J.P.Morgan
PRIVATE BANK

# Beyond the unicorns: Smaller companies also hold great promise in Latin America

ECONOMIST IMPACT

WRITTEN BY ECONOMIST IMPACT
WITH SUPPORT FROM J.P. MORGAN

INVESTMENT AND INSURANCE PRODUCTS ARE: • NOT FDIC INSURED • NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY • NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, JPMORGAN CHASE BANK, N.A. OR ANY OF ITS AFFILIATES • SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED

For Informational/Educational Purposes Only: The author’s views may differ from other employees and departments of JPMorgan Chase & Co. Views and strategies described may not be appropriate for everyone, and are not intended as specific advice/recommendation for any individual. You should carefully consider your needs and objectives before making any decisions, and consult the appropriate professional(s). Outlooks and past performance are not guarantees of future results. **Please read Important Information section.**

In the startup[1] world, gaining the status of "unicorns"[2] has seemingly become the be-all and end-all. The prospect of crossing the US$1 billion estimated valuation mark is a tantalising goal for firms and their investors alike. With the number of unicorns growing globally, many investors in Latin America—which to date has comparatively few unicorns—are speculating about which companies in the region could replicate these trends. Governments are also focused on the growth of the unicorn market as a key metric of success for Latin America's development. However, the mythical figure of the unicorn is rather obscure. Is there a secret formula to spot or create a unicorn?

But focusing solely on companies that might achieve unicorn status is missing the point: There are significant investment opportunities in smaller ventures, which offer large potential returns in sectors including retail, financial services, healthcare and education. Outside of the major economies of Brazil, Mexico, Argentina and Colombia, many Latin American startups may struggle to achieve unicorn status, owing to the small size of the region's markets and still-developing internationalisation. But investors should not be dissuaded: Unicorn status is an arbitrary one, and dynamic smaller companies bringing new solutions to old problems offer significant investment potential—while also addressing some of the region's critical development goals.

This article analyses the environment for private startups in key Latin American markets and explores how technology, an increased focus from governments, and private sector initiatives can support the sector and power economic growth. As has been the case elsewhere, the right mix of innovative products and a strong enabling environment coupled with a motivated investor base can transform Latin America's challenges into a source of economic growth.

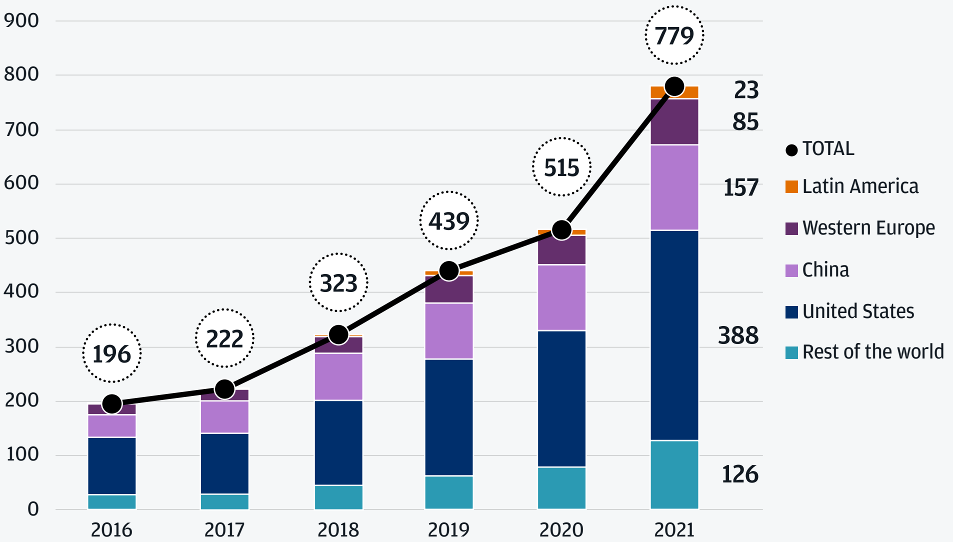
TOTAL UNICORNS

| | Latin America | Globally |
|---|---|---|
| TOTAL UNICORNS | 23 | 770 |
| TOTAL VALUE (U.S. DOLLARS) | $76.8B | $2.4T |

# The market for unicorns

The number of unicorn companies around the world has grown sharply in recent years. With the term initially reflecting the rarity of such steep growth in a new company, data suggests that there are now over 770 unicorns globally, valued at US$2.4 trillion[3]. The onset of the coronavirus pandemic saw short-term fluctuations in the market, with investor caution leading to a global slow-down in the number of new companies that crossed the US$1 billion-valuation mark; but a rapid recovery has since followed (see Figure 1).

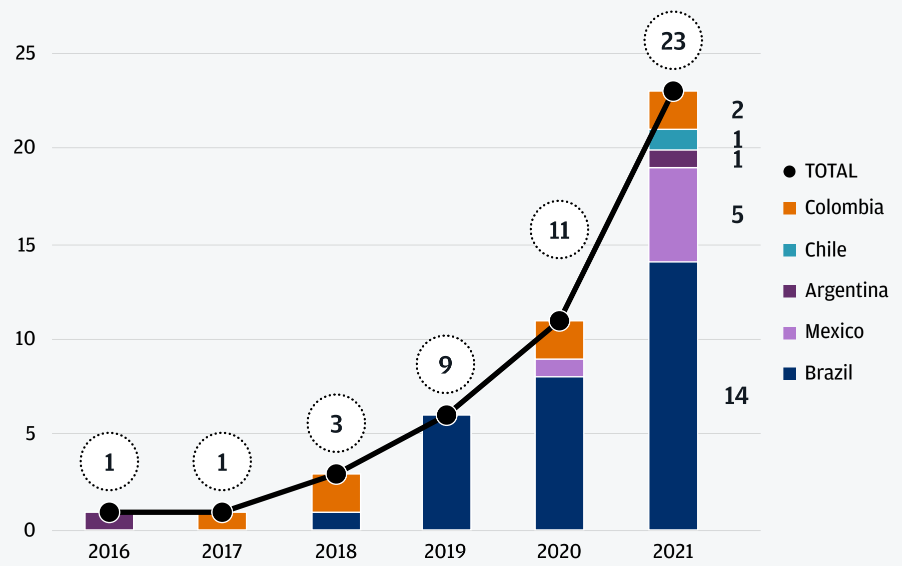
**FIGURE 1. NUMBER OF UNICORNS, TOTAL GLOBAL, U.S., CHINA, AND LATIN AMERICA (2016-2021)**




Source: Economist Impact analysis of CrunchBase data (2021). Accessed 31 Aug 2021.

Most unicorns are based in major markets like the United States, China and Western Europe. Just 23 of the identified global unicorns are located in Latin America (around 3% of the global total), with a combined market value of US$76.8 billion[4]. That said, the number of unicorns in the region doubled from 2020 to 2021, offering a glimpse of the dynamism in the broader startup market.

**FIGURE 2. NUMBER OF UNICORNS IN LATIN AMERICA (2016-2021)**




Source: Economist Impact analysis of CrunchBase data (2021). Accessed 31 Aug 2021.

# An expansive lens to spot opportunity

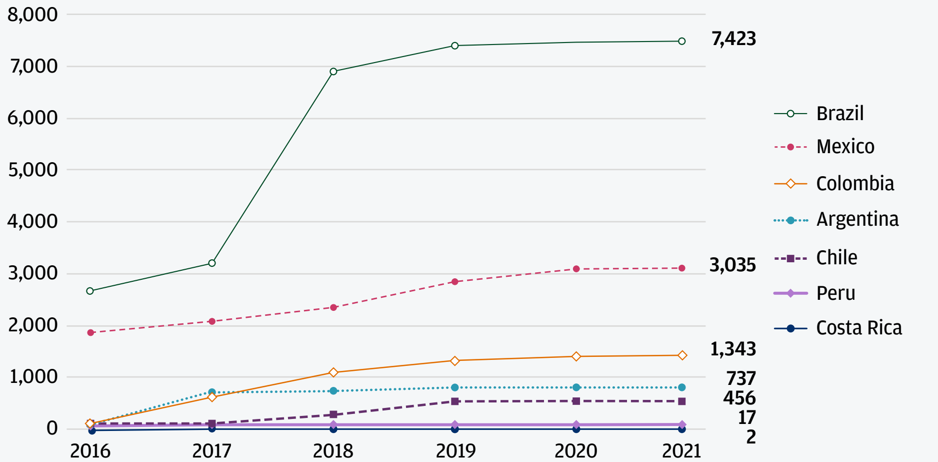
A narrow focus on potential unicorns—an arbitrary classification—would obscure the wealth of investment opportunities in Latin American startups. There is a solid track record of rapid growth in mid-valuation startups, evidence of new innovative products and services from existing market players—as well as a region yearning for creative solutions to accelerate development goals.

The Inter-American Development Bank has identified over one thousand private technology startups across Latin America—a number that has more than tripled since 2016[5]. These companies are worth over US$200 billion and employ 245,000 people. Venture capital (VC) funding is growing in earlier funding rounds, indicating that investors seem to be growing in comfort and pursuing companies at an earlier stage of development.

Brazil and Mexico account for around 80% of the valuation of private startups in Latin America. But fast-growing markets can also be found elsewhere, including Colombia and Chile (see Figure 3).

Investor interest in the private startup market is heavily concentrated in fintech and e-commerce, which represent three-quarters of the total ecosystem's estimated value[6], despite representing only 42% of the number of firms (see Figure 4).

**FIGURE 3. CUMULATIVE FUNDING TO PRIVATE TECHNOLOGY STARTUPS WHO HAVE RAISED AT LEAST $1M, SELECT LATIN AMERICAN COUNTRIES (2016-2021)**




Note: Startups showcased are no more than 5 years old, and have received at least US$1 million in funding.
Source: Economist Impact analysis of CrunchBase data (2021). Accessed 31 Aug 2021.

**FIGURE 4. LATIN AMERICAN STARTUPS BY SECTOR[7] (2021)**

| Sector | # | % | Funds raised, US$m (2016-21) | % |
|---|---|---|---|---|
| Advertising | 4 | 1.0% | 6.3 | 0.0% |
| AgTech | 13 | 3.2% | 143.8 | 1.1% |
| Automotive | 10 | 2.5% | 1587.9 | 12.1% |
| Biotech | 3 | 0.7% | 7.7 | 0.1% |
| CleanTech/GreenTech | 16 | 4.0% | 1544.8 | 11.7% |
| EdTech | 15 | 3.7% | 63.7 | 0.5% |
| Entertainment | 4 | 1.0% | 24.5 | 0.2% |
| FinTech | 126 | 31.4% | 6368.1 | 48.4% |
| Food and Beverage | 18 | 4.5% | 330.5 | 2.5% |
| Healthcare/Wellness | 33 | 8.2% | 345.3 | 2.6% |
| Human Resources | 9 | 2.2% | 19.4 | 0.1% |
| LegalTech/InsurTech | 7 | 1.7% | 39.7 | 0.3% |
| Logistics | 14 | 3.5% | 92.7 | 0.7% |
| Marketplace/E-Commerce | 41 | 10.2% | 1356.3 | 10.3% |
| Mobility | 16 | 4.0% | 481.7 | 3.7% |
| Other | 2 | 0.5% | 8.0 | 0.1% |
| Real Estate/Property Mgmt. | 22 | 5.5% | 298.9 | 2.3% |
| Security/Cybersecurity | 5 | 1.2% | 14.4 | 0.1% |
| Software/IT | 35 | 8.7% | 219.5 | 1.7% |
| Telecomm | 3 | 0.7% | 14.0 | 0.1% |
| Travel/Hospitality | 5 | 1.2% | 197.3 | 1.5% |

Note: Startups showcased are no more than 5 years old and have received at least US$1 million in funding.
Source: Economist Impact analysis of CrunchBase data (2021). Accessed 31 Aug 2021.

Within Latin America, Brazil is a standout. It has been successful in fostering growth of high-value startups (it hosts 14 of the region's 22 unicorns, for example), and stands out when compared with similarly-sized economies like Indonesia (home to five unicorns)[8]. Importantly, Brazil's market demonstrates the opportunity beyond the unicorns. The number of startups in Brazil that have raised more than $1 million in VC funding has quadrupled since 2016[9]. Brazil's robust startup ecosystem is enabled by a large, young internet-savvy population that is highly urbanised. At the same time, global investors have been attracted to Brazil given the size of its local markets for goods and services and the government's commitment to foster innovation. This combination of market size, demography and high levels of connectivity has well positioned Brazil as a fertile ground for VC-backed startups.

Critically for Latin America—the growth of private startups in the region has the potential to unleash positive economic spill-overs, as seen in some of the main innovation clusters around the world like the United States, India and China, where startups have driven new market opportunities and improved affordable access to key services including healthcare, financial services and education.

Fostering a vibrant startup ecosystem requires a coordinated effort between governments and the private sector to promote digital readiness and inclusiveness, as well as a harmonised policy, regulatory and economic enabling environment. Startups and startup clusters often grow organically, offering related services to customers in the same sector (thus boosting competition), or launching new products in other sectors (fuelling innovation). However, developing vibrant tech ecosystems requires a longer-term vision and coordinated strategy.

## Building a startup ecosystem from the bottom up

Whether it's a new firm hoping to secure large-scale capital injections, a government hoping to foster a more dynamic private sector, or an investor trying to stay ahead of the curve, there's no single recipe of success. However, there are common foundations that support a dynamic startup environment. Unpacking the fundamentals of countries and sectors that have achieved success in fostering a vibrant startup market offers critical insight on opportunity.

Economist Impact has identified 19 indicators across four key areas that reflect the strength of a country's enabling environment for startups, in order to support investor decision-making (see Figure 5).

**FIGURE 5. INDICATORS OF A HEALTHY STARTUP ECOSYSTEM**

| DIGITAL READINESS | DIGITAL INCLUSIVENESS | POLICY AND REGULATION | MACROECONOMIC CONDITIONS AND BUSINESS ENVIRONMENT |
|---|---|---|---|
| 1.1 Government commitment to cybersecurity<br>1.2 E-government online services index<br>1.3 R&D Spending<br>1.4 International Patents | 2.1 Internet Usage<br>2.2 Internet Quality<br>2.3. Digital Infrastructure<br>2.4 Electricity<br>2.5 Price<br>2.6 Competitive environment<br>2.7 Population's digital capabilities<br>2.8 Trust in online privacy | 3.1 Incentives for digitisation and emerging technologies<br>3.2 Approach to authorization and oversight of financial innovation<br>3.3 Harmonization with anti-money laundering (FATF) standards<br>3.4 Consumer protection<br>3.5 Data privacy and cybercrime protection | 4.1 Overall Risk Assessment<br>4.2 Business environment |

To access the underlying data and methodology for this analysis, please see the Table A.

# A rapid analysis on the enablers of Latin America's startup ecosystems

Economist Impact has analysed seven Latin American markets (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru) according to the above 19 indicators, alongside four international countries for comparison (US and China—major startup market—and Indonesia and South Africa—similarly sized economies).

## Digital readiness

Digital readiness is a critical enabler of the startup ecosystem, requiring investments ranging from infrastructure to cybersecurity. In Latin America, strengthening e-government services and cybersecurity are key opportunities. The COVID-19 pandemic made stark the importance of robust digital infrastructure. In countries where the financial sector or the government had previously invested in digital financial infrastructure, policymakers were able to use digital distribution channels to quickly disburse cash transfers and other supports to beneficiaries in need. In Brazil, for example, around 67 million individuals received at least one cash transfer starting in April 2020. By August, beneficiaries had used around 40% of the funds to make digital payments to utilities and businesses, and for the internet. This robust digital infrastructure signals a large opportunity.

However, cybersecurity is an area of concern for startups in the region and rightly so. According to the ITU's Global Cybersecurity Index[10], all seven countries analysed have significant room to strengthen protections and promote the growth of key markets including e-commerce.

Similarly, research and development (R&D) spending is another area of opportunity to foster a stronger startup ecosystem in Latin American countries, particularly in smaller Latin American markets. Peru's R&D spending, for example, represents just 0.1% of its GDP, compared with 1.2% in Brazil, 2.1% in China and 2.8% in the United States.

## Digital inclusiveness

The quality and inclusiveness of digital infrastructure is another important factor that is often left out of the conversation. The level of inclusiveness in Latin America presents a mixed picture. According to Economist Impact's Inclusive Internet Index[11], Costa Rica, Mexico and Argentina have the highest levels of internet usage of the Latin American countries in our sample, falling only slightly behind China. Strikingly, China, Mexico and Argentina are also the countries where people have the most favourable perceptions (e.g greater trust) of online privacy.

However, the quality of internet services, measured through a composite indicator that assesses broadband speed, latency and capacity, is weaker in Latin American countries than in global leaders like China and the United States, which may explain, in part, why the region has room for growth in tech-dependent startups.

## Policy and regulation

A policy and regulatory environment that is conducive to investment in innovation must balance several short- and long-term priorities, including the need for regulation against creating space for innovation. The Global Microscope, an index by Economist Impact that assesses the enabling environment for financial inclusion, has identified the importance of regulatory "proportionality"—that is, regulation should be proportional to the risk to the financial system. It should also be proportional to the type or function of a product, meaning that a bank that lends all types of financial services and products, for example, will be regulated differently than an e-money wallet that can only be used for payments. A qualitative indicator measuring whether countries have a proportionate legal framework for emerging services like peer-to-peer lending and crowdfunding, suggests that Chile and Costa Rica are lagging behind when it comes to proportional regulation in the fintech sector.

Another leading practice in the regulation of innovation is harmonisation with international standards. Anti-money laundering (AML), consumer protection and data privacy policies and regulations are particularly important for a thriving startup market. This is an area where Latin American countries are relatively strong compared to some global peers, although Brazil and Costa Rica lag behind in AML regulation, according to Microscope data.

### Macroeconomic conditions and the business environment

Lastly, investors should always take into account the overall country risk and business environment, which has direct impact on consumer demand and the viability of long-term investments. Here the regional picture is a mix of opportunity and uncertainty.

Brazil's large economy is showing improved resilience to a "second wave" of COVID-19 infections, and is expected to recover sooner than expected to pre-crisis levels in 2021[12]. Argentina continues to face economic volatility, currency pressures, and awaits an IMF package to help restore stability. Smaller markets are displaying promise – for example Costa Rica. Despite its small size, Costa Rica has one of Latin America's most attractive business climates, according to Economist Impact's Business Environment Rankings, reflecting political stability, a skilled workforce, and low taxes.

## Accelerators targeting startup growth

To complement efforts to improve the enabling environment, a range of governments across Latin America have launched programmes geared towards startups more broadly (incorporating SMEs as well as faster-growing firms). The Colombian government has sought to develop metropolitan areas as startup hubs, for example through its INNPulsa partnership with HubBog in Bogota and its Ruta N incubator in Medellin[13]. Chile has had a successful public accelerator programme for new startups in place for a decade, including a seed investment division that offers a range of benefits (both financial and non-financial)[14]. Costa Rica also has programmes in place to stimulate innovation in areas such as cybersecurity[15].

It is not just governments that are pursuing such efforts: Companies in the region are also taking a much more proactive stance to boost innovation. In early 2020, Grupo Bimbo, a Mexican multinational food company, launched two accelerator programmes—Eleva and BakeLab—which invite proposals from startups for new product ideas that have the potential to scale globally, either through investment from Grupo Bimbo or a commercial alliance[16]. AB InBev, a Brazilian brewing company, has also been active, launching the 100+ Accelerator in 2018, which aims to find startups with interesting and viable market solutions[17]. In the first two years of the programme, AB InBev scaled up 23 out of the 39 startups that enrolled, including firms in Argentina and Uruguay.

Much of the existing literature that looks at potential growth in startups in Latin America focuses heavily, if not exclusively, on fintech (unsurprisingly, given fintech firms represent about one-third of startups in the region). Innovative digital solutions offered by new fintech providers target a large, underserved area of the financial services market. There is additional potential given the thin penetration of traditional banking services in the region, which stands at less than 50% in most of Latin America, and is even lower in some, such as 40% in Mexico[18]. The rapid growth of this sector is now being met with new regulation. Mexico was one of the first countries to pass legislation to regulate fintech. Other countries, including Peru and Argentina, are likely to soon follow suit.

However, other sectors, such as education and healthcare, which are comparatively under-developed by international comparison, could also be poised for rapid growth. Successful startup propositions in Latin America often focus on providing localised solutions, which for Latin America often involve catering to sectors at the bottom of the pyramid in areas where public-sector provision has been weaker, including healthcare and education. By contrast, e-commerce was more developed prior to the onset of the pandemic—and has since only accelerated, with both new and existing firms alike growing their e-commerce offerings.

# Conclusion: Chase business propositions, not investor buzz

Governments, investors and startups in Latin America have been seduced by the rise of unicorns across the world, which has influenced how investment opportunities in the region are assessed. Looking ahead, some new ventures will undoubtedly succeed in crossing the US$1bn valuation mark, probably in a greater variety of countries than the current limited number. An explosion of unicorns is unlikely in the region, since many countries remain constrained by small market size, a digital infrastructure that is growing only slowly, or a developing regulatory backdrop—and, in some cases, all three. To take this pessimistically, however, would overlook the larger picture: There are significant opportunities in smaller ventures, which offer large potential returns in sectors such as retail, financial services, healthcare and education—and importantly, can unlock economic growth and help the region achieve its development goals. Countries that have been proactive in fostering startups, mainly through reforms to improve the underlying business environment, are best-placed to benefit from future investment growth.

## Footnotes

1. In this article we use the term "startups" to refer to technology-based companies in the early stages of operations, typically 3-5 years old, with high costs and limited revenue.
2. Definitions of unicorns vary across sources. In this article we define unicorns as privately-held companies with an estimated valuation of $1 billion or more based on funding rounds. This is consistent with the definition used by CrunchBase, the primary data source on private funding markets used in this article. Companies that have migrated to public funding markets are excluded from this definition.
3. Calculations from Economist Impact based on company-level data from CrunchBase. All valuations are made in current US dollars. Accessed 31 Aug 2021.
4. Calculations from Economist Impact based on CrunchBase data. Accessed 31 Aug 2021.
5. See https://publications.iadb.org/en/tecnolatinas-2021-lac-startup-ecosystem-comes-age. Note that the IDB analysis is based on additional datasets, estimations and media scans outside of CrunchBase.
6. See https://publications.iadb.org/en/tecnolatinas-2021-lac-startup-ecosystem-comes-age.
7. Companies were catalogued by the main industry they operate in to avoid duplicates. Sectors competing in similar industries were combined for consistency purposes.
8. Calculations from Economist Impact based on CrunchBase data. Accessed 31 Aug 2021.
9. Calculations from Economist Impact based on CrunchBase data. Accessed 31 Aug 2021.
10. ITU Global Cybersecurity Index 2020 Report. United Nations.
11. Economist Impact's Inclusive Internet Index measures the extent to which the Internet is not only accessible and affordable, but also relevant to all, allowing usage that enables positive social and economic outcomes at the individual and group level. See: https://theinclusiveinternet.eiu.com/.
12. All insights from Economist Impact Country Analysis.
13. See https://www.rutanmedellin.org/es/ and https://hubbog.com.
14. Start-Up Chile, https://www.startupchile.org/.
15. See https://innovation.mit.edu/assets/MIT-GE-EPIC-final_April-2021_FINAL-2.pdf.
16. See https://grupobimbo.com/en/innovation-grupo-bimbo/bimbo-ventures.
17. See https://www.ab-inbev.com/sustainability/100-accelerator/.
18. World Bank Findex. See https://globalfindex.worldbank.org/ Accessed 31 Aug 2021.

## Appendix: Methodology

This section contains the data and methodology underlying the rapid assessment of the key enablers of Latin America's startup ecosystem.

**Definition of unicorns**

Within this article, a 'unicorn' firm is defined as any private startups with an estimated market value of at least US$1 billion.

**Framework for the rapid assessment of startup ecosystem enablers**

Based on desk research and expert input, Economist Impact has identified 19 indicators to support investor decision-making in Latin America. These 19 indicators span four broad categories:

1. Digital readiness
2. Digital inclusiveness
3. Policy and regulation
4. Macroeconomic conditions

**Data from additional sources, defined below, were also utilised in this analysis.**

Seven Latin American countries were assessed (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru), alongside four international countries for comparison: US and China (major startup markets) as well as Indonesia and South Africa (similarly sized economies).

**Data sources and definitions**

All of the quantitative and qualitative data in this assessment were collected and analysed by the Economist Impact project team. Data were gathered from reputable international, national and industry sources, including Economist Impact's proprietary databases. Key data sources include:

- Crunchbase
- International Telecommunications Union (ITU)
- Gallup
- Ookla
- Economist Impact
- United Nations
- UNESCO Institute of Statistics
- World Bank
- World Intellectual Property Organisation

The latest data available was provided for all indicators.

## Table A. Enabling factors of the startup ecosystem

| | | LATIN AMERICAN MARKETS | | | | | | | INTERNATIONAL COMPARABLES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sub-indicator** | **Unit** | **Brazil** | **Mexico** | **Argentina** | **Chile** | **Colombia** | **Costa Rica** | **Peru** | **US** | **China** | **Indonesia** | **South Africa** |
| **1. Digital Readiness** | | | | | | | | | | | | |
| 1.1 Government commitment to cybersecurity | Score 0-100 | 57.7 | 62.9 | 40.7 | 47 | 56.5 | 22.1 | 40.1 | n/a | 82.8 | 77.6 | 65.2 |
| 1.2 E-government online services index | Index 0-1 | 0.77 | 0.73 | 0.83 | 0.83 | 0.72 | 0.76 | 0.71 | 0.93 | 0.79 | 0.66 | 0.69 |
| 1.3 R&D Spending | % of GDP | 1.2% | 0.3% | 0.5% | 0.4% | 0.2% | 0.4% | 0.1% | 2.8% | 2.1% | 0.2% | 0.8% |
| 1.4 International Patents | total patents granted | 1,853 | 1,145 | 368 | 550 | 417 | 26 | 59 | 309,644 | 399,878 | 714 | 1,556 |
| **2. Digital Inclusiveness** | | | | | | | | | | | | |
| 2.1 Internet Usage | Score 0-100 | 66.8 | 61.4 | 77.1 | 77.9 | 68.2 | 79 | 56.2 | 84.5 | 78.4 | 63.1 | 61.2 |
| 2.2 Internet Quality | Score 0-100 | 40.6 | 40.4 | 37.8 | 46 | 36.8 | 37.3 | 38.3 | 50.5 | 60.3 | 36.3 | 39.4 |
| 2.3. Digital Infrastructure | Score 0-100 | 77.9 | 65.8 | 77.6 | 67.2 | 68.4 | 64 | 56.3 | 88.4 | 68.4 | 69.1 | 80.3 |
| 2.4 Electricity | Score 0-100 | 99.6 | 100 | 92.4 | 100 | 92.5 | 98.5 | 93.1 | 100 | 100 | 99.4 | 93.6 |
| 2.5 Price | Score 0-100 | 88.5 | 92.2 | 87.8 | 90.5 | 86.7 | 89.1 | 88.1 | 99.4 | 90.2 | 82.9 | 88.7 |
| 2.6 Competitive environment | Score 0-100 | 82.6 | 42.7 | 42.5 | 84.1 | 61.9 | 43 | 42.2 | 78.3 | 22.9 | 21 | 42.6 |
| 2.7 Population's digital capabilities | Score 0-100 | 64.5 | 70.8 | 78.2 | 82.9 | 79.7 | 73.2 | 73.4 | 81.9 | 76.1 | 63.4 | 76.3 |
| 2.8 Trust in online privacy | Score 0-100 | 60.9 | 76.1 | 77.1 | 69.6 | 65.1 | 54.3 | 56.9 | 63.1 | 66.3 | 77.1 | 48.7 |
| **3. Policy and regulation** | | | | | | | | | | | | |
| 3.1 Incentives for digitisation and emerging technologies | Score 0-100 | 89 | 84 | 87 | 34 | 85 | 37 | 95 | n/a | 96 | 82 | 96 |
| 3.2 Approach to authorization and oversight of financial innovation | Score 0-100 | 100 | 100 | 100 | 0 | 100 | 0 | 100 | n/a | 100 | 100 | 100 |
| 3.3 Harmonization with anti-money laundering (FATF) standards | Score 0-100 | 50 | 100 | 100 | 100 | 100 | 50 | 100 | 100 | 100 | 100 | 100 |
| 3.4 Consumer protection | Score 0-100 | 75 | 91 | 88 | 78 | 93 | 76 | 88 | n/a | 68 | 80 | 96 |
| 3.5 Data privacy and cybercrime protection | Score 0-100 | 61 | 77 | 91 | 41 | 91 | 62 | 85 | n/a | 38 | 64 | 88 |
| **4. Macroeconomic conditions and business environment** | | | | | | | | | | | | |
| 4.1 Overall Risk Assessment | Score 0-100 | 50 | 44 | 56 | 25 | 43 | 34 | 42 | 23 | 39 | 45 | 42 |
| 4.2 Business environment | Score 0-100 | 60 | 64 | 52 | 75 | 59 | n/a | 61 | 62 | 60 | 54 | 60 |

Sources: Economist Impact Cybersecurity Index; UN E-government Index; UNESCO Institute of Statistics; World Intellectual Property Organisation; Economist Impact Inclusive Internet Index; Economist Impact; Gallup; Ookla, World Bank; Economist Impact Microscope; Economist Impact Country Analysis.

## IMPORTANT INFORMATION

This material is for informational purposes only, and may inform you of certain products and services offered by private banking businesses of JPMorgan Chase & Co. ("JPM"). Products and services described, as well as associated fees, charges and interest rates, are subject to change in accordance with the applicable account agreements and may differ among geographic locations.

Not all products and services are offered at all locations. If you are a person with a disability and need additional support accessing this material, please contact your J.P. Morgan team or email us at accessibility.support@jpmorgan.com for assistance. **Please read all Important Information.**

**General Risks & Considerations**
Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. **Investors may get back less than they invested, and past performance is not a reliable indicator of future results.** Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g., equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/situation, contact your J.P. Morgan representative.

**Non-Reliance**
Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and **this material should not be regarded as a research report**. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

## IMPORTANT INFORMATION ABOUT YOUR INVESTMENTS AND POTENTIAL CONFLICTS OF INTEREST

Conflicts of interest will arise whenever JPMorgan Chase Bank, N.A. or any of its affiliates (together, "J.P. Morgan") have an actual or perceived economic or other incentive in its management of our clients' portfolios to act in a way that benefits J.P. Morgan. Conflicts will result, for example (to the extent the following activities are permitted in your account): (1) when J.P. Morgan invests in an investment product, such as a mutual fund, structured product, separately managed account or hedge fund issued or managed by JPMorgan Chase Bank, N.A. or an affiliate, such as J.P. Morgan Investment Management Inc.; (2) when a J.P. Morgan entity obtains services, including trade execution and trade clearing, from an affiliate; (3) when J.P. Morgan receives payment as a result of purchasing an investment product for a client's account; or (4) when J.P. Morgan receives payment for providing services (including shareholder servicing, recordkeeping or custody) with respect to investment products purchased for a client's portfolio. Other conflicts will result because of relationships that J.P. Morgan has with other clients or when J.P. Morgan acts for its own account.

Investment strategies are selected from both J.P. Morgan and third-party asset managers and are subject to a review process by our manager research teams. From this pool of strategies, our portfolio construction teams select those strategies we believe fit our asset allocation goals and forward-looking views in order to meet the portfolio's investment objective.

As a general matter, we prefer J.P. Morgan managed strategies. We expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to 100 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.

While our internally managed strategies generally align well with our forward-looking views, and we are familiar with the investment processes as well as the risk and compliance philosophy of the firm, it is important to note that J.P. Morgan receives more overall fees when internally managed strategies are included. We offer the option of choosing to exclude J.P. Morgan managed strategies (other than cash and liquidity products) in certain portfolios.

The Six Circles Funds are U.S.-registered mutual funds managed by J.P. Morgan and sub-advised by third parties. Although considered internally managed strategies, JPMC does not retain a fee for fund management or other fund services.

**Legal Entity, Brand & Regulatory Information**
In the **United States**, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by **JPMorgan Chase Bank, N.A.** Member FDIC.

**JPMorgan Chase Bank, N.A.** and its affiliates (collectively **"JPMCB"**) offer investment products, which may include bank-managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through **J.P. Morgan Securities LLC ("JPMS")**, a member of FINRA and SIPC. Annuities are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPMS and CIA are affiliated companies under the common control of JPM. Products not available in all states.

In **Luxembourg**, this material is issued by **J.P. Morgan Bank Luxembourg S.A. (JPMBL)**, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg. R.C.S Luxembourg B10.958. Authorized and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg S.A. is authorized as a credit institution in accordance with the Law of 5th April 1993. In the **United Kingdom**, this material is issued by **J.P. Morgan Bank Luxembourg S.A., London Branch**, registered office at 25 Bank Street, Canary Wharf, London E14 5JP. Authorized and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. Deemed authorized by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the United Kingdom for a limited period while seeking full authorization, are available on the Financial Conduct Authority's website. In **Spain**, this material is distributed by **J.P. Morgan Bank Luxembourg S.A., Sucursal en España**, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain. J.P. Morgan Bank Luxembourg S.A., Sucursal en España is registered under number 1516 within the administrative registry of the Bank of Spain and supervised by the Spanish Securities Market Commission (CNMV). In **Germany**, this material is distributed by **J.P. Morgan Bank Luxembourg S.A., Frankfurt Branch**, registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt, Germany, jointly supervised by the Commission de Surveillance du Secteur Financier (CSSF) and the European Central Bank (ECB), and in certain areas also supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). In **Italy**, this material is distributed by **J.P. Morgan Bank Luxembourg S.A.,**

**Milan Branch**, registered office at Via Cordusio 3, 20123 Milano, Italy, and regulated by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB). In the **Netherlands**, this material is distributed by **J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch**, with registered office at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands. J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch is authorized and regulated by the Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF in Luxembourg; J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch is also authorized and supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan Bank Luxembourg S.A. under registration number 71651845. In **Denmark**, this material is distributed by **J.P. Morgan Bank Luxembourg, Copenhagen Br**, filial af J.P. Morgan Bank Luxembourg S.A. with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark. J.P. Morgan Bank Luxembourg, Copenhagen Br, filial af J.P. Morgan Bank Luxembourg S.A. is authorized and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg, Copenhagen Br, filial af J.P. Morgan Bank Luxembourg S.A. is also subject to the supervision of Finanstilsynet (Danish FSA) and registered with Finanstilsynet as a branch of J.P. Morgan Bank Luxembourg S.A. under code 29009. In **Sweden**, this material is distributed by **J.P. Morgan Bank Luxembourg S.A., Stockholm Bankfilial**, with registered office at Hamngatan 15, Stockholm, 11147, Sweden. J.P. Morgan Bank Luxembourg S.A., Stockholm Bankfilial is authorized and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg S.A., Stockholm Bankfilial is also subject to the supervision of Finansinspektionen (Swedish FSA). Registered with Finansinspektionen as a branch of J.P. Morgan Bank Luxembourg S.A. In **France**, this material is distributed by **JPMorgan Chase Bank, N.A. ("JPMCB"), Paris branch**, which is regulated by the French banking authorities Autorité de Contrôle Prudentiel et de Résolution and Autorité des Marchés Financiers. In **Switzerland**, material is distributed by **J.P. Morgan (Suisse) SA**, with registered address at rue de la Confédération, 8, 1204, Geneva, Switzerland, which is authorized and supervised by the Swiss Financial Market Supervisory Authority (FINMA), with registered address at Laupenstrasse 27, 3003, Bern, Switzerland, as a bank and a securities dealer in Switzerland. Please consult the following link to obtain information regarding J.P. Morgan's EMEA data protection policy: https://www.jpmorgan.com/privacy.

This communication is an advertisement for the purposes of the Markets in Financial Instruments Directive (MIFID II) and the Swiss Financial Services Act (FINSA), and investors should not subscribe for or purchase any financial instruments referred to in this advertisement except on the basis of information contained in any applicable legal documentation, which is or shall be made available in the relevant jurisdictions.

In **Hong Kong**, this material is distributed by **JPMCB, Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB, Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. For materials which constitute product advertisement under the Securities and Futures Act and the Financial Advisers Act, this advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A. is a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are offered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, including without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund's securities in compliance with the laws of the corresponding jurisdiction. Public offering of any security, including the shares of the Fund, without previous registration at Brazilian Securities and Exchange Commission—CVM is completely prohibited. Some products or services contained in the materials might not be currently provided by the Brazilian and Mexican platforms.

JPMorgan Chase Bank, N.A. (JPMCBNA) (ABN 43 074 112 011/AFS Licence No: 238367) is regulated by the Australian Securities and Investment Commission and the Australian Prudential Regulation Authority. Material provided by JPMCBNA in Australia is to "wholesale clients" only. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001 (Cth). Please inform us if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

JPMS is a registered foreign company (overseas) (ARBN 109293610) incorporated in Delaware, U.S.A. Under Australian financial services licensing requirements, carrying on a financial services business in Australia requires a financial service provider, such as J.P. Morgan Securities LLC (JPMS), to hold an Australian Financial Services Licence (AFSL), unless an exemption applies. **JPMS is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (Cth) (Act) in respect of financial services it provides to you, and is regulated by the SEC, FINRA and CFTC under U.S. laws, which differ from Australian laws.** Material provided by JPMS in Australia is to "wholesale clients" only. The information provided in this material is not intended to be, and must not be, distributed or passed on, directly or indirectly, to any other class of persons in Australia. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Act. Please inform us immediately if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

This material has not been prepared specifically for Australian investors. It:

- May contain references to dollar amounts which are not Australian dollars;
- May contain financial information which is not prepared in accordance with Australian law or practices;
- May not address risks associated with investment in foreign currency denominated investments; and
- Does not address Australian tax issues.

References to "J.P. Morgan" are to JPM, its subsidiaries and affiliates worldwide. "J.P. Morgan Private Bank" is the brand name for the private banking business conducted by JPM. This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan team.

© 2021 JPMorgan Chase & Co. All rights reserved. PJCT-0721-PB-625817