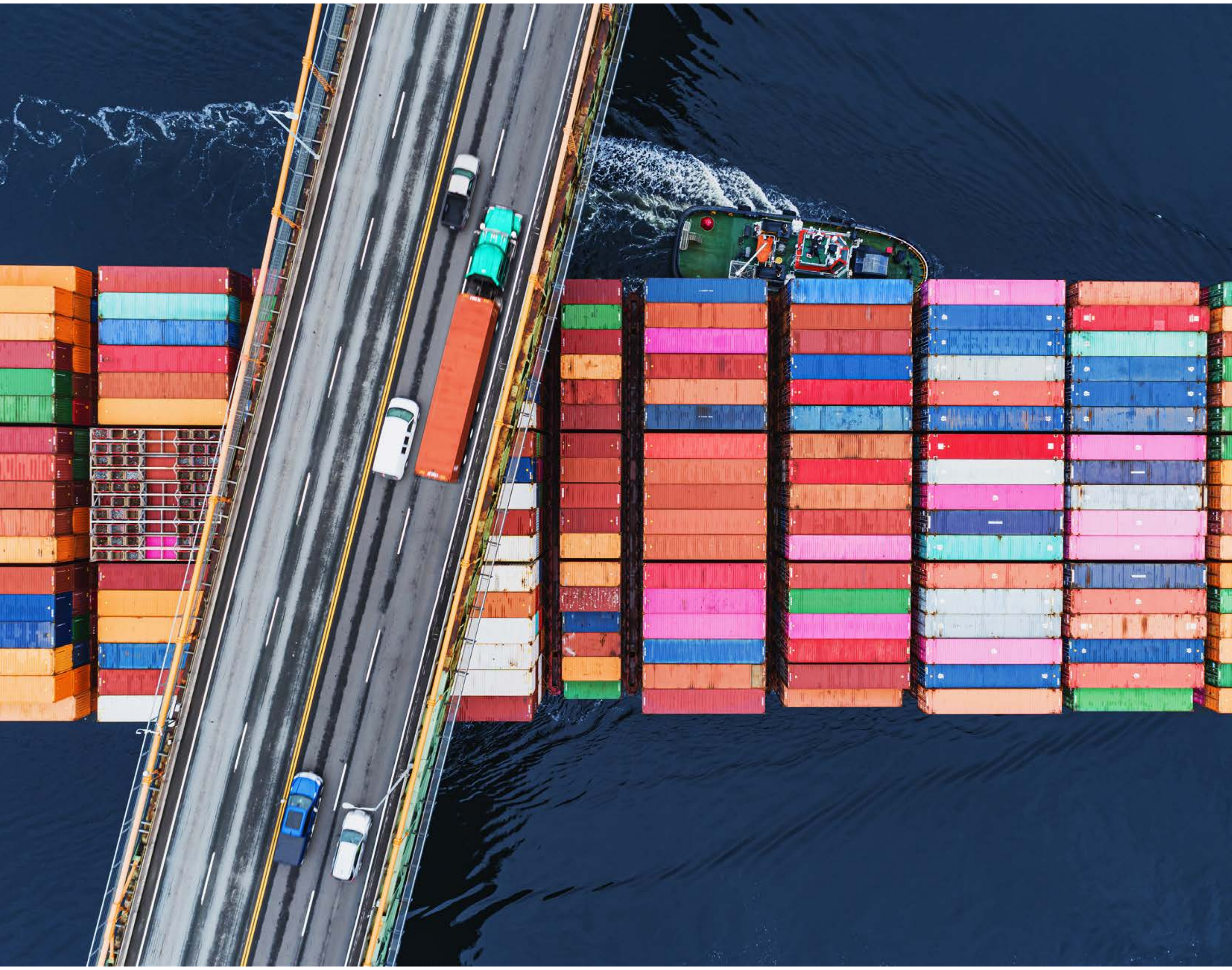
AGILITY EMERGING MARKETS LOGISTICS

index

2022

Agility



COVID-19 brutally exposed vulnerability of supply chains. Can emerging markets repair links and restore growth?

Logistics pro's optimistic about '22 growth but see disruption, high rates lingering

'Digital Readiness': Emerging economies need it to compete

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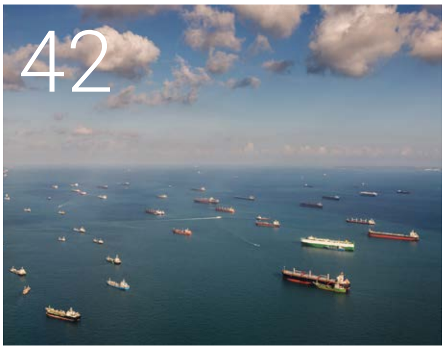
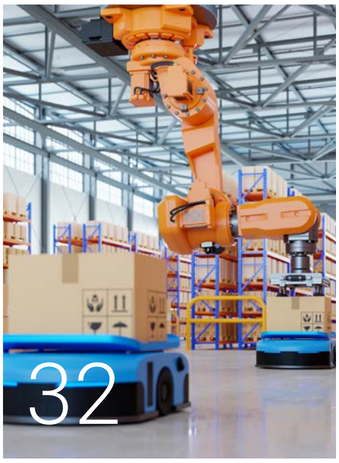




Key Findings

The Covid-19 pandemic continues to shape the prospects for emerging markets and global supply chains in 2022

A year of extreme supply chain dysfunction in 2021 saw capacity constraints, bottlenecks, sky-high freight rates and supply shortages globally. The forces driving the dysfunction remain in place and look set to only unwind later in 2022. Beyond the short-term supply chain challenges, many emerging markets will also have to grapple with high inflation, rising costs, lower consumer confidence and the rollout of vaccination programmes.

A majority of logistics professionals surveyed for the Index see record ocean and air rates, clogged ports, and other supply chain disruption persisting into late 2022, even 2023. Pandemic-related closures and congestion are the biggest issues, in their view, followed by the ocean container shortage, carrier capacity issues, and port infrastructure. At the same time, they see economic recovery as already well underway -- in all regions – even while acknowledging that the pandemic remains a drag on emerging markets countries. The International Monetary Fund sees an uneven recovery for emerging and developing markets in 2022: a continuation of sizzling growth in Asia Pacific; a slight uptick amid modest recovery in sub-Saharan Africa; steady recovery across the Middle East at the same pace as in 2021; and slower growth and recovery in Latin America and the Caribbean.

An accelerated shift to online retail, digitalisation and sustainability will be the legacy of the Covid-19 pandemic

Online retail sales, the adoption of digital technologies, and a shift to 'greener', more sustainable models of economic growth had been gathering pace, but the Covid-19 pandemic has accelerated the shift irreversibly. Many emerging markets were already making transitions beyond economic roles as commodity exporters and global factories, but the pace of change means investment in skills, ecosystems and sustainability increasingly central to development prospects.

Logistics executives in the Index survey are focused on the role of technology in their own businesses and as the key driver of future growth for emerging markets countries. They picked the adoption of new technology as the leading driver of economic and business growth for emerging markets, ahead of pandemic recovery and stronger consumer demand. Meantime, they see operational technology (visibility platforms, TMS, inventory management systems) as the primary focus of the logistics industry in the year ahead. Next was implementation of sustainable supply chain operations (most indicated they have dedicated sustainability programs in place for emerging markets operations). Next-generation technologies such as artificial intelligence and blockchain also ranked high among their priorities.

Interestingly, the survey indicated that industry remains extremely slow to shift to digital freight forwarding. Only 9% of logistics executives said that they have entrusted half or more of their bookings to digital forwarders and platforms. The pandemic has brought on unprecedented volatility in ocean and air freight, along with unprecedented levels of carrier unreliability. Both trends have clearly been impediments to the growth of digital forwarding.

Global economic prospects in 2022 are good, but supply chain challenges will remain

Forecasts indicate a broad-based return to growth in 2022 and beyond for global emerging markets, with 63% of respondents to the Agility Emerging Markets Logistics Index Survey asserting that the global economy will expand in the year ahead. That's a remarkable degree of optimism as we enter the third year of a global health crisis with no end in sight. However, 66% of respondents expect ocean freight rates to remain elevated until at least the second half of 2022. For airfreight, 55% expect high freight rates until at least the mid-point of the year. Nearly half (47.5%) state port congestion will last for at least the same length of time.

Digital Readiness requires connectedness, compatibility and culture

Technology and sustainability are, increasingly, separating leaders from laggards among emerging markets economies. Leaders in the new Digital Readiness ranking combine a connected population, a digitally skilled workforce, globally compatible and future-orientated business ecosystems and a culture of entrepreneurial risk. While all of these factors indicate preparedness for the new global economy, there is no pattern for how they are cultivated with government, populations and the private sector all playing a part.

The Digital Readiness rankings, like those for business fundamentals, are an area where smaller economies lacking in scale can attain competitive advantage and integrate more deeply into the global economy without having to make the heavy investment required for world-class logistics infrastructure.

Asia Pacific and the Gulf states dominate

Eight of the top 10 ranking positions in the 2022 Agility Emerging Markets Logistics Index are occupied by emerging markets from Asia Pacific and the Gulf states. Asia Pacific's emerging markets offer the strongest Domestic and International Logistics Opportunities, although results in the 2022 Index see the region's domestic logistics markets leadership erode. The Gulf states have built dynamic and robust business environments which not only lead emerging markets but increasingly chase global best practice. Online retail, the adoption of technology digital business practices and investment in sustainable energy resources see both regions' emerging markets share Digital Readiness leadership.

Introduction from Tarek Sultan, CEO, Agility

Entering the third year of the global health pandemic, it's worth looking at how the crisis is affecting the world's emerging markets. The answer is that it is widening the gap between haves and have-nots.

Countries in Asia-Pacific and the Middle East have access to COVID vaccines and enjoy strong demand for the manufactured goods and commodities they supply. In many African and Latin countries, the economy is treading water while people wait for their jabs and businesses try to plug back into global value chains.

As of late 2021, only 7% of people in low-income countries had been vaccinated vs. 75% in high-income countries. Globally, the World Bank says, the pandemic has spurred an increase in extreme poverty – the number of individuals living on less than $1.90 a day – for the first time in more than two decades.

The global economic recovery is bound to remain uneven, but that doesn't mean struggling emerging markets can't change their trajectory. First, they must accelerate and promote rapid vaccine rollouts in 2022. At the same time, they need to:

- Focus on small business recovery and job creation
- Do more to enable trade and de-risk investment
- Position themselves as viable alternatives for companies diversifying sources of production and supply
- Go all-in on digital readiness and sustainability

We see such a strong connection between a country's digital capabilities and its growth prospects that we have added a **Digital Readiness** ranking to this year's 50-country Agility Emerging Markets Logistics Index. Increasingly, the competitiveness of these economies will be determined by their ability to develop digitally skilled businesses and talent pools, as well as lowering emissions intensity in ways that spur growth rather than sacrificing it.

Looking ahead to the new year, economists are particularly concerned about inflation. They warn of a worrisome combination – large debt, higher borrowing costs and upward pressure on prices – that could be especially problematic for Pakistan, Egypt, Ghana, Turkey and several other emerging economies in 2022.

For their part, professionals in the logistics industry have a remarkably sunny outlook. Sixty-three percent of those in our survey see strong-to-moderate growth and little chance of recession for 2022, even though most believe high freight rates and supply chain turmoil will last well into the year.

Executives in our survey see technology adoption and an increase in sustainable supply chain operations as the leading industry trends. More than 58% of respondents said their companies already have environmental and sustainability policies "specific to emerging markets operations."

The Index, now in its 13th year, examines the competitiveness of emerging markets countries and compares them in ways that are useful to shippers, carriers, distributors and others in the supply chain. All 50 of the countries in the Index are competing for foreign investment. All are striving to expand their middle classes. All want to join the knowledge economy and become indispensable as suppliers, markets and innovators. The pandemic can't change that.

Introduction from John Manners-Bell, CEO, Transport Intelligence

Over the past two years Covid-19 has brutally exposed the systemic vulnerability of global supply chains. At the beginning of the crisis the cessation of international air passenger services led to a catastrophic reduction in air cargo capacity. Later on, supply chains were disrupted by government lockdown policies which halted production at factories throughout Asia and other parts of the world. More latterly, Western stimulus packages have encouraged consumer spending resulting in shipping lines, maritime logistics and ports being overwhelmed, especially in North America.

As was the case during the last global crisis – that of the Great Recession of 2008 – emerging markets have felt the full force of the breakdown in global trading systems. Whilst globalization had promised so much to small and medium-sized entrepreneurs in developing countries, once more the rug has been pulled from beneath their nascent businesses. Lack of access to trade finance, border and Customs delays, Covid rampant in the trucking community and the inability to move products to market due to misfiring air and sea logistics operations has led to the destruction of many businesses and put a hold on emerging markets' economic development. Nigeria is a case in point: the unemployment rate is running at 33% and inflation at over 15%.

As Tarek Sultan, CEO of Agility, points out in his introduction, the crisis has highlighted the gap between the world's 'haves' and 'have nots' with only a tiny proportion of the population in low income countries vaccinated. This is no doubt influencing industry sentiment as our survey of industry executives finds that a global recovery is likely to be very patchy, constrained by outbreaks of Covid-19, uneven vaccination rates and a lessening of emergency fiscal support measures. The prospects for South America and Sub-Saharan Africa are considered to be particularly perilous, a risk to social, economic and political stability in these regions.

Emerging markets are also most likely to feel the consequences of Climate Change especially those vulnerable to rising sea levels. Their weakened financial position will only make it less likely that they will be able to invest in resilient infrastructure capable of adapting to new environmental conditions. As our survey finds, governments and logistics companies will need to work together to address costs and develop sustainable transport and logistics services.

This theme of public/private sector collaboration runs through this year's report. Governments and inter-governmental organizations have the responsibility to reduce barriers to trade which are preventing emerging market exporters exploiting global markets – digitization will be critical. But shipping lines and air cargo carriers must quickly step up to restore services and reduce shipping costs and transit times. Recovery in the short term is by no means inevitable and unless there is a coordinated effort by all supply chain stakeholders, the gulf between emerging and developed countries will only continue to grow.

The Agility Emerging Markets Logistics Index 2022

Global supply chains were characterised by bottlenecks, capacity constraints and sky-high freight rates in 2021 as retailers, manufacturers and logistics service providers battled the ongoing impacts of the Covid-19 pandemic. The pandemic and its effects continue to shape the results of the Agility Emerging Markets Logistics Index in 2022. The results not only highlights the countries which have most successfully dealt with the pandemic but also brings into sharp relief the reality that for many countries the pandemic stills dictates social and economic opportunities in 2022.

Beyond the immediate results, though, the Agility Emerging Markets Logistics Index 2022 provides insight into how emerging markets have and can prepare for the long legacy of the Covid-19 pandemic. While its short-term impacts and the scale of supply chain dysfunction it has driven cannot be underestimated, the acceleration of change in the global economy ushered in by the Covid-19 pandemic will be far more significant over the long-term. The shift to online retail, the digitalisation of business and the adoption of more sustainable economic growth models have all gathered pace since the emergence of the pandemic and the direction of travel for all is clear – forwards and faster. For emerging markets, this means a new place in a new global economy.

Digital Readiness – Emerging markets in the new global economy

In 2022, the Agility Emerging Markets Logistics Index expands its assessment of the 50 countries under review. The upheaval caused by the Covid-19 pandemic as well as the acceleration in the pace of change it continues to drive have altered the course of emerging market development. The result is that emerging market potential, in logistics and beyond, relies more than ever on the role of technology, innovation, skills and sustainability in both unlocking a country's potential and in its integration into global value chains. It is for this reason that a new Digital Readiness ranking is added into the Agility Emerging Markets Logistics Index this year, complimenting an industry benchmark established for over a decade with a data-driven assessment of each market across three categories.

- Digital business – measuring the spread and depth of digital skills, the strength and diversity of digital business models and the adoption of and access to online commerce. This category rewards emerging markets that have shown progress in developing the digital literacy of the workforce and which have integrated online and data-enabled business models.

- Business ecosystem development – measuring systems and support for investment, innovation, value-adding commercial enterprises and the growth of new ventures. The ecosystem development category rewards economies which foster entrepreneurial activity, investment and a workforce with skills valued in global markets.

- Sustainability – measuring the emissions intensity and renewable energy mix powering economic development. The sustainability category rewards markets investing in and producing renewable energy, as well as those that are loosening the ties between emissions growth and economic growth.

Taken together the three categories produce a rich picture of each market's potential to emerge as a digitally-led, skills rich, innovation-oriented and sustainable economy for the future.

Key measures used in the Agility Emerging Markets Logistics Index 2022

To assess and understand these trends and their effects on 50 of the world's most promising emerging logistics markets, the Agility Emerging Markets Logistics Index 2022 examines four key areas for logistics market development:

- Domestic Logistics Opportunities
- International Logistics Opportunities
- Business Fundamentals
- Digital Readiness

The 2022 Agility Emerging Markets Logistics Index presents a data-driven analysis of 50 of the world's most promising emerging logistics markets, reflecting the complexity, connectedness and opportunities each market provides.

Domestic Logistics Opportunities – measures the performance of each emerging market and its potential to sustain and develop domestic demand that requires competitive logistics markets:

- Domestic logistics markets – size & growth
- Economy – size & growth
- Population – size & growth
- Income equality
- Urbanisation
- Development of business clusters

International Logistics Opportunities – measures internal and external demand for trade intensive logistics services and the capacity of individual emerging markets to facilitate cross-border logistics operations:

- International logistics markets – size & growth
- Logistics intensive trade – size & growth
- Infrastructure quality and connectedness
- Border procedures – time & cost

Business Fundamentals – measures the openness, robustness, fairness and strength of each emerging market's business environment, rule of law and market independence:

- Regulatory environment
- Credit and debt dynamics
- Contract enforcement & anti-corruption frameworks
- Inflation & price stability
- Cost of crime & violence
- Market accessibility & domestic stability

Digital Readiness – measures the potential and progress of an emerging market in becoming a digitally-led, skills rich, innovation-oriented and sustainable economy for the future:

- Emissions intensity
- Renewable energy mix
- Digital business models & online commerce
- Entrepreneurial risk
- Digital skills & human capital
- Availability of enterprise financing

Each year, the Agility Emerging Markets Logistics Index utilises a unique set of variables that measure current, short-and medium-term performance across structural and cyclical factors in each country's logistics markets and key vertical sectors. As a result, the Index provides a snapshot of each country's current performance and future potential as a globally significant logistics market and investment destination. To determine the ranking of the 50 leading global emerging logistics markets, current and forecast data from world-leading institutions including Transport Intelligence (Ti), the World Bank, the International Monetary Fund, the World Economic Forum and others are used. By mixing current and forecast data, this 2022 edition of the Index not only produces an assessment of each market's handling of the Covid-19 pandemic and its effects on logistics market development, but also the capacity of markets to recover and grow over the short- and medium-term. With the addition of the Digital Readiness ranking, the 2022 edition of the Agility Emerging Markets Logistics Index also provides a unique perspective on the suitability and preparedness of each emerging market to participate in the new, post-pandemic global economy.

In addition, by ranking each emerging market against the 49 others, the Index highlights strong performers and demonstrates where markets have developed enduring advantages. It also reveals those markets which have seen performance and potential erode. An example of this can be seen in the ranking of Business Fundamentals performance, where the purposeful development of deep and robust regulatory oversight and economic management has again ensured that the UAE, Saudi Arabia and Qatar take three of the top four ranking positions, with their GCC neighbours all placed in the top 12.

The Agility Emerging Markets Logistics Index 2022 – Overall Ranking

Rank	Country	Domestic Logistics Opportunities	International Logistics Opportunities	Business Fundamentals	Digital Readiness	Overall Index Score
1	**China**	8.54	9.75	7.06	7.25	8.50
2	**India**	8.01	7.23	5.96	6.74	7.21
3	**UAE**	5.58	5.73	9.20	8.63	6.72
4	**Malaysia**	5.32	5.92	8.19	7.35	6.32
5	**Indonesia**	6.34	5.95	5.93	6.47	6.17
6	**Saudi Arabia**	5.35	5.51	8.16	7.07	6.14
7	**Qatar**	5.79	4.89	7.96	6.52	5.95
8	**Thailand**	5.13	6.01	5.82	6.54	5.78
9	**Mexico**	5.54	6.40	5.13	5.40	5.74
10	**Turkey**	5.28	5.87	5.87	5.96	5.69
11	**Vietnam**	5.02	6.01	5.48	5.75	5.55
12	**Chile**	4.87	5.17	7.17	6.14	5.55
13	**Russia**	5.20	5.67	5.51	5.89	5.53
14	**Oman**	4.92	4.89	7.26	5.69	5.41
15	**Bahrain**	4.99	4.68	7.30	5.16	5.28
16	**Brazil**	5.50	5.43	3.95	5.58	5.25
17	**Kuwait**	5.02	4.57	6.18	5.92	5.21
18	**Philippines**	5.00	5.25	4.38	5.99	5.16
19	**Jordan**	4.86	4.73	6.70	4.97	5.13
20	**Morocco**	4.59	5.00	6.81	4.34	5.04
21	**Egypt**	5.13	4.65	5.51	5.00	5.01
22	**Kazakhstan**	4.67	4.70	6.20	4.93	4.97
23	**Uruguay**	4.78	4.41	6.08	5.21	4.93
24	**South Africa**	4.69	4.95	5.00	5.17	4.91
25	**Colombia**	4.69	5.02	4.52	4.90	4.81
26	**Peru**	4.70	5.10	4.57	4.52	4.79
27	**Pakistan**	5.03	4.58	4.33	5.10	4.78
28	**Kenya**	4.55	4.61	4.92	5.43	4.78
29	**Ukraine**	4.79	4.97	4.46	4.64	4.77
30	**Iran**	5.13	4.23	4.30	5.19	4.71
31	**Argentina**	4.86	4.61	3.92	5.03	4.66
32	**Ghana**	4.57	4.42	4.62	5.14	4.63
33	**Sri Lanka**	4.49	4.72	4.36	4.82	4.60
34	**Nigeria**	5.18	4.28	3.53	4.81	4.55
35	**Lebanon**	4.76	4.60	4.13	4.33	4.53
36	**Tunisia**	4.58	4.48	5.03	4.06	4.53
37	**Algeria**	4.84	4.22	4.99	3.96	4.50
38	**Ecuador**	4.49	4.63	4.66	3.75	4.44
39	**Bangladesh**	4.99	4.38	3.44	4.38	4.44
40	**Cambodia**	4.40	4.47	4.22	4.34	4.39
41	**Paraguay**	4.39	4.46	4.23	4.38	4.38
42	**Tanzania**	4.56	4.09	4.72	4.14	4.35
43	**Uganda**	4.37	4.39	3.88	4.07	4.25
44	**Bolivia**	4.42	4.46	3.58	3.10	4.07
45	**Ethiopia**	4.36	4.36	3.15	3.42	4.01
46	**Mozambique**	4.19	4.40	1.41	2.91	3.60
47	**Angola**	4.30	4.26	1.02	2.80	3.52
48	**Venezuela**	4.45	3.86	0.45	3.62	3.48
49	**Myanmar**	4.40	4.25	0.69	1.83	3.32
50	**Libya**	4.40	2.20	0.60	1.64	2.59

The Top 10

1/ China

China sits atop the overall Agility Emerging Markets Logistics Index 2022. China has undergone rapid and remarkable economic development over the last three decades and its position as one of the world's most important logistics markets is matched with its position as one of the world's most promising in terms of future development. The world's second-largest economy ranks as the top-performing emerging market for Domestic and International Logistics Opportunities, although its Business Fundamentals ranking slips two positions amid aggressive sector-based reforms that have created short-term turbulence and weighed on growth in its economy.

As an early mover in the development and integration of advanced technologies and with a dynamic and well-funded environment for new ventures, China is 3rd in the new Digital Readiness ranking.

The rapid development of China's e-commerce market also contributes to its overall performance. Revenue from online merchandise retail is expected to top $1.5 trillion in 2022, according to Statista data, helping to drive a domestic express market that Ti values at more than $90bn. Chinese e-commerce companies, including Alibaba, JD.com and Pinduoduo, have grown to become some of the largest in the world by revenue over the last

Agility's Take

China: Still indispensable

The pandemic forced companies that manufacture, source and buy from China to consider whether they were too reliant on Chinese production. They mulled reshoring, nearshoring, China + 1 production and other strategies intended to lower the risk of leaning too heavily on a single country for supply.

Two years later, the world is no less reliant on China, which still accounts for the largest share of global production across an astounding number of industries. Even so, China's customers and investors might have reasons to start viewing it in a new light.

The Chinese economy is slowing. GDP was 7.9% in Q2 2021 and 4.9% in Q3. Q4 growth is projected to be 3.6%. Full-year growth is still expected to be above the government's 6% target, but policymakers have tipped their hand with adjustments intended to prevent a hard landing. They have eased bank reserve requirements, made mortgages easier to get, and hinted at lowering interest rates and cutting taxes.

Foreign and domestic businesses alike – tech companies, tutoring providers, video game marketers, real estate developers and others -- have felt the heavy regulatory hand of Beijing. Along with crackdowns in Xinjiang and Hong Kong, there have been new data protection and censorship regulations that have sent companies such as Yahoo and LinkedIn for the door.

China's zero-COVID policies, which include lockdowns, travel restrictions and quarantines, have, on occasion, shut down major cities and shuttered whole factories and ports, triggering fresh shortages and supply chain issues for China's customers. At the same time, scattered electricity outages in 2021 idled factories while rising wages contributed to higher costs.

Western companies, many of which are feeling the heat from institutional investors and activists, are having to apply a fresh cost-benefit calculus to their operations in China. Walmart, H&M, Adidas and Intel have been targeted by government criticism and consumer backlashes over their efforts to strip their supply chains of goods from Xinjiang.

One thing worth watching in 2022 will be the government's efforts to stabilize Evergrande, the sprawling real estate developer that employs 3.8 million people and is teetering on the edge of default. Another issue will be trade relations with the United States, which imposes 25% tariffs on many Chinese goods and has raised concerns about China's control over global cargo and shipping data.

For all of these issues, there has been no race for the door.

Hourly factory wages in China zoomed past those of Mexico in 2015, yet there was no exodus of production from China to Mexico. Many companies that tried to de-risk by diversifying production through moves to Vietnam and other South East Asian countries did so only to find that key parts and inputs used by their new suppliers had to come from China.

China remains indispensable to the global supply chain.

decade, while the rapid growth of live streaming has created new revenue streams as the business model has gained traction, with around 450m daily active users on Tencent's WeChat service alone.

Entering 2022, however, China faces potentially significant headwinds which threaten to limit growth in the short- and medium-term. The country's vast production and logistics capacity was under strain for much of 2021 as fallout from the Covid-19 pandemic tested resilience. Power outages, spiking consumer demand in global markets, container shortages and lockdowns stemming from China's 'zero-Covid' policy stance all contributed to a disrupted and challenging year. By September, factory activity in China was declining as backlogs, rising commodity prices and higher costs for parts and components contributed to the first fall in Chinese production levels since February 2020 as output in high-energy industries as well as new orders, employment and exports order all slumped, leaving the country's PMI in negative territory.

Even before September, China's ability to keep goods moving had been challenged. Fears over the potential spread of Covid-19 led to the port in Yantian operating below capacity for weeks between May and June 2021, while in August the closure of a terminal in Ningbo port's Meishan Island sent ripple effects through global supply chains. Capacity constraints have continued, and in January 2022, a further Covid-19 wave saw more than 610,000 TEU at anchor outside of Shanghai and Ningbo as the ports strove to keep operations moving amidst reduced capacity.

Such challenges, coupled with domestic turbulence, have resulted in lower growth forecasts in the coming years. Beijing took aggressive steps to tackle inefficiencies in economically critical industries such as real estate and to reduce high corporate debt during 2021. The IMF lowered its 2022 forecast for Chinese GDP growth to 5.6%, still high for an economy of its size but some way below pre-pandemic expansion rates.

The Chinese government, however, hopes that while the challenges of 2021 may weigh on growth now, they set a foundation for much needed stability in the coming years, especially as the country continues to prioritise the development of its internal market as the primary driver of growth. China's position as a key global market is irreversibly established and in 2022 it will remain the world's largest buyer of commodities as well as the main trading partner of more nations than any other country. But as China replaces a trade-driven growth model with an economy driven by domestic consumption, the speed with which its role in global trade evolves will only accelerate. Highlighting the shift, data from Morgan Stanley shows exports accounted for 35% of China's GDP in 2010 but accounted for less than 20% in 2021.

2 / India

India ranks 2nd overall ranking in the Agility Emerging Markets Logistics Index 2022 following a year that saw it rebound from the effects of the Covid-19 pandemic disruption at the macroeconomic level. Compared to other emerging markets that feature in the top 10, however, India ranks at a relatively low 14th for Business Fundamentals, its highest ever position in the ranking. Achieving 5th position in the new Digital Readiness ranking highlights the need for business environment reforms to further unlock India's potential.

In 2020, the onset of Covid-19 led to mass migrations in India as vast numbers left their jobs in cities to escape virus hotspots. The result was a significant economic downturn in mid-2020, but the bounce back in India has been swift. The country's Ministry of Finance reported an 8.4% expansion in economic activity in Q3 2021 – growth it said showed a full recovery to pre-pandemic levels. The recovery was broad-based, with all sectors contributing, exports up 17% and household consumption at 96% of its previous total.

The growth was attributed, in part, to the successful rollout of India's vaccination programme, as well as a release of pent-up demand, government investment and higher consumer confidence. The headline numbers, however, mask several challenges. India's economy, which must create hundreds of thousands of jobs per month to keep pace with population trends, has lost a year of growth. Research from Oxford Economics also shows that even with the rebound, India's economy is likely to end 2022 around 9% smaller than pre-pandemic forecasts. The result is that millions have been pushed into poverty, especially those in rural areas and those working in India's vast informal economy which employs as much as 90% of the country's workforce.

Indeed, even in India's growing formal sector, there are worries about job creation and skills. India's companies cite a lack of skills as a significant impediment to growth, with surveys indicating employers feel less than half of the country's graduates have the required skills or the ability to develop them in the workplace. Meanwhile, the Centre for Monitoring the Indian Economy (CMIE) puts graduate unemployment at 19.3%, three times higher than India's national average, and highlighting the acute skills gap. CMIE data also puts India's labour participation rate at just 43%, compared to 60% globally. Reporting from India's Economic Times states the figure for China at a comparable stage in its development during the early 2000s was 80%, and cites a World Bank report arguing the social stigma of employment as the reason for a low participation rate amongst India's female population.

Addressing the skills gap and job creation challenges in India will therefore be vital in its future economic development. Despite its challenges, the Indian economy continues to drive forwards and reforms to ease investment and improve its business environment are underway. Simplified foreign investment rules and the national single-window system, which provides a unified portal for all clearances required by investors, entrepreneurs and businesses in the country, both contributed to a record $81.97bn of FDI the 2020-21 financial year.

Domestically, the government claims the removal of some 25,000 compliance processes has eased the bureaucratic burden on businesses in recent years. India's government has also announced $27bn of funding for production-linked-incentive schemes to attract global manufacturers and lowered corporate tax rates for new production locations, while its National Master Plan aims to integrate infrastructure and lower logistics costs across the country.

3 / UAE

The United Arab Emirates combines top-ranking performance in both the Business Fundamentals and Digital Readiness categories to rank 3rd overall in the Agility Emerging Markets Logistics Index. The Emirates combines these significant strengths with top five rankings in both Domestic and International Logistics Opportunities.

Having topped the Business Fundamental ranking over four consecutive years, the UAE continues to develop the strength of its business environment to further enhance its attractiveness to foreign investors and local operators alike. During 2020, investment into the UAE rose 44% to a total of $20bn, despite the global effects of the pandemic. In 2021, the UAE made further changes to its legislative environment in part to spur such investment activity still higher. This included a series of more than 40 amendments that simplify and widen the scope of economic, investment and commercial structures for businesses operating in the Emirates. The amendments make it possible to create companies for M&A activity, allow branches of foreign firms to convert into domestic businesses and eliminate the requirement that the majority of a company's directors be UAE nationals. Trademark and intellectual property protections were also strengthened.

There were also social reforms in 2021 aimed at boosting the attractiveness of the UAE's labour market. These included changes to the Emirates' working week which was brought in line with Europe, North America and Asia Pacific and the extension of working visas for skilled employees across a range of sectors. In sum, the reforms enhance the UAE's already adaptable policy frameworks and build on a strength that has seen it develop into the second-largest Arab economy.

In addition to its legislative reforms, the UAE also announced plans in 2021 to increase the size of its manufacturing sector. The plans aim to spur the development of heavy and light manufacturing across the plastics, metals, energy, life sciences, petrochemicals and green fuels sectors. This includes the development of a biopharma campus that will see Abu Dhabi's sovereign wealth fund partner with AI company, G42. The plans will see the hub undertake the end-to-end manufacturing of advanced biologics therapies and position the UAE at the centre of regional life sciences supply chains. The project is part of the Emirates' wider diversification efforts, in which it aims to utilise advanced technologies to more than double the GDP contribution of its manufacturing sector by 2030. Under the plans, the Emirates Development Bank and Abu Dhabi Ports Group have also partnered to provide financing to companies operating in industrial cities and free zones.

4 / Malaysia

Malaysia's 4th overall position in the Agility Emerging Markets Logistics Index 2022 comes as it recorded strong performance in both the Business Fundamentals and Digital Readiness rankings. While the country holds a strong position on advanced manufacturing, electronics and renewable technology supply chains, the impacts of Covid-19 saw its Domestic Logistics Opportunities rank slide four positions.

Malaysia, the third-largest economy in Southeast Asia, generated positive economic momentum as it entered 2022 with activity in its manufacturing, services and agricultural sectors all gaining pace and leading its government projecting growth as high as 6.5% for the year. Trade, investment and domestic consumption are also expected to underpin the growth, as is the country's high vaccination level. Malaysia, however, has not had a straightforward path out of the Covid-19 pandemic and imposed restrictions on largescale gatherings in December 2021 as the Omicron variant was discovered in the country.

Malaysia's export market played a notable role in softening the impact of the Covid-19 pandemic on its economic growth. China became Malaysia's largest trading partner in 2009 and accounted for 18.6% of Malaysia's total trade in 2020, a year during which Malaysian exports to China reached a record high total of $38bn, 11.1% up year-on-year. China was the origin of 21.5% of Malaysia's imports in 2020. Perhaps more significantly, the Malaysian Investment Development Authority has approved more than 240 investment projects in Malaysia valued at more than $15bn from Chinese companies including Huawei, Alliance Steel, Alibaba, Geely and Auto Group, creating more than 50,000 jobs.

The US, already the second-largest investor in Malaysia, announced further trade and investment with the country as part of an Indo-Pacific economic framework package designed to enhance trade and the resilience of the global supply chains to which the US is exposed. Through the deal, the US aims to increase trade in the electronics sector, strengthening semiconductor supply chains in particular through partnerships with Malaysian authorities and the country's private sector. The framework was established as a $7.1bn investment by Intel in new chip packaging facilities in Malaysia was announced.. Part of Intel's investment will see the construction of a plant on Penang, creating 4,000 jobs and expanding the island's electronics hub which is already home to chipmakers Infineon Technologies and STMicroelectronics, amongst others. In recent years, Malaysia has emerged as a global location for the testing and assembly of semiconductors and in recent years and accounts for 13% of all such activity globally.

Despite the positives to emerge from trade and investment over the course of the pandemic, it remains to be seen how effectively Malaysia's pandemic stimulus packages addressed needs throughout the economy. Eight government spending packages provided more than $125bn of support across Malaysia's economy, but it has been argued that funding did not address the needs of SMEs with high bureaucratic barriers to access funds. Growth in Malaysia's e-commerce market provided a needed boost to domestic performance during the year, however. e-commerce grew 68% in 2021, according to Google data, while the country's digital economy reached a GMV of $21bn.

5 / Indonesia

Indonesia's 5th overall rank in the 2022 Agility Emerging Markets Logistics Index is driven by top 10 performance in the Domestic and International Logistics Opportunities categories, as well as in the new Digital Readiness ranking. The largest emerging market economy in Southeast Asia, Indonesia saw a 2.2% contraction in GDP in 2020, its first year of negative growth since the Asian Financial Crisis. The economy displayed resilience, however, declining less than regional peers including the Philippines (-9.5%) and the developed economy of Singapore (-5.4%). In 2021, positive momentum in the economy was sufficient to overcome a mid-year wave of Covid-19 infections with an expansion of 3.7% recorded, according to the World Bank. Government stimulus spending was an important driver of growth during the year, and alongside vaccine rollouts, underpins the Banks' forecast of 5.2% growth in the coming year.

More than regional peers, Indonesia's economy is driven by household spending. At 1.5% in 2021, growth was some way below the 5% average in the years before the pandemic. With consumer spending playing an important role in driving growth, Indonesia must find a way to spur spending amongst its population if it is to reach growth forecasts. The country's digital economy will help drive such spending forwards. Its online retail market is the biggest of Southeast Asia's emerging markets, and Google data shows a 52% increase in e-commerce during 2021. By 2025, Indonesia's digital economy is expected to be worth $146bn, seeing a 20% CAGR. The country's favourable regulatory framework is expected to help spur this growth, particularly in online financial services according to Google, Temasek and Bain research. The development of such services will bring further sections of Indonesia's population online, driving e-commerce growth and demand for related logistics services.

Indonesia escaped the price rises and inflationary pressures in 2021 that hit other emerging markets, but as consumers begin to spend again the government must remain watchful while also acting to boost investment incentives, increase productivity in the economy and develop skills in the workforce. Recently implemented tax harmonisation laws are the first step in reforms. More widely, structural reforms are underway, including those that aim to make Indonesia's economy more sustainable and provide a boost to trade. The country aims to cut greenhouse gas emissions by as much as 41% before 2030 and reach carbon neutrality by 2060. This will be achieved in part by scaling up its use of renewable energy, while in 2021 Indonesia became only the second country in Southeast Asia to regulate its carbon market, following Singapore. Details of the implementation will be closely watched in 2022, as will the enforcement of separate legislation that requires Indonesia's private energy, waste, industrial, agricultural and forestry sectors to take mitigation actions, such as the use of renewable energy, in their ongoing operations and new projects.

To boost trade, Indonesia is set to vote on the ratification of its membership in the RCEP in 2022. Indonesia' participation in the trade bloc is forecast to raise GDP growth by 0.7pp and increase exports by $5bn and imports by $4bn annually, according to government data. Exporters in several of Indonesia's manufacturing sectors including chemicals, steel, rubber, minerals and agriculture are expected to see increased demand under the RCEP agreement.

6 / Saudi Arabia

Saudi Arabia ranks 6th in the overall Agility Emerging Markets ranking in 2022 following a year of heightened oil demand and rising hydrocarbon prices that provided a boost to its economic growth. The largest economy amongst the GCC nations expanded 2.9% in 2021, following a contraction of 4.1% in a pandemic disrupted 2020, according to IMF data. The headline expansion was part of a set of healthy macroeconomic data recorded throughout the year. The second quarter of 2021 saw oil and non-oil exports rise 123% and 61% respectively, while in Q3 the Kingdom's GDP expanded 7% year-on-year, its fastest pace since 2012. Forecasts for the year ahead show GDP expanding some 7.4%, according to the Kingdoms' General Authority for Statistics, with external demand for oil and the domestic vaccine rollout programme both spurring growth.

With higher demand for oil and higher prices, Saudi Arabia expects to record its first budget surplus in a decade in 2022. The Kingdom is making progress towards its development goals for its non-oil economy too. The PMI for the non-oil sector remained in positive territory throughout 2021, according to IHS Markit, while unemployment and inflation have both fallen. Despite the progress, however, Saudi Arabia still has ground to cover if it is to achieve its ambitious goals for Vision 2030 and beyond.

In recent years, Saudi Arabia has seen foreign investment fall below the forecast levels needed to support its ambitious diversification plans. The Saudi Central Bank recorded $1.75bn of inward investment in Q321, a figure broadly in line with that last seen in late 2020 and early 2021 but some way short of the funding needed to progress with the Kingdom's megaprojects, such as the $500bn required for the new city at Neom. Foreign investment remains a central pillar of Saudi Arabia's development plans though, and it plans to attract $100bn per year from 2030 through a combination of incentives. These include favourable tax regimes, access to a network of free zones and modern manufacturing and logistics infrastructure, although, from 2023 onwards, Saudi Arabia will also require international businesses to operate regional headquarters in the region if they wish to compete for its lucrative government contracts.

To maintain progress in its diversification plans, Saudi Arabia's sovereign Public Investment Fund has filled some of the gaps, investing more than $22bn into the local economy during 2021, while the government announced Shareek, a domestic investment programme aimed at incentivising Saudi Arabia's private sector to invest in the economy this decade through a combination of tax breaks, loans and other support. Bank of America Merrill Lynch estimates investment by 2030 via the Shareek programme and the Kingdom's sovereign wealth fund at around $2 trillion.

7 / Qatar

Qatar ranks 7th overall in the 2022 Agility Emerging Markets Logistics Index. The Gulf state recovered quickly from the impacts of the Covid-19 pandemic, as a combination of stimulus spending and a broad-based recovery across its economy took hold. The World Bank estimates Qatar's 2021 economic growth at 3% and forecasts an accelerated pace of growth in 2022 of 4.1%. Qatar's main export commodity, natural gas, also saw less demand and price volatility than oil, meaning the country enjoyed a more robust financial position than other hydrocarbon exporters during 2020.

The hydrocarbon sector remains highly important to the Qatari economy, contributing 36.8% of GDP in 2021, having grown 11% according to the World Bank. At 63.2%, the contribution of Qatar's non-hydrocarbon sector is larger as a proportion of GDP than regional peers. Several non-oil sub-sectors saw healthy growth during the year with Qatar's PMI for manufacturing, construction, wholesale, retail and services hitting a record high of 63.1 in November after six months of consecutive increases. The high levels of demand have spurred job creation and unemployment fell in each month of 2021. Growth across Qatar's economy has been supported by government stimulus spending totalling around $20bn, equivalent to 14% of GDP, in response to the Covid-19 pandemic. The strength of Qatar's recovery saw the country's central bank announce the start of a gradual reduction of stimulus spending in December 2021.

Qatar's economy also saw the introduction of new sustainable financing options in 2021, as the country looks to pursue development under its Qatar National Visions 2030, within which environmental development is one of four pillars. This includes banks in the country issuing 'green bonds' and loans to finance environmentally sustainable development projects and property purchases. Under the Vision 2030 plan, Qatar is also implementing economic localisation initiatives and encouraging the retention of activity in the domestic economy. In 2021 the initiatives helped to boost demand for local products and services, including those of SMEs while creating incentives for skills development in the country's workforce.

8 / Thailand

Thailand ranks 8th overall in the Agility Emerging Markets Logistics Index 2022. Southeast Asia's second-largest economy has been hit hard by the Covid-19 pandemic with tourism, a key driver of economic growth, all but suspended since the initial virus outbreak. The country's economy contracted by 6.1% in 2020, according to Asian Development Bank data. Recovery was modest in 2021 with GDP growth of just 0.9% recorded as Thailand dealt with the bulk of its 2.2m Covid infections over several waves during the year.

Forecasts for growth in the years ahead are stronger. An expansion of 3.4% is forecast for 2022 by the Thai central bank which cites stimulus spending, a rise in exports and a recovery in tourism as the main drivers. However, Thailand has reimposed restrictions on visitors following a wave of Omicron variant infections, providing headwinds to growth projections. The country's government estimates around 70% of its population was vaccinated against Covid-19 by the end of 2021.

While Covid-19 infection waves, which led to stringent lockdown measures and curtailed household spending, held back Thailand's recovery in 2021, government spending packages helped support the population's finances and shored up the financial position of businesses at least somewhat effectively. This public investment helped to prop up domestic demand, although Thailand has seen inflationary pressure, particularly in line with global energy price rises, while its currency has remained volatile.

Importantly during 2021, strong external demand saw exports hold up well, particularly as the country avoided the most acute impacts of the region's supply chain disruptions. Government spending plans in 2022 – which total around $30bn – are aimed at stimulating domestic spending to compliment what is forecast to be another year of healthy export growth. Thailand's central bank expects the economy to have fully recovered from the effects of the pandemic by the end of Q1 2023.

9 / Mexico

The second-largest economy in Latin America, Mexico ranks 9th overall despite several pressing challenges. Its economy contracted 8.3% in 2020 as the Covid-19 pandemic disrupted activity in its domestic market as well as in its key export market, the US. In what was Mexico's deepest recession since the 1930s, demand and supply shocks saw firms go out of business, job losses and household incomes decline rapidly. There was significantly better economic performance throughout much of 2021, however, and Mexico's National Institute of Statistics and Geography put GDP expansion at 5.8% in 2021 after a broad economic reopening as well as reforms to labour laws.

Beneath the headline figures, though, the pathway back to growth has not been neither straightforward nor smooth. Growth slipped during Q321 as activity in the country's services, agriculture and mining sectors declined, while inflation rose quickly to end the year at 7.4%, according to Trading Economics. The rise was due at least in part to similar inflationary pressure in the US which caused the cost of materials and components to rise for Mexico's manufacturers. Wage increases have also pushed up costs for manufacturers and exporters in Mexico's border regions, many of which have raised minimum wage thresholds by around 20%, a move which has boosted household incomes in the absence of meaningful stimulus spending from the Mexican government throughout the pandemic.

Mexico's close links to the US manufacturing sector have seen it hit by the wider effects of supply chain bottlenecks and congestion, particularly those seen at the Port of LA-Long Beach during 2021. While Mexico's manufacturers have been forced to deal with delays in the short-term, the longer-term effects have the potential to produce significant upside. Border cities and states have begun to see investment in new factories and production operations as manufacturers look to escape the problems caused by congestion, delays and sky-high freight rates. The border city of Ciudad Juarez is one such example, with Keeson Technology, a Chinese furniture maker, and Ambu, a Danish medical device manufacturer, as well as Boyd and MGA Entertainment, both US producers, investing during 2021.

10 / Turkey

Turkey ranks 10th overall in the Agility Emerging Markets Logistics Index 2022 despite a tumultuous year for its economy. The most pressing challenge is inflation. By the end of 2021, price growth had reached a 19-year high of more than 36% as household budgets were squeezed by the increased cost of food and other staples, while transportation costs were also rising quickly. The dwindling value of the Turkish lira has also presented a problem, losing some 44% of its value against the US dollar during the year. The dual challenges have come as uncertainty clouds the direction of policy at Turkey's central bank. While many emerging and developed economies around the world have moved to quell inflation by raising interest rates, Turkey has moved in the opposite direction – lowering interest rates from 19% to 14% in four steps that began in September. Forecasts suggest that without a policy change, inflation could pass 50% before price growth subsides.

The lira's lower value and inflation have had a chilling effect on Turkey's wider economy. Alongside price increases for most goods, real wages have fallen dramatically to restrict household spending and causing the country's middle class, which grew rapidly in the decade to 2015, to shrink. Imports have also become more expensive. A devalued lira has effectively increased the cost of raw materials and components for Turkey's manufacturers and exporters, while global and local inflation has pushed up energy and fuel costs.

While the economic turbulence of 2021 and the impacts of the Covid-19 pandemic have dealt significant blows to the Turkish economy, both have also exacerbated the challenges which faced an economy that already faced recession, mounting debt and currency depreciation. Policy responses in 2021 have seen an increase to the minimum wage, a deposit protection scheme to limit the impact of further devaluation of the lira and subsidies on utility bills for millions in the local population. It remains to be seen how effective the move will prove against Turkey's unorthodox monetary policy.

However, despite acute domestic challenges, Turkey's external trade saw a year of record development in 2021. Trade statistics from Turkey's government showed a 6.3% fall in exports during 2020, followed by a strong rebound in 2021. Exports totalled $105bn over the first six months of 2021, up 40% year-on-year to the highest figure ever reported for the period. Imports for the same six months were 27.5% higher year-on-year. To November, export values totalled more than $240bn, up 22.9% year-on-year, highlighting sustained demand for the country's exports. The growth came during a year that also saw Turkey's relations with several trade partners improve. In November, for example, a raft of investment and cooperation deals between Turkey and the UAE were signed covering the technology, energy, healthcare, e-commerce and logistics sectors.

Domestic Logistics Opportunities

Domestic Logistics Opportunities			
1	**China**	8.54	0
2	**India**	8.01	0
3	**Indonesia**	6.34	0
4	**Qatar**	5.79	2
5	**UAE**	5.58	-1
6	**Mexico**	5.54	3
7	**Brazil**	5.50	1
8	**Saudi Arabia**	5.35	-1
9	**Malaysia**	5.32	-4
10	**Turkey**	5.28	1
11	**Russia**	5.20	3
12	**Nigeria**	5.18	-2
13	**Egypt**	5.13	-1
14	**Thailand**	5.13	-1
15	**Iran**	5.13	7
16	**Pakistan**	5.03	-1
17	**Kuwait**	5.02	-1
18	**Vietnam**	5.02	0
19	**Philippines**	5.00	-2
20	**Bangladesh**	4.99	-1
21	**Bahrain**	4.99	-1
22	**Oman**	4.92	-1
23	**Chile**	4.87	4
24	**Jordan**	4.86	-1
25	**Argentina**	4.86	1
26	**Algeria**	4.84	-2
27	**Ukraine**	4.79	2
28	**Uruguay**	4.78	-3
29	**Lebanon**	4.76	-1
30	**Peru**	4.70	0
31	**South Africa**	4.69	2
32	**Colombia**	4.69	0
33	**Kazakhstan**	4.67	-2
34	**Morocco**	4.59	0
35	**Tunisia**	4.58	0
36	**Ghana**	4.57	2
37	**Tanzania**	4.56	-1
38	**Kenya**	4.55	-1
39	**Sri Lanka**	4.49	0
40	**Ecuador**	4.49	1
41	**Venezuela**	4.45	7
42	**Bolivia**	4.42	3
43	**Cambodia**	4.40	1
44	**Myanmar**	4.40	-2
45	**Libya**	4.40	-2
46	**Paraguay**	4.39	0
47	**Uganda**	4.37	0
48	**Ethiopia**	4.36	-8
49	**Angola**	4.30	0
50	**Mozambique**	4.19	0

The top three emerging markets for Domestic Logistics Opportunities remain unchanged in 2022. China and India are firm leaders in the ranking due to both their scale and economic development, as well as the significant logistics opportunities offered in both domestic logistics markets. Ti market size data shows China is home to both the second-largest contract logistics and domestic express markets in the world, both of which have forecast growth rates in the double digits. India, meanwhile, has experienced strong economic recovery since the Covid-19 pandemic hit the country in mid-2020. It pairs this recovery with the structural advantages of a large population and significantly sized domestic logistics markets. Both China and India, however, record lower Domestic Logistics Opportunities scores year-on-year in 2022, indicating that other markets are becoming relatively more attractive as domestic logistics investment opportunities.

Russia regained the three positions it lost in 2021 to rank 11th. Russia's PMI remained above the neutral 50-mark to indicate expansion of activity for the first five months of 2021, a level to which it returned in Q4 2021 despite a slump in the middle of the year. Russia's e-commerce market is also expanding quickly amongst 144m potential online shoppers. In 2021, online marketplace Joom opened its services to the Russian market, while domestic online retailer Wildberries saw gross merchandise value top $100bn. Russia now sits just outside a top 10 which saw Qatar and Mexico gain positions, but in which Malaysia, down four ranking spots to 9th, is the biggest faller, erasing the progress it made in the 2021 Index. Indeed, Asia Pacific markets made little progress in the Domestic Logistics Opportunities ranking, with only one market – Cambodia – seeing a rise in its position, rising one spot to 43rd. Cambodia's central bank put 2021 economic growth at around 3%, largely due to a resumption of domestic manufacturing activity in the non-garment sector which includes goods such as electrical spare parts and bicycles.

Neighbouring Southeast Asian emerging markets experienced subdued performance in the Domestic Logistics Opportunity ranking. Indonesia's unchanged 3rd position can be considered a highlight in a year that saw Thailand lose one position due to weak consumer confidence and lower demand from its core tourism and hospitality sectors. Thailand's government only expects to see GDP growth levels equal to pre-pandemic rates in 2023 and beyond. Vietnam maintained 18th position in a year that saw economic growth of 2.6%, but it remains in precarious territory in the short-term. The country's government will invest more than $15bn in 2022 to stimulate economic activity, as it remains ready to intervene in the market and stabilise foreign exchange rates if necessary. Vietnam experienced a challenging year in 2021 as strict Covid-19 restrictions took hold and the country experienced its first quarter of negative GDP growth since 2000 in Q3. Sporting goods company Nike said restrictions in Vietnam saw it lose 10 weeks of production. The country's government forecasts a GDP expansion of around 6.5% in 2022, underpinned by a rapidly climbing vaccination rate.

The Philippines, following a year of pandemic-related challenges, lost two positions but managed to maintain a top 20 ranking. The country saw two Covid-19 infection waves in 2021, in April and September, during which mobility restrictions were imposed in the key Metro Manila area. The restrictions contributed to job losses and business closures, although the Philippines weathered the worst of the storm and saw GDP expansion of 4.9% over the first nine months of 2021, markedly above the 10.1% contraction it experienced in the same period of 2020. Higher services activity, notably in transportation and the retail and wholesale trade, is expected to underpin faster growth in 2022.

Sub-Saharan Africa's emerging markets also saw subdued rankings progress in 2022. Nigeria fell two positions to 12th, losing the top 10 rank it gained last year. Africa's largest economy started 2021 on a positive note as it returned to growth following a recession brought on in mid-2020 by measures to stem the spread of Covid-19. High levels of inflation, however, sapped consumer confidence and purchasing power, while unemployment rose to 33%, its highest level in at least 13 years and triple the rate as recently as 2015.

South Africa, the region's second-largest market, made progress in the ranking, gaining two spots, although at 31st it remains firmly in the lower half of the Domestic Logistics Opportunities ranking. Growth prospects in South Africa are set to remain muted, with Bloomberg estimating GDP expansion at 4.9% in 2021, while forecasts are close to 2% in 2022 and 2023. The Covid-19 pandemic remains a headwind to growth in South Africa, as do ongoing electricity supply constraints, poor jobs growth and softer commodity prices. South Africa's economy remains large, however, accounting for some 16% of all African GDP in 2021. Ethiopia, meanwhile, saw its position slip eight spots to 48th, the largest fall of any emerging market tracked. The fall comes as civil conflict erased much of the domestic economic momentum that had built in recent years. The conflict in the country's northern Tigray region has destroyed infrastructure and displaced tens of thousands from their homes.

There was more positive progress made by Latin America's emerging markets in this year's domestic logistics opportunities ranking. No fewer than seven of the region's markets gained ranking positions with four markets gaining at least three ranking positions – Bolivia (+3), Mexico (+3), Chile (+4) and Venezuela (+7).

In Bolivia, economic growth has been solid under the administration of Luis Arce that took power following an election in 2020. Growth of more than 5% was expected for the full year 2021, up from the 8.8% contraction recorded under the previous regime. Bolivia's exports rose to new highs in 2021, particularly those of agricultural products like coffee, leading to Bolivia recording its highest trade surplus since 2014. In Mexico, the domestic economy is expected to have seen a 6% expansion in 2021, following two years of contraction. The Mexican economy is also benefitting from a wave of investment led by manufacturers that want to simplify their access to the US market following a period of supply chain congestion, record high freight rates and inventory stuck on ships. Such companies include Keeson Technology, a Chinese furniture maker, and Ambu, a Danish medical device manufacturer, as well as Boyd and MGA Entertainment, both US producers, that have constructed new facilities in the northern Mexico city of Juarez.

In Chile, economic recovery has been strong, with GDP expanding more than 12% in 2021, according to central bank estimates. Growth has been driven by stimulus packages as well as a boom in consumer spending which contributed to year-on-year retail growth of 16.7% in November 2021 alone. The country's manufacturing sector is up 5% over the same period, while Chile has one of the most advanced Covid-19 vaccine rollout programmes in the world. The collapse of Venezuela's economy, meanwhile, seems to have reached its bottom after several turbulent years as its government begins to embrace market-led enterprise at the expense of the centrally managed economy that was significantly weakened by international sanctions.

International Logistics Opportunities

International Logistics Opportunities			
1	**China**	9.75	0
2	**India**	7.23	0
3	**Mexico**	6.40	0
4	**Vietnam**	6.01	0
5	**Thailand**	6.01	3
6	**Indonesia**	5.95	-1
7	**Malaysia**	5.92	0
8	**Turkey**	5.87	-2
9	**UAE**	5.73	1
10	**Russia**	5.67	1
11	**Saudi Arabia**	5.51	1
12	**Brazil**	5.43	-3
13	**Philippines**	5.25	1
14	**Chile**	5.17	-1
15	**Peru**	5.10	1
16	**Colombia**	5.02	3
17	**Morocco**	5.00	-2
18	**Ukraine**	4.97	-1
19	**South Africa**	4.95	-1
20	**Qatar**	4.89	1
21	**Oman**	4.89	-1
22	**Jordan**	4.73	2
23	**Sri Lanka**	4.72	0
24	**Kazakhstan**	4.70	-2
25	**Bahrain**	4.68	0
26	**Egypt**	4.65	0
27	**Ecuador**	4.63	6
28	**Argentina**	4.61	0
29	**Kenya**	4.61	-2
30	**Lebanon**	4.60	1
31	**Pakistan**	4.58	-2
32	**Kuwait**	4.57	0
33	**Tunisia**	4.48	2
34	**Cambodia**	4.47	0
35	**Paraguay**	4.46	1
36	**Bolivia**	4.46	1
37	**Ghana**	4.42	8
38	**Uruguay**	4.41	0
39	**Mozambique**	4.40	5
40	**Uganda**	4.39	2
41	**Bangladesh**	4.38	-1
42	**Ethiopia**	4.36	-3
43	**Nigeria**	4.28	0
44	**Angola**	4.26	3
45	**Myanmar**	4.25	-15
46	**Iran**	4.23	0
47	**Algeria**	4.22	1
48	**Tanzania**	4.09	1
49	**Venezuela**	3.86	1
50	**Libya**	2.20	-9

The top emerging markets for International Logistics Opportunities show a degree of continuity in 2022 with the top four ranking markets unchanged year-on-year. China continues to lead the ranking and saw its score rise during the year. China's advantages are significant thanks to its position as the world's largest exporter, the largest buyer of commodities and the main trading partner of more nations than any other country. China has seen huge demand for goods throughout much of the global pandemic, and particularly since Western consumer markets lifted restrictions and resumed economic activity. In November 2021, Chinese exports were 22% higher year-on-year, while its imports rose 32%, with both hitting new records in value terms, according to the country's customs administration.

More widely, the top of the International Logistics Opportunities ranking is increasingly dominated by Asia Pacific's major emerging markets as the ASEAN-5 become ever more important exporters. Thailand rose three positions to take a top 5 ranking this year, while only the Philippines now remains outside of the top 10 in this ranking. Vietnam's 4th ranking position is cemented by its increasing popularity as a manufacturing destination for producers seeking to diversify sourcing options and reduce dependency on the Chinese market. Pre-pandemic, Vietnam's manufacturing and processing sector accounted for nearly 60% of all FDI. The market retains notable cost advantages too, with Vietnam Briefing stating labour costs in Vietnam are, on average, around half those in China, and it continues to benefit from the fallout of the US-China trade war. Apparel, textiles and footwear remain a significant strength of Vietnam's export market, with Nike operating 200 manufacturing locations in the country and Adidas operating 76, with both producing more in the country than in China. In electronics manufacturing, Foxconn brought its total investment in Vietnam to $2.2bn in 2021 adding 10,000 local workers to its operations in the process.

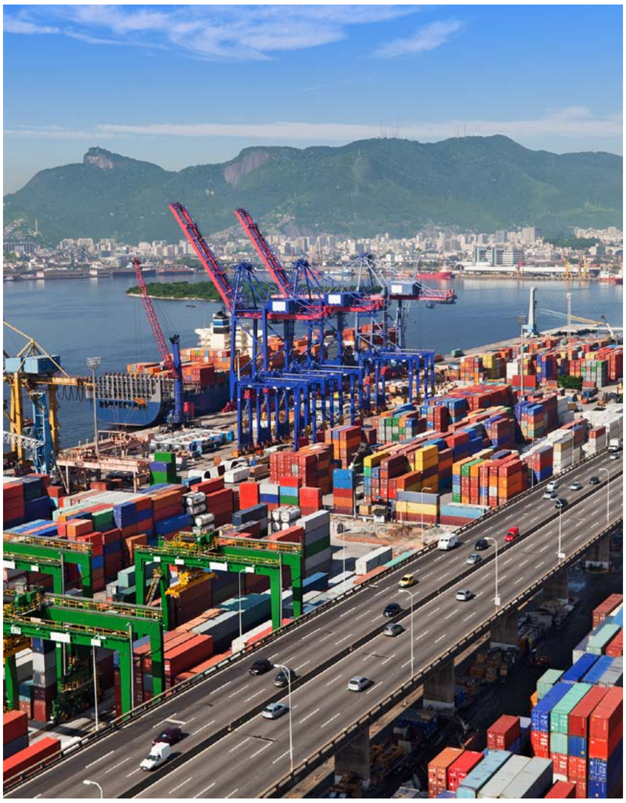
Not all Southeast Asian markets are ranked so highly, however. Myanmar, down 15 positions to 45th, experienced one of the steepest declines ever seen in the Agility Emerging Markets Logistics Index. The slide comes following a change in domestic government leadership which has seen Myanmar's currency greatly devalued and foreign investors leave as well as sanctions imposed by Western nations. In the year ahead, however, there are more optimistic signs for the development of Southeast Asia's international logistics markets. One such reason is the Regional Comprehensive Economic Partnership (RECP) agreement which came into effect at the start of January 2022 and is due to be ratified by the individual countries in the coming years. The RECP covers a clutch of Southeast Asia's emerging markets, including Thailand, Myanmar, Indonesia, Laos, Vietnam, the Philippines, Cambodia and China, as well as other regional partners. The free trade agreement covers countries with some $28.5 trillion in GDP, and reduces tariffs on some 29,891 products immediately, with more to see tariffs reduced to zero over the next 20 years. The deal also reduces the friction of non-tariff barriers for signatory countries.

Across the International Logistics Opportunities ranking, no fewer than six emerging markets gained at least three ranking positions in 2022, with half of those coming from Sub-Saharan Africa. Ghana saw its ranking increase in every element of the Agility Emerging Markets Logistics Index 2022, but its eight position rise to 37th in the International Logistics Opportunities ranking was the strongest. The country's economy is returning close to pre-pandemic growth rates, expanding 6.6% in Q3 2020, according to its national statistics agency. Manufacturing and exports have contributed to the economic growth, as has Ghana's agricultural market which grew 9.2% during the quarter. Products including cocoa, cashew nuts, tuna and rubber from the agricultural sector make up around 84% of Ghana's exports.

Two Latin American emerging markets also feature amongst the fastest rising markets for international logistics opportunities, including Ecuador, which gained six positions to rank 27th and Colombia, up three positions to 16th. In Ecuador, high vaccination rates have pushed a recovery from the worst effects of the Covid-19 pandemic and underpinned an expected economic expansion of 3.5% in 2021, significantly above the 8% contraction seen in 2020. Exports are an important part of Ecuador's plans to diversify its economy away from reliance on oil. The country applied to join the CPTPP trade agreement in late 2021, a move that will require market liberalisation efforts, while it also seeks to join the Pacific Alliance along with regional partners Mexico, Chile, Colombia and Peru. Ecuador has also taken measures to reduce taxes to attract foreign investors as well as reduce the costs of its existing exports. Colombia, meanwhile benefitted from a stable macroeconomic backdrop, with its economy expanding 9.4% in 2021, having contracted 6.8% in 2020, according to the ratings agency, Fitch. Colombia's exports were up 58% in November 2021 compared to the same month in 2020, having ramped up from 40.4% and 43.5% annual growth in September and October 2021 respectively. Agricultural exports helped to push the growth rate up. Coffee, bananas, flowers and avocados are Colombia's top agricultural exports, with volumes of the latter growing 35% over the first nine months of 2021.

Brazil, however, loses its position in the top 10, falling three positions to 12th. Brazil saw a record trade surplus in 2021, albeit a record driven by a combination of price rises in export commodities including coffee, and a fall in the value of imports. The Foreign Trade Association of Brazil (AEB) sees the trade numbers recorded in 2021 as a high point and is forecasting a fall in 2022, however, as momentum in agricultural exports slows. Russia replaces Brazil in the top 10 of the International Logistics Opportunities rankings, a position it last held in 2020.

Russia, isolated by sanctions from much of its former trade with Western markets, has increasingly turned eastwards for trade partners. Its trade with China has boomed in recent years, with the world's second-largest economy taking the position as Russia's largest trade partner each year since at least 2009. In 2021, data from China's Ministry of Commerce shows bilateral trade hitting a new high of more than $140bn. Cross-border e-commerce is helping drive the growth, with warehouses and e-commerce platforms being constructed in Russia to support demand.



Business Fundamentals

Business Fundamentals			
1	**UAE**	9.20	0
2	**Malaysia**	8.19	0
3	**Saudi Arabia**	8.16	0
4	**Qatar**	7.96	0
5	**Bahrain**	7.30	2
6	**Oman**	7.26	2
7	**Chile**	7.17	-2
8	**China**	7.06	-2
9	**Morocco**	6.81	0
10	**Jordan**	6.70	0
11	**Kazakhstan**	6.20	2
12	**Kuwait**	6.18	-1
13	**Uruguay**	6.08	-1
14	**India**	5.96	2
15	**Indonesia**	5.93	-1
16	**Turkey**	5.87	2
17	**Thailand**	5.82	-2
18	**Egypt**	5.51	1
19	**Russia**	5.51	-2
20	**Vietnam**	5.48	1
21	**Mexico**	5.13	-1
22	**Tunisia**	5.03	4
23	**South Africa**	5.00	-1
24	**Algeria**	4.99	6
25	**Kenya**	4.92	0
26	**Tanzania**	4.72	-3
27	**Ecuador**	4.66	1
28	**Ghana**	4.62	4
29	**Peru**	4.57	-5
30	**Colombia**	4.52	-3
31	**Ukraine**	4.46	0
32	**Philippines**	4.38	-3
33	**Sri Lanka**	4.36	1
34	**Pakistan**	4.33	4
35	**Iran**	4.30	7
36	**Paraguay**	4.23	4
37	**Cambodia**	4.22	-4
38	**Lebanon**	4.13	1
39	**Brazil**	3.95	-3
40	**Argentina**	3.92	3
41	**Uganda**	3.88	-6
42	**Bolivia**	3.58	-1
43	**Nigeria**	3.53	-6
44	**Bangladesh**	3.44	1
45	**Ethiopia**	3.15	-1
46	**Mozambique**	1.41	0
47	**Angola**	1.02	0
48	**Myanmar**	0.69	0
49	**Libya**	0.60	1
50	**Venezuela**	0.45	-1

For the third consecutive year, the top four ranking emerging markets for Business Fundamentals are unchanged. The ranking has emerged as a core competence and strength for GCC markets which in 2022 take up five of the top six ranking positions. The UAE continues to lead the ranking, extending its lead after introducing a raft of 40 amendments that widen company ownership rules and enhance protections for intellectual property. Bahrain and Oman both make progress, each rising two spots to rank 5th and 6th respectively. Bahrain offers free zones across a range of manufacturing sectors as well as 100% foreign ownership of enterprises. The country also plans to attract more manufacturers to its shores with investment to boost the production of aluminium, petrochemicals and renewable energy as part of its 2022-2026 economic recovery plan. In Oman, improvements to the macroeconomic backdrop help propel its rise up the Business Fundamentals ranking. Higher oil prices and fiscal reforms have reduced government debt and the country's budget deficit. Oman also signed an MoU with Saudi Arabia with provisions to encourage investment between the two GCC markets.

In 2022, the GCC markets are joined in strong Business Fundamentals performance by a number of emerging markets from across the wider Middle East & North Africa region. This includes Tunisia (up four positions to 22nd), Algeria (gaining six to 24th) and Iran (rising seven spots to 35th).

Tunisia's rise comes after a decade of challenges to its public finances. Political instability, structural problems, low investment and debt at around 100% of GDP have hampered progress. As it emerges from the Covid-19 pandemic, however, Tunisia is moving to improve its domestic business environment. Two stimulus programmes included in the Finance Act 2022 will provide finance to small trades impacted by the Covid-19 pandemic and to social and solidarity economy companies. Algeria, meanwhile, is introducing a programme of reforms to improve its business climate. The reforms include a reduced bureaucratic burden for SMEs, improved access to banking facilities from the Bank of Algeria, simplified land acquisitions and joint inspections of imports at customs control. The reforms are supported by the EU and World Bank. Iran's Business Fundamentals ranking results from lesser macroeconomic volatility as its domestic economic situation adjusts to Western sanctions. The more stable economic picture, particularly in domestic manufacturing which has been driving job creation in recent years, detracts less from a business environment that still places firmly in the bottom half of the ranking.

Chile, which fell two positions to 7th in the Business Fundamentals ranking as a result of Covid-19 restrictions and the ongoing fallout from social unrest in 2019, led a year of weak performance across the Latin America region which saw eight emerging markets lose positions. This included a fall of five positions for Peru, which ranked 29th overall, while Colombia (30th) and Brazil (39th) both lost three ranking positions. In Peru, political uncertainty has not aided investment. With five changes in presidential administration since 2016, the country's political direction has not always been clear, and while contract and property enforcement mechanisms are good, land reform plans are unclear creating uncertainty, particularly in Peru's agricultural sector.

Colombia has introduced tax reforms that lie in part behind its slip down the ranking. Taking effect at the start of 2022, the reforms mean companies in the mining, infrastructure and oil sectors face a higher tax burden, and while free zones are a feature of Colombia's attractiveness to foreign investors, a 20% tax on profits for companies that operate within those zones is some way behind the incentives offered by leaders in the Business Fundamentals ranking. Brazil's three-position slide erases most of the gains made in 2021 and leaves it firmly entrenched in the bottom half of the ranking. It retains several positive fundamentals for those looking to invest, including a large and diversified economy, higher per capita income than peers and a flexible exchange rate that allows it to absorb external shocks reasonably well, but public spending and debt are at worrying levels and limit Brazil's ability to spend on social programmes,, particularly in the wake of the Covid-19 pandemic. Higher food prices, supply chain congestion and supply constraints, increased energy prices, and a weakening of its currency has also pushed inflation to stubbornly high levels.

Argentina and Paraguay provided some balance to Latin America's performance, however. Argentina (up three positions to 40th) is poised to see improvements to the investment climate of its agricultural sector with the help of a $400m loan from the World Bank that will foster competitiveness and improve productivity through job creation, infrastructure improvements and support for micro, small and medium-sized enterprises. However, Argentina remains in the bottom 10 of the Business Fundamentals ranking, with low economic growth, recession and high inflation markers of a turbulent macroeconomic environment, while ongoing political uncertainty continues to constrain investment activity. Paraguay's prospects rise based on higher forecast

economic growth coupled with an investment regime that offers robust property rights, parity for domestic and foreign investments, a free foreign exchange regime and the lowest indirect and corporate tax rates in the region.

Ghana was again a bright spot for Sub-Saharan Africa's performance, rising four positions to 28th having been the only emerging market from the region to improve its position in the 2022 Business Fundamentals ranking. Support from the United Nations Development Programme has led to improvements in Ghana's food and agricultural sectors as part of an ongoing initiative, while further support will also be offered to stimulate growth and investment in Ghana's manufacturing sector. Ghana's government has also introduced policy reforms that are designed to promote the economy's digital transformation. Reforms include programmes to develop digital infrastructure across the country's rural and urban areas, drive a transition to a cashless economy enabled by digital payments and the automation of government business processes, including customs operations at ports under the Paperless Ports System.

Uganda and Nigeria both lost six positions in 2022, slipping into the bottom 10 ranking spots at 41st and 43rd respectively. In Uganda, a four-months of Covid-19 related restrictions, border closures and supply disruptions pushed public investment and private consumption down sharply. The Covid-19 pandemic has also led to widespread closures of businesses, a slowdown in labour participation in urban sectors and a movement back to farming amid layoffs in the services, industry and manufacturing sectors. Even before the pandemic, structural reforms in Uganda were stalling with World Bank data showing a slowdown in per capita income rises. A lack of security and stability is behind Nigeria's lower ranking, as are corruptions and higher costs. Overcoming such challenges requires the development of stronger institutions in the country to oversee governance and public finances. Inflation also remains high in Nigeria and pushed as many as seven million people into poverty during 2020, according to the World Bank.

Agility's Take

Business fundamentals: Gulf economies are on the clock

The good news for GCC countries is that they continue to outpace other emerging markets when it comes to creating business-friendly conditions. It's generally easier to start a business, get credit, pay taxes and resolve contract disputes in the Gulf than in Asia Pacific, Latin America, Africa or the broader Middle East.

Among the world's 50 top emerging markets, UAE (No. 1), Saudi Arabia (3), Qatar (4), Bahrain (5), Oman (6) and Kuwait (12) rank at the top of this Index for best business fundamentals. Neighboring Jordan is 10th.

The bad news is that GCC countries are racing the clock and at risk of falling behind.

So far, the business-climate reforms undertaken by Gulf countries have done too little to grow the private sector, expand non-oil exports, attract foreign direct investment or moderate government spending. Oil and gas revenues remain 40% or more of GDP in most Gulf countries (the exceptions are UAE – 30%; and Bahrain – 18%) and roughly 70% of government revenues (except for UAE – 36%).

Economists predict that global oil revenues will begin a permanent decline around 2040 as demand for renewables increases and improvements in energy efficiency and storage come on line. Bahrain (2031) and Oman (2044) could soon exhaust their hydrocarbons.

Governments in the region have been tapping the $2 trillion in sovereign wealth that they built up with oil and gas revenues over the past few decades. Those funds could run dry before 2034, the International Monetary Fund says.

Meanwhile, private sector activity in Gulf states remains overly reliant on government-funded projects and consumption "that are ultimately supported by oil and gas revenues," the Brookings Institution, a U.S. think tank, says.

For 2022, the IMF expects a modest economic rebound across the Gulf. High vaccination rates, rising oil prices and the easing of COVID restrictions should propel GCC economic growth from an estimated 2.5% in 2021 to 4.8% in 2022, the IMF says.

But the need for accelerated reform is urgent. Free zones, innovation parks and entrepreneurship hubs created by GCC policymakers "remain rudimentary" and have not become the job engines and business incubators they are intended to be, Brookings says. Privatization of state-owned enterprises and development of new public-private partnership agreements has ground to a halt since 2020.

The World Bank is urging legal, regulatory and competition improvements in advanced telecommunications and digitization, two sectors where the region's economies could see strong private sector growth and innovation.

When it comes to courting business and adding to its talent pool, the UAE has been the region's most creative. It recently adopted a Monday-to-Friday workweek to sync its economy with those outside of the region. The UAE has broadened 100% foreign ownership for businesses in additional sectors and expanded its long-term visa program as part of renewed outreach to expatriates in priority professions and skilled areas. One of the emirates, Dubai, has introduced an innovative visa program to entice remote workers to move to the sunny Gulf for a year as they telecommute.

Brookings advocates the introduction of new bankruptcy laws across the region. It says "virtual" companies critical to development of a knowledge economy should be able to get licenses without physical addresses. Brookings says business registration still requires too many steps. It urges Gulf countries to allocate a minimum share of government contracts to small and medium-sized businesses, along with guarantees that they can get financing and will be paid on time.

GCC countries have successfully modernized their infrastructure and cities, but they have a bias toward mega-projects that too often stall or fail to deliver broad. A sharper focus on smaller businesses could do more to spread the benefits of the massive projects favored by the region's governments.

The clock is ticking.

Digital Readiness

Digital Readiness		
1	**UAE**	8.63
2	**Malaysia**	7.35
3	**China**	7.25
4	**Saudi Arabia**	7.07
5	**India**	6.74
6	**Thailand**	6.54
7	**Qatar**	6.52
8	**Indonesia**	6.47
9	**Chile**	6.14
10	**Philippines**	5.99
11	**Turkey**	5.96
12	**Kuwait**	5.92
13	**Russia**	5.89
14	**Vietnam**	5.75
15	**Oman**	5.69
16	**Brazil**	5.58
17	**Kenya**	5.43
18	**Mexico**	5.40
19	**Uruguay**	5.21
20	**Iran**	5.19
21	**South Africa**	5.17
22	**Bahrain**	5.16
23	**Ghana**	5.14
24	**Pakistan**	5.10
25	**Argentina**	5.03
26	**Egypt**	5.00
27	**Jordan**	4.97
28	**Kazakhstan**	4.93
29	**Colombia**	4.90
30	**Sri Lanka**	4.82
31	**Nigeria**	4.81
32	**Ukraine**	4.64
33	**Peru**	4.52
34	**Bangladesh**	4.38
35	**Paraguay**	4.38
36	**Morocco**	4.34
37	**Cambodia**	4.34
38	**Lebanon**	4.33
39	**Tanzania**	4.14
40	**Uganda**	4.07
41	**Tunisia**	4.06
42	**Algeria**	3.96
43	**Ecuador**	3.75
44	**Venezuela**	3.62
45	**Ethiopia**	3.42
46	**Bolivia**	3.10
47	**Mozambique**	2.91
48	**Angola**	2.80
49	**Myanmar**	1.83
50	**Libya**	1.64

The first-ever Digital Readiness ranking is topped by the United Arab Emirates. The country, which has developed a strong and resilient business environment that has seen it lead the Business Fundamentals ranking for several years, is also home to a well-rounded innovation and investment culture.

To mark the 50th anniversary of the seven Emirates' unification in 2021, the UAE announced a development roadmap for the coming half-century which leans heavily on the development and adoption of advanced technologies such as AI, as well as plans to capture growth driven by the fourth industrial revolution. Analysis from PwC estimates that AI will be responsible for as much as 13.6% of the UAE's GDP by 2030. Since ratification in 2019, the Emirates' AI strategy has seen the technology adopted by its government and its targeted development in key sectors including energy, tourism, healthcare, cyber security and logistics. The UAE also opened the world's first graduate-level university specialising in artificial intelligence in 2019 and offers extended visas to workers with skills in the development of the technology. Sustainability also features in the UAE's roadmap, with the Emirates having committed to be net carbon zero by 2050 and to invest $160bn in the development of renewable energy generation by that time.

Other GCC states, including those with high exposure to hydrocarbon exports, are making transitions to renewable energy production as well. Qatar, which ranks 7th, is developing the Al Kharsaah Project, its first large-scale solar farm, for example. It has also made wider sustainability efforts by investing in industrial recycling facilities and aims to be the first country in the world to fully recycle solid metal waste during 2022. Similarly, Saudi Arabia, ranked 4th, plans to increase the share of renewables in its energy mix from 0.02% in 2017 to 50% by 2030. Its first utility-scale renewable energy production site – the Sakaka solar plant – became active in April 2021, while part of its $101bn investment in renewables over the next decade will be used to fund the Sudiar Solar Plant, set to be one of the world's largest solar farms producing 1.5GW annually.

It is however the Asia Pacific region, and Southeast Asia in particular, which offers the highest number of markets in the top 10 ranking for Digital Readiness. Ranked 10th, the Philippines sees its strongest performance in Digital Readiness, due in part to the rapid pace of investment in Filipino start-ups in 2021, the numbers of which rose to more than 700 during the year. Analysis of start-up funding in Filipino tech start-ups totalled $858m between January and October 2021, according to Gobi Partners and Core Capital, meaning the 10 month period saw more value in equity fundraising than the previous four years combined. The Philippines' digital economy remains underdeveloped and lags other emerging markets in value terms. While Google, Temasek and Bain research shows the country's digital economy is the region's fastest-growing GMV of $17bn in 2021, a 93% rise year-on-year, it remains some way behind the $70bn recorded in Indonesia, for example. Across the ASEAN-5 emerging markets, Google, Temasek and Bain research shows a digital economy valued at $160bn in 2021, with forecasts suggesting rapid growth to GMV of $335 by 2025.

Chile rounds out the top 10 and is the highest-ranked Latin American market. Chile's ranking is driven by its digital ecosystem in which 173 investment projects across online and digital services such as digital infrastructure, data centres and software development were active in 2021. The new Chilean administration of Gabriel Boreck has also announced plans to double the country's investment in science-based research, pursuing developments that increase the economy's sustainability and widen access to education and skills development for the country's population. The spending increase will bring Chile's research and development budget to 1% of GDP, still some way behind the 2.4% average of its fellow OECD members. Brazil's 16th place ranking is driven by an economy and population that has embraced digitalisation at an increasing pace in recent years. More than 150 million Brazilians are regular internet users and online retail, which is forecast to generate $48bn in revenue in the year ahead, has helped to change attitudes to wider online commerce and digital business models. So too has the

Agility's Take

Digital Readiness: How emerging markets will separate themselves

In 2021, the United Nations issued a report saying that 37% of the world's population – about 2.9 billion people – have never used the Internet. Most live in developing countries, it said.

At the same time, the UN reported a "COVID connectivity boost" in Internet usage. The number of people using the Internet rose to about 4.9 billion, up 17% from 2019. Why? School closures, searches for health updates, the shift to e-commerce and other factors moved more people online.

For 12 years, the Agility Emerging Markets Logistics Index has ranked the world's leading emerging markets countries based on three components: domestic logistics, international logistics and business fundamentals. This year we added digital readiness – which could soon be most important factor in the ability of an emerging markets country to compete and build prosperity.

What is digital readiness? It starts with some basics, such as digital skills, training, access, e-commerce growth. What's a country's level of digital "literacy"? How available, affordable and reliable are Internet connections? Are businesses and government agencies doing business online?

After that, we look at whether a country fosters a climate for digital investment, funding, and new ventures. Is there an eco-system that spurs innovation and brings sophisticated, value-added tools and businesses to market.

Lastly, a country can't be digitally ready in our view unless it is using technology to adopt a renewable energy mix, lower emissions intensity and green itself in other ways. This last one poses a huge dilemma and hurdle for many countries.

Despite intense efforts at diversifying, Gulf state economies remain largely dependent on oil and gas production and continue subsidizing domestic consumption. True diversification in the region is years off.

In Africa, there is a desire to see developed countries de-carbonize first, allowing African countries time to exploit massive oil and gas finds that have been discovered there over the past 20 years. Worth watching will be how those countries balance their desire to tap fossil fuel reserves with the global pressure to kick the carbon habit.

Digital was a big theme in the survey of logistics professionals for this year's Index. They identified adoption of technology as the leading driver of economic and business growth for emerging markets. They picked operational technology, supply chain sustainability, and advanced tech such as AI as the three main focuses for the logistics industry in 2022 and beyond.

For emerging markets, digital's day is here.

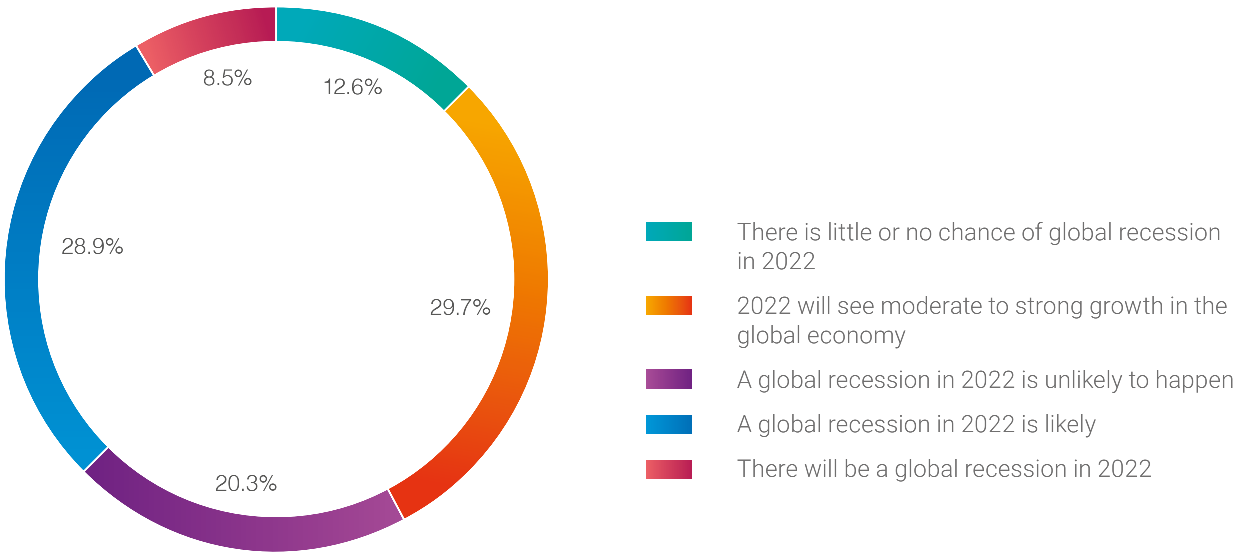
country's track record in producing unicorns – privately held start-ups with valuations over $1bn. Since 2018, Brazil has produced at least 11 such companies, helping to increase the popularity of crowdfunding in the country and providing an alternative route to financing for SMEs in a country where 40% of the population consider themselves entrepreneurs, according to McKinsey research.

Sub-Saharan Africa's highest placing market in the Digital Readiness ranking is Kenya (17th) which, along with South Africa (21st) and Nigeria (31st), represents the region's most active start-up communities as well as some of its most connected populations. The region has seen active development of its start-up and innovation culture over at least a decade, and before the onset of the global pandemic, the number of tech hubs working to support that culture and its innovators had grown to 618, according to Briter Bridges. The research showed the number of tech hubs – organisations that offer support, facilities and skills development for tech entrepreneurs – has reached more than 80 in both South Africa and Nigeria and was approaching 50 in Kenya. The Sub-Saharan Africa region has seen particular success in digital banking and financial services technology over the last decade, and the sector saw nearly $3bn invested during 2021 alone. Fintech services in Sub-Saharan Africa have been fundamental in bringing financial services to unbanked and underbanked populations as well as helped to drive the growth of e-commerce in the region by providing digital payment solutions and credit to online retailers and their customers alike. The scale of adoption is vast. GSM Associates research found 159 million active accounts across 157 live mobile money services in the region in 2020. The services processed 27.4bn transactions with a total value of $490bn in 2020.

The Agility Emerging Markets Logistics Index 2022 Survey

Recovery

Which of the following statements most closely matches your opinion on global economic prospects for 2022?



Uncertainty is the only certainty of the Covid-19 pandemic and recovery prospects. The global economic outlook remains precarious, and this is reflected in survey responses. The lack of consensus about global economic prospects for 2022 among respondents is striking and underlines the continued uncertainty about the impact of Covid-19 on the global economy.

Fiscal support packages implemented throughout the past two years and the reopening of economies have boosted consumer demand and promoted growth across most global regions. However, the large-scale economic rebound in the wake of reopening after Covid-19 has created a demand and supply imbalance, with the supply-side struggling to keep up with the release of pent-up demand, resulting in high inflation rates. Creeping inflation prompted the US Federal Reserve to move up its timeline for interest rate hikes, which might give rise to significant spillovers in the global economy.

Furthermore, the lack of consensus among survey respondents regarding the global economic prospects for 2022 is also influenced by the various speeds at which different regions recover. Just as the pandemic has had different effects on different countries, the recovery process will also be uneven. Some economies are likely to go back to pre-pandemic activity levels sooner than others. In emerging markets, the recovery is constrained by resurgences of Covid-19, uneven vaccination rates, and a lessening of financial support measures. Overall, 2022 holds widely mixed prospects for the global economy and survey results illustrate this point.

Note: Transport Intelligence and Agility surveyed 756 logistics industry professionals between August and November 2021

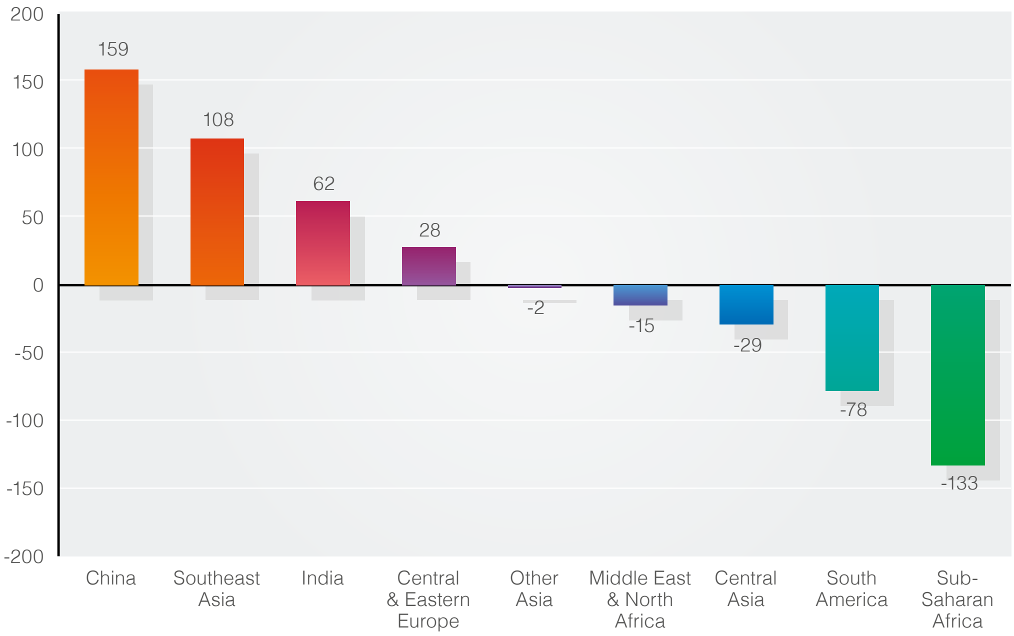
Which of the following statements best describes each region's current stage of economic recovery from the Covid-19 pandemic?

	Asia Pacific	Middle East & North Africa	Russia, Caucasus & Central Asia	South America	Sub-Saharan Africa
Fully recovered AND stronger than pre-pandemic	17.1%	6.5%	4.6%	4.3%	3.0%
Economy is still hindered by the pandemic	36.5%	47.3%	51.0%	59.3%	50.7%
Recovered but not yet to pre-pandemic level	37.2%	36.0%	35.0%	17.4%	17.4%
The worst impacts of the pandemic are still to come	9.2%	10.2%	9.5%	19.0%	28.9%

Asia Pacific's regional economy exhibits the strongest economic recovery from the Covid-19 pandemic of the five regions examined but is still below the pre-pandemic level, according to survey respondents. Although the pandemic has caused significant hardship, the region has remained relatively resilient and its GDP growth has been relatively stable during the pandemic. The Asia Pacific region's economy contracted by 1.1% in 2020, whereas the global economy shrank by 3.2% according to the IMF. The resilience of the region very much stems from its positioning on global value chains and in particular its prominent role in high-value sectors such as electronics, which is one of the largest global industries.

Nonetheless, a large proportion of survey respondents believe that the Asia Pacific economy is still hindered by the pandemic, highlighting the varying rates at which individual economies across the region are recovering from the Covid-19 pandemic. The region is experiencing an uneven recovery, and only China and Vietnam have seen a rebound and output which has surpassed pre-pandemic levels. In the other economies, output remained around 5% below pre-pandemic levels according to the World Bank. The degree of economic recovery across the region's economies has very much depended on the effectiveness of governments to contain the virus, the ability to take advantage of the rebound in global trade and economic activity, and the provision of stimulus packages.

Which emerging regions do you think will see the STRONGEST economic growth in the year ahead?



Note: Survey respondents were asked to rank the regions from strongest to weakest in terms of economic recovery. Positive scores were awarded to the top 4 ranking positions and negative scores to the bottom 4 ranking positions.

Looking at the year ahead, China is expected to see the strongest economic growth of all the emerging regions examined. The majority of survey respondents expectations match those of the IMF which has forecasted an 8.0% expansion, China's strongest growth rate since 2011. This comes despite multiple headwinds facing the world's second-largest economy, such as a slowing manufacturing, property downturn and Covid-19 outbreaks that can suppress consumption.

Power shortages are also a pressing economic concern in China, affecting wider production operations. Production for exports had been recovering aggressively over 2021 contributing to the growth in demand for shipping, however, activity across the exporting sectors has been hit severely. Nonetheless, survey respondents are confident that these headwinds will not derail China's path to recovery. The government's reforms aimed at reducing economic reliance on property and debt, and dedicating more resources into high-tech manufacturing and a greener economy, are likely to speed up the country's recovery. Finally, strong demand coming from developed regions, most notably North America and Europe, will continue to drive China's recovery trajectory.

A large proportion of survey respondents also expect strong economic growth in Southeast Asia during 2022. The region's economic recovery continues on the back of the rebound in global demand, resulting in strong growth in production activities and exports. However, the recovery remains fragile and uneven, and there are significant internal and external risks that could threaten the short-term recovery and growth of the major economies in the region. Externally, the slowing down of the global recovery momentum due to the impact of new Covid-19 variants could weigh on the region's recovery and growth in the short-term while also holding back export revenues. Internally, despite the efforts made to ramp up vaccination coverage, many of the region's major economies have yet to fully vaccinate their populations, keeping the threat of new Covid variants alive.

The ASEAN-5 countries drive the region's recovery trajectory. Being heavily trade-driven, these countries will continue to take advantage of the rebound in global trade and the strong pick-up in demand from major economies. Companies in the region that manufacture components essential for the automotive industry are returning to full strength, contributing to stronger growth prospects. Another notable recovery option for the region is the growth of its digital economy. The Covid-19 pandemic triggered a surge in digital adoption across the region. As more and more Southeast Asian consumers go online, along with the increasing number of SMEs, opportunities in the region's digital economy have increased drastically. In particular, e-commerce and food delivery are expected to grow significantly in the coming years, driven by rising online consumer activity and a youthful, tech-savvy population. Finally, growth in the ASEAN-5 countries and their role in the global value chains is set to see a continued boost from foreign investors seeking to relocate or re-shore, especially from China.

Respondents expect a strong recovery in India. Macroeconomic indicators point to strong economic development in 2022. According to the country's Ministry of Finance, India's real GDP grew by 8.4% year-on-year in the third quarter of 2021. The recovery was driven by a revival in the services, manufacturing and agriculture sectors. Exports and investment rose over 17% and 1.5%, respectively, compared to pre-pandemic levels, and both manufacturing and construction sectors surpassed pre-pandemic levels. Government forecasts show the recovery will gain strength in 2022, in line with IMF projections according to which India's economy will grow faster in 2021 than the global growth rate. The IMF forecasts 9.5% growth in the Indian economy, whereas the global economy will grow by 6% in 2021.

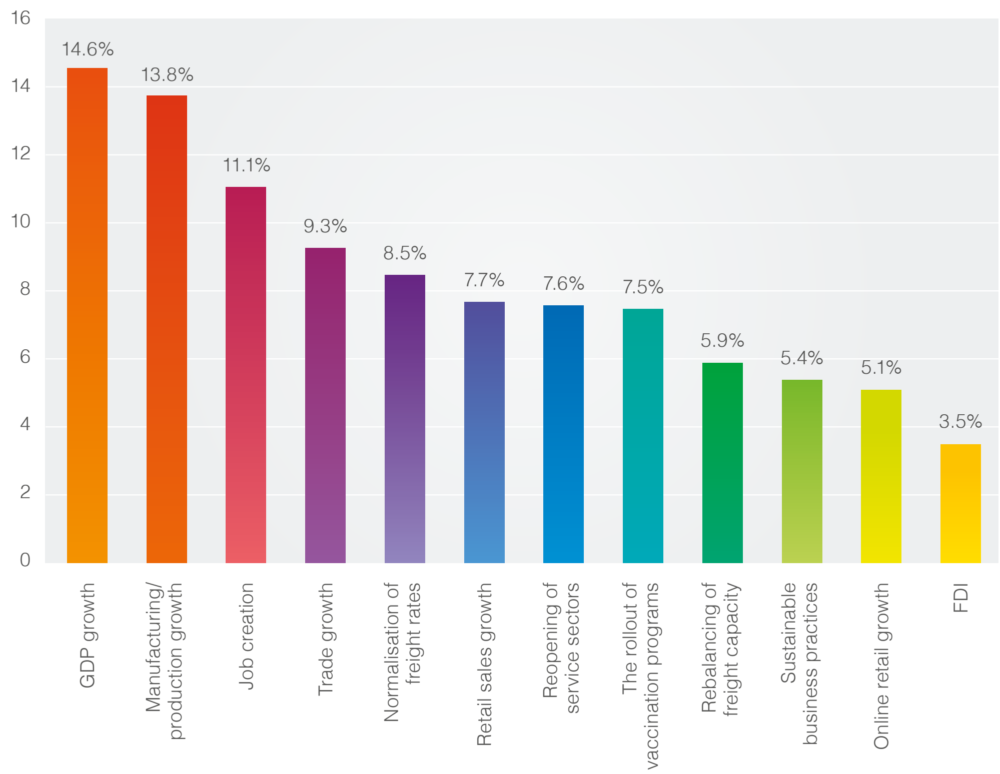
A potential source of uncertainty for India's economy is the emergence of new Covid-19 variants. Aside from the pandemic, India is successfully living up to global commitments including its climate targets. The country is committed to achieving net-zero emissions by 2070 and is on track to make renewables 50% of its energy mix by 2030. Meeting these commitments will require transformative changes across the economy and in particular massive investments in renewable sources of energy.

Expectations of a recovery in Latin America are weak amongst survey respondents. Despite improved forecasts by the World Bank and the IMF, as well as an economic rebound triggered by vaccination efforts and stimulus spending in the second half of 2021, the outlook for the region matches respondents' expectations. The region's recovery is threatened by two major forces. Firstly, any slowing of the United States' aggressive pandemic stimulus measures might reduce demand in one of Latin America's key export markets. Secondly, the region is likely to experience some spillover effects from China's slowdown due to its energy crunch and property market crisis should its demand for commodity imports fall.

Sub-Saharan Africa is expected to recover at the slowest rate, according to survey respondents. Indeed, the economic outlook for the region is bleak. While the region's economy is forecasted to grow by 3.7% in 2021, this is the slowest growth among developed and emerging regions according to the IMF and reflects subdued investments in the region. The region has been hit hard by the pandemic, resulting in its economy contracting by 1.9% in 2020. Bouncing back from such a low base and the adversities caused by the pandemics will therefore be a difficult and lengthy process, especially in light of the long-term economic challenges the region has been facing. The pandemic has laid bare the structural social and economic weaknesses of the region, such as over-exposure to commodity exports and limited economic diversification. The difficulties experienced by major trading partners, particularly Europe, also limits the recovery prospects for the region.

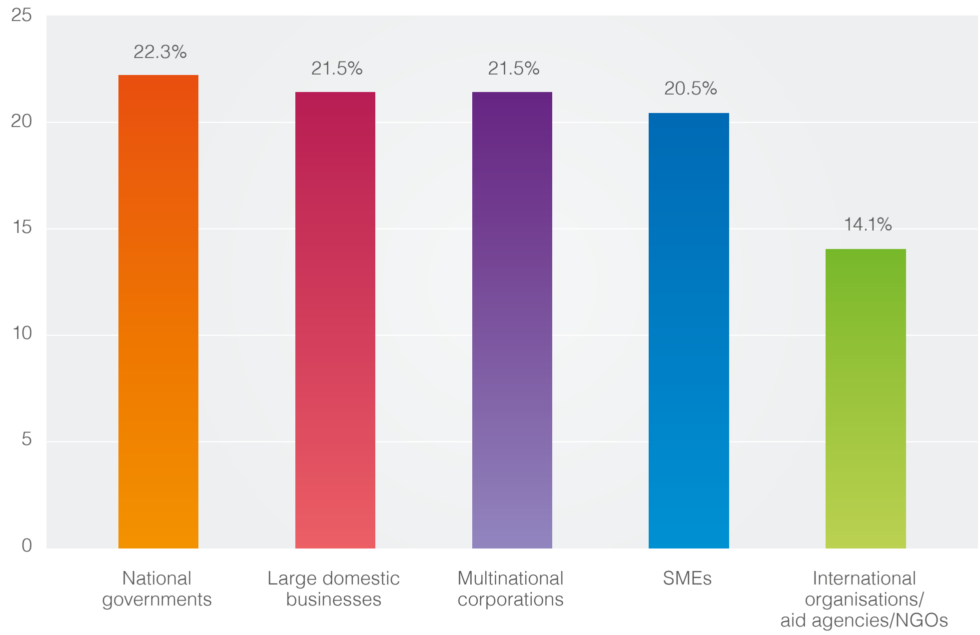
That said, there are still positive developments to be found and structural and macroeconomic reforms in certain Sub-Saharan African countries are likely to contribute to the recovery of the respective nations. Nigeria, for example, has announced it will remove its fuel subsidy regime from June 2022. The fuel subsidy regime has become a major burden and its removal should allow the country to increase investment in strategic sectors of the economy as well as raise productivity. Another positive development comes from Ethiopia which is opening its telecommunications sector to the private sector, which is an important milestone in the country's journey to becoming a digital economy. The opening of the telecommunications sector to private investment is expected to lead to lower prices, better services, and more consumer choice, thereby providing the foundations for the country's digital transformation.

What are the most important signs of recovery for emerging regions following the Covid-19 pandemic?



According to survey respondents, macroeconomic factors such as GDP growth and manufacturing output are the most important signs of recovery for emerging regions. More specific factors and industry sectors appear to be less insightful when evaluating the overall recovery prospects of individual countries. This suggests that business professionals are seeking headline numbers and signs that there is an upward trend in the economy. However, delays in the assessment and publication of macroeconomic data like GDP growth can mean such indicators are ill-suited for the assessment of recovery prospects due to the fast-moving nature of the Covid-19 pandemic and its impact.

Rank the following types of organisation by the importance of their role in emerging regions' recovery from the Covid-19 pandemic?



When asked which group of organisations have the most potential to power recovery in emerging markets, survey respondents stated that involvement and initiatives from all stakeholders will be necessary to support recovery from the Covid-19 pandemic in emerging regions. National governments, large domestic businesses, multinational corporations and SMEs are all equally important in powering growth in the years ahead.

National governments played a crucial role in addressing the adverse impact of the Covid-19 pandemic on individuals and businesses and responded by deploying large fiscal packages to support households, individuals, and businesses. According to the OECD, between March 2020 and May 2021, global fiscal support amounted to $13.8 trillion, with $7.8 trillion in additional spending and forgone revenue and $6 trillion in equity injection, loans and guarantees.

The response from governments in emerging markets varied. Many emerging market economies have large informal sectors and many also have constrained resources. As a result, their stimulus packages were less comprehensive and typically represented less than 5% of GDP according to IMF data. Mexico is at the bottom end, providing only $7bn in additional spending or foregone revenues, which represents 0.7% of its 2020 GDP, according to IMF data.

Which economic activities will be most significant in powering growth in emerging regions over the next five years?

	Asia Pacific	Middle East & North Africa	Russia, Caucasus & Central Asia	South America	Sub-Saharan Africa
Advanced/value-added manufacturing	3.80	1.28	1.62	1.33	0.96
Extractive industries/mining/agriculture	1.52	5.14	6.12	5.84	7.22
Intermediate manufacturing	2.37	2.64	2.41	2.73	1.66
Online retail	2.09	2.09	1.41	1.40	0.99
Primary manufacturing	4.37	2.67	2.78	3.07	3.64
Professional services/knowledge economy	1.58	1.79	1.27	1.19	1.13

Note: Sectors are scored on a 0-5 scale in which 0 = no influence on growth, and 10 = strongest influence on growth

Primary manufacturing and Advanced/value-added manufacturing will be the most significant economic activities powering growth in the Asia Pacific region over the next five years, according to respondents. The strong outlook for manufacturing production in the region is underpinned by the rapid expansion forecast of the global economy. Semiconductor manufacturing will continue to play a prominent role in powering growth in the region.

The boom in global semiconductor demand that has supported growth to key Asian exporters, including Malaysia, will likely hold up and speed up the recovery in these countries.

For the remaining emerging regions, extractive industries, mining and agriculture will be the most significant economic activities to power growth over the next five years, according to survey findings. These

Agility's Take

Missed opportunity? Free trade has few buyers

Agility

Few countries are treating trade liberalization as a path to post-pandemic economic recovery.

Since the start of the pandemic in 2020, countries around the world have introduced nearly six times more trade barriers (7,084) than new measures to create freer trade flows (1,247), according to Global Trade Alert, which tracks trade policies and interventions.

US-EU trade friction has eased somewhat under the Biden administration, but a long-running series of disputes pitting the US and China against one another have not cooled. A broad array of Chinese goods remain subject to 25% U.S. tariffs, a huge tax on U.S. businesses and consumers that buy them and an advantage for China's competitors.

The 164-country World Trade Organization, meanwhile, is all but crippled, lacking consensus about its broken dispute-resolution system, unequipped to deal with the challenges of a digital economy, and uncertain how to treat China with its hybrid economy of market capitalism and state control.

Implementation of the promising African Continental Free Trade Area has been excruciatingly slow. AfCFTA was brokered in 2018. Since then 54 of 55 countries have signed the agreement, but only 38 have taken steps to formally ratify it. Technically, AfCFTA came into force at the start of 2021. Realistically, it cannot spark the integration of Africa's economies until countries move ahead with negotiations on goods, services, intellectual property, investment, and e-commerce.

The Regional Comprehensive Economic Partnership took full effect January 1 in 15 Pacific nations. The RCEP is considered the world's largest free trade agreement, covering 2.3 billion people and economies with $26 trillion in output.

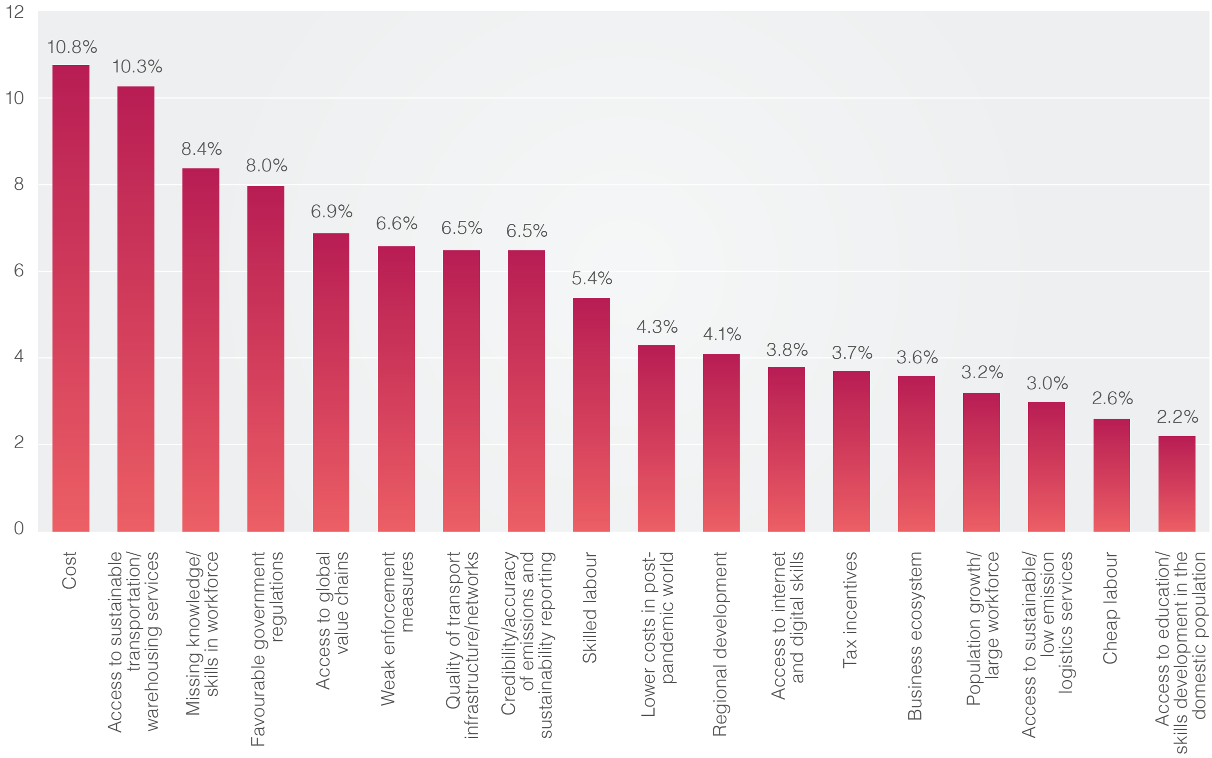
Meanwhile, Brexit has made trade with the UK slower, more expensive and more difficult. Goods that once left Britain for EU markets without any paperwork now require completion of four-page customs forms. Inbound shipments are even more cumbersome.

The UK signed its first post-Brexit trade deal with Australia and has started negotiations with India. Even so, the UK economy remains in disarray and is shrinking. The UK's partners – including emerging markets countries that want to strengthen trade ties – continue waiting for the dust to settle. Full UK border regime implementation, which will come with new costs for business, won't take effect until July. Yet monthly UK goods trade in 2021 was already off 11% to 16% in 2021.

sectors will be particularly important growth drivers for the Sub-Saharan Africa region. Agriculture holds a high share in GDP in the region and as a result, the prospects of the agricultural industry considerably influence economic development in Sub-Saharan African countries. Trade under the African Continental Free Trade Agreement officially started on 1 January 2021. According to recent estimates by the UN Economic Commission for Africa, the agreement is projected to increase intra-African trade of agriculture and food products by 20-35% (or $10-17 bn). Key risks and trade barriers will remain the high costs of road transport, due to the region's poor infrastructure and border inefficiencies.

Investments in emerging markets

Rank the importance of the following criteria in your decision to invest in an emerging market:



The question of how to best assess investment opportunities in emerging markets has always been complex. Survey findings continue to illustrate this point and highlight that investment decisions are shaped by several factors. While Costs and Access to Sustainable Transportation/Warehousing Services are the two most important factors, they are closely followed by a range of other criteria, including Missing Knowledge/Skills in the Workforce and Favourable Government Regulations.

The fact that Costs are the top consideration for investors is unsurprising. As the global pandemic continues to pose challenges and the outlook remains uncertain, there is increased pressure on both governments and businesses to cut costs. The implication is that a reduction of costs – both direct and indirect – is most likely to turn potential investors into actual investors.

The third most important factor, the Availability of Knowledge/Skills in the Workforce, points to the need for investments that make emerging markets fit for the future. To thrive, emerging economies need to look for options other than export-driven low-cost manufacturing. Emerging economies are part of a global technological shift that has accelerated during the Covid-19 pandemic, and which requires investment in human capital to prepare the workforce for the challenges ahead.

As automation and work converge, skills gaps are likely to widen at a faster pace leading to talent shortages in emerging economies. To remain relevant and competitive, emerging markets need a workforce with skillsets that can process information and serve customer needs.

Freight Rates

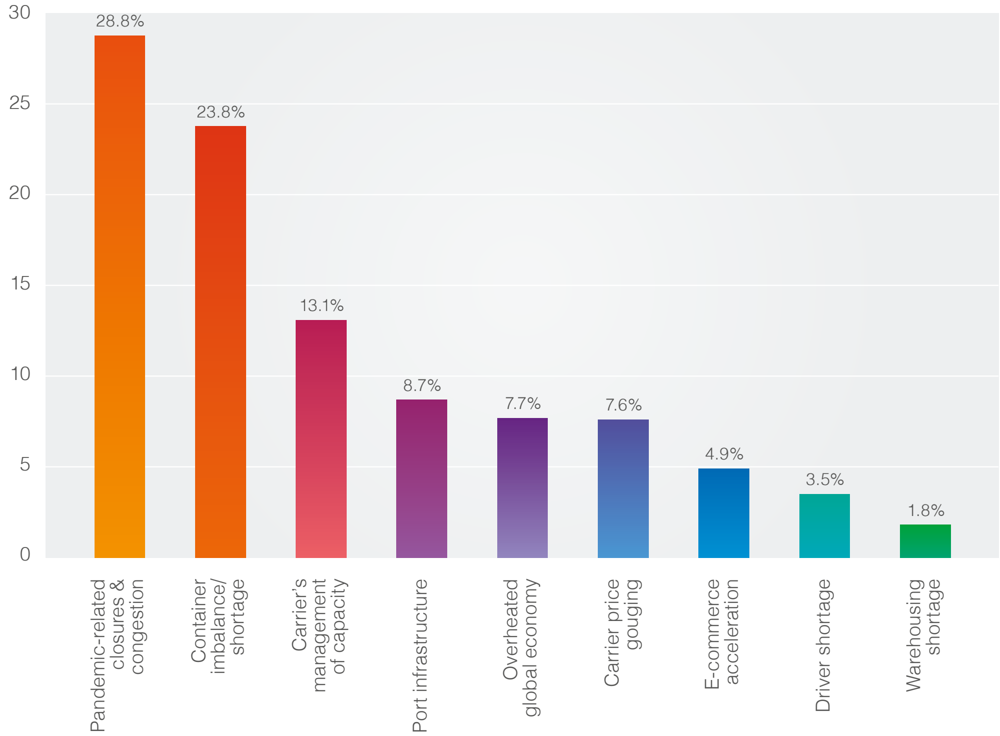
The imbalance of cargo flows, capacity constraints and supply chain bottlenecks have been a feature of the global logistics market in 2021. The pandemic disrupted global trade, driving up the cost of moving goods to historic levels. This of course begs the question: when will freight rates normalise? The majority of respondents believe that elevated air and sea freight rates are here to stay until at least the second half of 2022. Only a small proportion of respondents think that higher rates will become a permanent feature of global supply chains.

When do you expect freight rates to normalise?

	Air Rates	Sea Rates
By the end of 2021	8.2%	7.0%
In Q1 2022	17.5%	11.7%
In Q2 2022	19.3%	15.2%
In H2 2022	19.9%	24.6%
In 2023	24.0%	26.3%
Higher rates are here to stay	11.1%	15.2%

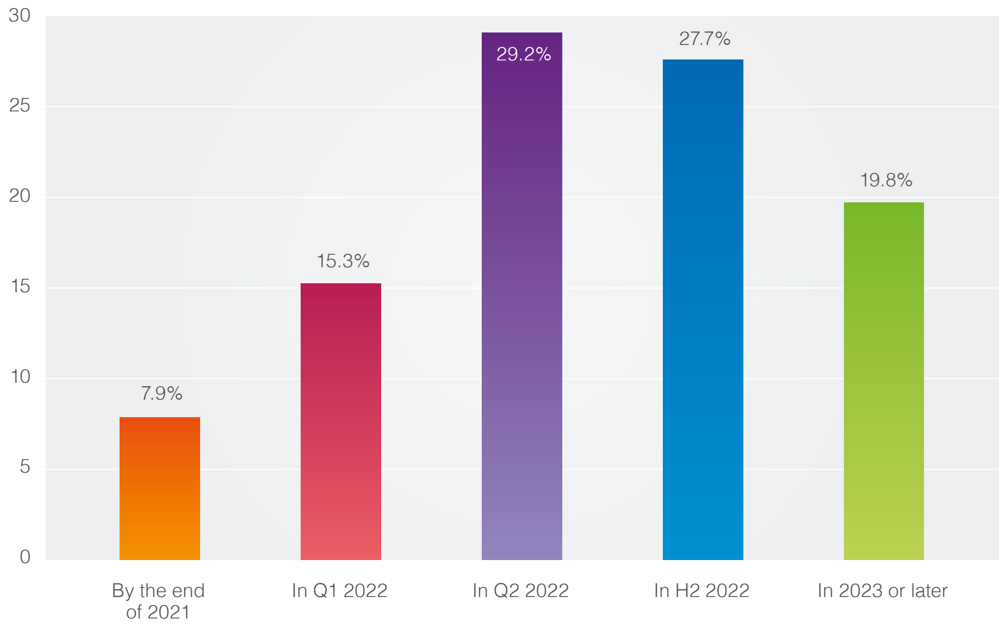
Looking at the factors that have been driving the surge in freight rates provides some insight into their development and outlook. The dynamics and relationships between volumes and freight capacity have a significant impact on rates. The significant imbalance between the two has resulted in historically high freight rates. Respondents affirm this interaction between volume, capacity and its effect on rates, and recognise Pandemic-related Closures & Congestion and Container Imbalance and Shortage as the factors with the most significant impact on the rate surge in shipping.

Which of the following has had the most significant effect in causing the rises in rates and capacity constraints in shipping?



There is a clear consensus among respondents that port congestion will unwind at some point in 2022. At 36.4%, more than a third of respondents are optimistic that this will happen in Q122. However, 34.6% believe that we will have to wait until the second half of 2022 for port congestion to be resolved.

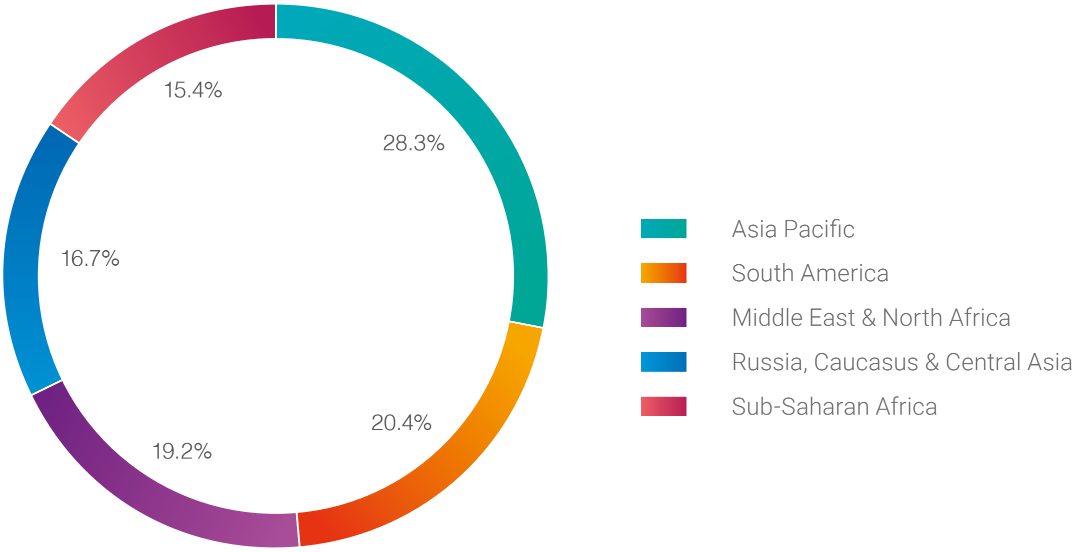
When do you expect port congestion to unwind?



There are several factors to look at when evaluating the dynamics of supply chain congestion. One of the most important indicators of future volume growth and rate development is the inventory to sales ratio. As the ratio falls, the pressure for inventory replenishment increases, bolstering freight volume. At the end of 2021, the inventory to sales ratio was very low, particularly in the US and Europe, because consumption of goods originating from Asia Pacific and other emerging regions was at such a high level that suppliers could not replenish their inventories in time, despite rising freight volumes into Western consumer markets. As manufacturers and retailers continue to replenish their stocks, higher container volumes are likely to persist into the first half of 2022.

On the supply side, the availability of capacity on key trade lanes remains at issue in early 2022, itself contributing to congestion and elevated rates. Poor schedule reliability and low port terminal utilisation rates are contributing factors with both unlikely to be resolved in the short term. The situation is complex, with vessel sailing schedules impacted by congested ports, and terminal utilisation rates that cannot improve while vessel arrival times are unreliable, resulting in disruption throughout the container shipping supply chain. Further risks on the horizon, such as potential port lockdowns in 2022, like those seen in the Chinese ports of Yantian and Ningbo early in the year, will delay the unwinding of congestion.

Which regions have suffered the most from the effects of inflated freight rates?



Respondents believe that Asia Pacific has suffered the most from the effects of inflated freight rates, followed by South America and the Middle East & North Africa. The Asia Pacific region has seen a surge in freight rates mainly as a result of the bilateral trade imbalances which typically have a profound impact on transport costs, especially in sea freight. Shipping containers departing from Asia to North America and Europe are full of cargo but have been returning empty, which increases shipping costs to price-in the empty return journey. The greater the trade imbalance, the higher the increase of costs. This however damages Asia Pacific's, and in particular China's, value chain proposition, thereby weighing on the region's exports and undermining its recovery. These higher costs inevitably trickle down to Asian manufacturers.

Agility's Take

5 Ways the Pandemic Changed the Supply Chain Forever

This is adapted from a blog originally published by the World Economic Forum

By Tarek Sultan, CEO, Agility

Two years into the pandemic, the global supply chain continues to sputter and break down. Each day comes news of choked ports, out-of-place shipping containers, record freight rates, and other problems that cause disruption and defy easy answer.

Unless you're the one waging the day-to-day battle to move cargo for your organization, you should find a moment to take a deep breath. Step back and look at the larger picture because when ports eventually clear and rates come down, the way we manage and think about the supply chain is going to be very different.

How?

1. Supply chain is on the front-burner for good

The supply chain finally has the C-suite's attention, and chief supply chain officers are its new stars. In October, for the first time, corporate CEOs in a McKinsey survey identified supply chain turmoil as the greatest threat to growth for both their companies and their countries' economies. Bigger than the COVID-19 pandemic, labor shortages, geopolitical instability, war, and domestic conflict.

At about the same time, Bank of America noted that mentions of "supply chain" in Q3 earnings calls by Fortune 500 companies had risen an astonishing 412% from Q3 2020 and 123% from Q2 2021 earnings calls, when boardroom focus on the issue was already red hot. Fifty-nine percent of companies say they have adopted new supply-chain risk management practices over the past 12 months, including diversifying to reduce overreliance on China.

"We're seeing a supply chain that is being tested on a daily basis," Kraft Heinz CEO Miguel Patricio said recently.

2. Flexibility + resiliency + business continuity > cost

Before the pandemic, cost reduction and productivity enhancement were driving supply chain process improvements, digitization and investment. Those drivers remain important, but the unprecedented chaos triggered by COVID threatened the competitive position -- even the survival -- of many businesses that found they could no longer meet customer expectations.

The existential crisis brought on by the pandemic has forced companies to shift the focus of innovation and restructuring efforts to ensuring business continuity by building resiliency and flexibility. McKinsey has documented the vulnerability of manufacturers by showing how few had any visibility into their supplier networks beyond Tier 1 suppliers.

Clorox is one of many companies taking action. It is investing $500 million to upgrade its digital capabilities, citing the need for real-time visibility and better demand planning.

3. Buyer-supplier relations have been altered

In certain industries, the failure of critical links in the supply chain has led to new alliances and co-development ventures between OEMs and suppliers. Alarmed by the shortage of semiconductors, for instance, Ford and General Motors have formed strategic agreements with chipmakers.

More broadly, there is a recognition that resiliency is impossible unless buyers, suppliers and other parties along a value chain are willing to share data and collaborate. A new Reuters report, Where's My Stuff?, suggests that businesses could share sensitive, closely held data with partners by creating "cleanrooms" where joint teams can perform analysis without fear that competitive information will leak. Blockchain technology, which enables secure, access-controlled data exchange, also could be valuable in data sharing.

"With the benefits of increasing collaboration through data sharing and visibility into deeper tiers becoming more obvious, addressing mistrust becomes a key objective and will require concerted and directed efforts," the Reuters report says.

4. Business lines are blurred and 'workarounds' are SOPs

Bold companies are not waiting for supply lines to untangle themselves. Retailers short on storage space are buying warehouses. Shippers that can't find containers are making their own. Companies unable to book with ocean carriers are chartering vessels themselves. Those unhappy with their online sales are buying e-commerce fulfillment operators.

Amazon and ocean giants Maersk and CMA CGM are placing orders for aircraft and moving into air freight. Maersk and CMA CGM, in fact, appear to be on a collision course with Amazon and Alibaba in logistics, forwarding and delivery.

Nimble shippers and manufacturers know they have to keep adjusting. They are using alternative ports, reformulating products, shifting to air freight, boosting in-house trucking, taking advantage of off-peak port hours, and diverting resources from low-margin products to bigger moneymakers.

In its healthcare unit, GE is redesigning products, using dual sources and expanding factory capacity as it struggles to cope with semiconductor shortages and other supply chain challenges that have caused turmoil in the medical technology industry.

GE and Stanley Tools are among the many companies that have sought to secure goods by shifting production, using forward contracting, turning to contract manufacturers, fast-tracking plant expansion, building new manufacturing hubs, using dual-source manufacturing and nearshoring, or making hard-to-get parts with 3D printing.

5. The inventory playbook has been ripped up

Companies know that disappointed customers might not come back. That's why some consumer products brands are desperate to conceal stock outs and disguise low inventory, even reconfiguring in-store displays and using decoys to hide shortages.

More fundamentally, others are questioning the supply chain models they have worked so hard to make hyper-efficient. Automakers that spent decades fine-tuning and perfecting just-in-time systems have started to break with JIT practices because they don't work when there are shortages of critical components. Toyota, Volkswagen, Tesla and others are stockpiling batteries, chips and other key parts and racing to lock up future deliveries.

"The just-in-time model is designed for supply-chain efficiencies and economies of scale," Ashwani Gupta, Nissan Motor Co.'s chief operating officer, said recently. "The repercussions of an unprecedented crisis like COVID highlight the fragility of our supply-chain model."

To make sure that they have enough to sell, retailers Nordstrom, PVH and Gap have tried "pack-and-hold" strategies -- over-ordering to prevent stockouts with the gamble that they can stash away unsold inventory and sell it as new next year rather than having to deeply discount.

In other industries built on lean inventories, there is a debate about whether we are seeing a permanent change in strategy – toward larger inventory and more safety stock – or a temporary one that is necessary because of higher demand.

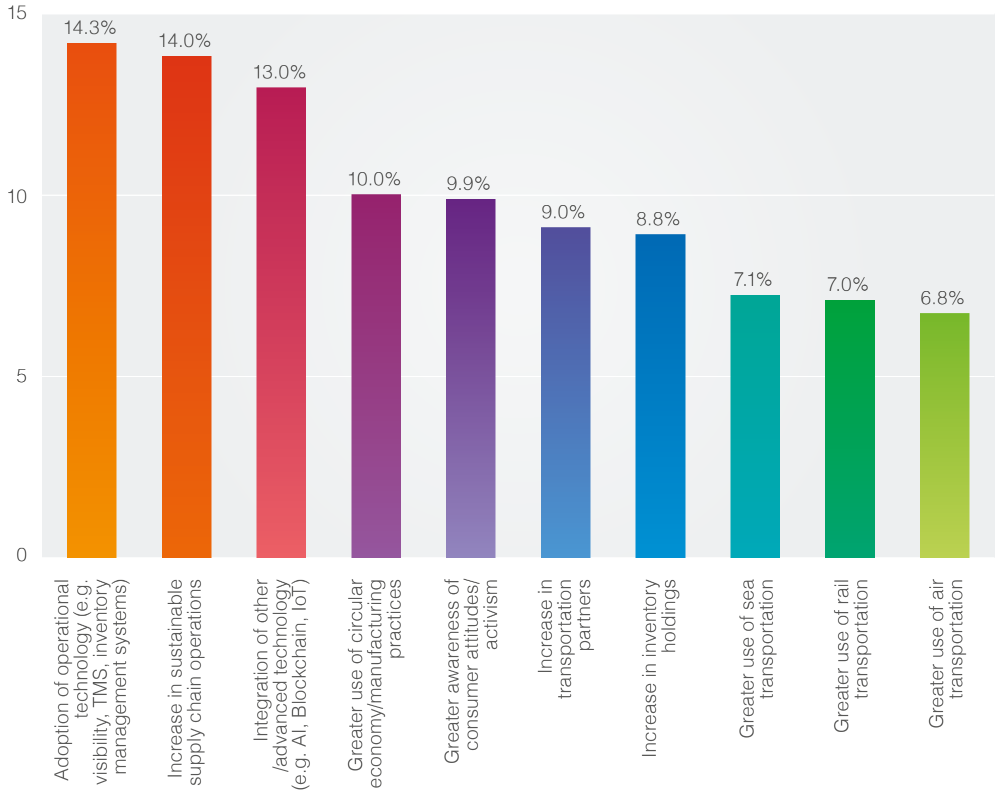
The Reuters report suggests that more companies are prepared to implement aggressive Continuous Replenishment Programs and automate more of their ordering to avoid getting caught flatfooted without sufficient stocks down the road.

What's clear is that nearly two years after the world first learned of COVID, the supply chain is still experiencing an unfortunate series of firsts. A historic level of carrier unreliability. Record-high freight rates. Record-low warehouse vacancies. And more.

It will pass. When it does, look for a more intelligent supply chain.

Technology

Which of the following do you expect to be more prominent in 2022 and beyond?

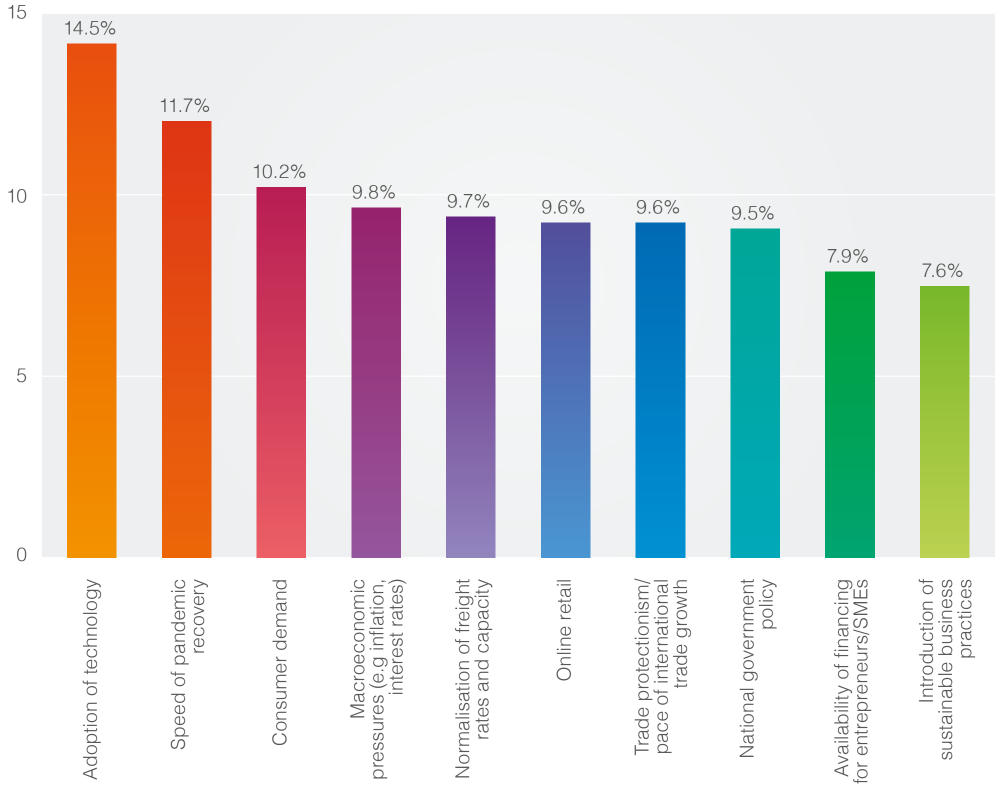


The challenges caused by the pandemic are set to accelerate the adoption of operational technology into supply chains, with respondents believing technology that improves visibility and decision-making at the operational level will become more prominent in 2022 and beyond.

The Covid-19 pandemic has laid bare a lack of resilience in global supply chains and vulnerability to shocks. Industry stakeholders were forced to adopt more advanced ways of adapting to the ever-changing environment. Driven by the need to create efficiencies, manage costs, and improve customer service, survey responses indicate an expectation of investment in technologies that result in a higher level of visibility along the supply chain that will support improved efficiency and increased reliability in freight movements.

Technologies at the operational level, including WMS, TMS and inventory management systems are increasingly available via cloud-based subscription services which require little internal IT support. This makes them more affordable and accessible to businesses operating in emerging markets. Asia Pacific is an emerging but fast-growing market for TMS. Oracle, one of the largest TMS vendors globally, and its notable growth in emerging markets is a good indicator of the increased adoption of TMS in these regions. Oracle's customer growth in Asia Pacific and Latin America combined recently equalled the customer growth in North America.

Which of the following will most shape growth in the next decade?



Technology has the greatest potential to shape growth in the next decade, according to survey respondents. The advance of new technologies is relentless and unfolding throughout the global economy, driving change that disrupts the status quo and introduces entirely new business models and processes. The technological revolution is well underway in the logistics industry and has already started to overhaul its existing business models, including the freight forwarding market which is undergoing significant digital transformation.

The pace of technological and digital adoption will only get faster and business opportunities for growth will continue to arise as a result. The Covid-19 pandemic accelerated the adoption of various technologies. For emerging economies, it is important not to deny the digital revolution, but to implement adequate policies that amplify the benefits of new technologies and address the organisational changes driven by technology adoption.

Digital forwarding

In your experience how have digital forwarders performed in comparison with other forwarders you have used previously against the following criteria?

	Cost	Speed of service	Customer service/ account management	Service range	Pricing transparency	Value-added services	Exception/ error management	Visibility
Exceeded performance	16.2%	26.9%	19.3%	14.9%	18.0%	14.0%	9.5%	24.6%
Matched performance	46.2%	43.3%	47.7%	50.0%	48.3%	44.2%	52.7%	49.1%
Underperformed	37.6%	29.8%	33.0%	35.1%	33.7%	41.9%	37.9%	26.3%

The digital freight forwarding landscape continues to develop at a rapid pace as companies upgrade their capabilities and frequent M&A deals change the competitive environment. A closer look at the current service offering of digital forwarders demonstrates that they have quickly adapted their business models and offer a constantly expanding scope of services to enable them to compete more effectively with traditional players. Digital forwarders presently demonstrate more traditional freight forwarding behaviours such as expanding their service portfolios and value-added services, expanding their global networks and investing in physical assets.

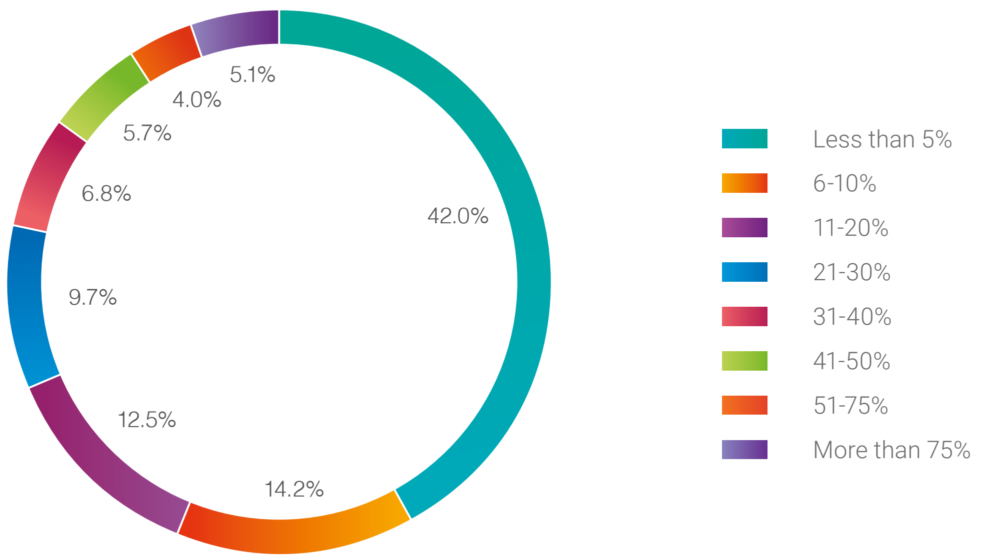
However, even though digital forwarders have come a long way since entering the forwarding market, respondents are still wary of digital forwarding and believe digital forwarders are yet to consistently improve the forwarding offer when compared to larger industry players. The majority of respondents believe that the performance of digital forwarders matches the performance of incumbent forwarders against eight different criteria, including cost, service range and visibility. These results imply that the differences between the digital and previous freight forwarding business models are gradually fading, to the benefit of the entire industry.

Survey findings show that digital forwarders have been successful at eroding the sustainability of competitive advantages of forwarders previously established in the market across several areas. When it comes to 'service range', half of respondents stated that digital forwarders match the performance of incumbent forwarders.

The most prominent digital forwarders have gradually expanded their service offering to compete and grab market share, as well as making headway into the provision of value-added services which have traditionally been provided by the incumbent forwarders, and considered a competitive advantage of the latter. As such, digital players are now providing services such as supply chain visibility, cargo insurance, network optimisation, order management systems and exception management, and are thus at par with established offers, according to respondents.

While it is indisputable that digital forwarders have come a long way and have pushed the boundaries of what was previously established in the freight forwarding industry, survey results show that digital business models have not yet developed a meaningful competitive advantage. The reason behind this is that incumbent forwarders have raised their game and have been digitalising themselves to match or exceed the wider market's pace of development.

How much of your transportation is undertaken through a digital forwarder?



Agility's Take

Supply chain volatility and digital freight forwarding

At last, the slow-to-change shipping industry finds itself in the midst of a technological revolution.

It's everywhere you look, and it includes:

- New digital tools for visibility, tracking, load matching, storage optimization, trade financing, payments, compliance information, carbon calculation, demand planning, transaction security, and more.
- Automation in transportation and warehousing plus the testing of autonomous ships and trucks to go along with the wider testing and commercial use of delivery drones.
- Dramatic advances in data availability, capture, sharing, analysis and modeling.

Digital freight platforms, which allow shippers to get instant quotes and book cargo shipments online with a few keystrokes, have been part of the revolution. They are attracting billions from investors and, by all accounts, are showing revenue growth. What's unclear – there are no reliable statistics – is how much of a share of overall freight bookings they have gained.

The 756 logistics industry professionals who responded to the survey for this Index remain wary of digital forwarding: nearly 70% say they book 20% or less of their cargo with digital freight platforms. Large percentages say digital forwarders underperform or fail to meet expectations across an array of areas, including cost, speed, customer service, pricing transparency, value-added services and error/exception management.

The volatility brought on by the pandemic has not helped. When freight rates keep climbing to levels no one has ever seen, and containers and pallets are continually getting bumped from ships, airplanes and trucks, it's hard for shippers to put faith in what they're seeing on a screen. They want an account representative or customer service rep to explain what's going on and to help find a workaround.

Until now, industry innovation was largely about cost reduction, productivity improvements and efficiency. What shippers want now is resiliency.

Despite this, survey results show that digital forwarders still exhibit low to moderate market penetration in the forwarding market, with the largest proportion of respondents (42.0%) undertaking less than 5% of their transportation through a digital forwarder. Around 9% of respondents undertake more than half of their transportation through a digital forwarder, suggesting that trends among some shippers are changing and many are now getting accustomed to partnering with digital forwarders to meet their transportation needs.

While the market share of digital forwarders may still be low compared to the total size of the freight forwarding market, they are developing rapidly and should therefore be expected to increase their market share as long as they continue to invest in areas that improve their offer. If and when they become capable of providing a market level of service quality along with guaranteed capacity, can we expect a significant shift in the competitive dynamics that favours digital forwarders? The jury is out on the future of digital freight forwarding and its competitive rivalry.

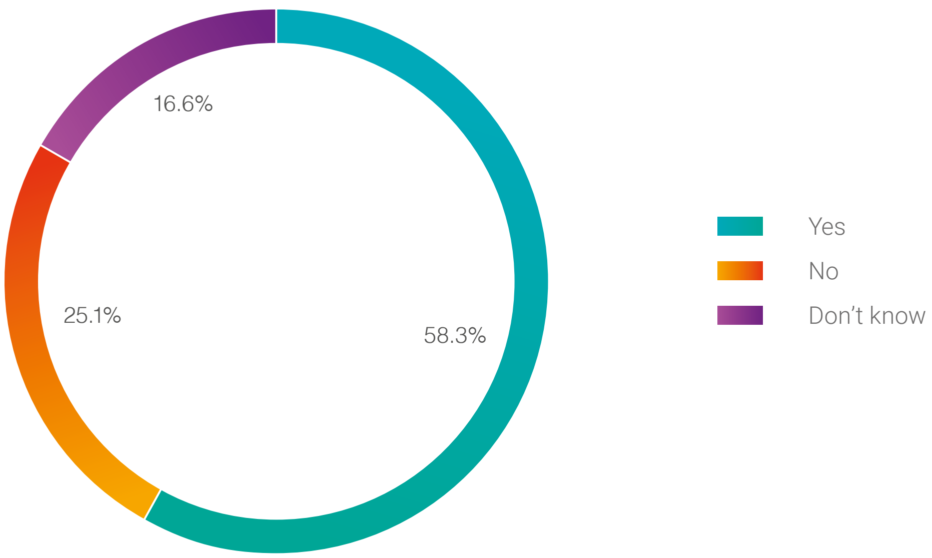
Sustainability

Sustainable supply chain operations were increasingly coming to the fore in the years prior to the Covid-19 pandemic and survey findings reveal that they will become even more prominent in 2022 and beyond. Respondents reinforce how important sustainability has become by identifying 'Access to sustainable transportation/ warehousing services' as the second most important criteria in decisions to invest in an emerging market. The implication is that markets that implement comprehensive roadmaps for sustainable development will be more successful at capturing investments in the future.

Many of the world's leading logistics companies have committed to becoming net carbon neutral by 2050, joined global sustainability programmes, such as the Science Based Targets Initiative, and announced significant investment programmes to achieve their goals. Survey findings suggest that the majority of logistics professionals prioritse sustainability and have put in place a formal environmental policy. More than half of respondents (58.3%) have environmental policies specific to emerging market operations as a part of their Corporate Social Responsibility (CSR) strategy. These findings indicate a strong commitment to decreasing the impact of supply chain operations on the wider environment and that the business case for sustainability in emerging markets remains relevant.

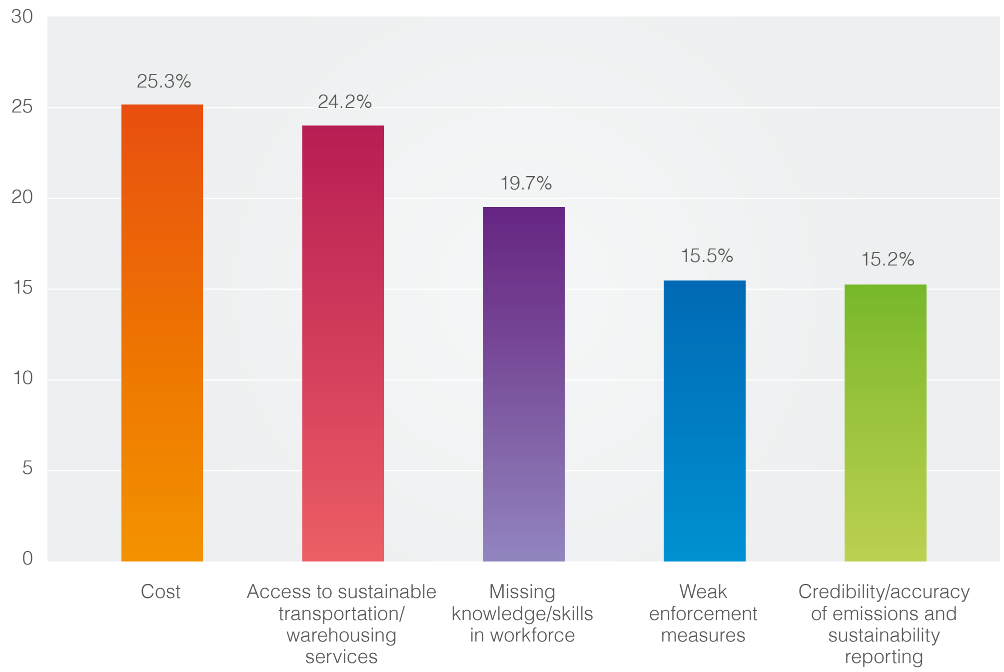
That said, sustainability practices are gaining greater prominence in emerging markets, with many emerging markets governments introducing sustainability policies in their national plans. For instance, Colombia has introduced a National Circular Economy Strategy which should enable the transition from the current one-way system of resource use to a circular model. Indonesia, the largest economy in Southeast Asia, is pushing ahead with plans to develop a National Circular Economy Roadmap. Sustainable mobility is part of the national economic plans of India and its Sustainable Mobility initiative should help to develop urban transport policies and investments that prioritize low carbon mobility by working with national, state, and city-level government stakeholders.

Does your company have environmental policies specific to emerging market operations as a part of its Corporate Social Responsibility (CSR) strategy?



Businesses have started to place greater emphasis on the implementation of sustainable operations because of multiple pressures. Compliance with government regulations, consumer preferences and pressure as well as market incentives to decarbonise operations certainly remain the key drivers behind the adoption of sustainable practices. Some of the less obvious drivers are improved profitability and reduced transportation costs. Despite growing evidence that sustainability can benefit the bottom line, there is still plenty to do in demonstrating that sustainability and profitability are not mutually exclusive and that sustainable practice is good business practice. This is especially important in emerging countries, where the sustainability agenda can be perceived as a barrier to development.

Which of the following challenges do you face in undertaking more sustainable operations in emerging markets:

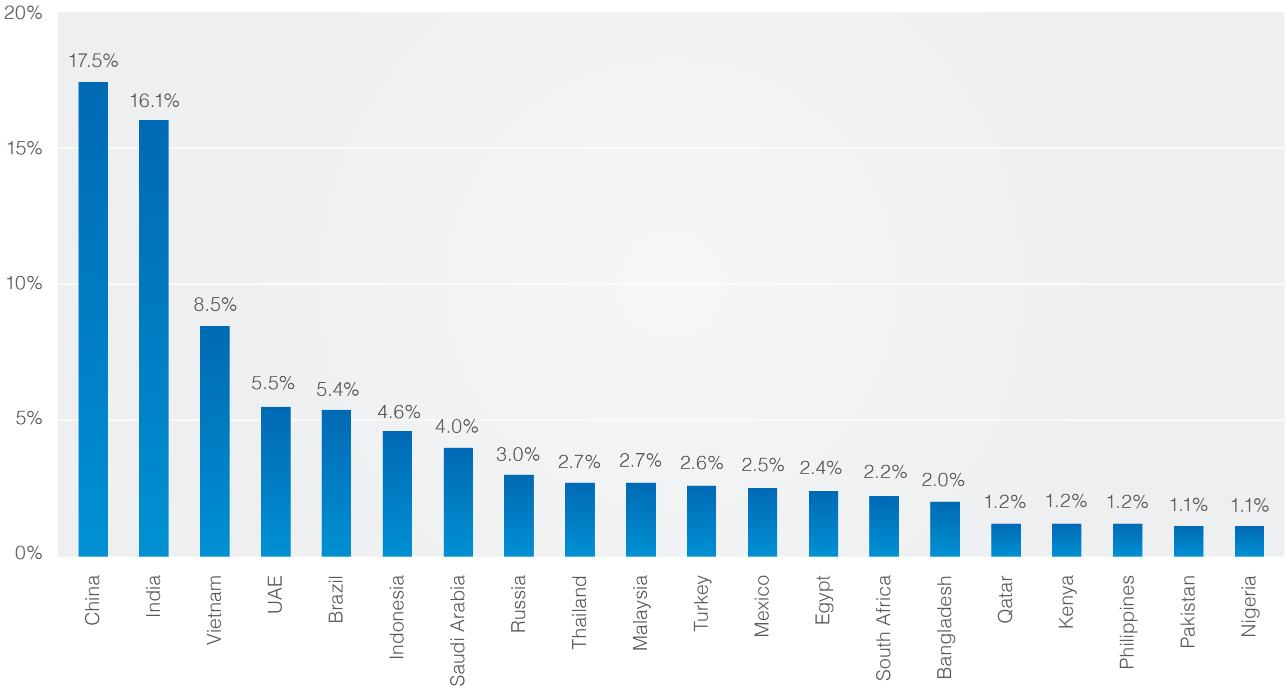


According to respondents, the main barriers to undertaking more sustainable operations in emerging markets are costs and access to sustainable transportation and warehousing services. The Covid-19 pandemic and its economic consequences have introduced new financial constraints which could discourage sustainable initiatives in emerging markets in the short term. Sustainable initiatives that necessitate significant upfront investments without tangible and immediate returns are more likely to take the back seat as a result of this.

This makes the role of governments in encouraging sustainable investments even more important. For sustainable initiatives to take hold across emerging markets as a whole, governments need to create a favourable enabling environment to make their countries more competitive and maximise the positive impact of private investments. The first step is to tackle costs and the lack of sustainable transportation and warehousing services which remain key barriers and disincentives for companies to prioritise sustainability in emerging economies.

Emerging Markets with the Most & Least Potential

Which countries have the MOST potential to grow as logistics markets in the next five years? Please rank the top 5 markets, where Market 1 = most potential.



The top seven markets identified by survey respondents as having the most potential as future logistics markets were unchanged in 2022. **China and India** remain executives' top choices as the emerging logistics markets with the most potential.

Vietnam holds onto 3rd position showing confidence in the country matches the progress it has made in recent years in its infrastructure and domestic market as well as its broadly successful management of the pandemic. As Vietnam transforms into a global manufacturing hub, it has emerged as a key market for sourcing and diversifying operations in Asia as part of the "China-Plus-One" strategy. Alongside manufacturing which continues to be the country's primary growth driver, digital capabilities emerge as alternative growth drivers. The government recently proposed a comprehensive reform agenda to spur innovation-led growth to meet its ambition to become a high-income economy by 2045.

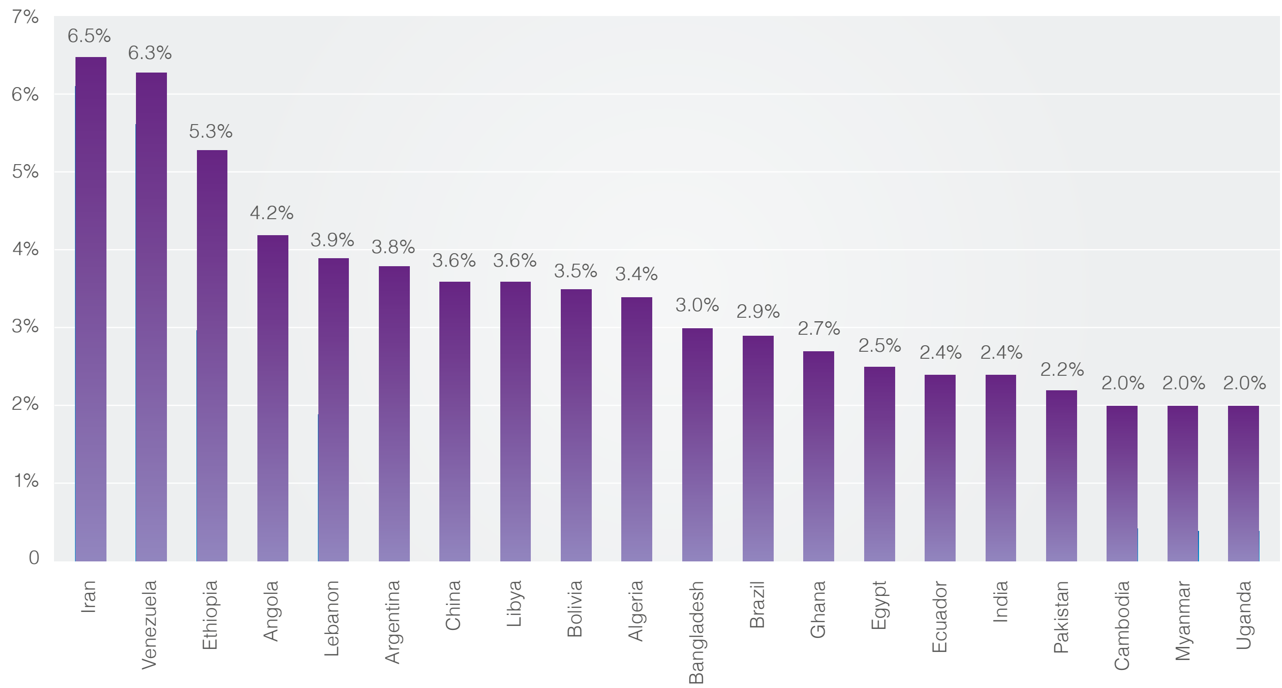
Acknowledging the importance of the digital economy, in 2021, the country launched a comprehensive National Digital Transformation programme to develop digital government, digital economy, digital society and establish Vietnamese digital businesses with global capacity. This includes improving the internet infrastructure and accessibility to 5G services, digitising government administration, and applying technology to various social-economic sectors. The government anticipates that the digital economy, which currently accounts for 8.2% of Vietnam's GDP, will account for 30% of GDP by 2030. A confluence of factors, including strong government support, fast-paced digital adoption among the population and the acceleration of digital trends due to the pandemic, should enable Vietnam to realise the enormous potential of its digital economy and its crucial role in maintaining the momentum of the country's growth.

Egypt rises two spots to 13th in the emerging logistics markets with the most potential ranking. The country's improving business fundamentals, including its recent fiscal and economic reforms, as well as its large economy, which has demonstrated stability and resilience throughout the pandemic, are likely recognised as growth drivers by survey respondents.

Egypt is targeting annual economic growth of 6%-7% over the next three years as it started implementing a new round of reforms in July 2021. As part of its National Structural Reform Program, which follows IMF-monitored reforms launched in 2016, the government will focus on developing three main sectors, including manufacturing, agriculture and telecommunications and information technology. In October 2021, in cooperation with OECD, Egypt launched a comprehensive Country Programme, which should help the country increase its competitiveness and integration in the global economy. Innovation and digital transformation is one of the key pillars of the Programme and will include projects on human capital development to better take advantage of the digital transformation and promote innovation.

The IMF expects Egypt to grow faster than the global growth rate in 2022, projecting a 5.2% expansion. Despite positive growth outlooks, social conditions remain difficult in the country, with around 30% of the population living below the national poverty line. The negative impact of the pandemic on economic activity, therefore, requires stronger poverty-reduction efforts.

Which countries have the LEAST potential to grow as logistics markets in the next five years? Please rank the top 5 markets, where Market 1 = most potential.



Iran tops this year's least potential ranking. Despite solid performance in the Domestic Logistics Opportunities and Business Fundamentals rankings (up 7 positions in both rankings), survey respondents don't seem convinced that Iran is on a path towards economic recovery.

Towards the end of 2021, Iran's president Raisi outlined a budget funded by higher taxes on the wealthy and a modest rise in crude sales of 1.2m barrels per day, signalling that Iran would not rely on the lifting of US economic sanctions next year. Despite modest oil revenue, Iran projects that its economy will grow 8% in real terms, presumably because of recovery from the Covid-19 pandemic. The government seems to believe that Iran will perform well in the year ahead despite persisting economic sanctions. Whether or not this optimism is misplaced remains to be seen. The country's economic outlook depends on the course of the pandemic and the pace of global economic recovery. Last but not least, Iran's outlook hinges on the path that US-Iran relations take under the Biden administration. Even though both countries seem interested in reviving the nuclear deal, decades-long distrust and animosity suggest it is unlikely that the two countries will normalize their relationship any time soon.

Ghana dropped two positions and now ranks as the 13th emerging logistics market with the least potential. The improved confidence among survey respondents coincides with Ghana's improved performance across all sub-index rankings.

Micro, Small and Medium Enterprises (MSMEs), which are the backbone of the Ghanaian economy, add around 70% to the country's GDP and employ 60% of its labour

Agility's Take

Ghana soars: Model for Africa?

No nation in the 50-country Agility Emerging Markets Logistics Index opened eyes as much as Ghana. Year on year, Ghana jumped eight spots to No. 32 in the 2022 Index.

It improved its relative position across the board, making gains in international logistics, domestic logistics and business fundamentals, and finishing a respectable No. 32 in the new digital readiness metric.

So is Ghana, Africa's 8th largest economy, a model for the rest of the continent? That's not clear.

Ghana roared into 2021 after a flat 2020. The economy posted 6.6% Q3 growth, far ahead of the forecast rate of 3.5%. The World Bank projects GDP growth for the country to be 5.8% in 2022 vs. just 3.5% for sub-Saharan Africa as a whole.

What's troubling economists is the country's debt load. Suffocating interest payments could eat up 46% of Ghana's government revenues, according to S&P Global, and investors have signaled they are getting restless.

Ratings agency Fitch recently downgraded its outlook for Ghana, citing "the government's inability to stabilize debt against a backdrop of tightening global financing conditions."

Across the continent, sustained recovery is closely likely tied to COVID vaccinations. Less than 10% of the continent's population has been fully vaccinated. In many countries, the availability of vaccines is not the biggest issue: it is the ability to safely store, transport and administer shots on a large scale.

A new continental free trade agreement and the push for visa-free intra-African air travel could accelerate the integration of Africa's economies and super-charge business growth and job creation. But both are unlikely to have much impact without an accelerated vaccination campaign.

Meantime, Africa is an inadvertent casualty of the turmoil in the global supply chain. Ocean carriers diverted ships from their African port calls to more profitable Asia-US routes and Asia-Europe lanes as freight rates spiked up to 15 times pre-pandemic levels.

Shipping tonnage serving African ports fell 10%, according to Alphaliner. "African nations, including Kenya, Guinea, Angola and Namibia, also lost direct connections to some foreign countries, leaving their shippers reliant upon more expensive services that connect through a third port," the Washington Post wrote.

Here's hoping for a better year for Ghana and the continent.

force. Despite the contribution to employment and GDP, MSMEs are faced with the critical challenge of funding, among others, and struggle to grow. Digital technologies have the potential to facilitate the transformation of Ghana's MSMEs and deliver productivity growth. Ghana's Covid-19 Alleviation and Revitalization of Enterprise Support, and its package to support businesses affected by the pandemic, is well-positioned to upgrade MSMEs and encourage digital initiatives within the sector. The government has already introduced initiatives that can facilitate this transformation and boost domestic revenue, such as National ID, a digital address, digitalisation of fiscal revenue collection as well as digital literacy projects. The country has also started the process of launching its digital currency e-Cedi next year. The initiative aims to promote financial inclusion by incorporating the unbanked into the financial system, but it also abates hopes for a West African single currency. Last but not least, like many other sub-Saharan African countries, Ghana still needs to overcome the challenge of formalising a very substantial informal sector.

Argentina jumps one position to 6th in the emerging logistics markets with the least potential ranking. The economy was able to partially recover from a nearly double-digit GDP contraction in 2020 due to favourable external conditions that propelled the economy.
However, these conditions will likely fade in 2022, with soybean prices receding and the demand from a slowing Brazilian economy likely to decline. The IMF predicts that Argentina's economy will be one of the slowest growing in the region in 2022.
The country is in the middle of negotiations with the IMF to restructure some $45bn in repayments it cannot make after years of debt and currency crises. As the deadline looms for Argentina to repay billions of dollars to the IMF in 2022, the country is faced with an economic crisis. While unemployment has seen a gradual reduction over the past two years and should fall to 9.2% at the end

of 2021, the sizable informal labour market remains a concern while poverty affects more than 40% of the population. Growing imbalances in the economy, including subsidies, an artificially propped up exchange rate and a growing fiscal deficit, could propel Argentina's inflation rate above 60% in 2022, according to some economic forecasts. Overall, the country's dire economic outlook, the pending IMF deal and the questionable fiscal policies are likely to continue to deter foreign investments in the country.

Ecuador jumped two positions and now ranks as the 15th emerging logistics market with the least potential. The country's significantly improved international logistics opportunities (up six positions year-on-year) seem to be overshadowed by its deepening economic crisis. The effects of the pandemic are still being felt in the economy. The downturn in 2020 was the largest on record at 7.8% and the economy is projected to expand by 3.5% in 2022 according to IMF. Domestic instability, amid protests against planned fuel price hikes, coupled with a reduced oil output due to deepening erosion that forced the shutdown of the country's two pipelines, will continue to weigh on growth.

Appendix 1 Sources & Methodology

Sources

The Agility Emerging Markets Logistics Index has three main components.

- First is the Index country rankings: a look at the composite scores of the 50 Index emerging markets based on a combination of their domestic and international logistics markets, and their business environment.
- Second is a survey of trade and logistics industry professionals.
- Third is an examination, by volume and mode of transport, of the largest and fastest-growing major trade lanes linking emerging and developed markets.

The Index country rankings are underpinned by data from the International Monetary Fund, Organisation of Economic Cooperation and Development, World Bank, government statistical agencies, Transparency International, United Nations and UN agencies, World Economic Forum, International Trade Centre and International Air Transport Association. In addition, Ti's proprietary market size and forecast data is used. Trade lane data is derived from United States Census Bureau and Eurostat data

Methodology

Definition of 'Emerging Markets' The term 'emerging markets' was first coined by the World Bank's International Finance Corporation (IFC) in 1981. According to its definition, an emerging market is a country making an effort to improve its economy, to reach the same level of sophistication as nations defined as 'developed'.

An emerging market is further characterized by the IFC as meeting at least one of the two following criteria: 1. It is a low or middle-income economy, as defined by the World Bank. 2. Its investable market capitalisation (IMC) is low relative to its most recent Gross Domestic Product (GDP).

The Agility Emerging Markets Logistics Index

The Agility Emerging Markets Logistics Index uses four metrics to assess and rank 50 emerging markets. The metrics measure the countries':

Domestic Logistics Opportunities (25%)

International Logistics Opportunities (25%)

Business Fundamentals (25%)

Digital Readiness (25%)

Domestic Logistics Opportunities rates the performance, potential and drivers of a country's domestic logistics market. This includes measures that assess each individual emerging market's economic strength, development and growth forecasts, as well as:

- Urbanisation of the population – a driver of manufacturers' centralized distribution strategies and the likely consolidation of retailing
- Distribution of wealth throughout the population – indicative of widespread demand for higher-value goods
- Cluster development – an assessment of the depth and economic development of business clusters within a market.

In addition, Ti's proprietary market sizing and forecast data is used to assess the strength of performance and potential growth opportunities within a country's domestic contract logistics and express markets.

International Logistics Opportunities rates the performance, potential and drivers of a country's international logistics market. This includes measures that assess each individual emerging market's trade volumes and tariff regimes, as well as:

- The frequency and range of destinations of its international connections across air and sea

- A rating of the efficiency of its customs and border controls
- The value of logistics-intensive trade by a country, that is goods that account for the vast majority of volumes handled by traditional LSPs, discounting product groups such as oil and bulk items. Ti has developed a proprietary method for calculating logistics-intensive trade.

In addition, Ti's proprietary market size and forecast data is used to assess the strength of performance and growth opportunities within a country's air and sea forwarding markets, as well as each country's international express market.

Business Fundamentals assesses factors that either aid or hinder the operations of business in a country. This determines the market's regulatory and financial health, whilst also assessing the overall state of the wider business environment. Specifically, this measures:

- Market accessibility – how easy it is for foreign companies to enter and compete effectively in the market, including measures that assess their ability to deal with existing bureaucracy and regulation
- Security – the risk to companies' operations from threats such as theft, corruption and terrorism
- Domestic stability – wider financial health and a market's capacity to ensure property rights, enforce contracts and minimize corruption.
- Infrastructure – to what extent does underlying transport and technological infrastructure aid or hinder the growth of business.

Digital Readiness measures each market's potential to emerge as a digitally-led, skills rich, innovation-oriented and sustainable economy for the future. Specifically, this includes:

- Digital business – the spread and depth of digital skills, the strength and diversity of digital business models and the adoption of and access to online commerce
- Business ecosystem development – systems and support for investment, innovation, value-adding commercial enterprises and the growth of new ventures
- Sustainability – the emissions intensity and renewable energy mix powering economic development.

About Ti

Transport Intelligence (Ti) is one of the world's leading providers of expert research and analysis dedicated to the global logistics industry. Utilizing the expertise of professionals with many years of experience in the express, road freight and logistics industries, Transport Intelligence has developed a range of market-leading web-based products, reports, profiles and services used by many of the world's leading logistics suppliers, consultancies, banks and users of logistics services.

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About Agility

Agility is a global supply chain company, and a leader and investor in technology to enhance supply chain efficiency and sustainability. It is a pioneer in emerging markets and one of the largest private owners and developers of warehousing and light industrial parks in the Middle East, Africa and Asia. Agility's subsidiary companies offer airport services, e-commerce enablement and digital logistics, customs digitization, remote infrastructure services, fuel logistics, and commercial real estate and facilities management.

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