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Entrepreneurship
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Global Entrepreneurship Monitor

2022/2023 Global Report

Adapting to a “New Normal”



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GEM Policy Influence: Examples from the UK, Guatemala and the USA

“GEM research has certainly influenced policymakers’ discussions about entrepreneurship.”

These are the words of Mark Hart, GEM UK Team Lead and Deputy Director of Enterprise Research Centre at Aston Business School, shared during a GEM webinar held in November 2022.

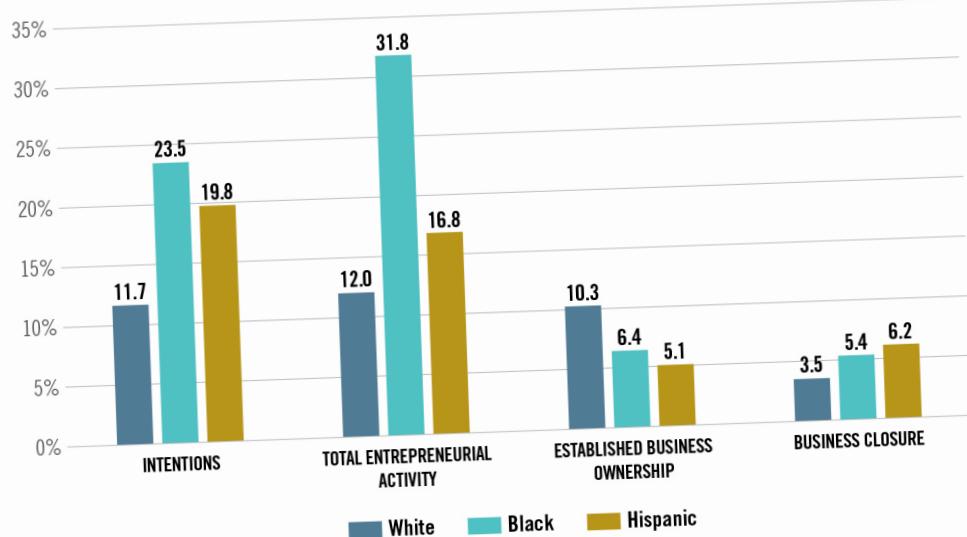
“Throughout the years, GEM data has been consistently used by government officials in Scotland, Wales, Northern Ireland and the United Kingdom,” said Hart. “Individuals from a range of departments look at our reports and seek to understand them. We have discussions all the time with officials on how GEM data can impact policy. There is particular interest around gender, ethnicity and immigration.”

An example of such a conversation was the Savvitas Business & Parliament Forum

which took place on 6 December at the Chess Room, House of Commons. Over lunch, Hart and GEM Executive Director Aileen Ionescu-Somers shared key findings from the GEM 2021/2022 Women’s Entrepreneurship Report and their implications for UK enterprise policy (participants are featured in the image above). Outcomes from the discussion with the officials will be taken forward as policy suggestions across government and to all political parties and relevant bodies.



The Savvitas Business & Parliament Forum,
6 December 2022,
Chess Room, House of Commons, London.
Standing, left to right:
Paula Whitehouse
(Director, Aston Centre for Growth); Claire Harwood
(Permira Credit);
Shernett Ranson (Cabinet Office); Catherine Wright
(Silicon Valley Bank);
Helene Martin Gee (President, Savvitas — savvy women with gravitas!!); Jill Pay
(The Gender Index); and
Aileen Ionescu-Somers
(CEO, GEM Global).
Seated: Professor Mark Hart (Deputy Director, ERC and GEM UK Lead).



Source of data: Global Entrepreneurship Monitor, United States, 2021.

"Entrepreneurial Intentions, Total Entrepreneurial Activity, Established Business Ownership, and Business Closure Activity by Race and Ethnicity in the US Adult Population, 2021", from the GEM 2021/2022 United States Report

Mónica Río Nevado de Zelaya, Dean of the School of Economic Sciences at the Universidad Francisco Marroquín and head of the GEM Guatemala Team, noted on the webinar that her team's research has significant influence among the media and with policymakers in the country.

"When we launch our National Report, we are very visible in the press, and throughout the year we present results to different groups," she said. "GEM is an indicator referenced for good results by the Economics Ministry Department in Guatemala. Everyone here uses GEM as the reference point for entrepreneurial activity."

Most poignantly, GEM research in Guatemala helped influence a new law on entrepreneurship. The GEM Guatemala Team shared feedback about changes to make to the law due to the evidence from GEM data. Some of these recommendations were adopted.

"One of the main purposes of our university is to increase freedom of action for entrepreneurs," explained Nevado de Zelaya. "That is why GEM is so important. We want to read the answers from our entrepreneurs to know what is holding them back and to make this visible. This increases the possibility of entrepreneurs to act more freely and to move forward in a better way."

In the United States, White House officials have previously drawn on GEM results. The GEM USA research team has provided testimony to the United States House of Representatives Committee on Small Business. There is great potential for policymakers concerned about racial equity to leverage the findings from the latest GEM USA Report which features breakdowns across white, black and hispanic entrepreneurs (see the graphic for an example).

"We provide breakdowns in various ways," said Jeff Shay, Professor of Entrepreneurship at Babson College and head of the GEM USA Team. "If I am a policymaker and I want to make the case for funding my diverse city or state, I would be drawing on GEM's data."

Concluded Ionescu-Somers: "The above are just a few examples that highlight how we provide policymakers everything they need to know about entrepreneurship in a country, region or city. Our GEM data tells a remarkable story about entrepreneurship over some 23 years. However, aside from tracking and monitoring the data, it is equally important for GEM to provide an up-to-date year-on-year narrative to policymakers so that, in turn, they can make decisions that pave the way for more successful, high-quality entrepreneurship in their countries."

To explore collaboration possibilities with GEM, contact info@gemconsortium.org.

Key GEM Definitions and Abbreviations

Adult Population Survey (APS)

The APS is a comprehensive interview questionnaire, administered to a minimum of 2,000 adults in each GEM economy, designed to collect detailed information on the entrepreneurial activities, attitudes and aspirations of respondents.

National Expert Survey (NES)

The NES is completed by selected experts in each GEM economy and collects views on the context in which entrepreneurship takes place in that economy. It provides information about the aspects of a country's socio-economic characteristics that, according to research, have a significant impact on national entrepreneurship: referred to as the Entrepreneurship Framework Conditions (EFCs).

Total early-stage Entrepreneurial Activity (TEA)

The percentage of adults (aged 18–64) who are starting or running a new business.

Established Business Ownership (EBO)

The percentage of adults (aged 18–64) who are currently the owner-manager of an established business, i.e. owning and managing a business that has paid salaries, wages or any other payments to the owners, for more than 42 months.

Entrepreneurial Framework Conditions (EFCs)

The conditions identified by GEM that enhance (or hinder) new business creation in a given economy, and form the framework for the NES. The conditions are:

- A1. **Entrepreneurial Finance** Are there sufficient funds for new startups?
- A2. **Ease of Access to Entrepreneurial Finance** And are those funds easy to access?
- B1. **Government Policy: Support and Relevance** Do they promote and support startups?
- B2. **Government Policy: Taxes and Bureaucracy** Or are new businesses burdened?
- C. **Government Entrepreneurial Programs** Are quality support programs available?
- D1. **Entrepreneurial Education at School** Do schools introduce entrepreneurship ideas?
- D2. **Entrepreneurial Education Post-School** Do colleges offer courses in starting a business?
- E. **Research and Development Transfers** Can research be translated into new businesses?
- F. **Commercial and Professional Infrastructure** Are these sufficient and affordable?
- G1. **Ease of Entry: Market Dynamics** Are markets free, open and growing?
- G2. **Ease of Entry: Burdens and Regulation** Do regulations encourage or restrict entry?
- H. **Physical Infrastructure** Is this sufficient and affordable?
- I. **Social and Cultural Norms** Does culture encourage and celebrate entrepreneurship?

National Entrepreneurial Context Index (NECI)

This summarizes in one figure the average state of 13 national Entrepreneurial Framework Conditions selected by GEM researchers as the most reliable determinants of a favourable environment for entrepreneurship. It is calculated as the simple average of 13 variables that represent the EFCs, and which have been measured through a block of items evaluated by an 11-point Likert scale and summarized by applying factorial analyses (principal component method).

National Team

GEM is a consortium of “National Teams”. Each Team is led by a local university or other institution with a strong interest in entrepreneurship. The team is the official national representative of the project: responsible for collecting GEM data in the country on an annual basis, producing a “National Report” on their findings, and acting as the point of contact for GEM enquiries.

GEM Income Classification

Level A Economies with a Gross Domestic Product (GDP) per capita of more than \$40,000.

Level B Economies with a GDP per capita of between \$20,000 and \$40,000.

Level C Economies with a GDP per capita of less than \$20,000.

Acknowledgements

It is a great pleasure to present **Global Entrepreneurship Monitor's 2022/2023 Global Report: Adapting to a “New Normal”**. The GEM Global Report is published annually and requires the time, expertise and resources of several hundred people around the world, including technical experts at top academic institutions and research institutes, sponsoring organizations and national experts. Our first acknowledgement therefore goes to our dedicated GEM National Teams and to their sponsors, without whose efforts and support GEM would not be able to point to 24 years of existence.

One of our founding organizations and GEM Global Sponsor, **Babson College**, has, over many years, devoted very substantial financial and in-kind resources to GEM. 2022 was no exception. For Babson College's unconditional contributions, both in 2022 and in the past two decades, we are exceedingly grateful. In particular, we thank the leadership of Babson's Arthur M. Blank School for Entrepreneurial Leadership, **Donna Levin, Jeffrey Shay** and **Smaiyyra Million**, as well as **Donna Kelley**, Babson's Frederic C. Hamilton Professor of Free Enterprise Studies, for their strong support.

We also warmly thank the **Cartier Women's Initiative (CWI)**, with which GEM has had a strategic partnership for the last three years. Acknowledgement goes to **Wingee Sampaio**, Global Program Director of CWI for her passionate interest in GEM's activities and willingness to help us boost the women's entrepreneurship dimensions of GEM research. We highly appreciate CWI's generous financial support for both the GEM Global Report and the GEM Women's Entrepreneurship Report.

The **School of Management Fribourg (HEG-FR) at the University of Applied Sciences Western Switzerland** has also dedicated financial resources for GEM's work on women's entrepreneurship and on the contribution

of entrepreneurship to the United Nations Sustainable Development Goals. Both of these themes figure prominently in this Global Report. We warmly thank **Professor Rico Baldegger**, Director and Professor of Strategy, Innovation and Entrepreneurship at the School of Management Fribourg (HEG-FR), Switzerland, for this support and also for hosting the launch of this report at his institution in February 2023.

This report, expertly orchestrated by **Stephen Hill** as main author, brings together results and analysis from GEM National Team authors across the world. There are too many co-authors to list here (they are named in the individual chapters), but their work is highly appreciated since it brings a high degree of diversity to GEM thought leadership and helps us to truly reflect a global perspective on the “state of the art” of entrepreneurship. Special recognition is due to two of the co-authors – Thomas Schøtt and Sreevas Sahasranamam – for their additional efforts to review the entire report.

GEM is fortunate to have an extremely dedicated GEM Global core team that work virtually and truly globally from Tokyo, Spain, Portugal, Switzerland, the United Kingdom and the United States. We acknowledge the careful project management and data harmonization work of our data managers, **Francis Carmona** and **Alicia Coduras**, with support from **Henrique Bastos**, and the efforts of our Communications Advisor **Kevin Anselmo**, especially for his great work with Steve on the Economy Profiles. We appreciate the tireless efforts of Stephen Hill and **Dean Bargh**, of **Witchwood Production House**, in steering the final draft of this complex report to successful completion. Last, but certainly not least, thanks to our GEM Finance and Administration Manager **Aurea Almanso** for her unfailing dedication to ensuring that GEM runs smoothly, like the 24-year-old well-oiled machine that it is. To all, warm thanks and appreciation.

Aileen Ionescu-Somers, PhD
GEM Executive Director

Foreword

The well-known opening line of *A Tale of Two Cities* by Charles Dickens may well apply to the current world state of affairs: “It was the best of times; it was the worst of times . . .” There is no doubt that, depending on where you live in the world, many are effectively experiencing the worst times of their lives to date, because of the spillover effects of multiple crises. The remaining economic impacts of the global COVID-19 pandemic and the significant consequences of conflict in Ukraine have produced unprecedented global supply chain disruptions, increases in energy and food prices, and overall commotion in markets worldwide.

However, the quote is interestingly paradoxical since out of crisis, very often, come opportunities. For some at least, that means the worst of times can truly become the best of times. We at GEM would suggest that, in many ways, it is the best of times for entrepreneurs. The world is undergoing an energy crisis and, in many countries, an energy transition that struggles to take hold. We are living through a time of increasing climate change and decreasing biodiversity, requiring substantial mitigation and adaptation. After a period of marked progress in alleviating extreme poverty, it is unfortunately again taking hold in some regions across the world. Markets are rapidly shifting. Our supply chains are clearly not resilient enough or designed to be shock-proof. Our retail and distribution systems are disrupting. Our global economic monetary system is transforming by the day. The pandemic catapulted the world towards a so-called “New Normal”, which has not yet fully landed in the collective conscience such that it can be properly described. However, can all these phenomenal events, and multiple others not mentioned here, constitute opportunities for entrepreneurs? The answer, of course, is “Yes!” Entrepreneurship is undoubtedly – and has

always been – an important part of the solution to repair damaged economies and societies.

Results presented in our GEM 2022/2023 Global Report show that not only are policymakers in some countries striving harder to make it easier for entrepreneurs to put down their commercial “roots” and create successful businesses, but entrepreneurs themselves are clearly dusting themselves off from the hardship effects of the global pandemic and continuing to do what they do best: grasp opportunities. If the interface between policymaking and entrepreneurship is working effectively, then entrepreneurship can contribute richly to economic recovery, thus making economies more resilient and, dare we hope, shock-proof. At the very least, entrepreneurs can help economies return to the “best of times”.

As always, the GEM Global Report is based on hard data collected from literally thousands of entrepreneurs and national experts around the world. This 2022/2023 Global Report adds a 24th year of data collection and results to the GEM portfolio. Our aspiration at GEM is clear: to provide transparency to policymakers so that they can make better decisions to truly promote entrepreneurship, and also observe and act on the impact of their decision-making over time. A fundamental question is: Can policymakers transform the results of our research into robust and productive decision-making, allowing increasing numbers of entrepreneurs to create wealth and contribute to societal well-being worldwide? Based on our scientific observations at GEM from over the years, the answer to this question is also a resounding “Yes!”

Here’s to a return to the “best of times” in the “New Normal”, however that lands, leaving no one behind.

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GEM Executive Director

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* GRIPs = GEM Research & Innovation Projects

About GEM

Entrepreneurship is an essential driver of societal health and wealth. It is also a formidable engine of economic growth. It promotes the essential innovation required not only to exploit new opportunities, promote productivity and create employment, but to also address some of society's greatest challenges, such as the United Nations Sustainable Development Goals (SDGs) or the economic shock wave created by the COVID-19 pandemic. The promotion of entrepreneurship will be central to multiple governments worldwide for the foreseeable future, especially considering the significant negative impacts on economies due to the pandemic. Governments and other stakeholders will increasingly need hard, robust and credible data to make key decisions that stimulate sustainable forms of entrepreneurship and promote healthy entrepreneurial ecosystems worldwide. During its 24 years of existence, Global Entrepreneurship Monitor (GEM) has repeatedly contributed to such efforts, providing policymakers with valuable insights on how to best foster entrepreneurship to propel growth and prosperity once again.

GEM carries out survey-based research on entrepreneurship and entrepreneurship ecosystems around the world. GEM is a networked consortium of national country teams primarily associated with top academic institutions. It is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs. GEM tools and data are therefore unique and benefit numerous stakeholder groups. By becoming involved with GEM:

- Academics are able to apply unique methodological approaches to studying entrepreneurship at the national level;
- Policymakers are able to make better-informed decisions to help entrepreneurs and entrepreneurial ecosystems thrive;
- Entrepreneurs have better knowledge on where to invest sometimes scarce resources

and how to influence key stakeholders so that they get the support they need;

- Sponsors both advance their organizational interests and gain a higher profile through their association with GEM;
- International organizations leverage insights, but can also incorporate or integrate GEM indicators to their own data sets, or use GEM data as a benchmark for their own analyses.

GEM has an impressive and highly credible track record. In numbers, GEM represents:

- 24 years of data, allowing longitudinal analysis in and across geographies on multiple levels;
- Up to 170,000+ interviews annually with experts and adult populations including entrepreneurs of all ages;
- Data from 120 economies across five continents;
- Collaboration with over 500 specialists in entrepreneurship research;
- Involvement of some 300+ academic and research institutions;
- Support from more than 200 funding institutions.

GEM began in 1999 as a joint research project between Babson College (USA) and London Business School (UK). The consortium has become the richest source of reliable information on the state of entrepreneurship and entrepreneurial ecosystems across the globe, publishing not only the GEM Global Report annually, but also a range of national and special topic reports each year. GEM's first annual study covered 10 countries; since then some 120 countries from every corner of the globe have participated in GEM research. As a result, GEM has gone beyond a project to become the highly networked organization that it is today. GEM can confidently stake a claim to be the largest ongoing study of entrepreneurial dynamics in the world.

Join our research project



It is difficult for policymakers to make informed decisions without having the right data. Global Entrepreneurship Monitor (GEM) fills this void. GEM is the only global research project that collects data on entrepreneurship directly from the source—entrepreneurs!

It is your one-stop shop for everything you need to know about entrepreneurship in your country, region or city.

Be part of future Global Reports, providing a snapshot of entrepreneurial activity across the world. You can contribute towards National Reports that include international benchmarking, local context and national entrepreneurship policy recommendations.

"GEM offers academics the opportunity to be part of a prestigious network, explore various dimensions of entrepreneurship and gain a full picture about the entrepreneurial activity of a country."

Virginia Lasio, Team Leader of GEM Ecuador and Professor at the ESPAE Graduate School of Management



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Executive Summary

Stephen Hill, Aileen Ionescu-Somers and Ehud Menipaz

Entrepreneurship, or the act of starting and running a new business, is a key catalyst of economic development. It is also an important driver of economic recovery: from the effects of the recent COVID-19 pandemic as well as more recent shocks, such as the war between Russia and Ukraine, with its related supply chain issues and rising energy costs. At any time, but especially during times of crisis, it is vital that the entrepreneurship dynamics and national frameworks to promote entrepreneurship are carefully defined and measured. Global Entrepreneurship Monitor (GEM) research can provide significant metrics to policymakers along the road to economic recovery, which enable informed and astute — but, most importantly, effective — decision-making.

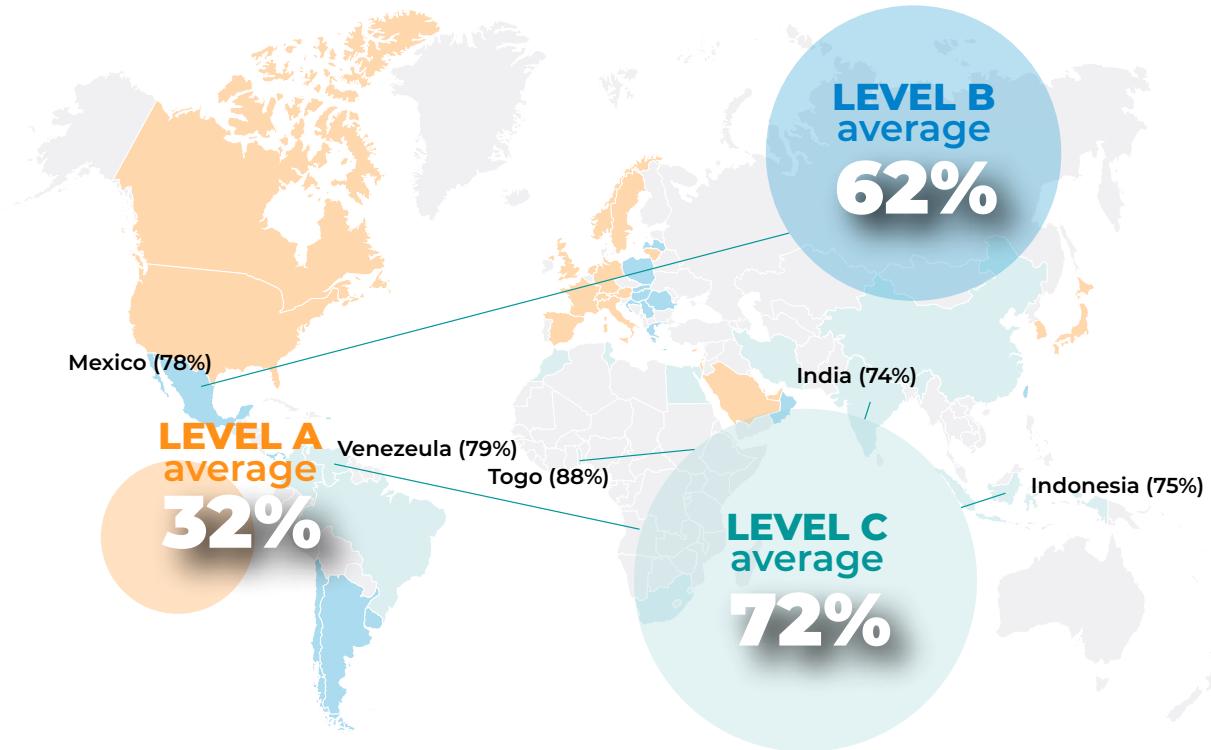
This 2022/2023 Global Report presents the results of GEM's 24th research cycle. This adds another round of extensive national surveys to an already substantial GEM database of entrepreneurial results. In 2022, over 170,000 individuals were interviewed across 49 different economies, adding their views and experiences to over 3 million previously interviewed for the GEM Adult Population Survey (APS) over the previous two decades. These 49 economies represent about two-thirds of the global population in 2022. It includes China with a population of 1.3 billion, as well as India, which according to the United Nations is likely to be declared the world's most populous country in 2023. Furthermore, GEM's National Expert Survey (NES) features 51 economies (all of the 49 economies that participated in the GEM APS, plus Italy and Argentina). The NES is a survey of national experts in each economy charged with assessing the key components and characteristics of the entrepreneurial environment for that economy.

KEY FINDINGS

- **Although the worst effects of the COVID-19 pandemic appear to be coming to an end, its economic impacts are still being felt across the globe and household incomes continue to be reduced.** As noted in the two previous Global Reports, the pandemic hit hardest those who could least afford it. Within the group of lowest-income economies (Level C), the share of adults reporting that the pandemic had reduced their household income ranged from almost nine out of 10 in Togo to just over half in Iran. Among the high-income (Level A) economies, that range was from two out of three in the United Arab Emirates to less than one in 10 in Norway.

THE PANDEMIC HIT HARDEST THOSE WHO COULD LEAST AFFORD IT

Share of adults reporting that the pandemic had reduced their household income — by income category (weighted by population size; including the five economies who were the hardest hit)



Source: GEM Adult Population Survey 2022

- **Fear of failure is a serious constraint on business startups in many economies from all income groups.** In a number of economies, with examples including Brazil, Saudi Arabia, Qatar, the Netherlands, Puerto Rico and Poland, high proportions of adults agree that starting a business is relatively easy, and see good opportunities to start a business locally, while also considering themselves to have the skills and experience to create a startup. However, around half of those seeing such opportunities are nevertheless deterred from taking action by fear of failure. Reducing the risks and perceived costs of new business failure — for example, by making changes to insolvency regulations, or better promoting entrepreneurial successes and role models — could have a positive impact in increasing startup rates, in particular for women.
- **The impact of the COVID-19 pandemic on entrepreneurial perceptions across the globe has been highly varied, with some counterintuitive findings.** Of the 38 economies participating in the APS in both 2019 (thus pre-pandemic) and again in 2022, there were 12 economies in which the percentage of adults seeing good local opportunities to start a business fell by five points or more. These included developed economies such as the United States (-21 percentage points), Poland (-15) and Greece (-14). However, there were another nine economies in which that

percentage actually increased by more than five points: including Puerto Rico (+25), Brazil (+21) and Saudi Arabia (+16). Further research is required to explain these differences, but one key may be the level of support that governments were willing (and able) to offer to businesses and households.

- **In 2022, the highest levels of early-stage entrepreneurial activity were in the Latin America & Caribbean region.** However, levels of entrepreneurial activity were also highly variable from country to country. Of the 49 economies that participated in the GEM APS, just six had more than one in four adults starting or running a new business: Guatemala, Colombia, Panama, Chile, Uruguay and the United Arab Emirates. In contrast, three economies had less than one in 20 adults doing the same: Morocco, Greece and Poland. The explanation for these differences may lie with social and cultural norms as much as with economic variables.
- **There is a negative association between the level of early-stage entrepreneurial activity and human capital development,** as measured by the UN Human Development Index (HDI). Previous GEM Global Reports have noted a negative association between Total early-stage Entrepreneurial Activity (TEA) rates and levels of GDP per capita, even if that association has weakened over the years. This 2022/2023 Global Report tested an alternative measure of well-being – the UN HDI – and found that this also had a negative association with TEA rates. This also raised some interesting, but as yet unanswered, questions. Why do a few economies have high levels of both HDI and TEA, and why do rather more economies have high levels of HDI and low levels of TEA? Could it be because higher levels of human development potentially mean more rewarding employment opportunities, thereby reducing the attraction of entrepreneurship as a career choice?
- **The global pandemic had a mixed effect on entrepreneurship across the world.** Again, we looked at the 38 economies that participated in GEM research in both 2019 and 2022. Discounting small (less than one percentage point) changes, there are 12 economies in which the level of TEA was higher in 2022 than in 2019, and 16 economies in which TEA levels fell. It is difficult to draw out commonalities, since all regions and income levels are represented in each group.
- **New entrepreneurs frequently declare that they take social and environmental implications into account when making strategic decisions about the future of their business.** Notwithstanding the potential for social desirability bias, it is nevertheless significant that more than half of new entrepreneurs declare that they always take social implications into account in every participating economy (with the exception of Norway, interestingly). A majority of new business entrepreneurs also declared taking environmental implications into account in every economy but two (Oman and Israel). Conversely, more than four out of five took social implications into account in

19 of the 49 economies, and in 21 of the 49 economies for environmental. Hence there is room for optimism about the positive social and environmental impacts of these future businesses.

- **Job creation expectations of those starting new businesses declined somewhat during the pandemic.** Of the 32 economies participating in the APS in each year from 2019–2022, there are 13 in which the percentage of those starting a new business and expecting to employ no additional people fell (most notably in Poland, Brazil and the Republic of Korea), but another 19 in which that proportion increased (most notably in the Slovak Republic, Germany and Switzerland). The differentiating characteristic may have been the inclination of people in some countries to start a business just to generate an income during times of hardship.
- **In 2022, men were more likely than women to start a new business.** Of the 49 economies participating in the APS, there were just four in which the level of female new entrepreneurial activity exceeded that of men: Togo, Indonesia, Qatar and Poland, representing the three income levels used by GEM to categorize economies. However, one trend that may have been accelerated by the pandemic could be the spread of greater entrepreneurial gender equity beyond just low-income economies. Of the 38 economies participating in GEM in both 2019 and 2022, there were 21 in which the relative gender gap had decreased, just four of which were Level C.

THE FIVE BEST ECONOMIES IN WHICH TO START A BUSINESS

According to the GEM 2022 National Entrepreneurship Context Index



Source: GEM National Expert Survey 2022

- **Younger people are still more likely than older people to be starting new businesses.** The Total early-stage Entrepreneurial Activity (TEA) rate of the 18–34 age group exceeded that of the 35–64 age group in 37 of the 49 economies in the GEM APS. This gives a distinct entrepreneurial advantage to societies with younger populations, and an entrepreneurial disadvantage to those with more ageing populations, such as many economies in northern Europe.
- **The lowest business exit (and TEA) rates are within Europe and the highest business exit (and TEA) rates are in Latin and North America, and in the Gulf.** Of the 49 GEM APS economies, every European economy had a business exit rate of less than 6% and a TEA rate of less than 15%. Every economy outside Europe had either an exit rate greater than 6% or a TEA rate of more than 15%. Most had both. This may point to differences in entrepreneurial culture between Europe and the rest of the world.
- **The proportion of business exits attributed to the pandemic is declining rapidly, indicating the end to at least some of the direct economic hardship it has caused.** In 2020, COVID-19 was cited as a reason for less than one in five business exits in just 10 economies. In 2022 this had grown to 22 economies.
- **While high income is a helpful contributory factor, it does not in itself assure a high-quality entrepreneurial environment.** For the GEM NES survey, the quality of a national entrepreneurial environment is assessed by national experts from that economy against 13 Entrepreneurial Framework Conditions. In 2022, three Level C economies — India, China and Indonesia — had nine or more of these conditions scored as sufficient. Only seven of the 22 participating Level A economies either matched or improved on this assessment. Two Level A economies, Spain and Italy, had three or fewer conditions rated as sufficient. However, high-income United Arab Emirates was, for the second year in succession, rated as the best place to start a new business.

CONCLUSIONS

At the end of the day, entrepreneurship matters and it matters greatly. That is why GEM brings important annual research findings to the attention of policymakers worldwide. Entrepreneurship brings jobs and incomes, turns ideas into new goods and services, hastens structural change and improves lives. Certainly, most governments have long lists of issues and projects competing for their attention and resources. However, few propositions have the transformative power of new businesses, with entrepreneurs at their helm helping to build a more prosperous, inclusive, and socially and environmentally conscious future along with undeniable commercial benefits. While there is no doubt that the road to economic recovery and sustainability is currently a

rocky one, successful entrepreneurship can drive economic recovery, help to create innovative business models (which, for example, mitigate the impacts of current higher energy costs), offer new ways to live, work and consume, and can fulfil the ambitions of creative, optimistic and determined people.

REPORT FORMAT

Part 1 of this GEM 2022/2023 Global Report presents a brief analysis of the 2022 APS results, looking across results in 49 participating economies to identify commonalities and differences. Consistency in the GEM APS questions and in the derivation of key variables allows comparisons between economies in 2022 and, as importantly, in the evolution of those variables over time. Exploring how the global COVID-19 pandemic impacted entrepreneurial variables by comparing results since 2020 is an obvious, highly practical and useful application of GEM research. Not surprisingly, many key entrepreneurial variables fell with the onset of the pandemic. Results for 2022 show that recovery from the direct economic impacts of that pandemic has been highly variable across economies, and that many countries are still suffering. The 2022 GEM results also offer a glimpse of the initial entrepreneurial effects of the war in Ukraine and subsequent changes in prices, particularly for energy.

Part 2 mainly focuses on the entrepreneurial environment, or context, in which an individual decides to pursue entrepreneurship through the NES findings. As such, it provides food for thought not only for policymakers but also entrepreneurs thinking of creating new businesses with global growth potential and seeking the most conducive environment to do so. These assessments are used by GEM researchers to calculate a single figure representing the overall quality of the economy's entrepreneurial environment: the National Entrepreneurial Context Index (NECI); and the final ranking is also presented in this part of the report.

Following this, the reader will find a full series of individual national economy profiles, presenting key entrepreneurial activity data and summarizing that economy's Entrepreneurial Framework Conditions, alongside a brief Policy Roadmap, identifying key entrepreneurial strengths and weaknesses.

Finally this 2022/2023 GEM Global Report concludes with a useful Appendix for researchers, which tabulates entrepreneurial variables across the participating economies in 2022.

Key Thoughts for Policymakers from the GEM 2022/2023 Global Report Authors

It is difficult to make informed decisions without having the right data. GEM fills this void for policymakers. GEM is the only global research source that collects data on entrepreneurship directly from the source — entrepreneurs! Policymakers can take action based on GEM data to help their respective entrepreneurial ecosystems to thrive. Based on this year's research, the GEM 2022/2023 Global Report authorship team shared some key insights for policymakers.



"In the midst of turbulence and uncertainty, policy focused on innovation becomes a priority for recovery and growth. It is a solution for better competitiveness and development by bringing the economy to a better quantitative and qualitative level, creating added value, quality jobs and strengthening human capital. Policymakers have more interest than ever in pivoting to new holistic paradigms of intervention, abandoning those that crises have made obsolete. This prevents missed opportunities that by definition multiply after crises and, of course, to address issues related to population anchoring and regional inequalities in order to foster a more cohesive, inclusive and sustainable entrepreneurship."

Fatima Boutaleb, PhD, Hassan II University of Casablanca, GEM Morocco



"The economic recovery in many countries following the COVID-19 pandemic has been complicated by the ongoing conflict in Ukraine. Governments have implemented measures to promote entrepreneurial activity, but these efforts have been hindered by inflation, fluctuations in the stock and financial markets, and difficulties in managing funds. As a result, starting and maintaining a business has become a challenge for many due to high costs and limited demand. Policymakers will need to be innovative in order to overcome these challenges and support entrepreneurship in 2023."

Alicia Coduras, PhD, GEM Global and GEM Saudi Arabia



“The GEM Global Report provides a unique window into this turbulent and dynamic world of entrepreneurship. Entrepreneurs take multiple risks to directly and indirectly impact society. In economic terms, new entrepreneurs create jobs, translate ideas into products and services, introduce technologies, stimulate market competitiveness, generate income and add value in domestic and international markets. In social terms, new entrepreneurs tackle societal issues in their value-creation process and business models. This year’s GEM Report motivates us to re-legitimize entrepreneurs’ socio-economic impacts and rethink public policy instruments for enhancing entrepreneurs’ impacts.”

**Maribel Guerrero, PhD, Arizona State University, USA, and
Universidad del Desarrollo, Chile; GEM Chile**



“Year after year, entrepreneurial education at school is consistently rated worst of all Entrepreneurial Framework Conditions. With a small number of notable exceptions, most countries are foregoing the opportunity to add to their entrepreneurial potential. The costs of this failure will reverberate through decades of new starts that never happened, simply because many people were just not aware.”

Stephen Hill, DSc, Lead Author of the GEM 2022/2023 Global Report



“GEM national experts score against 13 Framework Conditions that lead to the country ranking in GEM’s National Entrepreneurship Context Index (NECI). This provides policymakers with a ‘how to’ guide on fostering entrepreneurship within their specific national context. With this in mind, I strongly encourage you to review the Economy Profiles within this report. They highlight the 13 framework scores behind each participating economy’s NECI ranking. Just a few examples in 2022: Entrepreneurial Education Post-School increased dramatically in Switzerland; Taiwan ranked first for three conditions (Government Policy: Taxes and Bureaucracy, Commercial and Professional Infrastructure, and Physical Infrastructure); and Morocco improved in almost all of the 13 framework scores. The wealth of knowledge behind these profiles can be used to support more effective strategic decision-making and robust policies for promotion of entrepreneurship in your own context.”

Aileen Ionescu-Somers, PhD, GEM Executive Director



“Over GEM’s 24-year existence, hundreds of policy recommendations on innovation and entrepreneurship have been made nationally and globally in GEM reports by top-level GEM scientists. Policymakers can turn GEM recommendations into policies and directives at national, regional and local levels, implement them effectively and efficiently, and then monitor and measure their impact on the innovation and entrepreneurship ecosystem. I invite policymakers to reflect on our main GEM findings, summarized in Part 2 of this report, related to National Contexts and Economy Profiles. We can collaborate to focus on achieving great beneficial impact for society from GEM’s mammoth multi-year scientific endeavour.”

Prof. Emeritus Ehud Menipaz, Ben Gurion University; GEM Israel



“The impact of COVID-19 on entrepreneurial activity has been highly variable, evidenced from our comparison over the 2019–2022 period. After excluding countries with changes of less than one percentage point, 12 economies saw an increase in entrepreneurial activity, while 16 saw a decrease. Preliminary evidence suggests differences in the entrepreneurial ecosystem and support offered to entrepreneurs during the pandemic as potential reasons for the divergent trends.”

Sreevas Sahasranamam, PhD, University of Strathclyde, Glasgow; GEM UK



“The diversity of human values that bring people to start a business is striking. Policymakers need to understand these motivations. Some people start a business because they value making a difference in the world. Others long to continue a family tradition of running businesses. There are individuals motivated to accumulate wealth. Then there are some who resort to entrepreneurship because jobs are difficult to find. Despite this diversity of motives, entrepreneurs form a kind of community, united by their mutual awareness, networking and aspirations. The GEM Global Report provides clarity to these and other important aspects that help define the strengths and weaknesses of an economy’s entrepreneurial ecosystem.”

Thomas Schøtt, PhD, University of Agder, Norway



“Entrepreneurial action continues to be constrained by fear of failure, despite high self-confidence, encouraging perceptions of startup opportunities and belief that starting a business is easy. Access to educational programs specifically focused on risk assessment and mitigation coupled with policies that reduce the perceived personal costs of failure could unleash a significant, and pent-up, wave of entrepreneurial activity.”

Jeffrey P. Shay, PhD, Babson College, Professor of Entrepreneurship, Babson College, USA



“In 2022, we have again witnessed disparities between genders, age groups and levels of education. In some countries, only one in five businesses is owned by a woman, while in others, three-quarters of new businesses are started by individuals under the age of 35. These gaps highlight areas for improvement and should be a focus for policymakers seeking to support the success of future entrepreneurs.”

Przemysław Zbierowski, PhD, Associate Professor, University of Economics in Katowice, Poland

Collaborate with GEM to assess city and regional readiness for entrepreneurship



What makes a city or region attractive to entrepreneurs? Which factors draw creative entrepreneurs to a city or region ... indeed, to any entrepreneurial ecosystem? What gives them the confidence that they can build successful, value-adding and profitable companies in a nurturing context? How good are cities and regions at building these contexts and nurturing entrepreneurship?

Collaborate with GEM to find answers to these questions in cities and regions that are important to you! Our **Entrepreneurial Ecosystem Quality Composite Index (ESI)** is a diagnostic tool that provides frameworks and data to analyse just about any subnational ecosystem. ESI reports have been conducted in several ecosystems around the world.

"The GEM ESI methodology provided a valuable contribution to deepen our knowledge of Madrid's entrepreneurial ecosystem. It is a solid scientific approach and offers the possibility to analyse a number of variables aligned to different key pillars. This enabled us to identify how the main actors interact and the key issues to be addressed to foster ecosystem development. The ESI tool is a great input for diagnosis and policymaking."

—Isidro de Pablo López,
Universidad Autónoma de Madrid

"Reporting on the findings from the Global Entrepreneurship Monitor's Entrepreneurial Ecosystem Quality Index in our region of Nova Scotia, Canada, generated a significant amount of interest from policymakers and ecosystem actors. Some of the notable findings, based on our data, have informed debate and helped leading ecosystem players to think about strategies for further ecosystem development."

—Kevin McKague, PhD,
Canada Research Chair and Associate Professor of Entrepreneurship, Shannon School of Business, Cape Breton University



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PART 1

Analysis





What Is GEM?

Stephen Hill and Aileen Ionescu-Somers

1.1 BRIEF INTRODUCTION

The Global Entrepreneurship Monitor (GEM) is a long-term collaborative research initiative which aims to measure and monitor entrepreneurship. GEM was started in 1999 by forward-thinking academics at its founding organizations: Babson College in Boston, USA, and London Business

School in the UK. This collaboration quickly grew from a handful of economies to what is today the most extensive and longest-running global study of entrepreneurship. This 24th annual GEM Global Report draws on extensive survey results from 51 economies across the world.

1.2 THE GLOBAL CONTEXT

Starting a new business is never easy, even when all the requisite stars align – i.e. confidence is up, the business context is ideal and incomes are growing. Last year's GEM Global Report¹ was cautiously optimistic that the global economy would begin its recovery from the impact of the COVID-19 pandemic, despite supply-side issues and some rising costs. However, such optimism proved short-lived. Russian tanks rolled into Ukraine in February 2022, sparking not only conflict and destruction but a slew of international sanctions and unprecedented energy price rises. This had the further negative effect of lifting household and business costs to dizzying heights, prompting governments with sufficient resources to reintroduce support packages on a scale that easily matched those of the pandemic, further increasing national debt burdens worldwide. Longer-term impacts include an increase in the costs of energy-intensive products and services, and strong incentives to minimize the use of fossil fuels.

Because of these developments, many of those starting a business in 2022 face possibly

the most difficult business environment since the GEM project began in 1999. Starting a business is always a triumph of hope over circumstance; starting that business in 2022 required a hefty dose of optimism.

Because of the global pandemic, recent GEM Global Reports have addressed questions such as whether some entrepreneurs find opportunity amid disruption, and how entrepreneurs have been leveraging these opportunities. Moreover, while steeply rising energy prices represent a significant burden for energy users, they can be a windfall to energy producers. Similarly, energy-exporting economies and their governments have made unanticipated gains and have enjoyed an influx of foreign currency. Such a pattern of gains and losses inevitably has its effects on household incomes and business costs, reducing real incomes and increasing costs in energy-importing economies. Of course, even in those adversely affected economies, crisis and change always bring opportunities. And entrepreneurs have proved themselves to be particularly adept at grasping opportunities.

¹ GEM (Global Entrepreneurship Monitor) (2022). *Global Entrepreneurship Monitor 2021/2022 Global Report: Opportunity Amid Disruption*. London: GEM. <https://www.gemconsortium.org/reports/latest-global-report>

ENTREPRENEUR HIGHLIGHT

Claudia Isabel Barona

Co-founder of Lifepack (Colombia)

Optimism in responding to disruption

"An entrepreneur is passionate, a dreamer, creative, optimistic and has confidence to bring one's ideas to fruition."

These are the words of Claudia Isabel Barona, co-founder of Lifepack, a Colombian-based company that produces 100% biodegradable ecological products made from natural fibres and seeds. Lifepack relies on an environmentally sustainable business model and is supported by NGOs, government entities and universities, among others.

This optimism has been on display throughout her entrepreneurial journey, especially over the past few years.

Lifepack has evolved in response to COVID-19. Before COVID, business was primarily conducted face to face. But, as sales channels changed due to the pandemic, Lifepack adapted; now over 70% of its transactions are digital.

Lifepack used the disruptions caused by the pandemic as an opportunity to improve internal operational and production processes, something that had not been done since the company's founding in 2014.

"We had the opportunity to explore other fibres (agro-industrial residues/agricultural residues) in our production process and to expand our lines of business, further encouraging the circular economy."



As a result, new lines of business were born including a technology transfer programme. The company sell its knowledge in implementing the production process in other regions and countries.

In 2022, Lifepack has needed to operate in the face of inflation that has doubled the prices of raw materials. This inflation is reflected in the company's selling prices, but has resulted in lower sales due to the lack of purchasing power of the peso. This reality doesn't deter Claudia. She concluded:

"The entrepreneur identifies opportunities that arise from the environment and creates innovative solutions with global and social well-being in mind."

1.3 WHY ENTREPRENEURSHIP MATTERS

There are many reasons why entrepreneurship is important, and why increasing levels of entrepreneurship can indicate a vibrant, dynamic economy. Again, entrepreneurship is defined by GEM as *the act* of starting and running a new business. In other words, it is *the act itself* that is important. Merely thinking about starting a business, or intending to do so even in the

near future, does not meet this requirement. To be considered an entrepreneur by GEM, an individual must have acted. This can include spending time and funding in seeking to get a business off the ground.

New businesses created by entrepreneurs deliver jobs, incomes and value-added — the three cornerstones of economic development — often

by introducing new products, technologies or processes. In doing so, new businesses launched by entrepreneurs can also accelerate structural change. They can speed up the shift of resources away from things people no longer want or wish to pay for, towards things they want or for which the entrepreneur perceives a gap in the market or can create a need. Hence a dynamic economy needs a steady stream of new and innovative businesses, replenishing the overall stock of businesses and firms and transforming ideas into new goods and services. Of course, not all new businesses engender growth; a new coffee shop concept, for example, if it better serves the needs of consumers, may in fact hasten the decline of existing providers, since, in some economies at least, consumers are unlikely to drink more coffee. But even this displacement is significant, since it is the market that ultimately dictates whether a new coffee shop concept is more economically sustainable than those that already exist.

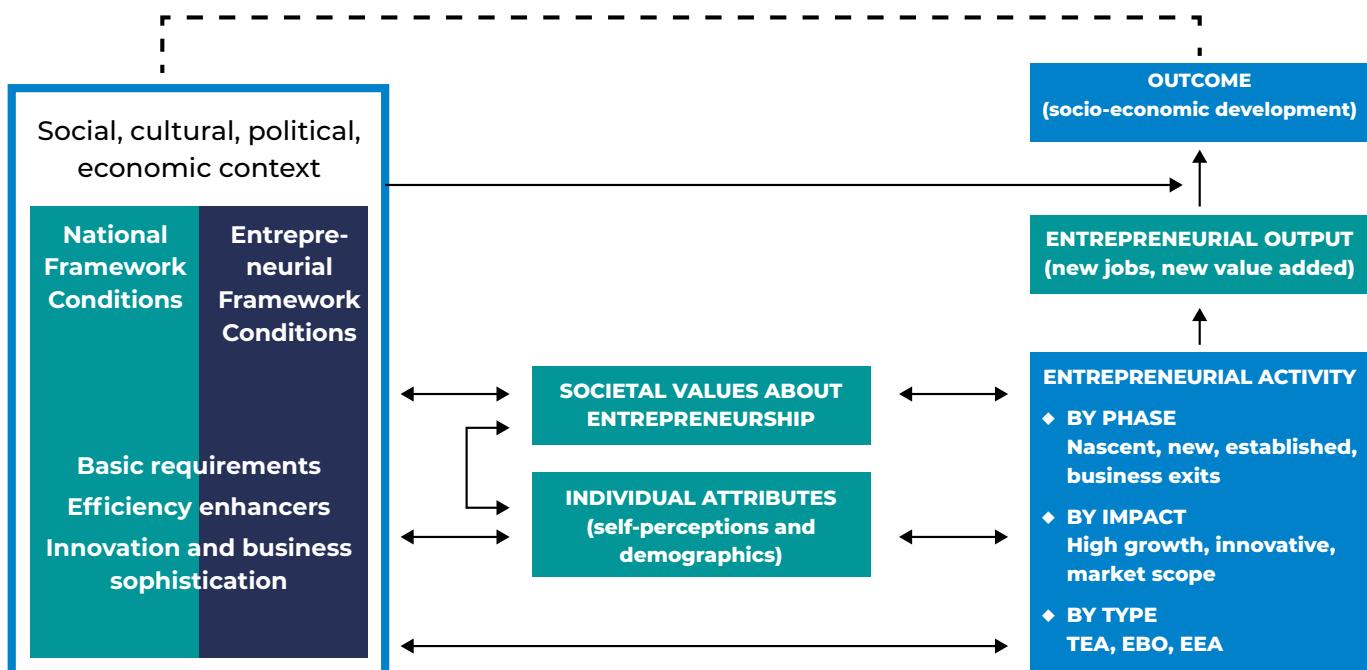
Evidently, not all new businesses succeed; many fail. Hence, some resources expended in starting that business may be lost. Yet, even in these cases, it is important to bear in mind that not everything is lost. Learning from previous failure may provide the entrepreneur and other stakeholders with knowledge and experience that can prove vital to future business success. Failure also tests resolution and determination, important characteristics of successful entrepreneurs.

If the level of entrepreneurship in any given economy is important, then defining and measuring that level must also be important. If comparisons are to be made, both between economies and of the same economy over time, then it is crucial that entrepreneurship is defined and measured in a manner that is both precise and consistent over time. It is this precision and consistency that has been, and is today, the real strength of GEM. For example, the GEM database, stretching back more than two decades, can shed light on the details of historical rises and falls in levels of entrepreneurship in a particular economy. This continuity and consistency allows comparisons to be made, so that like may always be compared to like. Similarly, the level of entrepreneurship in one economy in a given year can be compared to the level in another, because both are defined and measured in exactly the same way year on year.

The act of starting a new business is the result of a highly individual and personal decision-making process. This process reflects an individual's attitudes as well as personal attributes such as knowledge, experience, values and motivation, alongside their access to resources. Furthermore, this act takes place within a context of social values that may promote or hinder entrepreneurship, and in a locality (termed the entrepreneurial ecosystem) that can facilitate or constrain access to resources.

FIGURE 1.1

The GEM Conceptual Framework



GEM keeps its finger on the pulse of all these aspects of entrepreneurial activity across the entrepreneurial community: they are explored in more detail in later chapters of this report. To illustrate the structure and components of GEM research, Figure 1.1 presents the GEM Conceptual Framework.

An entrepreneur's social environment may also, for example, encourage or discourage

risk-taking, or may value collective endeavour over individual achievement. This, too, can influence access to resources, including both expertise and capital. It may determine other aspects of the new business, including choice of sector, levels of innovation and scale of ambition. These factors in turn greatly influence the impacts of any new business in terms of jobs generated, income levels and economic value-added.

1.4 THE GEM METHODOLOGY

At the heart of GEM research are two complementary core surveys. The first is the Adult Population Survey (APS), which is administered to a structured random sample of at least 2,000 adults (aged 18–64) in each participating economy, and often more in larger or more complex national economies. The national sample is structured to reflect the overall population in terms of age, gender and location: so, for example, if 20% of adults in a particular economy are aged 18–34, then 20% of sampled adults will be in that age group. The APS provides detailed information on the characteristics of entrepreneurial individuals, their activities, attitudes, motivations and ambitions. It also allows for exploration of the entrepreneur's active involvement in starting or running a new business at different stages of development, whether nascent, established, high-growth, etc. Exactly the same questions are asked in each participating economy, either by face-to-face or telephone interview, occasionally by online survey, with careful attention to accurate translation into the many different national languages required. It is primarily the consistency of these questions, and the manner in which results are verified and used to estimate key variables, that enables comparison within and between economies over time.

By surveying the activities and perceptions of individuals, GEM research offers insights into the personal decision-making process involved in starting a business, and the subsequent development of that business, in a way that official business statistics, such as the number of registered businesses, simply cannot. In addition, because of the APS's focus on individuals and its anonymization of results, it reflects activity in the informal or unregistered economy — which is normally beyond the reach of most official statistics. This is especially important in

many developing countries, where unregistered businesses may represent a significant proportion of the total stock, and where many new businesses never mature to the point of being formally registered. In 2022, more than 173,000 people completed the GEM APS interview, adding to an existing GEM database of over 3 million respondents across 120 economies since the first APS survey in 1999.

While maintaining continuity and consistency in the APS questions is fundamental, this does not prevent GEM from responding to changing circumstances and priorities. In recent years, the COVID-19 pandemic has cast a deep shadow over national and international economies, and GEM has responded with new and additional questions that have allowed some of the impacts of that pandemic to be assessed.² The pandemic has hastened changes in the ways that people work and live, with less commuting, more online shopping, and a steady drift away from city centres, shopping malls and retail parks as the focal points of consumer activity. Rising energy prices provide a new impetus to more sustainable production and consumption, important parts of the United Nations Sustainable Development Goals (SDGs).³ Other SDGs, such as reducing poverty and promoting inclusion, may have become more difficult to achieve, given rising household and business costs.

² See GEM (Global Entrepreneurship Monitor) (2020). *Diagnosing COVID-19 Impacts on Entrepreneurship: Exploring Policy Remedies for Recovery*. London: GEM. <http://www.gemconsortium.org/reports/covid-impact-report>

³ The 17 Sustainable Development Goals (SDGs) — adopted by all United Nations Member States in 2015 as part of the United Nations 2030 Agenda for Sustainable Development — are an urgent call for action by all countries to help achieve these goals by 2030 (<https://sdgs.un.org/goals>).

In 2021, GEM introduced new questions in the APS related to the role that social and environmental considerations play in the long-term decision-making of entrepreneurs in relation to new businesses. These questions are repeated in the 2022 APS (thereby allowing comparisons to be made), but also extended by new questions about awareness of the UN SDGs and whether these play a part in business priorities and strategies.

The volume of data collected by the APS allows key variables to be estimated and compared with confidence.⁴ These key variables can then be used to profile and track the entrepreneurial process: from having an initial business idea and perceiving related opportunities (conception), to starting a business and beginning to pursue those opportunities (nascent entrepreneurship), to transitioning the new startup into an established business, or in some cases towards

a business exit. These entrepreneurial processes are presented in Figure 1.2, which also offers a guide to some important GEM definitions and measurements.

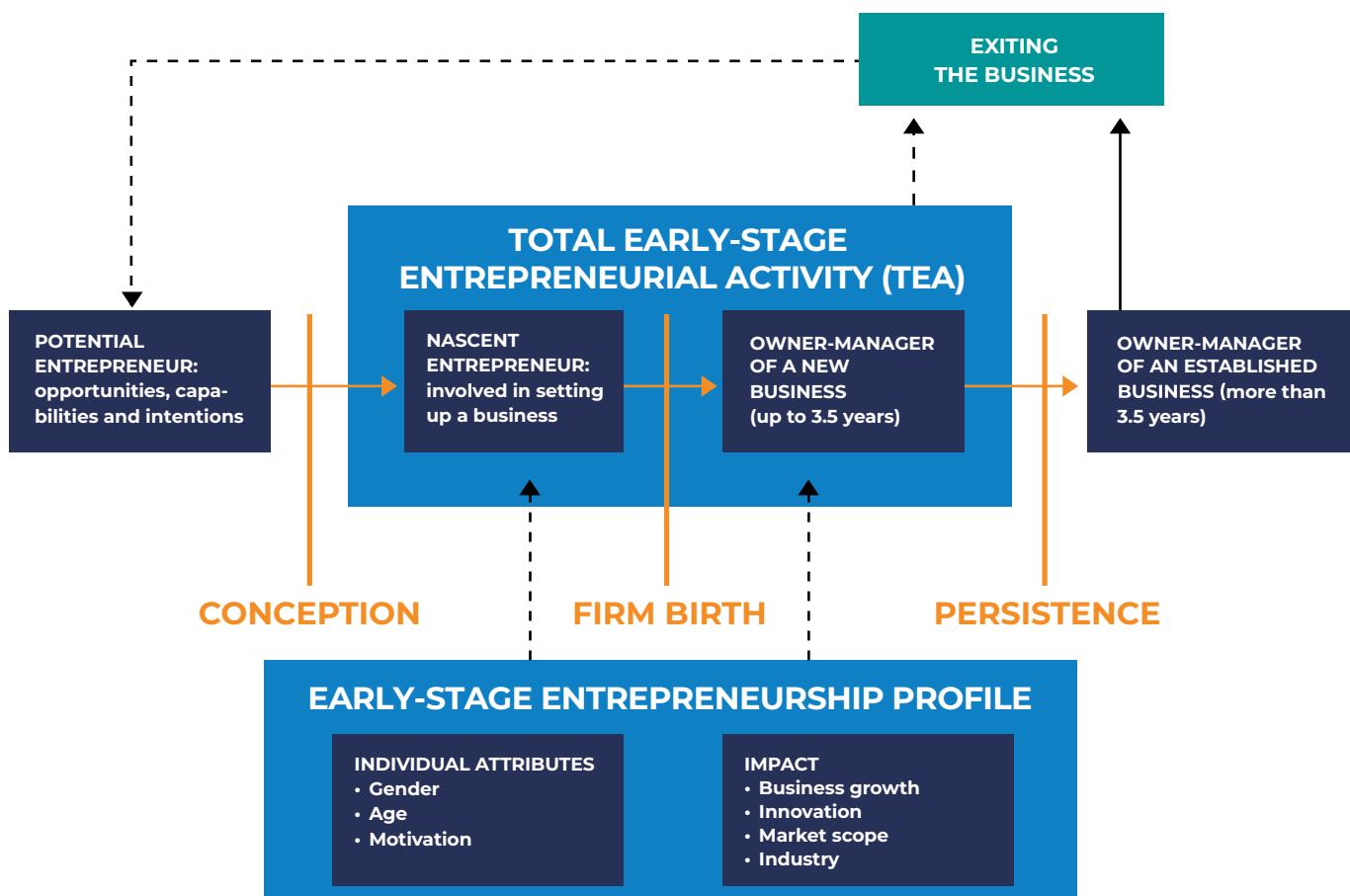
GEM distinguishes between three distinct stages in the development of entrepreneurial activity and therefore defines a related typology for entrepreneurs in each stage. The **Nascent Entrepreneur** has actively devoted resources to starting the business but the business has not yet paid wages or salaries (including to themselves) for a period of three months. The **New Business Owner** has started and is running a business and has paid wages or salaries for three months or more, but for less than 42 months, because those running a business and paying wages or salaries for 42 months or more are classed as **Established Business Owners**.

A healthy and vibrant economy would have enough entrepreneurs operating at each stage of enterprise development to ensure that there is a constant throughput of potential established and high-growth businesses. Low levels of Nascent Entrepreneurs may indicate significant barriers to

FIGURE 1.2

The entrepreneurial process and GEM indicators

⁴ Including tests of statistical significance and the estimation of confidence interval. These are not included in this Global Report for reasons of brevity.



ENTREPRENEUR HIGHLIGHT

Anna Niszkács

Owner and Managing Director of Gerbeaud Gasztronómia Kft. (Hungary)

Innovating in the midst of global disruption

Taking over a reputable family business in the midst of a pandemic is no small undertaking. Just ask Anna Niszkács, owner of Gerbeaud, one of the best-known Hungarian confectionery brands. Begun in 1858 as a stand-alone café, the Gerbeaud group now includes multiple restaurants and other hospitality services.

Prior to 2020, Gerbeaud had never needed to shut down because of a global pandemic in its over 160 years of operation. Anna, however, has experienced a different reality ever since she took over in February of that year. Essentially, she only knows what it is like to own and manage a business that is operating in the midst of disruption due to global events. Once the pandemic emerged in March 2020, all the thriving business's units had to close and Gerbeaud lost over 90% of its revenue overnight. Difficult as these circumstances were, Anna used them as an opportunity to innovate.

"The COVID-19 pandemic has been an important multiplier for us and provided us with the opportunity to rethink our well-established brands. During times of peace and normalcy, leaders are reluctant to rethink their successful products."

An example is the Gerbeaud-owned restaurant Onyx, which opened in 2007 as a pioneer in fine dining and had received two Michelin stars before the pandemic closed it down. The company took this as an opportunity to launch a large-scale professional development program.

Another of the company's units — Émile, a restaurant located in the residential area of Budapest — launched a home delivery service out



of necessity shortly after being obliged to terminate in-person dining. When on-site service became possible again in June 2021, Émile was able to improve on previous years' results thanks to its new delivery service. Just as the extreme pandemic-related disruptions were subsiding, Anna has been forced to lead Gerbeaud through another global disruption: the outbreak of the war in Ukraine (a neighbour of Hungary).

"I now see that the handling of the pandemic was an opportunity to prepare for the war between Russia and Ukraine, inflation and the rise in energy prices. COVID-19 was a disaster for companies in the hospitality sector — we are focusing on stabilizing the business. But this does not mean we're staying the same. Rather, we are looking to the future and innovating even more boldly."

new business development, while having too few Established Business Owners may suggest that not enough new businesses are surviving into maturity. On the other hand, it may also point to a dearth of innovation and new ideas, or may suggest some barriers to the sustainable entry of new firms, restricting competition and consumer choice.

The most important GEM variable is the level of Total early-stage Entrepreneurial Activity (TEA), or the proportion of the adult population that is starting or running a new business (including both Nascent Entrepreneurs and New Business Owners).⁵

The second GEM survey is the National Expert Survey (NES). Each year every GEM National Team invites at least 36 identified national experts⁶ to complete an online survey in which they each assess a number of carefully defined statements relating to their economy's entrepreneurial framework conditions. These conditions range from the availability of entrepreneurial finance to the quality and affordability of physical infrastructure, and from government policies to encourage entrepreneurship to the social support for that entrepreneurship. These assessments are used to judge the quality of the context for entrepreneurship in each economy and to calculate a National Entrepreneurship Context Index (NECI), which allows the ranking of economies in terms of their support and encouragement for entrepreneurship. This is useful to entrepreneurs since it answers a key question: where are the best places to start a new

business? It is also useful to policymakers, since not only do they get feedback on the relative conduciveness of their national business context to promote entrepreneurship but the results of the study also enable benchmarking against other national contexts.

New NES questions in 2022 focus on the pace of recovery post-pandemic and the awareness, application and prioritization of the SDGs.

Together, the APS and NES present, for each economy, a unique, comprehensive and detailed annual snapshot of national entrepreneurial activity, and of the attitudes, experiences, activities and ambitions of the entrepreneurs themselves. The APS study also delivers an in-depth and evidenced account of the values, ambitions and intentions of the majority of adults in each economy who are not, at the moment, starting or running a business, even if many know someone who is.

The data that GEM collects in relation to business exit is also significant, since by exiting businesses entrepreneurs release resources, including knowledge and experience, into the wider business context. Many of the businesses that individuals exit continue in some form or another, so exit does not necessarily mean business closure. Finally, some of those *not* starting a new business may nonetheless be investing resources, usually funding, in someone else's new business. This informal type of investment is especially important in some economies, and will also be considered later.

1.5 GEM 2022 PARTICIPATING ECONOMIES

To present the data analysis in the 2021 GEM Global Report, participating economies were solely categorized by income, using World Bank data on Gross Domestic Product per capita (GDP/cap), but introducing, for the first time, GEM's own definitions of low, medium and high income. These categories have been retained this year, and are set out below. The boundaries between categories are, of course, arbitrary, and have been chosen to give three (reasonably) even groups and to be consistent with last year. However, it should be noted that rising incomes mean that an increasing proportion of participating economies

find themselves in the high-income group. For this reason, in future reports the boundaries will require upward revision.

- Level A: economies with a GDP/cap of over \$40,000;
- Level B: economies with a GDP/cap of between \$20,000 and \$40,000;
- Level C: economies with a GDP/cap of less than \$20,000.

⁵ To avoid double-counting, minus the very few who are doing both.

⁶ That expertise may be in entrepreneurship, on the economy, on access to finance, etc. The individual expert can be from a wide variety of specialities: an academic, a financial journalist, a venture capitalist, etc. Each team utilizes a range of experts.

Level A >\$40,000	Level B \$20,000–\$40,000	Level C <\$20,000
Austria	Argentina	Brazil
Canada	Chile	China
Cyprus	Croatia	Colombia
France	Greece	Egypt
Germany	Hungary	Guatemala
Israel	Latvia	India
Italy	Mexico	Indonesia
Japan	Oman	Iran
Lithuania	Panama	Morocco
Luxembourg	Poland	South Africa
Netherlands	Puerto Rico	Togo
Norway	Romania	Tunisia
Qatar	Serbia	Venezuela
Republic of Korea	Slovak Republic	
Saudi Arabia	Taiwan	
Slovenia	Uruguay	
Spain		
Sweden		
Switzerland		
United Arab Emirates		
United Kingdom		
United States		

TABLE 1.1
Economies in GEM 2022, categorized by income group (GDP/cap)

Table 1.1 lists the economies participating in GEM in 2022, divided into these three categories, using World Bank data.⁷ These are the categories that will be used in presenting results, analyses and conclusions throughout this report.

All the economies listed participated in both the APS and NES, with the exception of Italy and Argentina, both of which participated solely in the NES. Having 51 GEM participating economies is a considerable achievement given current turbulent times. It is also a strong testament to the tenacity of GEM National Teams and their belief in the GEM project, as well as to the support of their sponsoring bodies, most often policymakers and entities that perceive entrepreneurship as part

and parcel of the solution to the current global economic challenges.

The combined total population of these 51 economies represent more than 64% of the global population.⁸ Level A includes 14 European economies, two in North America, three Gulf States plus Japan, the Republic of Korea and Israel. Level B economies are mostly from Latin America or Eastern Europe, plus Taiwan and Oman, while Level C economies are more widely spread, from Latin America, the Middle East, East Asia and Africa. None are from Europe, despite European economies comprising nearly a half of the 2022 GEM-participating economies.

⁷ World Bank data for GDP/cap (and population) was accessed on 24 October 2022, giving estimates for 2021 (those for Iran and United Arab Emirates were for 2020). World Bank data may have been revised since then. Taiwan is absent from World Bank data, so an IMF estimate has been used instead. See <https://data.worldbank.org> and <https://www.imf.org/en/Home>.

⁸ Estimated using World Bank data.

1.6 THE IMPACT OF THE PANDEMIC ON HOUSEHOLD INCOMES

Household income is an important, and broad, measure of the pandemic's impact. In 2020 and 2021, a question in the APS asked individuals whether, for each of those years, the pandemic had led "*your household income to strongly decrease, to somewhat decrease, to show no substantial change, to somewhat increase, or to increase strongly*". This question was repeated in 2022.

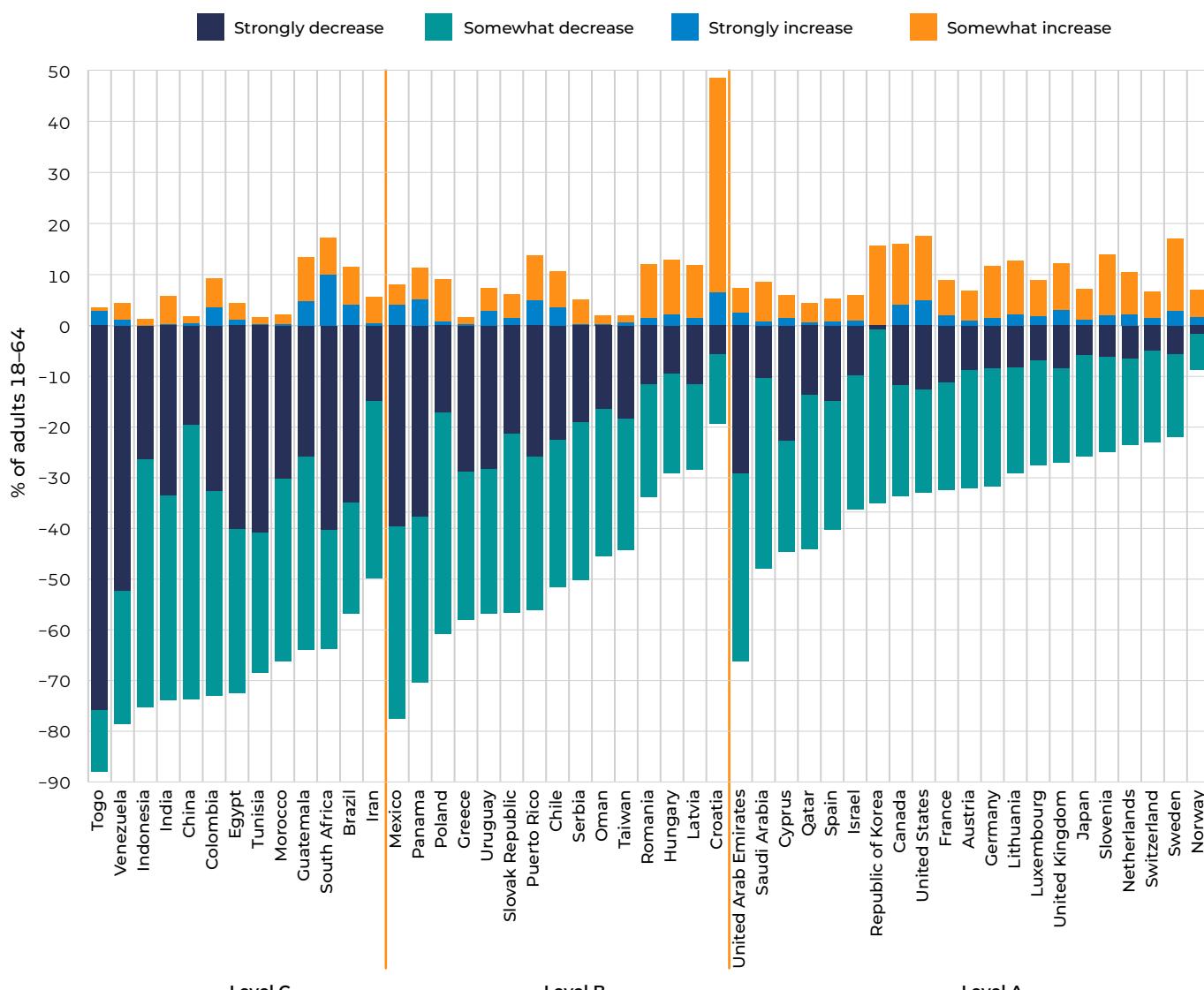
Figure 1.3 shows that the economic impacts of the pandemic were far from over in 2022. As in the previous two Global Reports, the pandemic continues to hit those hardest who could afford it least, with the highest proportions of adults

reporting a decrease in household income in the poorest economies, with the lowest proportions in the richest – although with considerable variation between countries. In Level C economies, the share of adults still reporting a decrease in household income due to the pandemic ranged from almost nine out of 10 in Togo to just a half in Iran; in Level B the range was from three out of four in Mexico to one in five in Croatia, and in Level A economies from two out of three in the United Arab Emirates to less than one in 10 in Norway. This high variation in impact may reflect a number of factors, such as the wide diversity of approaches to managing the pandemic, different

FIGURE 1.3

The impact of the pandemic on household income

Source: GEM Adult Population Survey 2022



ENTREPRENEUR HIGHLIGHT

Maxwell Peng

Founder of VMFi (Taiwan)

The power of pivoting

Maxwell Peng, an entrepreneur based in Taipei, was passionate about bringing innovation to the in-person event space when he launched VMFi in 2020. The company's 5G Blazing Fast AI Speech Translation System encourages multi-language visitors to attend the same event. Backed by 5G and AI technology, the scalable speech translation turnkey solution reduces dependence on costly interpreters and radio technology during face-to-face meetings, conferences and exhibitions.

As the pandemic halted all in-person gatherings, Maxwell knew he needed to pivot and create a digital solution:

"The pandemic pushed VMFi to evolve speech translation services from offline only to online. We evolved to offer speech translation services for any offline event and online webinar at the same time."

In addition to addressing concerns around COVID-19, the product also addresses a challenge faced by those with hearing impairments:

"We show both captions and subtitles. This can prevent overseas travellers and local staff both from COVID-19 infection, providing security without a language barrier. Our service can be deployed at any location in the world via wireless broadband service."

As VMFi moves into the future, Maxwell can always look back to a time period when a global disruption necessitated a successful pivot.

論壇收聽 5G即時 AI中文語音翻譯

3步驟操作說明：



Step 1

下載 App VM-Fi AI



Step 2

設定 Wi-Fi 連線

帳號: VM-Fi_5G_AI

密碼: 12345678

翻譯服務提供
VM-Fi™
VM-Fi™ CES INNOVATION AWARDS 2022



Step 3

開啟App，
點選「播放錄音」

* 注意

煩請勿戴耳機
切勿將耳機



social and cultural factors affecting the reaction of populations, and, importantly, the willingness (and ability) of governments to introduce and sustain support packages for individuals and businesses.

Amongst these 49 economies, Croatia in particular stands out, with the second lowest proportion of adults reporting a decrease (just one in five – only Norway had less), and almost one in two adults even reporting an increase in income, by far the highest of the 49 economies. The next highest were the United States and South Africa.

Although Figure 1.3 presents a relatively bleak picture, there are some signs that it may be slowly improving. A total of 37 economies participated in the GEM APS in both 2022 and 2021, and so

answers to the same question in both years can be compared for these economies. In 26 of those 37, the proportion of adults reporting that the pandemic has decreased their household income had fallen, the largest falls being in India (from 98% to 74%) and in Canada (46% to 34%). The largest increases were in Germany (from 21% to 32%) and in Romania (21% to 34%). However, more generally, while the totals reporting a decrease are still high, the numbers selecting “strongly decreases” have gone down, and the numbers selecting “somewhat decreases” have risen. This appears to indicate a sluggish shift to recovery despite the overall gloom implied in Figure 1.3.

1.7 CONCLUSION

While the economic and social impacts of the global chaos created by the pandemic and the war in Ukraine continue to reverberate throughout the global economy, many of those impacts have been amplified by the ensuing supply-chain difficulties and rapidly rising energy costs. In these circumstances, to have so many economies participating in the 2022 GEM research program is a considerable achievement. Credit is due to those national teams that carried out the research, sometimes under extremely difficult circumstances. Four of those economies share a border with Ukraine (Hungary, Romania, Poland and the Slovak Republic). The picture of how entrepreneurs are coping in these circumstances will be developed in subsequent chapters.

For now, suffice it to note that, as in 2021, the poorest economies continue to be worst affected by the lingering impacts of the global pandemic. The economic crisis stirred by the war in Ukraine has not improved matters. The consequences are significant, bearing in mind that, before the pandemic struck, extreme poverty rates had been steadily declining for over two decades. The United Nations was confident about achieving the eradication of extreme poverty, in line with one of the aforementioned SDGs. This

positive trajectory promised great hope for the future, but within a very short period has been greatly jeopardized by the current volatility and uncertainty, again exacerbating inequalities. In any case, while starting a new business will continue to be an option even in such challenging economic contexts, there is a new wave of entrepreneurs, often operating informally in developing economies, who now simply have to earn a living through entrepreneurship because jobs are so scarce. However, these businesses are most unlikely to transform into value-adding growth-oriented businesses for those economies.

This year’s report presents analysis of large-scale population survey results from 49 economies across the globe. All continents are represented in the participating economies except for the Arctic, Antarctic and Australasia, although some are better represented than others. Nevertheless, the results presented in this report provide a comprehensive and timely overview of the level and nature of early-stage entrepreneurship across the world, and an informative guide to social attitudes and perceptions of entrepreneurship, together with a careful expert assessment of the entrepreneurial ecosystem in each participating economy.

The Social and Cultural Foundations of Entrepreneurship

Stephen Hill and Jeffrey Shay

2.1 THE INFLUENCE OF SOCIETY AND CULTURE

Starting a business can be considered very much a personal choice. How entrepreneurship is viewed, including whether it is seen as an attractive career choice, depends in part on the social and cultural context of the individual. In the developed world, it is very easy to assume that a common career path is to go from school to college, then on to a full-time job with a good employer. In the less developed world, where earning a living may be much more difficult, working for yourself may seem a necessity.

However, the role of social and cultural context is not just about the stage of development. The level of early-stage entrepreneurial activity varies considerably, both within and between income groups. For example, high-income economies like Canada and Saudi Arabia consistently have much greater levels of entrepreneurial activity than equally high-income Germany and Norway. Similarly, low-income Brazil and South Africa typically have much higher levels than low-income Morocco and Iran. These within-income-level differences may reflect social mores and cultural attitudes, such as how the collective good is viewed compared to individual success, and how people and groups weigh risk against reward.⁹

So attitudes and perceptions are not solely intrinsic to the individual: they are shaped and constructed by family and social values, themselves reflecting tradition and culture. GEM

assesses an economy's social and economic context in two important ways. The Adult Population Survey (APS) asks all individual participants a number of questions about their attitudes, actions and intentions. Some of the results of these questions will be considered and assessed in this chapter. The second way that an economy's context is assessed is via the National Expert Survey (NES), asking national experts within that economy for their judgement of that economy's environment with regard to entrepreneurship, including factors such as access to entrepreneurial finance, educational programs to develop entrepreneurship, and social support for those starting their own business. The results of the NES are discussed in detail later in a separate section ("The Context for Entrepreneurship", p. 105), but individual perceptions and national framework conditions for entrepreneurship are clearly interrelated.

Global and regional contexts will also influence attitudes and perceptions. The pandemic has changed, perhaps forever, the culture of using digital technologies in accessing and delivering information, products and services, and even influenced new forms of collaboration, like working from home, online shopping, or fast food deliveries. These may be permanent shifts in the ways that digital technologies are utilized and, in turn, perceived.

Meanwhile, economies and societies do not stand still, so attitudes, expectations and intentions also evolve. This chapter discusses some of these changes, including some limited pre- and post-pandemic comparisons. Opportunities need to be recognized before they can be grasped, so the APS enquires about seeing

⁹ Sahasranamam, S., Nandakumar, M.K., Pereira, V., & Temouri, Y. (2021). Knowledge capital in social and commercial entrepreneurship: Investigating the role of informal institutions. *Journal of International Management*, 27(1). doi: <https://doi.org/10.1016/j.intman.2021.100833>

good opportunities to start a business locally, and whether starting a business is easy.

Finally, investing in someone else's new business, known as informal investment, is an important dimension of entrepreneurial activity

in some economies. This can be a crucial source of finance for new entrepreneurs in those economies. This chapter will consider the proportion of adults investing in someone else's startup¹⁰ in 2022, and the median level of investment for those that did.

2.2 THE RECOGNITION OF OPPORTUNITIES

Before examining opportunity recognition directly, there is another social and cultural dimension to consider. The perception of entrepreneurship as a viable career choice may well be influenced by whether the individual personally knows someone who has recently started a business. The answer to this question is not just about the level of entrepreneurial activity in a particular economy — it is also about the positive (or negative) publicity, and other forms of social reaction, increasingly expressed online, given to those starting their own business.

Figure 2.1 shows the proportion of adults in each participating economy reporting that they know at least one person who has started their own business in the past two years. Across all 49 economies, the highest level was in Saudi Arabia,

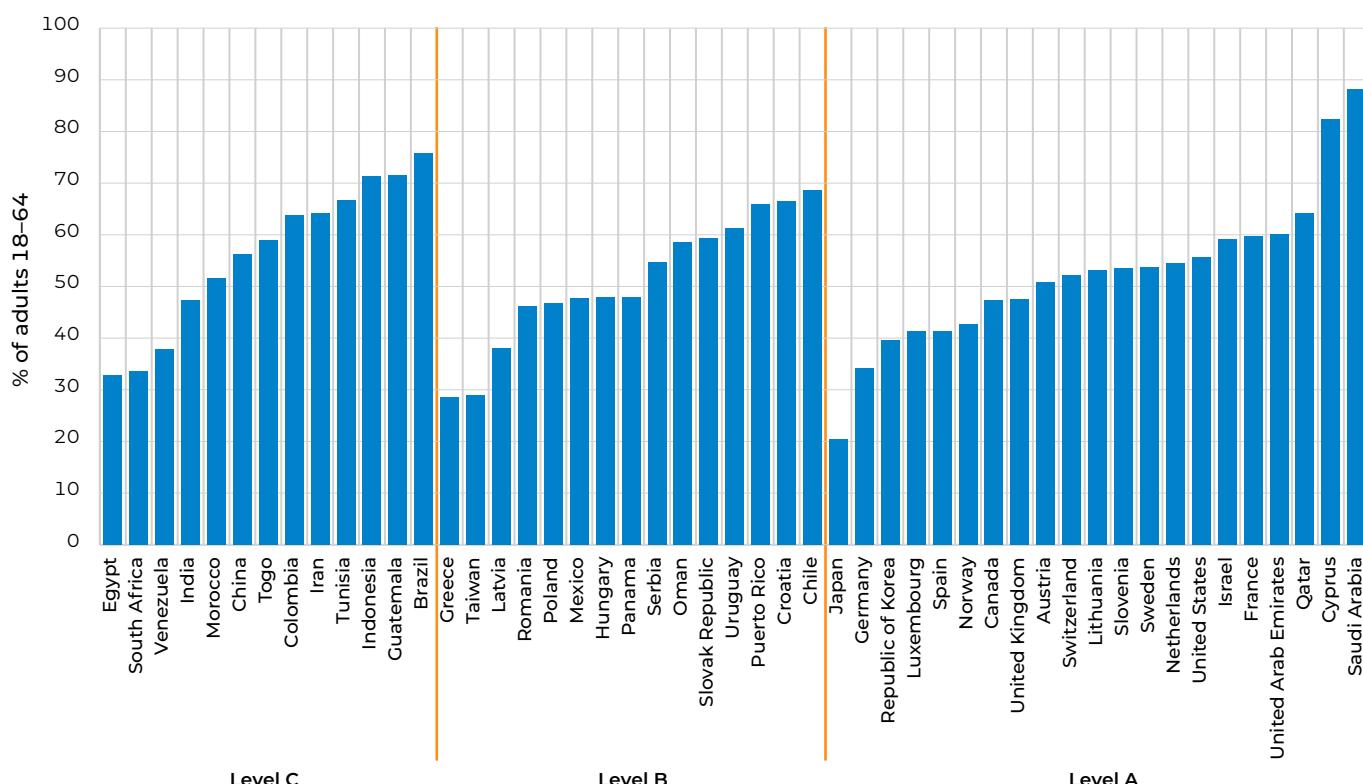
at almost nine in 10 adults, and the lowest level in Japan, just two out of 10.

There is substantial variation in the share of adults knowing someone who has started a new business within income groups, with perhaps some weak indication that rising levels of income reduce the likelihood of an adult knowing someone who has recently started a business. It may be easier to know an entrepreneur in a small economy like Cyprus or Qatar, than in a large economy like Japan or Egypt, although the chart does include exceptions.

FIGURE 2.1

Knowing someone who has started a business in the last two years (% adults)

Source: GEM Adult Population Survey 2022



10 The terms “starting a new business”, and “startup”, are used interchangeably in this Global Report.

ENTREPRENEUR HIGHLIGHT

Tatiana Pimenta

CEO & Founder, Vittude (Brazil)
Cartier Women's Initiative Fellow, 2019

Democratizing access to mental health services

Nearly a billion people around the world live with a diagnosable mental disorder. Many do not have access to effective care for various reasons. According to the World Health Organization, Brazil leads the world in anxiety cases and ranks fifth for cases of depression. Public health support for treatment remains low, so many Brazilians living with mental health conditions are not getting the care they need and deserve.

Tatiana Pimenta experienced this first-hand. A successful business executive, Tatiana faced a host of personal challenges in 2012. Anxious to avoid a negative impact on her career, she sought therapy, but this brought its own set of problems. After frustrating and unhelpful sessions with inexperienced psychologists, she finally found a reputable practitioner. Said Tatiana:

"His office was 11 km away and traffic in São Paulo is atrocious. It took nearly three hours to get there and back every time. I got to thinking, 'Couldn't it be easier to connect patients with therapists?'"

In 2016, she launched a company, Vittude, with an ambitious mission: to democratize access to mental health services by removing the financial barrier to mental health care. As a B2B2C-driven marketplace, the company connects high-quality psychologists to individuals and corporations.

The platform combines behavioural science, AI technology and human interaction to optimize personal growth and professional development in support of a person's whole health, at work and in life. With Vittude Match, the company is positioned to provide a highly personalized employee experience driving not only well-being but also growth and peak performance.

Vittude Match helps eliminate trial and error by using machine-learning models to match each employee to the most effective care.



Since its founding, Vittude has built the largest network of qualified psychologists in Brazil.

In the past two years, Vittude's annual revenue has grown fivefold and its total customer base twentyfold. To date, it has served over 100,000 members, and the number of psychotherapy sessions has more than tripled year-on-year, as the willingness to invest in employee well-being and development has been growing significantly.

Today, Vittude serves over 70 enterprises, including SAP, L'Oréal, Saint-Gobain, Grupo Boticário and Banco do Brasil.

Tatiana said:

"I'm very happy and grateful for all we have built in the past years. There is a lot of work to do concerning mental health awareness. I strongly believe we have the opportunity to positively impact millions of people."

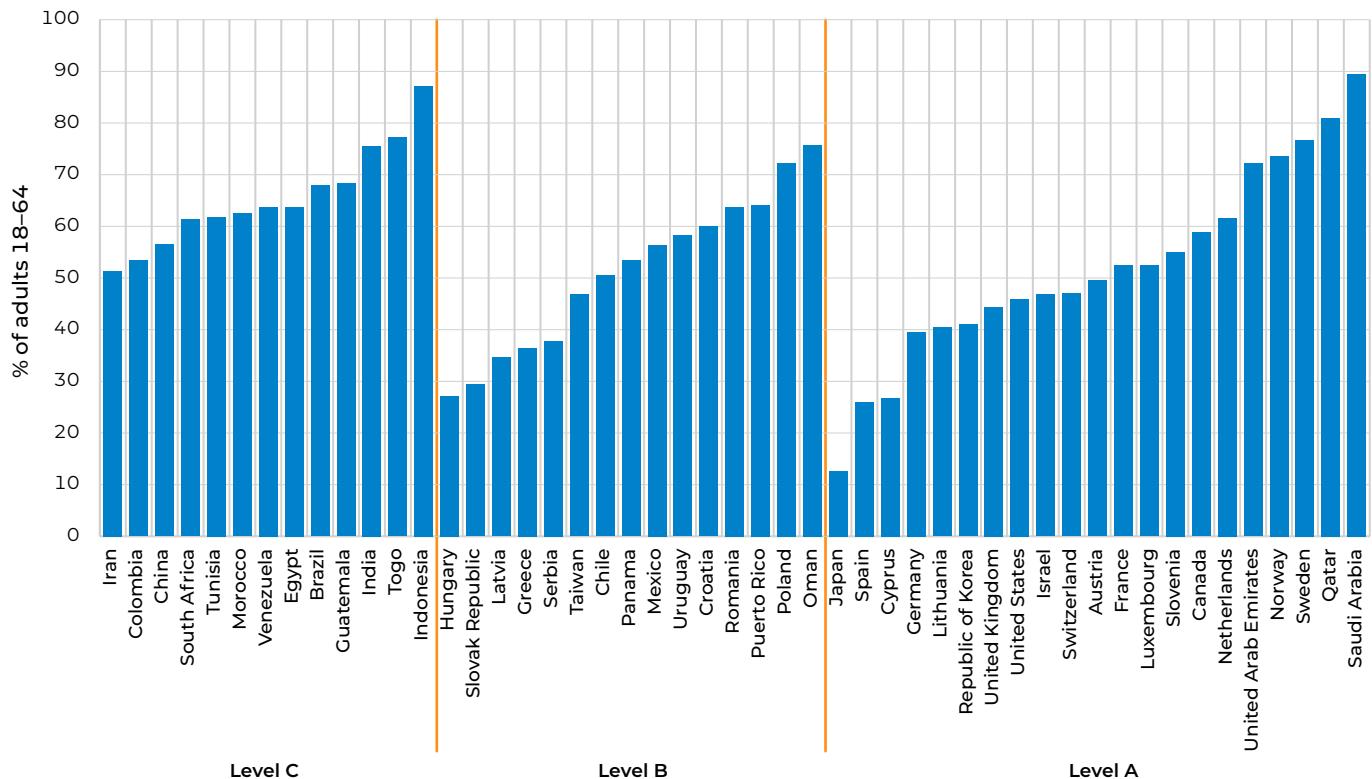


FIGURE 2.2

In the next six months, there will be good opportunities to start a business in my area
(% adults agree)

Source: GEM Adult Population Survey 2022

Figure 2.2 compares the proportion of adults agreeing¹¹ that, in the next six months, there will be good opportunities to start a business locally. The highest level is again in Saudi Arabia (and again almost nine out of 10), but now closely followed by Indonesia. Japan again has the lowest level (just one in eight). More generally, in all of the Level C economies, in nine out of 15 Level B, and in 10 out of 21 Level A economies, more than half of adults agree there are good opportunities locally; but in five economies less than one-third of adults agree with this (Japan, Spain, Cyprus, the Slovak Republic and Hungary).

It may be anticipated that the pandemic has reduced the share of adults agreeing that there will be good opportunities to start a business locally, either by reducing those opportunities or by decreasing their visibility, or perhaps some combination of the two. One simple, but inevitably inconclusive, way to assess this is to compare the proportion of adults agreeing

there are good opportunities locally in the same economy before the pandemic (2019) and after what is surely the full brunt of the pandemic (2022).

Figure 2.3 compares the proportions agreeing there will be good opportunities to start a business locally in 2019 and 2022 for the 37 economies that participated in GEM research in both years. Even if these proportions had changed in the same direction (which they didn't), this analysis would be inconclusive, because neither 2019 nor 2022 may be representative years. Nevertheless, if changes of less than, say, an arbitrary five percentage points are discounted as small differences, the proportion of adults agreeing to good opportunities locally fell by more than this in 12 economies. These included falls of 21 percentage points in the United States, 18 in China and 15 in Poland. However, nine economies had a proportion of adults agreeing to good opportunities locally that had increased by five percentage points or more, including Puerto Rico (+25), Brazil (+21) and Saudi Arabia (+16). Inevitably inconclusive indeed. Even this limited evidence makes it clear that the impact of the pandemic on opportunity recognition has been very diverse. In some economies, the pandemic may have heightened perceived opportunities,

¹¹ APS questions like this ask respondents if, for some statement, they strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree or strongly disagree. For brevity, this chart, and others throughout this Global Report, combines "strongly agree" and "somewhat agree" to present the percentage of adults agreeing.

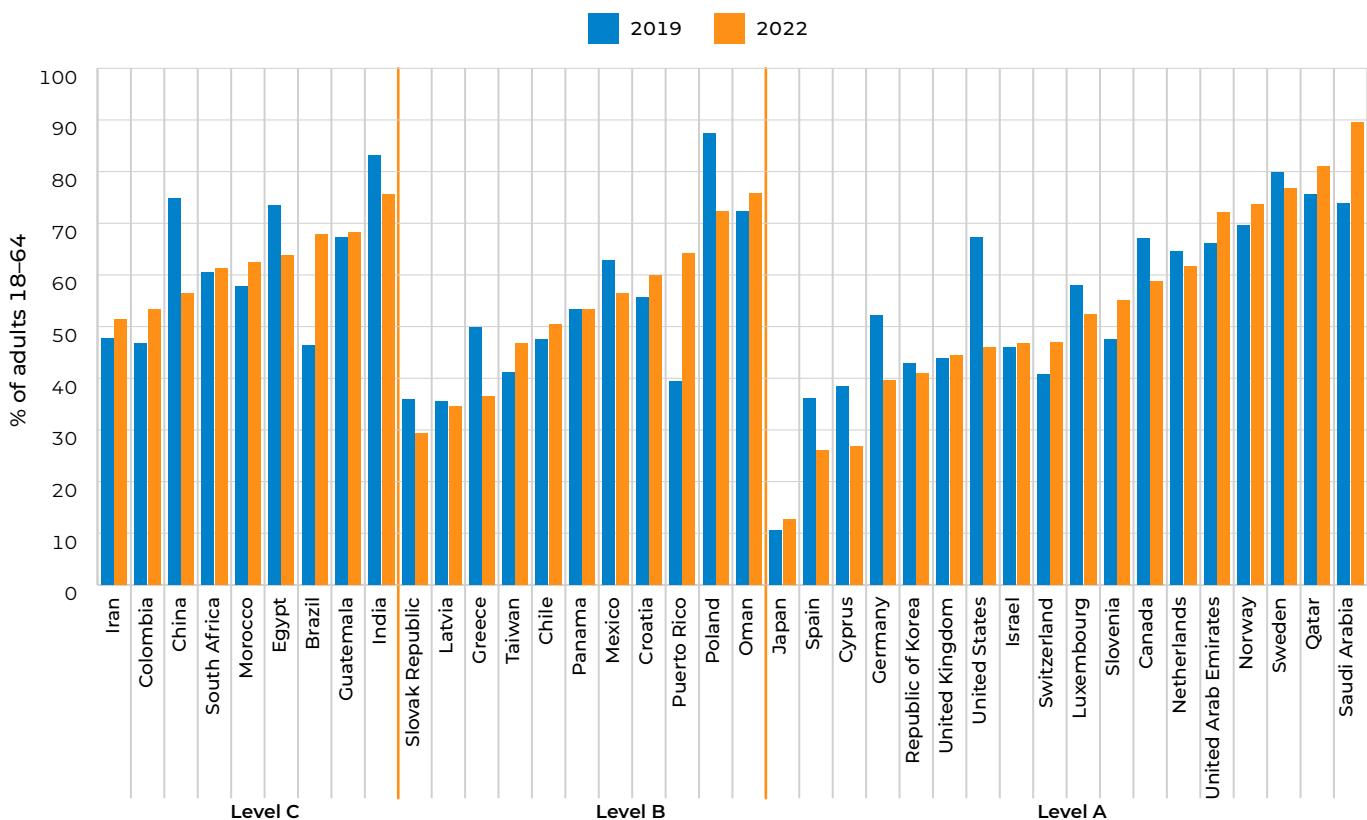


FIGURE 2.3 In the next six months there will be good opportunities to start a business in my area (figures for 2019 and 2022, 37 economies; % adults agree)

Source: GEM Adult Population Surveys 2019 and 2022

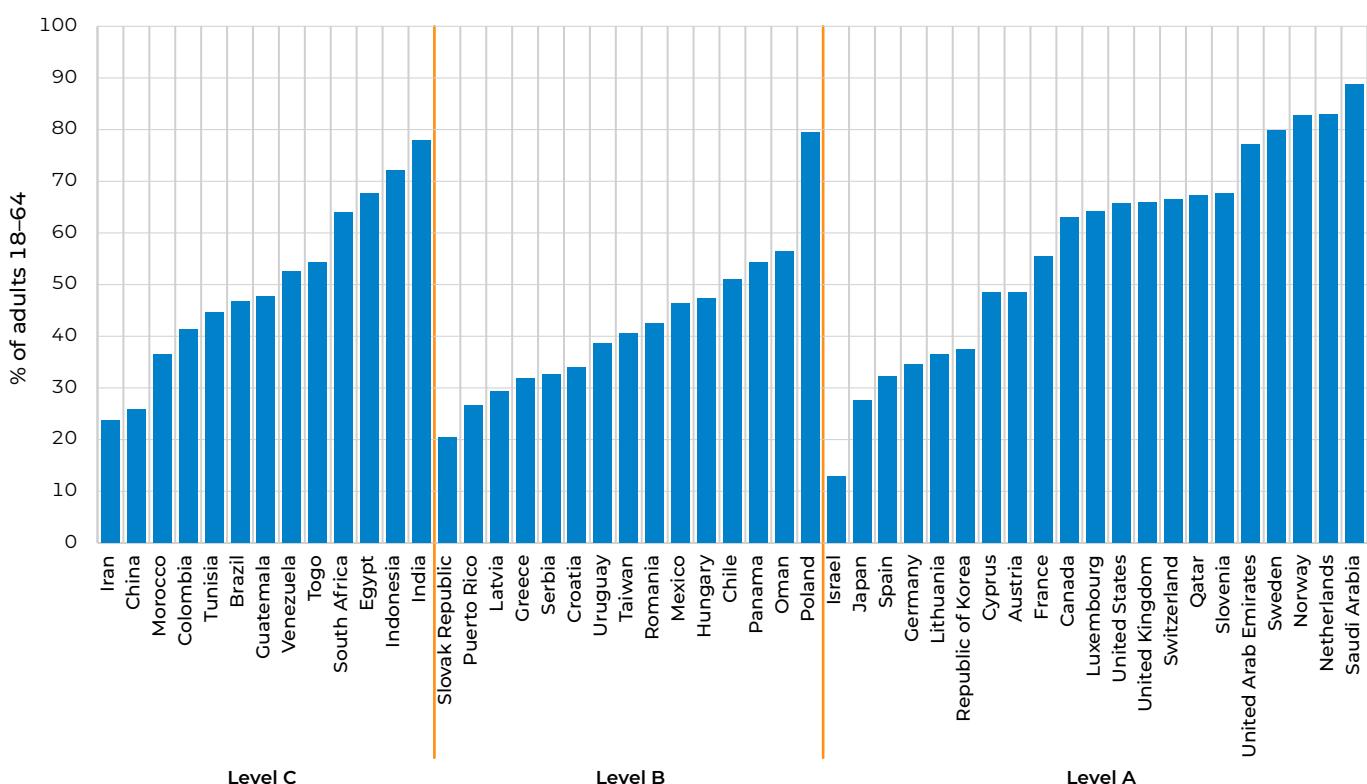


FIGURE 2.4 In my country, it is easy to start a business (% adults agree)

Source: GEM Adult Population Survey 2022

Yi Wang

Founder, Anban Tech (China)

The motivations of a serial entrepreneur

Some entrepreneurs are committed to finding a solution to a problem by means of starting and owning one company. Then there are individuals like Yi Wang, a serial entrepreneur who has been starting businesses since his student days and is now involved with his seventh venture. The latest is Anban Technology, founded in 2018.

"From the experiences with my other ventures, I am deeply aware that software is swallowing the world. With autonomous driving, people will even hand over their lives to software. Safety goes far beyond traditional information security. The current old testing paradigm relies on manual and static analysis that struggles to cope with the expanding code scale."

Anban Technology is addressing this tension. Since its founding, the company has become a leader in the commercialization of intelligent fuzzing, a paradigm-shifting opportunity in the testing field that is driving a productivity revolution in software development. Recently, Anban Technology completed a financing of over 100 million yuan, which is the largest A round of financing in the field of software safety in China.

"We will continue to ensure software safety in various industries, so that developers can



focus more on innovation and practice, and prevent software defects from being the Achilles heel that threatens mankind."

The results are thanks to his experiences in leading six other companies as well as his education at ShanghaiTech University.

"It is not enough to have ideas. The School of Entrepreneurship and Management at ShanghaiTech University has served as my guide, expanding the boundaries of my cognition and the depth of my thinking, while providing a solid theoretical support for my entrepreneurial practice."

and in others it may have had the opposite effect. There is an evident need for further research into the factors that influence opportunity recognition.

Even those who consider there will be good opportunities to start a business locally may hesitate if they think that starting a business is difficult. Figure 2.4 sets out the proportion of adults in each economy who agree that it is easy to start a business. This chart has a strong resemblance to the earlier Figure 2.2 (although note that, within income groups, economies may be ordered differently), suggesting strong correlation between the percentage seeing good

opportunities and the percentage agreeing it is easy to start a business. Once more, Saudi Arabia has the highest level and Japan the lowest. This relationship may be important for policymakers in creating environments in which individuals perceive starting a business as easy, perhaps as a result of favourable policies, support and training, because it is in those environments that individuals see good opportunities for starting a business that will ultimately employ people.

Within income Level C, Iran scored the lowest in both charts, but here the percentage seeing

good opportunities was over twice that of those agreeing it is easy to start. India had around four in five adults agreeing with both. In Level B Poland had more than seven out of 10 agreeing

with both, while the Slovak Republic had less than one in three. Finally, in Level A, Sweden had more than three out of four agreeing with both, while Spain had less than a third.

2.3 CAN I START A BUSINESS?

The answer is clearly yes. Businesses start in the most difficult circumstances, sometimes run by people with very few resources of capital, skills or experience. And, yes, some of these businesses succeed – but these are typically few and far between. Seeing opportunities is important, as is believing that it is easy to start a business, or at least that obstacles can be overcome. But even that may not be enough if you don't think you have the skills or experience to start a business, or if the fear of failure prevents you from doing so. Both may be cultural issues. Questions in the GEM APS explicitly address these issues. Figure 2.5 charts the percentage of adults in each participating economy who agree they have the skills and experience to start a business, while Figure 2.6 plots the percentage of those seeing good opportunities (as shown in Figure 2.2) who agree

they would not start a business because of fear of failure.

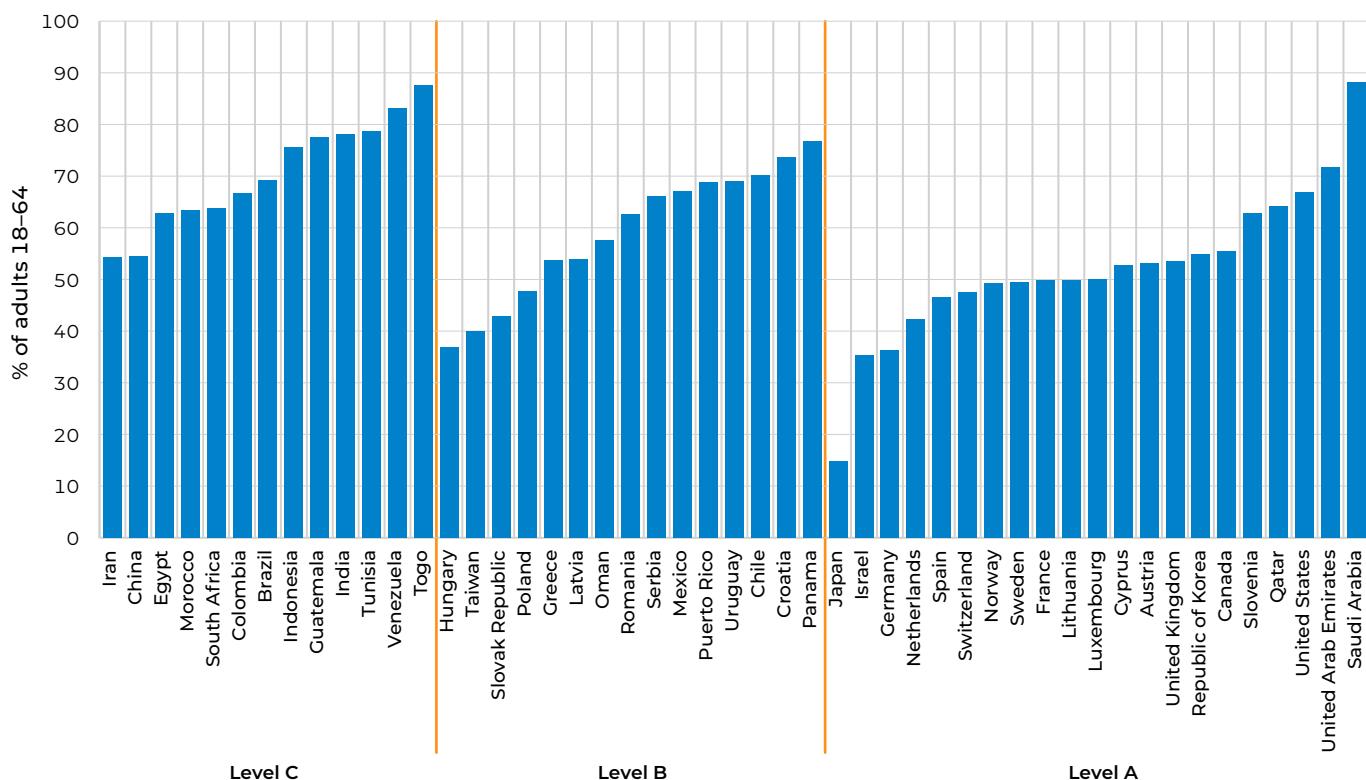
As with knowing an entrepreneur, seeing good opportunities and agreeing it is easy to start a business, confidence in having the skills and experience to start their own business is highest in Saudi Arabia, and lowest in Japan. However, in this case, agreement appears to decline as income rises. In all economies in Level C, a half or more of adults agree they have the skills and experience to start. This is also true of 11 out of 15 Level B economies, but just 11 out of 21 Level A economies. Of course, the knowledge, skills and experience needed to start a business may vary by location. What Figure 2.5 demonstrates, however, is wide variation in self-belief.

Figure 2.6 is a bit different, showing the proportion of those seeing good opportunities to

FIGURE 2.5

I have the knowledge, skills and experience to start my own business (% adults agree)

Source: GEM Adult Population Survey 2022



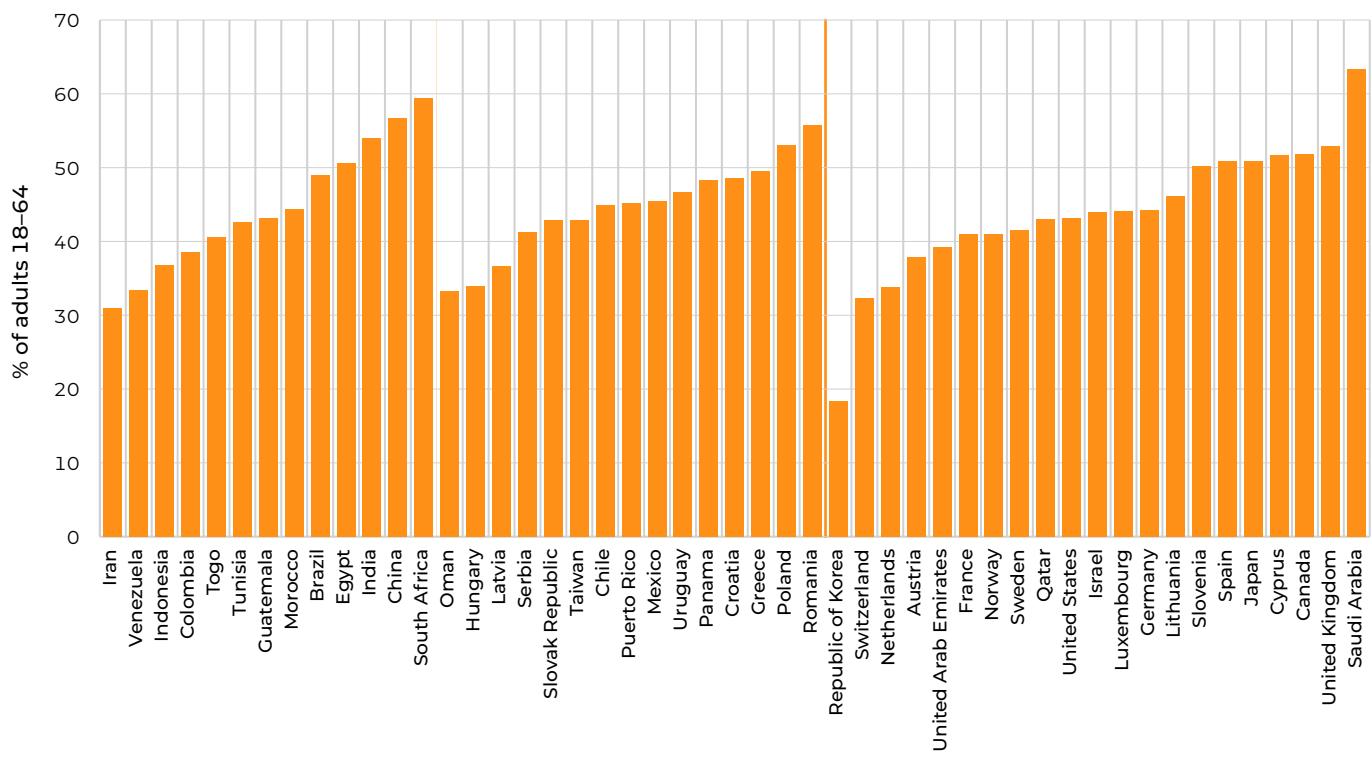


FIGURE 2.6

You would not start a business for fear it might fail
(% of those agreeing there are good opportunities locally)

Source: GEM Adult Population Survey 2022

start a business locally who would be deterred from doing so by the fear of failure. It is not unusual for new businesses to fail, so being afraid of failing is a natural, if not universal, characteristic of those starting a business. The act of starting a business demonstrates the ability to overcome those fears.

While Saudi Arabia has the highest share of those seeing good opportunities who would be deterred by fear of failure (just under two in three), the lowest proportion is in the Republic of Korea, just less than one in five.

Certainly, the fear of failure is a widespread obstacle to starting new businesses. In 37 out of the 49 participating economies, more than 40% of those who agree that there will be good opportunities locally would be deterred from starting a business by the fear of failure. Only three economies had less than one in three deterred (Republic of Korea, Oman and Iran). Finding ways to overcome this fear (for example, by reducing the costs of failure) may be a quick way to increase startups in many economies. Having scored so well on seeing opportunities to start a business, believing it easy to start, and in seeing themselves as having the skills and experience to do so, Saudi Arabians are conspicuous at the top of the fear-of-failure table.

There is a clear need for more research into the perceived financial, social and psychological impacts of business failure, and policies to mitigate these that might better turn intentions into new starts.

One consequence of the variation in all these factors may be differences in the proportion of adults who expect to start a business in the next three years. While intentions typically run ahead of actions (it is, after all, easier to intend to diet than to diet!), the intention to start a business may be an indicator of the entrepreneurial intensity of a given economy. Intending to start a business may be a necessary, if not sufficient, condition for doing so.

Figure 2.7 shows the proportion of adults expecting to start a business in the next three years, and shows much more variation than the previous charts, both within and between income levels. Brazil, Panama, Togo and Tunisia lead the way, each with more than a half of their adults intending to start. Across the income levels, more than one in three adults expect to start a business in seven out of 13 income Level C economies, three out of 15 Level B and just two out of 21 Level A economies. Less than one in 10 adults share that expectation in two Level C economies, five Level B and Five Level A economies.

ENTREPRENEUR HIGHLIGHT

Andrés González-Silén

*Co-founder and Chief Executive Officer,
Venemergencia (Venezuela)*

Making a difference in the health care space

Many entrepreneurs around the world start their businesses with a motivation to help others. One such individual is Andrés González-Silén, founder of Venemergencia, an innovative Venezuelan company working in the health care space.

"From an early age I was clear about my purpose: to serve other human beings just like my father and grandfather did as doctors."

Originally from Venezuela, González-Silén had the opportunity to complete his last years of high school in the UK. He opted against this.

"I felt that good doctors were more needed in a place like my home country — Venezuela. I fulfilled my dream of becoming a Venezuelan doctor in 2011 and started in a public hospital."

These initial years as a doctor gave González-Silén the opportunity to witness issues facing the health care system. One concern was that patients were visiting the hospital unnecessarily, simply in the absence of other options. If these patients were seen at home, better care could be provided while generating cost savings.

González-Silén launched Venemergencia in 2005 so that patients could receive quality care in the comfort of their own homes. By 2015, Venemergencia had served 3.5 million patients with a comprehensive approach of progressive home-first health care that starts with real-time telemedicine, home consults and ambulances. It prevents up to 85% of unnecessary clinic visits.

"When patients can stay at home, it has a dramatic impact on quality of life and leads to significant cost savings."

Venemergencia now employs over 550 people and is considered a leader in the health care sector. The not-for-profit company educates paramedics and provides emergency

medical services in vulnerable communities. In the midst of the 2017 Venezuelan migratory crisis, Venemergencia provided peace of mind for those leaving the country by being available for loved ones remaining in Venezuela in cases of emergencies.

"We made it possible through an online platform that allowed them to get a health care plan with insurance for their families back home without the need of medical exams, few exclusions and without age limits."

With the learning from this experience, Venemergencia created Asistensi in March 2020; it is operating this service in six countries that are susceptible to migration shocks.

In conclusion, González-Silén said:

"I have always wanted to pursue my dreams and serve as much as I can, following the steps led by great leaders."



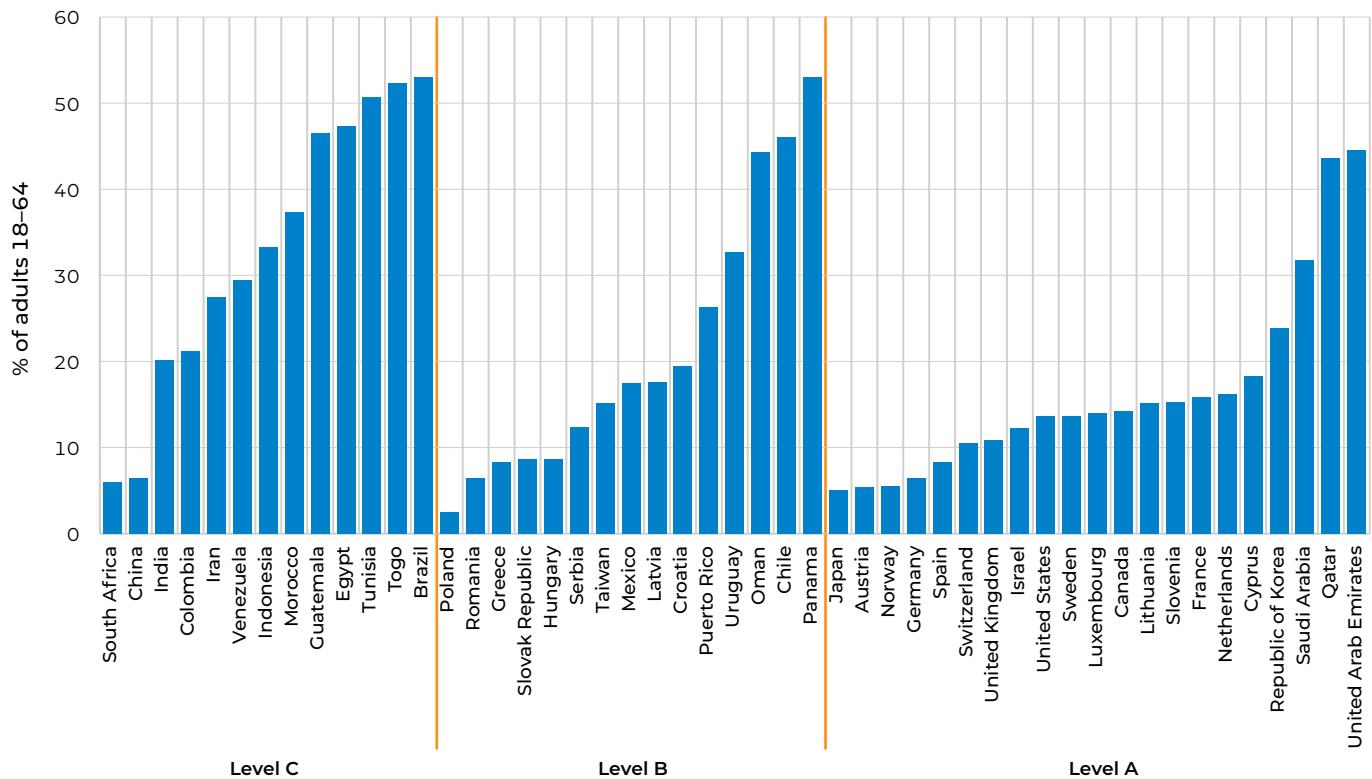


FIGURE 2.7

Are you expecting to start a business in the next three years? (% adults responding yes)

Source: GEM Adult Population Survey 2022

There is similar variation within each income group, with the share of adults¹² expecting to start a business in the next three years varying, from less than one in 10 to more than four in 10, in all three income groups.

Of the 49 participating economies, there are 14 in which more than three in 10 adults expect to start a business in the next three years. Despite making up almost a half of the GEM participating economies in 2022, none of these are from Europe.

2.4 INVESTING IN SOMEONE ELSE'S BUSINESS

Involvement in a new business can take many forms, indirect as well as direct. Starting a new business requires access to resources, including finance. It is tempting to picture the new startup as capital- and knowledge-intensive, in smart new shared-space offices. The reality is usually very different – businesses are often started on a shoestring, using whatever money can be cobbled together from savings, overdrafts, credit cards and, often, family, friends and colleagues. Informal investment is the act of investing money in someone else's new business, and is a very particular form of entrepreneurial activity that may be driven by family loyalty, or by friendship, just as much as by the expectation of future returns.

The GEM APS asks respondents whether, in the past three years, they have provided funds for a new business started by someone else. The percentage of adults responding positively is shown in Figure 2.8. While investing money in someone else's new business is clearly a minority activity, it is certainly significant in a small number of economies. The percentage was highest in Chile, where 22% of adults had invested in someone else's new business, half as much compared to the next highest (14% in Guatemala). Only five of 49 economies had more than one in 10 adults investing in someone else's startup (Saudi Arabia, Togo, Brazil, Chile and Guatemala). At the same time, 14 of the 49 economies had less than one in 40 adults investing in someone else's new business.

Geographically, the highest levels were in three Latin American economies (Chile, Guatemala

¹² Strictly, this is the share of those adults not already engaged in entrepreneurial activities.

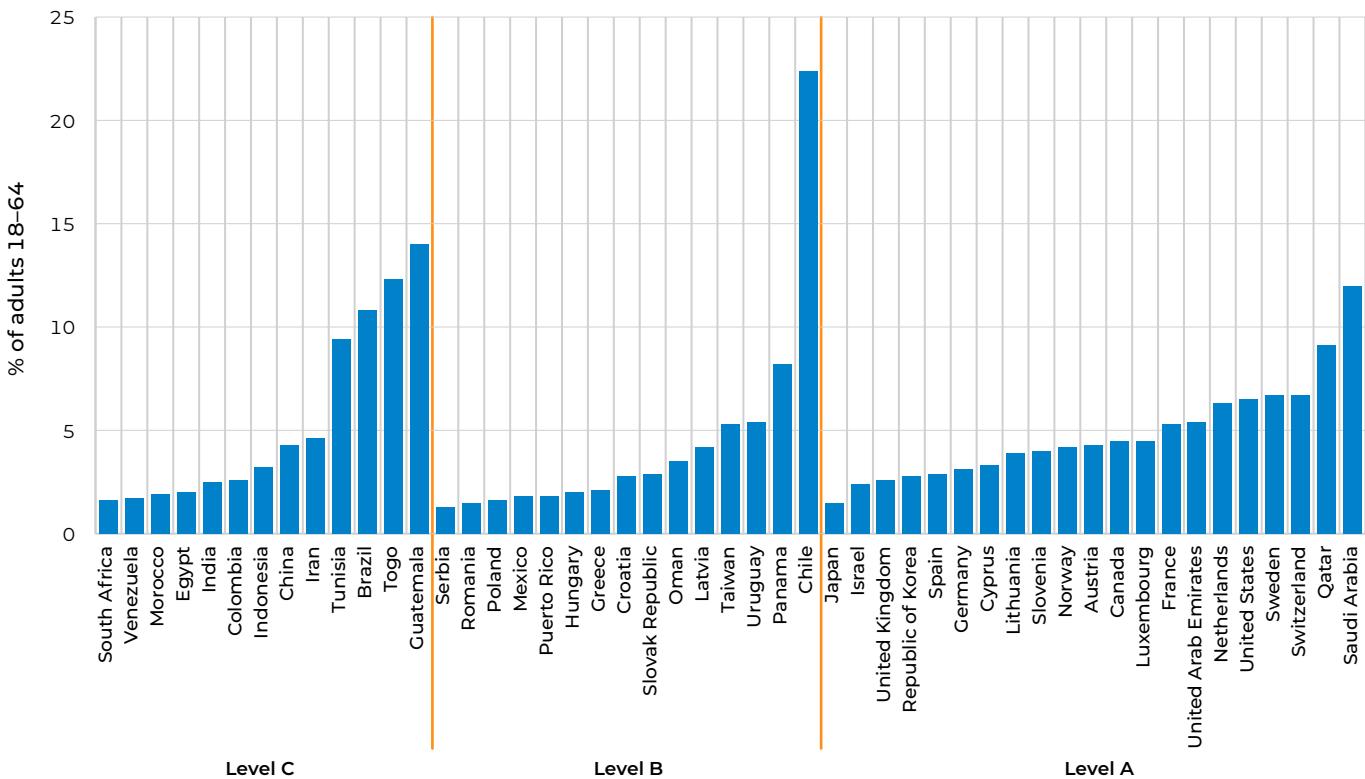


FIGURE 2.8 Informal investors (% adults)

Source: GEM Adult Population Survey 2022

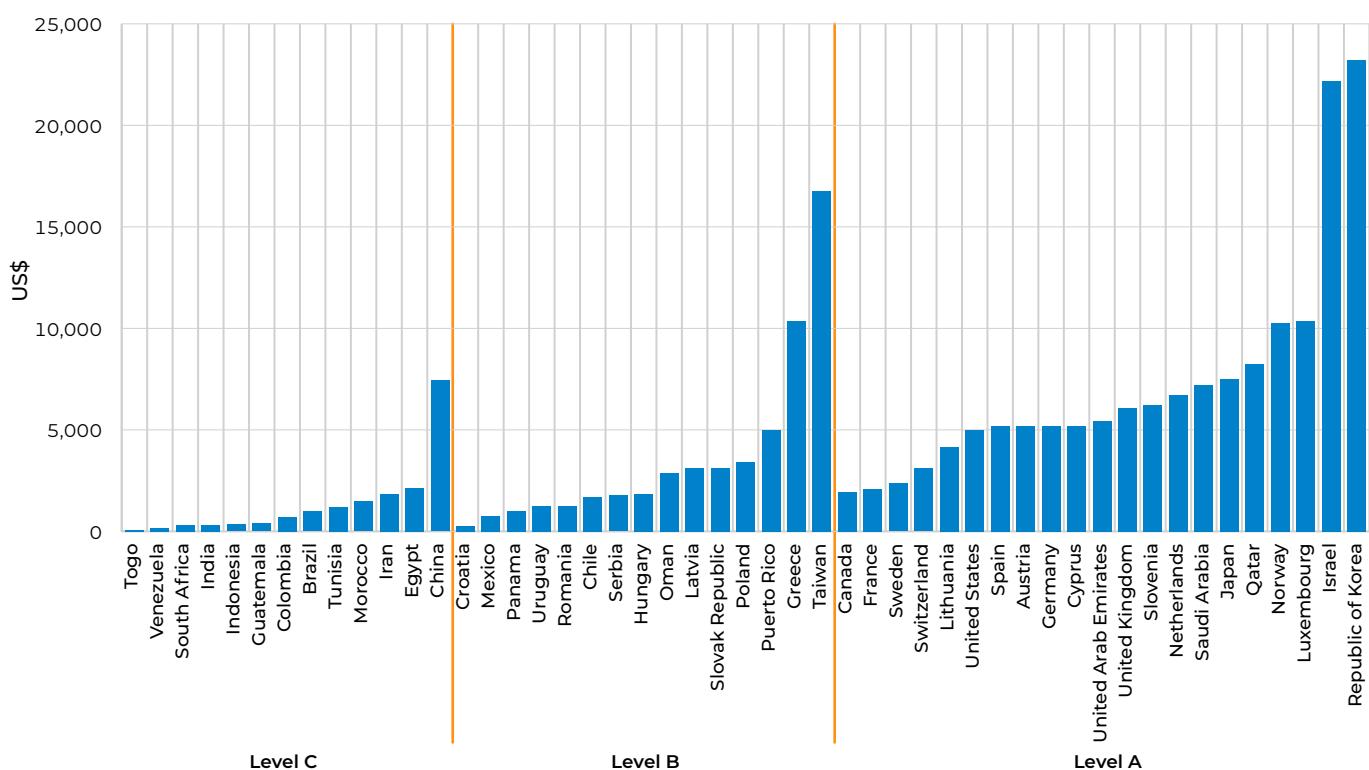


FIGURE 2.9 Median amount invested (\$US) by those investing in someone else's new business

Source: GEM Adult Population Survey 2022

ENTREPRENEUR HIGHLIGHT

Andrea Barber

Co-founder of RatedPower (Spain)
Cartier Women's Initiative Fellow, 2021

Creating change in clean energy systems

Renewable energy can play a significant role in mitigating the impact of climate change. However, designing and building large renewable energy plants is a time-consuming process.

Andrea Barber saw first-hand the complexity of designing and engineering large solar plants. Determined to do something about this, she co-founded RatedPower with the mission of digitizing the renewable energy industry and



maximizing clean energy's potential through a software as a service (SaaS) strategy. RatedPower helps solar photovoltaic (PV) energy enterprises design and engineer utility-scale PV plants, thereby furthering a green transition to clean energy systems. Andrea said:

"We developed cloud-based software to instantly carry out the design and engineering of large-scale solar plants to accelerate the transition to solar energy. We've always loved thinking outside the box to make things more efficient."

Despite concerns about the global economy, RatedPower's customers have not reduced their software acquisition budgets. Massive deployment of renewable energy is a critical part of most governments' responses to both COVID-19 recovery packages and policies to fight the effects of the war in Ukraine. This includes REPowerEU in the European Union and the Inflation Reduction Act in the United States.

Andrea noted:

"The fact is that diversifying the global energy mix is key for both fighting climate change by reducing greenhouse emissions and guaranteeing world security. Renewable energy — specifically solar photovoltaics — is playing a role."

In addition to the impact she is creating at RatedPower, Andrea is also co-founder of Vostok 6, a podcast in Spanish that aims to raise the visibility of women who are breaking barriers and doing incredible work in different areas. Andrea is positioned 30th in the current Choiseul 100 Spain ranking of Future Economic Leaders and has recently been chosen by *Forbes* as one of the 100 Most Creative People in Business from Spain.

and Brazil), two in Africa (Togo and Tunisia), and two in the Gulf (Saudi Arabia and Qatar). Within Europe, the highest levels were in the north (Switzerland, Sweden and the Netherlands).

While the percentage of adults investing in someone else's new business is an important measure of the spread of this activity, the resources available to the new starts also depend on the typical amount of this investment. The median¹³ amount invested in the startup per economy is shown in Figure 2.9, ranging from less than \$100 in Togo to over \$22,000 in Israel and the Republic of Korea. However, in the latter two economies, the proportion of adults investing in someone else's startup was less than 3%. In Chile, with so many people investing, the median amount was \$1,700. Perhaps the highest provision of informal investment was in the Gulf, with 12% of adults in Saudi Arabia typically investing around \$7,200 each in a startup, and 9% of adults in Qatar typically investing around \$8,200 per startup.

Finally, it is instructive to look briefly at informal investment levels before the pandemic (2019) and in 2022, noting as before that these

comparisons will be inevitably inconclusive. It is particularly difficult to compare small values (as with the proportion of adults investing in someone else's new business) in two periods, as changes in those values may appear to be disproportionately large. Comparing medians between two distributions is also fraught.

Nevertheless, of the 37 economies participating in both GEM 2019 and GEM 2022, the percentage of adults investing in someone else's startup increased in 16 economies and fell in the remaining 21. Most of these changes were very small. Notable exceptions include Oman, where the proportion fell from 10.4% to 3.5%, Colombia, where it fell from 7.7% to 2.6%, and Brazil, where the proportion of adults investing in someone else's business actually increased, from 3.2% to 10.8%.

Turning to median informal investments, in four (of the 49) economies this typical investment more than doubled (Iran, Egypt, Puerto Rico and Israel), and in four economies this typical investment more than halved (Slovak Republic, Canada, Switzerland and Cyprus). Once again: inevitably inconclusive indeed.

2.5 CONCLUSIONS AND POLICY IMPLICATIONS

The personal decision to start a new business is inevitably conditioned by the social and cultural context in which that decision is made. An awareness of local opportunities, confidence in one's own abilities and perceptions of the ease of starting may all be important dimensions of that context, and may all be influences on that decision.

In the figures showing the percentage of adults agreeing there are good opportunities to start a business, that they have the skills and experience to do so, and that starting a business is easy, the same economies recur towards the top of these scales, and these include Saudi Arabia, Brazil, Qatar, Puerto Rico, the Netherlands and Poland. However, in each of these economies, around a half of those agreeing there will be

good opportunities would not start a business because of fear of failure. Hence, the share of adults expecting to start a business in the next three years in these economies appears severely constrained by the fear of failure. Overcoming this fear — for example, through better knowledge of risk management techniques, mitigating the costs of failure through changes in insolvency regulations, or better promotion of entrepreneurial success stories — could all contribute to an increase in startup rates.

Comparing the percentage of adults agreeing there are good opportunities to start a business pre- and post-pandemic (i.e. 2019 and 2022) presents a mixed picture, as does comparing informal investment rates over the same period. In terms of entrepreneurial perceptions and indirect entrepreneurial activities, such as investing money in someone else's new business, it is clear that some economies have fared much better, or suffered much less, than other economies. Understanding the cause of these differences could be very important for policy development in the medium term.

¹³ If investment per adult were arranged in ascending order, the median would be the midpoint. The median can be a better measure of central tendency in distributions where the average may be misleading because of a small number of large values. In this chapter the median investment is referred to as the typical investment, in order to distinguish it from the average.

Levels of Entrepreneurial Activity Across the Globe in 2022

Stephen Hill and Sreevas Sahasranamam

3.1 MEASURING ENTREPRENEURIAL ACTIVITY

The Global Entrepreneurship Monitor (GEM) research project was established more than two decades ago to do exactly that – monitor entrepreneurial activity across the globe, providing a benchmark for each participating economy to allow comparisons with other economies, and through time. As noted earlier, this is only possible if what is meant by entrepreneurship is defined and measured precisely and consistently. There are many ways to measure entrepreneurship – such as counting the number of new firm registrations, or the number of people considering themselves to be self-employed. Both say something about entrepreneurship. But new firms may or may not register, depending on the necessity and cost of doing so, while regulations regarding those registrations may differ by country. At the same time, many people who regard themselves as self-employed, such as some taxi drivers, decorators and musicians, do not consider themselves to be running a business but rather just earning a living for themselves.

GEM approaches entrepreneurship from a different perspective. According to GEM, entrepreneurship is the personal act of starting

or running a new business. So, in each economy GEM asks a large random sample of people, through the Adult Population Survey (APS), if they are actively engaged in starting or running a new business while being very precise about what this means. There is no reason for anyone to provide misleading answers because all results are anonymized. Hence the APS captures informal (unregulated) activity, beyond the reach of official data, as well as formal entrepreneurial activity. Anonymized APS data is submitted by national teams in participating countries to the GEM data centre, where it is checked and verified for accuracy and consistency. The GEM data team produces key variables in exactly the same way for each economy, ensuring comparability. The most important of these key variables is the level of Total early-stage Entrepreneurial Activity (TEA), or the proportion of the adult¹⁴ population who are starting or running a new business. A new business or startup¹⁵ is one that has paid wages or salaries, including to the owners, for no more than 42 months. If the business continues to pay wages and salaries beyond 42 months, it is considered by GEM as Established Business Ownership (EBO).

3.2 WHERE IS ENTREPRENEURIAL ACTIVITY HIGHEST?

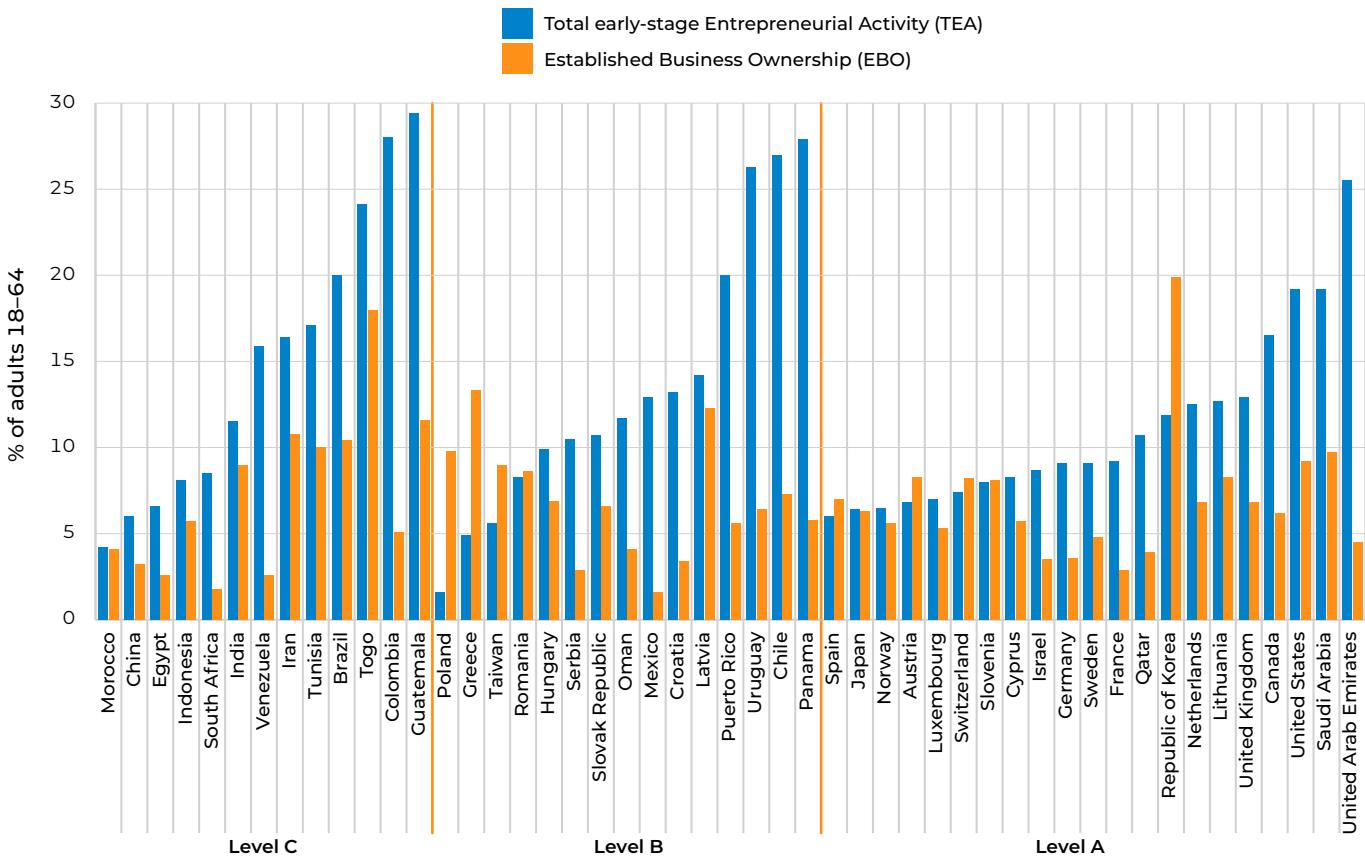
The levels of TEA and EBO across all 49 economies participating in the GEM APS in 2022 are set out in Figure 3.1.

The proportion of adults starting or running a new business is highest in five Latin America & Caribbean countries from middle-income (Level B) and low-income (Level C) economies: Guatemala,

Colombia, Panama, Chile and Uruguay, followed by high-income (Level A) United Arab Emirates

¹⁴ More precisely, and consistently, in GEM adult means aged from 18 to 64, since it is these who are surveyed.

¹⁵ The terms “new business”, “new startup” and “new entrepreneur” are all used synonymously to refer to starting or running a new business.



and low-income Togo. All these have around one in four adults or more starting or running a new business. At the same time, less than one in 20 adults were starting or running a new business in Morocco or Greece, and less than one in 50 in Poland.

Figure 3.1 shows a negative association between TEA rates and income level, but with considerable variation in TEA within each of those levels. A similar but less dramatic picture emerges from rates of EBO, highest at one in five adults in the Republic of Korea, but with less than one in 50 adults owning an established

business in South Africa and Mexico. Table 3.1 summarizes these differences by counting the number of economies in each category for each income group.

Out of 13 income Level C economies, five had less than one in 10 adults starting a new business, while another four had more than two in 10 adults doing the same. Within the same Level C economies, five had less than one in 20 adults owning an established business, while another four had more than two in 10 adults doing the same. Of the 15 Level B economies, four had less than one in 20 adults

FIGURE 3.1
Total early-stage Entrepreneurial Activity (TEA) and Established Business Ownership (EBO) (both % adults)
Source: GEM Adult Population Survey 2022

	TEA: starting a new business		EBO: running an established business		Total number
	Less than one in 10 adults	More than two in 10 adults	Less than one in 20 adults	More than one in 10 adults	
Level C	5	4	5	4	13
Level B	2	4	4	3	15
Level A	12	1	6	1	21
Total	19	9	15	8	49

TABLE 3.1
Number of economies in each category by income group

owning an established business, while another three had more than one in 10 doing so.

Put another way, 19 of the 49 economies had less than one in 10 adults starting or running a new business in 2022. Of these 19, 12 were in the highest income group. On the other hand, nine of the 49 economies had one in 10 or more adults starting or running a new business. Just one of these was a high-income economy.

These figures hint at some association between income and the proportion of adults starting or running a new business, an association that has been the subject of debate over time, including in successive Global Reports. High-income economies certainly have more resources, including social, educational and financial capital, and may have a wider range of profitable new business opportunities. But high-income economies also have more employment opportunities, so perhaps more to give up by starting your own business. Low-income economies may have fewer business opportunities and less access to resources, but may also have fewer income alternatives, and perhaps there is less to lose by starting a business. There is also

a complex relationship between income levels, seeing opportunities, and feeling the necessity to start a business. The net effect is a tangled two-way relationship between the share of adults starting their own business and average income at an economy level. This tangle is well illustrated by Figure 3.2, which plots Gross Domestic Product (GDP) per capita against TEA for the 49 participating GEM economies in 2022, combining GEM APS data for TEA with World Bank data for GDP per capita.

While the scatterplot suggests some negative association between TEA and GDP per capita,¹⁶ this association is at best weak, and there are high-income economies with relatively high levels of TEA (including the United States, Saudi Arabia and Canada), just as there are low-income economies with relatively low levels of TEA (Morocco and Egypt).

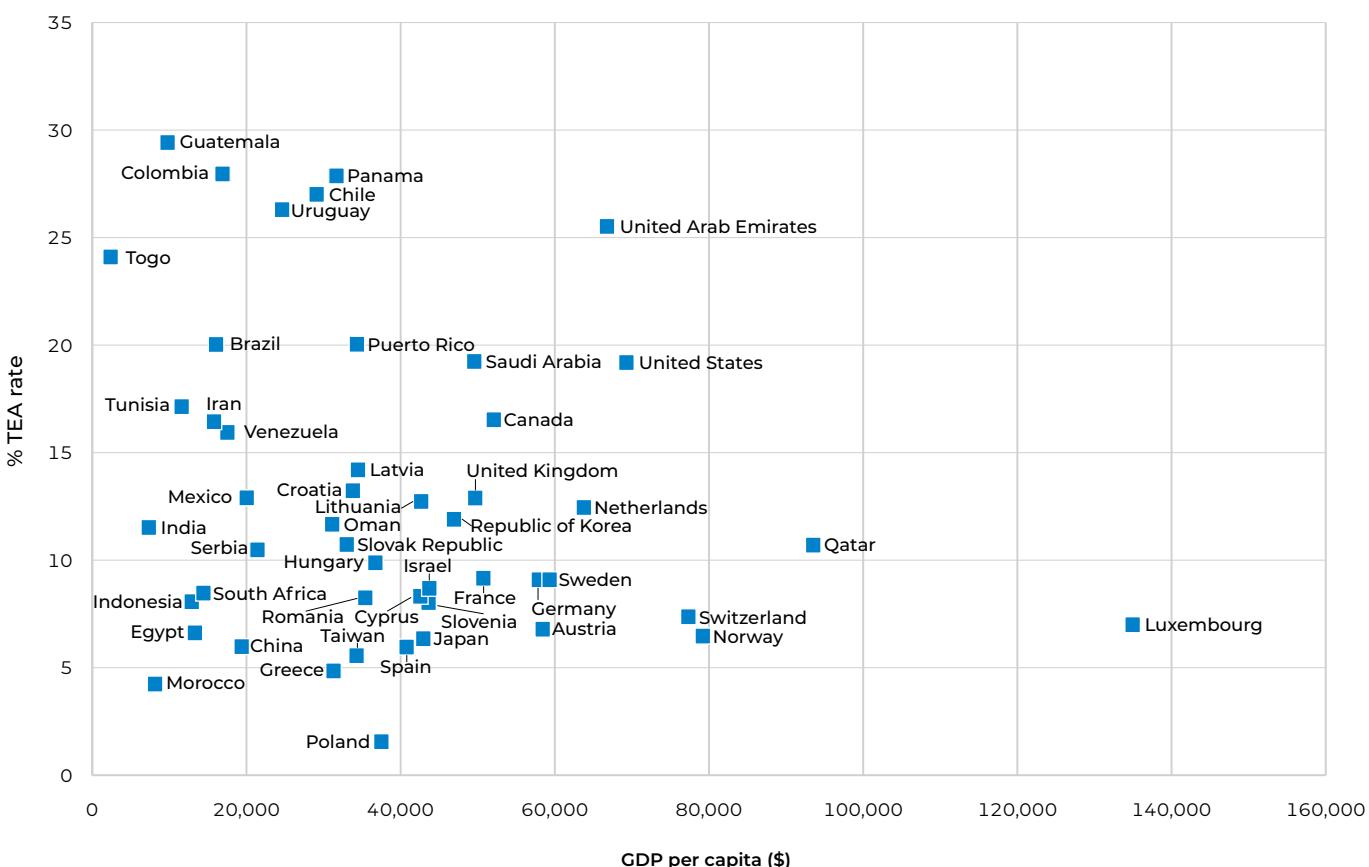
Recent years have seen increasing concerns about the appropriateness of GDP as a measure of well-being, including concerns about the

¹⁶ The TEA–GDP/capita correlation coefficient is –0.235.

FIGURE 3.2

Levels of Total early-stage Entrepreneurial Activity and GDP per capita

Sources: GEM Adult Population Survey 2022 and <https://data.worldbank.org>



ENTREPRENEUR HIGHLIGHT

Charlotte Wang

Founder of EQuota (China)
Cartier Women's Initiative Fellow, 2020

Entrepreneurship and the United Nations Sustainable Development Goals

Entrepreneurship is an essential driver of societal health and wealth. It can address some of the globe's greatest challenges, such as the United Nations Sustainable Development Goals (SDGs). One of the many entrepreneurs around the world that can speak to this is EQuota founder Charlotte Wang. The company combines artificial intelligence and big data to deliver energy efficiency solutions. Says Charlotte:

"Sustainability means a responsibility for this and the next generation."

Charlotte was raised in a rural village in China known for its coal mining. She saw how this activity negatively impacted citizens' health. From a young age, she experienced issues with her sinuses and breathing. At the age of 11, Charlotte moved with her family near the coastline city of Dalian, China. While she still continued to struggle with her sinuses, Charlotte was able to enjoy a different environment with much cleaner air. Following the birth of her first child, Charlotte decided to leverage her education at MIT in the United States and her experiences in China to launch EQuota in 2014.

"It is truly our generation's duty to improve our environment. After my time at MIT, I felt a strong calling to be back in China."

Charlotte sees EQuota's services as similar to personal fitness monitoring tools that provide immediate, real-time feedback to facilitate healthier choices. For large energy consumers, EQuota's non-intrusive technology gathers data from existing monitoring systems such as smart meters and applies artificial intelligence (AI) to analyse usage patterns and identify inefficiencies. Customers



access the data using an online dashboard and have reported significant annual fatality decreases, electricity conserved, carbon emissions reduced and money saved. The positive feedback from clients and the push to reduce carbon emissions are playing a role in Charlotte's future thinking to tackle climate change through data insights.

"My plan is to use our service starting from the energy demand side — manufacturers and buildings — to transmission to energy generation to get system-level change. Solving climate change and sustainability requires all of us to keep relentless focus. I truly believe that innovative technology provides different views for addressing climate change while striving for harmony in the environment."

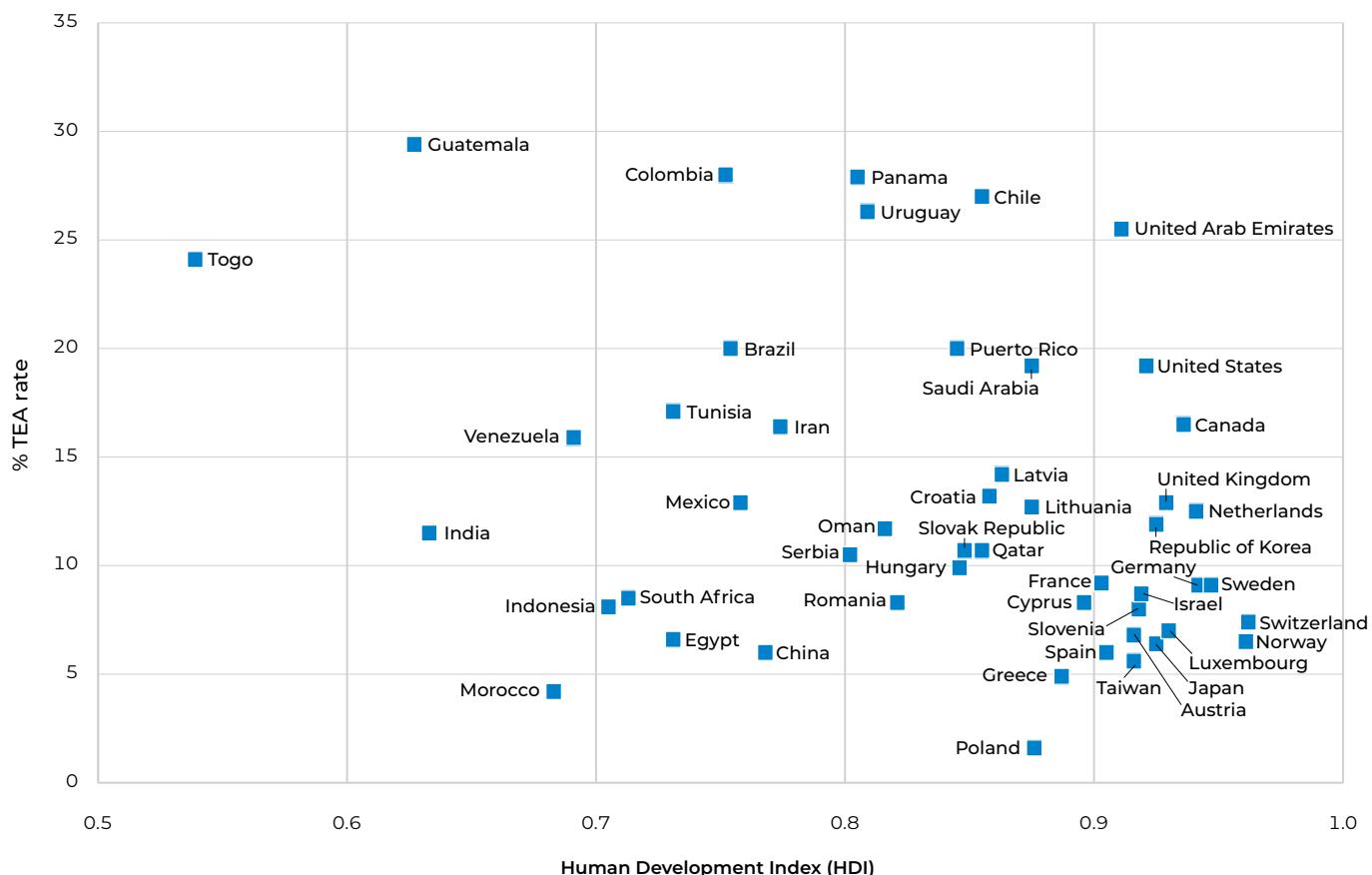


FIGURE 3.3

Levels of Total early-stage Entrepreneurial Activity and the UN Human Development Index
Source: GEM Adult Population Survey 2022 and <https://hdr.undp.org>

distribution of income within economies, and about the sustainability of those incomes.¹⁷ There are also questions about how closely GDP relates to people and their development. Alternative indicators of well-being are gaining credibility. One such alternative is the United Nations Human Development Index,¹⁸ itself an aggregate of three components: human longevity, including life expectancy; knowledge, including years of education; and standard of living, including Gross National Income per capita. These components are combined to produce a Human Development Index (HDI), located on a scale from 0 to 1. Figure 3.3 plots the association between TEA and HDI for the 49 economies in GEM 2022, using HDI figures from the United Nations website.

The association between HDI and national TEA is negative:¹⁹ there are some economies with high levels of human development and low levels of TEA, such as Poland, Greece and Taiwan,

and some economies with low levels of human development and high levels of TEA, such as Togo and Guatemala. The association is not close, though, and there are also economies with high levels of both TEA and HDI, such as the United Arab Emirates and the United States, and others with low TEA and low HDI such as Morocco and China.

There is much work to be done, both in refining measures and indicators of well-being and in establishing the relationship between those indicators and the level of entrepreneurship. The distributed nature of the scatterplot poses multiple interesting questions for entrepreneurship and well-being research. Why do certain countries with high HDI also have high entrepreneurship rates? One potential explanation from existing research is the presence of informal cultural institutions in certain countries which augment formal

¹⁷ Van den Bergh, J.C.J.M. (2009). The GDP paradox. *Journal of Economic Psychology*, 30(2), 117–35. doi: <https://doi.org/10.1016/j.joep.2008.12.001>

¹⁸ See <https://hdr.undp.org>.

¹⁹ The correlation coefficient between TEA and HDI is -0.333.

institutions facilitating human development to support entrepreneurial activity.²⁰ Another more radical question to ask, given the relatively high clustering in the bottom-right corner of the scatterplot is, when countries have conditions of high HDI, is entrepreneurship not envisaged as

an attractive choice? It is essentially a question of whether those starting a new business consider themselves to be better off, either than they were before, or compared to those who are not starting or running a new business in countries with high HDI.

3.3 HOW HAS THE PANDEMIC AFFECTED LEVELS OF ENTREPRENEURSHIP?

There are many ways to assess the impact of the pandemic on levels of entrepreneurship. Perhaps the most obvious is to compare the level of entrepreneurship (percentage of adults starting and running a new business) at different times before and during the pandemic. The consistency of the APS makes these comparisons relatively

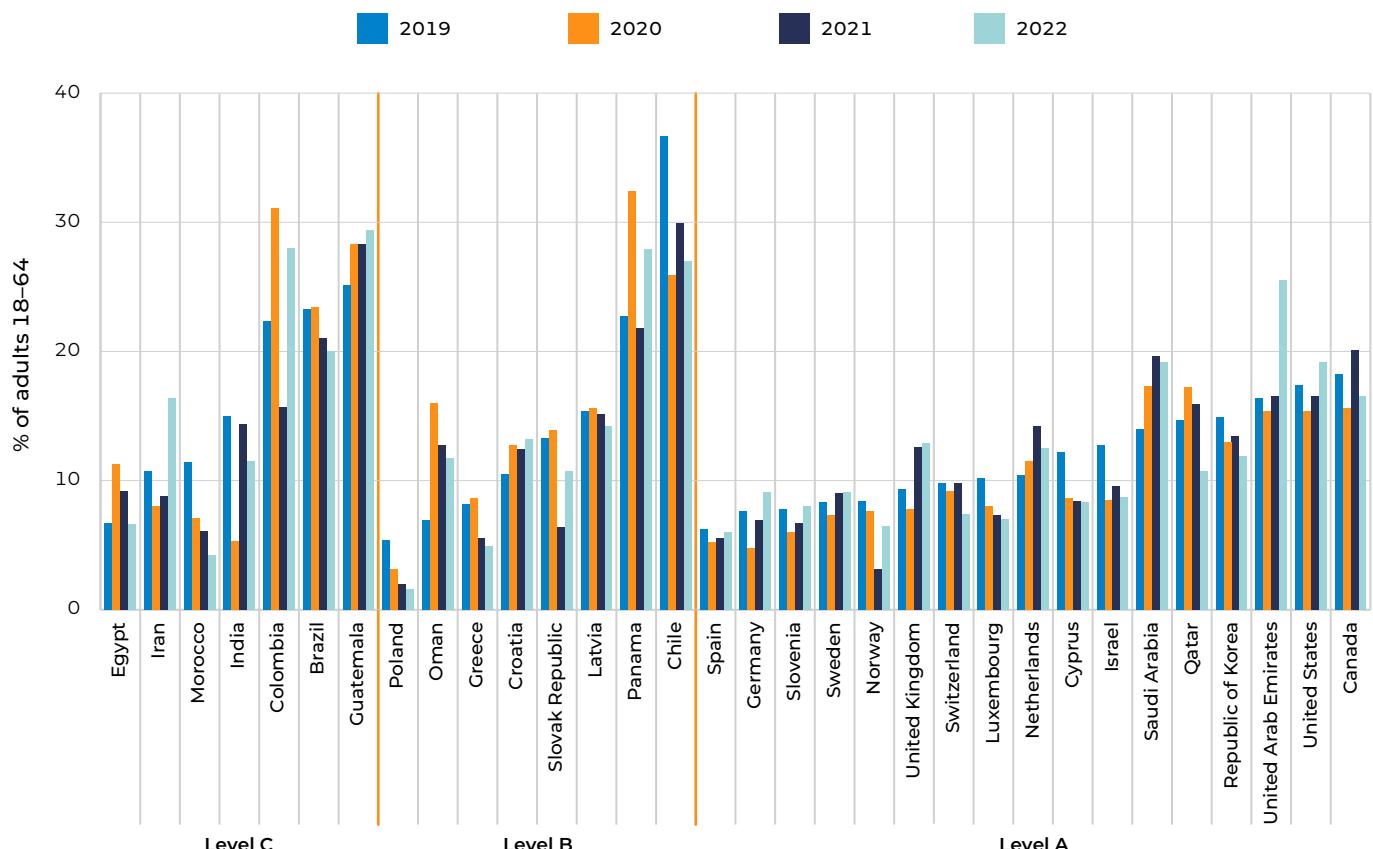
²⁰ Sahasranamam, et al., *op. cit.*; Stephan, U., Uhlaner, L.M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3), 308–31. doi: <https://doi.org/10.1057/jibs.2014.38>

straightforward. Figure 3.4 charts the level of TEA since 2019 (pre-pandemic) for the 32 economies that participated in the GEM APS in each of the four years since then.²¹

If the principle of comparison is straightforward, the practice is rather less so. For example, compare levels of entrepreneurship in 2019 and 2022. If changes of less than one percentage point are discounted, there are 12 economies in which TEA was higher in 2022 than

²¹ Note that the number of economies represented is rather less than in 2022 alone, because not all economies participate every year.

FIGURE 3.4
Levels of Total early-stage Entrepreneurial Activity each year since 2019 (32 economies participating in GEM for all four years; % adults)
Source: GEM Adult Population Surveys 2019, 2020, 2021, 2022



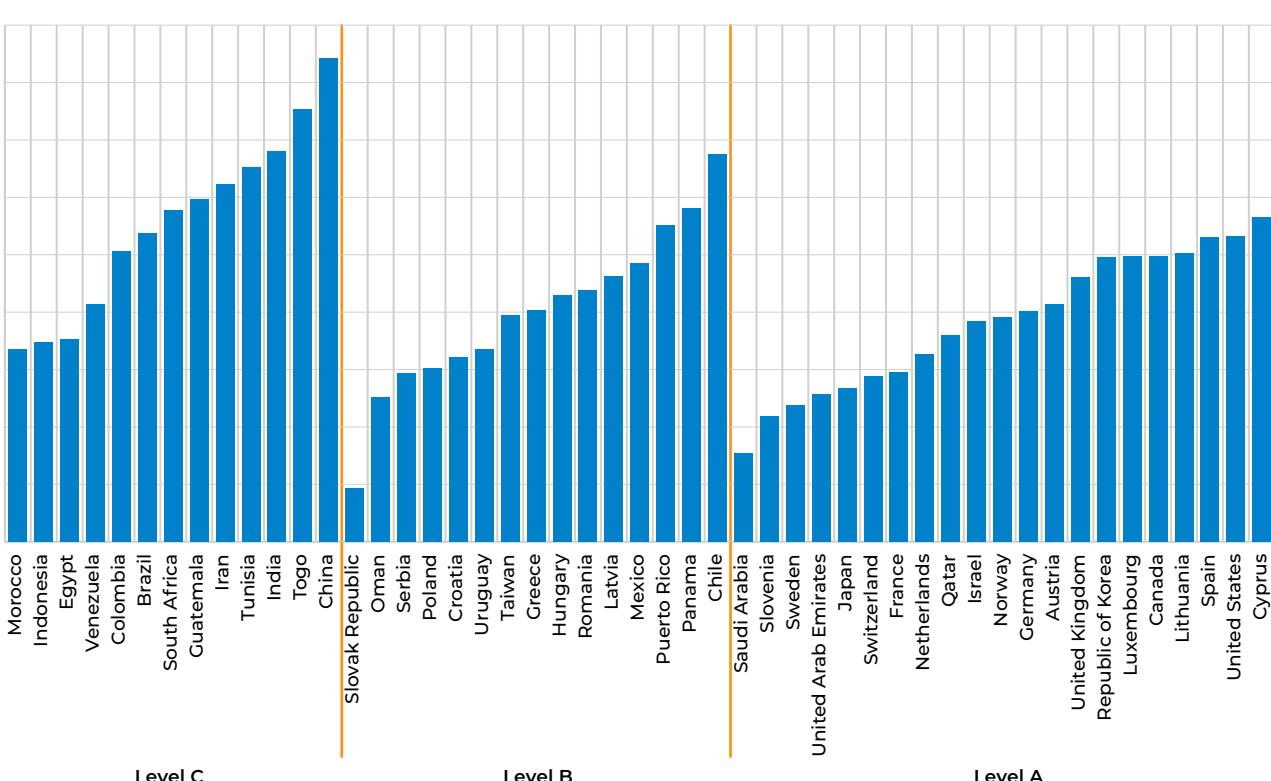
in 2019, and 16 in which TEA had fallen. The largest percentage point increases were in the United Arab Emirates (+9 percentage points), and in Iran and Colombia (both +6), while the largest falls were in Chile (-10), Morocco (-7), and Israel (-4). There are four economies in which TEA fell each year from 2019 to 2022: Morocco, Poland, Luxembourg and Cyprus, so for those economies it may be reasonable to conclude that the pandemic adversely affected early-stage entrepreneurial activity. There are also five economies in which the level of TEA fell at the start of the pandemic (2019–2020), recovered somewhat to 2021, and then fell again in 2022 (India, Switzerland, Israel, the Korean Republic and Canada). There are also economies in which the level of TEA has been increasing, despite the pandemic? Is it possible that, even in those economies, TEA would have increased further without the pandemic? Emerging research evidence points to the agility of entrepreneurs²² and the ecosystem²³ in adapting to COVID adversities as being crucial.

FIGURE 3.5

The percentage of those starting or running a new business who think doing so is more difficult (includes both somewhat and much more difficult) than one year ago

(% Total early-stage Entrepreneurial Activity)

Source: GEM Adult Population Survey, 2022



There is also the important question of whether the war in Ukraine and subsequent changes in energy costs have had any discernible impact on levels of entrepreneurship worldwide. This implies looking at changes in the proportion of adults starting or running a new business in 2022 compared to 2021. Keep in mind that the APS is normally conducted in late summer, a period coinciding with the early stages of the conflict in Ukraine, so GEM data for summer 2022 is unlikely to include the total repercussions of that conflict.

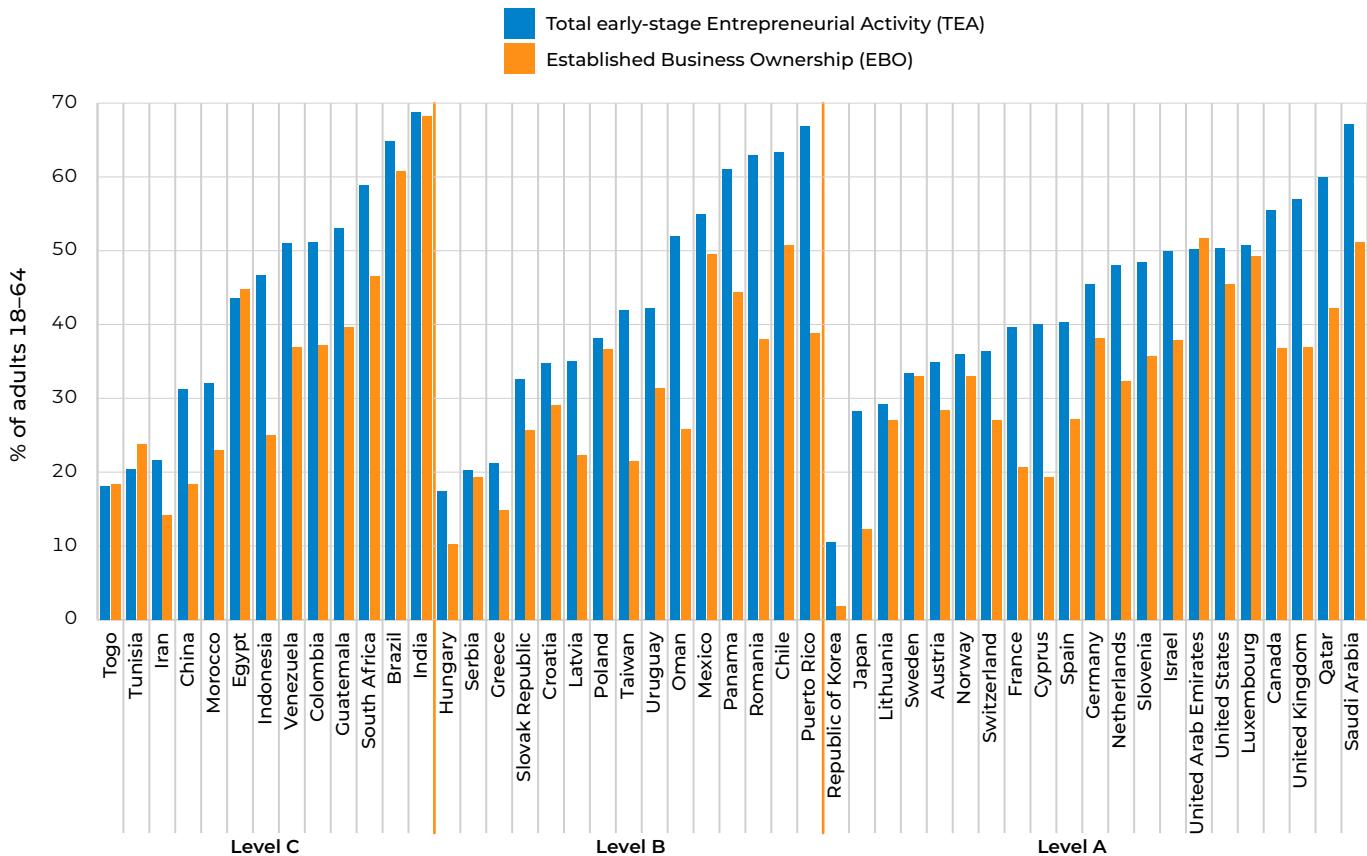
Of the 32 economies represented in Figure 3.4 in both 2021 and 2022, 14 had increased proportions of adults starting or running a new business, while 17 had a decrease in this proportion, with one unchanged. The largest increases in TEA were in Colombia (+12 percentage points), the United Arab Emirates (+9), and Iran (+8). All three are significant oil and/or gas exporters. Meanwhile, the largest decreases were in Qatar (-5) and Canada (-4), also both energy exporters, although the latter on a minor scale. So there was no clear

22 Stephan, U., et al. (2022). Act or wait-and-see?

Adversity, agility, and entrepreneur wellbeing across countries during the COVID-19 pandemic. *Entrepreneurship Theory and Practice*. doi: <https://doi.org/10.1177/10422587221104820>

23 Sahasranamam, S., & Soundararajan, V. (2022).

Innovation ecosystems: What makes them responsive during emergencies? *British Journal of Management*, 33(1), 369–89. doi: <https://doi.org/10.1111/1467-8551.12553>



pattern of gains or losses in the share of adults starting a new business, although, as noted above, the 2022 APS may have been too early to capture the full impacts. It is also worth noting that, while 31 of the 32 economies had experienced changes in TEA, in 10 economies that change was less than one percentage point.

So the evidence is mixed on whether either the pandemic or the war in Ukraine has had an impact on the share of adults starting or running a new business. Another area that both may have impacted is the attitudes and perceptions of those adults who are starting or running a new business. Those impacts may have been positive or negative. The GEM APS asks those identified as starting or running a new business whether starting a business is more difficult than one year ago, with results shown in Figure 3.5.

There was widespread, though not universal, agreement that starting was more difficult, agreed by more than half of adults in 9 out of 13 Level C economies, 3 out of 15 Level B, and 4 out of 21 Level A economies. The proportion agreeing reduced slightly with income. The highest levels were in China, Togo, Chile and India, with the

lowest levels in the Slovak Republic and Saudi Arabia. The Slovak Republic borders Ukraine but had the lowest proportion of entrepreneurs thinking it was more difficult to start a business in the entire 49 economy sample. The other three countries bordering Ukraine had rather higher levels, but were not out of line with other middle-income economies.

A recurring theme of Global Reports throughout the pandemic has been the ability of many entrepreneurs to see new business opportunities in adversity. In the early days of the pandemic, those opportunities were focused on areas like making personal protective equipment, local delivery services, or educational or fitness programs online. As the pandemic has continued, many opportunities have become less obvious, such as advising on career changes, producing online content, or providing minor medical services that have become increasingly difficult to access. Questions in the APS ask those starting or running a new business whether the coronavirus pandemic has provided new opportunities that they wish to pursue, and asked Established Business Owners whether the pandemic has led

FIGURE 3.6

The percentage of those starting a new business who agree that the pandemic has led to new opportunities they wish to pursue, and the proportion of those running established businesses who are pursuing such opportunities (% Total early-stage Entrepreneurial Activity and % Established Business Ownership)

Source: GEM Adult Population Survey 2022

to new opportunities that are currently being pursued (Figure 3.6). Note that, while the two sets of responses are presented side by side in the same chart, expressing a wish to pursue opportunities is probably a lot easier than actually doing so.

Given this caveat, it is perhaps not surprising that, in all but four of the 49 economies (the United Arab Emirates, Egypt, Tunisia and Togo), the share of those starting a business who agree the pandemic had led to opportunities they wished to pursue was higher than the share of those running established businesses who were already pursuing such opportunities. Conversely, there were four economies in which more than

twice the share of new entrepreneurs agreed that they had new opportunities because of the pandemic than owners of established businesses: Oman, Cyprus, Japan and the Republic of Korea. Though Korea had the highest EBO rate (see Figure 3.1), there are massive differences in the perceptions of new opportunities because of the pandemic, with five new entrepreneurs agreeing to this for every established business doing the same.

More than half of new entrepreneurs saw pandemic-led opportunities in six of the 13 Level C economies, six of the 15 Level B economies and seven of the 21 Level A economies. Meanwhile,

ENTREPRENEUR HIGHLIGHT

Vitja and Marjana Sikošek

Co-founders of Vitjashop d.o.o. (Slovenia)

How government programs can propel entrepreneurs

Vitja Sikošek has loved nature and exercise ever since he was a little boy. He now has the opportunity to incorporate his hobbies and passion into his work having co-founded Vitjashop d.o.o. together with his wife Marjana.

The company runs the vitja.si website, which raises awareness about the importance of health, fitness,



well-being and appearance. It offers comprehensive solutions for achieving goals through dietary changes and optimization of trace elements in the body.

Fulfilling this childhood dream has been made possible thanks in part to a government program. Vitjashop d.o.o. was incubated within the scale-up program of Venture Factory, made possible by SPIRIT Slovenia. The company received a convertible loan from the Slovene Enterprise Fund and joined the startup Plus program in 2020. Today, Vitjashop d.o.o. markets its own and other innovative products and has built a large community of trusting customers.

According to Vitja, he decided to become an entrepreneur because he truly enjoys working on his hobby and appreciates the freedom to work in different places, including summers by the seaside. He inspired Marjana to become an entrepreneur as well and join the company as a co-founder. Marjana and Vitja say that they complement each other perfectly in their work and are like yin and yang. What one lacks, the other makes up for. They say:

"Entrepreneurship allows us to live a fulfilled life. It is like a never-ending game. The work never ends, but if you love what you do, you are happy to do it even on holidays, weekends and wherever you are."

there were three economies in each income level in which less than one in five new entrepreneurs saw pandemic-led opportunities to pursue. Established Business Owners were less optimistic: just two economies had over half of their

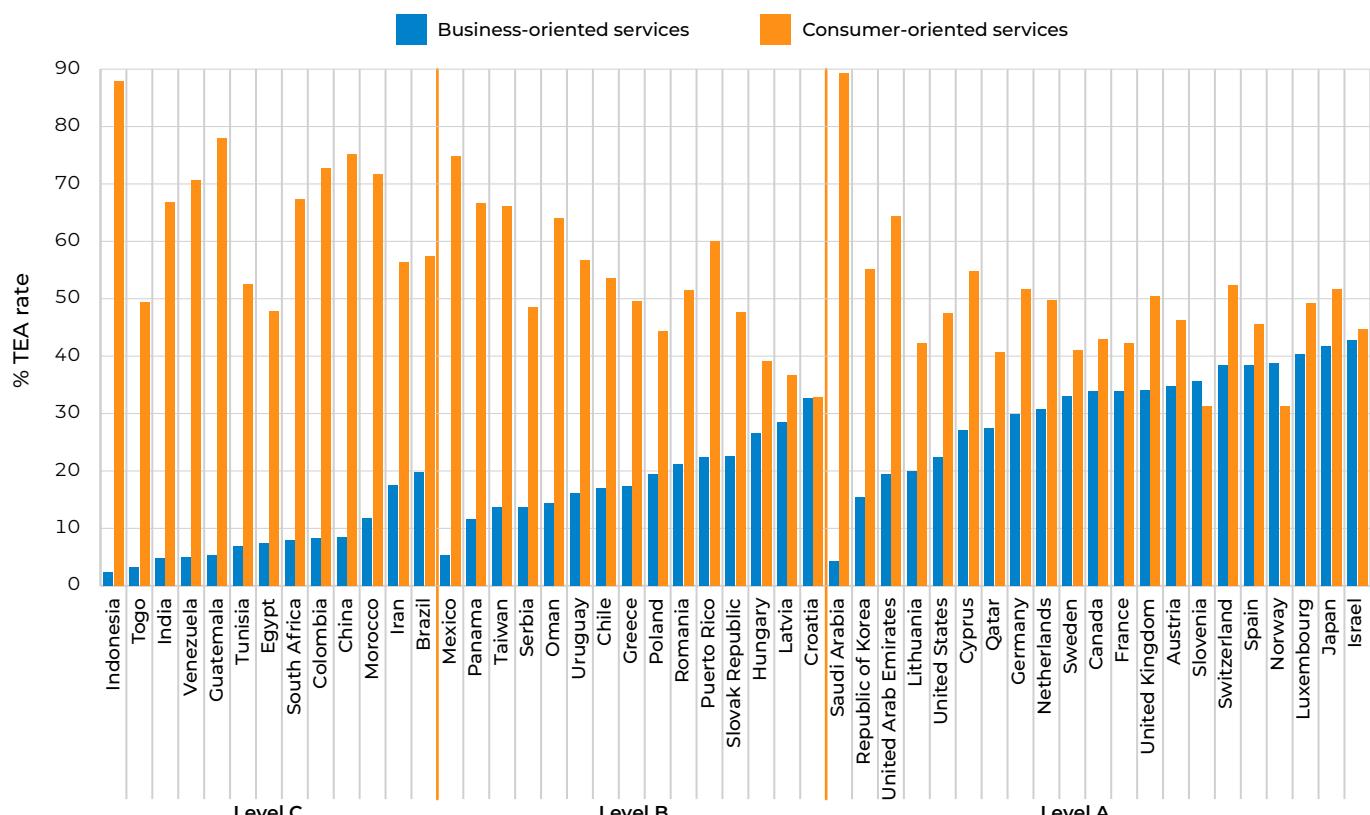
Established Business Owners pursuing pandemic opportunities (India and Brazil), while there were three economies in each income level with less than one in five Established Business Owners pursuing pandemic opportunities.

3.4 IN WHAT SECTORS ARE NEW BUSINESSES STARTED — AND DOES THIS MATTER?

The choice of the sector in which to start a business is important, not only to that business but to the economy more widely. It is easier to start a business in a sector that is growing, and easier to attract customers who are new to the sector than to entice customers away from their established suppliers. Sectors differ in the resources required to start a business, including knowledge and capital, and in the barriers to new entry, such as market restrictions or economies of scale that impose a cost penalty on the new, small-scale producer. New or growing sectors attract resources away from sectors that are declining, and the entry of new businesses (and the exit of old businesses) are important parts of this process of structural change.

Most new owners start businesses in areas in which they already have some knowledge or experience, including established networks or role models to follow. Entry is usually easiest where there are fewest entry barriers and lowest costs, in personal services such as taxi-driving, decorating or small-scale retailing, or in low-level business services such as delivery or office cleaning. Unfortunately, the same factors that facilitate easy entry, such as low startup costs, also magnify competition, so margins are typically very low and failure rates high. This can be an important part of the explanation of why the ratio of new to established businesses can be very high in environments in which few new businesses survive long enough to become established.

FIGURE 3.7
Business services and consumer services as a percentage of Total early-stage Entrepreneurial Activity (% TEA)
GEM Adult Population Survey 2022



Entry is harder, but prospects are probably better, in sectors requiring high levels of capital and/or specialist knowledge, such as technology-intensive goods or services, which are easily differentiated and therefore attract premium prices. Many of these are products or services for businesses, rather than for consumers. There are, of course, other sectors, such as resource extraction and processing, or agriculture, but these tend to rely on the specific natural resource endowments of particular economies. Another important sector is transport, usually dominated by large existing producers and typically offering little attraction to the new entrepreneur.

The focus of this section is on the two broad sectors of consumer services and business services. Of the 49 economies in GEM 2022, there were just three (Togo, Tunisia and Egypt) where consumer plus business services together accounted for less than 60% of new starts. Togo's economy has large mining and agriculture sectors, while Tunisia has the same plus oil and tourism. Egypt is reliant on its agricultural and

tourism sectors. On the other hand, in 40 of the 49 countries participating in the 2022 GEM APS, consumer plus business services constituted more than two out of three new starts.

Figure 3.7 shows consumer and business services as a percentage of TEA. Consumer services made up 88% of startups in Saudi Arabia and Indonesia, 78% in Guatemala and 75% in Mexico, compared to just 31% in Norway and Slovenia and 33% in Croatia. Business services ranged from just 2% of starts in Indonesia to over 43% in Israel. There were just three economies in which the percentage of starts in business services equalled or exceeded that in consumer services: Croatia, Slovenia and Norway.

More generally, there are three or more new businesses in consumer services for each one in business services in 12 out of 13 Level C economies, seven out of 15 Level B, and just three out of 21 Level A economies. High-income Saudi Arabia is a notable exception by having, in 2022, more than 20 new consumer services businesses for every new one in business services, a ratio only exceeded by low-income Indonesia.

3.5 CONCLUSIONS AND POLICY IMPLICATIONS

GEM is precise and consistent in measuring entrepreneurship, defined as the act of starting or running a new business. Early-stage entrepreneurship levels across the 49 economies participating in the GEM APS are highest, at more than one in four adults, in five Latin America & Caribbean economies, and lowest, at less than one in 20 adults, in Poland and two Mediterranean economies. However, there is considerable variation in these proportions across and within income levels.

As in previous Global Reports, the data show a negative association between average incomes (measured by GDP per capita) and levels of TEA, though with many counter-examples. This year, for the first time, GEM has considered an alternative measure of well-being, the United Nations Human Development Index (HDI), which also reveals some negative association with TEA.

Levels of entrepreneurial activity across the pandemic period reveal a very mixed picture, with a number of economies experiencing a fall in TEA, but with a similar number experiencing an increase over the same period. Analysing and understanding why some have increased while

others have fallen could have important policy implications. Comparisons over the past two years present a similarly mixed picture, making any impacts of the conflict in Ukraine, and subsequent price changes, difficult to discern at this early stage.

Among those starting or running a new business in 2022, there was widespread agreement that doing so was more difficult than a year earlier, particularly in low-income economies. More positively, there was also broad agreement that the pandemic had led to new opportunities to pursue, though a little less so among established businesses.

New starts continue to be concentrated on consumer services, although this concentration generally falls as income level rises. Consumer services can be fiercely competitive, with low margins and little sustainability, so a focus on consumer services may be related to having high numbers of business starts relative to numbers of established businesses since few of those starts survive to maturity. Encouraging new entrepreneurs to look beyond easy-entry sectors could help them to develop more durable businesses.

Entrepreneurial Motivations and Responsibilities

Stephen Hill and Fatima Boutaleb

4.1 INTRODUCTION: A WORLD OF CHANGE

There are many reasons why individuals choose entrepreneurship. The personal decision to start a business can be the product of a single burning desire, such as for autonomy after working for someone else, or maybe the result of multiple motives, including seeking a personal fortune, securing a career or perhaps generating at least some income when there are few alternatives. Some families are serial or generational entrepreneurs, so starting a business can be an expected career choice. Still others care less about wealth or family traditions: they are starting a business because they feel a responsibility to change the world, to make it better, more inclusive or more meaningful. All of these are perfectly valid reasons in a world where there is little certainty and still less reassurance.

A changing world is nothing new. Many of these changes are positive, such as more inclusion, less discrimination, more awareness of individual choice and less pressure to conform. Starting a business is no longer chiefly the prerogative of the wealthy or the well educated. At the same time, it

is easy to perceive the future as darker than before, as the climate warms, opinions polarize and truth becomes harder to find. In the face of this – as noted earlier – starting a business is a victory for confidence, that triumph of hope over experience. Certainly, the world is changing. But people do not have to be passive spectators of change. Starting a business is one of the few ways an individual can become a sailor in that sea of change, mastering their destiny and perhaps nudging the world in a slightly better direction.

This chapter will look not only at the motivations of the person starting a business, and there is often more than one, but also at what those who are starting businesses see as their responsibilities, particularly to social well-being and to the environment. As the global economy begins to recover from the pandemic, new opportunities emerge to live and work differently, and this applies as well to burgeoning entrepreneurs, many of whom are managing to be profitable while also contributing to a fairer, more equal and more sustainable society.

4.2 CHANGING THE WORLD

Whatever the aspirations of the new entrepreneur might be, in 2022 they had to be pursued in a global economy that had been showing signs of recovery after the pandemic and was then subject to ongoing supply-side difficulties and rising prices before these were magnified by the war in Ukraine. It would be reasonable to assume that expectations for business growth, for those starting a business in 2022, would be lower than a year earlier. Yet that was not, in general, how

new entrepreneurs saw it. The Adult Population Survey (APS) asks those starting or running a new business if, compared to one year ago, their growth expectations are lower, the same or higher.²⁴ The results for 2022 are shown in Figure 4.1.

²⁴ In this case, lower includes both “much lower” and “somewhat lower”.

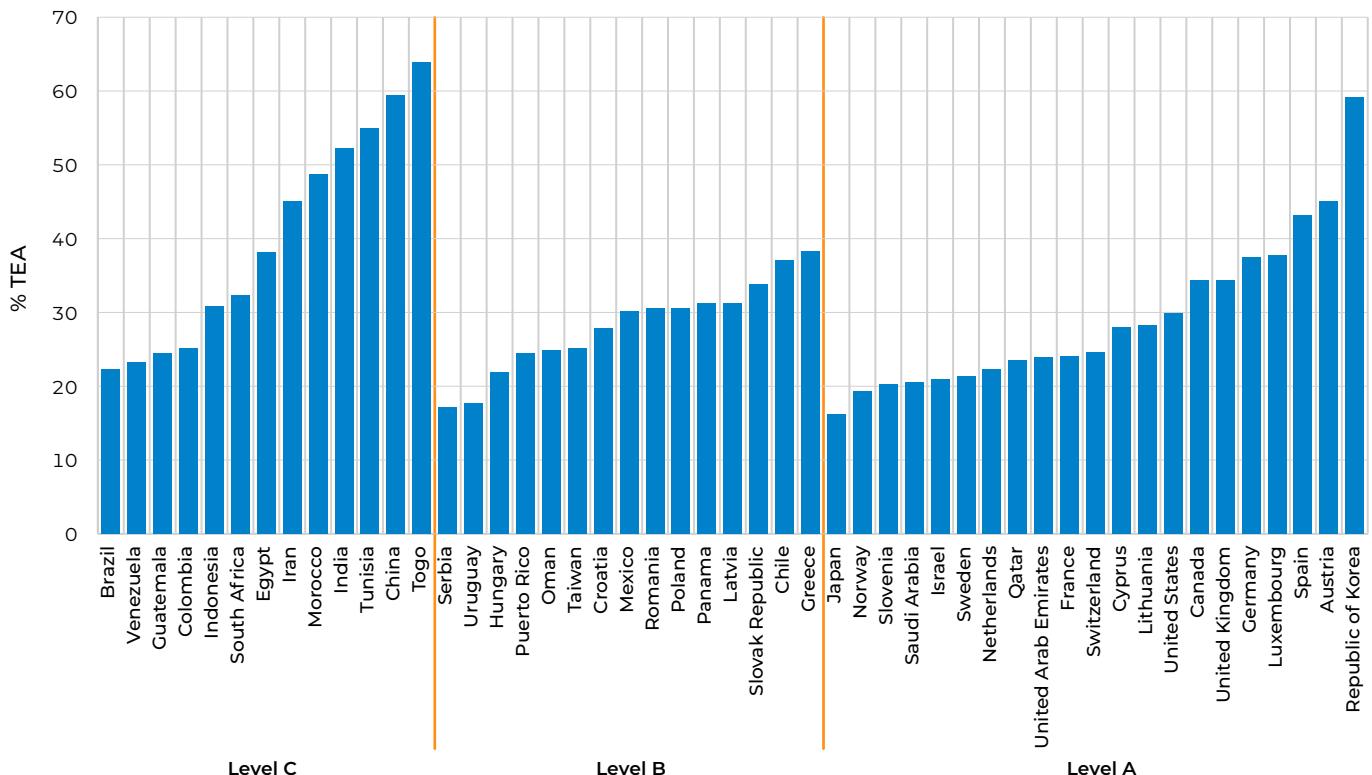


FIGURE 4.1

The proportion of those starting or running a new business and reporting lower growth expectations than a year ago
(% Total early-stage Entrepreneurial Activity)

Source: GEM Adult Population Survey 2022

Less than a quarter of new entrepreneurs reported lower growth expectations than a year earlier in three Level C economies, five Level B and 11 Level A, suggesting growth expectations fall slightly with income level. In just five economies — Togo, China, Tunisia, India and the Korean Republic — over half of new entrepreneurs had lower growth expectations than a year earlier.

Given the global economic turbulence of 2022, it may be useful to compare the growth expectations of new entrepreneurs in 2022 to those of new entrepreneurs a year earlier, with this data available for the 38 national teams that participated in the GEM APS in both 2021 and 2022. That comparison is shown in Figure 4.2. These economies fall into two distinct groups. In 12 economies, the difference between 2021 and 2022 is less than five percentage points:

seven from Europe, two from Africa, along with Uruguay, Canada and the United Arab Emirates, suggesting little change. But there is another group of 11 economies for which the difference is 10 percentage points or more, implying substantial change. All of these 11 economies had seen the percentage of new entrepreneurs with lower growth expectations fall, sometimes dramatically. Examples include India (from 81% to 52%), Poland (57% to 31%) and Iran (62% to 45%). There is no obvious connection between all 11, since all regions and all income groups (including three Level A) are represented. At the other end of the scale, 15 economies saw increases in the proportion of new entrepreneurs with lower growth expectations, the highest being the United Kingdom (+10 percentage points), followed by Romania and Spain (each +9).

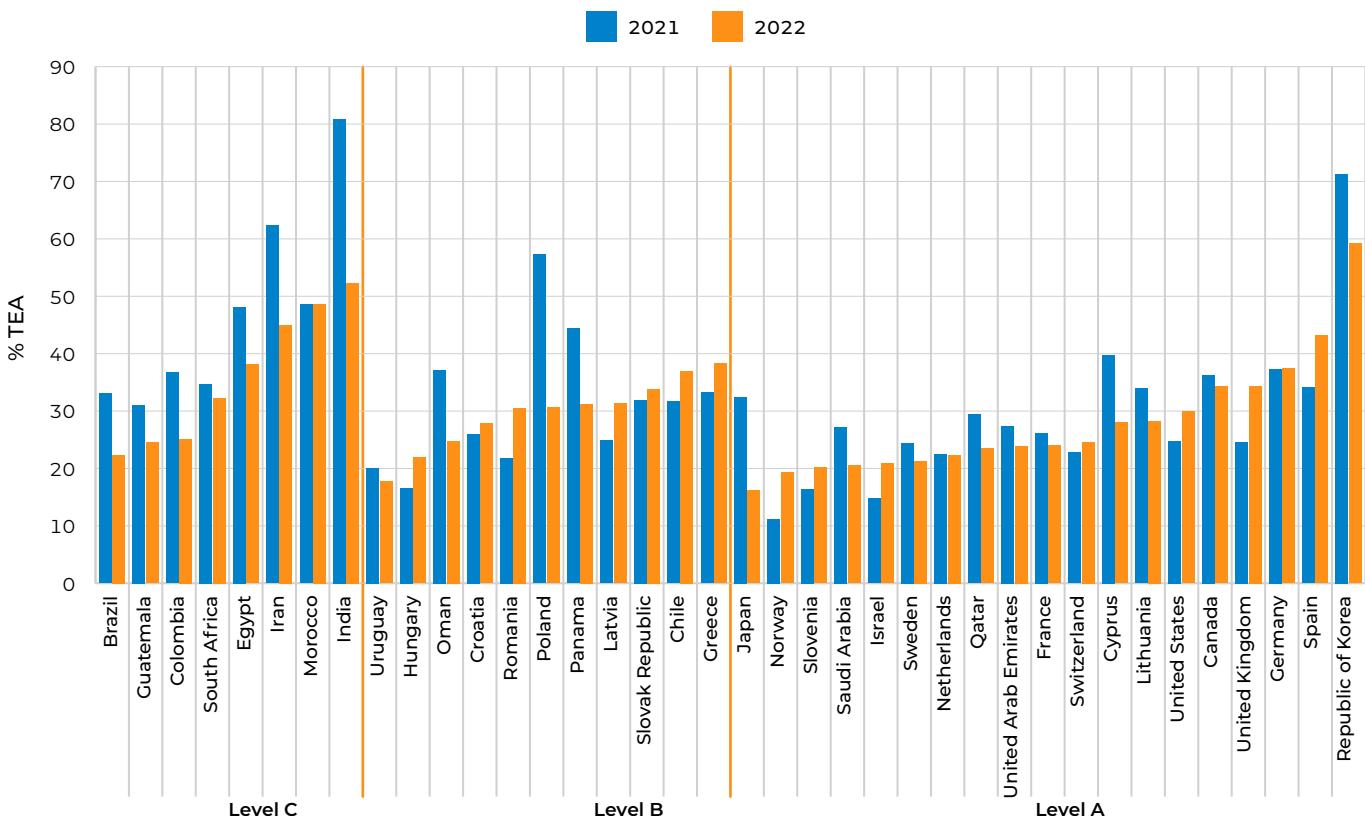
4.3 WHY START A BUSINESS?

Since 2019, the GEM APS has asked those starting or running a new business whether they agreed with the following four defined motivations:

- To make a difference in the world;
- To build great wealth or very high income;

- To continue a family tradition;
- To earn a living because jobs are scarce.

Entrepreneurs can somewhat agree or strongly agree with each motivation — and many do so. The proportions of those starting or running



a business, and agreeing²⁵ with either of the first two motivations are shown in Figure 4.3, and those agreeing with the third or fourth motivations in Figure 4.4.

The proportion of entrepreneurs agreeing with the motivation “to make a difference in the world” in 2022 generally declined with income level, with rather less agreement in Level A than in B or C, but not by much. More than seven out of 10 new entrepreneurs agreed with this motive in four out of 13 Level C economies, two out of 15 Level B and just one out of 21 Level A economies. The highest levels of agreement were in Romania, Guatemala, India and South Africa, dispelling any notion that making a difference is only a motivation for the well-off. The lowest levels of agreement were in the Republic of Korea, Morocco and China.

The proportion of new entrepreneurs agreeing with the motivation “to build great wealth or very high income” was generally a more popular choice than “to make a difference in the world”, with a higher proportion agreeing in 34 of the 49 economies, although the differences were usually

small. The motivation “to build great wealth or very high income” was as popular in high-income as in low-income economies, agreed by more than three out of four of those starting or running a new business in five Level C economies and five Level A. Only five economies had less than 40% of their entrepreneurs agreeing with this motivation. Interestingly, all were in Europe. Last year’s Global Report noted that “wealth generation remains a formidable driver of entrepreneurial activity”. Results from the 2022 GEM APS offer strong confirmation of this assessment.

The motivation “to continue a family tradition” continues to be important in a minority of economies, especially low-income ones. This motivation was agreed with by over half of the new entrepreneurs in three Level C economies, but just one Level B and one Level A. Conversely, this was agreed by one in four new entrepreneurs or less in two Level C economies, five Level B, and 11 Level A economies. The highest agreements were in low-income India (69%) and high-income Saudi Arabia (62%), although Saudi was an anomaly in the high-income group, which provided the lowest levels of agreement in the Republic of Korea (5%) and Switzerland (14%).

²⁵ Throughout the chapter, agree includes both “somewhat agree” and “strongly agree”.

FIGURE 4.2
Expectations of lower growth for new entrepreneurs: comparison between 2021 and 2022 (38 economies; % Total early-stage Entrepreneurial Activity).

Source: GEM Adult Population Surveys 2021, 2022

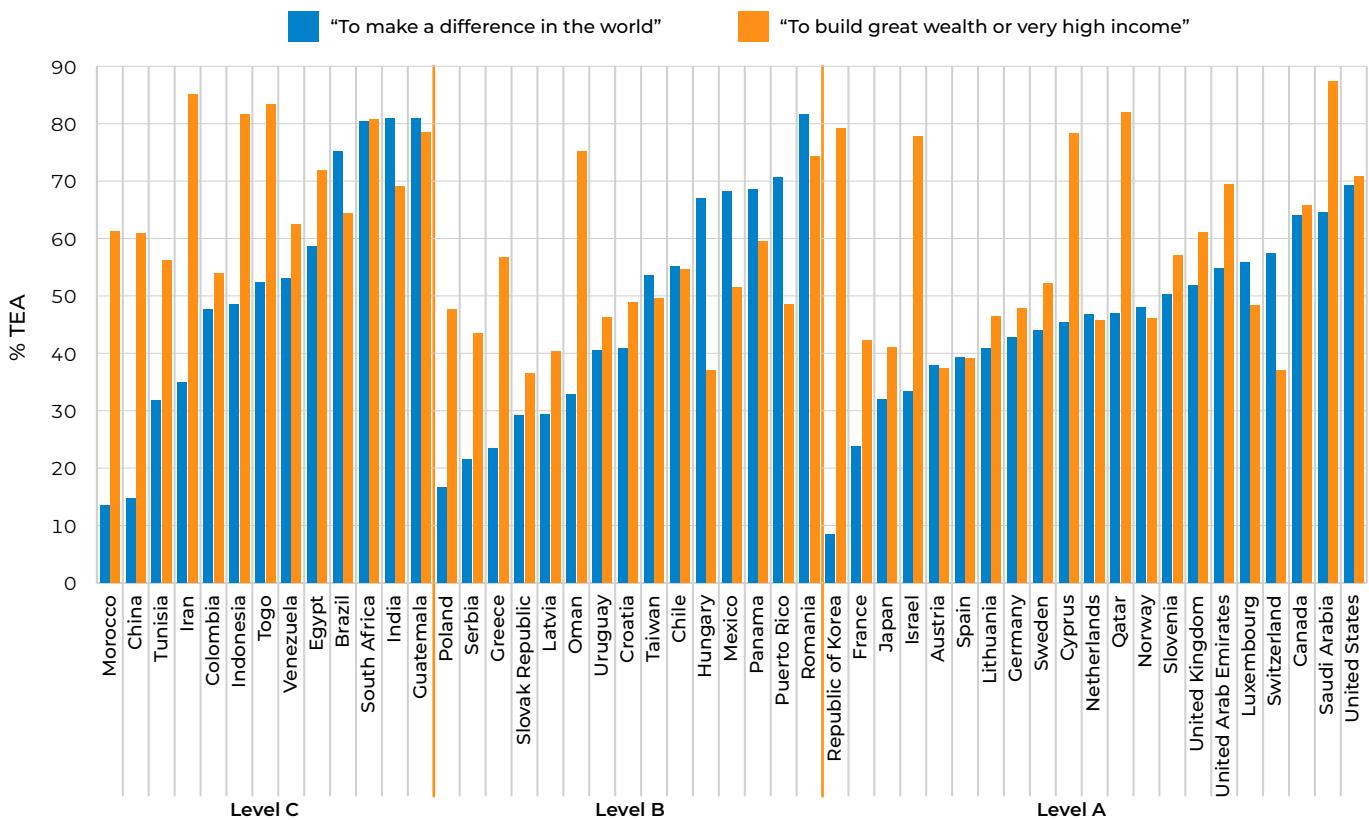


FIGURE 4.3 Agreement with motivations “to make a difference in the world” and “to build great wealth or very high income” (% Total early-stage Entrepreneurial Activity)

Source: GEM Adult Population Survey 2022

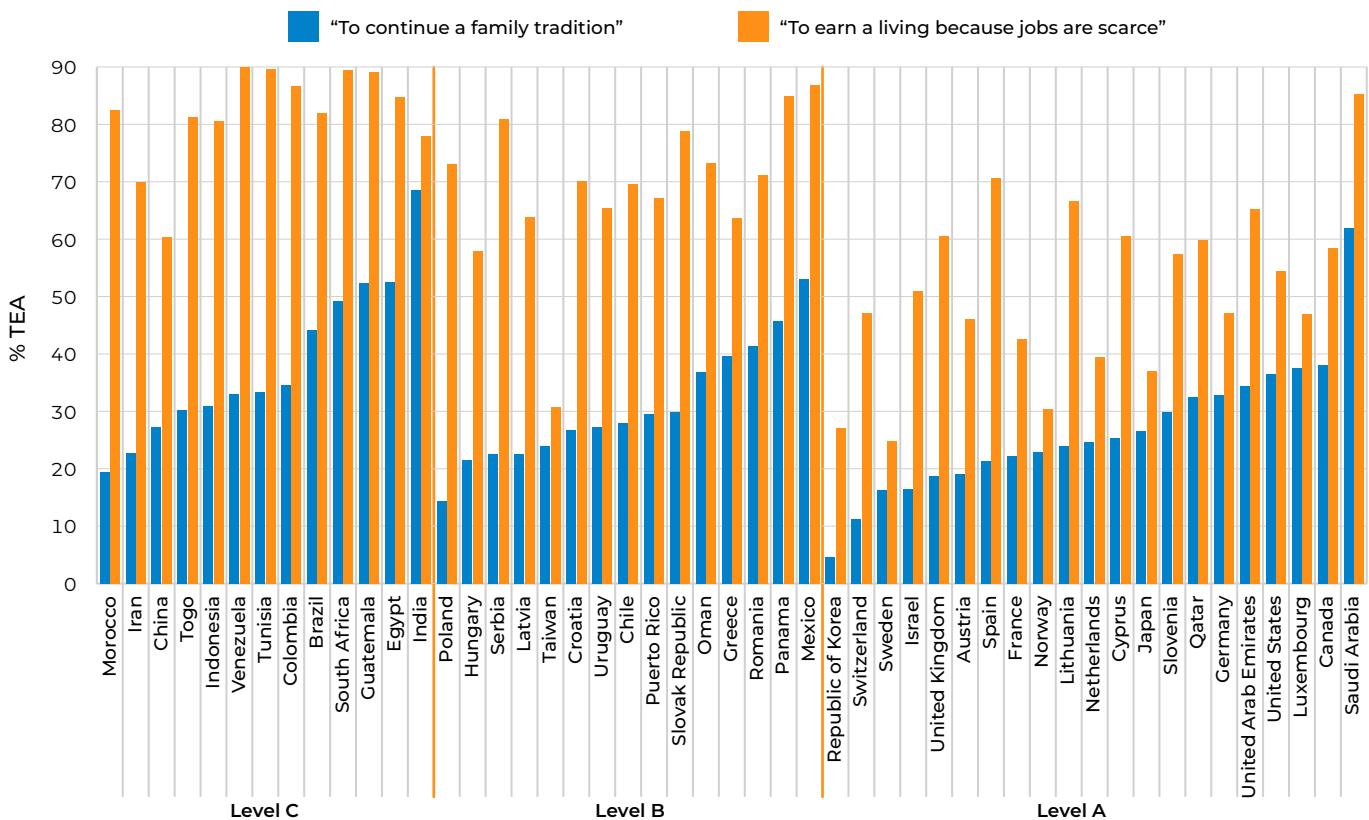


FIGURE 4.4 Agreement with motivations “to continue a family tradition” and “to earn a living because jobs are scarce” (% Total early-stage Entrepreneurial Activity)

Source: GEM Adult Population Survey 2022

The motivation “to earn a living because jobs are scarce” was more popular, although that popularity declined with income level. This motivation was agreed with by over three out of four new entrepreneurs in 11 Level C economies, four Level B and just one Level A economy, and

by under a half of new entrepreneurs in no Level C economy, just one Level B economy, but in 10 Level A economies.

Recall that “to build great wealth or very high income” had been equally popular in both low-income and high-income economies.

ENTREPRENEUR HIGHLIGHT

Gilles Suard

Founder, Almighty Tree (Switzerland)

How educational experiences can help inspire and inform future entrepreneurs

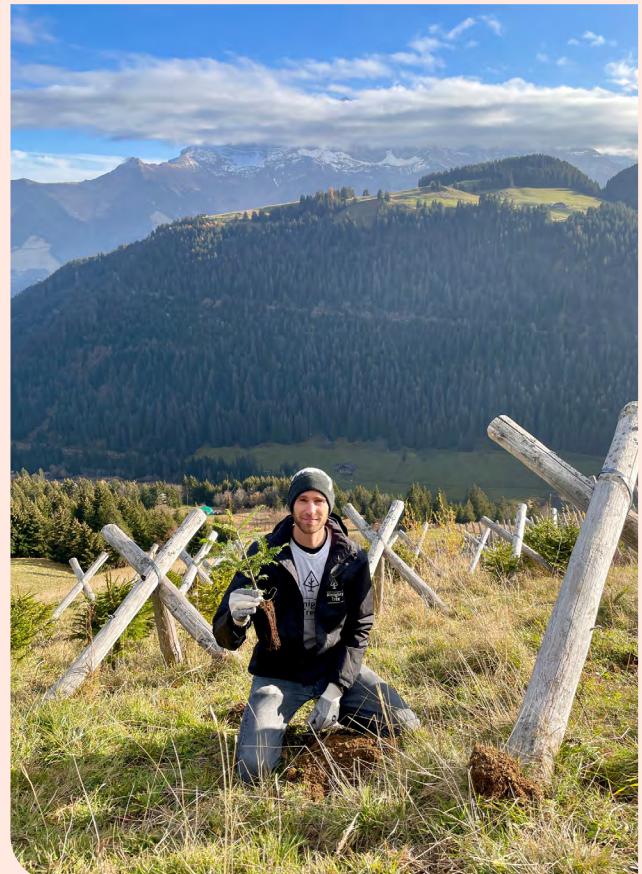
GEM's Adult Population Survey asks respondents about their highest level of educational attainment. A great example of someone who used their educational experiences to launch a company is Gilles Suard, founder of Almighty Tree and a graduate of the School of Management Fribourg (HEG-FR), University of Applied Sciences and Arts Western Switzerland (HES-SO).

The mission of Almighty Tree is to act against climate change, create a cleaner environment, and raise awareness about the role of business and the general public about carbon emissions. In response, the company plants trees in Switzerland and abroad.

“On one hand, my education inspired me to launch a business and, on the other hand, it prepared me to face the challenges associated with such an adventure.”

During Gilles' studies (MSc BA, major in entrepreneurship), he was exposed to success stories, entrepreneurs' presentations/lectures, case studies on entrepreneurship and innovation, company visits, and the entrepreneurship ecosystem in Boston.

“Such action-oriented activities inspired me, influenced my career choices and reinforced my deep desire to be an entrepreneur. I also received the appropriate knowledge for execution, from idea to the market. I was able to learn about the wide spectrum of fields needed to launch a business, such as marketing, finance, law, growth management and leadership.”



During his studies, he took part in Venture In Action, a project that allowed students to launch a real business. He went through all the steps needed to start a new business. He pitched an idea, created a team, tested and challenged the original idea, launched a go-to-market strategy, and truly lived an authentic entrepreneurial journey. In the process, he saw first-hand the importance of perseverance.

In conclusion, Gilles said:

“All my educational experiences informed me about how hard it is at the beginning of a venture and taught me how to keep going.”

A brief inspection of Figures 4.3 and 4.4 shows that “to earn a living because jobs are scarce” typically had higher agreement than “to build great wealth or very high income” in low-income economies, the two being roughly the same in middle-income economies, but “to build great wealth or very high income” was the more popular of the two motivations in high-income economies, largely because the

agreement with “to earn a living because jobs are scarce” had declined with income. None of this is surprising, given that jobs are likely to be scarcer in low- compared to high-income economies.

If Figures 4.3 and 4.4 contain a surprise, it is that “to make a difference in the world” had, on the whole, more agreement among low-income economies than in high-income economies.

4.4 BECOMING A DIGITAL WORLD

FIGURE 4.5

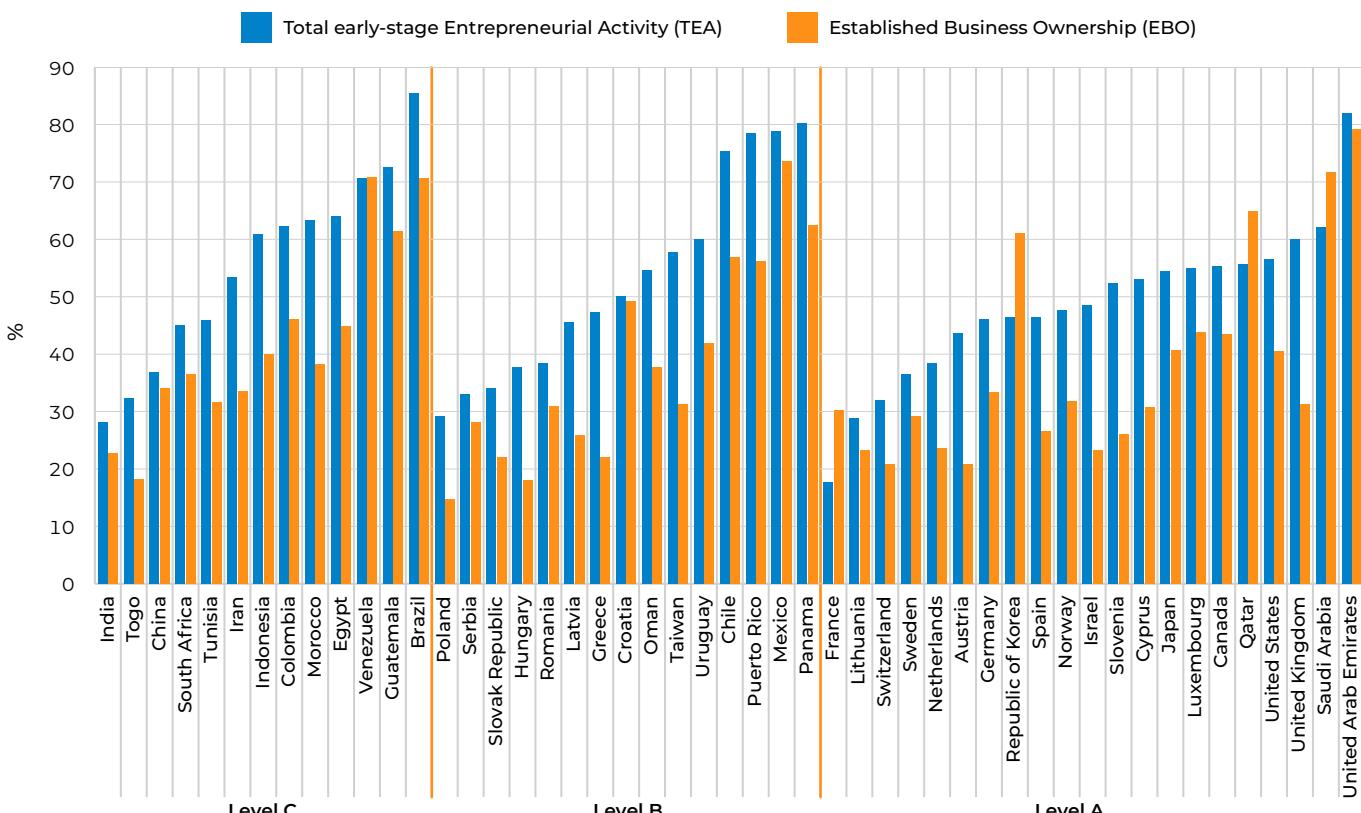
The proportion of those starting or running a new business, or running an established business, who expect to use more digital technologies to sell their products or services in the next six months (% Total early-stage Entrepreneurial Activity and % Established Business Ownership).

Source: GEM Adult Population Survey 2022

The pandemic has led to substantial changes in the ways that we live and work, not least in how business is conducted. This provides an opportunity to examine digitalization as a tool for recovery, as businesses adopt digital technology to gain a competitive advantage and to enhance performance-related outcomes such as the pursuit of new opportunities – in particular, opportunities emerging with the pandemic. Digitalization is global but highly unequal, with a digital divide evident among societies.²⁶ However, digitalization is commonly perceived to be a beneficial means for creating competitive advantages.

The pre-pandemic gentle drift towards online transactions became a torrent for both consumers and producers, a wave that shows little sign of abating. To monitor the impacts of online changes on new entrepreneurs, the 2021 APS asked both those starting a new business and those running

²⁶ See, for example, Samsami, M., & Schøtt, T. (2022). Past, present and intended future digitalization around the world: Leading, catching up, forging ahead, falling behind. *Naše Gospodarstvo/Our Economy: Journal of Contemporary Issues in Economics and Business*, 68(3), 1–9. <http://ng-epf.si/index.php/ngoe/issue/view/48>



ENTREPRENEUR HIGHLIGHT

Amr AboDraiaa

CEO of Rology (Egypt)

Creating jobs while addressing the shortage of radiology professionals

Radiologists, in their use of medical imaging, play an important role in diagnosing and treating injuries and diseases. However, there aren't enough of these professionals in many African countries. Physicians are increasingly relying on radiology scans for their diagnoses, but the number of radiologists is growing at a much slower pace. In addition, radiology has different sub-specialties. It is very difficult for a hospital to cover all of these sub-specialties and assure a high level quality of care for all patients.

Rology CEO Amr AboDraiaa and his colleagues are addressing this shortage and creating jobs in the process. Founded in 2017, the company's cloud-based platform provides intelligent matchmaking between patients and remote radiologists. The company's main objective is to save lives by providing a proper diagnosis to patients no matter

where they are from. Adopting the gig economy model, Rology's network now exceeds over 100 radiologists in addition to 50 full-time employees working in Egypt and Kenya. Said Amr:

"We are a two-sided platform, so the more we grow and there is need for our services, the more we create job opportunities."

Rology was well ahead of the curve when it came to working remotely. Therefore, when the COVID-19 pandemic impelled health care facilities to adopt digital solutions, Rology was well positioned to address the demand.

"We succeeded in developing an AI algorithm to detect COVID-19 through a CT chest scan and flag any abnormalities and high priority cases. We also launched an AI COVID-19 detection model in X-ray scans. The Japan International Cooperation Agency recognized our AI innovation in the fight against the COVID-19 pandemic, leading us to win the Ninja Award."



an established business if they expected to use more digital technologies to sell their products or services in the next six months. This question was continued in 2022, with the results shown in Figure 4.5.

In 26 of the 49 economies, over half of those starting or running a new business (Total early-stage Entrepreneurial Activity [TEA]) expected to use more digital technologies to sell their products in eight Level C economies, eight Level B and 10 Level A economies. In other words, there was little evidence of any association with income. The highest levels were in Brazil, the United Arab Emirates, Panama, Mexico, Puerto Rico and Chile: all in Latin America & Caribbean except the United Arab Emirates. The lowest levels were in France, India, Poland and Lithuania: all in Europe except India.

Established Business Ownership (EBO) displays a similar, if slightly diluted pattern, with the highest levels of those expecting to use more digital technology to sell being in the United Arab Emirates, Mexico, Saudi Arabia, Brazil and Venezuela, an interesting mix of Latin American and Gulf economies, while the lowest levels were in Poland, Togo, Hungary, Austria and Switzerland: all except Togo being in Europe.

That the patterns for TEA and EBO are similar may be expected, given that they are both subject to the same pressures within an economy.²⁷ What was not expected is that the levels for both are generally higher in Level C economies than in Level A, although the Gulf does provide some exceptions.

If expectations of using more digital technologies to sell in the next six months are an indicator of how prepared businesses are to face the future, then many entrepreneurs, both new and established, look significantly ill-prepared to face that future, especially, but not exclusively, in Europe. France, for example, has less than one in four new entrepreneurs, and less than one in three Established Business Owners, expecting to use more digital technologies to sell their products in the next six months. Lithuania and Poland are not much further ahead, although these cases may reflect already high levels of digitalization. In general, however, if European economies are not going to be using more digital technologies to sell, while new and established businesses in Latin America and the Gulf are — and given the Internet's global reach — then it would not be surprising to see some shifts in who sells what to whom.

4.5 SOCIAL AND ENVIRONMENTAL RESPONSIBILITIES

Many of those running new or established businesses have strong social and environmental concerns, particularly since the pandemic. Social concerns may include access to education, health, safety, inclusiveness, housing, transportation, and quality of life at home or work. Environmental implications can include the preservation of green areas, reductions in the emission of pollutants and toxic gases, selective garbage collection, and conscious consumption of water, electricity and fuel. Such social and environmental considerations may be weighed against and even prioritized above profitability or growth.

To assess whether those concerns spilled over into business strategy, the GEM APS asks those running a new or established business whether they agree that they always consider social implications when making decisions about the future of their business. A similar question asked whether environmental implications are always considered. Results from these questions are shown in Figures 4.6 and 4.7.

Among both new and established entrepreneurs there was widespread agreement that social concerns were always considered when making decisions about the future of the business,²⁸ with four in five entrepreneurs agreeing — *both* new and established — in seven Level C economies, six Level B, and four Level A economies. Hence there is some evidence that agreement declines with income level. This is confirmed by looking at economies with the lowest levels of agreement. Less than three out of four new entrepreneurs agreed in 25 economies: three from Level C, six from Level B and 16 from Level A economies. The lowest levels of established entrepreneur agreement were in Iran (43%) and Israel (47%), out of just nine economies where three in five or less established

²⁷ The correlation coefficient between the TEA proportion and the corresponding EBO proportion is 0.808.

²⁸ The correlation coefficient between the percentage of TEA and percentage of EBO agreeing is 0.830.

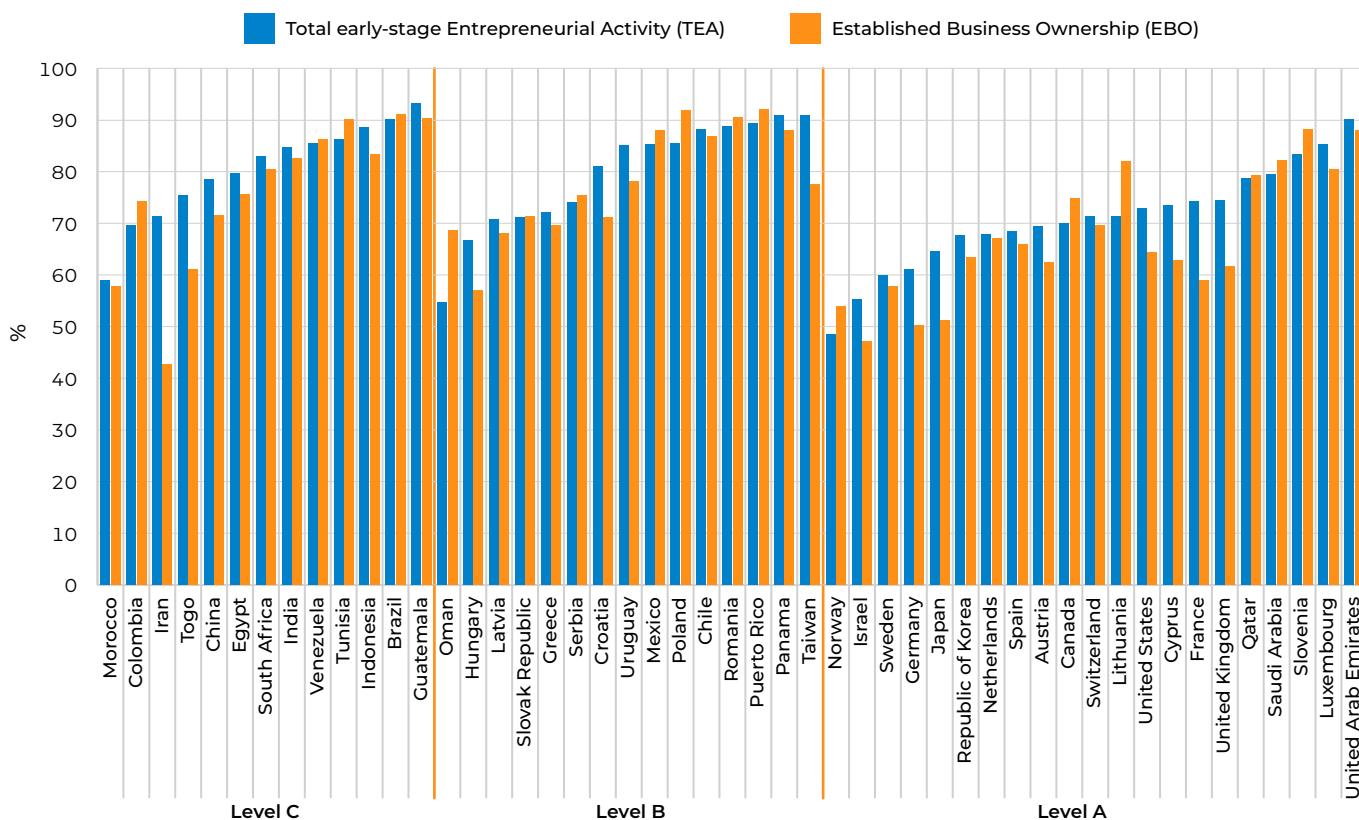


FIGURE 4.6 “When making decisions about the future of my business, I always consider social implications” (agree, % Total early-stage Entrepreneurial Activity and % Established Business Ownership)

Source: GEM Adult Population Survey 2022

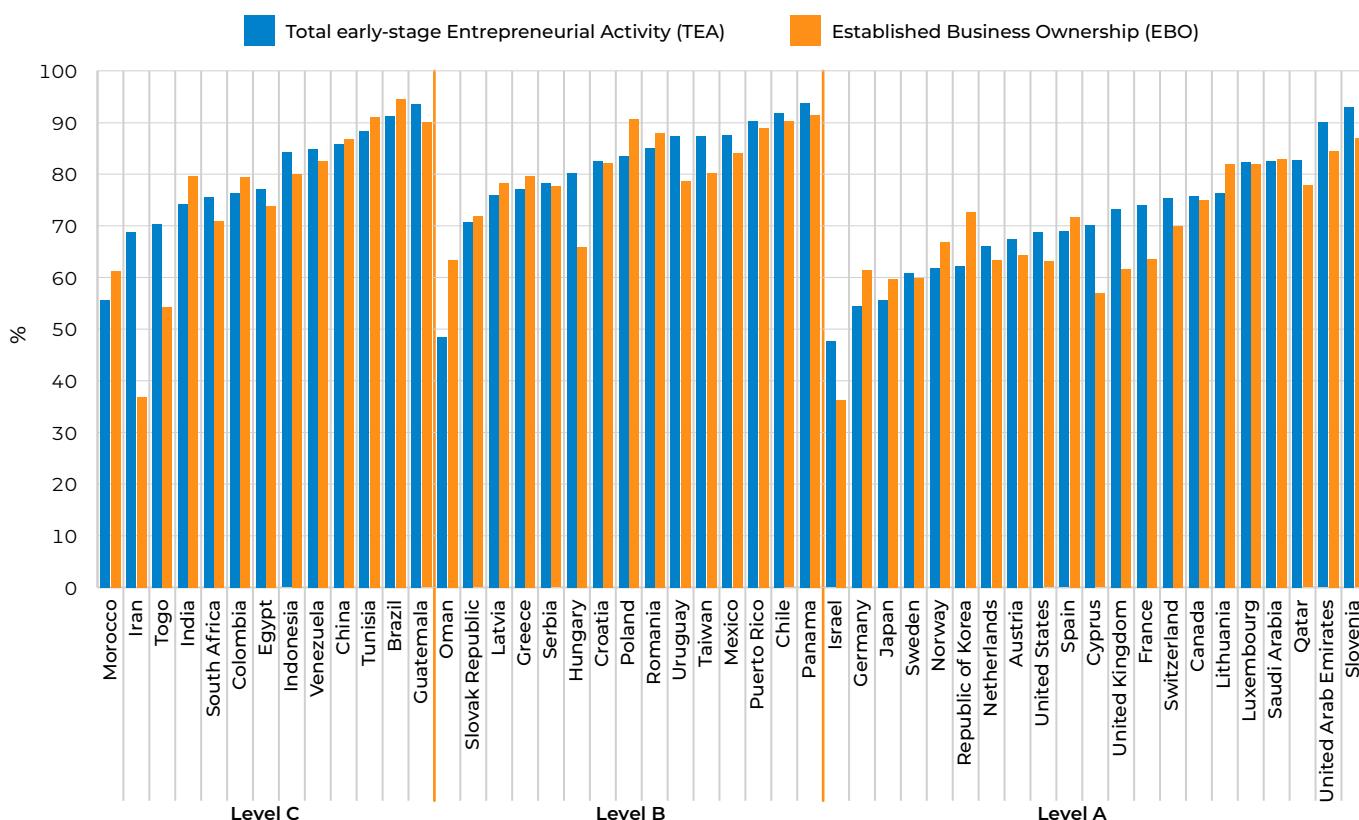


FIGURE 4.7 “When making decisions about the future of my business, I always consider environmental implications” (agree, % Total early-stage Entrepreneurial Activity and % Established Business Ownership)

Source: GEM Adult Population Survey 2022

entrepreneurs agreed: two Level C, one Level B and six Level A.

Environmental concerns present a very similar picture.²⁹ In 19 economies — six Level C, eight Level B and four Level A — four out of five of both new and established entrepreneurs agreeing that these concerns are always considered in decisions about the business. Five economies had less than three in five new entrepreneurs agreeing: three from Middle East & North Africa plus Germany and Japan. Only two economies had less than one

in two established entrepreneurs agreeing: Israel and Iran.

That so many of those starting new or running established businesses consider social and environmental concerns when making decisions is very positive, although those concerns may decline as incomes rise. That less well-off economies take these concerns seriously is perhaps not surprising, given that many of these economies have borne the brunt of the social and environmental impacts of change.

4.6 ENTREPRENEURSHIP AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Under the 2030 Agenda for Sustainable Development approved by the United Nations, entrepreneurship was identified as an important mechanism to promote the achievement of the UN SDGs for more equitable, greener, more balanced and higher-quality development.³⁰

The 17 goals included in the SDGs were published in 2015 and have slowly been gaining traction since. A question in the GEM APS asked those starting new and running established

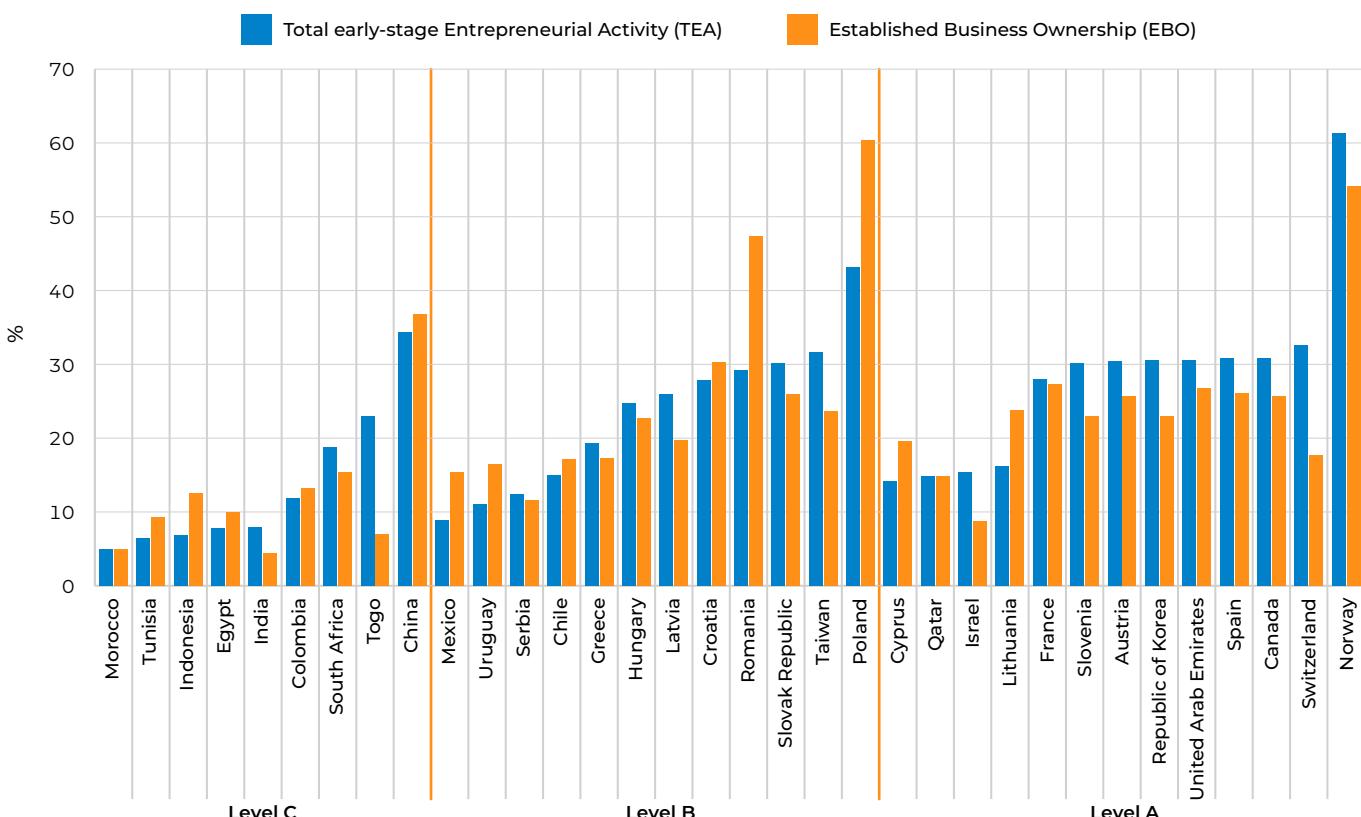
FIGURE 4.8

Are you aware of the 17 United Nations Sustainable Development Goals? (% Total early-stage Entrepreneurial Activity and % Established Business Ownership)

Source: GEM Adult Population Survey 2022

29 In this case, the correlation coefficient between the percentage of TEA and percentage of EBO agreeing is 0.816.

30 See, for example, Lui, Y., Samsami, M., Meshreki, H., Pereira, F., & Schøtt, T. (2021). Sustainable Development Goals in strategy and practice: Businesses in Colombia and Egypt. *Sustainability*, 13(22), 12453. doi: <https://doi.org/10.3390/su132212453>



ENTREPRENEUR HIGHLIGHT

Swarna Shiv

Founder, Unsmudgeable (United States)

The role of education in launching a company

Over the years, we have consistently seen that access to quality education varies considerably across the globe.

A great example of someone who used an educational experience to start a new business is Swarna Shiv. She founded Unsmudgeable, a green permanent anti-smudge eyewear lens coating for a lifetime of clear vision. The idea for the company came to fruition in October 2021 during the first entrepreneurship class Swarna took as an undergraduate at Babson College.

"We were tasked with generating 10 startup ideas and pitching our best one. Unsmudgeable ended up being my favourite because it solves a personal issue."

After a semester of customer discovery through constructing preliminary market and feasibility assessments in the class, Swarna decided to pursue the idea as a startup. From there, she received access to the best entrepreneurship programs, pitch competitions and (most importantly) people that Babson could offer. In its early phases, Unsmudgeable is becoming a materials development company that is building its MVP coating, expanding its team, and identifying further vertical market integrations.



"An education can be essential to conglomerate the resources and community necessary for an entrepreneur to execute their venture. Essentially, without my educational experiences at Babson, my startup would not exist."

businesses if they were aware of the SDGs. This question was optional for national teams to administer, with 34 of the 49 APS participating economies choosing to ask this in 2022. Of course, this is not a random sample: those teams choosing to ask this question have done so because of their perception of its relevance to entrepreneurs in their economy. Despite this, Figure 4.8 shows that awareness of the SDGs among those starting a new business or running an established business was low. The highest level of awareness among those starting a new business was 61% in Norway and 43% in Poland,

and less than two in five everywhere else, although with some positive association with income level. Less than one in 10 new business starters were aware of the SDGs in five out of nine Level C economies, one of 12 Level B economies and none of 13 Level A economies.

Established Business Owners evidence a broadly similar pattern, with more than a third of those running an established business aware of the SDGs in just four economies (Poland, Norway, Romania, and China), and less than one in five aware in eight Level C economies, six Level B and four Level A economies.

This lack of awareness is despite the high proportions of entrepreneurs, both new and established, reporting in the previous section that they always consider social and environmental concerns in their decisions about the future of the business. Substantially more

entrepreneurs appear to be considering social and environmental issues than those that are aware that, in doing so, they may be helping to meet those SDGs. The success of the United Nations 2030 Sustainable Development Goals is crucial to the future global economy and society.

4.7 CONCLUSIONS AND POLICY IMPLICATIONS

Individuals tend to start businesses for different reasons across different economies and income groups. Significantly, these motivations increasingly include social and environmental objectives as well as the traditional profit motive. This bodes well for potential shifts towards more purpose-driven companies that add value to society and address some of the world's biggest challenges according to the United Nations Sustainable Development Goals.

Whatever the objectives, and despite the pandemic and rising prices, most of those starting a new business in 2022 did not agree that business growth expectations were lower than a year earlier. This was confirmed by a brief comparison of those new entrepreneurs in 2022 agreeing that growth expectations were lower than a year earlier, with those answering the same APS question in 2021.

When those starting or running a new business were asked whether they agree with four defined motivations for starting their business, “to build great wealth or very high income” and “to earn a living because jobs are scarce” were the

most popular choices, although support for the latter declined as income level increased. The motivation “to make difference in the world” was almost as popular, although the proportion of new entrepreneurs agreeing was generally higher in low-income economies. The motivation “to continue a family tradition” was important in a few specific economies, although its support typically also fell as income level rose.

If the proportion of entrepreneurs, both new and established, expecting to use more digital technologies to sell their products or services is a guide to how ready their businesses are to face an increasingly digital future, very high levels in some Latin American or Gulf economies suggest these are much better prepared than in many European economies.

Most economies had encouragingly high levels of new or established entrepreneurs agreeing that they always considered social and environmental issues when making decisions about the future of their business. Rather fewer were aware that doing so may have kept them in line with the United Nations Sustainable Development Goals.

The Impacts of Entrepreneurial Activity

Stephen Hill and Maribel Guerrero

5.1 WHAT DETERMINES ENTREPRENEURIAL IMPACTS?

The question of why entrepreneurship is important, both to society and to the economy, was briefly addressed in Chapter 1. There is a consensus that new businesses have an impact by creating jobs, translating ideas into products and services, introducing new technologies, stimulating market competitiveness, and generating income and value-added in both domestic and international markets.

The economic impacts of a new business will be determined by a host of variables, including turnover, capital intensity, employment, local sourcing, export orientation, etc. The new business is typically small, with low turnover, few employees and local markets, and may be initially unprofitable. All of this may be true, but assessing the impact of a new business in this way is to miss the point. The issue is not the current impact of the new enterprise but rather its potential impact: what can the business grow and develop into, and what will its impacts be then?

There is, unfortunately — yet obviously — no objective way of establishing what the business will become, never mind what its impacts will be. However, a number of individual and organizational determinants of entrepreneurship impacts can provide an important guide.³¹ First,

expecting to grow is usually an important precursor to actually doing so. The Adult Population Survey (APS) asks new entrepreneurs how many people will be working for the business in five years' time. Many people starting a new business expect to employ no one but themselves by then, an expectation that is likely to be self-fulfilling. Others expect to employ six or more people in five years' time, which is no guarantee that they will, but promises rather more economic impact in the future. Similarly, many new businesses, especially in consumer services, replicate the activities and outputs of existing businesses.

Second, new businesses that disrupt and transform economies strategically are typically those that produce new goods and services, often introducing innovative technologies and processes, as well as competing by selling to national and international, rather than just domestic, markets. The APS asks those starting or running a new business if they are selling any products or services that are new, using novel technologies or processes, and about the scope of their customers: whether they are local, national or international. Each will be considered in turn because each says something about the potential economic impact of the new business.

5.2 ENTREPRENEURSHIP AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs)

The previous chapter demonstrated that many contemporary new businesses are motivated to make a difference in the world, as well as by

income and wealth. A substantial proportion of new and established entrepreneurs explicitly take social and environmental considerations

³¹ In this regard, Neumann highlights the individual determinants (e.g. motivations, ambitions, expectations) and organizational determinants (e.g. innovativeness, degree of internationalization, survival strategies) that shape entrepreneurship

impact. Neumann, T. (2021). The impact of entrepreneurship on economic, social and environmental welfare and its determinants: A systematic review. *Management Review Quarterly*, 71(3), 553–84. doi: <https://doi.org/10.1007/s11301-020-00193-7>

into account in their decision-making, and some are aware of the United Nations Sustainable Development Goals (SDGs). New businesses can assist in the achievement of the SDGs both directly and indirectly. For instance, some social enterprises are created to provide employment opportunities to under-represented minorities, feed the poor, or to directly tackle issues such as oceanic pollution or climate change. Particularly in Level C and B economies,³² many new entrepreneurs are motivated by a sustainable business model to address an “intention–action gap” in the care of their local communities, but also in order to generate value for new segments of eco-friendly or sustainable customers.

Some insight into recently burgeoning environmental awareness can be gained by examining the percentage of those starting or running new businesses who always take environmental implications into account when making decisions about the future of that business, over the two years that the GEM APS has been asking that question. Figure 5.1 subtracts the percentage of Total early-stage Entrepreneurial Activity (TEA) agreeing in the 2021 APS from

FIGURE 5.1

The percentage of Total early-stage Entrepreneurial Activity (TEA) agreeing that they always take environmental implication into account in 2022, minus that percentage in 2021

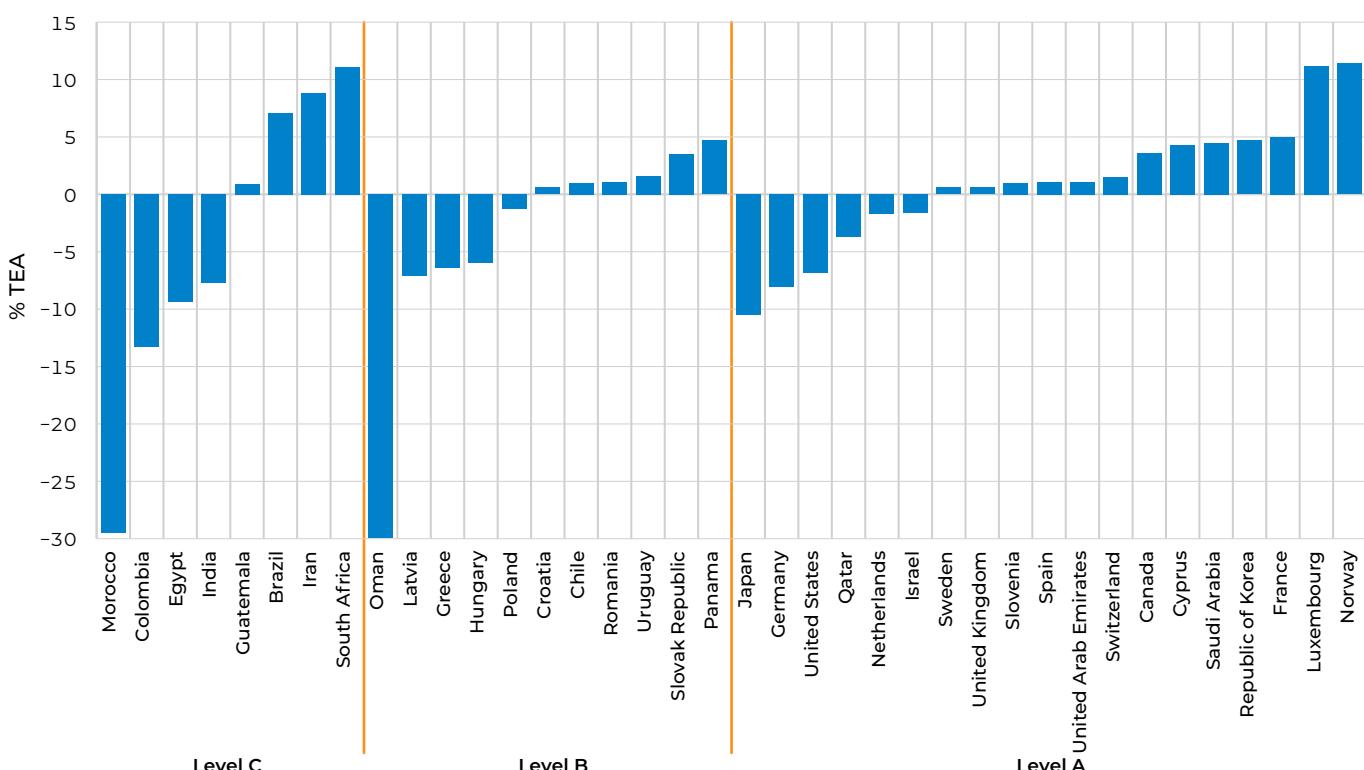
Source: GEM Adult Population Survey 2021, 2022

32 See Figures 4.6 and 4.7 in Chapter 4.

those agreeing in the 2022 APS. A positive result shows an increase in the proportion of new entrepreneurs taking environmental implications into account. Of the 38 economies answering this question in both years, in 23 that proportion has increased, the largest increases being in South Africa, Luxembourg and Norway, but with large decreases also evident in Morocco and Oman. Note that the chart shows percentage point changes in TEA. Many of these changes are small and unlikely to be significant.

Assessing the impacts of new enterprises on social and environmental well-being is an important area for future research,³³ and is actively being developed by the Global Entrepreneurship Monitor project. As noted earlier, some first steps have been taken in the evolution of the GEM APS, with questions on motivation introduced in the 2019 Global Report, questions on the role of social and environmental

33 See further, Vedula, S., Doblinger, C., Pacheco, D., York, J.G., Bacq, S., Russo, M.V., & Dean, T.J. (2022). Entrepreneurship for the public good: A review, critique, and path forward for social and environmental entrepreneurship research. *Academy of Management Annals*, 16(1), 391–425. doi: <https://doi.org/10.5465/annals.2019.0143>



ENTREPRENEUR HIGHLIGHT

Fariel Salahuddin

Founder of Goats for Water (Pakistan)
Cartier Women's Initiative Fellow, 2019

Enabling smallholder farmers to use their produce and livestock as currency

Sindh province, a small remote rural farming community in Pakistan, was having issues accessing clean water to meet hygiene and health needs. Water was being bussed from the nearest city at great expense, making it extremely expensive and not available to all. A solar water pump would solve their problem but there wasn't enough money for it. They could have been gifted a pump by the government or an NGO — but, despite years of waiting, their numbers weren't large enough to meet with NGOs' or government KPIs.

Is it possible for communities to reimagine money to make clean water a reality? Fariel Salahuddin asked this question to herself during a visit to Sindh. She recalled:

"A herd of about 200 goats was coming back from grazing. I thought 'Wow, that's a lot

of goats.' The village doesn't have cash, but maybe they can pay in livestock."

This is when she offered to accept goats from this community as payment for a pump. The community exchanged 40 goats for a 2.5 hp solar water pump, and Goats for Water was born. The company works with smallholder farmers, enabling them to buy key assets such as solar pumps, solar home lights, micro-grids and smartphones that increase the quality of their lives and enhances their productivity and livelihoods. Goats for Water has now worked with over 60 communities in Pakistan and is successfully testing its model in Somalia and Nepal, having thus far brought water and electricity to over 98,000 people.

Fariel explained:

"We want to tokenize the livestock to create a community currency that farmers can use with enhanced affordability for goods and services that they have struggled to acquire due to low incomes."



considerations in decision-making appearing in the APS for the first time in 2021, while questions on entrepreneurial awareness of the SDGs were added in 2022. In addition, the GEM National Expert Survey (NES), considered later in this

Global Report, explicitly asks those national experts for their assessment of new business impacts on the SDGs. Slowly, through GEM, a picture of the wider impacts of entrepreneurial activity is beginning to emerge.

5.3 ENTREPRENEURSHIP AND EMPLOYMENT EXPECTATIONS

It was noted earlier that growth expectations count. New entrepreneurs expecting to create many new jobs are likely to have a much greater impact than those expecting to employ no one but themselves. Figure 5.2 shows job growth expectations among those starting or running a new business, divided into those expecting to employ no additional people, those expecting to create, first, up to five new jobs and, second, six jobs or more.

Figure 5.2 shows both the level of job expectations (as a percentage of adults) and, indirectly, the share of those starting a new business within each job expectation category (% TEA). The proportion of adults in each economy both starting a new business and expecting to employ no more people in five

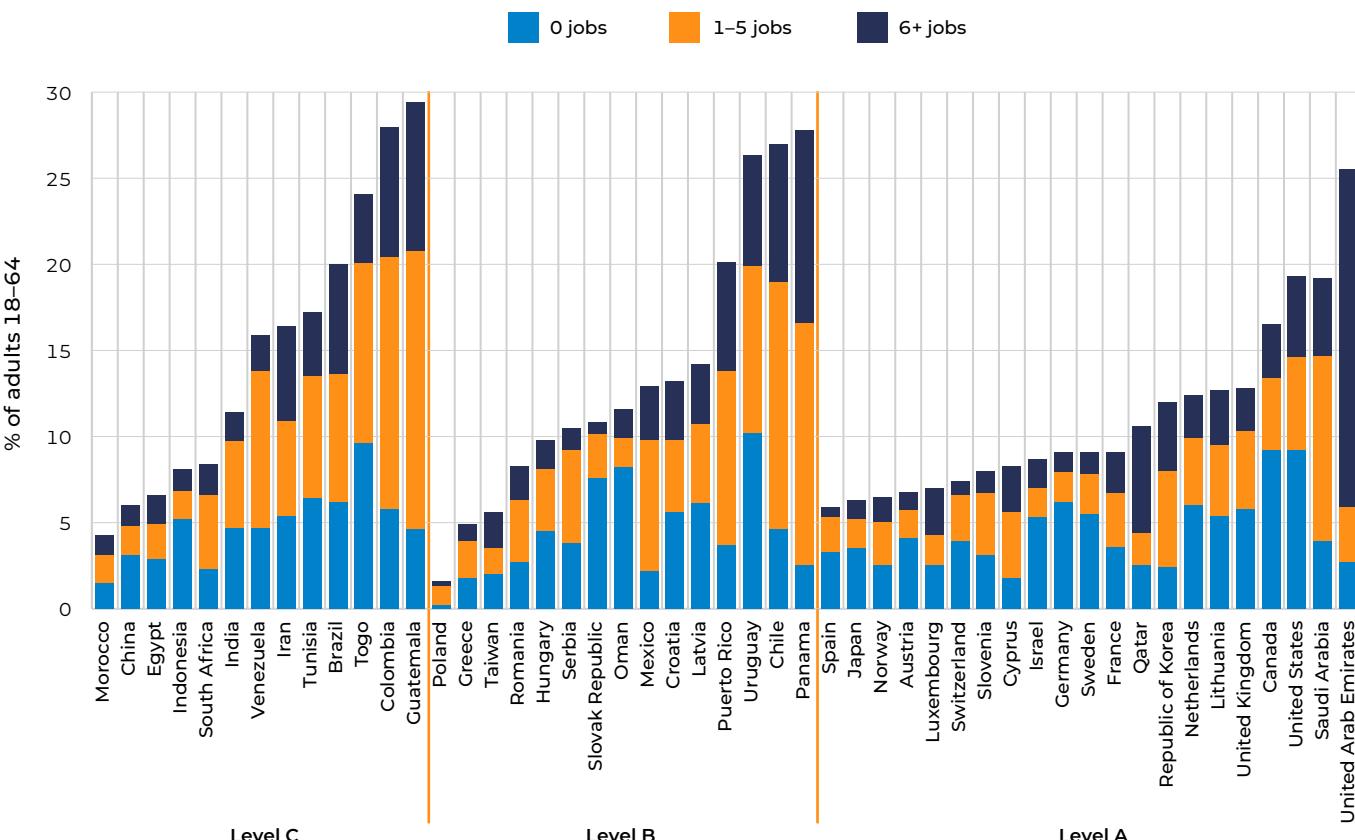
years' time ranged from one in 50 or less in four economies (Poland, Morocco, Greece and Cyprus) to around one in 10 in four other economies (Togo, Uruguay, Canada and United States). In two Level C and two Level B economies, over half of those starting a new business expected to employ no more people, which was also the case in eight Level A economies.

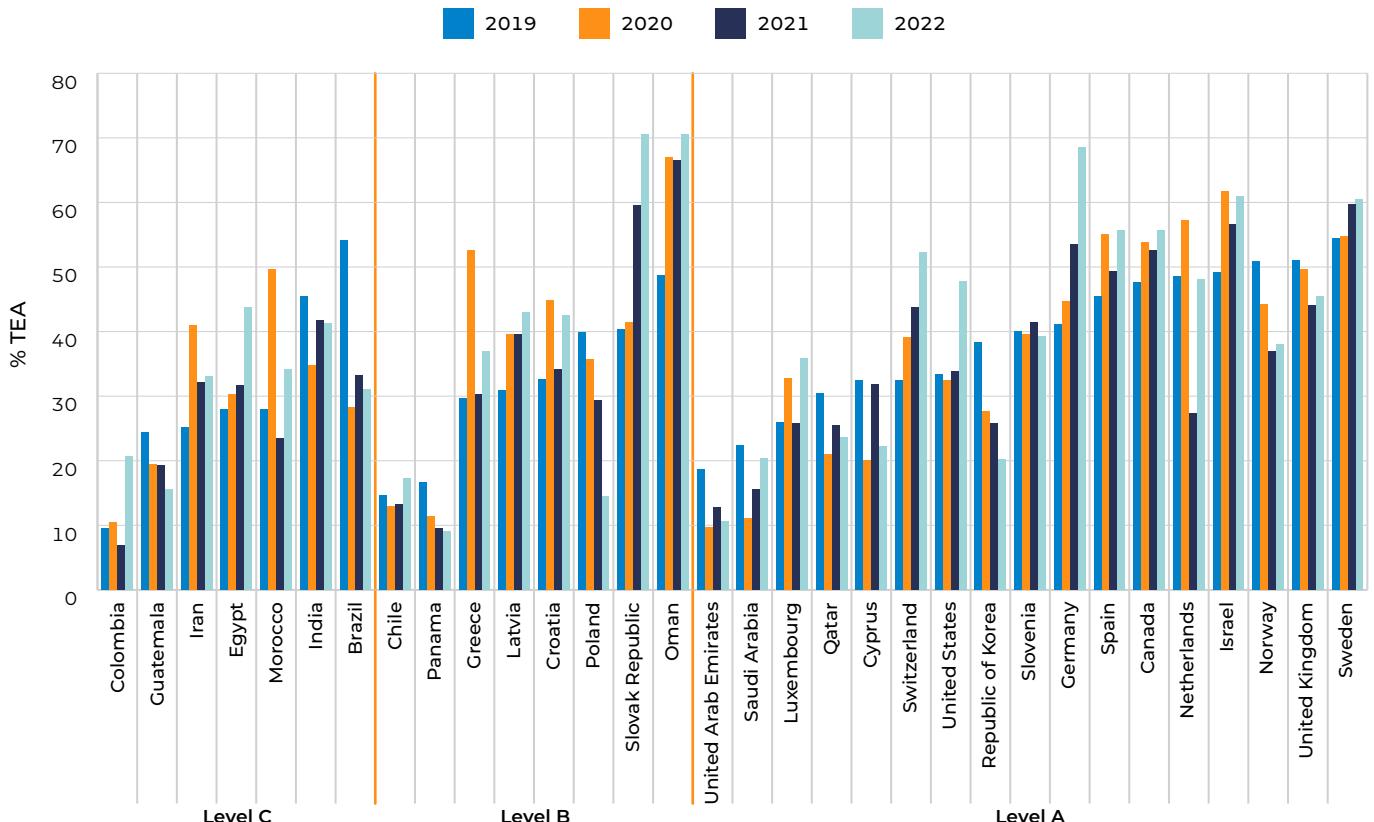
At the other end of the scale, 10 economies had more than one in 20 of their adults both starting or running a new business and expecting to employ an additional six or more people in five years' time. Four of these were in Level C (Guatemala, Colombia, Brazil and Iran), four were in Level B (Panama, Chile, Uruguay and Puerto Rico) and two in Level A (United Arab Emirates and Qatar). The United Arab Emirates had by far

FIGURE 5.2

Job growth expectations among early-stage entrepreneurs expecting to employ 0, 1–5 or 6 or more people in five years' time (% adults)

Source: GEM Adult Population Survey 2022





the highest level, with almost one in five adults both starting or running a new business *and* expecting to create six or more jobs in five years' time.

It is instructive to compare, for each economy, the proportion of adults starting and running a new business and expecting to employ no additional people, to the proportion of new entrepreneurs in the same economy expecting to employ six or more. In seven economies – the Slovak Republic, Spain, Germany, Indonesia, Switzerland, Oman and Sweden – there were at least four adults starting or running a new business and expecting to employ no more people for every new entrepreneur expecting to employ six or more. In these economies, total job impacts from those new businesses are likely to be modest. On the other hand, there were two economies – the United Arab Emirates and Panama – with four or more times more adults starting a new business and expecting to employ six or more people, than starting a business and expecting to employ no more people. Job impacts from new businesses are likely to be higher here.

There is also the interesting question of whether the pandemic has impacted the job

expectations of new entrepreneurs, with one conjecture being that, if the pandemic pushed many people into self-employment, the proportion of new entrepreneurs expecting to employ no more people might have risen. Figure 5.3 shows the percentage of those starting or running a new business who expect to employ no additional people in five years' time for each year from 2019 to 2022.

Of the 32 economies that participated in the GEM APS in all years between 2019 and 2022, there are 13 in which the proportion of those starting or running a new business who expected to employ no more people in five years' time fell, most strongly in Poland (from 40% in 2019 to 15% in 2022), Brazil (54% to 31%) and the Republic of Korea (38% to 20%). Conversely, there were 19 economies in which that proportion increased, with the strongest increases in the Slovak Republic (from 40% in 2019 to 71% in 2022), Germany (41% to 69%) and Oman (48% to 71%). So overall some slight indications are evident of an increase in the proportions of new entrepreneurs expecting to employ no more people, especially in Northern Europe.

FIGURE 5.3

The percentage of those starting or running a new business and expecting to employ no additional people in five years' time (% Total early-stage Entrepreneurial Activity)

Source: GEM Adult Population Surveys 2019–2022

ENTREPRENEUR HIGHLIGHT

Ken Gordon

President and CEO, Quantum Silicon Inc. (Canada)

Starting a business to seize on an opportunity

Individuals start businesses for a number of different reasons. Some are motivated to make a difference in the world. Others aspire to build great wealth or earn a very high income. In some cases, individuals resort to entrepreneurship because jobs are scarce or to continue a family tradition.

Ken Gordon, President and CEO of the Canadian-based company Quantum Silicon, started his business because “It was a compelling opportunity that just had to be taken up.”

Quantum Silicon harnesses proprietary single-atom silicon quantum dots to create high-speed quantum accelerators that are at least 100 times more energy-efficient than their transistor-based equivalents. The company offers a suite of Quantum Accelerators that provide fast, energy-efficient, secure solutions for rapidly growing markets such as cybersecurity and quantum sensing.

The origins of the company date back to 2012 when Ken was a partner with a Canadian venture fund. In the process of exploring new deals, he met Robert Wolkow, a physics professor at the University of Alberta and inventor of the single-atom silicon quantum dot (SQD). The professor explained to Ken how patterns of these SQDs can be used to replace transistors in computing circuits, making them faster and more energy-efficient. Behind the SQD technology lay a unique atomically precise manufacturing technology.

At these early stages, the SQD technology had been patented and some rough ideas existed about how to use it to make energy-efficient fast electronics. Manufacturing was complex and slow, requiring constant human supervision at every stage. Ken’s experience, however, led him to believe that it was important to confront the market as early as



possible so that the development process could lead to useful products. Said Ken:

“It was becoming clear that the semiconductor industry was facing the end of the Moore’s Law path that had guided its development for half a century. That path was ending because of the energy inefficiency of the transistor.”

The challenge was bringing to market a new technology using silicon, which most people would have thought had been thoroughly investigated and fully developed in a mature and complex industry. Ken was up for the challenge because: “If successful, the payoff would be enormous.”

To date, Quantum Silicon Inc. has automated its atomically precise manufacturing technology, making it scalable, and has designed its first products: a Quantum Random Number Generator and a Quantum Magnetometer. Ken says:

“The products are all-silicon and all-electronic. Competing products use exotic materials like nitrogen vacancy diamond and photonic sources of randomness.”

5.4 ENTREPRENEURSHIP AND INNOVATION

As noted earlier, the potential contributions of entrepreneurship include turning ideas into products or services, expanding choices, introducing new technologies or processes, and improving efficiency. Product or process innovation can be important characteristics of high-impact new entrepreneurship, so the GEM APS asks those starting or running a new business if they are introducing any products or services that are new to the area, new to the country or new to the world, alongside a similar question about the use of any new technologies or processes. Of course, in a small economy, their “area” and their “country” may be virtually synonymous. As it turns out, innovation in new entrepreneurship is much more likely to involve applying product or process ideas developed elsewhere than introducing products or technologies that are new to the world. This diffusion of ideas is important in improving quality and efficiency.

Figure 5.4 shows the proportion of adults in each participating economy who were both starting or running a new business and

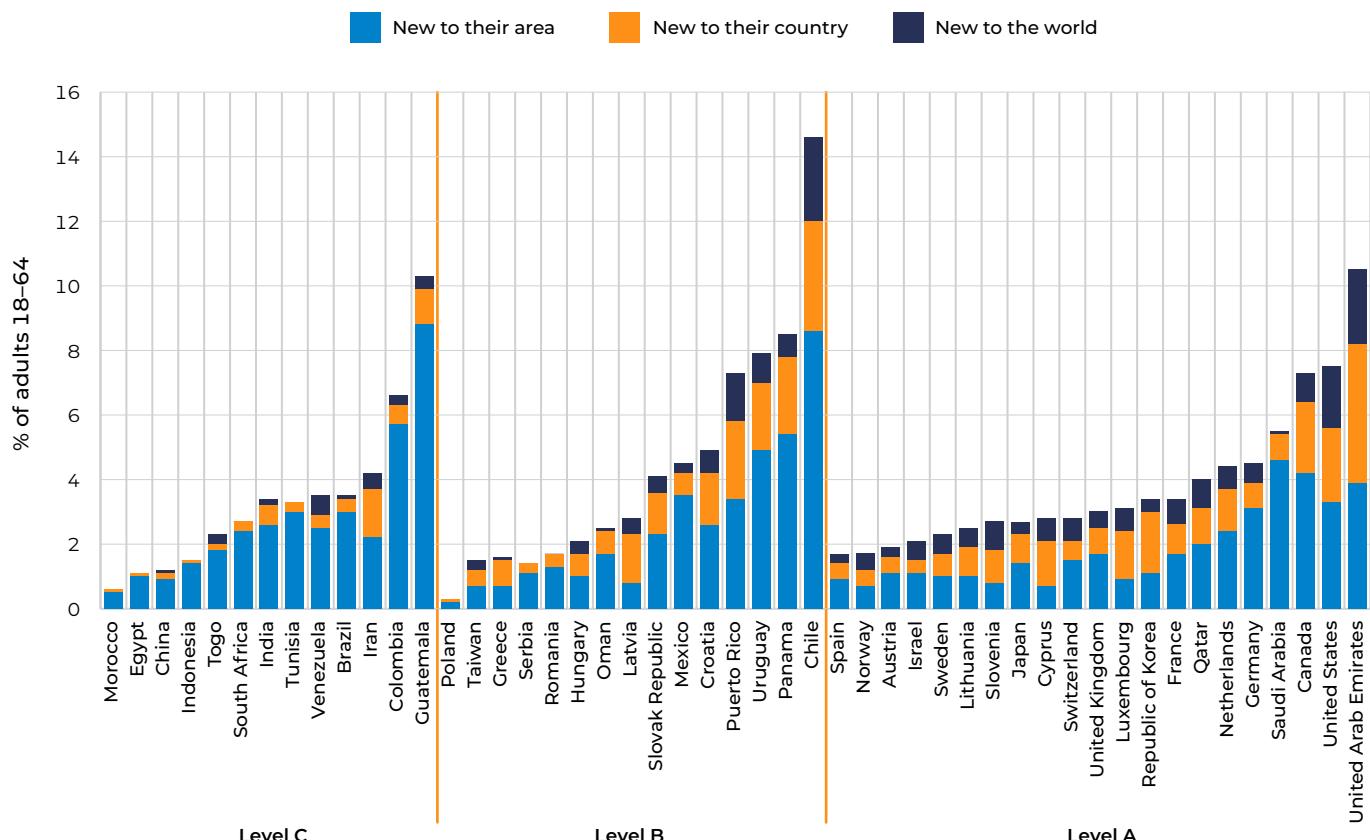
introducing products or services that were new to their area, new to their country or new to the world. Of the 49 economies, 11 had fewer than one in 100 adults starting or running a new business introducing any goods and services at least new to their area, while 45 economies had less than one in 20 adults doing the same.³⁴ Put another way, there were just four economies where more than one in 20 new entrepreneurs were introducing any goods or services that were at least new to their area. Two of these economies were in Level C (Guatemala and Colombia), while two were in

34 Once again, many of these numbers are very low, so care must be taken not to attach undue significance to small differences. For example, suppose an APS with a sample size of 2,000 reveals a level of TEA of 10%. This implies 200 adults starting or running a new business. If 1% of those was introducing a product that was new to that country, that is just two entrepreneurs. It would be unwise to assert that, if three entrepreneurs were doing the same in another economy, new product innovation was 50% higher than in the first economy.

FIGURE 5.4

The proportion of adults starting a new business with products or services that were new to their area, new to their country, or new to the world

Source: GEM Adult Population Survey 2022



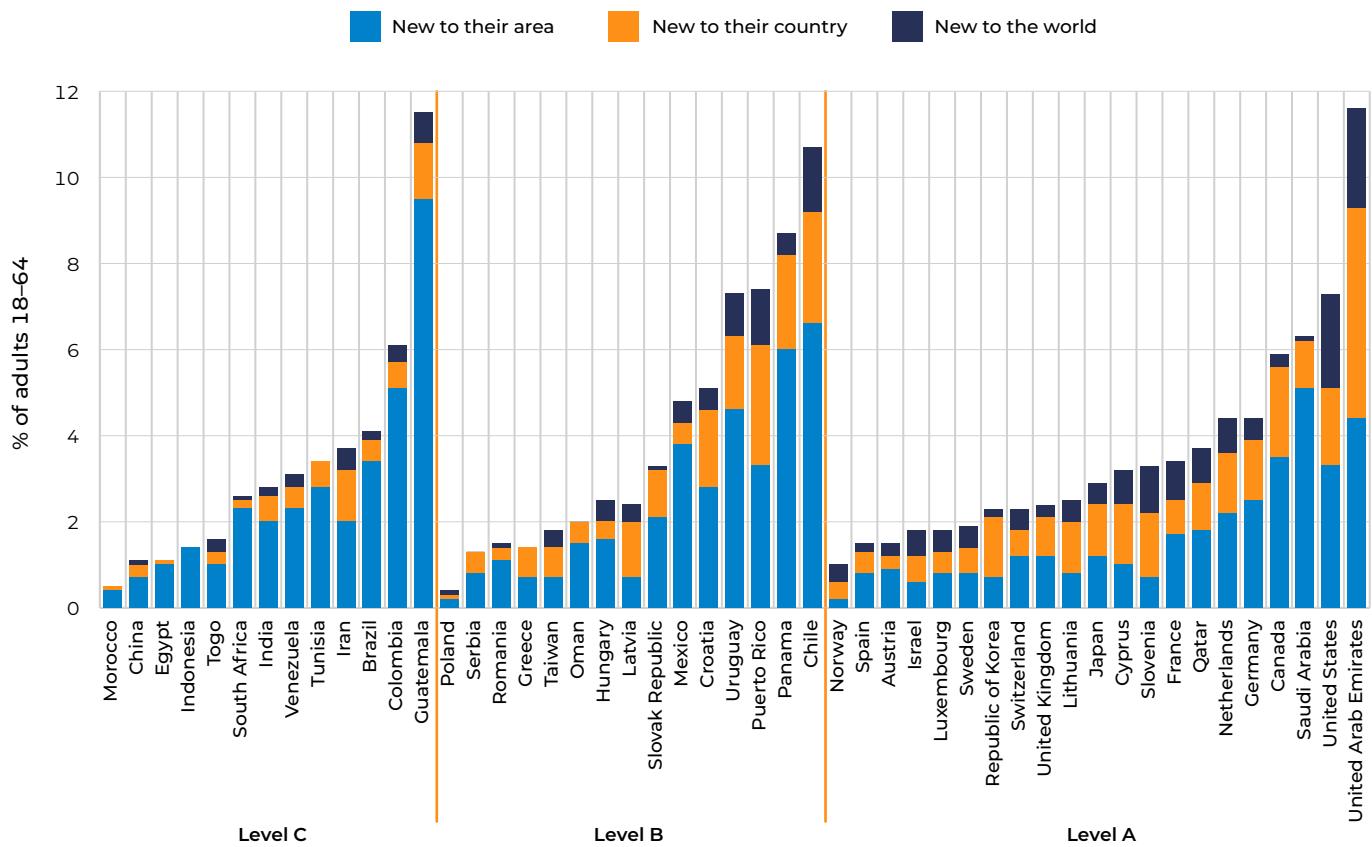


FIGURE 5.5

The proportion of adults starting a new business with any technologies or procedures that are either new to their area, new to their country or new to the world

Source: GEM Adult Population Survey 2022

Level B (Panama and Chile). There were none in Level A.

In terms of new entrepreneurs introducing products or services new to their country (also Figure 5.4), there were 31 economies in which this rate was less than 1%, and just seven economies where this rate exceeded 2%. None of the latter were in Level C, four were in Level B (Puerto Rico, Uruguay, Chile and Panama) and three in Level A (United Arab Emirates, United States and Canada). Finally, starting a new business and introducing any products or services that are new to the world is very rare indeed, reported by less than 1% of adults in 45 of the 49 economies. The exceptions were Puerto Rico, the United States, the United Arab Emirates and Chile, with the latter highest at just 2.6% of adults.

Those new entrepreneurs using new technologies or procedures present a now familiar picture (Figure 5.5). Note the similarities between Figure 5.4 and Figure 5.5.

Within each income group, more or less the same economies recur at the top and bottom. Within income Level C, the three economies scoring lowest in terms of the percentage of adults starting or running a new business and introducing any new products or services (Figure 5.4) were Morocco, Egypt and China; for new technologies (Figure 5.5), it was the same three. In Level C, the highest for new products were Guatemala, Columbia and Iran; for new technologies, it was Guatemala, Columbia and Brazil. The other income groups were a little more diverse, but not much. Hence there is a high degree of correlation between the two: the economies in which a new business is most likely to be introducing new products are more or less the same in which a new business is most likely to be using new technologies or procedures. It would not be difficult to combine the two figures to produce a league table of new business innovation within each income group.

5.5 ENTREPRENEURSHIP AND COMPETITIVENESS³⁵

In the 2019 APS, GEM introduced new questions about the scope of a business's customers, i.e. whether they will have customers within their local area, only within their own country, and whether they will have customers outside of their country. This customer scope is important, because having customers beyond the local area/country brings revenue into that area or country, with what can be significant spillover effects on other businesses and incomes.

Figure 5.6 shows, for each economy, the level of TEA, and those within this that will have customers only within their local area, only within their country and those that will have customers abroad. Again, note that, in small economies like

³⁵ Guerrero *et al.* (2016) found a bi-directional relationship between entrepreneurship and regional competitiveness, as well as some insights on the endogenous process of wealth creation in economies. For further details, Guerrero, M., Urbano, D., & Fayolle, A. (2016). *Entrepreneurial activity and regional competitiveness: evidence from European entrepreneurial universities*. *The Journal of Technology Transfer*, 41(1), 105–131.

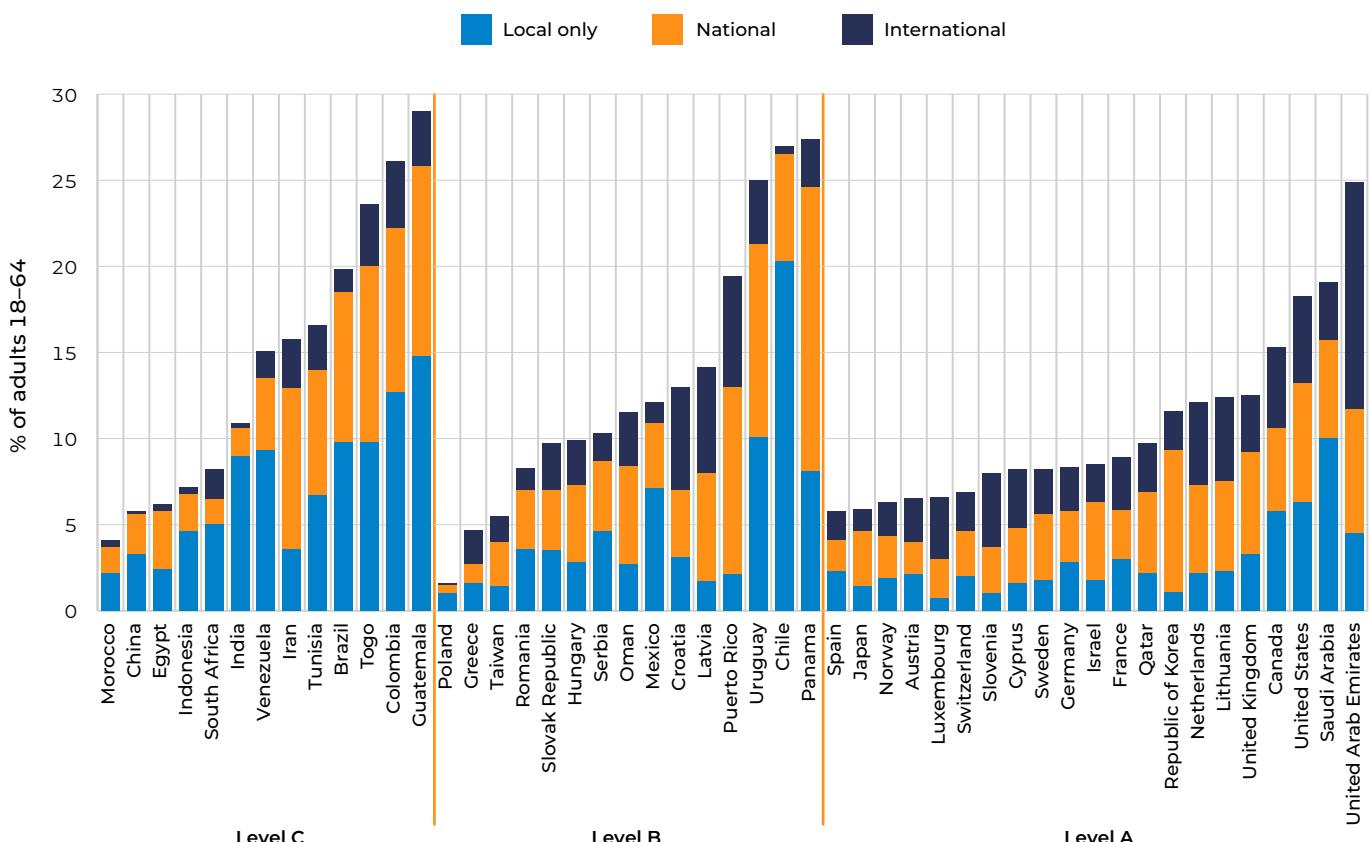
Luxembourg, Israel or Cyprus, local and national can imply more or less the same space.

Figure 5.6 shows that the highest levels of local-only customers for those starting or running a new business were in Level C, with the clear exception of Chile in Level B, where over 20% of adults were starting or running a new business with only local customers, followed by Guatemala at 15% and Uruguay, Brazil, Togo and Saudi Arabia, each around 10% of adults. Saudi Arabia is the only high-income economy with this level of local-only customers, with the next high-income economies being the United States and Canada, both with around 6%. Twelve economies had less than one in 50 adults starting or running a business with only local customers, four from Level B and eight from Level A. The lowest of all was Luxembourg, a small country where having only local customers could be very limiting.

In 2022, relatively few adults were starting or running a business expecting international customers. None of the Level C economies had at least one in 20 adults starting a business and expecting international customers, a level

FIGURE 5.6
The level of Total early-stage Entrepreneurial Activity (TEA) and those within this that will have only customers in their local area, only within their country and those that will have international customers (% adults)

Source: GEM Adult Population Survey 2022



ENTREPRENEUR HIGHLIGHT

Rasha Rady

Co-founder and CEO of Chefaa (Egypt)
Cartier Women's Initiative Fellow, 2020

Delivering for patients while working in different environments

Chronically ill patients in Egypt fill two million prescriptions each month. Yet, despite the high prescription volume, Egyptian pharmacy systems are not tech-enabled. The MENA region has the highest incidence of non-communicable diseases globally and medication shortages are common. What is the point of going to the doctor if you don't get the right medicine?

This sentiment was captured in a dialogue between Dr Rasha Rady and her friend Doaa Aref. Following surgery, Doaa asked: "Do you realize I can order anything online, except the medication I need to stay alive?"

Dr Rady knew from her work with chronically ill patients that many people were experiencing this same frustration. In response, Dr Rady and Doaa created Chefaa, a digital platform that helps chronic patients order, schedule and refill prescriptions regardless of location or income. Patients enter prescriptions on an AI-powered, GPS-enabled application which locates the nearest pharmacy. The prescription is then ordered, delivered and refilled using a companion professional app.

Launched in 2017, Chefaa was well positioned to address the disruptions and health care needs resulting from the COVID-19 pandemic. Dr Rady explained:

"With chronic patients being at highest risk amid the global COVID-19 crisis, staying at home was their only option and they had to explore digital solutions. Chefaa aligned perfectly to this need."

In addition to patients, the Chefaa team was also able to adapt, pivoting operations to a remote work set-up. Said Dr Rady:



"Working from home had a positive impact on the Chefaa team."

After COVID-19 pandemic restrictions were lifted, some employees returned to the office while others worked from home.

"As per our experience, a 100% working-from-home policy didn't have the same result. We found that a healthy work environment and interdepartmental interactions of employees creates a strong bond resulting in more productive outcomes."

attained by only three Level B economies (Croatia, Latvia and Puerto Rico, all with just over 6%). Meanwhile, more than one in eight United Arab

Emirates adults were new entrepreneurs that anticipate international customers, a level more than twice that of the United States (5%).

5.6 ENTREPRENEURSHIP AND INTERNATIONAL REVENUE

The previous section has already demonstrated the relative paucity of international customers for those starting or running a new business. Having international customers is a matter of policy and strategic practice: does the public policy framework in the economy encourage exports, is foreign currency freely available to exchange, and are there tariffs and duties that mean extra costs that could represent an entry barrier? Economies are more likely to trade with each other if they share the same language, or have aspects of culture in common, while exports by new businesses may be more prevalent in smaller economies with large neighbours.

GEM defines a new business as export-intensive if 25% of revenue or more is expected to come from overseas. This may be direct, as in exported goods or services, or indirectly, such as purchases by tourists or visitors. Those identified in the GEM APS as starting or running

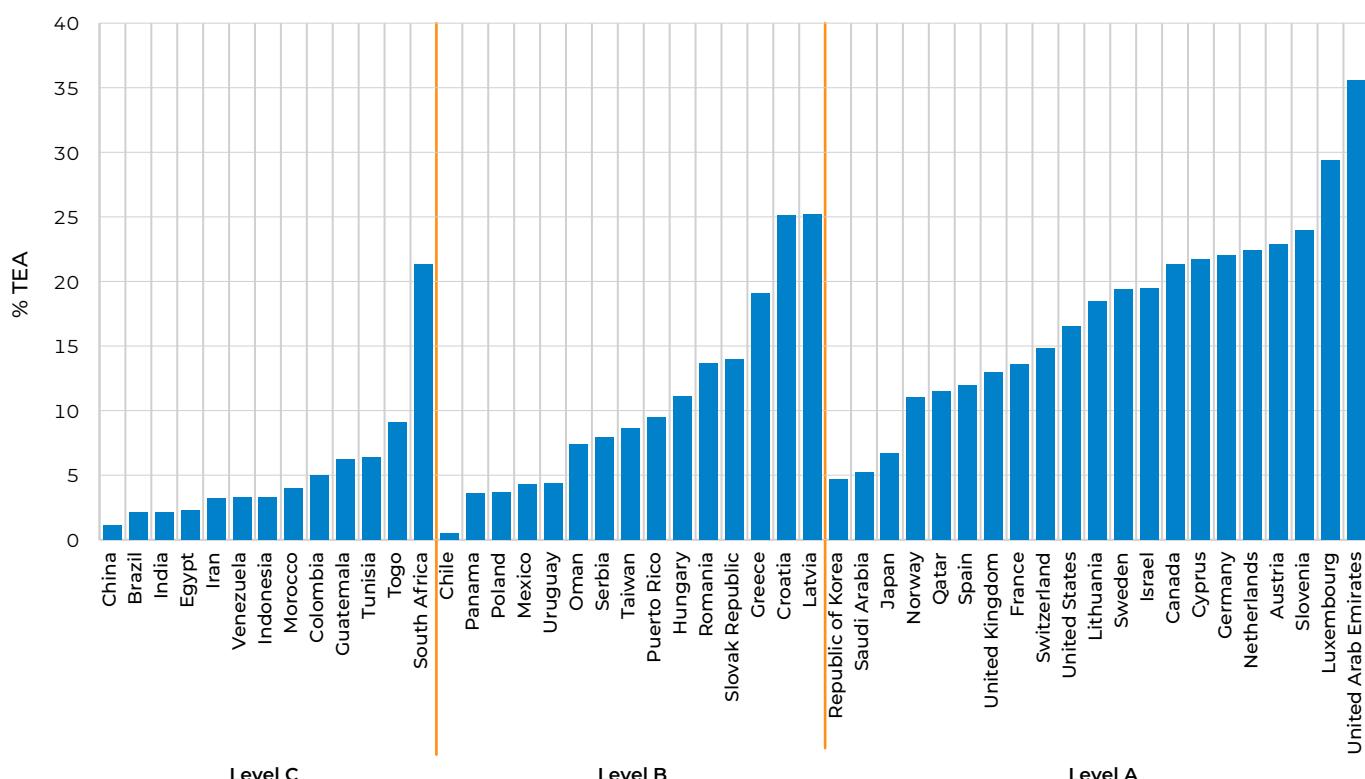
a new business are asked what proportion of their annual sales revenue comes from outside their country. The results for 2022 are shown in Figure 5.7. Note that this chart shows results as a percentage of TEA rather than the percentage of adults, and is therefore not directly comparable to the previous charts in this chapter.

Of the 13 Level C economies, only one (South Africa) had 10% or more of its new entrepreneurs anticipating a quarter of its revenue coming from outside the country, compared to six economies in Level B and 18 in Level A. The five lowest proportions of new entrepreneurs with this anticipation were all from Level C (China, Brazil, India and Egypt) plus Level B Chile, while three of the five highest proportions were from Level A (United Arab Emirates, Luxembourg and Slovenia), plus Level B Latvia and Croatia. All except the United Arab Emirates were from Europe.

FIGURE 5.7

The percentage of Total early-stage Entrepreneurial Activity (TEA) anticipating 25% or more of revenue from outside their country

Source: GEM Adult Population Survey 2022



However, high proportions of new entrepreneurs expecting a quarter or more of revenue from outside their country may not imply high proportions among the adult population. Relatively low levels of new entrepreneurship in these five economies scoring high in Figure 5.7 means that only two had 3% or more of its adults starting or running a new business that expected a quarter or more revenue from outside their country. By far the highest percentage of adults starting or running a business and having such expectations was in the United Arab Emirates at 9%, almost three times the next highest (Latvia).

Another interesting question is whether new entrepreneurs turned outwards as a result of the

pandemic, seeking new customers outside of their country, or whether they turned inwards, focusing on domestic customers. For the percentage of new entrepreneurs anticipating at least a quarter of revenue coming from outside their country, a brief analysis of 2019–2022 data showed very little change, with just one economy increasing its proportion each year (the Netherlands, up from 12% of TEA in 2019 to 22% in 2022). Most economies saw little change, although at least four appeared to have turned inwards, with falls in Saudi Arabia (from 26% in 2019 to 5% in 2022), Egypt (10% to 2%), the United Kingdom (20% to 13%) and Switzerland (27% to 15%).

5.7 CONCLUSIONS AND POLICY IMPLICATIONS

Most governments see the encouragement of new entrepreneurship as a major policy objective because of the contribution new businesses can make, not just to jobs, incomes and value-added, but increasingly to addressing social and environmental concerns. The GEM APS is evolving to address the impacts of new businesses on these issues, including their economic and social contribution to the United Nations Sustainable Development Goals (SDGs). Recent evidence suggests that new entrepreneurs are increasingly taking environmental implications into account in their decision-making.

New businesses are particularly important, not just for what they offer now but especially for their high-growth potential. While there is no objective method of predicting such potential impact, here GEM provides a number of useful indicators. The first impact indicator is anticipated jobs. In 12 of the 49 GEM-participating economies in 2022, over half of those starting or running a new business expected to employ no more people in five years' time. Conversely, 10 economies had more than 5% of their adults starting a business and expecting to add six or more jobs in five years' time. Seven were in Latin America & Caribbean, and three were in the Middle East. None were in Europe or North America. Given current socio-economic conditions, GEM data reveal an optimistic labour market signal in this impact measure. In general, most of the adults who have created a new business across the participant countries in 2022 show an aspiration to grow in the next five years by creating more jobs. An evolutionary analysis

of those starting or running a new business who expected to employ no more people in five years' time — in the 32 economies that participated in the APS in all years 2019–2022 — provided some insights into risky or conservative strategies adopted due to the influence of external shocks (pandemic or high inflation rates) on the fixed costs of creating a new job.

Alongside jobs, the second impact indicator of new businesses is in the application of new ideas: that is, innovation in products and/or processes. The APS showed that, in 2022, both of these were very much minority activities among those starting new businesses, albeit with a high degree of correlation between product and process innovation. Very few new businesses were introducing any products, services, processes or procedures that were new to the world. Considering high R&D costs and current inflation rates, the GEM project reveals some differentiation in these impact measures. Relatively few individuals who have created a new business across the participant countries in 2022 show an orientation to innovate as an entry strategy.

The third impact indicator is having international customers, bringing resources into the economy and generating further business. GEM defines a high-export orientation business as one that anticipates 25% or more of its revenue coming from outside the country. In the 2022 GEM APS, 15 economies had more than one in six of new entrepreneurs anticipating a quarter or more of their revenue from outside of their country.

Nine of these were Level A economies (seven from Europe plus Canada and the United Arab Emirates), three Level B (all from Europe) and just one Level C (South Africa). Directly or indirectly, this GEM impact indicator provides some insights into how those who have created new businesses in 2022 are stimulating competitiveness in both domestic and international markets based on their market segmentation strategy in current socio-economic conditions.

In summary, among new businesses, high job expectations and high export orientation showed rather more potential impacts than any focus on product or process innovation.

It is difficult to assess whether this is a product of the particular circumstances of 2022, in a post-pandemic, high-inflation global economy with continuing unresolved conflicts. It also is clear that many new businesses have much to gain from developing new customers beyond their own borders. Assuming that governments are interested in promoting high-growth, ambitious entrepreneurs and then capturing their potential impacts,³⁶ GEM trends can be useful for introducing institutional reforms, policy frameworks and specific programs related to labour market conditions, R&D investment and internationalization strategies.

³⁶ According to Darnihamedani and Block (p. 1), on average, flexibility-enhancing reforms lead to higher growth ambitions yet they are particularly favoured by established and imitative entrepreneurs; by contrast, stability-enhancing reforms lead to higher growth ambitions of new and innovative entrepreneurs.
Darnihamedani, P., & Block, J.H. (2022). Institutional reforms and entrepreneurial growth ambitions. *Academy of Management Proceedings*, 2022(1), p. 13726. doi: <https://doi.org/10.5465/AMBPP.2022.153>

All Kinds of Entrepreneurs

Stephen Hill and Przemysław Zbierowski

6.1 INTRODUCTION

One question considered in Chapter 2 was whether anyone can become an entrepreneur. The answer was: yes – becoming an entrepreneur is not dependent on having a particular background, or being a specific age, being a particular gender, or having a given level of education. Yet, although starting a business is, in principle, open to all, and all can succeed or fail in this endeavour, in practice starting a business is more prevalent in particular social groups, including those defined by gender, age and education. The downside of this prevalence is that it implies that some other groups are missing out by being under-represented in terms of entrepreneurship. This means that not only do some individuals lose out by not starting businesses, but that society as a whole misses out by not having the jobs and incomes those businesses could have provided. It is important that all members of society see people like themselves starting and succeeding with new businesses, but the likelihood of this happening may vary considerably by group.

This chapter will examine these prevalences, including gender differences, in the level of entrepreneurship by economy. This has been a recurring theme in recent Global Reports: this one will include a brief assessment of whether the pandemic has impacted the entrepreneurial gender gap. A recent GEM Women's Entrepreneurship Report³⁷ suggested that, by taking the major role in caring for relatives and in homeschooling, women have been disproportionately impacted by the pandemic, and therefore the entrepreneurial gender gap is likely to have widened. Additionally, women entrepreneurs are over-represented in running businesses that require direct contact with the customer, hence were more adversely impacted by

lockdowns.³⁸ This is an empirical question, and this chapter will take some tentative first steps towards addressing it.

Differences in the level of entrepreneurial participation between two groups can be measured and assessed in two ways. The first is the absolute gap, or the proportion of adults in one group starting or running a new business, minus the equivalent proportion in another group. The second is the relative gap, or the proportion of adults starting or running a new business in one group, divided by the proportion doing the same in the other group. Both measures are important, and both will be considered in this chapter. It is also important to keep in mind that overall levels of Total early-stage Entrepreneurial Activity (TEA) can vary considerably across economies, and that between-economy differences may be many times larger than any between-group differences within an economy. An individual selected at random in an economy with a high level of TEA is more likely to be starting a business than an individual in a low-TEA economy, regardless of gender, age or education.

³⁷ GEM (Global Entrepreneurship Monitor) (2021). *GEM 2021/22 Women's Entrepreneurship Report: From Crisis to Opportunity*. London: GEM. <https://www.gemconsortium.org/report/gem-202122-womens-entrepreneurship-report-from-crisis-to-opportunity>

³⁸ Stephan, U., Zbierowski, P., Pérez-Luño, A., Wach, D., Wiklund, J., Alba Cabañas, M., Barki, E., Benzari, A., Bernhard-Oettel, C., Boekhorst, J., Dash, A., Efendic, A., Eib, C., Hanard, P.-J., Iakovleva, T., Kawakatsu, S., Khalid, S., Leatherbee, M., Li, J., Parker, S.K., Qu, J., Rosati, F., Sahasranamam, S., Salusse, M.A.Y., Sekiguchi, T., Thomas, N., Torres, O., Tran, M.H., Ward, M.K., Williamson, A.J., & Zahid, M.M. (2022). Act or wait-and-see? Adversity, agility, and entrepreneur wellbeing across countries during the COVID-19 pandemic. *Entrepreneurship Theory and Practice*. advanced online publication: <https://doi.org/10.1177/10422587221104820>; Stephan, U., Zbierowski, P., and Hanard, P.J. (2020). Entrepreneurship and Covid-19: Challenges and opportunities. An assessment of the short and long-term consequences for UK small business. London: King's College London. <https://www.kcl.ac.uk/business/assets/PDF/research-papers/country-report-uk-entrepreneurship-and-covid-19-challenges-and-opportunities-an-assessment-of-the-short-and-long-term-consequences-for-uk-small-businesses.pdf>

6.2 THE ENTREPRENEURIAL GENDER GAP

Figure 6.1 shows the level of male and female TEA across the 49 GEM Adult Population Survey (APS) participating economies in 2022.³⁹ Male TEA continues to be more prevalent than female TEA across most economies, although there were four economies in which the female TEA rate exceeded that of men: Togo, Indonesia, Poland and Qatar.

In Figure 6.1 there are seven economies in which one in five women, or more, were starting or running a new business (three from 13 in income Level A, three from 15 Level B and one from 21 Level A economies), with the highest levels in Guatemala and Colombia. But there are also eight economies in which less than one in 20 women was doing the same (two Level C, three Level B and three Level A). The lowest levels of female new entrepreneurship were in Poland, Morocco and Greece.

There were 11 economies in which male new entrepreneurship exceeded one in five, and just one economy (Poland) in which this was less than one in 20. The absolute entrepreneurial

gender gap (male minus female) exceeded seven percentage points in five economies: four from Europe (Serbia, Lithuania, Croatia and Latvia), plus the United Arab Emirates.

Established Business Ownership (EBO) is typically more male-dominated than new entrepreneurship, which could suggest that female entrepreneurship is a more recent phenomenon than male entrepreneurship, or that women-owned businesses have lower survival rates than those owned by men,⁴⁰ although the association between male and female EBO is rather less than for TEA.⁴¹ Levels of EBO by gender are set out in Figure 6.2.

40 There is evidence that the lower work experience of women entrepreneurs might lead to lower survival rates, while lower salaries of women entrepreneurs prior to entry may translate into financial constraints. See Boden Jr, R.J., & Nucci, A.R. (2000). On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing*, 15(4), 347–62. doi: [https://doi.org/10.1016/S0883-9026\(98\)00004-4](https://doi.org/10.1016/S0883-9026(98)00004-4)

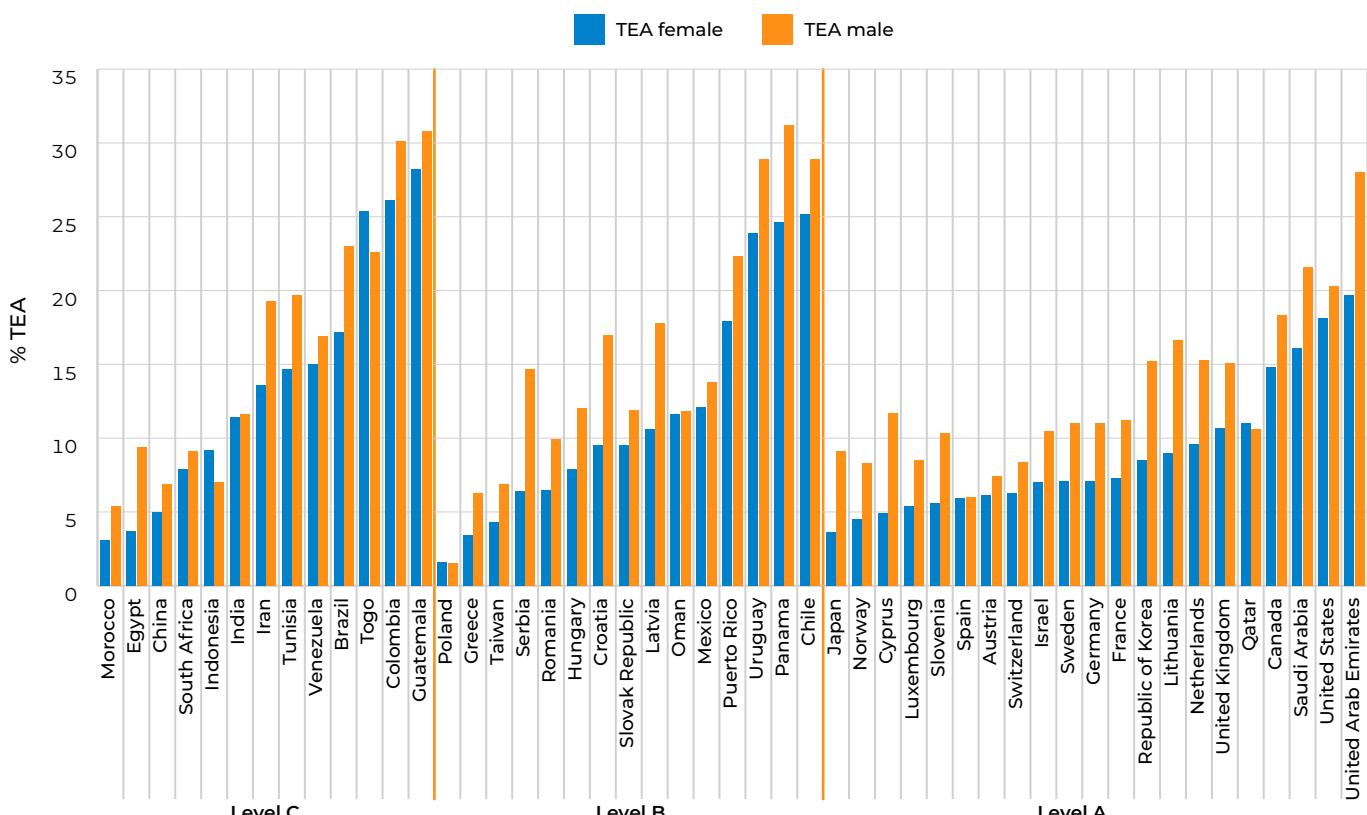
41 The correlation coefficient between female EBO and male EBO is 0.765, still positive but much weaker than for TEA.

39 The correlation coefficient between female TEA and male TEA is 0.939, implying that female TEA would be a good predictor of male TEA (and vice versa).

FIGURE 6.1

Levels of Total early-stage Entrepreneurial Activity (TEA) by gender (% women, % men)

Source: GEM Adult Population Survey 2022



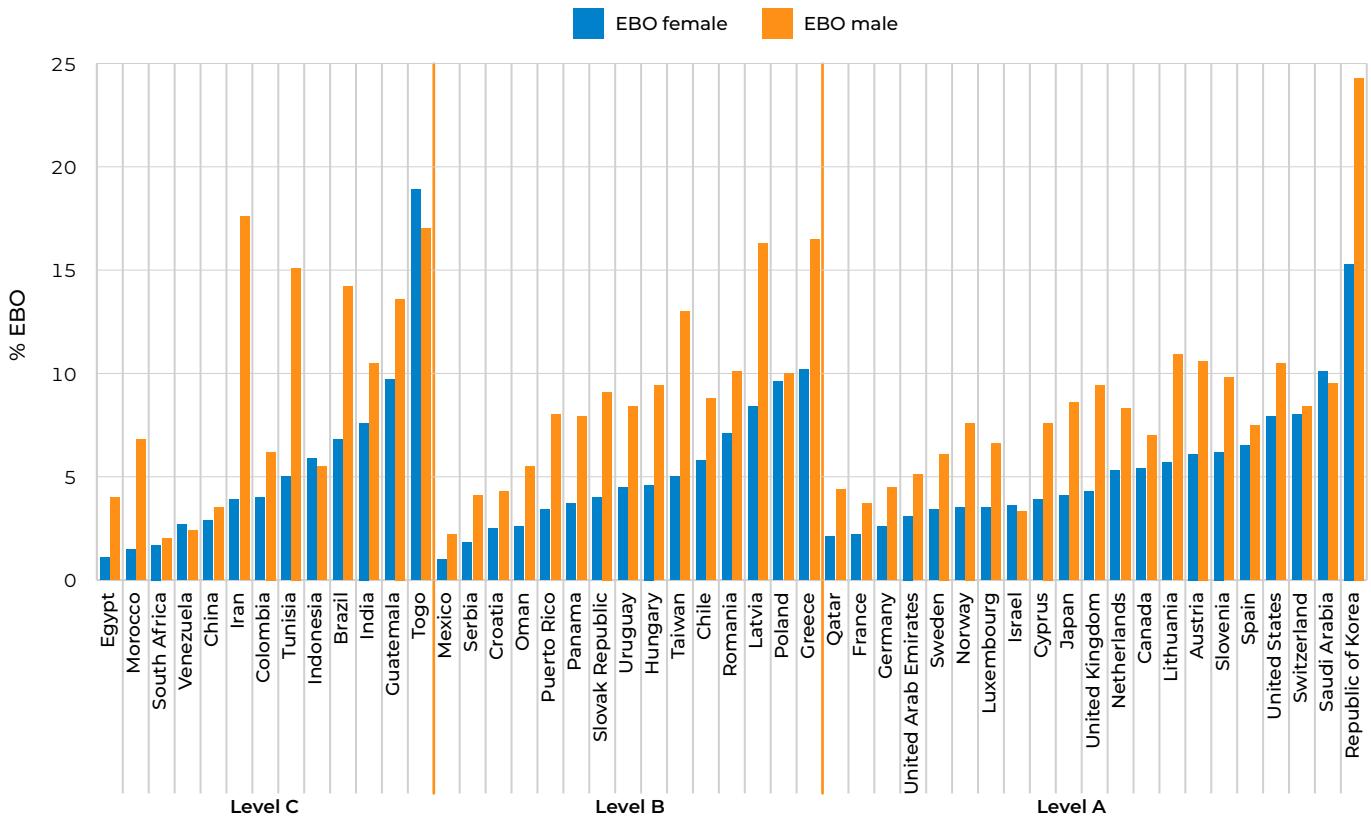


FIGURE 6.2

Levels of Established Business Ownership (EBO) by gender (% women, % men)

Source: GEM Adult Population Survey 2022

There are five economies in which more women than men own established businesses (Venezuela, Indonesia and Togo, all Level C, plus Israel and Saudi Arabia from Level A), but margins are small. There were also six economies in which the proportion of men owning established businesses exceeded that of women by seven percentage points or more: Iran, Tunisia, Brazil, the Republic of Korea, Latvia and Brazil.

In four economies the new entrepreneur relative gender gap was 0.5 or less, implying that in these economies there were at least two men starting or running a new business for every woman doing the same. These economies were Egypt, Japan, Serbia and Cyprus. Greece, Norway and Slovenia are not far behind. In those economies there is clear evidence that women are missing out on opportunities to start new businesses, and that both they and their wider economies are poorer as a result.

Conversely, there were 17 of 49 economies, across all income groups, where the EBO relative gender gap was less than 0.5, implying two or more men owning an established businesses for every established business owned by a woman, including in Morocco and Iran, where there are at least four men owning an established business for

every woman doing the same. There were also five economies with more women owning established businesses than men: Indonesia, Togo, Venezuela, Israel and Saudi Arabia.

Figure 6.3 compares the new entrepreneur relative gender gap (female % TEA divided by male % TEA), with the EBO relative gender gap (female % EBO divided by male % EBO) for GEM-participating economies in 2022.

Overall, the relative gender gap for ownership of established businesses tends to be smaller than the relative gender gap for new entrepreneurs (34 out of 49 economies) suggesting, as noted above, either that greater equality between genders starting new businesses is a recent phenomenon that has yet to work its way into established businesses, or that businesses started by women may have a lower rate of transition into established businesses than those started by men.

While in most economies the gender gap is smaller among owners of established than of new businesses, there are some examples where it is extremely unfavourable for women. In five economies, all in the Middle East and North Africa (Morocco, Iran, Tunisia, Oman, Qatar), the relative gender gap among Established

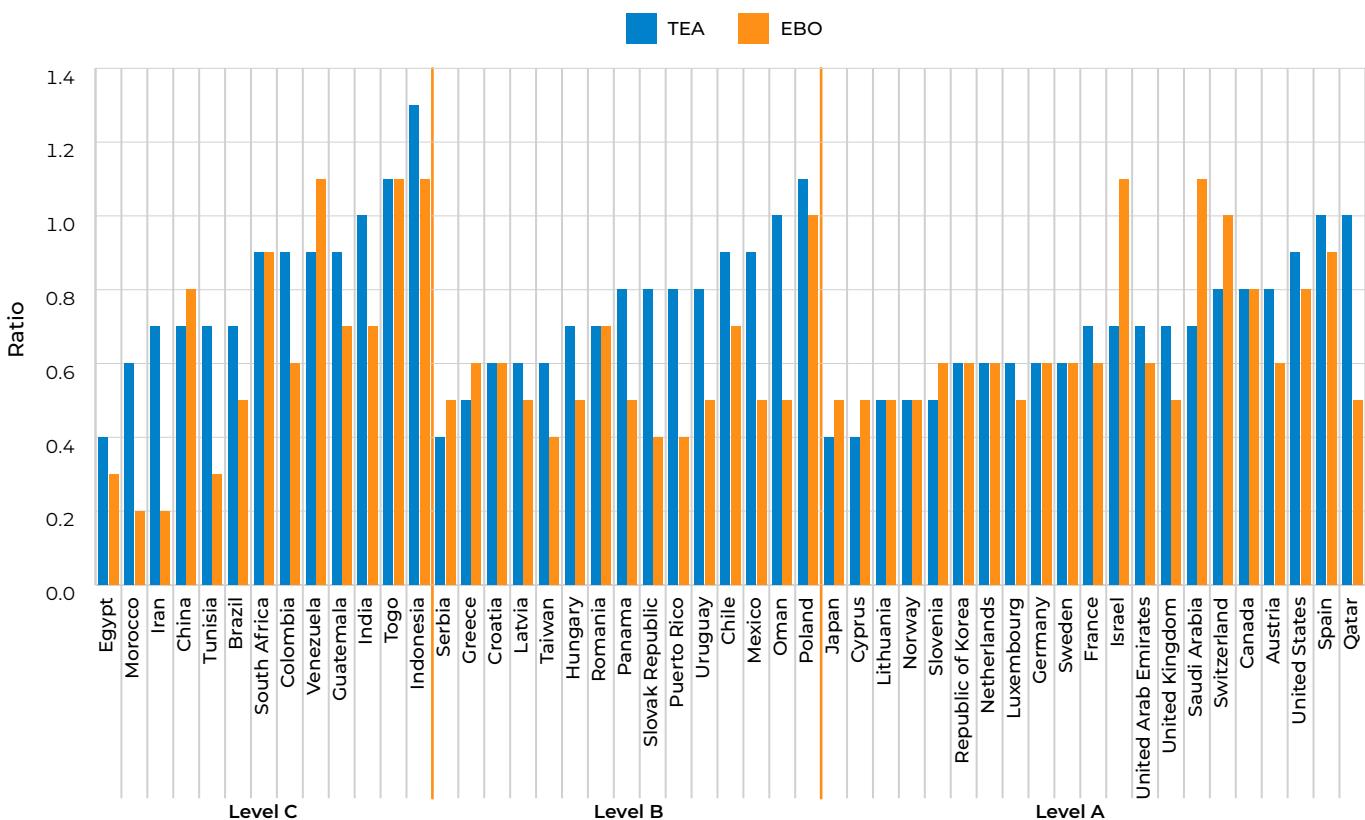


FIGURE 6.3 Relative gender gaps for new businesses (female % TEA/male % TEA) and for established businesses (female % EBO/male % EBO)

Source: GEM Adult Population Survey 2022

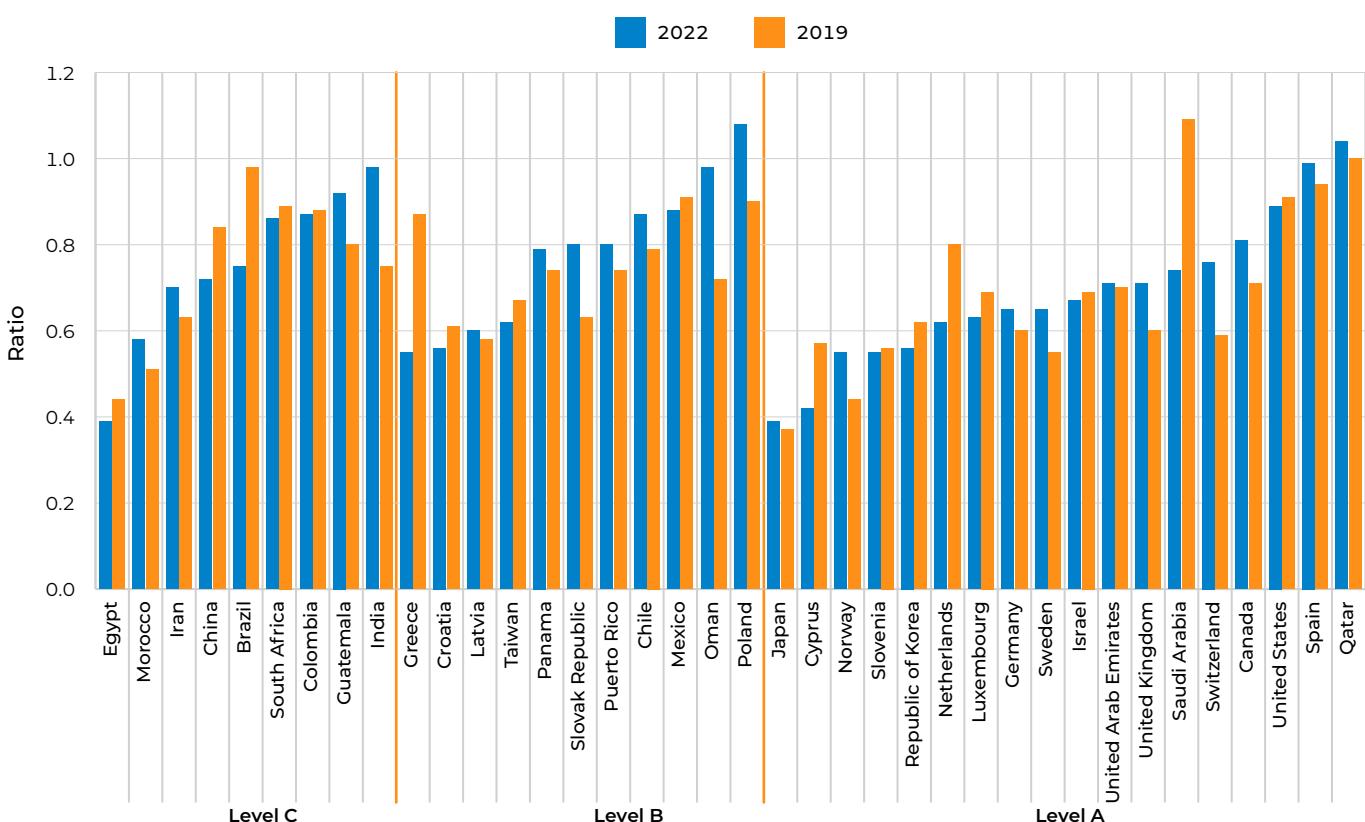


FIGURE 6.4 The relative entrepreneurial gender gap (female Total early-stage Entrepreneurial Activity (TEA)/male TEA), 2022 and 2019

Source: GEM Adult Population Survey 2019, 2022

Business Owners is twice as big as among those starting or running a new business. On the other hand, there are 15 economies in which the gender gap narrows with the time spent running a business, including Venezuela, Israel and Saudi Arabia, where a majority of men among startup entrepreneurs and new business owners converts to a majority of women running established businesses. In some countries more support is needed to aid women entrepreneurs to navigate through the most difficult phase of business activity.

Another important question is whether the pandemic has had any impact on the entrepreneurial gender gap. The introduction to this chapter conjectured that women's entrepreneurship was more likely to have been adversely affected than men's entrepreneurship because women were likely to have taken the greater part of the burden of working, caring and schooling from home, while women business owners are

also over-represented in customer-oriented services which makes their businesses vulnerable in lockdowns. If this was the case, then the relative entrepreneurial gender gap will have increased and the ratio of female new entrepreneurship to male new entrepreneurship (female % TEA/male % TEA) will have fallen. Figure 6.4 shows this relative gender gap for the 38 economies that participated in the GEM APS in both 2022 (post-pandemic) and 2019 (pre-pandemic).

In 17 of the 38 economies, the ratio of female to male entrepreneurship fell between 2019 and 2022, consistent with the conjecture above, but in 21 of the 38 economies that ratio had increased, contradicting the conjecture. Overall, this limited evidence does not support the assertion that women's new entrepreneurship has declined relative to that of men over the period of the pandemic. The largest increases were in India and Oman, while the largest falls were in Saudi Arabia and Greece.

6.3 THE ENTREPRENEURIAL AGE GAP

The relationship between the age of the individual and the propensity of that individual to be a new entrepreneur is likely to be complex. Younger adults tend to have less knowledge and experience, smaller networks, fewer resources and fewer skills than older people. On the other hand, they may have more energy, enthusiasm and drive, less to give up in terms of an established career and high salary, and less to lose because they may not yet have to support a family, pay a mortgage, etc. They may be more familiar with current trends, and with the application potential of new technologies. Perhaps most importantly, like the novice taking up a sport such as golf or skiing, they don't yet know what they can't do.

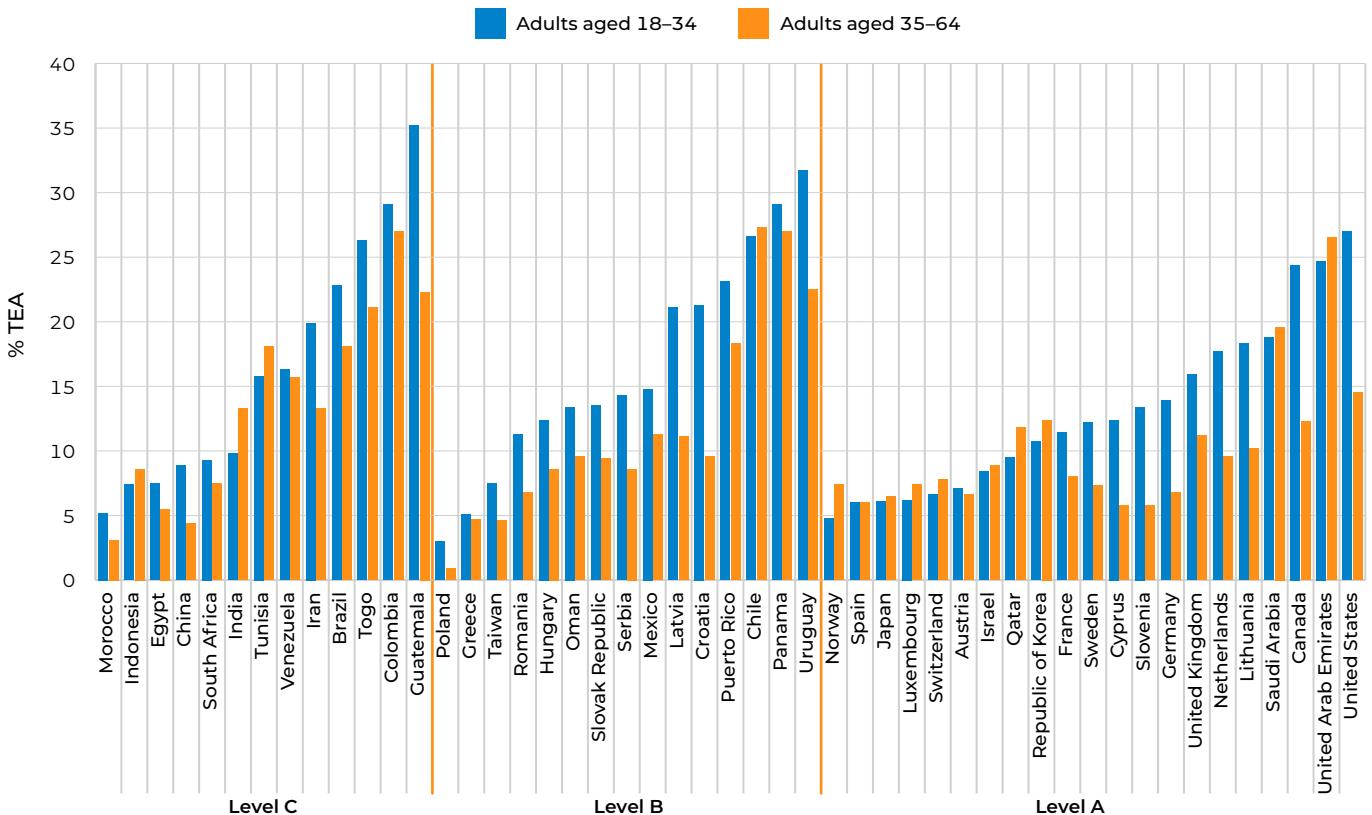
Older people may have more experience, greater resources including networks and knowledge, and greater awareness of market opportunities. However, they also may have more to lose, and be more aware of their own limitations.

Ultimately, whether young people are more or less likely to be starting a business than older people is essentially an empirical question. After enquiring whether the individual is actively engaged in starting or running a new business,

the GEM APS asks the age of the respondent. Those identified as starting or running a new business can then be grouped by age: in this case into a younger age group (adults aged 18–34) and an older age group (aged 35–64), and a TEA rate calculated for each. Figure 6.5 shows the results, for the 49 GEM economies in 2022.

For the younger age group, there were seven economies with over a quarter of adults starting or running a new business, including five from Latin America & Caribbean, plus the United States and Togo. The highest rates were in Guatemala (35%) and Uruguay (32%). In the same age group there were 17 economies with less than one in 10 adults starting or running a new business, with the lowest rates in Poland (3%), Greece, Morocco and Norway (each 5%).

In the older (35–64 years) age group, there were just four economies with more than one in four starting or running a new business (three from Latin America & Caribbean) plus the United Arab Emirates. The highest rates were in Chile, Colombia and Panama (each 27%). However in 27 out of 49 economies the rate of 35–49-year-olds starting or running a business was less than one in 10. The lowest rates were in Poland (1%), Morocco (3%) and China (4%). In fact, in Poland,



most of the overall TEA is therefore generated by the younger generation of entrepreneurs.

Hence there is strong evidence that adults in the younger age group were more likely to be starting or running a new business than older adults. This is confirmed by the TEA rate for younger adults exceeding that of older adults in 35 of the 49 economies. Keep in mind, however, that there was strong positive association between

both rates,⁴² so that between-country differences are likely to strongly outweigh between-group differences. Nevertheless, there are clear indications that older people are not starting as many new businesses as they could. This is an area where policy changes to encourage and support older people into new businesses could have a substantial impact on the overall rate of new business formation.

FIGURE 6.5

The level of Total early-stage Entrepreneurial Activity (TEA) for adults aged 18–34 and for those aged 35–64 (% of adults in each age group)

Source: GEM Adult Population Survey 2022

6.4 THE ENTREPRENEURIAL GRADUATION GAP

Those taking part in the GEM APS are asked about their highest level of educational attainment. This information can be combined with that from questions about starting or running a new business, in order to calculate a TEA rate for both graduates⁴³ and non-graduates.

Graduates may have an advantage in starting a new business in terms of confidence, training in

opportunity recognition, knowledge and access to networks,⁴⁴ but, given that graduates typically earn more than non-graduates, they may also have less incentive to start a new business. So it is not obvious whether, within a particular economy, graduates or non-graduates are more likely to be starting a new business. Once more, the question is essentially empirical.

⁴² Correlation coefficient = 0.848.

⁴³ Those reporting in the APS that their highest level of educational achievement was a post-secondary qualification, usually a bachelor degree or higher, are classified here as graduates.

⁴⁴ Sahasranamam, S., & Nandakumar, M.K. (2020). Individual capital and social entrepreneurship: Role of formal institutions. *Journal of Business Research*, 107, 104–17. doi: <https://doi.org/10.1016/j.jbusres.2018.09.005>

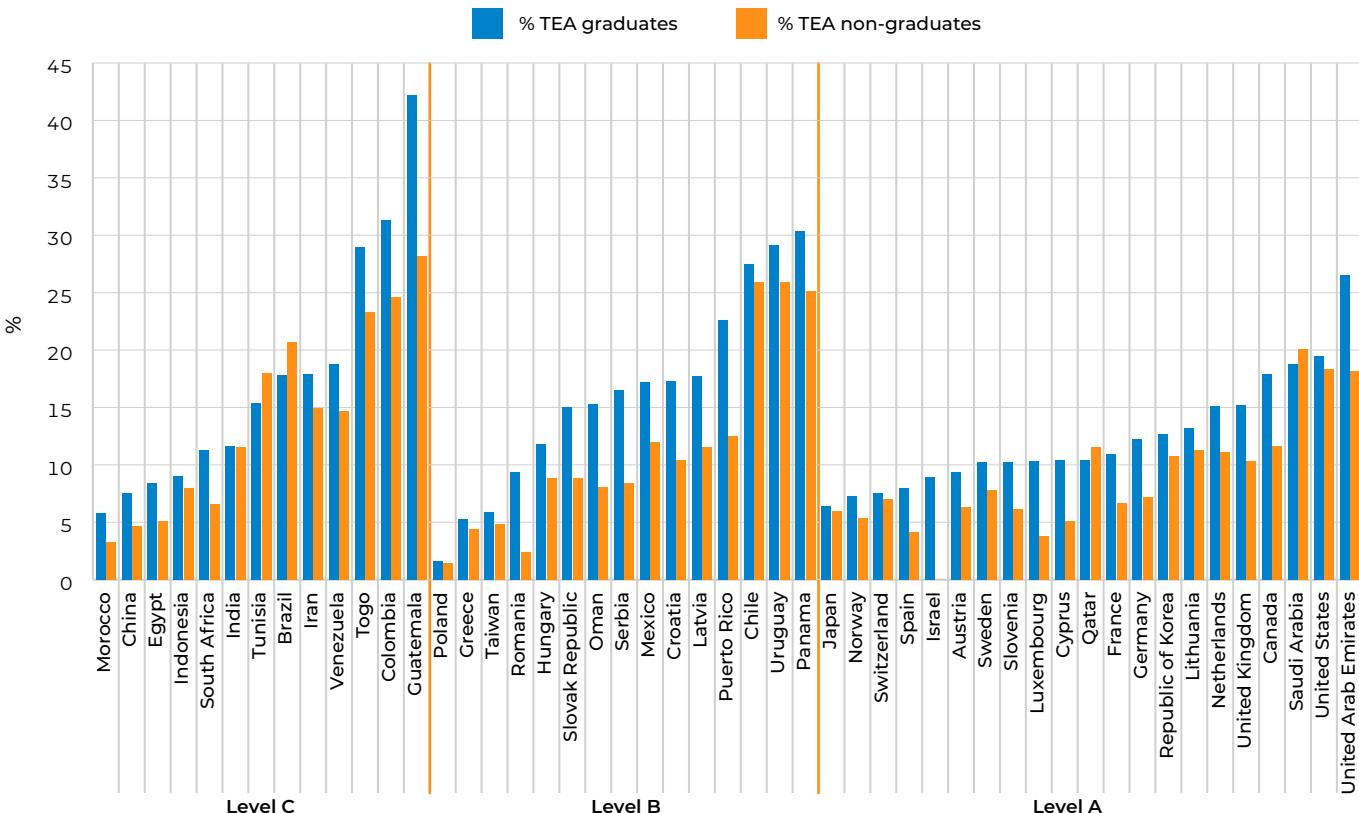


FIGURE 6.6

The level of Total early-stage Entrepreneurial Activity (TEA) for graduates and for non-graduates (% of adults in each age group)

Source: GEM Adult Population Survey 2022

Figure 6.6 shows TEA rates for graduates and non-graduates in the 49 GEM economies participating in the APS in 2022. The evidence is unequivocal. In 45 of the 49 economies in 2022, the graduate TEA rate exceeded that of non-graduates, the exceptions being Tunisia, Brazil, Qatar and Saudi Arabia. In another four economies, the graduate new entrepreneurship rate was at least double that of non-graduates: Israel, Romania, Cyprus and Luxembourg. Survey results for Israel showed no non-graduate starting or running a new business in 2022.

The message from Figure 6.6 is crystal clear.⁴⁵ Higher education can be a fast track into new entrepreneurship, so that increasing the proportion of graduates holds substantial promise in the search for ways to grow the number of new businesses. A more detailed analysis could compare the likely impacts of graduate-driven and non-graduate-driven new businesses, in terms of the potential high-impact variables identified in Chapter 5, including job growth expectations, product and process innovation, and export orientation.

6.5 CONCLUSIONS AND POLICY IMPLICATIONS

This chapter has demonstrated that the propensity for new entrepreneurship can vary considerably between groups, providing scope for policy measures to support and encourage under-represented groups in starting and running their businesses. If effective, such measures could help both the individual, in terms of realizing their own potential, and society, in terms of overall jobs, incomes and value-added. There is, of course, an alternative narrative – that, to be

cost-effective, new-business-seeking resources should be targeted at those most likely to start their own business, such as younger people or graduates.

⁴⁵ Once more, keep in mind that between-economy differences may be more important than between-group differences in the same economy. The correlation coefficient between graduate and non-graduate TEA is 0.914.

This all suggests a very important role for governments, both in creating an entrepreneurial environment that is enabling and supportive, and, if inclusion is an objective, in targeting encouragement and resources at under-represented groups to start their own businesses. The specific under-represented groups considered in this chapter were women, older people and non-graduates, but there is scope within the GEM dataset to identify others, such as those living in large multi-person households, or those with low per capita household income. In economies with

sufficiently sized APS sample sizes, analysis could extend to subgroups, such as older women.

At the same time, and as emphasized throughout this chapter, it is important to keep in mind that, while these within-economy group differences may be significant, between-economy differences can be rather more substantial. Put another way, an older woman non-graduate in a high-TEA economy (such as Guatemala) may be much more likely to start a new business than a younger, male graduate in a low-TEA economy (such as Poland).



Exiting a Business

Stephen Hill and Thomas Schøtt

7.1 INTRODUCTION

This report emphasizes the role of the individual decision to start a business, crucial to both the prospects of that individual and to the wider economy and society. Deciding to exit a business is also an important part of the entrepreneurial pipeline, and an essential ingredient in a dynamic economy. Just as starting a business engages resources to provide new goods and services, exiting a business allows resources to be redeployed elsewhere. Both the new start and the business exit are shifting productive capacity away from the goods and services people no longer want or wish to pay for and towards those that they do. Hence it is important that businesses be allowed to fail, and that the costs of doing so be manageable. Productive resources freed up by exit can include the time and effort of the entrepreneur, who may exit the business a little older and wiser, and hence better placed to build on that experience in a new endeavour.

Just as new starts can be encouraged by reducing the costs of entry, so can exits be deterred by excessive costs. There is a relationship between the two: individuals will be less likely to start a business if exiting a business is financially expensive, or seen as socially or culturally undesirable. Recall from Chapter 2 that, in many economies, around half of those who saw good opportunities to start a business would be deterred by the fear of failure. Reducing the perceived risks and costs of failure can be

important in helping to translate new business intentions into new businesses.

Besides, there are many reasons for exiting a business, and it is unwise to presume that all these reasons are negative. Positive reasons can include selling a profitable business, receiving a good job offer, a new and better business proposition, or a planned and well-earned retirement. Nor is it appropriate to assume that the business closes just because the individual exits. The business may transfer to new owners, which could include previous employees, and then continue into the future. This chapter will show that, in many economies, especially higher-income ones, a third or more of those individuals exiting a business report that the business then continues.

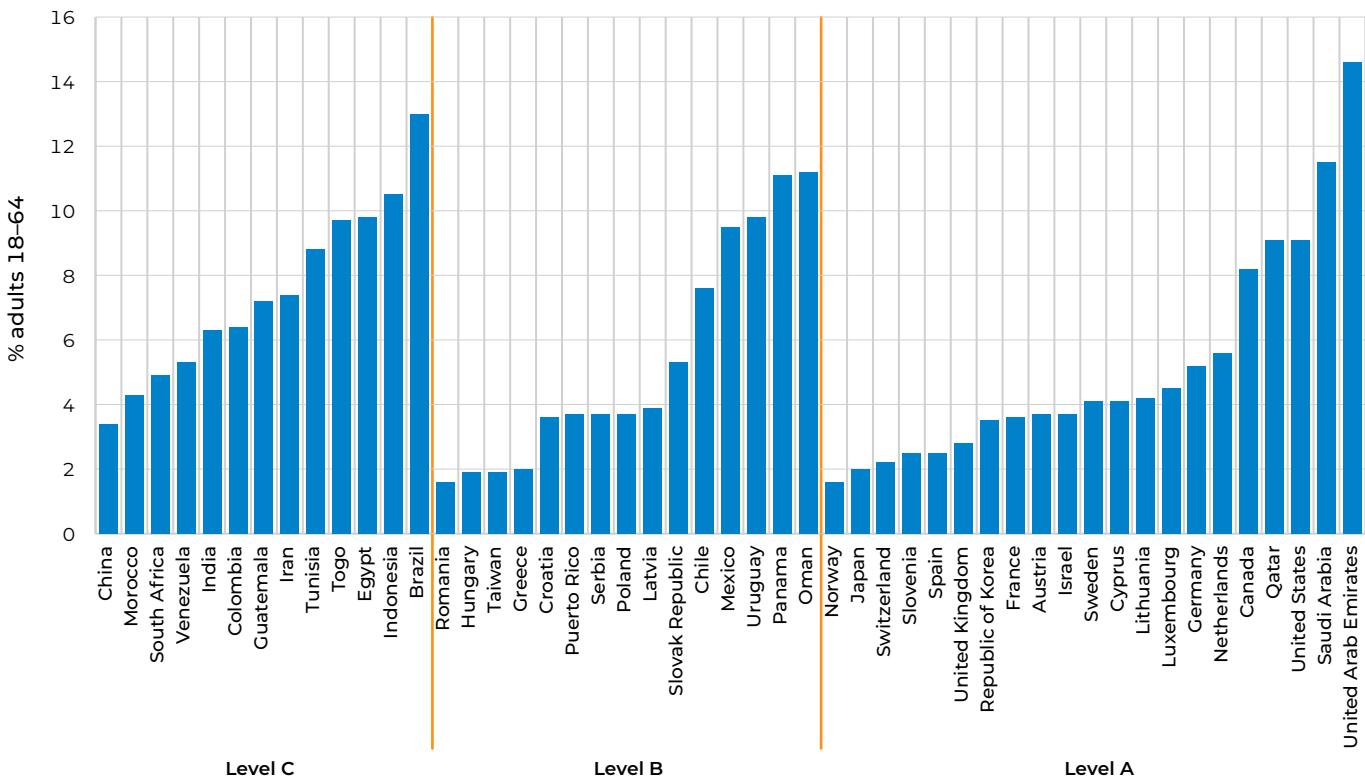
The most obvious reason to exit a business is because that business has proved unprofitable. In these circumstances it may be better to close the business quickly than to continue to add to accumulated losses. Other closure reasons include the burden of taxes or bureaucracy, difficulty in accessing resources including finance, or some personal reason. Recent years have seen the COVID-19 pandemic added to the list of exit reasons, either because of illness, or supply difficulties, or because of shifting markets as people and businesses adjust to living and working differently. This chapter will include a brief assessment of the prevalence of pandemic-related reasons for business exits over the past few years.

7.2 EXIT RATES AND TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA)

The GEM Adult Population Survey (APS) asks respondents if, in the past 12 months they had “sold, shut down, discontinued or quit a business they owned and managed, any form of self-employment or selling goods and services to anyone”.⁴⁶ The proportion of adults answering yes, for each GEM participating economy in 2022,

is illustrated in Figure 7.1. The exit rate ranged from less than one in 50 adults in four economies (Norway, Romania, Hungary and Taiwan), to

⁴⁶ Anyone answering yes is regarded as exiting a business. The business exited may be nascent, new, recent or well established.



more than one in 10 adults in six economies, two each from Level C (Indonesia and Brazil), Level B (Panama and Oman) and Level A (Saudi Arabia and the United Arab Emirates). On the whole, while exit rates decline with income level, they were relatively modest, being less than one in 20 adults in 26 of the 49 economies.

There are many reasons why exit rates vary within and across income groups. One important factor may be the rate of new businesses. Figure 7.2 plots exit rates against the level of Total early-stage Entrepreneurial Activity (TEA) across the 49 economies in the APS in 2022. This scatterplot is of considerable interest, not least because of the positive association between exit rates and TEA.⁴⁷

Consider the shaded area contained within a TEA rate of 15% and an exit rate of 6%. There are 28 economies represented within that area. Every European economy is in that area, plus seven others (China, Taiwan, Japan, Morocco, South Africa, Republic of Korea plus Israel). Conversely, every Latin America & Caribbean, every North American and every Gulf economy is outside of that area, plus Egypt, Iran, Tunisia and Indonesia.

So, the lowest levels of both exit rates and TEA are within Europe, while the highest rates of exit and TEA are in Latin and North America, and in the Gulf. This may point to significant cultural differences, with adults in Europe more reluctant to either start or exit a business than their American or Gulf counterparts.

The final figure in this section shows the ratio of TEA⁴⁸ to business exits (Figure 7.3). There are just four economies in which the proportion of adults starting or running a new business was less than the proportion of adults exiting a business: Egypt, Morocco, Indonesia and Poland. Given that many new businesses fail, these economies may struggle to maintain their stock of businesses. On the other hand, there were seven economies, representing all income groups, with more than four people trying to start, starting or running a new business for every one exiting a business: Puerto Rico, Hungary, Romania, United Kingdom, Colombia, Guatemala and Norway. Given the difficult economic circumstances of 2022, a significant proportion of these starts may impact on these economies' exit rates in the near future.

FIGURE 7.1

The level of business exits in the previous 12 months (% adults)

Source: GEM Adult Population Survey 2022

47 The correlation coefficient between exit rates and TEA is 0.621.

48 Recall that TEA includes nascent entrepreneurs: that is, those trying to start, as well as those starting or running, a new business.

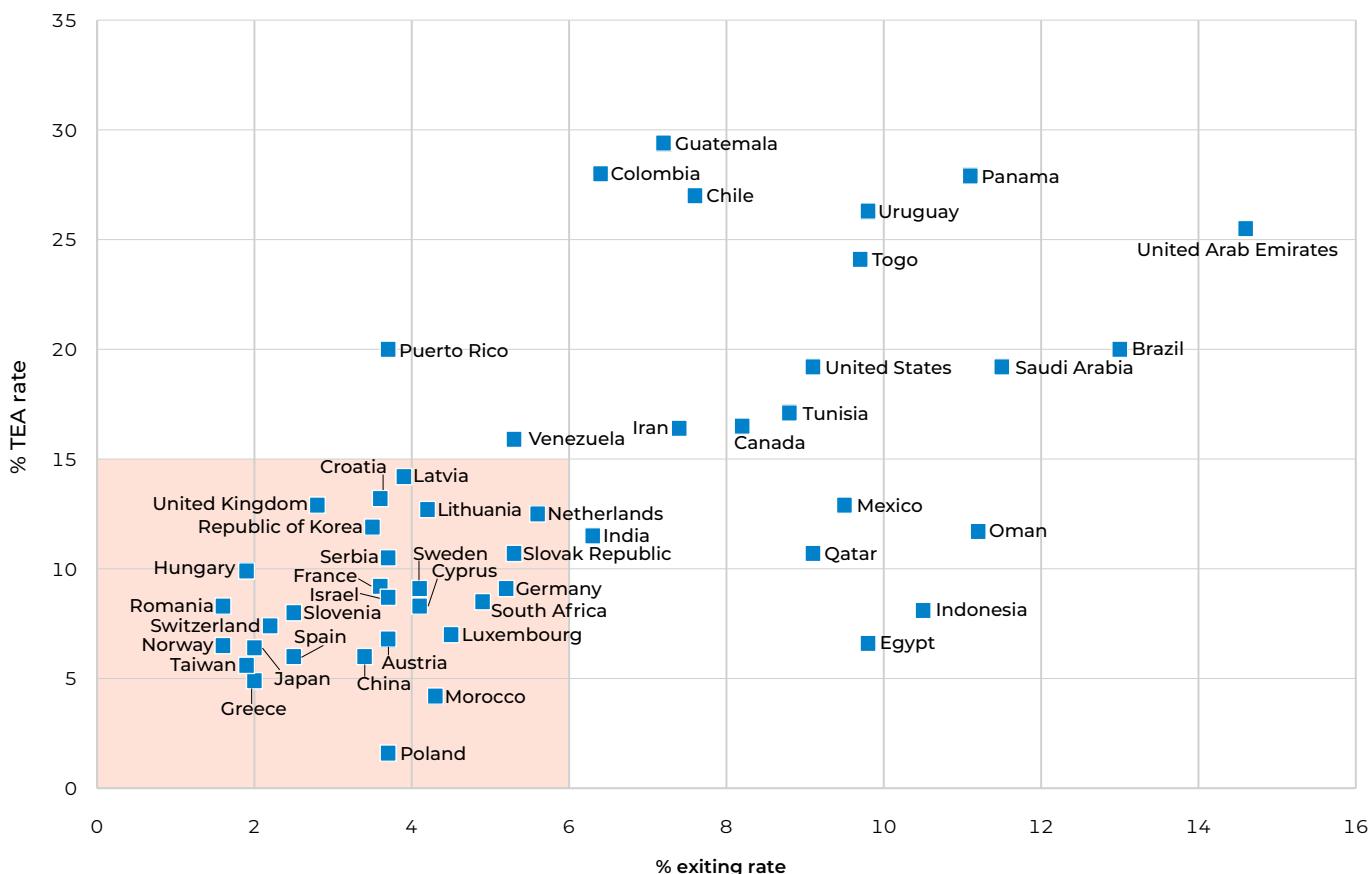


FIGURE 7.2 Scatterplot of exit rates and Total early-stage Entrepreneurial Activity (TEA) rates (both % adults)

Source: GEM Adult Population Survey 2022

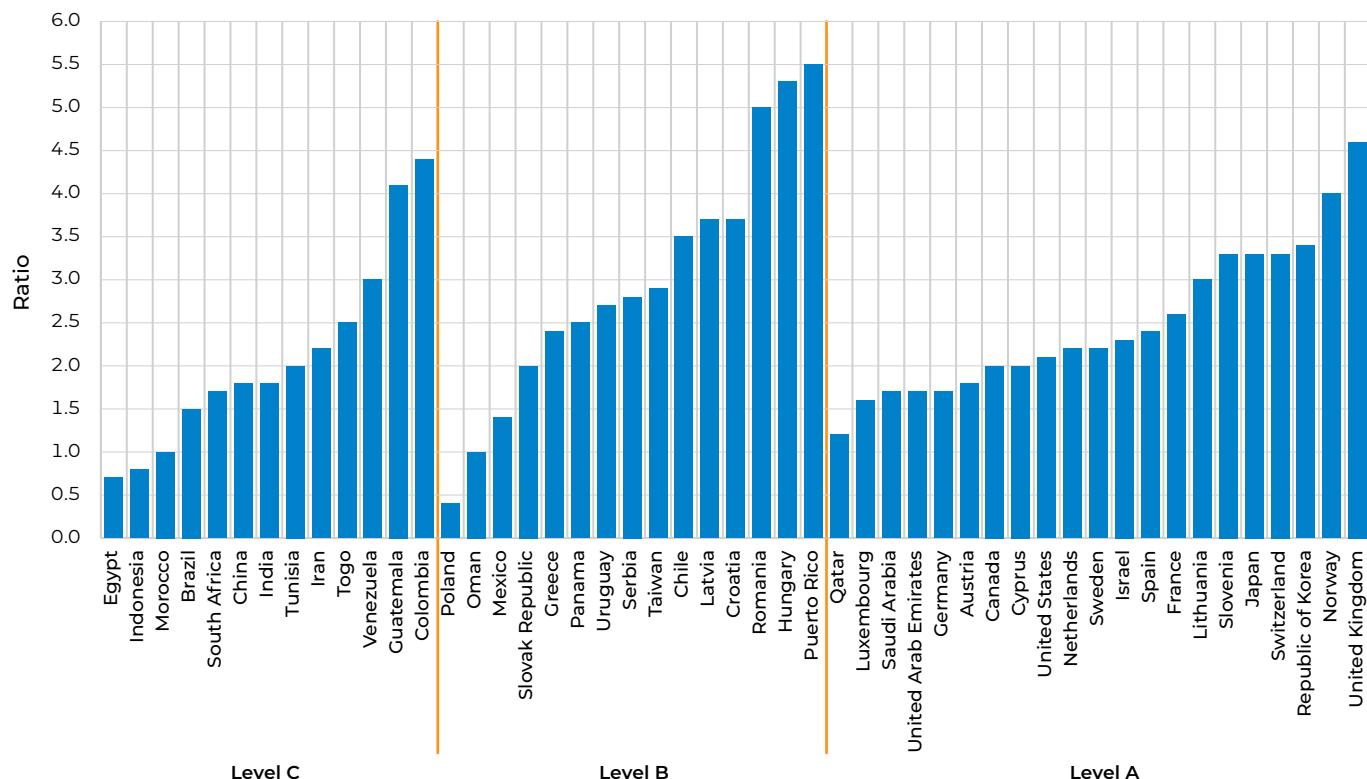


FIGURE 7.3 The ratio of Total early-stage Entrepreneurial Activity (TEA) to business exits (both % adults)

Source: GEM Adult Population Survey 2022

7.3 THE PANDEMIC AND EXIT RATES

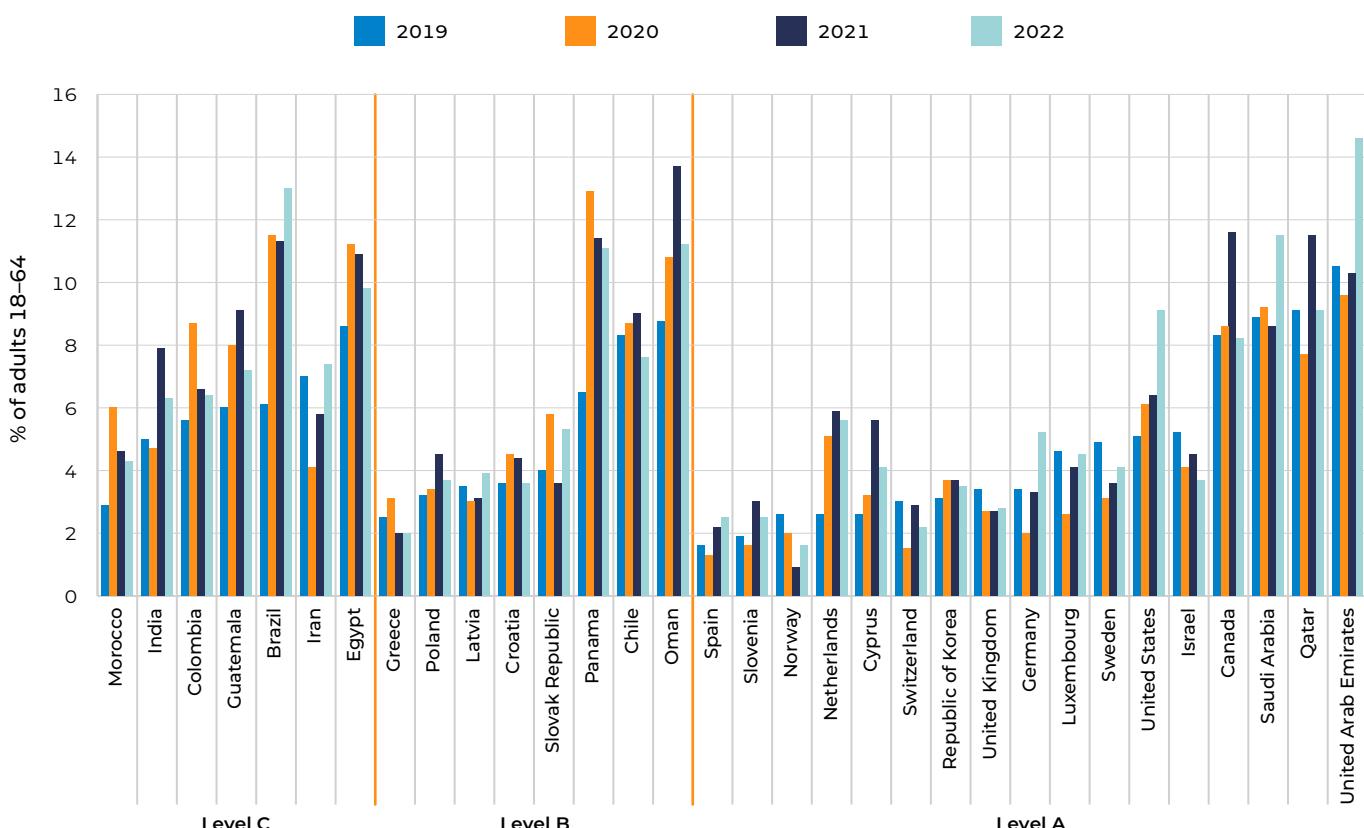
Among the 32 economies in the GEM APS in all four years from 2019 to 2022, the rate of TEA declined in 21, and rose in 11 economies, implying a negative pandemic impact overall on new starts (see Chapter 3). A related question is whether the pandemic has led to an increase in exit rates. The expectation is yes, with the pandemic both making trading more difficult and impacting on the nature of that trade. However, this is essentially, and once more, an empirical question.

Figure 7.4 shows exit rates for the 32 economies participating in GEM over the period 2019–2022. These include seven Level C economies, eight Level B and 17 Level A. While each economy has its own story to tell, there are some generalizations that can be made. In the period 2019–2020, 17 economies had an increase in exit rates, while 15 had falls. Between 2020 and 2021, 21 exit rates increased and 10 fell, so more clearly an increase. But between 2021 and 2022, 14 economies saw exit rates increase, while they fell in 18 others. Taking the entire period 2019–2022, 20 economies saw exit rates rise, while they fell in 11 others. So, again, exit rates have increased, although that increase was not universal.

Within the 32 economies, there are some groupings with similar experiences. Seven economies had exit rates that rose in the first year of the pandemic (2019–2020) but have been falling since: Morocco, Colombia, Egypt, Greece, Croatia, Panama and the Republic of Korea. Another six saw exit rates rise in the first two years of the pandemic (2019–2021) but fell in 2022: Guatemala, Chile, Canada, Cyprus, Poland and the Netherlands. Both groups point to a detrimental pandemic effect on exit rates, but with some recovery since. But there is another group of seven economies in which exit rates actually decreased in the first year of the pandemic but have been rising since: Iran, Latvia, Spain, the United Kingdom, Luxembourg, Sweden and the United Arab Emirates. Each group offers little commonality in terms of income level or geographic region. A more refined analysis might look at levels of government support for businesses, or the lack of it, or an economy's dependence on consumer services, or its export orientation. There was just one economy in which exit rates increased year by year: the United States.

FIGURE 7.4
The percentage of adults exiting a business, 2019–2022

Source: GEM Adult Population Survey 2019–2022



7.4 EXIT AND CONTINUATION

As noted earlier, exiting a business need not mean that the business closes. The business may be sold or otherwise passed to someone else, could be taken over or merged with another business, or could continue in some other form. Those individuals identified in the APS as exiting a business were asked if that business continued after they left. Results are shown in Figure 7.5, where the lower part of the column is the percentage of adults exiting a business and that business continued, ranging from less than 1% of adults in eight economies: six from Europe plus Morocco and Japan, all the way up to 4% in Indonesia and the United States, 6% in Saudi Arabia and 8% in the

United Arab Emirates. The upper section of each column shows exits where the business did not continue, while the total height of the column is the level of business exits for that economy, as in Figure 7.1.

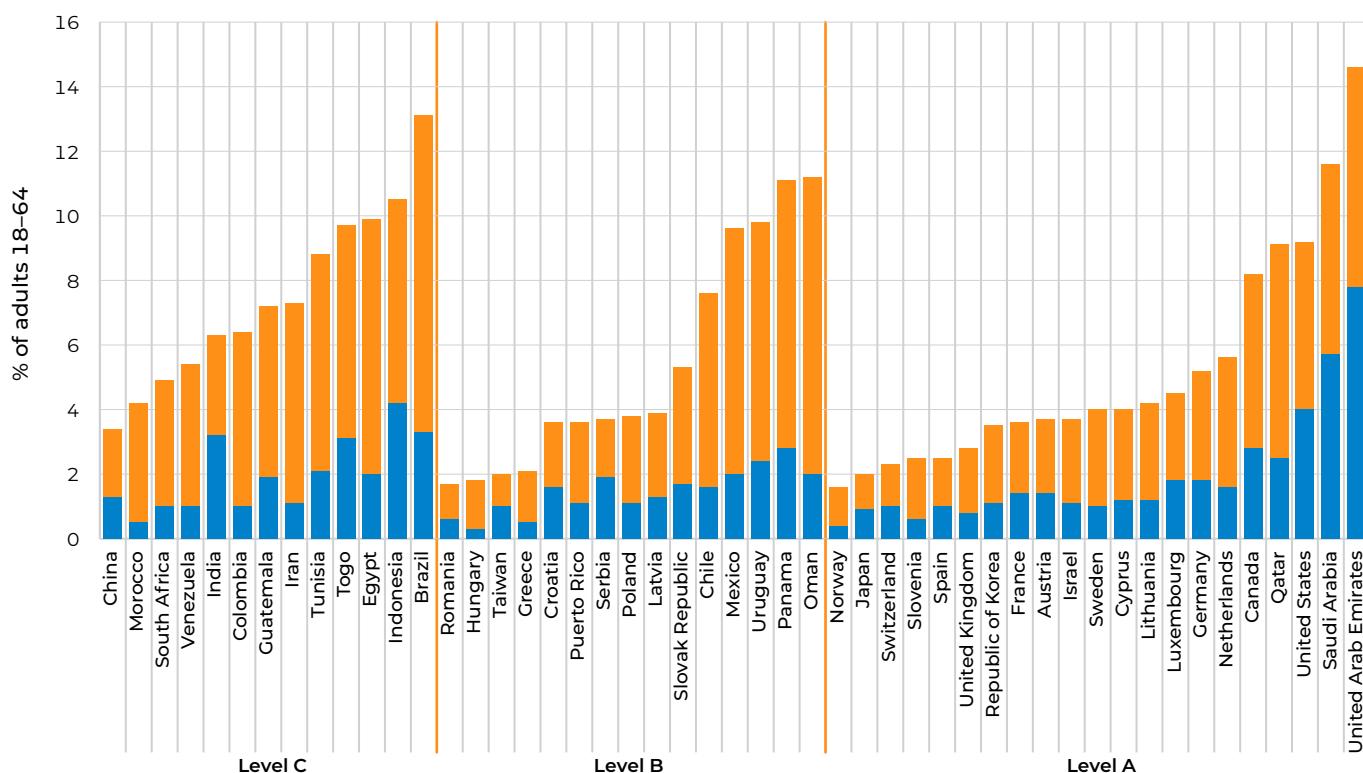
Continuation of the business as a share of exits was less than one in five in seven economies, five from Level C and two from Level B, and more than one in three in 19 economies, three from Level C, five Level B, plus 11 Level A. The likelihood that the business continues after exit increases with income level. Finally, there were four economies where over half of businesses continued after the individual exited: India, Taiwan, Serbia and the United Arab Emirates.

FIGURE 7.5

The percentage of adults exiting a business and reporting that the business did, or did not, continue

Source: GEM Adult Population Survey 2022

█ Exit, business continued █ Exit, business did not continue



7.5 REASONS FOR EXIT

The introduction to this chapter outlined many of the reasons for exiting a business. Some of those reasons may reflect broad economic conditions across a region, while others may be particular to a given economy. The APS asks those exiting a business the main reason for doing so, and then categorizes those reasons into positive, such as selling the business or some other business opportunity, or negative, such as losing money or excessive taxation. Since 2020 a third, also negative, reason has been added: the impact of the COVID-19 pandemic. Results for 2022 are set out in Figure 7.6, where the lower part of the column shows the level of (previously identified) negative reasons, the middle part are COVID-related reasons and the upper part are positive reasons. Positive reasons for exit as a share of adults are highest in four Level A economies: Saudi Arabia (5%), the United Arab Emirates, Canada and the United States (all 3%). At the other end of the scale are 11 economies, representing all income groups, where less than 0.5% of adults exited a business for positive reasons.

Exiting a business for COVID-related reasons was very much a minority activity in 2022, accounting for less than 1% of adults in 31 of the 49 economies. The highest rates of COVID-related exits were all outside Europe: 4% of adults in Panama and 3% in Oman, Brazil and Mexico. In most economies, other negative reasons far outweighed COVID-related reasons.

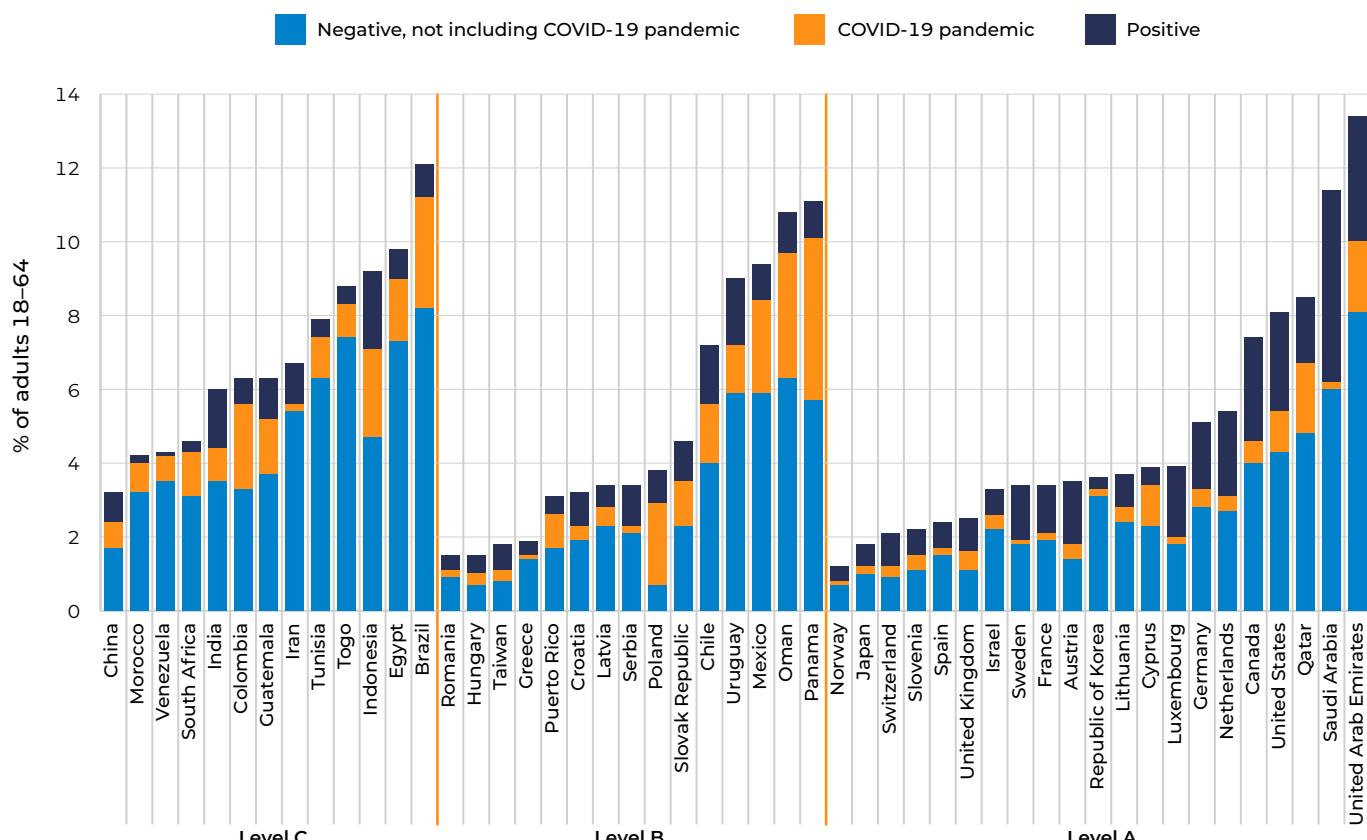
The final issue to be addressed is the changes, over the pandemic cycle, in the share of those exiting a business who attributed that exit to COVID-related reasons. Figure 7.7 shows the proportion of business exits attributed to COVID between 2020 and 2022, for the 32 economies that participated in GEM in all three years. Across those three years the highest shares attributed to COVID, at more than three in five, were all in 2020 (Panama, India, Saudi Arabia and Chile), while the lowest shares were all in 2022 (Saudi Arabia, Sweden and Luxembourg) and in 2021 (Sweden and Republic of Korea).

More generally, in 2020 the share of exits attributed to COVID-related reasons exceeded two in five in 11 of the 32 economies. By 2021

FIGURE 7.6

Reasons for exiting a business: negative, COVID-related and positive (all % adults)

Source: GEM Adult Population Survey 2022



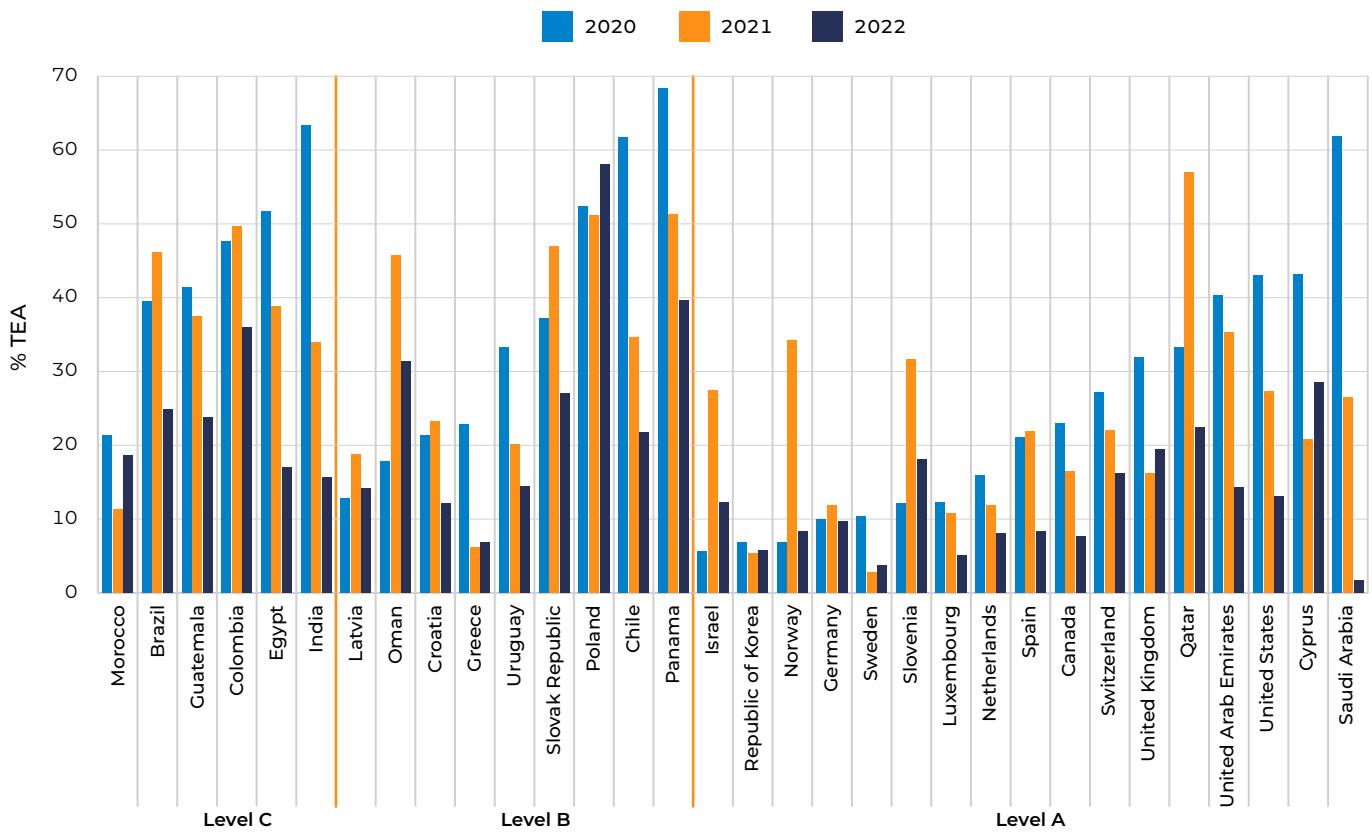


FIGURE 7.7

The percentage of business exits attributed to the pandemic (% exits), 2020–2022

Source: GEM Adult Population Survey 2020, 2021, 2022

this was the case in seven economies, but by 2022 this had fallen to just one economy (Poland). Conversely, in 2020, COVID-related reasons were cited as reasons in less than one in five exits in just 10 economies, 10 again in 2021,

but by 2022 was 22 out of 32. By 2021 this had grown to 10 economies, and by 2022 was 22 out of 32. Hence, there is clear evidence that COVID as a reason for exit has declined substantially since 2020.

7.6 CONCLUSIONS AND POLICY IMPLICATIONS

Being able to exit a business is an important part of the entrepreneurial pipeline, and may play a significant role in the decision to start a business. Chapter 2 showed that, even in economies where many people see good opportunities to start a business, where they think starting a business is easy, and where they have confidence in their own skills and knowledge, up to half of these would be deterred from starting by the fear of failure. Where exiting a business is costly, or socially or culturally discouraged, the fear of failure is likely to be high enough to deter many starts.

Exiting a business plays a role in the allocation of resources and in facilitating structural change. Those starting a business direct resources to the production of some good or service. If

consumers or other businesses fail to buy these, then ultimately the business will fail and the individual will exit. This frees up those resources to be relocated in the production of goods and services that consumers or businesses will buy. This is the market system in action, and, while the business failing may prove difficult for the owner, that exit is a key feature in the process of resource allocation.

Not all business exits are for negative reasons: in many economies, especially in high-income ones, a quarter or more of exits can be for positive reasons, such as selling the business or planned retirement. Nor does exiting a business necessarily mean that the business closes. In 17 of the 49 economies, more than a third of those exiting a business reported that the business

continued (and 11 of these were income Level A economies).

So there can be many reasons to celebrate the individual exiting a business: the reallocation of resources to more productive uses, the motive for the exit may be positive, and the business may well continue anyway. In addition, the exit means one more person with experience and lessons learned, who may then be in a better position to start a new endeavour, or to mentor others who are doing so.

The relationship between the percentage of adults starting or running a new business and the percentage exiting a business in 2022 proved to be very interesting. Not only do exits tend to

be highest where starts are highest, and lowest where starts are lowest, the latter tend to be in Europe and the former anywhere but Europe. The brief analysis presented in this chapter is merely scratching the surface of what may well turn out to be a rich vein of entrepreneurial research into the future.

Finally, this chapter has looked at the level of business exits over the pandemic period, and at the changing reasons given for those exits. Overall, there are indications that business exits increased in the early days of the pandemic, but there is also clear evidence that the share of exits attributed to COVID has started to fall sharply.

PART 2

National Contexts and Economy Profiles



This part of the Global Report concerns the significance of place, first by setting out the GEM approach to analysing the characteristics of place that matter most to entrepreneurial activity, and then by assessing each economy against those characteristics. This is followed by a set of Economy Profiles, one for each of the GEM 2022 participating economies, including a “bird’s-eye view” of key country-specific GEM research results alongside basic socio-economic data for that economy, plus a policy roadmap.

The Context for Entrepreneurship

Stephen Hill and Alicia Coduras

“Places carry meanings, memories, culture and people.”

8.1 INTRODUCTION

The focus of Part 1 has been on the individual decision to start (or sometimes to stop) a business, and its relationship to perceptions and attitudes, as well as how the impacts of that decision are likely to vary with expectations. In this section, the focus shifts to the context of that decision, or the entrepreneurial environment in which that decision is made. The importance of that context, and its role in enabling or constraining the development of the business, will partly depend on the nature of the business. If selling solely online, an entrepreneur can operate anywhere with a decent enough Internet connection, although even here there will be some interaction with the locality in terms of premises, relationship to Internet provider, receiving and dispatching goods, etc. At the other end of the scale, the fortunes of the street-corner coffee shop, or petrol station, may be proportional to the density of pedestrian or vehicular traffic passing by.

The new business is located in a specific place in a particular economy. While every economy has multiple localities with different characteristics,⁴⁹ each economy has its own particular environment for entrepreneurship, which may facilitate or enable the new business starter, or which may hinder and constrain the development of that business. Some businesses start, and succeed, in the most hostile environments, while even the most welcoming and supportive environment will not turn a bad idea into a successful business. Chapter 6 showed that while between-group differences in Total early-stage Entrepreneurial Activity (TEA) can be important, these differences are likely to be dwarfed by those between economies. So there is an imperative to identify and assess those characteristics of a specific economy that can influence the prevalence of new business starts, and the development of those new starts into established businesses.

8.2 DEFINING AND ASSESSING CONTEXT

GEM defines the entrepreneurial context of a particular economy in terms of a number of characteristics, labelled the Entrepreneurship Framework Conditions (EFCs), as summarized in Table 8.1. These key influences are derived from more than two decades of GEM research, experience and knowledge. The state of the EFCs can encourage and enable, or discourage and constrain, both the new start and any subsequent growth and development. Many of these EFCs are

subject to the direct influence of government, so that the state of these EFCs can reflect government priorities and spending.

⁴⁹ Much recent GEM work has highlighted the regional entrepreneurial ecosystem. See, for example, Sternberg R., Von Bloh J., & Conduras A. (2018) A new framework to measure entrepreneurial ecosystems at the regional level. *Zeitschrift für Wirtschaftsgeographie*, 63, 2–4. doi: <https://doi.org/10.1515/zfw-2018-0014>

TABLE 8.1
National
Entrepreneurial
Framework
Conditions:
Summary

A1. Entrepreneurial Finance: there are sufficient funds for new startups
A2. Ease of Access to Entrepreneurial Finance: and those funds are easy to access
B1. Government Policy — Support and Relevance: policies promote and support startups
B2. Government Policy — Taxes and Bureaucracy: new businesses are not over-burdened
C. Government Entrepreneurial Programs: quality support programs are widely available
D1. Entrepreneurial Education at School: schools introduce entrepreneurial ideas
D2. Entrepreneurial Education Post-School: colleges offer courses in how to start a business
E. Research and Development Transfers: research is easily transferred into new businesses
F. Commercial and Professional infrastructure: quality services are available and affordable
G1. Ease of Entry — Market Dynamics: markets are free, open and growing
G2. Ease of Entry — Burdens and Regulations: regulations encourage not restrict entry
H. Physical Infrastructure: good-quality, available and affordable
I. Social and Cultural Norms: encourage and celebrate entrepreneurship

There is no objective measure of the quality or level of these EFCs, given that each has multiple dimensions. The GEM approach to their assessment is to pool the subjective judgement of a number of identified national experts, each of whom completes an online National Expert Survey (NES). This survey is undertaken by at least 36 experts in each economy, often more, each of whom has been selected for their expertise by the corresponding National Team and approved by GEM. Each expert assesses a number of statements that comprise the Framework Conditions⁵⁰ on an 11-point Likert scale from 0 to 10, according to their view of whether each of those statements is completely untrue (assessed as 0), neither true nor false (five), completely true (10) or any point in between.⁵¹ Because the same questions are asked in all economies, results can be compared across those economies. In making international comparisons, one note of caution is that those assessments can themselves be context-dependent, so that, for example, national expert views on the ease of accessing of entrepreneurial finance may vary with that economy's level of development.

The 2022 NES included questions on two new topics: recovery from the pandemic, and actions

50 So, for example, for Framework Condition A2 (Ease of Access to Entrepreneurial Finance), experts are asked to assess four statements relating to access to debt funding, hiring financial support services at reasonable cost, access to seed capital, and access to growth capital after initial startup.

51 A principal components analysis converts these collective expert views into a score for each EFC.

in support of the United Nations Sustainable Development Goals (SDGs).

The summary expert-derived assessments for each Framework Condition are set out in the individual Economy Profiles of this Global Report in the pages subsequent to this chapter. In the meantime, Table 8.2 shows, for each income level, the highest and lowest scores for each Framework Condition, plus for the two new topics.

There is considerable positive association between income level and Framework Condition scores. For 10 of 13 Framework Conditions, the highest results for Level A exceed the highest for Level B, and also do so for 11 of 13 lowest. All 13 Level A highest scores exceed the corresponding Level C scores, as they do for 11 of the lowest scores. The exceptions are for Physical Infrastructure and Social and Cultural Norms, where very low scores for Israel saw it ranked last of all the economies for these two conditions.

The highest scores for COVID recovery in income groups A, B and C were for Lithuania, Uruguay and India respectively, suggesting that recovery from the economic impacts of the pandemic was well under way in each of these, while Israel, Oman and Togo scored least, implying these still have a long way to go. Not surprisingly, actions in support of the UN SDGs typically scored higher in high-income economies. Overall, three Level A economies (Norway, France and Israel), one Level B (Taiwan) and one Level C (India) scored highest, while three Level C (Iran, Togo and Tunisia), plus two Level B economies (Oman and Romania), scored lowest.

Framework Condition		Level A		Level B		Level C	
A1. Finance	high	United Arab Emirates	7.2	Taiwan	5.9	Indonesia	6.0
	low	Cyprus	3.4	Panama	3.1	Venezuela	1.9
A2. Access	high	United Arab Emirates	7.2	Taiwan	5.4	India	5.7
	low	Italy	3.9	Argentina	2.5	Venezuela	1.8
B1. Policy	high	United Arab Emirates	6.9	Taiwan	7.1	India	6.6
	low	Spain	2.9	Argentina	1.8	Venezuela	2.1
B2. Burdens	high	United Arab Emirates	6.9	Taiwan	7.1	China	6.5
	low	Spain	3.3	Argentina	1.8	Venezuela	1.7
C. Programs	high	Austria	7.1	Taiwan	6.6	India	6.3
	low	Cyprus	3.6	Argentina	3.2	Venezuela	2.1
D1. Schools	high	Israel	7.6	Latvia	5.6	India	5.7
	low	Cyprus	2.5	Mexico	1.7	Togo	1.5
D2. Colleges	high	United Arab Emirates	7.4	Taiwan	5.9	Indonesia	6.2
	low	Austria	3.8	Romania	3.1	Iran	3.0
E. R&D Transfer	high	United Arab Emirates	6.8	Taiwan	5.8	India	5.7
	low	Spain	3.4	Poland	2.8	Venezuela	2.1
F. Commercial	high	United Arab Emirates	6.8	Taiwan	6.9	India	5.9
	low	Israel	4.8	Oman	4.1	Venezuela	3.8
G1. Entry Dynamics	high	Korean R	7.8	Latvia	7.1	Venezuela	7.1
	low	France	3.7	Uruguay	2.0	Guatemala	3.4
G2. Entry Burden	high	Israel	6.9	Latvia	5.5	India	6.0
	low	Spain	4.1	Mexico	3.3	Iran	3.1
H. Infrastructure	high	Switzerland	7.8	Taiwan	8.4	China	7.3
	low	Israel	3.6	Oman	4.6	Venezuela	4.0
I. Culture	high	United Arab Emirates	7.9	Taiwan	6.7	Indonesia	6.4
	low	Israel	2.5	Panama	3.2	Tunisia	3.7
COVID recovery	high	Lithuania	7.3	Uruguay	6.7	India	6.7
	low	Israel	4.0	Oman	3.9	Togo	3.8
SDG actions	high	Norway	6.7	Taiwan	6.6	Indonesia	6.0
	low	Cyprus	4.5	Oman	3.6	Iran	3.1

8.3 CONTEMPORARY ENTREPRENEURIAL FRAMEWORK CONDITIONS (EFCs)

The scores representing each framework condition vary on a scale of 0–10. As such, a midpoint score of 5.0 can be regarded as adequate or sufficient for that condition. It may be presumed that higher-income economies would be assessed as adequate or better across most conditions, and that low-income economies may struggle to meet those

standards. The reality, as usual, is rather more complex. Figure 8.1 shows, for each participating economy, the number of framework conditions (out of 13), scored at 5.0 (sufficient) or more.

Only three economies were scored as adequate or better in all 13 EFCs: the United Arab Emirates, India and the Netherlands. Of the 11 economies

TABLE 8.2
Entrepreneurial Framework Conditions: highest and lowest scores by income level
Source: GEM National Expert Survey, 2022

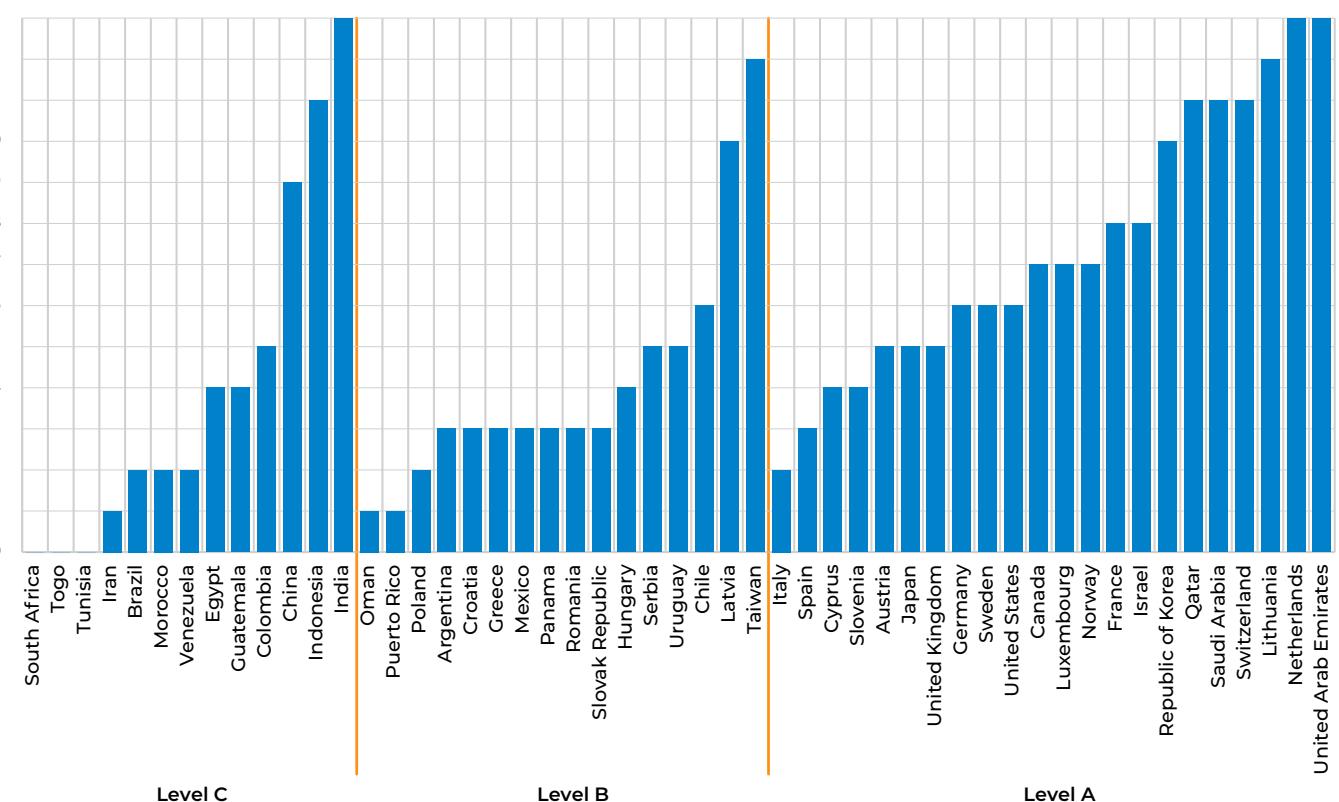


FIGURE 8.1

Number of Entrepreneurial Framework Conditions (from 13) scored as sufficient or better (score ≥ 5.0) (51 economies, 2022)

Note: The 49 economies participating in the 2022 GEM Adult Population Survey all took part in the 2022 GEM National Expert Survey, where they were joined by Argentina and Italy, who participated only in the NES.

Source: GEM National Expert Survey 2022

scored as sufficient in 10 or more EFCs, seven were income Level A, two were Level B (Latvia and Taiwan) and two were Level C (India and Indonesia). One other Level C economy performed well: China, with nine EFCs scored as sufficient.

At the other end of the scale, three economies had no EFCs scored as sufficient: Togo, Tunisia and South Africa. All are from Level C. However, of the 11 economies with just two or fewer EFCs scored as sufficient, three were from Level B (Oman, Puerto Rico and Poland) and one was Level A (Italy). Another high-income economy,

Spain, fared little better, with just three EFCs scored as sufficient.

So while there is, not surprisingly, a positive association between income level and EFC scores, that association is far from linear. There are several low-income economies consistently scoring high in terms of EFCs, with very positive environments for starting and growing a new business, as well as a number of high-income economies whose entrepreneurial environments could and should be a lot better. This may have long-term implications for the growth prospects of each economy.

8.4 THE NATIONAL ENTREPRENEURSHIP CONTEXT INDEX (NECI)

It is clear that most economies are good in terms of some EFCs but not so good in others. So it is not easy to assess where are the best places to start and grow a business, or to compare the relative merits of different economies. In 2018, GEM tackled this issue head-on by developing a single number to represent the quality of an individual economy's entrepreneurial environment; this is

known as the National Entrepreneurship Context Index or NECI.

The analysis so far has considered 13 EFCs across 51 different economies. That represents 663 individual EFC scores, all of which are enumerated in the individual Economy Profiles that follow this chapter. The NECI simplifies this picture by taking each economy's EFC scores

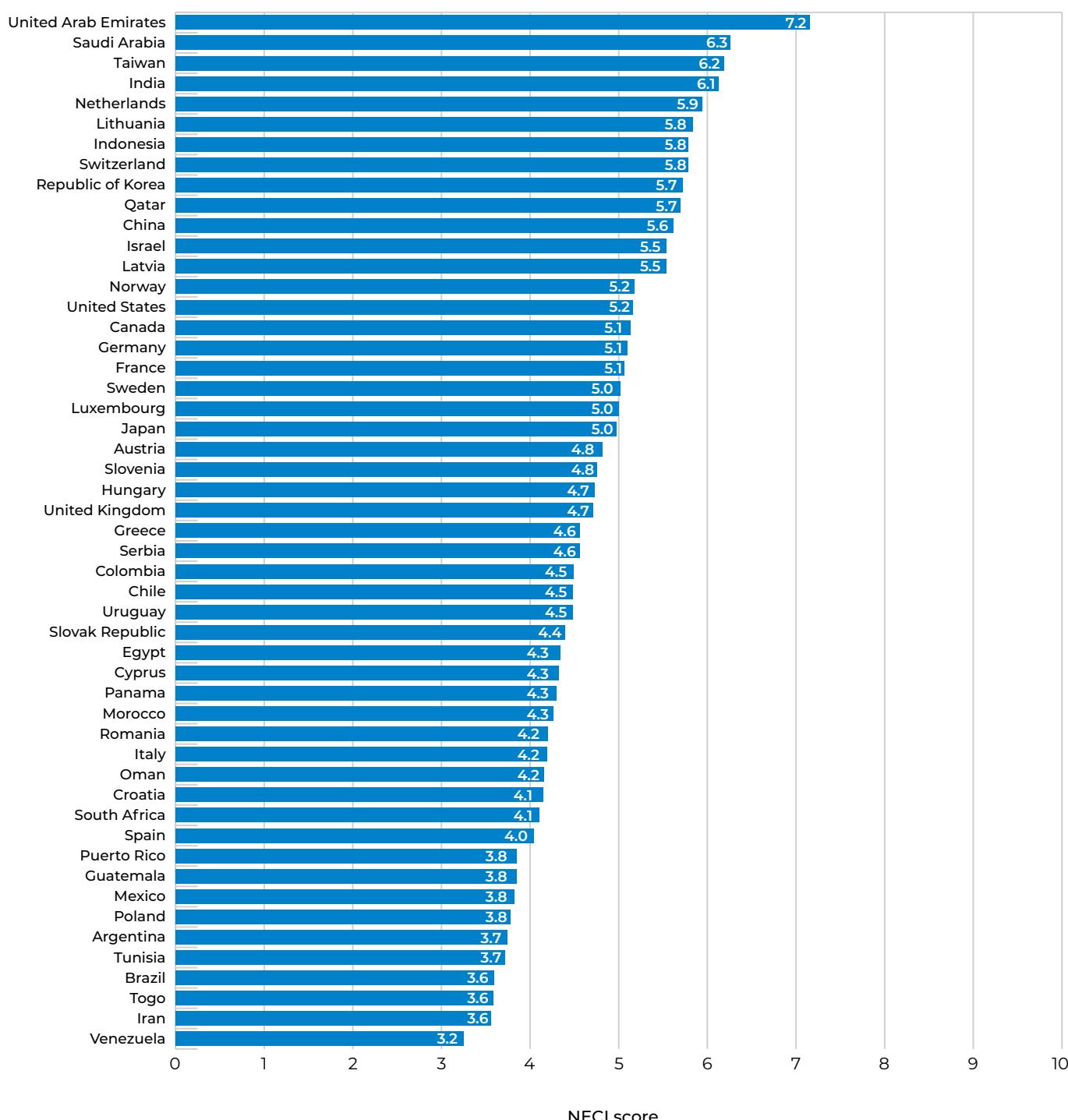
and averaging them to get an NECI score for that economy. Results for 2022 are set out in Figure 8.2.

Not surprisingly, economies with lots of EFCs scored as sufficient or better also scored well in the NECI. For the second successive year the United Arab Emirates tops this league table, and has increased both its score and its lead. There is clear association with income level in

this table, with seven of the top 12 economies ranked by NECI coming from Level A, with two from level B and three from Level C. Certainly, a high average income level does not guarantee a high-quality environment for entrepreneurship, any more than a low-income level prevents it. Five of these top-12-ranked economies are from East Asia, with four from the Middle East and

FIGURE 8.2
National
Entrepreneurial
Context Index
(NECI) 2022

Source: GEM National Expert Survey 2022



three from Europe. None are from Latin or North America.

At the other end of the scale, economies with few EFCs scored as sufficient featured heavily in the bottom 12 of the NECI ranking. Venezuela scored least by some margin. Seven of the bottom 12 were Level C economies, with four Level B and just one Level A economy (Spain). Six of those bottom 12 are from Latin America & Caribbean, with another three from Africa, two from Europe (Poland and Spain) and one from Asia (Iran).

There is a complex relationship between the entrepreneurial context and the proportion of adults starting or running new business. Of the 12 economies scoring highest in the NECI, five had levels of Total early-stage Entrepreneurial Activity (TEA) below 10%, and just one reached 20% or more (United Arab Emirates). Of the 12 economies scoring lowest in the NECI, only three had TEA

below 10%, while four had TEA of 20% or more. It would be interesting, but beyond the scope of this chapter, to relate NECI scores to some quality-adjusted measure of those starting or running a new business — for example, the share of adults starting a business and expecting to employ another six or more people in five years' time.

A quality entrepreneurial context is not just good place to start a business. High scores for Framework Conditions should also encourage and facilitate business growth and development, thereby easing the transition from new to established businesses. As noted in Chapter 3, the relationship between TEA and Established Business Ownership (EBO) is also complex. Of the 12 economies scoring highest in the NECI, only one (Republic of Korea) had a level of EBO that was greater than 10%, compared to five of the 12 economies scoring lowest.

8.5 THE EVOLUTION OF NECI

Earlier chapters have sought to assess the impact of the pandemic by looking at patterns of change in some key variable (for example, the proportion of adults seeing business opportunities, or those investing in someone else's startup), from 2019–2022. Most of these comparisons have pointed to a mild deterioration, although with exceptions. Data are available to make the same comparisons in terms of the evolution of the NECI: can the pandemic be associated with improvements in EFC scores, and therefore in the NECI, or has the pandemic typically weakened the environment for entrepreneurship?

However, a major difficulty in making those comparisons is that NECI scores usually change very slowly. It is tempting, but potentially spurious, to try to attach significance to small changes in what are composite scores. Of the 51 economies represented in the NECI in 2022, four appear just in 2022 and not in any of the previous three years, so no comparisons can be made. A further seven economies participated twice in the period 2019 to 2022, but none had a change in NECI greater than 0.3. Another 14 economies saw their NECI scores vary by very little over the period (no more than 0.3 overall), making it very difficult to draw conclusions. There are a further 16 economies whose scores did vary substantially, but these went down and then up, or up and then down, so no clear picture emerges. This leaves

just a handful of economies where conclusions can reasonably be drawn — and most of these point to improvements in their entrepreneurial environment.

The NECI score for South Africa has been steadily improving, from 3.6 in 2019 to 4.1 in 2022. There is a similar story for Croatia, up from 3.6 to 4.1 over the same period, with its near-neighbour Greece also improving, from 4.1 to 4.6. The most rapid improvements, however, were in the Gulf, with Saudi Arabia improving its score from 5.0 in 2019 to 6.3 in 2022, while, next door, the United Arab Emirates improved from 5.8 in 2019, when it was ranked sixth of 54 economies, to 7.2 in 2022, the highest of all 49 economies for the second year running. Both countries have invested heavily in improving their entrepreneurial environments, and this seems to be paying rich dividends. Both had levels of TEA in 2022 that were the highest of all the high-income economies apart from the United States, while the level of EBO in the United Arab Emirates was at least twice that of any other economy in the top 12 of the NECI league.

Rather less positively, there are two economies whose entrepreneurial environment has substantially worsened over the pandemic period. The NECI score for Mexico fell from 4.7 in 2019 to 4.1 in 2020, improved slightly to 4.2 in 2021 before falling again to 3.9 in 2022. Mexico had ranked 23rd of 54 economies in 2019 in terms

of NECI score. By 2022 it had fallen to 44th of 51 economies. Spain has fared even worse, with a score of 5.2 in 2019 (12th of 54), reducing to 4.7 in 2020, improving to 5.4 in 2021 and then collapsing to 4.0 in 2022, ranking it 41st of the 51 economies.

Mexico and Spain are heavily dependent on tourism, badly impacted by the pandemic, but then so too are Greece and Croatia, both of whom have clearly coped much better in preserving their entrepreneurial environments.

8.6 THE ENTREPRENEURIAL ENVIRONMENT AND INNOVATION

The relationship between starting a new business and innovation was considered in Chapter 5, which revealed that, with some notable exceptions, very few new entrepreneurs were either producing goods or services that were new to the world, or using unique processes or procedures to do so. Technology transfer was much more common, introducing goods or services, or using processes, that were new to the country or to the area.

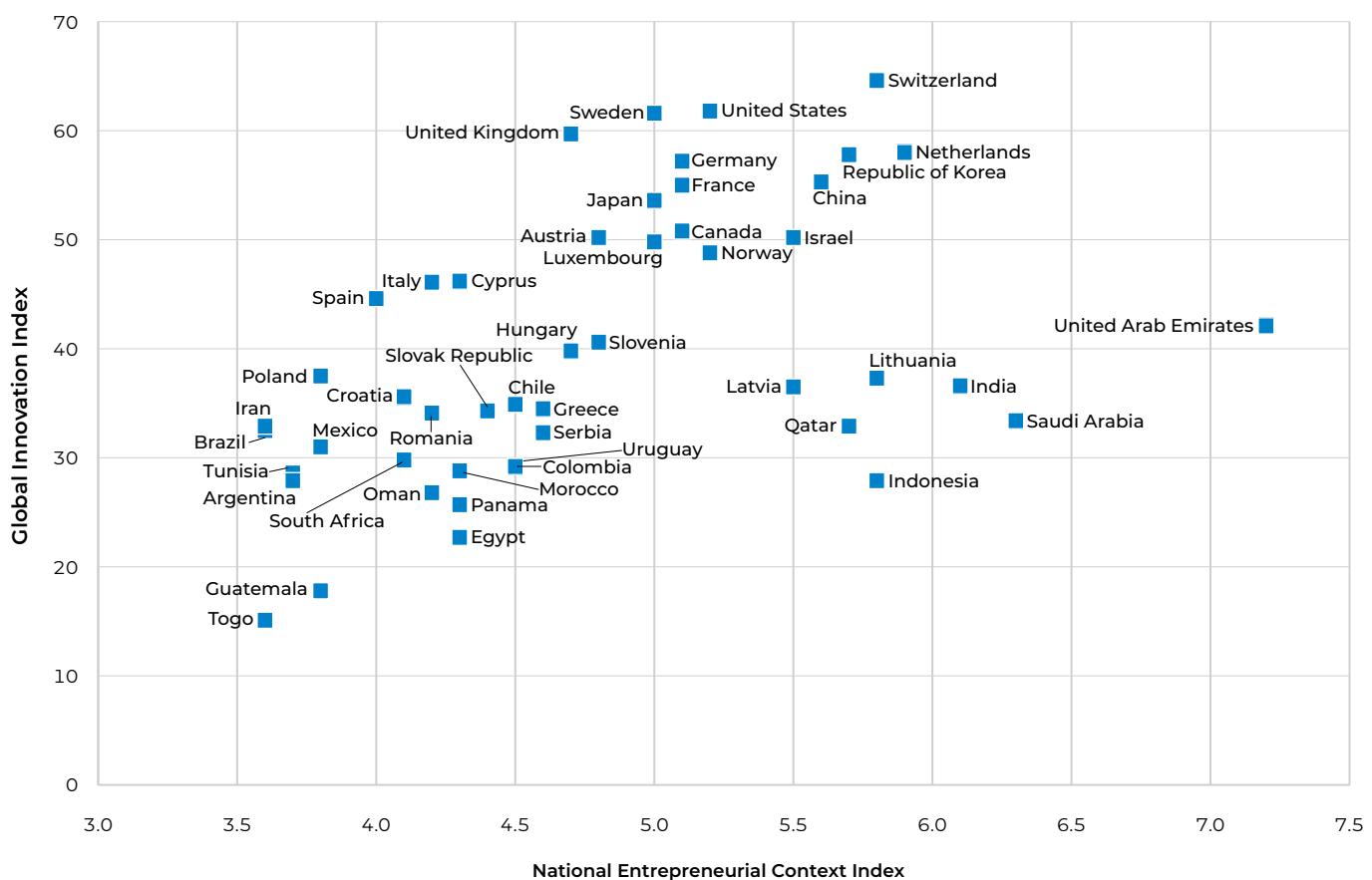
This section compares the summary statistic for the quality of the entrepreneurial environment, the NECI, to a measure of the level of innovation in an economy: the Global Innovation Index (GII). The GII was first introduced by the World

Intellectual Property Office in 2007, and has since been published annually, becoming established as an innovation index. It is calculated as an average of two sub-indices, one designed to measure innovation inputs, such as institutions, human capital and knowledge workers, and another to measure innovation outputs, such as scientific research and creative products and services.

Figure 8.3 presents the scatterplot of the NECI and the GII for 48 economies in 2022.⁵² There is

⁵² GII data was not available for Venezuela, Puerto Rico and Taiwan. All GII data for 2022 are from <https://www.wipo.int>.

FIGURE 8.3
Scatterplot
of National
Entrepreneurial
Context Index and
Global Innovation
Index scores
(both for 2022)



some positive association, but also a wide variety of outliers. Note that the NECI scale is truncated (going from 3.0 and 7.5) to allow a focus on differences.

GII scores ranged from less than 25 (Togo, Guatemala and Egypt, all income Level C) to over 60 (Sweden, United States and Switzerland, all Level A). Indeed, the GII may have a closer association to income level than the NECI; when ranked by GII score, seven of the bottom 10 are income Level C, while nine of the top 10 are Level A: China being the exception. Of the 48 economies for which there are scores for both indices, 28 scored less than 40 in the GII, and just 13 scored more than 50.

A number of economies score relatively highly in the NECI but modestly in the GII. These include the United Arab Emirates (7.2 NECI, 42.1 GII), Saudi Arabia (6.3, 33.4) and India (6.1, 36.6). Conversely, a number of economies score highly in the GII but modestly in the NECI. These include the United States (5.2, 61.8), Sweden (5.0, 6.6) and the United Kingdom (4.7, 59.7). Of the 21 economies scored as having a

sufficient entrepreneurial environment (NECI ≥ 5.0), six scored less than 40 in the GII (Saudi Arabia, Indonesia, India, Qatar, Lithuania and Latvia), while of the top 20 ranked by GII (score ≥ 40.6), six scored as insufficient in the NECI: the United Kingdom, Austria, Cyprus, Italy, Spain and Slovenia. If there are generalizations to be made, it appears that the GII may reflect what are long-established high-income economies (United Kingdom, Sweden, United States), while the NECI may reflect economic newcomers such as the United Arab Emirates, Saudi Arabia and India.

A closer analysis reveals some positive association between individual EFC scores and the GII. The three Framework Conditions with the highest degree of association were the sufficiency of entrepreneurial finance (A1 in Table 8.1), research and development transfers (E) and ease of access to entrepreneurial finance (A2).⁵³ Higher scores in these EFCs are associated with higher levels in the GII. None are surprising, given innovation can be very expensive, and that research and development transfers can take a long time.

8.7 CONCLUSIONS AND POLICY IMPLICATIONS

The entrepreneurial environment is defined and assessed by GEM in terms of specific Entrepreneurial Framework Conditions (EFCs), the quality of each of which is drawn from the assessments of at least 36 identified national experts in each economy. These pooled scores are transformed into a score for each EFC, which are then averaged to calculate the National Entrepreneurial Context Index (NECI) for each economy.

While EFC scores and the NECI have a positive association with income, a number of low-income economies have scores that reveal a quality of entrepreneurial environment that belies their lack of resources: for example, India, Indonesia and China each had nine or more EFCs (out of 13), scored as sufficient or better. Only seven of 22 high-income economies could match or improve on this. These low-income economies have leapt enthusiastically onto the entrepreneurial support train, and are reaping rewards.

At the other end of the scale, two high-income economies, Spain and Italy, had three or fewer EFCs scored as sufficient. Given their low scores, their inability or unwillingness to encourage

and support entrepreneurship may ultimately challenge their high-income status.

Of the 51 economies participating in the 2022 GEM National Expert Survey, the United Arab Emirates had by far the highest NECI score, and hence may be the best place to start and grow a business. A high average income does not guarantee a high NECI score, but clearly helps: in the NECI league table, the bottom four are all low-income economies.

The evolution of NECI scores over the pandemic period showed no clear pattern, beyond the unequivocal statement that South Africa, Croatia, Greece, Saudi Arabia and the United Arab Emirates have all steadily improved their NECI scores, while both Mexico and Spain have fallen dramatically down the NECI league table.

Finally, this chapter sought some association between the NECI and innovation, as measured by the World Intellectual Property Office's Global Innovation Index (GII). Both the GII and NECI have some positive association with income level,

⁵³ With respective correlation coefficients of 0.62, 0.57 and 0.56.

but some economies fare much better in one index than the other. The United Arab Emirates, Saudi Arabia and India were in the top four in the NECI league, but 19th, 31st and 24th respectively in terms of GII.⁵⁴ Meanwhile, Switzerland, the United States, Sweden and the United Kingdom represented the top four in the GII, but ranked

eighth, 15th, 21st and 25th, respectively, in terms of the NECI. The difference may reflect the fact that the latter four have had much longer as high-income economies and therefore have had more time to develop the research institutions and technology transfers that feature heavily in the GII.

⁵⁴ Taiwan was also in the top four in the NECI, but does not appear in the GII league table.

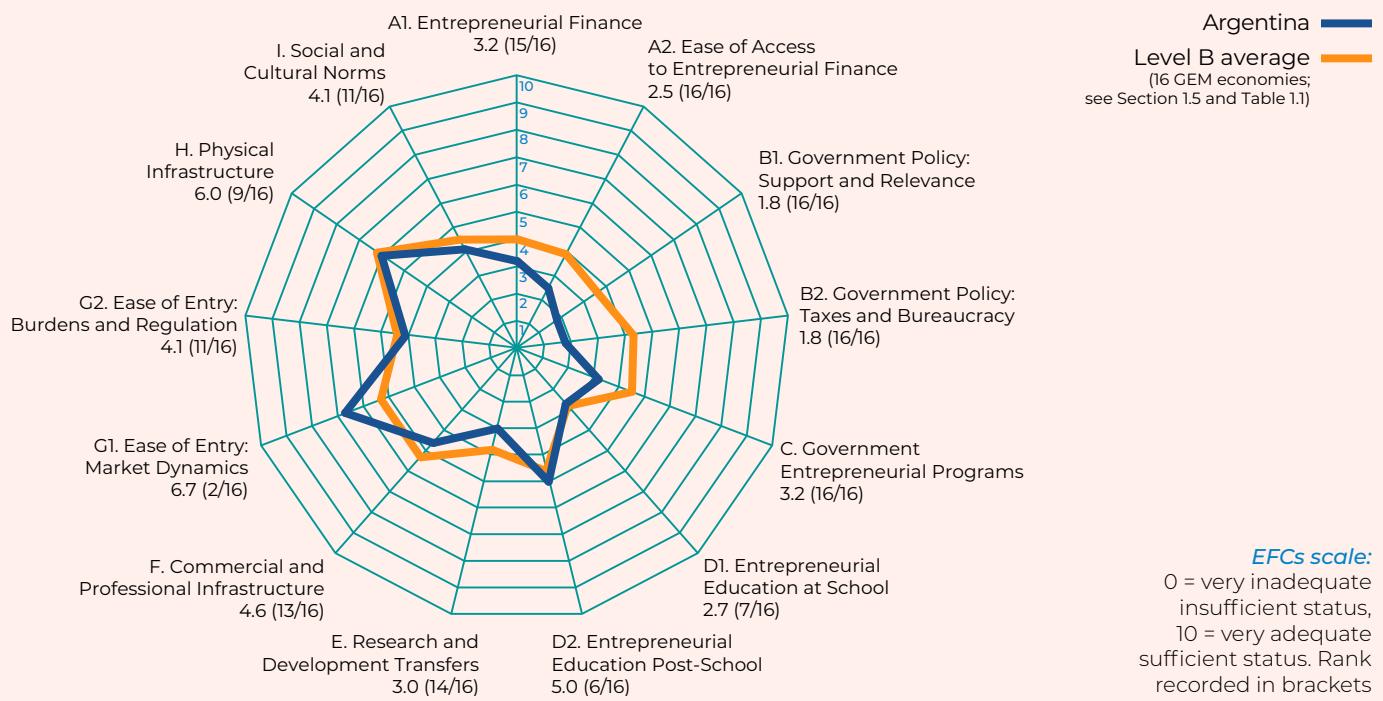


Argentina

■ Population (2021): **45.8 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **23.6 thousand** (World Bank)

Argentina did not participate in the 2022 Adult Population Survey.

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Argentinian economy grew by just over 4% in 2022, but with inflation (around 100%), a deteriorating labour market, and the historic association to the dollar, all pointing to a slowdown in 2023. High inflation increases business uncertainty, especially in relation to the costs of labour, logistics and other resources.

2022 Framework Conditions Review

In 2022, Argentina had a very wide range of Entrepreneurial Framework Condition scores, from a very poor 1.8 for both government policy conditions (Support and Relevance, and Taxes and Bureaucracy) to an almost excellent 6.7 for Ease of Entry: Market Dynamics. However, there were more low scores than high, with 10 conditions assessed as insufficient (i.e. <5.0), including three poor (score 3.0–4.0) and four very poor (score <3.0). In addition to Ease of Entry: Market

Dynamics, the three conditions scored as sufficient or better included Physical Infrastructure and Entrepreneurial Education: Post-School.

The product of this mixture of a few good scores and many poor ones is that the Argentinian entrepreneurial environment had an overall quality rating of 3.7, much less than sufficient, and placing Argentina 46th out of the 51 GEM participating economies. A low-quality environment such as this is one in which it is difficult for those starting new businesses to access the finance, markets and other resources necessary to be able to develop and grow that business.

2022 Entrepreneurial Activity Review

Argentina did not participate in the 2022 GEM Adult Population Survey.

Institution	Team	Funders	Contact
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Website https://www.iae.edu.ar/		APS vendor Estrategia&Gestión MDQ SRL FAWARIS	



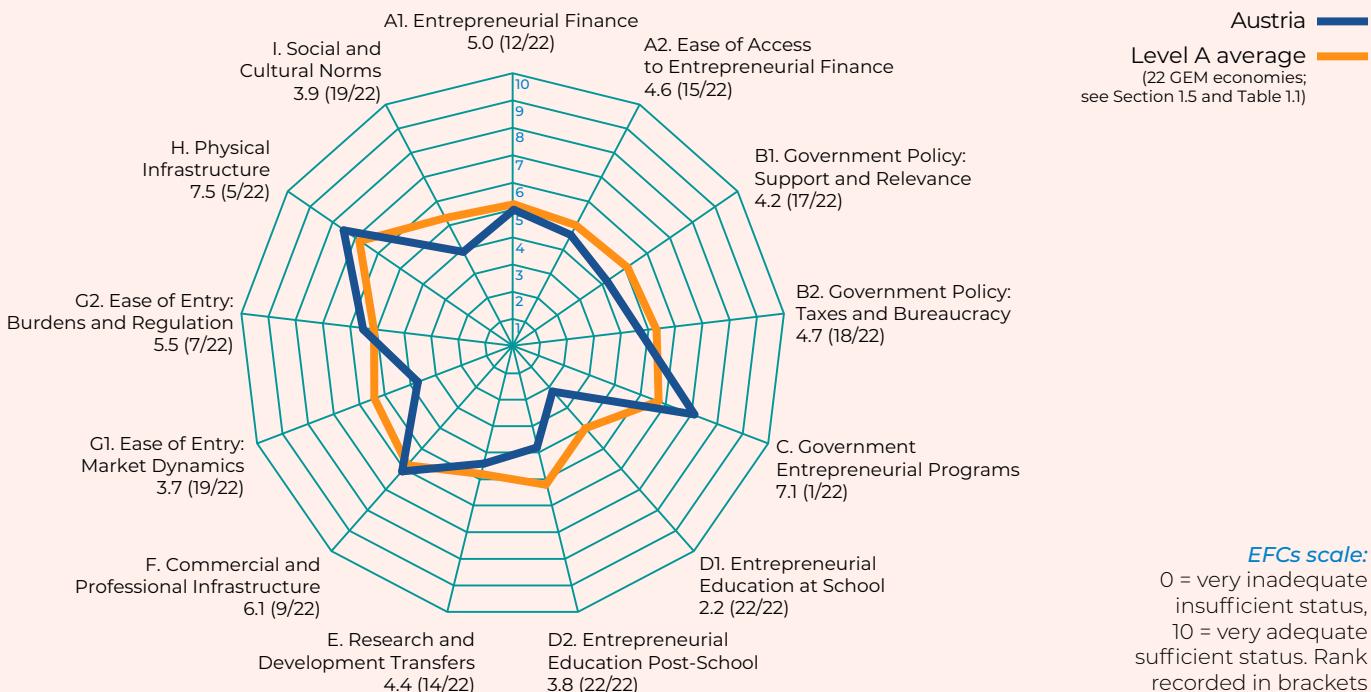
Austria

■ Population (2021): **9.0 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **58.4 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	50.9	29	
Good opportunities to start a business in my area	49.5	33	
It is easy to start a business	48.4	24=	To make a difference in the world 37.9 35
Personally have the skills and knowledge	53.2	33	To build great wealth or very high income 37.4 46
Fear of failure (opportunity)	37.9	40	To continue a family tradition 19.1 43
Entrepreneurial intentions*	5.4	47	To earn a living because jobs are scarce 46.0 42
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	1.1	43=	TEA (Total early-stage Entrepreneurial Activity) 6.8 40 6.1 7.4
International (25%+ revenue)	22.9	6	EBO (Established Business Ownership) 8.3 15= 6.1 10.6
Always consider social impact	69.3	38	
Always consider environmental impact	67.4	40	
Industry (% TEA in business services)	34.7	8	
COVID-19 related		COVID-19 related	
	% Adults	Rank/49	% Adults Rank/49
Pandemic has led household income to decrease**	32.0	36	
Starting a business is more difficult than a year ago	41.3	25=	
Use more digital technology to sell products or services	43.6	36	
Pursue new opportunities due to pandemic	34.9	35	

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

GDP growth for Austria in 2022 was forecast at just under 5%, with rising energy costs pushing inflation above 10% from September onwards. Unemployment remained relatively low, at around 5%. High prices meant a challenging environment for entrepreneurship, with increases in energy costs and rising interest rates leading to declining margins. High product and service prices pointed to a deteriorating consumer market.

The aws (Austrian Promotional Bank) launched several funding programs for startups in 2022, and in October an update of the "Red-White-Red Card" was introduced, to reduce labour shortages by facilitating access to the Austrian labour market for non-EU citizens.

2022 Framework Conditions Review

Austria last participated in GEM in 2020, so there is some opportunity to compare the situation immediately after the start of COVID to that of 2022. In both years, Austrian Framework Conditions present an enigma — with islands of excellence in a sea of mediocrity. As a result, the overall score for Austria's entrepreneurial environment, as measured by the National Entrepreneurship Context Index (NECI), is remarkably consistent, and distinctly average. In 2020, Austria scored 4.8 overall, placing it 18th. By 2022, Austria also scored 4.8 overall and was ranked 22nd.

Yet this is an economy with demonstrable excellence in some Framework Conditions. Its score of 7.1 for Government Entrepreneurial Programs was the highest of all 51 economies participating in the National Expert Survey. Its score of 7.5 for Physical Infrastructure placed it sixth highest. Yet, in 2022, the same economy ranked 41st out of 51 for Entrepreneurial Education at School, 44th for Social and Cultural Norms, 45th for Entrepreneurial Education Post-School and 46th for Ease of Entry: Market Dynamics. Most of these framework scores could be lifted with more commitment and more investment, especially by the government.

2022 Entrepreneurial Activity Review

Entrepreneurial activity data for Austria suggest a slow recovery from the economic impacts of COVID-19. The percentage of adults starting or running a new business has increased slightly (from 6.2% to 6.8%), but is still lower than pre-COVID rates. On the other hand, the level of EBO returned to pre-COVID levels by increasing from 7.8% to 8.3%. In 2022, 5.4% of adults intended to start a business in the next three years, compared to 7% in 2020, both figures relatively low, even by European standards. Finally in 2022, 7.7% of adults had invested in someone else's startup, up from 7.3% in 2020. So all of these entrepreneurial variables had nudged up slightly over the two years.

While the proportion of Austrian adults who knew someone who had started their own business remained just above a half, one area of significant change was in the proportion of adults seeing local good conditions to start a business, up from just under a third in 2020 to a half in 2022. A half of Austrian adults knew someone who had started a new business recently, or considered themselves to have the skills and experience to start their own. So Austria had no shortage of opportunity recognition, or of entrepreneurial role models, and no lack of confidence, although of those who saw good conditions to start a business, just over a third would be deterred by fear of failure.

"Earning a living because jobs are scarce" was the most commonly agreed motivation in 2022, followed by "making a difference in the world", just as they were in 2020. The proportion reporting they have customers outside of the country declined during the onset of the pandemic to 37% and increased back to 44% in 2022. Two in five new entrepreneurs expect to use more digital technologies to sell their products in the next six months, while the share who expect to employ an additional six people or more in five years has shot up from less than 1% during the start of the pandemic to 16% in 2022.

Institution	Team	Funders	APS vendor
Lead institution FH Joanneum GmbH — University of Applied Sciences FH JOANNEUM University of Applied Sciences	Team leader Christian Friedl Team members Rene Wenzel Bernadette Frech Lisa Mahajan	Federal Ministry Labour and Economy (BMAW) Federal Ministry of Climate Action, the Environment, Energy, Mobility, Innovation and Technology (BMK) Austrian Federal Economic Chamber (WKO) Federal Economic Chamber of Vienna (WKW) Austrian Council for Research and Technology Development (Rat FTE) Austrian Economic Service (AWS) Austrian Research Promotion Agency (FFG) Joanneum Research FH JOANNEUM — University of Applied Sciences B&C Privatstiftung — eXplore!	Market Marktforschungs-Ges.m.b.H. & Co.KG Contact christian.friedl@fh-joanneum.at
Type of institution University			
Website https://www.fh-joanneum.at/			



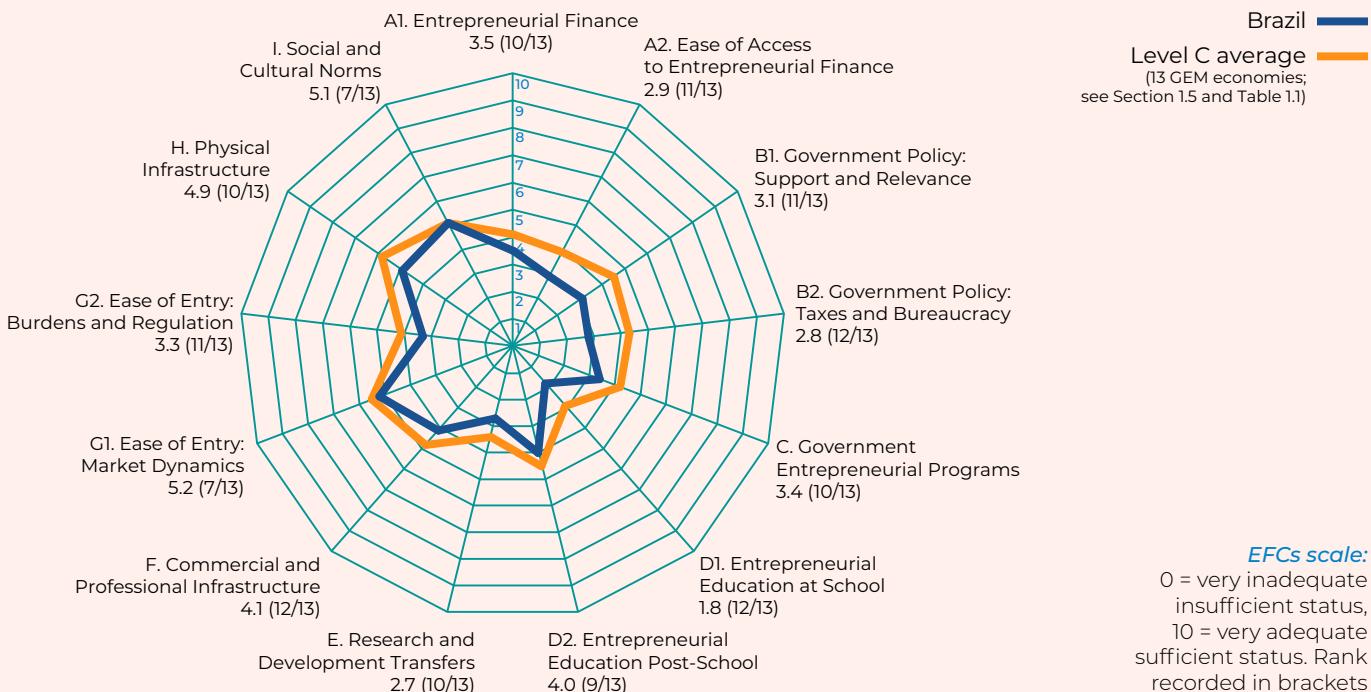
Brazil

■ Population (2021): **214.0 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **16.1 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	75.8	3			
Good opportunities to start a business in my area	67.9	12	To make a difference in the world	75.2	5
It is easy to start a business	46.8	28	To build great wealth or very high income	64.3	18
Personally have the skills and knowledge	69.2	12	To continue a family tradition	44.1	8
Fear of failure (opportunity)	49.0	15	To earn a living because jobs are scarce	82.0	11
Entrepreneurial intentions*	53.0	1=			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female
Job expectations (expecting to employ six or more people in five years' time)	6.4	6=	TEA (Total early-stage Entrepreneurial Activity)	20.0	8=
International (25%+ revenue)	2.1	42=	EBO (Established Business Ownership)	10.4	7
Always consider social impact	90.2	4=			6.8
Always consider environmental impact	91.3	5			14.2
Industry (% TEA in business services)	19.8	25			
COVID-19 related			% Male		
	% Adults	Rank/49	% Adults	Rank/49	
Pandemic has led household income to decrease**	56.8	17=			
Starting a business is more difficult than a year ago	53.7	12			
Use more digital technology to sell products or services	85.4	1			
Pursue new opportunities due to pandemic	64.8	4			

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Up to July 2022, GDP in Brazil grew by 4%, while consumer price inflation was around 10%. The unemployment rate was down to 9%, having been 13% a year earlier. Government policies have supported rapid recovery for the economic effects of the pandemic, although rising costs and demand uncertainty may have deterred some potential entrepreneurs.

The Ministry of Economy has introduced reforms to the legal system: for example Law No. 182 has established the legal framework for innovative entrepreneurship.

2022 Framework Conditions Review

In 2022 the overall assessment of Brazil's entrepreneurial environment was unchanged from a year earlier, with a National Entrepreneurial Context Index (NECI) score of 3.6, matching that of 2021. In 2021, Brazil's NECI score ranked 47th out of 50 economies. In 2022 that rank changed to 48th — because there were now 51 economies taking part.

There were some small changes in individual Framework Condition scores between 2021 and 2022, with six declines and seven increases. The greatest fall was in Ease of Entry: Market Dynamics, while the largest increase was in Social and Cultural Norms. There was also some deterioration in score for the two entrepreneurial finance conditions, offset by improvements in scores for government entrepreneurial policies and programs.

All of the Brazil individual framework scores for 2022 were less than the average framework scores for Level C, apart from that for Social and Cultural Norms, which was the same. So Brazil presents a fairly weak environment in which to start or develop a new business, even among Level C economies. Under these conditions, many of the new businesses started are unlikely to be sustained long enough to become established.

2022 Entrepreneurial Activity Review

The percentage of adults in Brazil investing in someone else's new business has increased rapidly over the pandemic period — from just 4% in 2018 to 7% in 2020, then to 12% in 2022. Meanwhile, the proportion of adults intending to start their own business rose from a third to a half at the start of the pandemic, and has remained at this level since.

Despite more than a half of Brazilian adults reporting that the pandemic had reduced their household income, it appears to have had little impact on the level of new entrepreneurship, with the percentage of adults starting or running a new business falling slightly between 2020 and 2021, but remaining high (at over one in five) since then. By contrast, the level of EBO was heavily impacted at the start of the pandemic, falling from 16% to 9% between 2019 and 2020, and recovering slightly (to 10%) since then. So, in 2019, Brazil had three adults starting or running a new business for every two running an established business. By 2022 this ratio had changed to two new starters for every established owner.

Under these circumstances, it is not surprising that more than three-quarters of adults in Brazil in 2022 knew someone who has started a business, while two out of three considered themselves to have the skill and experience to do so. A similar proportion saw good opportunities to start a business locally, but, as elsewhere, half of these would be deterred by fear of failure.

"Earning a living because jobs are scarce" has been the dominant agreed motivation for new entrepreneurs since this question was introduced by GEM four years ago, although agreement with "making a difference in the world" has been rising steadily. More than four out of five new entrepreneurs expected to use more digital technology to sell their products in the next six months, while more than three in 10 expected to employ another six or more people in five years' time. However, the share of new entrepreneurs with customers outside of their country, while increasing, remained very low at just 7% in 2022.

Institution	Team	Funders	APS vendor
Lead institution ANEGEPE  ANEGEPE Associação Nacional de Estudos em Empreendedorismo e Desenvolvimento Empresarial	Team leader Simara Greco Team members Vinicius Larangeiras Edmundo Inácio Junior Rose Mary Almeida Lopes Edmilson de Oliveira Lima Liliane de Oliveira Guimarães Paulo Alberto Bastos Jr Fernando Gimenez	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE) ANEGEPE	Harvest Pesquisas
Type of institution Non-governmental organisation			Contact simaragreco@yahoo.com.br
Website https://anegepe.org.br/			
Other institutions involved Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE)			



Canada

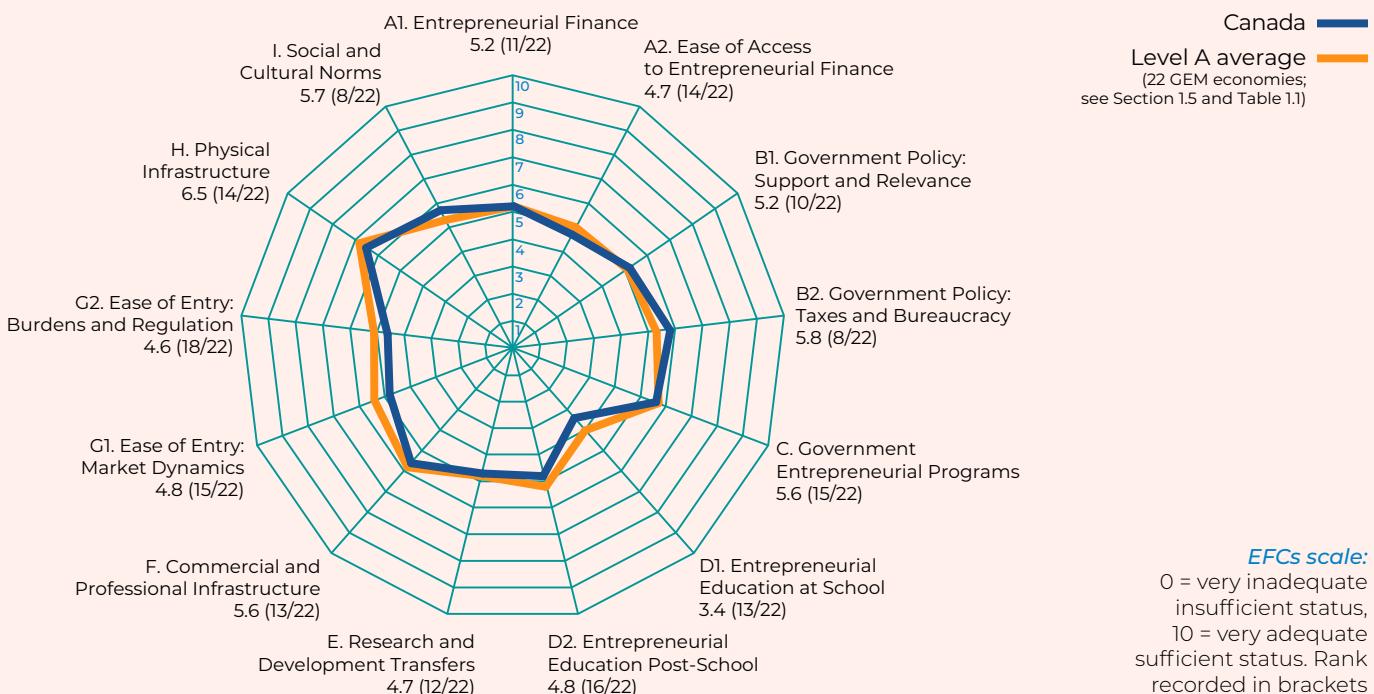
■ Population (2021): **38.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **52.1 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	47.3	35	
Good opportunities to start a business in my area	58.8	22	
It is easy to start a business	63.0	17	
Personally have the skills and knowledge	55.4	26	
Fear of failure (opportunity)	51.8	8	
Entrepreneurial intentions*	14.2	30	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	3.1	19=	TEA (Total early-stage Entrepreneurial Activity)	16.5	13	14.8	18.3
International (25%+ revenue)	21.3	10=	EBO (Established Business Ownership)	6.2	27	5.4	7.0
Always consider social impact	69.9	36					
Always consider environmental impact	75.8	28					
Industry (% TEA in business services)	33.8	11					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	33.5	33
Starting a business is more difficult than a year ago	49.8	17
Use more digital technology to sell products or services	55.3	19
Pursue new opportunities due to pandemic	55.5	11

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Canadian economy grew by almost 3% in Q3, 2022, driven by improving supply chains and commodity demand, combined with lower unemployment (5% in November 2022). In addition, there were reductions in housing investment and household spending, and rising interest rates and inflation. Labour, energy and raw material cost increases were constraining business growth, while inflation as measured by consumer prices was almost 7% in October 2022.

The Canadian federal budget in 2022 raised eligibility for the small business tax rate, and encouraged strategic investment for SMEs in health-focused businesses and increased access to Canada's trade remedy system.

2022 Framework Conditions Review

Canada, like its neighbour to the south, is a high-income economy with a strong tradition in entrepreneurship. On the surface, there was little change in the overall assessment of the quality of the Canadian entrepreneurial environment between 2021 and 2022, with an unchanged National Entrepreneurship Context Index (NECI) score of 5.1 leading to a marginal fall in the overall ranking from 15th to 16th.

Beneath the surface, however, there was considerable turmoil in the Framework Conditions, with five framework scores increasing but seven falling. Two conditions that had been rated as insufficient in 2021 improved to sufficiency (≥ 5.0) in 2022: Government Policy: Support and Relevance and Government Entrepreneurial Programs. One condition previously rated as sufficient — Ease of Entry: Burdens and Regulation — is now insufficient. All three are within the purview of the government, so some mixed messages there.

Overall, Canada's Entrepreneurial Framework Conditions all scored at modest to good, with the highest rank among the 51 economies being Government Policy: Support and Relevance (14th out of 51), and the lowest being Ease of Entry: Market Dynamics (34th).

2022 Entrepreneurial Activity Review

Around a third of Canadian adults reported that their household income had been reduced by the pandemic in 2022, a relatively high proportion but down from two in five in 2020. Both the percentage of adults investing in someone else's business, and the percentage of adults intending to start their own business in the next three years fell in the early stages of the pandemic, but both had recovered strongly enough by 2021 for levels to exceed those of 2019. Unfortunately, both levels fell again to below pre-pandemic rates in the difficult trading conditions of 2022.

Over half of Canadian adults agreed they have the skills and experience to start their own business, with slightly more seeing good opportunities to start their own business locally, and slightly less knowing someone who has started their own business recently. However, half of those seeing good opportunities would be deterred by the fear of failure.

As with the other entrepreneurial variables, both the proportion of adults starting or running a new business and the proportion running an established business fluctuated during the pandemic cycle, with both falling initially from 2019 to 2020, then rising in 2021 to exceed their 2019 level, then falling below this in 2022. In 2020, TEA was 16% with EBO at 7%. By 2022 the corresponding figures were 16% and 6%. These figures may suggest that some trading conditions in Canada in 2022 were actually worse than in the early stages of the pandemic. As another example, more of Canada's new entrepreneurs have agreed with the motivation "making a difference in the world" than "building great wealth or very high income" since these questions were introduced by GEM in 2019. In 2022, these positions were reversed.

Finally, substantially fewer new entrepreneurs in Canada in 2022 had customers outside the country (32%) than either before the pandemic (39% in 2019) or in its early stages (38% in 2020). More than half of Canada's new entrepreneurs expected to use more digital technology in the next six months to sell their products, while job growth expectations were strong, with the percentage expecting to employ another six or more people in five years' time increasing from 13% in 2020 to 19% in 2022.

Institution

Lead institution

The Centre for Innovation Studies
(THECIS)



Type of institution

Research Institute

Website

<http://www.thecis.ca>

Other institutions involved

The Centre for Innovation Studies
University of Calgary
Memorial University of Newfoundland

Cape Breton University

University of New Brunswick

University of PEI

Université du Québec à Trois-Rivières

University of Ottawa

Toronto Metropolitan University

University of Manitoba

University of Regina

University of Saskatchewan

Mount Royal University

University of Alberta

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Amanda Williams

Karen Hughes

Geoff Gregson

Brian Wixted

David Clough

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Government of Canada

Government of Alberta

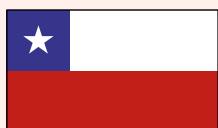
Government of Quebec

APS vendor

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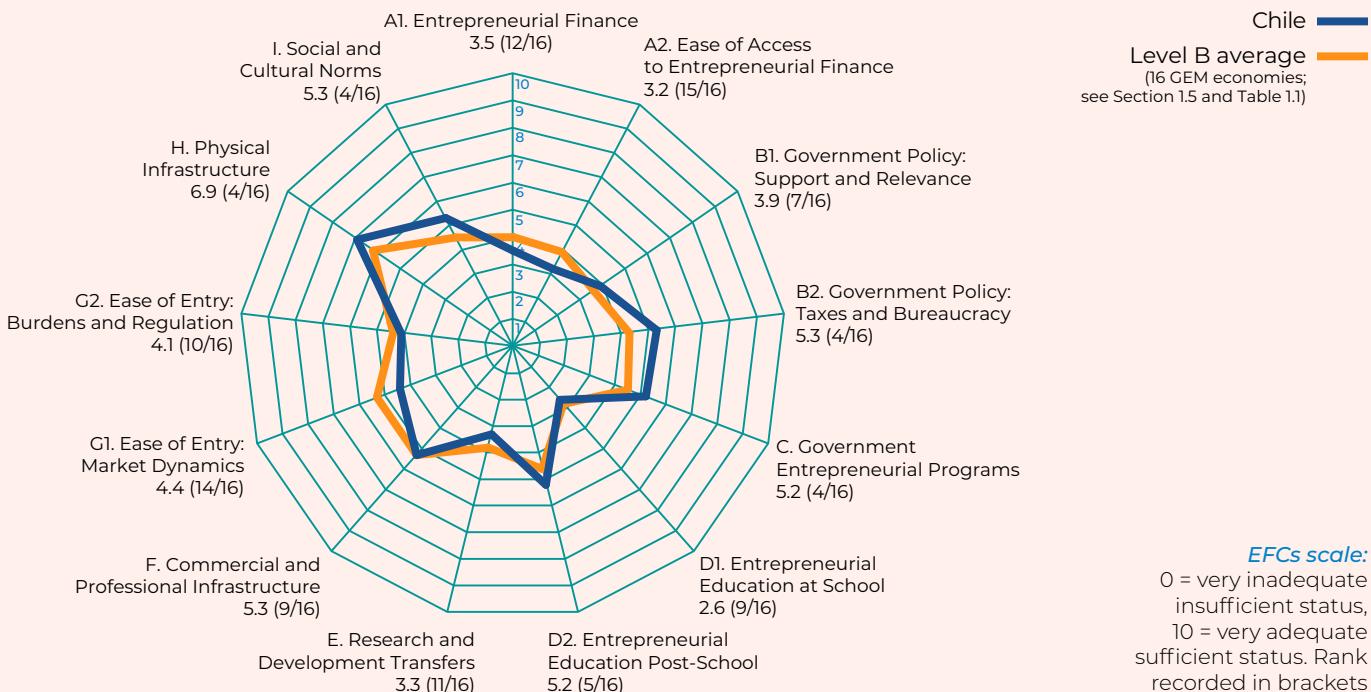
Chile

■ Population (2021): **19.2 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **29.1 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	68.6	6			
Good opportunities to start a business in my area	50.5	32	To make a difference in the world	55.1	16
It is easy to start a business	51.1	23	To build great wealth or very high income	54.7	27
Personally have the skills and knowledge	70.1	11	To continue a family tradition	27.9	26
Fear of failure (opportunity)	44.9	22	To earn a living because jobs are scarce	69.6	23
Entrepreneurial intentions*	46.1	7			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female % Male
Job expectations (expecting to employ six or more people in five years' time)	8.0	4	TEA (Total early-stage Entrepreneurial Activity)	27.0	4 25.2 28.9
International (25%+ revenue)	0.5	42	EBO (Established Business Ownership)	7.3	19 5.8 8.8
Always consider social impact	88.1	9			
Always consider environmental impact	91.9	4			
Industry (% TEA in business services)	16.9	30			
COVID-19 related					
	% Adults	Rank/49		% Adults	Rank/49
Pandemic has led household income to decrease**	51.6	21			
Starting a business is more difficult than a year ago	67.5	4			
Use more digital technology to sell products or services	75.4	6			
Pursue new opportunities due to pandemic	63.3	5			

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In November 2022, consumer price inflation in Chile was just over 13%, with unemployment around 8%. On the supply side, increases in business costs have affected liquidity, access to credit and business growth strategies. On the demand side, consumption has fallen.

In January 2022, the Ministry of Economy launched the “Digitalízate Kit” platform to provide SMEs and entrepreneurs access to growth tools including digital marketing, e-commerce, shipping and despatch, means of payment, connectivity, and cybersecurity. Then, in July 2022, the same Ministry launched the Cooperatives and Trade Associations Strengthening Program, providing financial support for creating new cooperatives and for strengthening the competitiveness of existing ones, as well as for SME associations.

2022 Framework Conditions Review

Despite some turmoil in its Framework Condition scores since 2021, with six decreasing, four increasing and two the same, losses largely balanced gains, so that Chile's overall score for the quality of its entrepreneurial environment (its National Entrepreneurial Context Index, or NECI), remained unchanged at 4.5. This placed Chile 29th of 51 economies, a fall from the 26th achieved with the same score in 2021 because of improvements in other economies. Chile's NECI score has hardly changed in recent years, having been 4.6 in 2019 and 4.4 in 2020, so there is no evidence of any significant pandemic effect. This finding is supported by a score of 5.4, sufficient but not outstanding, for the assessment of recovery from the economic effects of COVID-19.

Individual framework scores have worsened since 2021 for both finance conditions, and all three government policy and program conditions. The latter is especially disappointing in an economy with a history of strong governmental support for entrepreneurship. However, both entrepreneurial education scores improved in 2022.

In terms of Framework Condition scores, Chile sits firmly in the centre of the Level B economies, with six scores better than the Level B average, six worse and one the same. Compared to the full group of 51 GEM economies in 2022, Chile's best

rank was 17th for Government Policy: Taxes And Bureaucracy, contrasting with 47th for Ease of Access to Entrepreneurial Finance. The latter is unfortunate considering full economic recovery is likely to need significant investment in new businesses.

2022 Entrepreneurial Activity Review

Chile has a well-earned reputation for entrepreneurship that is likely to be enhanced by its 2022 GEM results. About a quarter of adults invested in someone else's startup in 2022, a level that has remained high throughout the pandemic, while almost a half of adults intend to start a business in the next three years, a proportion that faltered at the onset of the pandemic but has been increasing since.

In 2022, more than two-thirds of adults knew someone who has recently started a new business, and even more considered they have the skills and experience to do so themselves. Half of all adults saw good opportunities to start a business locally, but almost a half of these would be deterred from doing so by the fear of failure.

The percentage of adults in Chile starting or running a new business fell from over a third to a quarter at the start of the pandemic (2019 to 2020), and was just a little more in 2022. Men remain more likely to start a new business than women, though not by much. EBO also fell at the start of the pandemic, and, despite increasing recently, remains well below the pre-pandemic level (7.3% in 2022 compared to 10.6% in 2019). The ratio of new to established businesses has remained stable at around three to one. Identifying the obstacles that are preventing new businesses from becoming established, some of which may be clear from the previous section, should be important to policymakers keen to enhance Chile's stock of businesses.

Unlike in its larger neighbour Brazil, the percentage of new entrepreneurs with customers outside of the country has been in decline recently, from 7% in 2019 to less than 2% in 2020, although around three in four new entrepreneurs expect to use more digital technology in the next six months to sell their products. Job expectations remained strong among new entrepreneurs, with three in 10 expecting to add six or more new jobs in the next five years.

Institution

Lead institution

Universidad del Desarrollo



Universidad del Desarrollo

Type of institution

University

Website

<https://www.udd.cl>

Other institutions involved

Asociación de Emprendedores de Chile
Universidad Católica del Norte
Universidad Técnica Federico Santa María
Universidad Católica de la Santísima Concepción
Universidad de la Frontera
Universidad de Aysén

Team

Team leader

Maribel Guerrero, PhD

Team members

Claudia Yáñez-Valdés

Funders

Universidad del Desarrollo

APS vendor

Questio Estudios de Mercado y Opinión Limitada

Contact

gem@udd.cl



China

■ Population (2021): **1,412.3 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **19.3 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	56.3	20
Good opportunities to start a business in my area	56.5	24
It is easy to start a business	25.9	46
Personally have the skills and knowledge	54.4	28
Fear of failure (opportunity)	56.7	3
Entrepreneurial intentions*	6.4	43=

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	14.7	47
To build great wealth or very high income	60.9	22
To continue a family tradition	27.2	27=
To earn a living because jobs are scarce	60.3	32

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	6.0	44=	5.0	6.9
EBO (Established Business Ownership)	3.2	43	2.9	3.5

Entrepreneurship impact

% Adults Rank/49

Job expectations (expecting to employ six or more people in five years' time)	1.2	40=
	% TEA	Rank/49
International (25%+ revenue)	1.1	42
Always consider social impact	78.4	23
Always consider environmental impact	85.8	12
Industry (% TEA in business services)	8.5	38

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

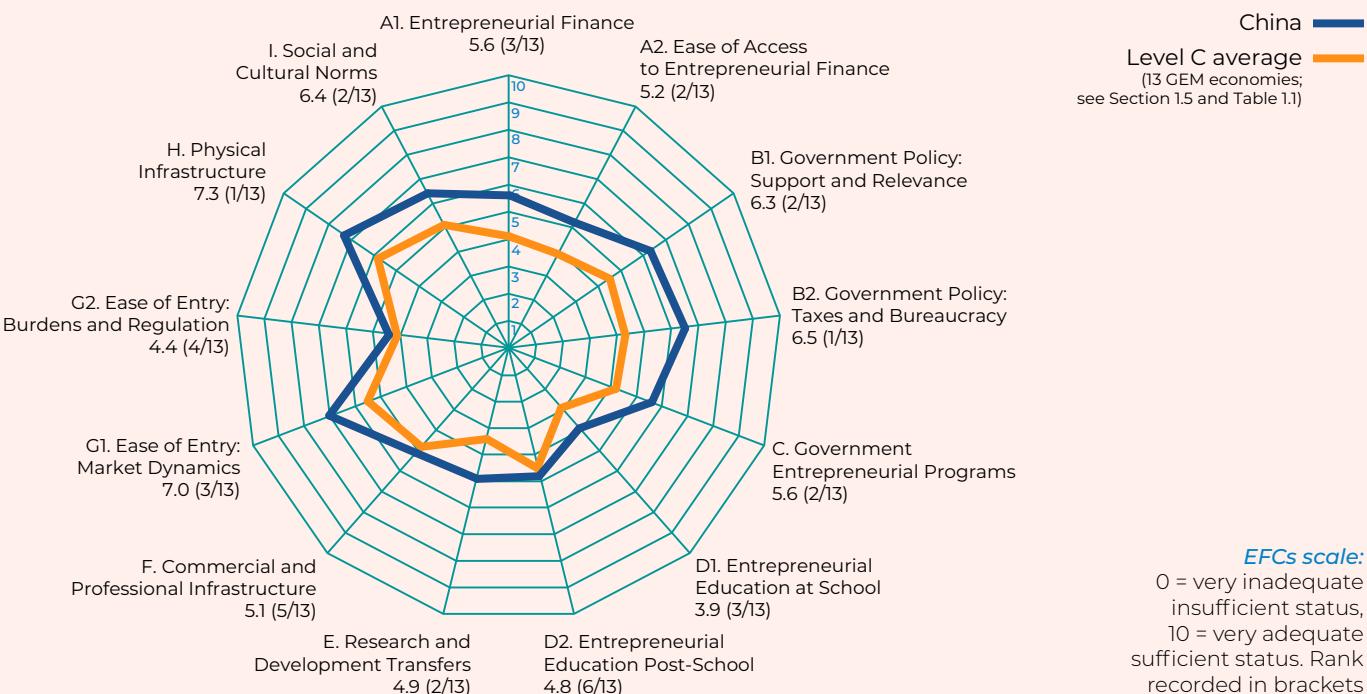
** Those reporting "somewhat decrease" or "strongly decrease".

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	73.7	6
	% TEA	Rank/49
Starting a business is more difficult than a year ago	84.2	1
Use more digital technology to sell products or services	36.9	40
Pursue new opportunities due to pandemic	31.3	40

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

China's economy grew by less than 3% in Q2 2022, followed by nearly 4% in Q3. This is significantly lower growth than before the pandemic, although there is little sign the pandemic has added to inflation. However, business uncertainty may deter entrepreneurship in the near future.

2022 Framework Conditions Review

China last participated in GEM in 2019, so we are able to make some comparisons pre- and post-pandemic.

In 2019, there were 12 Entrepreneurial Framework Conditions. China was scored by its national experts as sufficient or better (≥ 5.0) in 11. By 2022, this had fallen to eight sufficient conditions, with Entrepreneurial Education Post-School, Research and Development Transfers and Ease of Entry: Burdens and Regulation now scored as insufficient. As a result, the overall score for the quality of China's entrepreneurial environment in the National Entrepreneurship Context Index (NECI) fell from 5.9 in 2019 (ranked 4th) to 5.6 in 2022 (ranked 11th).

There is no doubt that China has been severely impacted by the pandemic. Nevertheless, it is impressive that it still had four Framework Conditions ranked among the top 10 of the 51 economies, and just three in the bottom half of those ranks. The experts scored China's recovery from the economic effects of the pandemic at 4.9, just less than sufficient, and ranked 41st of these economies.

2022 Entrepreneurial Activity Review

More than seven out of 10 adults in China reported that their household income was lower in 2022 because of the pandemic. Maybe because of this, the percentage

of adults investing in someone else's startup fell from 9% to 6% over the period, while the proportion intending to start their own business in the next three years fell much more steeply, from 26% in 2019 to just over 6% in 2022. This past year, more than half of all adults knew someone who has recently started a business, or agreed they have the skills and experience to start a business themselves. A similar proportion saw good opportunities to start a business locally, although well over half of the latter would not start that business because of fear of failure.

The percentage of adults starting or running a new business had fallen from 9% in 2019 to 6% in 2022, relatively low for a Level C economy. Men remain more likely than women to be starting a business. The proportion of adults running an established business had fallen dramatically over the same period, from 9% to just 3%. One consequence is that, while in 2019 there was just over one adult running an established business for every adult starting a new one, by 2022 there were almost twice as many adults starting a new business as running an established one.

In 2022 the dominant motivation agreed by new entrepreneurs in China was "to build great wealth or very high income", closely followed by "earning a living because jobs are scarce". Relatively few entrepreneurs agreed with the motivation of "making a difference in the world". More than half of new entrepreneurs in China expect to use more digital technology to sell their products in the next six months. This could be aimed at customers outside China, since the share of new entrepreneurs with customers beyond their country had fallen sharply, from 18% to just 4%. Despite this, one in five of those new entrepreneurs expected to employ an additional six people or more in five years' time.

Institution	Team	Funders	APS vendor
Lead institution ShanghaiTech University  上海科技大学 ShanghaiTech University	Team leader Yu Yang Team members Suting Hong Guangwei Li Wenxin Xie Qiao Yang Xiyi Yang Wen Zheng Xiaoyu Zhou	ShanghaiTech University	N/A
Type of institution University			Contact yangyu@shanghaitech.edu.cn
Website https://www.shanghaitech.edu.cn/eng/			



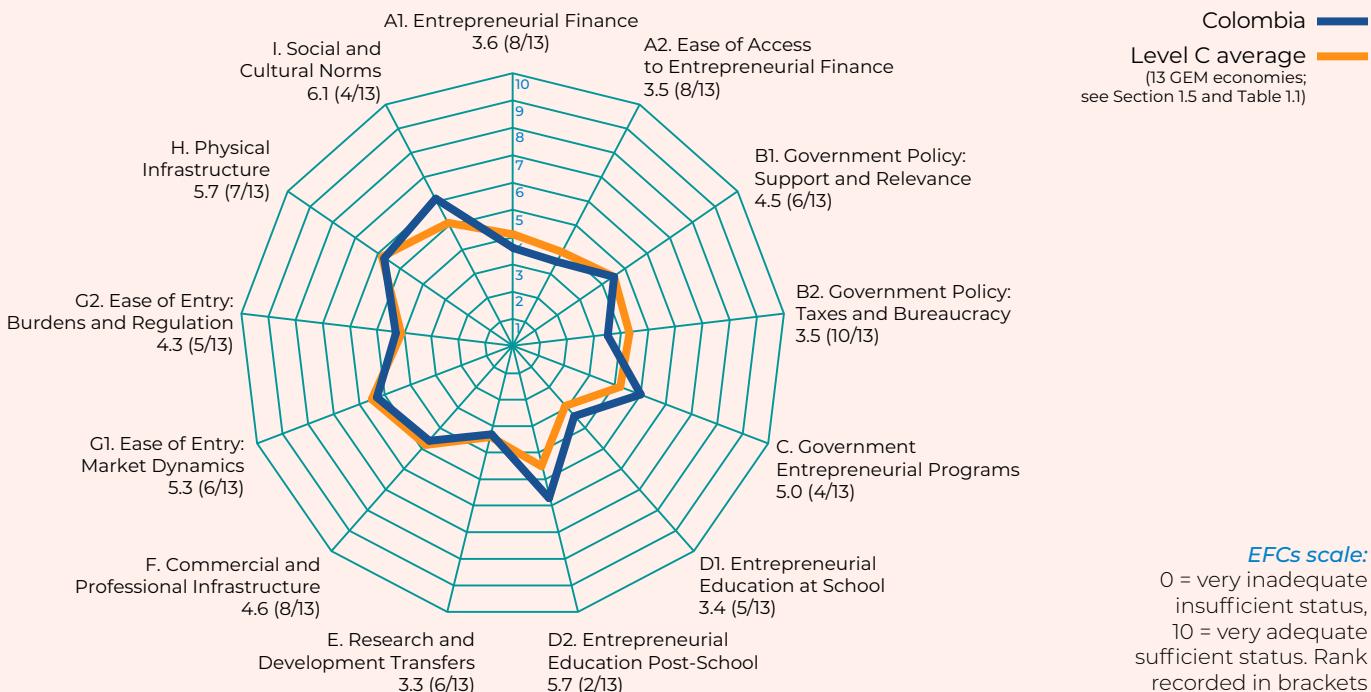
Colombia

■ Population (2021): **51.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **16.9 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	63.8	12			
Good opportunities to start a business in my area	53.4	27=	To make a difference in the world	47.6	25
It is easy to start a business	41.4	32	To build great wealth or very high income	54.0	28
Personally have the skills and knowledge	66.6	17	To continue a family tradition	34.5	15
Fear of failure (opportunity)	38.5	39	To earn a living because jobs are scarce	86.6	6
Entrepreneurial intentions*	21.2	19			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female % Male
Job expectations (expecting to employ six or more people in five years' time)	7.6	5	TEA (Total early-stage Entrepreneurial Activity)	28.0	2 26.1 30.1
International (25%+ revenue)	5.0	35	EBO (Established Business Ownership)	5.1	34 4.0 6.2
Always consider social impact	69.6	37			
Always consider environmental impact	76.3	25=			
Industry (% TEA in business services)	8.2	39			
COVID-19 related					
	% Adults	Rank/49		% Adults	Rank/49
Pandemic has led household income to decrease**	73.0	7			
Starting a business is more difficult than a year ago	50.6	15			
Use more digital technology to sell products or services	62.3	11			
Pursue new opportunities due to pandemic	51.2	15			

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In 2022, economic growth in Colombia reached over 7%, but was expected to slow down in 2023. Despite this growth, employment was not yet restored to pre-pandemic levels, and unemployment was almost 10%, although down on the previous year. Informality was high, with GEM Colombia estimating that just over a third of new entrepreneurs, and just over a half of established entrepreneurs, were registered with the Chamber of Commerce.

Inflation in 2022 was expected to have exceeded 12%, with rising costs meaning entrepreneurs were having to adopt new ways of thinking and acting strategically in order to survive.

2022 Framework Conditions Review

In 2022, Colombia's quality of Entrepreneurial Framework Conditions, as assessed by a group of its own national experts, declined in the six conditions most closely related to government: Government Entrepreneurial Programs, entrepreneurial education at all levels and Physical Infrastructure. Largely as a result, the assessed quality of its overall entrepreneurial environment, as measured by its National Entrepreneurship Context Index (NECI) score, declined from 4.7 in 2022 (23rd) to 4.5 in 2022 (28th). Any further decline was averted by small improvements in another three assessed conditions: Entrepreneurial Finance; the Ease of Entry; Burdens and Regulation; and Social and Cultural Norms.

Just five Framework Conditions were assessed as sufficient (≥ 5.0) in 2022, down from six the previous year. Colombia's Framework Conditions were firmly in the middle of the Level C group average, exceeding that average in five conditions and falling beneath it in seven.

The impact of the pandemic on Colombia's entrepreneurial environment is difficult to assess, with its NECI score rising at the onset of the pandemic (from 4.2 in 2019 to 4.6 in 2020), rising again to 4.7 in 2021 and then falling in 2022.

2022 Entrepreneurial Activity Review

It is evident that Colombia has been hard hit by the pandemic, with more than seven out of 10 adults reporting that the pandemic had reduced their

household income in 2022. Perhaps as a result, the percentage of adults in Colombia investing in someone else's new business has been falling since 2020, from 9% then to 4% in 2022. The proportion of adults intending to start a business in the next three years has also declined over this period, from 43% in 2020 to 21% in 2022. This is despite two-thirds of adults in 2022 knowing someone who has recently started a business and a similar proportion believing they have the skills and experience to start a business themselves. More than half of adults saw good opportunities to start a business locally, although a third of these would not do so because of fear of failure.

Both the percentage of adults starting or running a new business and the percentage running an established business in Colombia have proved highly volatile in the pandemic cycle. The former actually increased between 2019 and 2020 (from 22% to 31%), then fell dramatically to 16% in 2021 before rising again to 28% in 2022. Female new entrepreneurship has moved more or less in line with the males, so a small gender gap has persisted. EBO followed a similar, if less extreme, pattern to new entrepreneurship, rising at the start of the pandemic, then more than halving in 2021 before mostly recovering in 2022. Colombia still has five adults starting or running a new business for every Established Business Owner, a ratio that has been fairly stable in recent years. There appear to be some serious obstacles preventing new business transitioning into established ones: the Framework Conditions review offered no shortage of possibilities.

Unlike in Brazil and Chile, a relatively high proportion of new entrepreneurs in Colombia have customers outside of the country, although this has dropped from 21% in 2020 to 16% in 2022. Almost two out of three new entrepreneurs expected to use more digital technology in the next six months to sell their products, and the share expecting to employ six or more additional people in five years' time was relatively high at just over a quarter, but well down on the one half of three years ago.

"Earning a living because jobs are scarce", not surprisingly, remained the most commonly agreed motivation for new entrepreneurs, chosen by almost nine out of 10, although "making a difference in the world" was also chosen by more than a half of the new entrepreneurs.

Institution
Lead institution
Universidad Icesi
 UNIVERSIDAD ICESI
Pontificia Universidad Javeriana de Cali
Universidad del Norte
Universidad EAN
Institución Universitaria Americana iNNpulsa Colombia

Type of institution
University
Website
www.gemcolombia.org
Team
Team leader
Ana Carolina Martínez Romero (Universidad Icesi)
Team members
Jhon Alexander Moreno Barragán Fernando Pereira Laverde

Fabian Osorio	Pontificia Universidad Javeriana de Cali
Nathaly Pinzón	Universidad del Norte
Mariangela López	Institución Universitaria Americana
Andrea Cajigas	Universidad EAN
Jana Schmutzler	
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APS vendor	INFO Investigaciones S.A.S.
Contact	acmarti@icesi.edu.co



Croatia

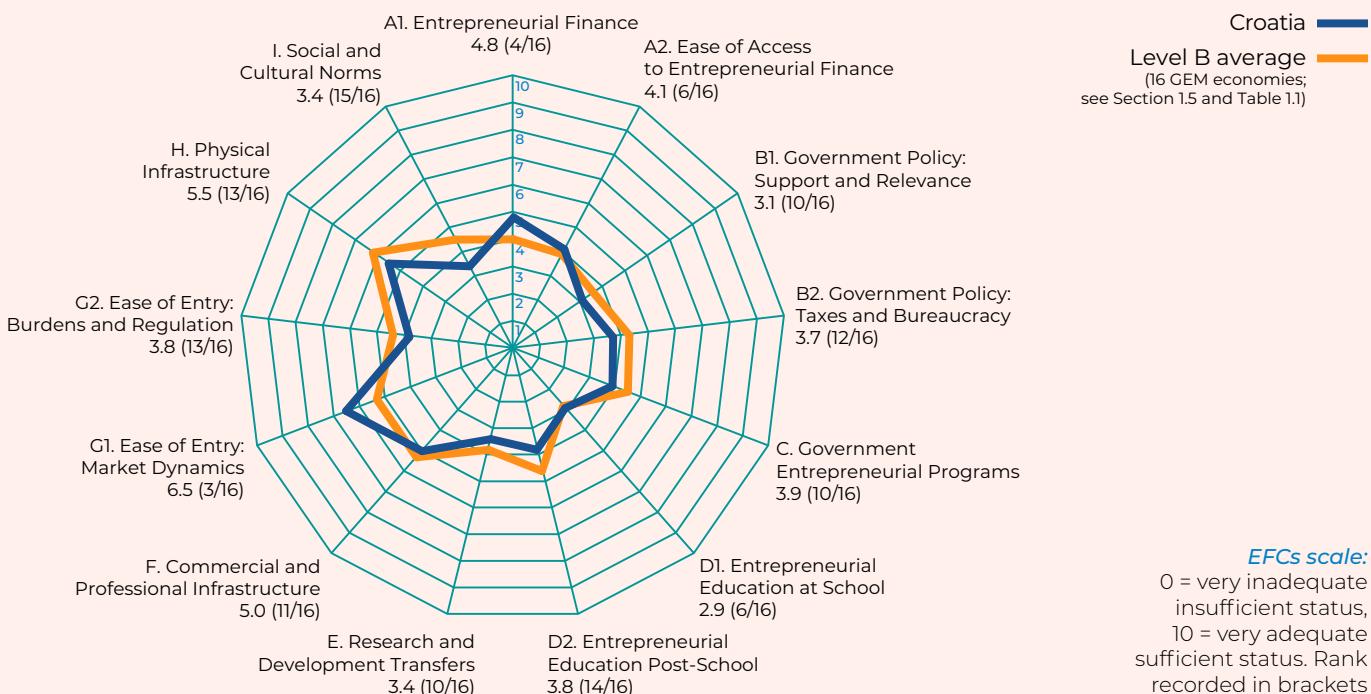
■ Population (2021): **3.9 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **33.8 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	66.5	8	
Good opportunities to start a business in my area	60.0	21	
It is easy to start a business	34.0	39	
Personally have the skills and knowledge	73.6	9	
Fear of failure (opportunity)	48.6	16	
Entrepreneurial intentions*	19.5	21	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	3.4	17	
	% TEA	Rank/49	
International (25%+ revenue)	25.1	4	
Always consider social impact	81.0	19	
Always consider environmental impact	82.5	18=	
Industry (% TEA in business services)	32.7	13	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	19.3	48
	% TEA	Rank/49
Starting a business is more difficult than a year ago	32.2	38
Use more digital technology to sell products or services	50.1	26
Pursue new opportunities due to pandemic	34.8	36

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

With the help of government support for businesses, the Croatian economy survived the global health crisis, and is getting through the global energy crisis without losing many jobs. Real GDP is expected to have grown by more than 6% in 2022, while inflation edged above 10%. This inflation is challenging business supply chains and reducing the purchasing power of consumers.

Since 2020, the Croatian government has intervened to support micro, small and medium-sized businesses, with interventions to support jobs extended into 2022.

2022 Framework Conditions Review

Croatia has a relatively weak entrepreneurial environment, with 10 of 13 conditions rated as insufficient (<5.0) in 2022. Nevertheless, that entrepreneurial environment is improving, with 11 individual conditions seeing their assessments improve in 2022 compared to 2021. As a result, the quality of Croatia's entrepreneurial environment pushed its overall National Entrepreneurship Context Index (NECI) score up from 3.9 in 2021 to 4.1 in 2022, improving Croatia's ranking from 43rd to 39th among GEM economies.

Most of the individual framework score improvements were modest, with the largest being for Ease of Entry: Market Dynamics. The two framework scores that fell over the period were for Government Entrepreneurial Programs and for Physical Infrastructure. There are clearly considerable efforts being made to improve Croatia's Framework Conditions, including entrepreneurial finance and education, but there is a long way to go to make Croatia an encouraging and supportive place in which to start and grow a business.

2022 Entrepreneurial Activity Review

In 2022, one in five adults in Croatia reported that their household income was reduced by the pandemic, more or less half of the level in 2020. Relatively few

Croatian adults invest in someone else's new business, at around 6%, a figure that has been consistent throughout the pandemic cycle. However, the proportion intending to start their own business in the next three years rose in the early stages of the pandemic, from 26% in 2019 to 31% in 2020, before falling steadily back to 20% in 2022.

Croatian adults have good awareness of entrepreneurship and are not lacking confidence in their own abilities. More than two out of three know someone who has started a business recently, while three-quarters consider they have the skills and experience to start their own. Three in five see good opportunities to start a business locally, although about a half of these would be deterred by fear of failure.

As with business intentions, the percentage of adults starting or running their own business has mostly been rising throughout the pandemic, from 10.5% in 2019 to 13.2% in 2022. Men remain more likely to be starting a new business, with seven men starting a new business for every four women doing the same in 2022. The proportion of established businesses is relatively low in Croatia (3.4% in 2022), little changed from the start of the pandemic. As a result, the ratio of new to established businesses has increased from three to one in 2019 to four to one in 2022. The long-term failure to convert new into established businesses is a concern.

More than seven out of 10 Croatian new entrepreneurs agree with the motivation "to earn a living because jobs are scarce", which has dominated agreement since this question was introduced by GEM in 2019. Meanwhile, the proportion of new entrepreneurs with customers beyond Croatia has been rising, from four in 10 in 2019 to more than a half in 2022. A similar proportion expect to use more digital technologies to sell their products in the next six months, and job expectations are fairly strong, with around a quarter expecting to employ another six or more people in five years' time, more or less the same proportion as in 2019.

Institution

Lead institution

J.J. Strossmayer University in Osijek,
Faculty of Economics (EFOS)



Type of institution

University

Website

<http://www.efos.unios.hr>
<http://www.ices.hr/en/gem>

Other institutions involved

CEPOR — SMEs and
Entrepreneurship Policy
Centre <http://www.cepor.hr/gem-globalentrepreneurship-monitor/>

Team

Team leader

Prof. Slavica Singer, PhD

Team members

Prof. Nataša Šarlija, PhD
Prof. Sanja Pfeifer, PhD
Prof. Sunčica Oberman Peterka, PhD

Funders

Ministry of Economy and Sustainable
Development
Croatian Banking Association
CEPOR SME & Entrepreneurship
Policy Centre
J.J. Strossmayer University in Osijek,
Faculty of Economics

APS vendor

IPSOS d.o.o., Zagreb

Contact

singer@efos.hr



Cyprus

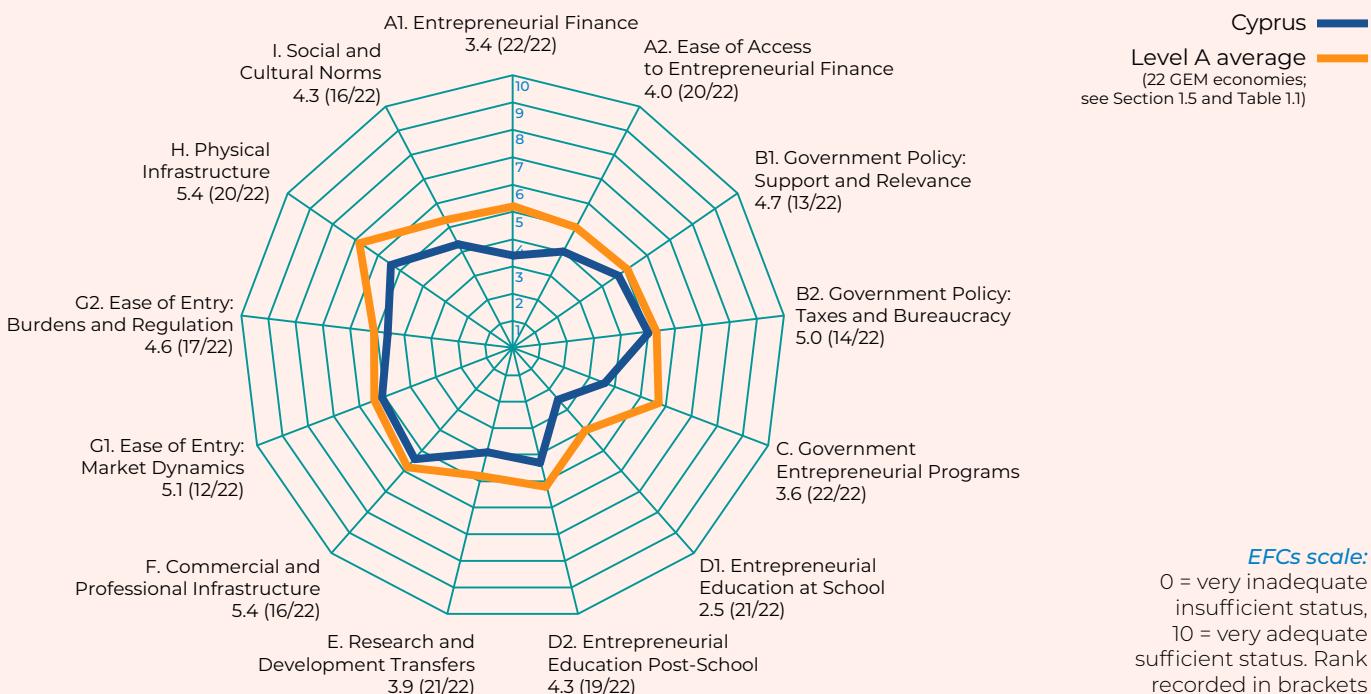
■ Population (2021): **1.2 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **42.6 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	82.4	2			
Good opportunities to start a business in my area	26.8	47	To make a difference in the world	45.3	28
It is easy to start a business	48.4	24=	To build great wealth or very high income	78.3	9
Personally have the skills and knowledge	52.7	34	To continue a family tradition	25.4	31
Fear of failure (opportunity)	51.7	9	To earn a living because jobs are scarce	60.5	31
Entrepreneurial intentions*	18.3	22			

Entrepreneurship impact			Activity			
	% Adults	Rank/49	% Adults	Rank/49	% Female	% Male
Job expectations (expecting to employ six or more people in five years' time)	2.7	21=	TEA (Total early-stage Entrepreneurial Activity)	8.3	34=	4.9
International (25%+ revenue)	21.7	9	EBO (Established Business Ownership)	5.7	29=	3.9
Always consider social impact	73.4	28				
Always consider environmental impact	70.2	36				
Industry (% TEA in business services)	27.1	18				

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	44.7	26
Starting a business is more difficult than a year ago	56.5	10
Use more digital technology to sell products or services	53.0	24
Pursue new opportunities due to pandemic	40.1	29

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

GDP in Cyprus is expected to have grown by just under 4% in 2022, with unemployment falling to just above 7%. Business margins were under pressure, with increases in costs only partially passed on to consumers.

The government introduced its “Action Plan 2022” to attract businesses in key sectors including technology, shipping, biogenetics and biotechnology.

2022 Framework Conditions Review

National experts' assessment of the overall quality of Cyprus's entrepreneurial environment showed some small improvement in 2022 compared to 2021, with its National Entrepreneurship Context Index (NECI) score rising from 4.2 to 4.3, pushing Cyprus's ranking among GEM economies from 37th to 33rd. In 2021, Cyprus had 10 of 13 Framework Conditions assessed as insufficient (<5.0), but by 2022 this had fallen to nine, as improvements in internal market dynamics drove this condition into sufficiency. The assessment of Cyprus's recovery from the economic effects of the pandemic was largely positive, with a well-sufficient score of 5.5.

Cyprus's individual Framework Conditions are highly variable in quality, with one ranked in the top 20 among the 51 economies participating in the 2022 GEM National Expert Survey (NES): Government Policy: Support and Relevance, and with three ranked in the bottom 10: Entrepreneurial Finance, Government Entrepreneurial Programs and Physical Infrastructure.

2022 Entrepreneurial Activity Review

The percentage of adults starting or running a new business declined by almost a third at the start of the pandemic, from 12.2% to 8.6% between 2019 and 2021. This number is now at 8.3% in 2022. This average masks some gender differences, with female entrepreneurship falling faster. In 2019, there were seven men starting or running a new business in Cyprus for every four women doing so. By 2022, this ratio had increased to more than nine men for every four women.

The level of EBO has followed a similar pattern to new entrepreneurship, falling at the onset of the

pandemic, some slight recovery and then further falls. By 2022, just 5.7% of adults in Cyprus were running an established business, almost half of its level in 2019. A relatively high 44% of Cypriot adults in 2022 reported that their household income was lower because of the pandemic, back to the levels of the onset of the pandemic in 2020, when the intervening year had seen some fall in that percentage.

Few Cypriots invest in someone else's new business, although even this small proportion fell in the early days of the pandemic, with some recovery since. The percentage of adults intending to start a new business in the next three years is much larger, but has followed a similar pattern, falling from 25% in 2019 to 23% in 2020 and then to 17% in 2021, before a partial recovery to 18% in 2022.

Despite the falls in entrepreneurial activity, the proportion of adults in Cyprus who know an entrepreneur has increased steadily over the last four years, from just over half in 2019 to more than four out of five in 2020. The proportion of adults agreeing they have the skills and experience to start their own business has remained stable at just over one in two. Paradoxically, the proportion seeing good opportunities to start a business locally fell substantially with the onset of the pandemic, before recovering strongly in 2021 and falling back in 2022, ending the period at 27%, having been 39% before the pandemic in 2019.

The motive “to build great wealth or very high income” has dominated agreement among new entrepreneurs in Cyprus since these questions were introduced by GEM in 2019, with “earning a living because jobs are scarce” not far behind.

Finally, Cyprus is a relatively small island economy, so its new entrepreneurs are likely to seek customers beyond its borders. The data shows recent success in doing so, with 29% having such customers in 2021, rising to 44% in 2022. More than half of new entrepreneurs expect, in the next six months, to use more digital technology to sell their products, and job expectations are strong, with almost one in three expecting to employ an additional six or more people in the next five years, from just over one in five in 2019.

Institution

Lead institution

University of Cyprus (UCY)
Centre for Entrepreneurship (C4E)



Type of institution

University

Website

<http://www.ucy.ac.cy/en>
<https://www.c4e.org.cy>

Other institutions involved

Ministry of Energy, Commerce and Industry

Team

Team leader

Panos Markopoulos

Team members

Ariana Polyiou
Constantinos M. Savvides

Funders

Ministry of Energy Commerce and Industry
PwC Cyprus

APS vendor

Cypronetwork

Contact

markopoulos.panos@ucy.ac.cy



Egypt

■ Population (2021): **104.3 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **13.3 thousand** (World Bank)

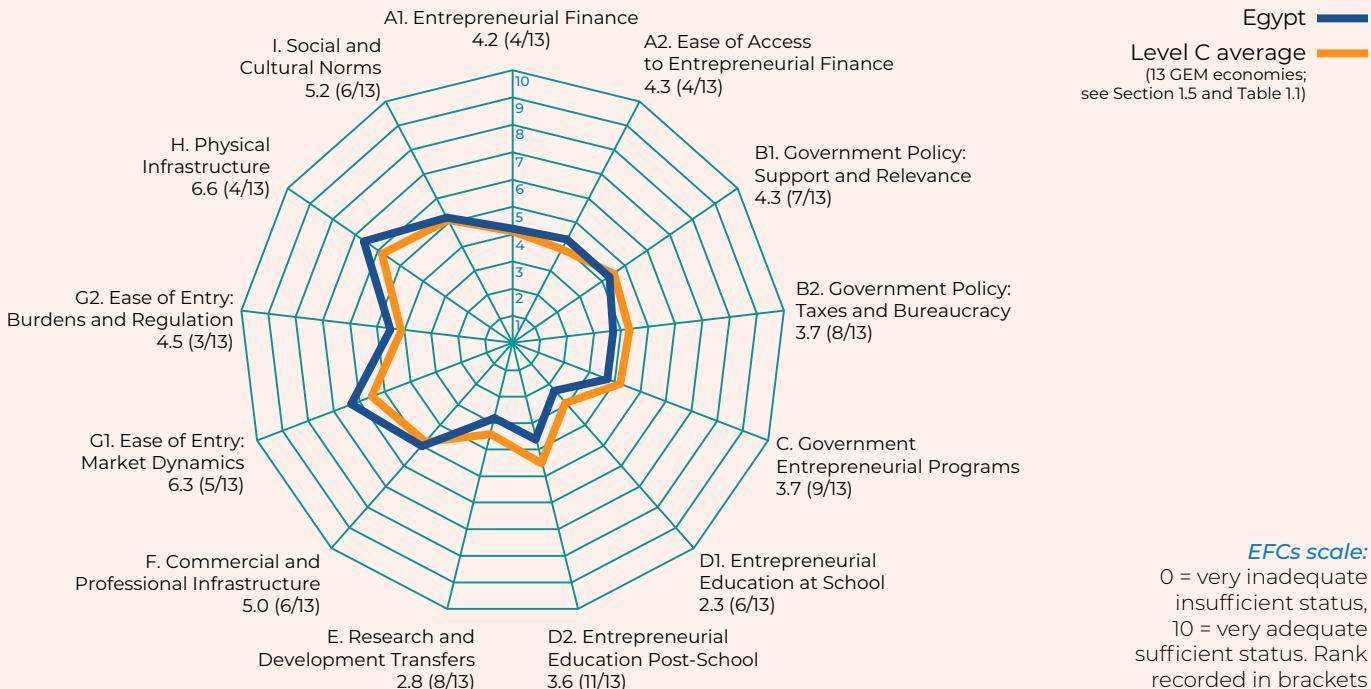
Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	32.9	46	
Good opportunities to start a business in my area	63.7	15=	To make a difference in the world 58.7 13
It is easy to start a business	67.7	9=	To build great wealth or very high income 71.9 13
Personally have the skills and knowledge	62.8	22=	To continue a family tradition 52.6 4
Fear of failure (opportunity)	50.6	12	To earn a living because jobs are scarce 84.8 9
Entrepreneurial intentions*	47.3	5	
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	1.7	30=	TEA (Total early-stage Entrepreneurial Activity) 6.6 41 3.7 9.4
International (25%+ revenue)	2.3	42	EBO (Established Business Ownership) 2.6 46= 1.1 4.0
Always consider social impact	79.7	20	
Always consider environmental impact	77.2	23	
Industry (% TEA in business services)	7.4	41	
COVID-19 related		COVID-19 related	
	% Adults	Rank/49	% Adults Rank/49
Pandemic has led household income to decrease**	72.4	8	
Starting a business is more difficult than a year ago	35.2	33	
Use more digital technology to sell products or services	64.0	9	
Pursue new opportunities due to pandemic	43.5	25	

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The deterioration of the global economy has hit the Egypt economy hard, with increases in the costs of food imports, supply chain disruptions and falls in currency reserves leading to the steep devaluation of the Egyptian pound. High inflation, devaluation and rising interest rates have all intensified cash flow pressures on new and small businesses. In 2022, the government issued a new fintech law to expand the scope of non-banking financial services, and several venture capital funds were launched, some supported by state banks.

2022 Framework Conditions Review

Egypt scored highly for both Physical Infrastructure (6.6) and Ease of Entry: Market Dynamics (6.3), both at levels usually associated with high-income economies, and was ranked 20th and 13th respectively out of 51 GEM economies. Its Ease of Entry: Market Dynamics score had risen sharply from the previous year, suggesting strong growth in domestic markets post-pandemic. It also scored as sufficient or better (≥ 5.0) for Social and Cultural Norms and Commercial and Professional Infrastructure, but as less than sufficient for the other nine Framework Conditions. Research and Development Transfers and Entrepreneurial Education Post-School ranked 46th and 47th of the 51 economies, both well down from a year earlier. Entrepreneurial Education at School scored lowest of all Egypt's Framework Conditions at just 2.3. Sadly, scores for this condition are so low across many economies that Egypt was far from bottom.

Egypt's overall quality of entrepreneurial environment score as determined by the National Entrepreneurial Context Index (NECI) was 4.3, slightly down from a year earlier. But that was enough to move Egypt from 28th to 32nd in the overall ranking. In the new questions in the 2022 National Expert Survey, Egypt scored as better than sufficient for COVID recovery, consistent with growth in domestic markets,

but as less than sufficient in terms of actions to support the United Nations Sustainable Development Goals, which is disconcerting for a nation that hosted the UN Climate Change Conference (COP27) at Sharm El-Sheikh in November 2022.

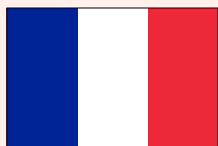
2022 Entrepreneurial Activity Review

The proportion of adults starting or running a new business in Egypt has been falling steadily since 2020, from 11% to 7% in 2022, now comparable to pre-pandemic levels. This is true of both male and female entrepreneurship, with the ratio of more than two new male to one female starting new businesses remaining roughly constant through that period. At a time when entrepreneurial gender gaps are narrowing in much of the Arab world, Egypt's remains stubbornly wide. More positively, almost two-thirds of those starting or running a new business in Egypt expect to use more digital technology to sell their products in the next six months.

The fall in new business starts reflects the decline in business intentions throughout the pandemic period, down from the 63% of adults expecting to start a new business in the next three years in 2019 to just 47% in 2022. Similarly, the proportion of adults knowing someone who has recently started a business fell in the same period, from more than one in two to less than one in three. Despite this, over half of Egyptian adults see good local opportunities to start a business, while three out of five consider they have the skills and experience to start a business themselves. However, of those seeing good opportunities, two in five would be deterred by fear of failure. Egypt continues to have one of the lowest levels of EBO, halving to just 2.6% in 2022.

Not surprisingly, "to earn a living because jobs are scarce" is the dominant motive by far among new Egyptian entrepreneurs, although "continuing a family tradition" was agreed as a motive by more than half of new entrepreneurs.

Institution	Team	Funders	APS vendor
Lead institution The American University in Cairo — School of Business  The American University in Cairo	Team leader Prof. Ayman Ismail, PhD Team members Dr. Shima Barakat, PhD Dr. Hakim Adel Hakim Meshreki, PhD Seham Ghalwash, MSc Prof. Ahmed Tolba Prof. Thomas Schött, PhD	The American University in Cairo — School of Business Drosos Foundation	PHI Knowledge
Type of institution Business School			Contact aymanism@aucegypt.edu
Website https://business.aucegypt.edu			
Other institutions involved Ministry of Energy, Commerce and Industry			



France

■ Population (2021): **67.5 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **50.7 thousand** (World Bank)

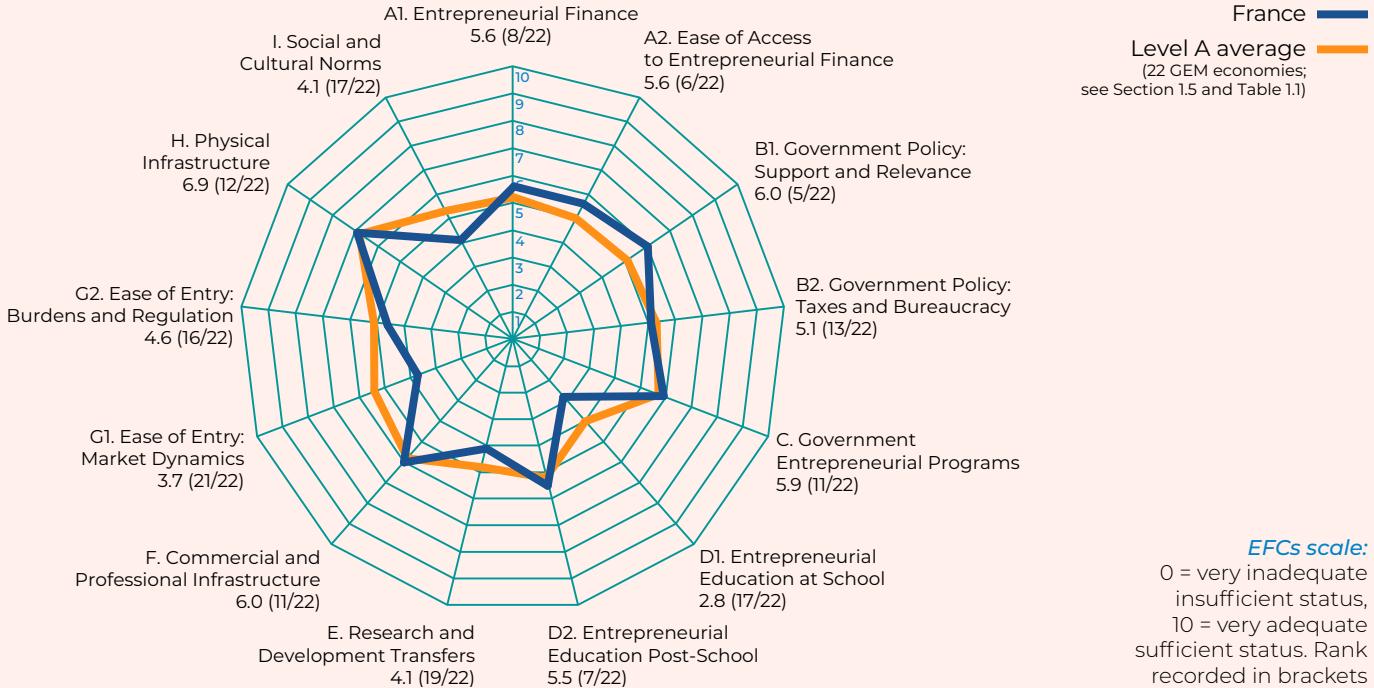
Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)	% TEA	Rank/49
Know someone who has started a new business	59.7	15	To make a difference in the world	23.7	43
Good opportunities to start a business in my area	52.4	29=	To build great wealth or very high income	42.3	42
It is easy to start a business	55.4	19	To continue a family tradition	22.2	39
Personally have the skills and knowledge	49.8	36=	To earn a living because jobs are scarce	42.6	43
Fear of failure (opportunity)	41.0	35=			
Entrepreneurial intentions*	15.8	26			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female
Job expectations (expecting to employ six or more people in five years' time)	2.4	25	TEA (Total early-stage Entrepreneurial Activity)	9.2	29
			EBO (Established Business Ownership)	2.9	44=
International (25%+ revenue)	13.6	20			7.3
Always consider social impact	74.3	26			11.2
Always consider environmental impact	74.0	32			2.2
Industry (% TEA in business services)	33.9	10			3.7
COVID-19 related					
	% Adults	Rank/49		% Adults	Rank/49
Pandemic has led household income to decrease**	32.4	35			
Starting a business is more difficult than a year ago	29.5	40			
Use more digital technology to sell products or services	17.6	49			
Pursue new opportunities due to pandemic	39.7	30			

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The French economy was expected to grow by almost 3% in 2022, with inflation and unemployment both just above 7%. Rising prices were reducing consumption and squeezing business margins. New measures to help small businesses in France included some simplifications of business regulations and improved eligibility of self-employed people for unemployment insurance.

2022 Framework Conditions Review

Despite strong government support for entrepreneurship, France has long held an ambivalent approach regarding individual and collective success, perhaps reflected in the relatively low score for the Framework Condition Social and Cultural Norms, in which France ranked 39th out of 51 economies participating in the GEM National Expert Survey (NES). France scored sufficient or better (≥ 5.0) for eight of 13 Framework Conditions, resulting in an overall National Entrepreneurship Context Index (NECI) score of 5.1 for its entrepreneurial environment, matching its overall score for 2021. However, improving scores in other economies pushed France down the NECI league table, from 13th in 2021 to 18th in 2022. France scored higher than the Level A average for seven framework conditions, but much worse in two: Entrepreneurial Education at School and Ease of Entry: Market Dynamics. In the latter, the French score was just three places above the lowest of all 51 economies.

In 2022, France scored worse in nine framework conditions, with just three improving their scores and one unchanged. However, most differences were small, except for Research and Development Transfers, where the score fell from 4.7 to 4.1. In terms of the new questions in the NES, France scored relatively highly, with well-above-sufficient scores of 6.3 for post-COVID recovery, and 6.4 for actions in support of the United Nations Sustainable Development Goals, the latter being the fifth highest score of all 51 economies.

2022 Entrepreneurial Activity Review

In 2022, under one in five French adults expected to start a business in the next five years, up a little from 2021, as was the proportion of adults investing

in someone else's new business (7% in 2022). The percentage of adults starting or running a new business rose to 9.2% in 2022 from 7.7% a year earlier. Most of this increase reflected a rise in male entrepreneurship (from 8.4 to 11.2%), whereas female entrepreneurship was little changed (from 7.1 to 7.3%). As a result, the French entrepreneurial gender gap widened, with around three men starting or running a new business for every two women doing the same.

In 2022, three out of five adults in France knew someone who had recently started a business, while a half of adults saw good opportunities to start a business locally, and a similar proportion considered they have the skills and experience to do so themselves. However, two out of five of those who saw good conditions to start would be deterred by the fear of failure.

The rate of EBO amongst French adults was relatively low in 2021, at 3.6%, and fell further in 2022 to 2.9%, implying more than three adults starting a new business for every adult running an established one. This may suggest that there are obstacles in transitioning to new to established businesses. These obstacles could include the dominance of markets by established providers.

Three out of 10 French adults reported that their household income had fallen in 2022 because of the pandemic. A majority of new entrepreneurs in France had agreed with the motivation "to earn a living because jobs are scarce" in 2021. That proportion fell in 2022, and agreement with this motivation was matched with the motivation of "to build great wealth or very high income", both agreed by just over two in five new entrepreneurs.

France scores well in terms of the potential impacts of its new entrepreneurs, with more than a third reporting that they had customers outside of the country and with a quarter expecting to employ another six or more people in five years' time. One note of caution is that just 18% of those new entrepreneurs expect to use more digital technologies to sell their products in the next six months, although that is an improvement from just 9% in 2021. These figures may be related to already high levels of digitalization, and a well-equipped IT infrastructure overall.

Institution
Lead institution
Labex Entreprendre (Entrepreneurship)
 LABEX Entreprendre Université de Montpellier
University of Montpellier
 Montpellier Business School
 MBS since 1977 MONTPELLIER BUSINESS SCHOOL

Type of institution
Research Institute
University
Business School
Website
https://labex-entreprendre.edu.umontpellier.fr/en/home-2/
https://www.umontpellier.fr/en/
https://www.montpellier-bs.com/international/
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Justine Valette
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Germany

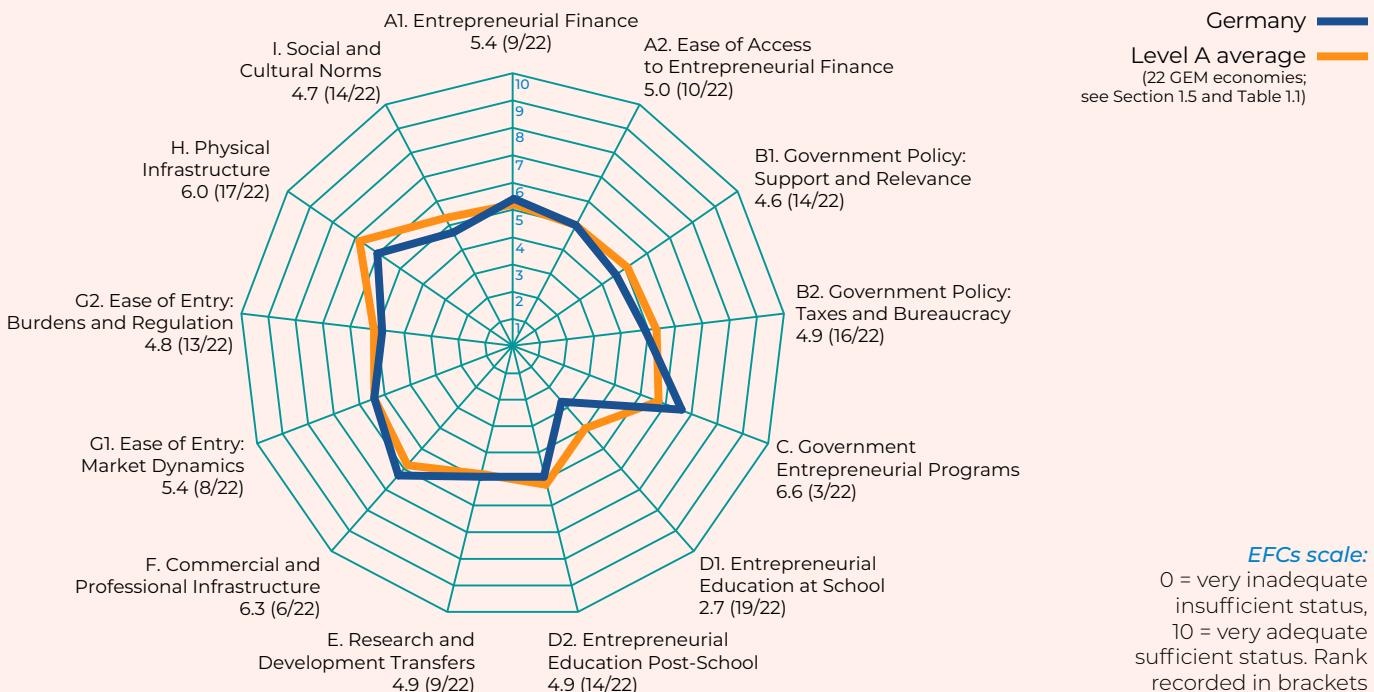
■ Population (2021): **83.1 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **57.9 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	34.2	44	
Good opportunities to start a business in my area	39.5	41	
It is easy to start a business	34.6	38	
Personally have the skills and knowledge	36.2	47	
Fear of failure (opportunity)	44.3	24	
Entrepreneurial intentions*	6.5	42	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.2	40=	TEA (Total early-stage Entrepreneurial Activity)	9.1	30=	7.1	11.0
International (25%+ revenue)	22.0	8	EBO (Established Business Ownership)	3.6	40	2.6	4.5
Always consider social impact	61.1	44					
Always consider environmental impact	54.5	47					
Industry (% TEA in business services)	29.9	15					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	31.7	37
Starting a business is more difficult than a year ago	40.2	28
Use more digital technology to sell products or services	46.0	32
Pursue new opportunities due to pandemic	45.5	24

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Inflation in Germany was around 10% in November 2022, with unemployment just over 5% and GDP growth of just under 3%, down a little on the previous year. The shortage of skilled labour, related to an ageing society, remains a serious constraint on the German economy. Rising prices are an issue for young firms, both in procurement and in the sales of their own products. Unlike larger, more established companies, young firms have few opportunities to compensate revenue losses with sales of other (own) products.

Some policy support measures introduced to help businesses in the pandemic have been continued, offering considerable financial support.

2022 Framework Conditions Review

Unlike many of her neighbours, most of Germany's Entrepreneurial Framework Condition scores were little changed in 2022 compared to one year earlier. The largest change was a fall in the score for Entrepreneurial Education Post-School, pushing that score below sufficiency (<5.0). However, this was offset by small increases in other Framework Condition scores, leaving Germany's overall National Entrepreneurial Context Index (NECI) score unchanged at 5.1, just better than sufficient. Nevertheless, improvements in NECI scores in other economies pushed Germany a little further down the entrepreneurial environment league table, from 14th to 17th.

In common with many economies at all income levels, Germany's lowest Framework Condition score was again for Entrepreneurial Education at School, a score that fell yet further in 2022. It remains disappointing that so many economies continue to under-invest in this area. Last year's Global Report noted that Germany's score for Physical Infrastructure declined slowly over time. This trend continued in 2022, with Germany scoring 6.0 for a Framework Condition that had been 6.5 in 2019. However, Germany's highest Framework Condition score was, for the second year running, for the quality of her Government Entrepreneurial Programs, with that score improving from last year. So very much a mixed picture, but with very little change overall.

2022 Entrepreneurial Activity Review

The share of German adults reporting a decrease in household income due to the pandemic in 2022 increased to three in 10, from two in 10 a year earlier. The share of German adults intending to start their own business in the next three years, which had fallen from 13% before the pandemic (2019) to 9% in 2021, rose to 10% in 2022. While the percentage of adults investing in someone else's new business had also fallen early in the pandemic (from 5% to 4%), it has since recovered strongly, reaching 8% in 2022.

In 2022, just over a third of German adults knew someone who had recently started a new business, with a similar proportion considering themselves to have the skills and experience to do so as well. However, while two out of five of those adults saw good conditions to start a business locally, nearly a half would be deterred by fear of failure.

Having fallen significantly in the early years of the pandemic, the percentage of adults starting or running a new business in Germany has recovered strongly since, reaching 9.1% in 2022, above the pre-pandemic level of 7.6% in 2019. EBO has fared less well, despite rising slightly in the first year of the pandemic (from 5.2% in 2019 to 6.2% in 2020). It has fallen steadily since then, to just 3.6% in 2022. In 2019, the German level of EBO had exceeded the level of new business starts. By 2022, there were more than two people starting or running a new business for every Established Business Owner.

Agreement was fairly evenly split among new German entrepreneurs across all four defined motivations, with "to earn a living because jobs are scarce" just about highest among new entrepreneurs in Germany in 2022. Almost a third of new entrepreneurs had customers outside of their country, a relatively high figure but well down from more than a half in 2019. At the same time, almost half of new entrepreneurs were expecting to use more digital technology in the next six months to sell their products, and almost as many expected to employ six or more additional people in five years' time.

Institution

Lead institution

Institute of Economic and Cultural Geography at the Leibniz University Hannover



RKW Kompetenzzentrum Eschborn



Type of institution

University
Government funded transfer institution

Website

<https://www.iwkg.uni-hannover.de>
<https://www.rkw-kompetenzzentrum.de/>

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Florian Täube

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RKW Competence Centre

APS vendor

UADS Institut für Umfragen, Analysen und DataScience GmbH

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Greece

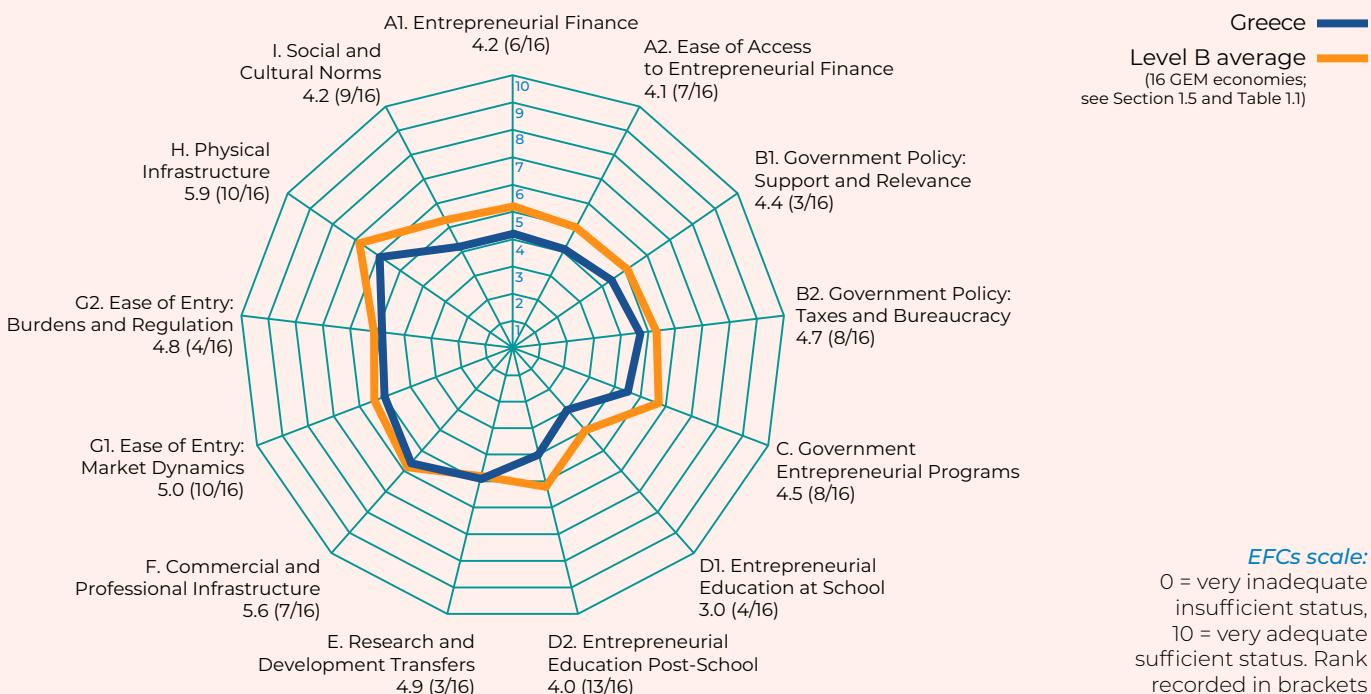
■ Population (2021): **10.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **31.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	28.5	48	
Good opportunities to start a business in my area	36.4	43	
It is easy to start a business	31.9	42	
Personally have the skills and knowledge	53.8	31	
Fear of failure (opportunity)	49.5	14	
Entrepreneurial intentions*	8.3	40=	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.0	45	TEA (Total early-stage Entrepreneurial Activity)	4.9	47	3.4	6.3
International (25%+ revenue)	19.1	14	EBO (Established Business Ownership)	13.3	3	10.2	16.5
Always consider social impact	72.2	30					
Always consider environmental impact	77.1	24					
Industry (% TEA in business services)	17.4	29					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	58.1	16
Starting a business is more difficult than a year ago	40.3	27
Use more digital technology to sell products or services	47.3	29
Pursue new opportunities due to pandemic	21.2	44

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Greece's economy shrank in Q3 2022 compared to the second quarter, as declining net exports and public spending offset strong tourism. The country's GDP growth slowed down to 2.8% year-on-year. It looks likely the Greek economy will have grown by less than 5% in 2022.

While unemployment has been falling, inflation has increased, reaching 9% in November 2022, mainly due to energy price increases. Business margins are being squeezed and profits are down. To reduce energy costs, the government has adopted support measures for businesses (the fuel pass and the power pass), and reinforced the discount mechanism for electricity tariffs.

2022 Framework Conditions Review

Greece has continued its steady improvement in entrepreneurial framework conditions, with its quality of overall entrepreneurial environment as measured by the National Entrepreneurial Context Index (NECI) score increasing from 4.1 in 2019 to 4.6 in 2022, pushing Greece up the NECI league table from 40th to 26th. These improvements have largely been across the board, with eight conditions improving their scores since 2021, three scoring the same, and just two scoring less. As a result, Greece had three conditions scored as sufficient or better in 2022, and two more that were very close to sufficient. The biggest increases were for Ease of Entry: Burdens and Regulation and for Commercial and Professional Infrastructure, while the falls were for Government Policy: Support and Relevance and for Social and Cultural Norms.

Despite its Level B status, Greece ranked 12th of 51 economies for its score on Research and Development Transfers and 19th for the improving Ease of Entry: Burdens and Regulation, but 42nd for Entrepreneurial Education Post-School. Taken together with the low score for Entrepreneurial Education at School, education is clearly an area in which the government might wish to facilitate some rapid improvements if it is serious about the entrepreneurial environment in Greece.

2022 Entrepreneurial Activity Review

In 2022, less than one in 10 Greek adults intended to start a business in the next three years, a proportion that has fallen steadily from an already low base, while just one in 40 invested in someone else's new business, half the level of three years ago. Just over a quarter of Greek adults knew someone who had started a business in the last three years, while one in three saw good opportunities to start a business locally. More optimistically, over a half considered themselves to have the skills and experience to start a business, although more than half of these would be deterred for fear it may fail. The upshot of all this is that the proportion of adults starting or running new business in Greece in 2022 was relatively low at 4.9%, having fallen sharply from 8.6% in 2020. Men were nearly twice as likely as women to be starting a new business, whereas the gender difference had been marginal in 2019. Women's entrepreneurship has more than halved since then, while men's fell by less than a third.

Compared to its new businesses, Greece had one of the highest levels of EBO at 13.3%. The level of EBO has been fairly stable over the pandemic cycle, while the rate of new businesses has fallen. In 2020, there were 17 adults running an established business for every 10 starting a new business — by 2022, this ratio had risen to 27. Not only was the level of new starts falling, it appears to be increasingly difficult to transition these new businesses into established ones.

"To earn a living because jobs are scarce" was the most commonly agreed motive for starting a business, followed by "To build great wealth or very high income". Relatively few Greek entrepreneurs appear motivated "to make a difference in the world", with less than one in four agreeing with this motive, although continuing a family tradition is relatively important in Greece, agreed by two out of five new entrepreneurs in 2022.

Institution

Lead institution

Foundation for Economic & Industrial Research (FEIR/IOBE)



Type of institution
Research Institute

Website

<http://iobe.gr>

Other institutions involved

Laboratory of Industrial and Energy Economics at the National Technical University of Athens
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Team

Team leader

Assoc. Prof. Aggelos Tsakanikas

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Asst. Prof. Ioannis Giotopoulos

Funders

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APS vendor

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Guatemala

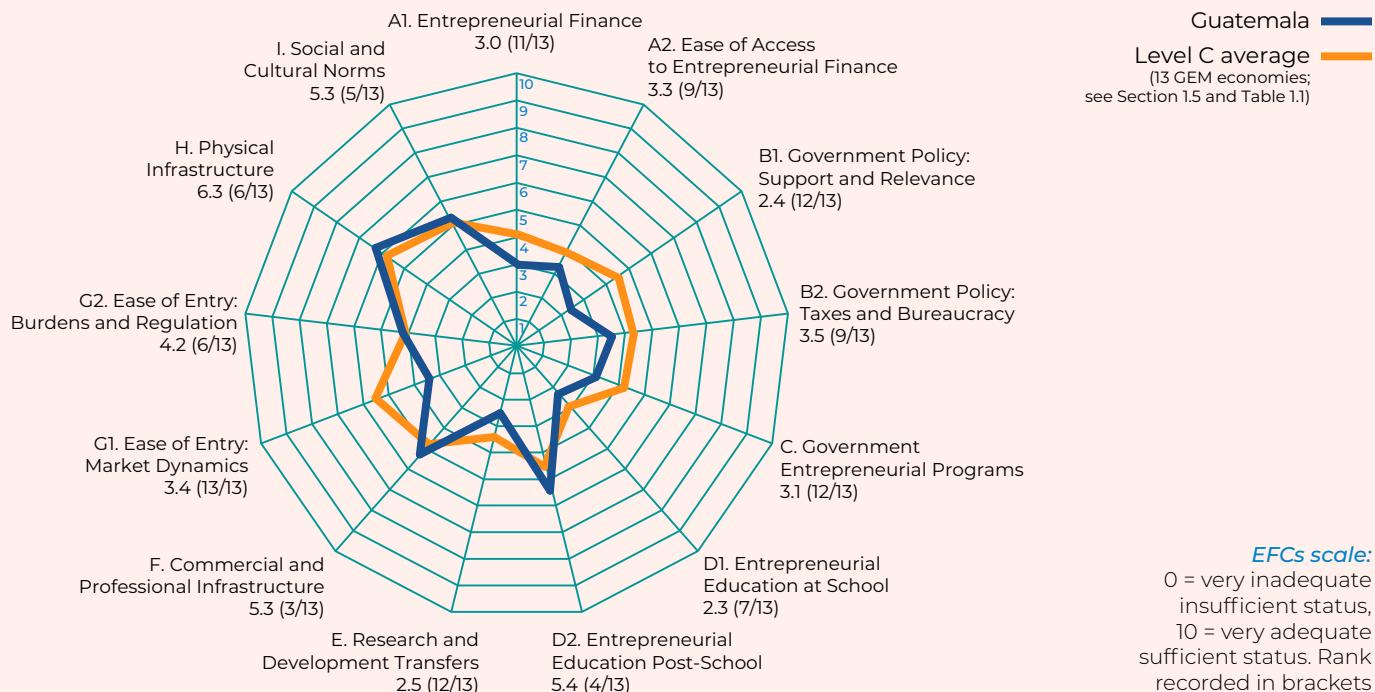
■ Population (2021): **17.1 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **9.8 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	71.5	4	
Good opportunities to start a business in my area	68.3	11	
It is easy to start a business	47.8	26	
Personally have the skills and knowledge	77.5	6	
Fear of failure (opportunity)	43.2	27	
Entrepreneurial intentions*	46.5	6	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	8.6	3	
	% TEA	Rank/49	
International (25%+ revenue)	6.2	33	
Always consider social impact	93.3	1	
Always consider environmental impact	93.5	2	
Industry (% TEA in business services)	5.4	43	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	63.9	13
	% TEA	Rank/49
Starting a business is more difficult than a year ago	59.6	7
Use more digital technology to sell products or services	72.6	7
Pursue new opportunities due to pandemic	53.0	13

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Despite the pandemic, Guatemala has maintained a stable macroeconomic performance. Inflation initially came from imported energy and food, but has since extended to local products and services. Entrepreneurs have transferred inflation to the final prices of their products and services. Congress passed a bankruptcy law in February, which came into force in September, so it is too early to assess its impacts.

2022 Framework Conditions Review

Despite national experts scoring Guatemala's response to the economic impacts of the pandemic fairly highly, the assessed quality of the entrepreneurial environment in Guatemala was little changed in 2022 compared to 2021. Both the quality of the overall environment, as measured by the National Entrepreneurship Context Index (NECI) score, and six individual Framework Condition scores, were unchanged. That NECI score (3.8) placed Guatemala 44th out of 50 economies in 2021 and 43rd out of 51 economies in 2022.

Across a large number of Framework Conditions (eight in 2021, the same in 2022), Guatemala scores poorly (<4.0), and in some conditions (four in 2021, three in 2022) very poorly (<3.0). In 2022 these three were Government Policy: Taxes and Bureaucracy, Entrepreneurial Education at School and Research and Development Transfers. No surprise that government plays a large part in each of these, as it does in Government Policy: Support and Relevance and in Government Entrepreneurial Programs, both of which fared little better. However, Guatemala scored relatively highly for Entrepreneurial Education Post-School, giving it its highest rank among the 51 GEM economies (15th). On the other hand, five Framework Conditions were ranked in the bottom five of those 51 economies in 2022: Ease of Access to Entrepreneurial Finance, Government Policy: Support and Relevance, Government Entrepreneurial Programs, Research and Development Transfers and Ease of Entry: Market Dynamics. There is clearly much to do to support entrepreneurship in Guatemala.

2022 Entrepreneurial Activity Review

There is little doubt that the pandemic hit Guatemala hard. Almost two in three adults in 2022 reported that the pandemic had reduced their household income, a proportion that was only slightly lower than in 2020. Despite this, the share of Guatemalan adults investing in someone else's new business has remained relatively high (and stable), falling just a little from 16% in 2019 to 14% in 2022. Awareness of entrepreneurship in Guatemala remains high, as is confidence in one's own abilities, with around seven out of 10 adults knowing someone who has recently started a business, or agreeing that they have the skills and experience to do so themselves, or seeing good opportunities to start a business locally.

The percentage of adults intending to start a business in the next three years has also remained relatively high, although falling a little, from 52% in 2019 to 47% in 2022.

The percentage of adults starting or running a new business in Guatemala has actually increased over the pandemic cycle, from 25% in 2019 to 29% in 2022, although the level of EBO has gone the other way, from 15% in 2019 to 12% in 2022. There were more than two adults starting a new business for every adult running an established business in 2022, with men slightly more likely than women to be running those new businesses.

New entrepreneurs in Guatemala see no inconsistency in agreeing with multiple motivations, with nine out of 10 agreeing with the motivation "to earn a living because jobs are scarce", eight out of 10 agreeing with "to make a difference in the world" or with "building great wealth or very high income".

Just one in 10 new entrepreneurs had customers outside of their country, although this was a fourfold increase from 2021. More than seven in 10 of those starting or running new business in Guatemala expected, in the next six months, to use more digital technology to sell their products. Job expectations were also fairly high, with three in 10 new entrepreneurs expecting to employ an additional six people or more in five years' time, up from two in 10 pre-pandemic (2019).

Institution

Lead institution

Kirzner Entrepreneurship Center at Francisco Marroquín University



Type of institution

University

Website

www.KEC.ufm.edu
www.gem.ufm.edu

Team

Team leader

Mónica Río-Nevado de Zelaya, PhD

Team members

Carolina Uribe
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Funders

Francisco Marroquín University
— UFM

APS vendor

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Hungary

■ Population (2021): **9.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **36.8 thousand** (World Bank)

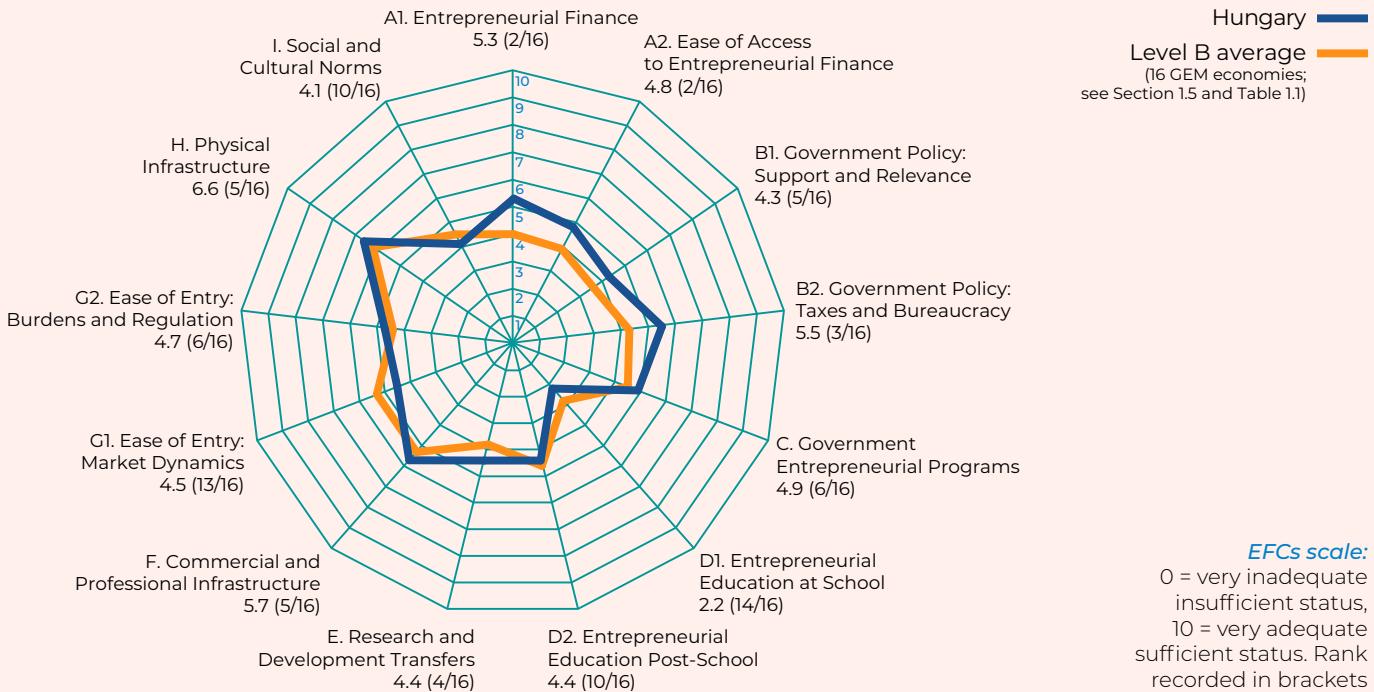
Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	47.9	31	
Good opportunities to start a business in my area	27.2	46	
It is easy to start a business	47.4	27	
Personally have the skills and knowledge	36.8	46	
Fear of failure (opportunity)	34.0	43	
Entrepreneurial intentions*	8.7	38	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.7	30=	TEA (Total early-stage Entrepreneurial Activity)	9.9	28	7.9	12.0
International (25%+ revenue)	11.1	24	EBO (Established Business Ownership)	6.9	21	4.6	9.4
Always consider social impact	66.6	42					
Always consider environmental impact	80.3	21					
Industry (% TEA in business services)	26.6	19					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	29.1	38=
Starting a business is more difficult than a year ago	42.9	24
Use more digital technology to sell products or services	37.7	39
Pursue new opportunities due to pandemic	17.4	48

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

By Q3 2022, Hungary's GDP was 4% higher than a year earlier, unemployment was just below 4%, but consumer prices had risen to more than 22%. These rising prices were squeezing margins and reducing consumption. Over the course of 2022, the government had reduced taxes on labour, introduced some support for the overhead costs of small and medium-sized enterprises, and issued a moratorium on payments of principal, interest and charges for companies.

2022 Framework Conditions Review

National expert assessments point to some improvement in Hungarian Framework Conditions in 2022, with scores rising for nine conditions and declining for four. The biggest improvements were in both ease of entry conditions, and in Entrepreneurial Finance, pushing the score for the latter into sufficiency (≥ 5.0). This is a good achievement for an economy that appears to be recovering strongly from the effects of the pandemic, reflected in the 6.5 score for COVID recovery, placing it ninth out of 51 economies. The largest fall in a Framework Condition score was for Entrepreneurial Education at School, reducing an already low score still further.

The net result of these changes is that, in the year to 2022, Hungary's overall score (its National Entrepreneurial Context Index or NECI) improved from 4.5 to 4.7, lifting Hungary up the NECI league table from 27th to 24th. Hungary's scores were better than the Level B average for nine conditions, although Social and Cultural Norms need to improve if Hungary is to achieve its entrepreneurial ambitions. This score declined further in 2022, leaving Hungary ranked 37th for this Framework Condition. Changing those norms must be a long-term goal.

2022 Entrepreneurial Activity Review

In recent years (2021 and 2022), Hungary has been participating in GEM, providing some limited opportunities for comparison. In 2022, just under one in 10 adults intended to start a business in the next three years, up slightly on the previous year. Almost half of adults knew someone who had recently started a business, although less than two in five considered themselves to have the skills and experience to do the same. Only one in four adults in Hungary saw good opportunities to start a business locally, down from more than one in three a year before, a decline that may be related to events in neighbouring Ukraine. More than a third of those who saw good opportunities would be deterred by fear of failure.

One in 10 Hungarian adults was starting or running a new business in 2022, up slightly from the year before, although a majority of these were male, with three men starting a new business for every two women doing the same. The level of EBO in 2022 was 7%, down from 8% a year earlier.

If change brings opportunities, it also threatens the established order. Despite difficult circumstances, and 28% of Hungarian adults reporting a loss of household income due to the pandemic, "to make a difference in the world" was the dominant agreed motivation for new entrepreneurs in 2022, whereas the motivation "to earn a living because jobs are scarce" had dominated a year earlier.

Perhaps one consequence of regional turbulence has been to encourage Hungarian entrepreneurs to seek customers elsewhere. The proportion of new entrepreneurs with customers outside of the country increased from 16% in 2021 to 28% in 2022, and the ambitions of those entrepreneurs have also grown. In 2021 just 12% of new entrepreneurs were expecting to employ an additional six or more people in the next five years. By 2022 this percentage had increased to 18.

Institution	Team	Funders	APS vendor
Lead institution Budapest Business School — University of Applied Sciences (BBS)  18 57 BUDAPESTI BUSINESS SCHOOL UNIVERSITY OF APPLIED SCIENCES BGE	Team leader Judit Csákné Filep Team members Judit Csákné Filep László Radácsi Áron Szennay Zsófia Borsodi Gigi Timár	Budapest Business School — University of Applied Sciences (BBS)	TÁRKI Social Research Institute
Type of institution University			Contact csaknefilep.judit@uni-bge.hu
Website https://uni-bge.hu/en			



India

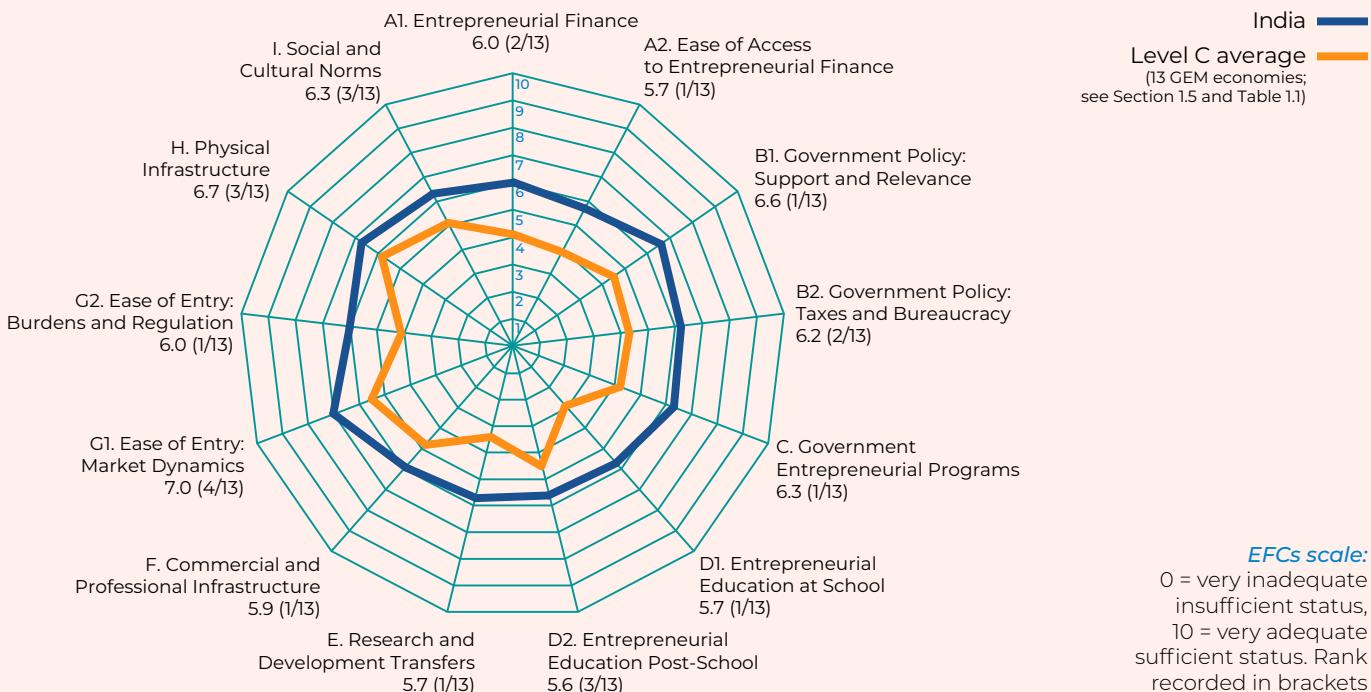
■ Population (2021): **1,393 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **7.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	47.4	34	
Good opportunities to start a business in my area	75.5	7	
It is easy to start a business	78.0	6	
Personally have the skills and knowledge	78.1	5	
Fear of failure (opportunity)	54.0	5	
Entrepreneurial intentions*	20.1	20	

Entrepreneurship impact		Activity		% Adults		
	% Adults	Rank/49		Rank/49	% Female	% Male
Job expectations (expecting to employ six or more people in five years' time)	1.7	30=	TEA (Total early-stage Entrepreneurial Activity)	11.5	24	11.4
International (25%+ revenue)	2.1	42=	EBO (Established Business Ownership)	9.0	12=	7.6
Always consider social impact	84.7	16				11.6
Always consider environmental impact	74.2	31				10.5
Industry (% TEA in business services)	4.8	46				

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	73.9	5
Starting a business is more difficult than a year ago	68.0	3
Use more digital technology to sell products or services	28.2	48
Pursue new opportunities due to pandemic	68.8	1

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Indian economy was expected to grow by nearly 7% in 2022, with inflation falling from 6% in November 2022.

In 2022 the Prime Minister launched a number of initiatives to support small businesses, including the “Raising and Accelerating MSME Performance” (RAMP) project and the “Capacity Building of First-time MSME Exporters”.

2022 Framework Conditions Review

Comparing across years, a smooth upwards progression is apparent in the overall entrepreneurial environment rated by national experts and measured by the National Entrepreneurship Context Index (NECI). India went from a score of 5.8 in 2019, ranked sixth among GEM economies, to a score of 6.0 in 2020, ranked fourth, and then to a score of 6.1 in 2022, also ranked fourth. However, in 2021, India's NECI was scored at 5.0, only just sufficient, and ranked 16th.

One explanation may be that the pandemic was a severe, but temporary, shock to the Indian entrepreneurial environment, with all 13 Entrepreneurial Framework Conditions scoring lower in 2021 than in 2020. In 2020, all of India's Framework Conditions were scored as better than sufficient (≥ 5.0). In 2021, seven of those conditions were rated as insufficient, but by 2022 all had returned to sufficiency. These changes, many of which were considerable, both in the fall from 2020 to 2021 and in the recovery 2021 to 2022, suggest a high-quality entrepreneurial environment but one that is very fragile and far from resilient.

So, in a sense, normal service has resumed in 2022, with the entrepreneurial environment restored to high quality, with, for example, all but three Framework Conditions ranked in the top 10 of the 51 GEM National Expert Survey (NES) economies. The exceptions were Entrepreneurial Education Post-School, Commercial and Professional Infrastructure and Physical Infrastructure. None of these ranked outside of the top 20. But there are lessons to learn from the sudden dip in 2021, not least that India's high-quality entrepreneurial environment cannot be taken for granted.

2022 Entrepreneurial Activity Review

Almost three in four adults in India reported that the pandemic had reduced their household income in 2022, the fifth highest proportion of the 51 GEM economies, behind Togo, Venezuela, Indonesia and Mexico. Even this high proportion in India in 2022 was lower than it had been the previous two years. So there is clear evidence that India has been harshly affected by the pandemic.

One impact may be that the proportion of Indian adults expecting to start their own business in the next three years fell from more than a third in 2019 to just a fifth in 2022. Confidence in one's own ability to start a business, although still relatively high, had also fallen, from 85% of adults agreeing they have the skills and experience to start a business in 2019 to 78% in 2022. The proportion of adults who saw good local opportunities to start a business stayed high, at four out of five, throughout 2019–2021, but fell slightly to three in four in 2022.

These have been turbulent years for the Indian economy, and the proportion of adults starting or running their own business has fluctuated, falling sharply from 15% in 2019 to just 5.3% in 2020, then rising to 8.5% in 2021 and 9% in 2022. Meanwhile, the level of EBO followed a similar pattern, halving from 11.9% to 5.9% in 2020, then rising to 8.5% in 2021 and 9% in 2022. So in the depths of the pandemic in 2020, fewer adults in India were starting new businesses than running established ones.

In 2022, “to make a difference in the world” had the highest level of agreement among new Indian entrepreneurs, closely followed by “to earn a living because jobs are scarce”. However, the proportion of new entrepreneurs expecting, in the next six months, to use more digital technologies to sell their products halved in the year to 2022, from six in 10 to three in 10. This is concerning if the pace of recovery is to be maintained. Just one in seven of those starting or running a new business in India in 2022 expected to employ another six people or more in the next five years.

Institution	Team	Funders	APS vendor
Lead institution Entrepreneurship Development Institute of India (EDI) — Ahmedabad  Entrepreneurship Development Institute of India Ahmedabad	Team leader Dr. Sunil Shukla, PhD Team members Dr. Amit Kumar Dwivedi, PhD Dr. Pankaj Bharti, PhD	Centre for Research in Entrepreneurship Education and Development (CREED)	Kantar IMRB
Type of institution Research Institute			Contact akdwivedi@ediindia.org
Website https://www.ediindia.org			



Indonesia

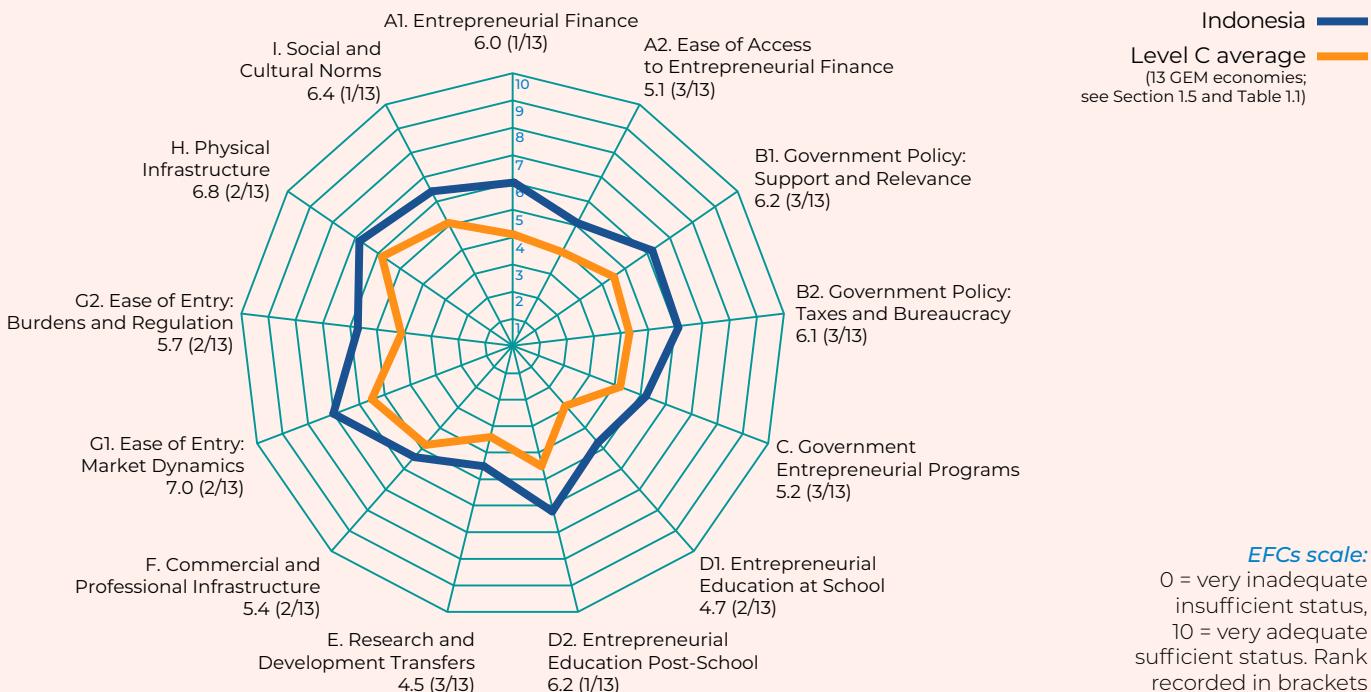
■ Population (2021): **276.4 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **12.9 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	71.4	5	
Good opportunities to start a business in my area	87.2	2	
It is easy to start a business	72.2	8	
Personally have the skills and knowledge	75.5	8	
Fear of failure (opportunity)	36.8	41	
Entrepreneurial intentions*	33.3	12	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.3	36=	TEA (Total early-stage Entrepreneurial Activity)	8.1	36	9.2	7.0
International (25%+ revenue)	3.3	42=	EBO (Established Business Ownership)	5.7	29=	5.9	5.5
Always consider social impact	88.6	8					
Always consider environmental impact	84.2	15					
Industry (% TEA in business services)	2.3	49					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	75.2	4
Starting a business is more difficult than a year ago	34.8	34
Use more digital technology to sell products or services	60.9	13
Pursue new opportunities due to pandemic	46.7	23

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In the aftermath of the pandemic, the Indonesian economy experienced strong GDP growth in 2022, reaching 6% in Q3 2022, but inflation was also on the rise driven by increasing commodity and energy prices. Entrepreneurs were still enjoying growth conditions in key sectors including food and beverages, and fashion.

In 2022, Indonesia issued Presidential Regulation Number 2 on National Entrepreneurship Development, stipulating facilities, incentives and recovery measures for entrepreneurs.

2022 Framework Conditions Review

Indonesia last participated in GEM in 2020, giving limited scope for comparisons. In that year, Indonesia had a quality of entrepreneurial environment that ranked first among the 45 economies then participating in the GEM National Expert Survey (NES), with a National Entrepreneurship Context Index (NECI) score of 6.4, and with all Entrepreneurial Framework Conditions rated as sufficient (≥ 5.0), most by a wide margin. By 2022, Indonesia's position had changed markedly. Nine framework conditions saw their scores fall, some considerably, to the extent that two were now rated as insufficient. It would be easy to attribute these changes to the pandemic, but in new NES questions Indonesia's national experts rated the recovery from the economic impacts of COVID-19 as well sufficient, with a score of 6.4 (11th of the 51 economies).

Delving a little deeper, Indonesia's Framework Condition scores had fallen most for Entrepreneurial Education Post-School, for Government Entrepreneurial Programs and for Research and Development Transfers. These are Framework Conditions in which the government has substantial influence. So the deterioration may say more about political priorities than about the effects of the pandemic. However, Indonesia still had eight Entrepreneurial Framework Conditions ranked in the top 10 of these GEM economies, and just one, Commercial and Professional Infrastructure, ranked in the bottom half.

2022 Entrepreneurial Activity Review

There is no doubt that the pandemic has had widespread impact on Indonesia, with almost three out of four adults reporting the pandemic has reduced their household income, among the highest in GEM economies. Perhaps because of this, or because of reduced access to entrepreneurial finance elsewhere, the share of Indonesian adults investing in someone else's new business has more than doubled since 2020, from 6% to 14%. The proportion intending to start a new business in the next three years rose from 28% to 33%. Confidence was high, with three-quarters of Indonesian adults agreeing they had the skills and experience to start a new business, with only slightly fewer knowing someone who had recently done so. Almost nine out of 10 saw good opportunities to start a business locally, and just a third of those would be prevented from doing so by the fear of failure.

Despite these encouraging signs, the percentage of adults in Indonesia starting and running a new business fell from 9.6% to 8.1% between 2020 and 2022, with the male percentage falling faster than that for women. The entrepreneurial gender gap has widened: by 2022, there were nine women starting and running a new business for every seven men doing the same.

Still struggling with the pandemic recovery, the percentage of adults running an established business halved over this period (from 11.4% to 5.7%). In 2020, just over 4% of Indonesian adults had exited a business in the past 12 months. By 2022, this had risen to 11%, meaning business exits exceeded new starts. These declines point to a hollowing-out of Indonesian businesses, reflecting very poor trading conditions and fairly bleak employment prospects.

Not surprisingly, the material motivations ("to build great wealth or very high income" or "to earn a living because jobs are scarce") had the highest levels of agreement among new entrepreneurs, although almost a half agreed with the motive "to make a difference in the world".

Not many new entrepreneurs had customers beyond Indonesia (less than 5%), although three in five expected to use more digital technology in the next six months to sell their products. More optimistically, the percentage of those starting or running a new business who expected to employ another six or more people in the next five years has risen sharply, from just 3% in 2020 to 16% in 2022.

Institution

Lead institution

UNPAR (Parahyangan Catholic University)



Type of institution

University

Website

<https://unpar.ac.id/>

Team

Team leader

Gandhi Pawitan

Team members

Catharina Badra Nawangpalupi

Funders

UNPAR (Parahyangan Catholic University)

APS vendor

Sapar Institut

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Iran

■ Population (2021): **85.0 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **15.8 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	64.1	11
Good opportunities to start a business in my area	51.3	31
It is easy to start a business	23.7	47
Personally have the skills and knowledge	54.2	29
Fear of failure (opportunity)	30.9	48
Entrepreneurial intentions*	27.5	16

Motivational

(somewhat or strongly agree)

% TEA	Rank/49
34.9	36
85.1	2
22.8	36
69.9	22

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	16.4	14	13.6	19.3
EBO (Established Business Ownership)	10.8	6	3.9	17.6

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**

% Adults	Rank/49
49.8	23

% TEA Rank/49

Starting a business is more difficult than a year ago

% TEA	Rank/49
62.3	6

Use more digital technology to sell products or services

% TEA	Rank/49
53.4	23

Pursue new opportunities due to pandemic

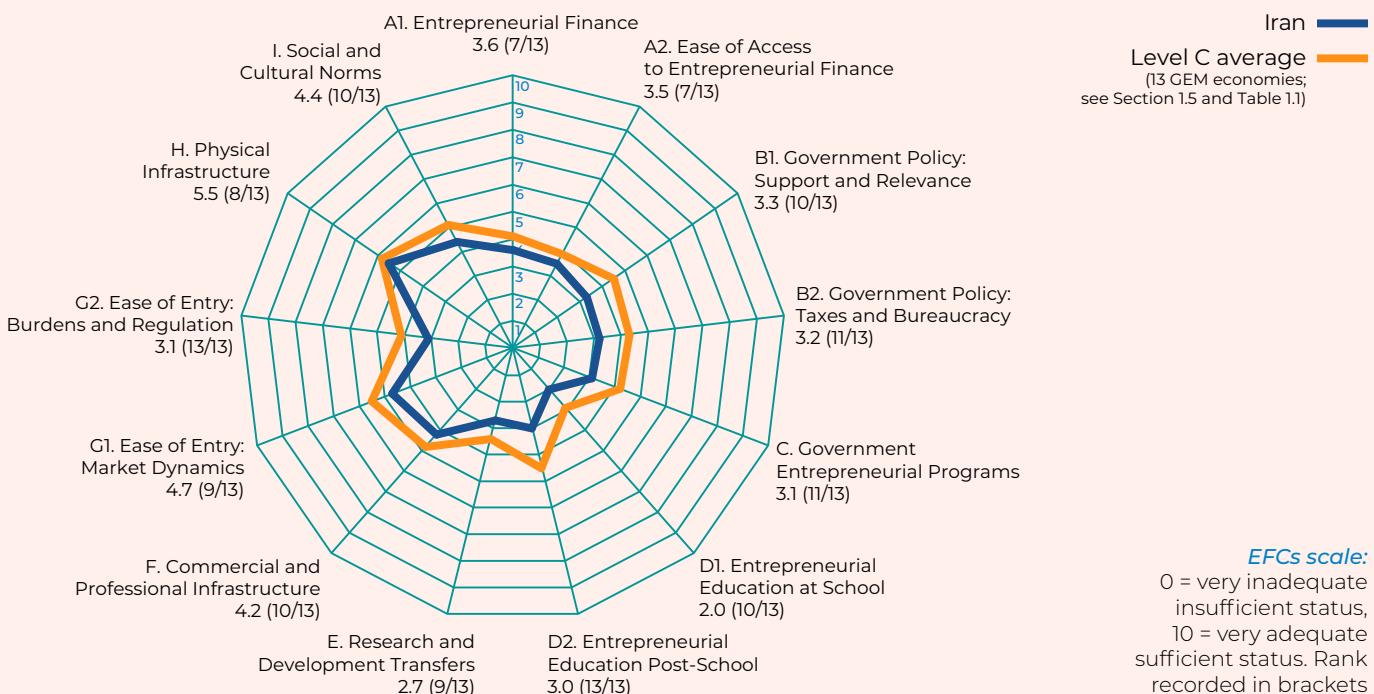
% TEA	Rank/49
21.6	43

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Iranian economy is dominated by its oil and gas, agricultural and services sectors, with both economic activity and government revenues closely tied to the global price of oil. In 2022, inflation was expected to top 40%, with unemployment at just under 10% and falling slowly. The costs of starting a business (rent, raw materials, etc.) were all increasing, while rising prices had increased uncertainty over demand. Many people have responded to economic conditions by taking on a second job, or by starting their own small business.

In 2022, the government introduced more entrepreneurial support, including improvements in facilitating the issue of business licences, and support for knowledge-based businesses through long-term loans at preferential rates.

2022 Framework Conditions Review

Starting and running a business in Iran cannot be easy. For the second year running, the quality of the overall entrepreneurial environment in Iran has been ranked as the second lowest. In the previous year, Iran's National Entrepreneurship Context Index (NECI) score was just above Sudan; in 2022 just above Venezuela. Yet Iran's score improved in 2022 to 3.6, having been 3.3 a year earlier. This is because Iran's scores had risen for 10 of the 13 Framework Conditions, demonstrating that considerable efforts were being made to improve those entrepreneurial conditions.

However, despite these improvements, many of those Framework Condition scores were a long way from sufficiency (≥ 5.0), with nine still below 4.0. There is room for more improvement across the board, but especially in entrepreneurial finance, in business policy and programmes and in entrepreneurial education at all levels, although these areas have already improved since 2021. Only one Framework Condition was rated as sufficient in 2022, Physical Infrastructure, while Iran's highest-ranked condition was for Social and Cultural Norms, ranked 30th of 51 GEM economies.

2022 Entrepreneurial Activity Review

Almost half of Iranian adults reported that the pandemic had reduced their household income in 2022. Perhaps because of this, or because of the lack of entrepreneurial finance options elsewhere, while

the percentage of adults investing in someone else's new business had fallen at the start of the pandemic, it had since increased strongly, with the level in 2022 (9%) more than double that of 2020 (4%). The intention to start a business also declined with the onset of the pandemic (from 42% in 2019 to 25% a year later) but only partially recovered since (to 28% in 2021 and then the same in 2022).

The percentage of adults in Iran starting or running a new business has followed a familiar pandemic cycle pattern, declining in the early days (10.7% in 2019 to 8% in 2020), before recovering slightly in 2021 (8.8%) and then leaping in 2022 (to 16.4%). So, in just two years, the level of new entrepreneurial activity had doubled, although men remained about a half more likely than women to be starting a new business. EBO has followed a more modest path, rising in the early days of the pandemic before falling back. By 2022, the rate of EBO in Iran, at 10.8% of adults, was little different to what it had been in 2019 (10.2%). So, in 2019, the level of new entrepreneurship more or less matched the level of EBO. By 2022, there were three adults starting or running a new business for every two Established Business Owners.

On a range of entrepreneurial social parameters, Iran scores well. Almost two-thirds of adults knew someone who had recently started a business, while more than half considered themselves to have the skills and experience to do the same. A similar proportion saw good opportunities to start a business locally, and less than a third of these would have been deterred by fear of failure.

"To building great wealth or very high income" was by far the most commonly agreed motivation for those starting a new business, agreed by 85% in 2022, followed by "to earn a living because jobs are scarce". Only a third of new entrepreneurs agreed with the motivation "to make a difference in the world", and less than a quarter with the motivation "to continue a family tradition".

The share of new entrepreneurs with customers outside the country fell in the early days of the pandemic, but had recovered strongly to almost a fifth in 2022. More than a half of new entrepreneurs expected to use more digital technology in the next six months to sell their products, while a third of those new entrepreneurs expected to employ another six or more people in five years' time.

Institution

Lead institution

Faculty of Entrepreneurship,
University of Tehran



Type of institution

University

Website

<http://ent.ut.ac.ir/en>

Team

Team leader

Prof. Faghih

Team members

Prof. Nezameddin Faghih

Prof. Ali Rezaeian

Dr. Mohammad Reza Zali

Dr. Jahangir Yadollahi Farsi

Dr. Seyed Mostafa Razavi

Dr. Rahim Sarhangi

Leyla Sarfaraz

Funders

Iran Labour and Social Security
Institute (LSSI)

APS vendor

Faculty of Entrepreneurship

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ECONOMY PROFILE

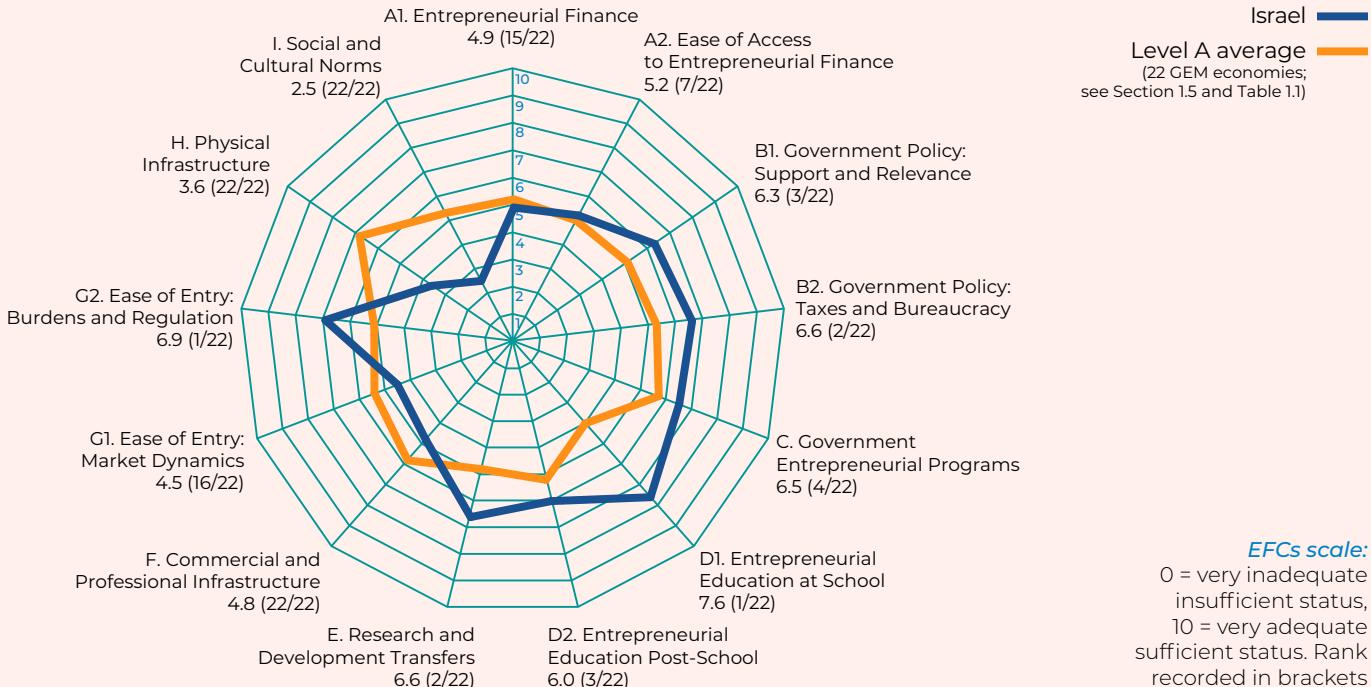


Israel

■ Population (2021): **9.4 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **43.7 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	59.2	17			
Good opportunities to start a business in my area	46.8	35=	To make a difference in the world	33.4	37
It is easy to start a business	12.9	49	To build great wealth or very high income	77.7	10
Personally have the skills and knowledge	35.4	48	To continue a family tradition	16.5	45
Fear of failure (opportunity)	44.0	26	To earn a living because jobs are scarce	50.9	38
Entrepreneurial intentions*	12.3	35			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female % Male
Job expectations (expecting to employ six or more people in five years' time)	1.7	30=	TEA (Total early-stage Entrepreneurial Activity)	8.7	32 7.0 10.5
International (25%+ revenue)	19.5	12	EBO (Established Business Ownership)	3.5	41 3.6 3.3
Always consider social impact	55.2	47			
Always consider environmental impact	47.6	49	COVID-19 related		
Industry (% TEA in business services)	42.7	1	Pandemic has led household income to decrease**	36.3	30
An equals sign (=) indicates that the ranking position is tied with another economy or economies.					
* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.			% Adults Rank/49		
** Those reporting "somewhat decrease" or "strongly decrease".			Starting a business is more difficult than a year ago	38.5	31
			Use more digital technology to sell products or services	48.5	27
			Pursue new opportunities due to pandemic	49.9	20

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Israel's economy continued to grow at about 7% between 2021 and 2022 but is expected to slow down slightly in 2023. Private spending, which accounts for more than half of economic activity in Israel, declined in Q3 2022 by 2%, after a 9% gain the prior three months. Rising prices have had limited impact on entrepreneurship, because new digitally based ventures have been able to compensate for increases in the cost of living. In 2022, the government introduced new policy changes to support entrepreneurship, particularly for minorities.

2022 Framework Conditions Review

The evolution of Israel's quality of entrepreneurial environment is both complex and contradictory. In 2019, Israel had an entrepreneurial environment assessed as well sufficient, with an National Entrepreneurship Context Index (NECI) score of 5.3, placing it 11th among GEM economies. At the onset of the pandemic, that assessment fell to 4.8, less than sufficient and 22nd among GEM economies. In 2021, Israel's NECI score increased to 4.9, with a ranking of 18th, and in 2022 increased to a well-sufficient 5.5 and a rank of 12th out of 51 GEM economies. So, on the surface, there was a fall at the start of the pandemic and a good recovery since.

But delve a little deeper and contradictions begin to appear. Start with the assessment of Israel's recovery from the pandemic. This score came in at a much less than sufficient 4.0, third lowest of the 51 GEM economies in 2022. Then consider individual framework scores in 2022 compared to 2021. In 2021, Israel had nine conditions scored as insufficient (<5.0) and four as sufficient. By 2022 this had become five insufficient and eight sufficient. But this wasn't simply an improvement in four conditions: between 2021 and 2022, 12 of Israel's 13 framework conditions changed status: eight from insufficient to sufficient, and four from sufficient to insufficient.

Many of these changes were very dramatic. If a score of 4.0 is poor, and 6.0 is good, in the space of a year four conditions went from poor to good: both government policy conditions, plus Entrepreneurial Education at School and Ease of Entry: Burdens and Regulation. At the same time two scores went from good to poor: Physical Infrastructure ,and Social and Cultural Norms. Of the 51 GEM economies in 2022, Israel was ranked first for Entrepreneurial Education at

School and for Ease of Entry: Burdens and Regulation, and last for Physical Infrastructure and for Social and Cultural Norms. Just a year earlier, Israel had ranked first among 50 GEM economies for Social and Cultural Norms and lowest among 19 Level A economies for Ease of Entry: Burdens and Regulation.

2022 Entrepreneurial Activity Review

The percentage of adults reporting that the pandemic had reduced their household income in 2022 fell to 36%, having been 43% a year earlier. Meanwhile, the percentage of adults intending to start a business in the next three years had fallen throughout the pandemic period, and in 2022 was 12%, less than half of its level in 2019 (30%).

Most Israelis are familiar with the notion of entrepreneurship, although the proportion knowing someone who had recently started a business has fallen slightly. More than a third of adults considered themselves to have the skills and experience to be able to start their own business, and the proportion seeing good local opportunities to do so, having fallen at the onset of the pandemic (from 46% in 2019 to 25% in 2020), bounced back to pre-pandemic levels in 2022.

Meanwhile, the percentage of adults actually starting a new business has drifted downwards since 2019 when it was 12.7%, reaching 8.7% in 2022. Male and female entrepreneurship have moved in parallel: in 2022 there were three men starting a new business for every two women doing the same, just as there was in 2019. Over the same period, the level of EBO has also drifted downwards, but from an already low base. In 2019 5.5% of Israeli adults were running an established business — by 2022 this had fallen to 3.5%. So while the level of new entrepreneurship in Israel looks reasonable, few of these new businesses are sustained into established ones.

To build great wealth or very high income was the most agreed motivation among Israel's new entrepreneurs, agreed by at least seven in 10 since this question was introduced by GEM. Three in 10 new entrepreneurs had customers beyond Israel in 2022, down from four in 10 a year earlier. Around half of those entrepreneurs expected, in the next six months, to use more digital technology to sell their products, and one in five expected to employ another six or more people in the next three years.

Institution

Lead institution

Ira Center of Business, Technology & Society, Ben Gurion University of the Negev



Type of institution
University

Website

<https://in.bgu.ac.il/en>

Other institutions involved

Ministry of Economics and Industry,
Government of Israel

Team

Team leader

Prof. Emeritus Ehud Menipaz, PhD

Team members

Yoash Avrahami, MSc

Prof. Eli Gimmon, PhD

Michal Ben David, MSc

Funders

The Ira Foundation for Business Technology and Society
Ben Gurion University of the Negev
M51 Corporation
The Ministry of the Economy and Industry
Government of Israel

APS vendor

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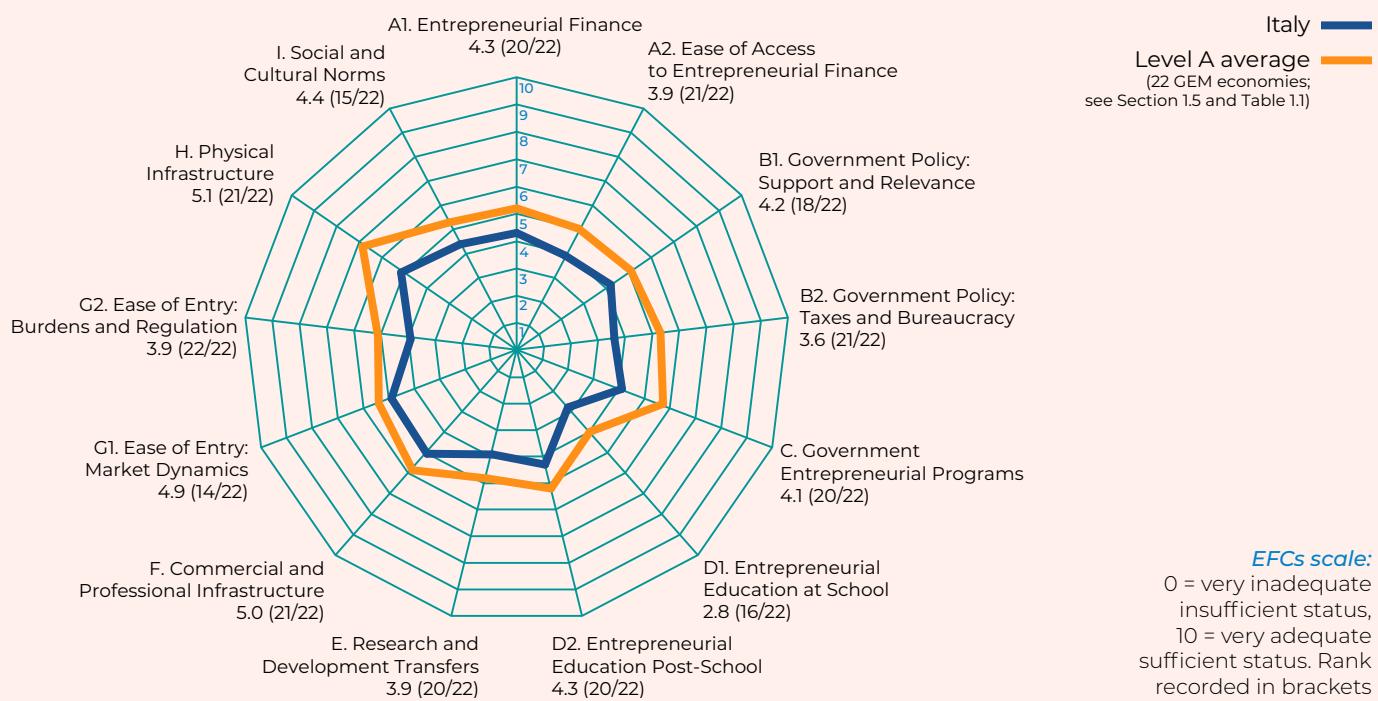


Italy

■ Population (2021): **59.1 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **45.9 thousand** (World Bank)

Italy did not participate in the 2022 Adult Population Survey.

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

GDP growth in Italy in 2022 was expected to be around 3%, with inflation at 8%. Unemployment was back below pre-pandemic levels, but still relatively high at 8%. Rising prices and uncertainty over the macroeconomic environment were both adversely affecting entrepreneurial activities.

2022 Framework Conditions Review

Italy was among the countries hit hardest and earliest by the pandemic. National expert assessments rated Italy's COVID recovery at 5.7: more than sufficient, but middle ranking among the 51 GEM participating economies in 2022.

This score for COVID recovery turns out to be higher than any Entrepreneurial Framework Condition that Italy achieved in 2022. Those scores deteriorated sharply in 2022, pushing Italy's overall National Entrepreneurial Context Index (NECI) score down to 4.2 from 4.7, placing Italy 37th when it had been 24th just a year earlier. This deterioration was not quite on the scale of Italy's Mediterranean near-neighbour Spain,

but serious enough at a time when most economies were investing to improve their environment for entrepreneurship.

All but one Framework Condition in Italy scored lower in 2022 than in 2021, with the largest falls for Research and Development Transfers, Physical Infrastructure, Ease of Entry: Burdens and Regulation and Government Policy: Support and Relevance. Only two Framework Conditions were rated as sufficient (≥ 5.0) in 2022, and both by a fine margin. Much of the responsibility for these worsening conditions rests with the government, who must therefore take ownership for restoring that entrepreneurial environment. A good place to start would be entrepreneurial education, in both schools and colleges, although attention is needed for most conditions across the board.

2022 Entrepreneurial Activity Review

Italy did not participate in the 2022 GEM Adult Population Survey.

Institution	Team	Funders	APS vendor
Lead institution Centre for Innovation and Entrepreneurship, Università Politecnica delle Marche  UNIVERSITÀ POLITECNICA DELLE MARCHE	Team leader Prof. Donato Iacobucci, PhD Team members Associate Prof. Diego D'Adda, PhD Associate Prof. Alessandra Micozzi, PhD Francesca Micozzi, PhD Martina Orci	Fondazione Aristide Merloni Università Politecnica delle Marche	IPSOS
Type of institution University			Contact d.iacobucci@staff.univpm.it
Website https://www.univpm.it			



Japan

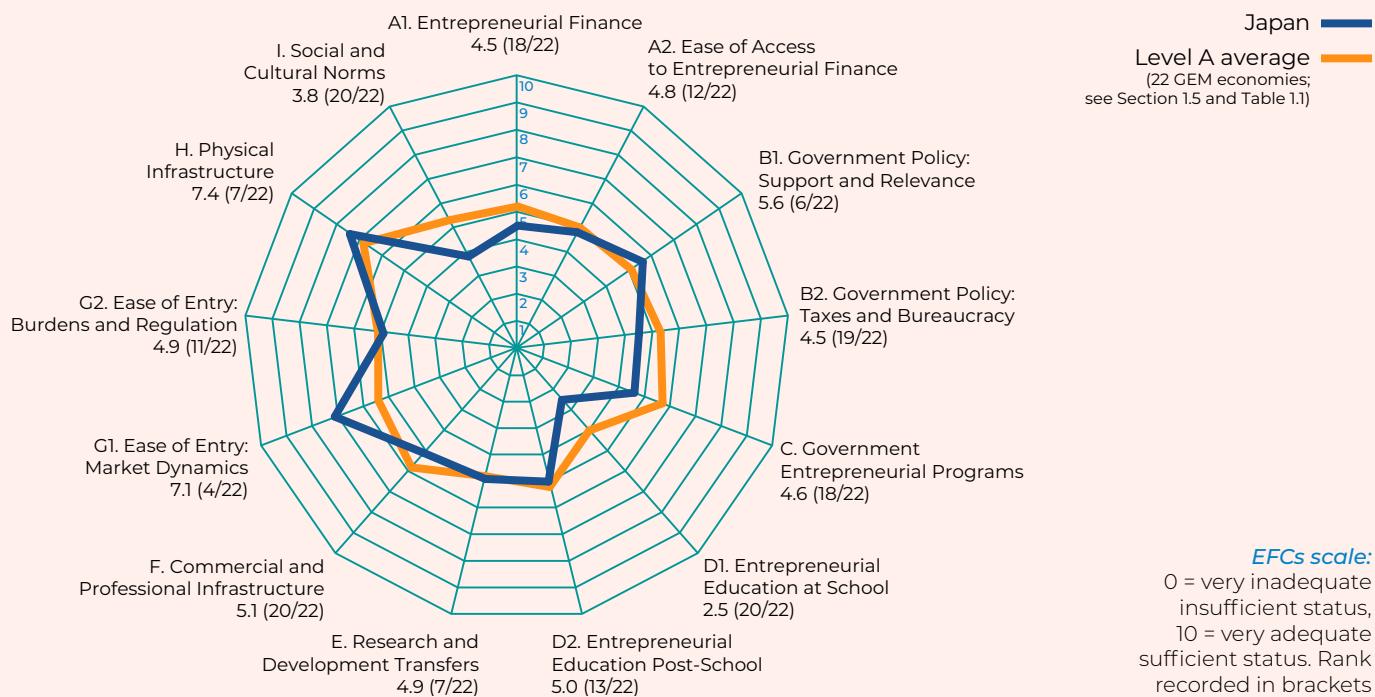
■ Population (2021): **125.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **42.9 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	20.4	49	
Good opportunities to start a business in my area	12.7	49	
It is easy to start a business	27.5	44	
Personally have the skills and knowledge	14.9	49	
Fear of failure (opportunity)	50.9	10=	
Entrepreneurial intentions*	5.1	48	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.1	43=	TEA (Total early-stage Entrepreneurial Activity)	6.4	43	3.6	9.1
International (25%+ revenue)	6.7	31	EBO (Established Business Ownership)	6.3	26	4.1	8.6
Always consider social impact	64.6	43					
Always consider environmental impact	55.6	45=					
Industry (% TEA in business services)	41.7	2					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	25.8	43
Starting a business is more difficult than a year ago	26.8	43
Use more digital technology to sell products or services	54.4	22
Pursue new opportunities due to pandemic	28.2	42

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Slow but stable and balanced growth was expected in Japan in 2022. Inflation was also low, at around 2%, with little impact on entrepreneurship.

The Japanese government is planning a system that would require private financial institutions not to demand collateral or guarantors when they extend loans to newly established companies.

2022 Framework Conditions Review

The overall quality of the Japanese environment for entrepreneurship was assessed by its own national experts as just sufficient in 2022, with a National Entrepreneurial Context Index (NECI) score of 5.0, ranking it 22nd among 51 GEM economies. A year earlier it had been scored at 4.7, less than sufficient (<5.0), but ranked at 21st. So that overall environment had improved, with 10 of 13 individual Framework Conditions scoring higher in 2022 than 2021. These improvements had been enough to push three conditions from insufficient to sufficient: Government Policy; Support and Relevance; Entrepreneurial Education Post-School; and Commercial and Professional Infrastructure. In 2022, Japan had five conditions rated as sufficient compared to just two a year earlier.

However, despite these improvements, it may be surprising that modern, high-income Japan still has so many Framework Conditions scored so low. While Japan ranked sixth of 51 economies for Ease of Entry: Market Dynamics, and eighth for Physical Infrastructure, it was also 45th in terms of Social and Cultural Norms. It is also surprising that Japan is still rated as insufficient in both entrepreneurial finance conditions and in Government Entrepreneurial Programs. This uneven Framework Condition performance may help to explain why so few adults start new businesses.

2022 Entrepreneurial Activity Review

Japan has certainly not escaped the impacts of COVID-19, with one in four adults reporting that their household income was lower in 2022 due to the pandemic, down a little on a year earlier. Very few Japanese invest in a new business started by someone else, and not many more intend to start a business in the next few years, although that proportion has been slowly rising.

The percentage of adults starting or running a new business in Japan remains relatively low, even for a high-income economy, but has been fairly stable since the onset of the pandemic, slowly climbing to 6.4% in 2022. EBO has been less stable, rising then falling as the pandemic took hold, then rising again to match TEA in 2022. Throughout the period, men have been around twice as likely as women to be starting a new business.

Not surprisingly, low levels of entrepreneurial activity mean that just one in five Japanese adults know someone who has started a business. An even smaller share consider themselves to have the skills and experience to start their own, or see good conditions to start a business locally. For those that do, half would be deterred from doing so by fear of failure.

Agreement by new entrepreneurs is fairly evenly divided among the four defined motivations, but “to build great wealth or very high income” just about leads with two out of five. More than a half of new entrepreneurs expect to use more digital technology in the next six months to sell their products, and just about one in five expect to employ an additional six people in five years’ time. Finally, the share of new entrepreneurs with customers beyond Japan has been increasing slowly, from less than one in five in 2019 to almost one in four in 2022.

Institution

Lead institution

Musashi University



Type of institution

University

Website

<https://www.musashi.ac.jp/english>

Other institutions involved

Nihon University
Chuo University
Toyo University
Keio University

Team

Team leader

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Team members

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Prof. Yuji Honjo
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Prof. Takeo Isobe

Funders

Ministry of Economy, Trade and Industry, METI

APS vendor

Social Survey Research Information Co. Ltd (SSRI)

Contact

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Latvia

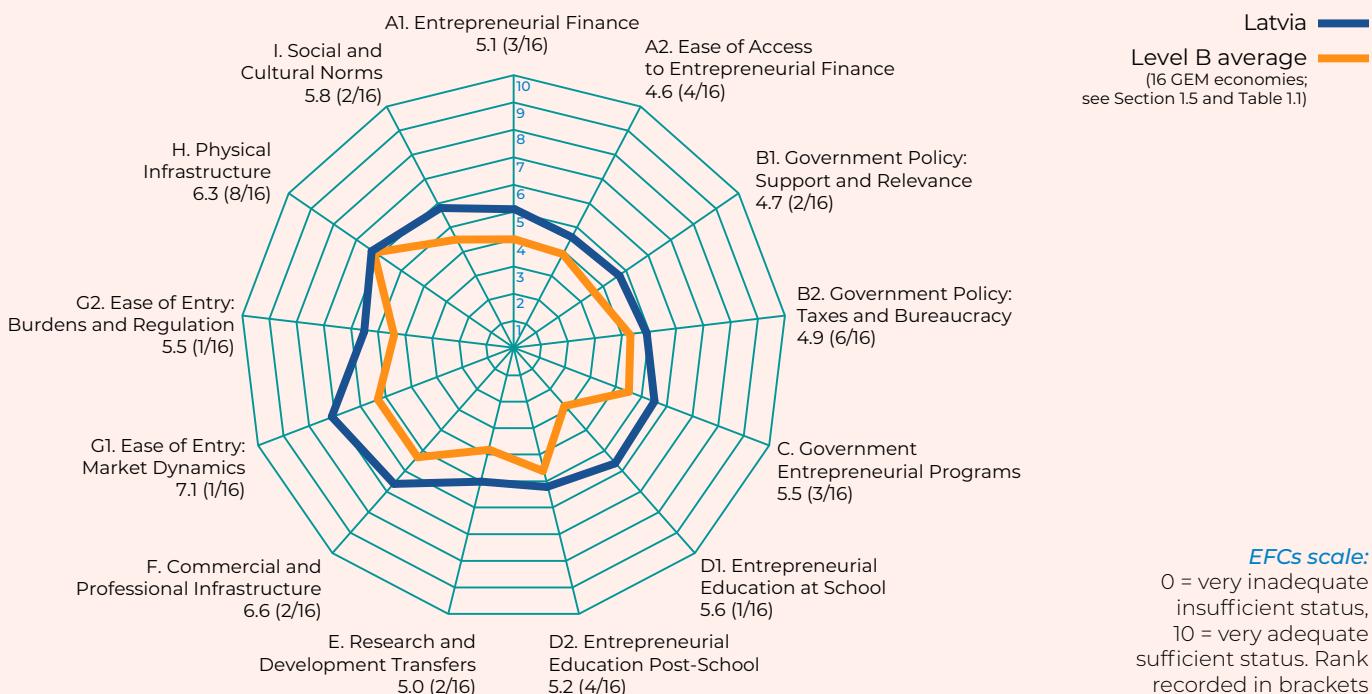
■ Population (2021): **1.9 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **34.5 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	38.0	42	
Good opportunities to start a business in my area	34.6	44	
It is easy to start a business	29.4	43	
Personally have the skills and knowledge	53.9	30	
Fear of failure (opportunity)	36.7	42	
Entrepreneurial intentions*	17.6	23	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	3.5	16	
	% TEA	Rank/49	
International (25%+ revenue)	25.2	3	
Always consider social impact	70.7	35	
Always consider environmental impact	76.0	27	
Industry (% TEA in business services)	28.5	16	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	28.4	40
	% TEA	Rank/49
Starting a business is more difficult than a year ago	46.3	21
Use more digital technology to sell products or services	45.6	34
Pursue new opportunities due to pandemic	35.0	34

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

According to the Bank of Latvia, GDP growth will slow to 3% in 2022 with an unemployment rate around 7% and with an annual inflation rate close to a record high rate of 22%.

Business confidence has dropped sharply and business investment continues to slow due to high uncertainty and worsening financial conditions. Many companies had passed on increased costs of their goods and services, but this cannot be applied indefinitely as the reduction in purchasing power would lead to a reduction in demand.

The Latvian government has approved the Recovery Fund support program, launched in August 2022 and aiming to increase productivity growth and reduce energy costs.

2022 Framework Conditions Review

The assessed quality of the overall entrepreneurial environment in Latvia, as measured by its National Entrepreneurship Context Index (NECI) score, has improved considerably in recent years, despite the pandemic. In 2020, Latvia's overall score was 4.2, much less than sufficient (<5.0), and ranked 21st among GEM economies. In 2020 that score edged into just sufficient, at 5.0, ranked 17th. In 2022, Latvia's score increased even more to 5.5, well sufficient, and ranked 13th among the 51 GEM economies. These improvements were surely influenced by the positive response to the economic effects of the pandemic with national experts scoring Latvia at 6.1 (well sufficient) on this new question.

Moreover, these improvements were largely across the board, with improvements in 12 of the 13 Framework Condition scores in 2022, and only one score falling: Physical Infrastructure. There are clear signs that the government has played a large part in these improvements, with both government policy conditions assessed as improved, although still not sufficient. However, both education conditions improved enough to push them into sufficiency. The improvement in Entrepreneurial Education at School was both substantial and rare: Latvia was fourth on this condition among GEM economies in 2022. Both ease of entry conditions also improved, suggesting markets

were working hand in hand with the government to enhance the entrepreneurial environment in Latvia.

2022 Entrepreneurial Activity Review

The proportion of adults reporting that the pandemic had reduced their household income in 2022 was just over a quarter, still high but an improvement on the one in three reporting decreased incomes two years earlier. Over the same period, the percentage of adults investing in someone else's business had been stable but low, at around 6% in 2022. However, business intentions were lower in 2022 (18%) than before the pandemic (28% in 2019).

There has been similar stability in the key entrepreneurial activity variables. In 2019, 15.4% of adults in Latvia were starting or running a new business. By 2022, this was down slightly at 14.2%. EBO fared similarly: from 12.9% to 12.3% over the same period. Even the entrepreneurial gender gap has remained stable, with around five men starting or running a new business in Latvia for every three women doing the same.

The proportion of adults in Latvia knowing someone who had recently started their own business declined a little at the onset of the pandemic, and has stayed down since, at about two in five in 2022, having been almost one in two in 2019. Confidence has remained high, with more than a half of Latvian adults agreeing they have the skills and experience to start their own business in each of the last four years. The proportion of adults seeing good opportunities to start a business locally fell over the pandemic, but not by much, and was more than one in three in 2022. Just one-third of these would be deterred from starting a business by the fear of failure.

"To earn a living because jobs are scarce" has remained the most agreed motivation among Latvia's new entrepreneurs, of whom nearly half expect to use more digital technology in the next six months to sell their products. Meanwhile, the proportion of new entrepreneurs with strong job expectations (expecting to employ another six or more people in five years' time) was high, at around one in four, but lower than the one in three pre-pandemic (in 2019).

Institution

Lead institution

Stockholm School of Economics in Riga (SSE Riga)



Type of institution

Business School

Website

<https://www.sseriga.edu>

Other institutions involved

Baltic International Centre for Economic Policy Studies (BICEPS)

Team

Team leader

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Team members

Anders Paalzow, PhD

APS vendor

SKDS

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Funders

Stockholm School of Economics in Riga

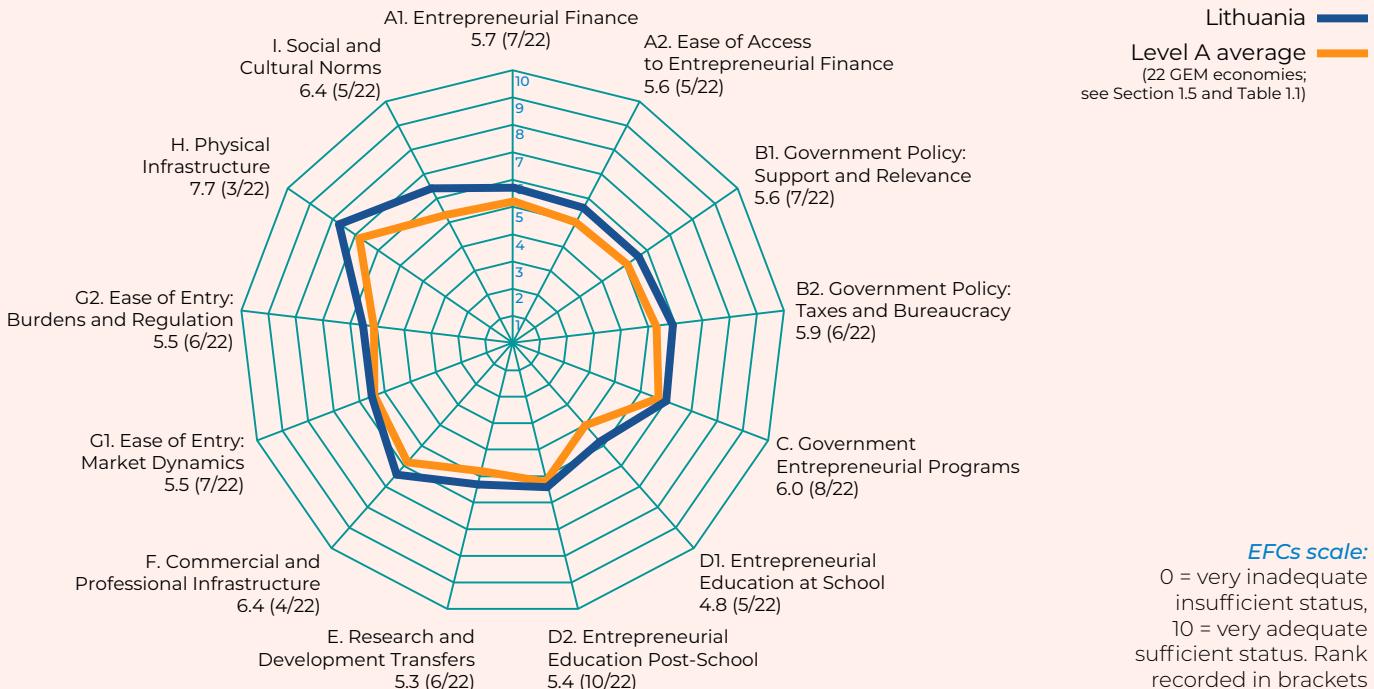


Lithuania

- **Population (2021): 2.8 million** (UN)
- **GDP per capita (2021; PPP, international \$): 42.7 thousand** (World Bank)

Attitudes and perceptions				Motivational	
		% Adults	Rank/49	(somewhat or strongly agree)	
Know someone who has started a new business		53.1	26		% TEA Rank/49
Good opportunities to start a business in my area		40.4	40	To make a difference in the world	40.8 31=
It is easy to start a business		36.5	36=	To build great wealth or very high income	46.5 37
Personally have the skills and knowledge		49.8	36=	To continue a family tradition	24.0 33=
Fear of failure (opportunity)		46.2	19	To earn a living because jobs are scarce	66.6 25
Entrepreneurial intentions*		15.1	29		
Entrepreneurship impact				Activity	
		% Adults	Rank/49	% Adults	Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)		3.2	18	TEA (Total early-stage Entrepreneurial Activity)	12.7 20 9.0 16.6
International (25%+ revenue)		18.5	15	EBO (Established Business Ownership)	8.3 15= 5.7 10.9
Always consider social impact		71.4	31=		
Always consider environmental impact		76.3	25=		
Industry (% TEA in business services)		20.0	24		
<i>An equals sign (=) indicates that the ranking position is tied with another economy or economies.</i>					
<i>* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.</i>					
<i>** Those reporting "somewhat decrease" or "strongly decrease".</i>					
COVID-19 related				Pandemic has led household income to decrease**	
		% Adults	Rank/49		% TEA Rank/49
				Starting a business is more difficult than a year ago	50.2 16
				Use more digital technology to sell products or services	28.8 47
				Pursue new opportunities due to pandemic	29.2 41

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Despite the war in Ukraine and energy price shocks, the Lithuanian economy grew by around 2% in 2022, with exports up about 3%. High energy and commodity prices were driving inflation upwards. Lithuania's fastest-growing sectors in 2022 were manufacturing, arts and entertainment, and professional and scientific services.

Economic uncertainty has reduced investment, and the cost of borrowing has increased, including for the Lithuanian government. However, the risk of an economic downturn may reduce the business need to borrow further.

2022 Framework Conditions Review

In 2022, the overall entrepreneurial environment of Lithuania was assessed by its national experts as having deteriorated since 2021, with its National Entrepreneurship Context Index (NECI) score declining from 6.1 to 5.8, although its ranking among the 51 GEM economies only fell from fifth to sixth. This decline was despite those national experts having rated Lithuania's response to the economic effects of the pandemic as excellent, scoring highest of all those economies.

In terms of individual Framework Conditions, 10 of the 13 had lower scores in 2022 than in 2021, with the largest falls being for Ease of Entry: Burdens and Regulation and for Physical Infrastructure, which was still Lithuania's highest-rated condition. Most of the other changes were modest. Despite these falls, Lithuania still had 10 framework conditions ranked in the top 10 of the 51 economies in 2022. As in 2021, just one condition was rated as insufficient (<5.0): Entrepreneurial Education at School, which did edge a little closer to sufficiency. Many economies with much higher incomes would welcome such a supportive entrepreneurial environment.

2022 Entrepreneurial Activity Review

In 2022, three in 10 adults in Lithuania reported that the pandemic had reduced their household income, a relatively modest level, similar to in Latvia next door, and ninth lowest of Level A economies. Just 6% of adults invested in someone else's new business in 2022, a relatively low figure no doubt aided by the availability of entrepreneurial finance elsewhere.

Less than one in five of Lithuania's adults intended to start a business in the next three years, while around a half knew someone who had started their own business recently. A similar proportion regarded themselves as having the skills and experience to start their own business, while two in five saw good opportunities to start a business locally in 2022, although nearly a half of these would be deterred by fear of failure.

The proportion of adults starting or running a new business in Lithuania was 12.7%, while EBO was 8.3% of adults, a sustainable ratio of three new to every two Established Business Owners. In Lithuania, men were almost twice as likely as women to be starting a new business, suggesting that many women are missing out on the autonomy and income opportunities that go with owning your own business.

"To earn a living because jobs are scarce" was the motivation with the highest level of agreement (two out of three) among new entrepreneurs, although "to build great wealth or very high income" was also agreed by about a half.

Lithuania is a small economy, and it is not surprising that two in five new entrepreneurs had customers beyond its borders. This proportion may increase, because nearly three out of five new entrepreneurs expected, in the next six months, to use more digital technology to sell their products, offering the potential of a wider customer base. Finally, job creation expectations were good, with a quarter of those starting or running a new business in Lithuania anticipating employing another six or more people in five years' time.

Institution

Lead institution

Vilnius University Business School



Type of institution

University

Website

<https://www.vm.vu.lt/en/>

Other institutions involved

Enterprise Lithuania



Team

Team leader

Prof. Dr. Saule Maciukaite-Zviniene

Team members

Vytenis Mockus
Ieva Buziene, PhD
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Aneta Sleykte Kaminiene
Assoc. Prof. Vytautas Kuostis, PhD
Jone Kalendiene
Jurgita Plesiakaite, PhD

Funders

Moody's Lithuania

Enterprise Lithuania

Vilnius University Business School

APS vendor

RAIT

Contact

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Luxembourg

■ Population (2021): **0.6 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **134.8 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	41.3	39=
Good opportunities to start a business in my area	52.4	29=
It is easy to start a business	64.2	15
Personally have the skills and knowledge	50.0	35
Fear of failure (opportunity)	44.1	25
Entrepreneurial intentions*	14.0	31

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	55.8	15
To build great wealth or very high income	48.3	34
To continue a family tradition	37.6	12
To earn a living because jobs are scarce	47.0	41

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	7.0	39	5.4	8.5
EBO (Established Business Ownership)	5.3	33	3.5	6.6

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	27.5	41
Starting a business is more difficult than a year ago	49.7	18
Use more digital technology to sell products or services	55.0	20

% TEA Rank/49

Pursue new opportunities due to pandemic

Entrepreneurship impact

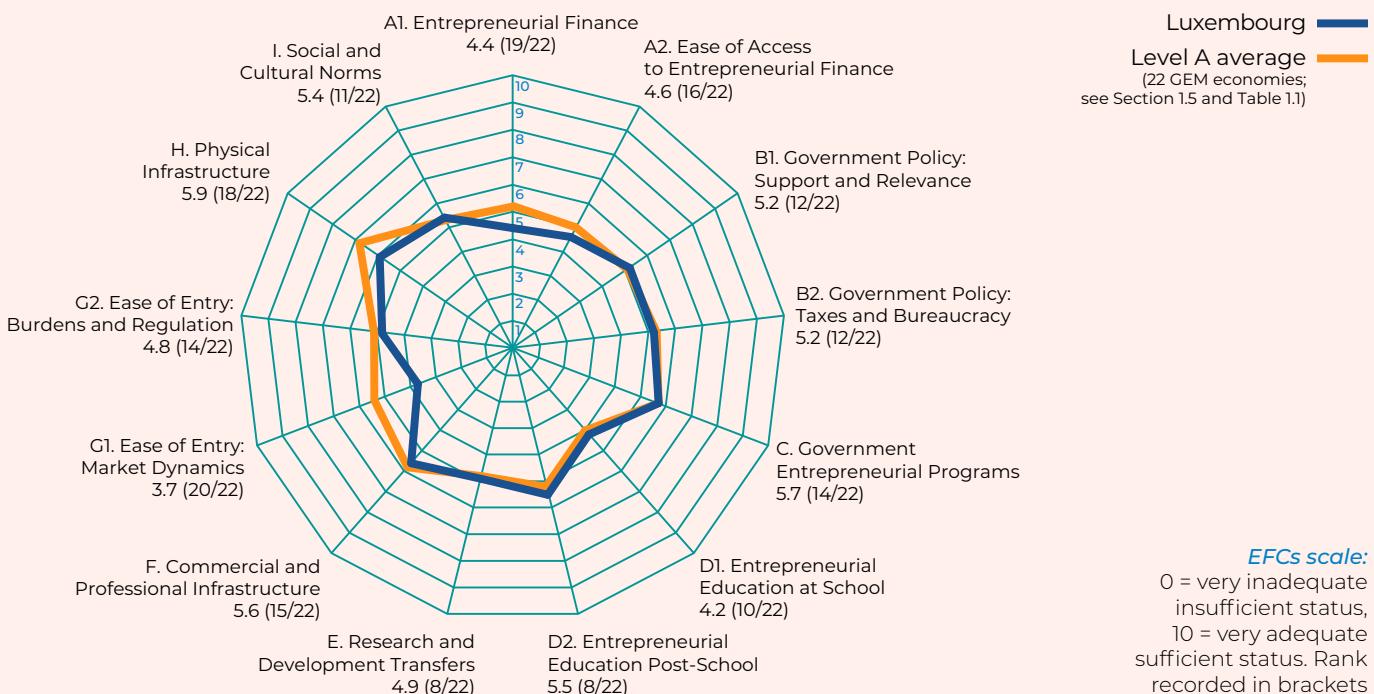
% Adults Rank/49

Job expectations (expecting to employ six or more people in five years' time)	2.7	21=
International (25%+ revenue)	29.4	2
Always consider social impact	85.3	13
Always consider environmental impact	82.4	20
Industry (% TEA in business services)	40.3	3

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS


POLICY ROADMAP

In 2022, GDP in Luxembourg was expected to increase by 1.7% while inflation was running at almost 7%, the highest level since 1983. Meanwhile, to help businesses, the government introduced a €500 million package of business loan guarantees and reduced VAT by one percentage point.

2022 Framework Conditions Review

A small economy with the highest GDP per capita in the entire 2022 GEM National Expert Survey (NES) of 51 economies, Luxembourg ought to have an entrepreneurial environment to match its resources. That environment was assessed in 2022 by its own national experts as only just sufficient, with a National Entrepreneurial Context Index (NECI) score of 5.0, a marginal improvement on the previous year's score of 4.9 (just insufficient). This score ranked Luxembourg 20th among the GEM economies. In 2020 it had scored 5.2 and ranked 13th. The pandemic can't easily be blamed for this change, since national experts also scored Luxembourg at well above sufficient in terms of recovery from the economic effects of COVID-19.

In 2022, Luxembourg had seven Framework Conditions assessed as sufficient (≥ 5.0) and six as insufficient. Sufficient conditions included government policies and programs, the Physical Infrastructure, and Social and Cultural Norms. Insufficient conditions were Entrepreneurial Finance and the two ease of entry conditions. So the sufficient conditions were largely government-led, while the insufficient conditions were largely market-driven. The insufficiency of entrepreneurial finance is perhaps most surprising in a rich economy with high-quality institutions.

Luxembourg's two lowest-scoring conditions in 2021 — Ease of Entry: Market Dynamics and Entrepreneurial Education at School — both improved their scores markedly by 2022, but still didn't surpass the other conditions.

2022 Entrepreneurial Activity Review

Luxembourg is a high-income, high-investment economy, but the percentage of its adults investing in someone else's new business declined in the early years of the pandemic — from 8% in 2019 to 6% in

2021 — and then recovered in 2022 back to 8%. The proportion of adults intending to start their own business in the next three years followed a similar pattern: some fall at the onset of the pandemic and recovery since then. The 2022 level, well under one in five, is almost back to the 2019 pre-pandemic level.

The percentage of adults starting or running a new business in Luxembourg fell in the early days of the pandemic (from 10% in 2019 to 8% in 2020), and has continued to decline slowly since, reaching 7% in 2022. Female entrepreneurship fell faster than male entrepreneurship in those early days, but has since recovered slightly, so that the relative gender gap in 2022 was little more than in 2019. EBO also declined and then recovered. By 2022, the level (5.3%) was a little higher than in 2019 (4.7%). In 2019, Luxembourg had two adults starting a new business for every adult running an established business. By 2022 this ratio had fallen closer to three to two.

Two out of five adults in Luxembourg know someone who has recently started a business. Just over half of adults agree they have the skills and experience to run their own business, with a similar proportion seeing good opportunities to start a business locally, though about half of these would be deterred by fear of failure.

Since GEM introduced questions about the motivations of new entrepreneurs in 2019, a majority of those starting or running a new business in Luxembourg have agreed with the motive "to make a difference in the world". In 2022, "To build great wealth or very high income" or "to earn a living because jobs are scarce" follow closely behind.

Luxembourg is a small country, and it is not surprising that a majority of its new entrepreneurs have customers outside the country. The pandemic may have encouraged new entrepreneurs in Luxembourg to look outwards, because, in 2022, 58% of those new entrepreneurs had customers outside of the country, compared to a pre-pandemic level of 54% in 2019. In addition, more than a half of new entrepreneurs expect, in the next six months, to use more digital technology to sell their products. Job expectations are strong, with four in 10 new entrepreneurs expecting to employ another six or more people in five years' time, up from three in 10 pre-pandemic in 2019.

Institution	Team	Funders	APS vendor
Lead institution STATEC Research	Team leader Francesco Sarracino	STATEC Research STATEC (National Institute of Statistics and Economic Studies of the Grand Duchy of Luxembourg) Chambre de Commerce Luxembourg House of Entrepreneurship Ministère de l'Économie	TNS ILRES
Type of institution Public Body	Team members Chiara Peroni Maxime Pettinger		Contact francesco.sarracino@statec.etat.lu
Website https://statistiques.public.lu/en/statistique-publique/statec/red.html			



Mexico

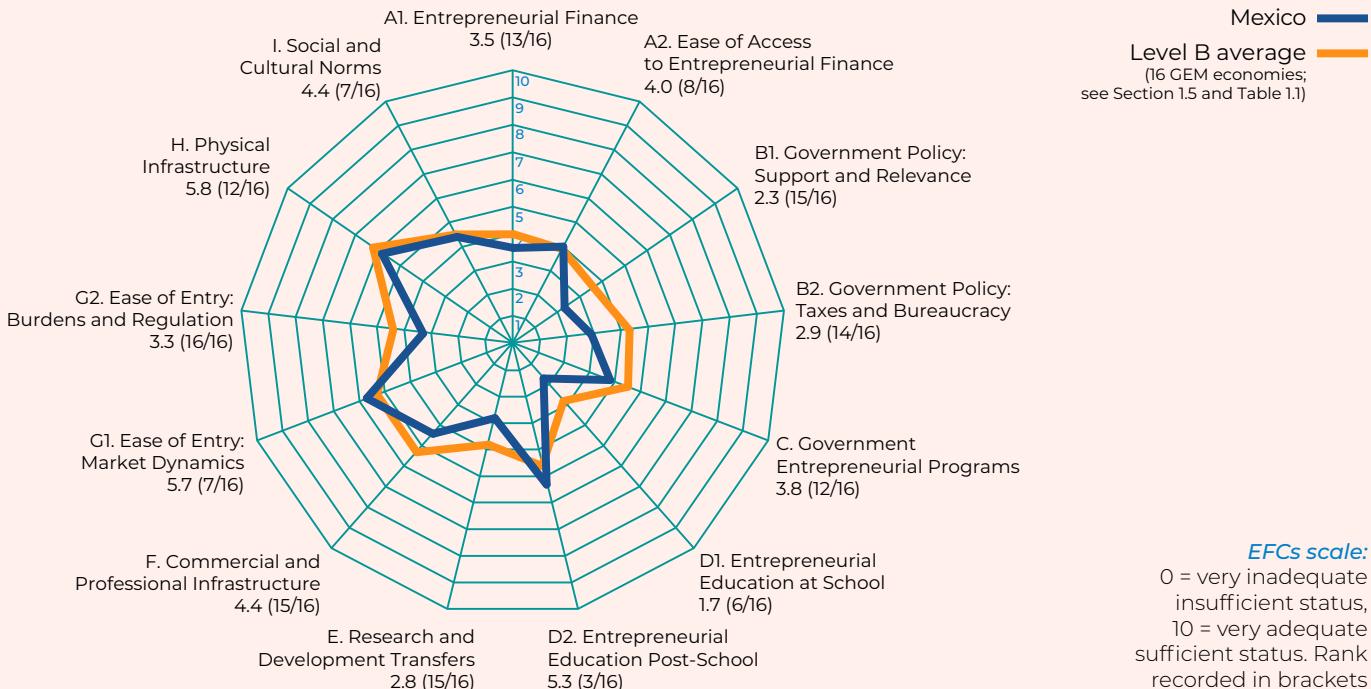
■ Population (2021): **130.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **20.0 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	47.7	32	
Good opportunities to start a business in my area	56.4	25	
It is easy to start a business	46.3	29	
Personally have the skills and knowledge	67.1	15	
Fear of failure (opportunity)	45.5	20	
Entrepreneurial intentions*	17.5	24	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	3.1	19=	TEA (Total early-stage Entrepreneurial Activity)	12.9	18=	12.1	13.8
International (25%+ revenue)	4.3	38	EBO (Established Business Ownership)	1.6	49	1.0	2.2
Always consider social impact	85.2	14					
Always consider environmental impact	87.5	9					
Industry (% TEA in business services)	5.3	44					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	77.5	3
Starting a business is more difficult than a year ago	48.5	20
Use more digital technology to sell products or services	78.9	4
Pursue new opportunities due to pandemic	54.9	12

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Inflation has been rising in Mexico, reaching nearly 9% in September 2022, its highest level in more than 20 years. GDP looks likely to have grown by 2% in 2022. High inflation is modifying household consumption patterns, while increases in interest rates have moved resources from productive to speculative assets. Credit is expensive in Mexico, and a major hurdle to entrepreneurship.

Federal government programs supporting entrepreneurship initiatives have visibly decreased over the last three years. However, some local state governments, like Jalisco, Querétaro, Yucatán and Nuevo León, have developed regional support programs to improve the local entrepreneurship and innovation ecosystems and, in some cases, provided early-stage funding.

2022 Framework Conditions Review

The quality of the Mexican entrepreneurial environment, as assessed by its own national experts and as measured by its overall National Entrepreneurship Context Index (NECI) score, deteriorated significantly in 2022. In 2021, the overall NECI score was 4.3, 30th among GEM economies. By 2022 this had fallen to 3.8 and 44th. Nor was this reduction confined to a few conditions. Twelve of the 13 Framework Conditions scored lower in 2022 than in 2021. If a Framework Condition score of ≥ 5.0 is regarded as sufficient, < 4.0 as poor and < 3.0 as very poor, between 2021 and 2022 two conditions went from sufficient to insufficient, two became poor and three went from poor to very poor, the latter including both government policy conditions plus Ease of Entry: Burdens and Regulation. All three are the direct responsibility of the government. At the same time, Entrepreneurial Education at School, also a responsibility of the government, went from an already low score of 2.2 to 1.7, or from bad to worse. In 2022, only Togo scored lower than Mexico for Entrepreneurial Education at School. Quite a lot to learn.

It is difficult to attribute this deterioration to the pandemic, given that the same national experts scored Mexico's recovery from the economic impacts of the pandemic at 5.1. This is sufficient, but not outstanding. The only condition scoring higher than the previous

year was Ease of Entry: Market Dynamics, thus suggesting buoyant local markets. In the absence of government support, the best survival strategy for new businesses may be to focus on those local markets.

2022 Entrepreneurial Activity Review

Mexico last participated in the GEM Adult Population Survey (APS) in 2019, so comparisons can only be made between then and 2022. There is no doubt that the pandemic hit Mexico hard, with three out of four adults reporting that it reduced household income in 2022.

If business intentions had been affected by the pandemic, by 2022 they had almost recovered, with, in 2022, just under one in five adults intending to start a business in the next three years, compared to one in four in 2019. As in 2019, almost one half of adults in Mexico knew someone who had recently started their own business, and more than two-thirds of adults considered themselves to have the skills and experience to do so themselves. The proportion of adults seeing good opportunities to start a business locally in 2022 was more than one in two (56%), slightly down from the 2019 level (63%). Almost half of those seeing good opportunities to start a business would be deterred from doing so by the fear of failure.

The percentage of adults in Mexico starting or running their own business was virtually the same in 2022 as in 2019 (13%), while the proportion of adults running an established business fell slightly from an already low 1.8% to 1.6%. The lack of new businesses being sustained into established ones reflects the lack of resources and support provided by the Mexican entrepreneurial environment.

Four in five of new entrepreneurs agreed with the motivation "to earn a living because jobs are scarce", although more than two out of three also agreed with the motivation "to make a difference in the world", and more than a half with "to continue a family tradition".

The proportion of those starting or running a new business with customers beyond Mexico was around one in ten in 2022, as it had been in 2019. Four out of five of those new entrepreneurs expected to use more digital technology to sell their products in the next six months. Just over one in four anticipated employing another six or more people in five years' time.

Institution	Team	Funders	APS vendor
Lead institution Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)  Tecnológico de Monterrey	Team leader José Ernesto Amorós, PhD José Manuel Aguirre, MSc Team members Elvira Naranjo, PhD Patricia Alonso, PhD Lucía Rodríguez, PhD Marcia Villasana, PhD Margarita Herrera, PhD	Instituto de Emprendimiento Eugenio Garza Lagüera (Tecnológico de Monterrey)	Berumen y Asociados S.A. de C.V. Contact jmaguirre@tec.mx
Type of institution University			
Website https://tec.mx/en			



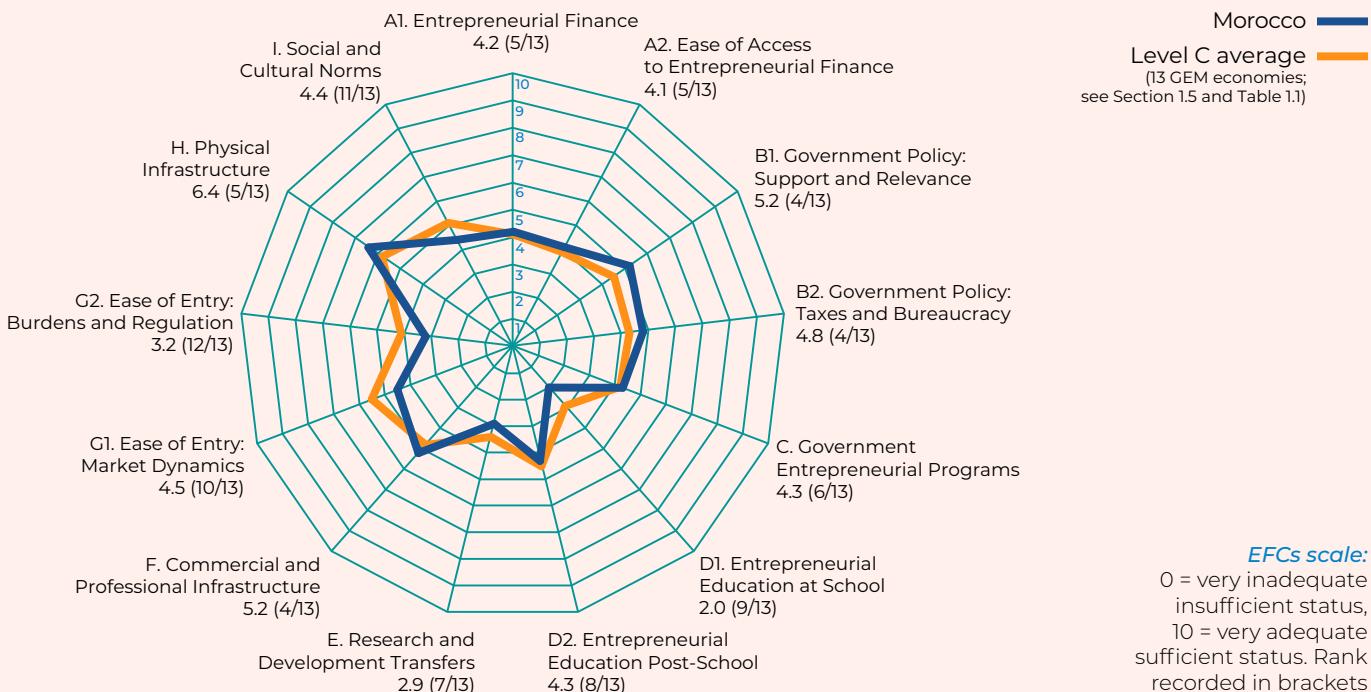
Morocco

■ Population (2021): **37.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **8.1 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	51.6	28	
Good opportunities to start a business in my area	62.5	17	
It is easy to start a business	36.5	36=	To make a difference in the world 13.5 48
Personally have the skills and knowledge	63.3	21	To build great wealth or very high income 61.2 20
Fear of failure (opportunity)	44.4	23	To continue a family tradition 19.5 42
Entrepreneurial intentions*	37.3	11	To earn a living because jobs are scarce 82.5 10
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	1.2	40=	TEA (Total early-stage Entrepreneurial Activity) 4.2 48 3.1 5.4
International (25%+ revenue)	4.0	39	EBO (Established Business Ownership) 4.1 37= 1.5 6.8
Always consider social impact	58.9	46	
Always consider environmental impact	55.6	45=	
Industry (% TEA in business services)	11.8	36	
COVID-19 related		COVID-19 related	
	% Adults	Rank/49	% Adults Rank/49
Pandemic has led household income to decrease**	66.3	11	
Starting a business is more difficult than a year ago	33.6	35	
Use more digital technology to sell products or services	63.4	10	
Pursue new opportunities due to pandemic	32.1	39	

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

With 8% growth in 2021, the Moroccan economy rebounded from the losses of the first year of the pandemic. A series of overlapping shocks, including yet another drought (the third in the last four years), and higher prices for imported energy reduced that growth to just 0.3% in Q1 2022.

Inflation had increased to 8% by August 2022. The government has introduced measures to mitigate its impacts on households and specific sectors, substantially increasing pre-existing subsidies.

New initiatives include FORSA (opportunity in Arabic), combining support and funding with regional and gender equity. The government was exploring ways to unlock the potential of the private sector, including reform of Morocco's large state-owned enterprise system and a review of the investment charter.

2022 Framework Conditions Review

In the pandemic period, Morocco has been making substantial efforts to improve its entrepreneurial environment and there are some indications that those efforts are paying off. In 2020, Morocco's national expert assessments had resulted in an overall National Entrepreneurship Context Index (NECI) score of 3.8, ranking Morocco 39th of 44 economies. By 2021, this score had improved to 3.9, but an increased number of economies, and improving environments elsewhere, meant that Morocco ranked 41st of 50 economies. In 2022, however, improvements across the board meant that Morocco's NECI score was 4.3, placing it 35th out of 51 economies.

In the period 2021 to 2022, Morocco improved in all of its Framework Condition scores except one: Ease of Entry: Burdens and Regulation (the score stayed the same). Of the 12 condition scores that improved, the biggest increases were for the level of Entrepreneurial Finance and for Entrepreneurial Education at School, each important for future entrepreneurial success. These are excellent achievements for a Level C economy, although Ease of Entry: Burdens and Regulation with its unchanged score was perhaps the condition most in need of improving. Among the 51

economies, Morocco ranked 50th for this Framework Condition, its lowest rank by some margin.

2022 Entrepreneurial Activity Review

Around two out of three adults in Morocco in 2022 reported that the pandemic had reduced their household income, which was roughly average for a Level C economy.

Business intentions had risen initially at the onset of the pandemic, but have fallen steadily since then, reaching 37% in 2022, down from 48% in 2020. The percentage of adults actually starting or running a new business has fallen precipitously through the pandemic years, from over 11% in 2019 to little more than 4% in 2022. The level of EBO has also fallen, but not as steeply, from almost 8% in 2019 to just over 4% in 2022. In the year before the pandemic, new start levels had been half as much again as EBO, but by 2022 they were both at virtually the same low level.

Despite these low levels of entrepreneurial activity, around half of Moroccan adults knew someone who had recently started their own business, while more than three in five agreed they had the skills and experience to be able to do the same, or saw good opportunities to be able to do so locally, although, once again, around half of these would be deterred by fear of failure.

Earning a living because jobs are scarce has been the dominant agreed motivation among new entrepreneurs in Morocco since this question was introduced by GEM in 2019, agreed by four out of five in 2022. Both making a difference in the world and continuing a family tradition received relatively little agreement in Morocco.

Nearly two in three new entrepreneurs expected to use more digital technology in the next six months to sell their products, and more than a quarter expected to employ another six or more people in five years' time. Relatively few of these new entrepreneurs had customers outside of Morocco, although that percentage has been increasing recently (from 6% in 2019 to 10% in 2022).

Institution

Lead institution

Entrepreneurship Research Laboratory, Faculty of Law, Economics and Social Sciences
University of Hassan II Casablanca



Type of institution

University

Website

<http://www.entrepreneurship.univcasa.ma>

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Netherlands

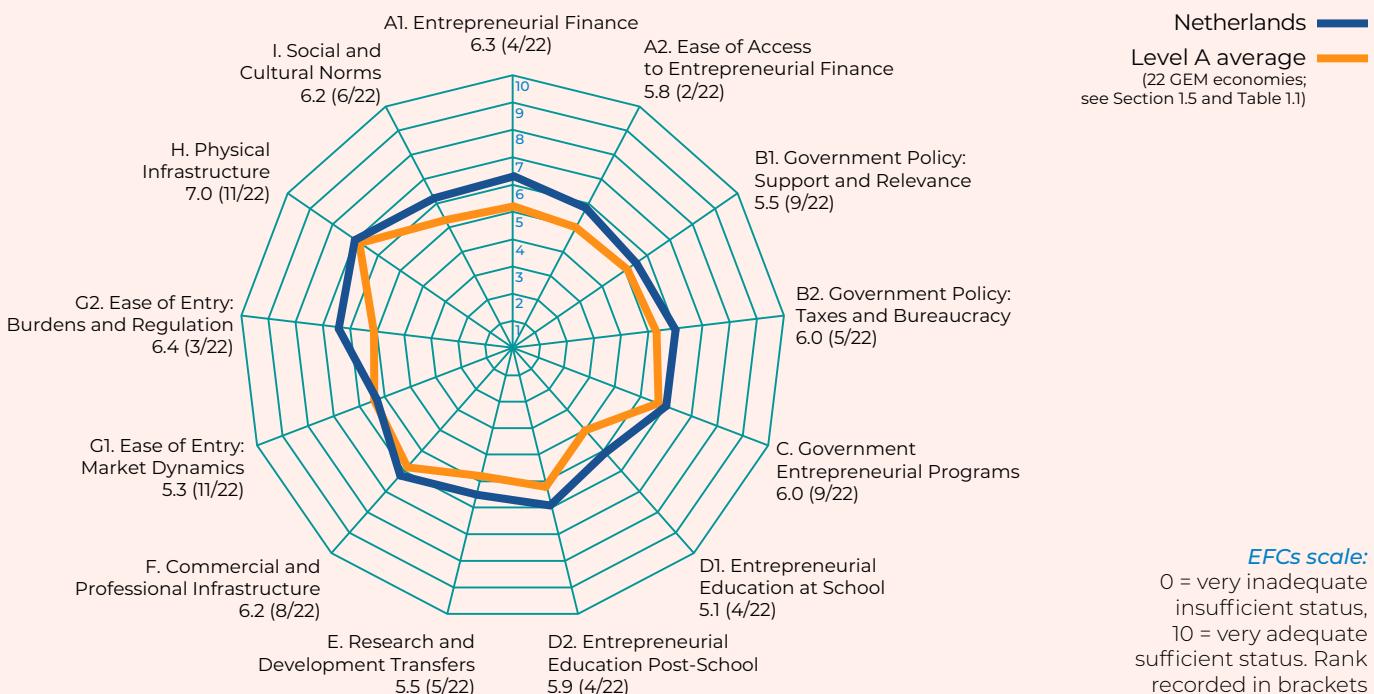
■ Population (2021): **17.5 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **63.8 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	54.5	23	
Good opportunities to start a business in my area	61.6	19	
It is easy to start a business	82.9	2	
Personally have the skills and knowledge	42.2	44	
Fear of failure (opportunity)	33.8	44	
Entrepreneurial intentions*	16.2	25	

Entrepreneurship impact		Activity		% Adults	Rank/49	% Female	% Male
	% Adults	Rank/49		% Adults	Rank/49	% Female	% Male
Job expectations (expecting to employ six or more people in five years' time)	2.5	23=	TEA (Total early-stage Entrepreneurial Activity)	12.5	21	9.6	15.3
International (25%+ revenue)	22.4	7	EBO (Established Business Ownership)	6.8	22=	5.3	8.3
Always consider social impact	67.8	40					
Always consider environmental impact	66.1	41					
Industry (% TEA in business services)	30.8	14					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	23.6	45
Starting a business is more difficult than a year ago	32.6	37
Use more digital technology to sell products or services	38.5	37
Pursue new opportunities due to pandemic	48.1	22

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The economy of the Netherlands grew strongly in 2022, with GDP predicted to have increased by almost 5% over the year. Increasing energy prices pushed inflation above 11%.

2022 Framework Conditions Review

The Netherlands has long had a high-quality environment for entrepreneurship, and that continued in 2022 with the Netherlands being just one of three economies scored as sufficient (≥ 5.0) in all Framework Conditions, alongside the United Arab Emirates and India. However, it saw falls in 12 of the 13 Framework Condition scores compared to 2021. Hence the fall in the National Entrepreneurship Context Index (NECI) score for the overall quality of the Dutch entrepreneurial environment from 6.3 in 2021 to 5.9 in 2022. As a result, the Netherlands dropped from second in the NECI league table to fifth, now closely followed by Switzerland, Indonesia and Lithuania.

The largest falls in Framework Condition scores were for Physical Infrastructure, Government Policy: Taxes and Bureaucracy and for Entrepreneurial Education at School. Framework scores for the Netherlands remain well above the average for Level A economies, except for Government Policy: Support and Relevance. These scores put the Netherlands in the top 15 when ranked by individual framework scores, apart from Ease of Entry: Market Dynamics, where the score ranked 26th.

2022 Entrepreneurial Activity Review

For a high-income economy, the Netherlands continues to have relatively strong levels of entrepreneurial activity, with TEA at 12.5% in 2022, which, although slightly down from the previous year (14.2%), was still above the pre-pandemic level of 10.4% in 2019. In the early stages of the pandemic, the level

of EBO had fallen sharply (from 10.8% in 2019 to 7% in 2020), but has been fairly stable since then (6.8% in 2022). Less than a quarter of adults reported a fall in household income in 2022 due to the pandemic, a relatively low level even among Level A economies. Informal investment actually increased during the pandemic, from 4% of adults investing in someone else's new business in 2019 to 9% in 2020, a level retained since then.

In 2022 more than half of Dutch adults knew a new entrepreneur, and even more saw good opportunities to start a business locally. While confidence in their own skills and experience was relatively low, the proportion of those who see good opportunities but would be deterred by fear of failure was even lower.

Perhaps surprisingly, the level of male entrepreneurship in the Netherlands has remained higher than that of females. In 2022, three men started a new business for every two women doing the same. Pre-pandemic, the entrepreneurial gender gap was much smaller — since then, male TEA has increased faster than female TEA. Less surprisingly for a small country, more than a third of new entrepreneurs reported having customers from abroad, although only two in five of those starting or running a new business expected to use more digital technology to sell their products in the next six months, maybe because levels were already high.

Business intentions have risen during the pandemic years, with nearly one in five adults in the Netherlands intending to start a business in the next three years, up from just one in eight in 2019. No single motivation dominated, with "to make a difference in the world", "to build great wealth or very high income" and "to earn a living because jobs are scarce" each agreed by around two in five new entrepreneurs. Less than one in four agreed they had started a business "to continue a family tradition".

Institution	Team	Funders	APS vendor
Lead institution Panteia  Panteia	Team leader Jacqueline Snijders Team members Paul van der Zeijden Dr Jan de Kok, PhD Martin Clarke Pim Zijlstra	The Ministry of Economic Affairs and Climate Policy of the Netherlands	GDCC and PanelClix
Type of institution Research Institute			Contact j.snijders@panteia.nl
Website https://www.panteia.com			



Norway

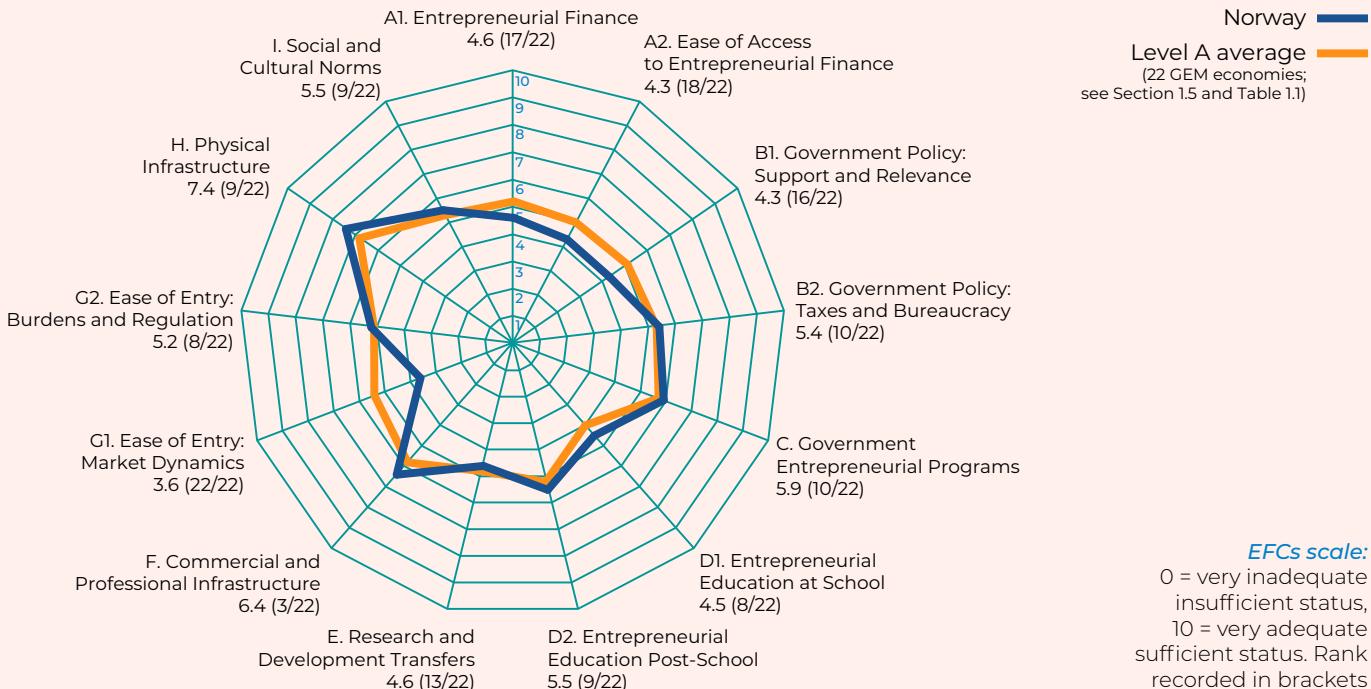
■ Population (2021): **5.4 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **79.2 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	42.6	38	
Good opportunities to start a business in my area	73.6	8	
It is easy to start a business	82.8	3	
Personally have the skills and knowledge	49.2	39	
Fear of failure (opportunity)	41.0	35=	
Entrepreneurial intentions*	5.5	46	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	1.5	35	
	% TEA	Rank/49	
International (25%+ revenue)	11.0	25	
Always consider social impact	48.5	49	
Always consider environmental impact	61.8	43	
Industry (% TEA in business services)	38.7	4	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	8.6	49
	% TEA	Rank/49
Starting a business is more difficult than a year ago	39.1	30
Use more digital technology to sell products or services	47.7	28
Pursue new opportunities due to pandemic	36.0	33

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In 2022, economic activity in Norway was constrained by labour shortages, with unemployment running at less than 2%. Consumption was expected to fall as household purchasing power declines due to inflation and rising interest rates.

Some targeted COVID-19-related support for businesses continued in 2022.

2022 Framework Conditions Review

Norway was rated very highly by its national experts in terms of the quality of its economic recovery from the impacts of COVID-19, scoring 6.9 and being ranked third out of these economies. In terms of entrepreneurial actions in support of the United Nations Sustainable Development Goals, Norway scored slightly lower but was ranked first.

However, and as with Sweden next door, Norway experienced a sharp decline in the quality of its entrepreneurial framework in the period 2021–2022. Scores for 11 of 13 Framework Conditions declined, with the largest falls for Government Policy: Taxes and Bureaucracy; Entrepreneurial Education at School; and Research and Development Transfers. It is not a coincidence that the government has a substantial influence on each of these, as well as on Government Policy: Support and Relevance and Government Entrepreneurial Programs, scores for each of which also fell, albeit not as far. As with Sweden, resources should be an issue, with Norway ranked third of the 51 GEM National Expert Survey (NES) participating economies in 2022 in terms of GDP per capita, behind only Qatar and Luxembourg.

As a result of these declining Framework Condition scores, the overall entrepreneurial environment quality score for Norway, as measured by the National Entrepreneurial Context Index (NECI), fell to 5.2 in 2022, a rank of 14th, having scored 5.7 and ranked 7th just a year earlier.

There are some important questions raised by some of the individual framework scores. For example, how can an economy ranked fifth for the quality of its Commercial and Professional Infrastructure also rank 49th for its Ease of Entry: Market Dynamics? How can such a high-income economy be scored as insufficient (<5.0) on both entrepreneurial finance conditions?

2022 Entrepreneurial Activity Review

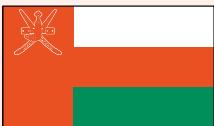
Less than one in 10 adults in Norway reported that their household income had been reduced by the pandemic in 2022, lowest of all the GEM economies by some margin, as it has been since this question was first asked in the GEM Adult Population Survey (APS) in 2020. Despite this, the percentage of Norwegian adults starting or running a new business had more than halved in the early stages of the pandemic, from 8% in 2019 to 3% in 2021, but then more than doubled in 2022 (to 7%). This volatility was reflected in both male and female entrepreneurship, with the relative gender gap of two male entrepreneurs to each female entrepreneur being more or less maintained over this period. The level of EBO has been more stable, although this also declined in the first two years of the pandemic, before recovering in 2022 to a level (6%) that matched that of 2019.

Just over 5% of Norwegian adults had invested in someone else's new business in 2022, while 6% of adults intend to start a business in the next three years, both proportions changing little over the pandemic cycle, and both relatively low, even for a high-income European economy.

As in its Swedish neighbour, half of Norwegian adults considered themselves as having the skills and experience to start their own business, slightly more than those who knew someone who has started a business recently. Again like Sweden, three out of four Norwegian adults saw good opportunities to start a business locally, although just under half of these would be deterred by fear of failure. However, unlike in Sweden, more new entrepreneurs have been finding customers outside of the country, with this proportion rising from 24% to 32% in 2022. More than half of new entrepreneurs expected to use more digital technology in the next six months to sell their products, while one in five were expecting to employ another six or more people in five years' time.

Finally, and despite the pandemic, "to make a difference in the world" remained the dominant agreed motivation among new Norwegian entrepreneurs, as it had been since these questions were first asked in 2019, although the motivation "to build great wealth or very high income" was catching up quickly, having more than doubled in terms of the proportion of new entrepreneurs between 2019 and 2022.

Institution	Team	Funders	APS vendor
Lead institution Nord University Business School  Type of institution University	Team leader Professor Gry Agnete Alsos Team members Marta Lindvert Karin Wigger Sølvi Solvoll Marit Breivik-Meyer Iselin Kristine Mauseth Steira	Innovation Norway The Norwegian Ministry of Trade, Industry, and Fisheries Nord University Business School	Polarfakta AS
Website https://www.nord.no			Contact gry.a.alsos@nord.no



Oman

■ Population (2021): **5.2 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **31.1 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	58.5	19
Good opportunities to start a business in my area	75.7	6
It is easy to start a business	56.5	18
Personally have the skills and knowledge	57.6	25
Fear of failure (opportunity)	33.3	46
Entrepreneurial intentions*	44.3	9

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	32.8	38
To build great wealth or very high income	75.1	11
To continue a family tradition	36.9	13
To earn a living because jobs are scarce	73.2	17

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	11.7	23	11.6	11.8
EBO (Established Business Ownership)	4.1	37=	2.6	5.5

Entrepreneurship impact

% Adults Rank/49

Job expectations (expecting to employ six or more people in five years' time)	1.7	30=
	% TEA	Rank/49
International (25%+ revenue)	7.4	30
Always consider social impact	54.6	48
Always consider environmental impact	48.5	48
Industry (% TEA in business services)	14.4	33

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

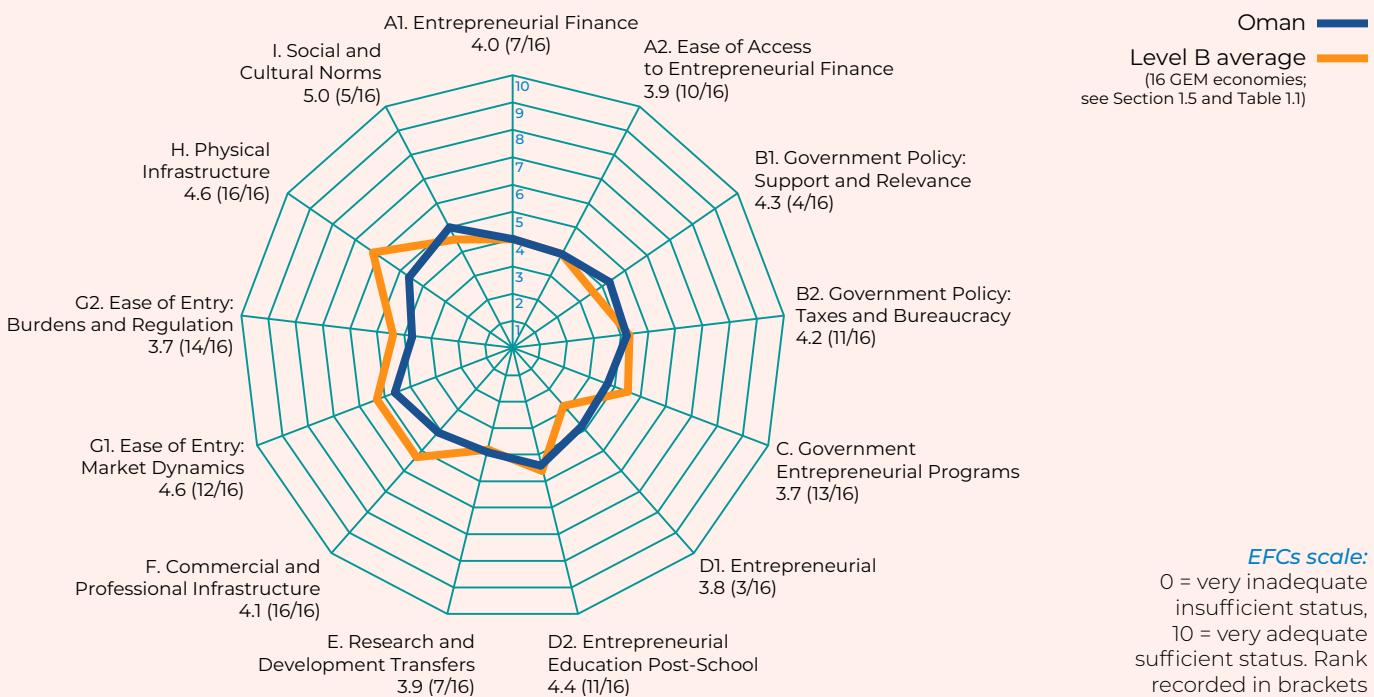
** Those reporting "somewhat decrease" or "strongly decrease".

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	45.5	25
	% TEA	Rank/49
Starting a business is more difficult than a year ago	25.1	45
Use more digital technology to sell products or services	54.7	21
Pursue new opportunities due to pandemic	51.9	14

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Sultanate of Oman government is implementing “Oman Vision 2040”, aiming to diversify the economy and increase the contribution of non-oil sectors. The Oman economy grew by just over 2% in 2021, with inflation low at 1.5%. However, recent increases in prices, especially for raw materials and machinery, are putting pressure on business margins and impacting sales turnover and SME sustainability.

The government has changed the legal framework to support SMEs who have financial claims, or who have defaulted on bank loans, while the SME Development Authority offers financial support through a number of schemes.

2022 Framework Conditions Review

In 2022, the quality of Oman's entrepreneurial environment, as measured by the GEM National Entrepreneurship Context Index (NECI) score derived from the assessments of its own national experts, has improved slightly from the year before, scoring 4.2, less than sufficient (<5.0) and ranked 38th among the 51 GEM economies, but better than 4.1 a year earlier (also ranked 38th). In 2022, just one of 13 Framework Conditions — Social and Cultural Norms — scored as sufficient; and, while six conditions had improved their scores since 2021, seven had lower scores. The largest increase was for Entrepreneurial Education at School, and the largest decrease was for Ease of Entry: Market Dynamics.

As recently as 2020, Oman had an overall quality of entrepreneurial environment score of 5.1, more than sufficient, and was ranked 13th among GEM economies. In that year, seven Framework Conditions were assessed as sufficient, compared to one in 2022. One indication of this change since 2020 could be in the score for recovery from the economic impacts of the pandemic: just 3.9, above only Togo of the 51 economies participating in the GEM National Expert Survey (NES) in 2022. So the pandemic looks to have had a serious negative impact on the Omani entrepreneurial environment.

2022 Entrepreneurial Activity Review

This negative impact is also shown by more than two in five adults reporting that the pandemic had reduced their household income in 2022, a figure

little changed since 2020. This may account for the fall in the percentage of adults in Oman investing in someone else's new business, from 14% in 2019 to 8% in 2022. Over the same period, the proportion of adults intending to start their own business has fallen steadily each year, from almost two in three to less than one in two.

Most people in Oman know someone who has recently started their own business, although the proportion had fallen slightly from seven in 10 in 2019 to six in 10 in 2022. More than half of adults in Oman consider themselves to have the skills and experience to start a business, and three in four see good opportunities to do so locally, while a relatively low one in three of these would be deterred by the fear of failure.

At the start of the pandemic, the percentage of adults actually starting or running a new business more than doubled, from 7% in 2019 to 16% in 2020. It then fell to 13% the following year, and again to 12% in 2022. However, there are gender differences concealed by these averages. Female new entrepreneurship increased sharply between 2019 and 2020, from 6% to 17%, presumably as women sought new incomes or seized new opportunities. This rate then fell back to 12% in 2021 and 2022. Meanwhile, male new entrepreneurship also increased in 2020 but much less quickly, and has since fallen back to more or less match the female rate in 2022.

The level of EBO in Oman is relatively low, at just 4% in 2022, despite having doubled since 2019. So in 2022 there were three new businesses for every established business, implying that the entrepreneurial environment has not been conducive to new businesses transitioning into established ones.

Agreement among new entrepreneurs with the motive “to earn a living because jobs are scarce” is up from a half in 2019 to three in four in 2022, now matching the proportion agreeing with the motive “to build great wealth or very high income”.

A half of new entrepreneurs expect, in the next six months, to use more digital technology to sell their products, while one in seven expect to employ another six or more people in five years' time. Meanwhile, around one in five of those starting new or running new businesses in Oman in 2022 were selling goods or services that were either new to their area, new to Oman or new to the world.

Institution

Lead institution

University of Nizwa



SMEs Development Authority

Type of institution

University
Organization

Website

<http://www.unizwa.edu.om>
<https://www.sme.gov.om/>

Other institutions involved

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Team

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SMEs Development Authority

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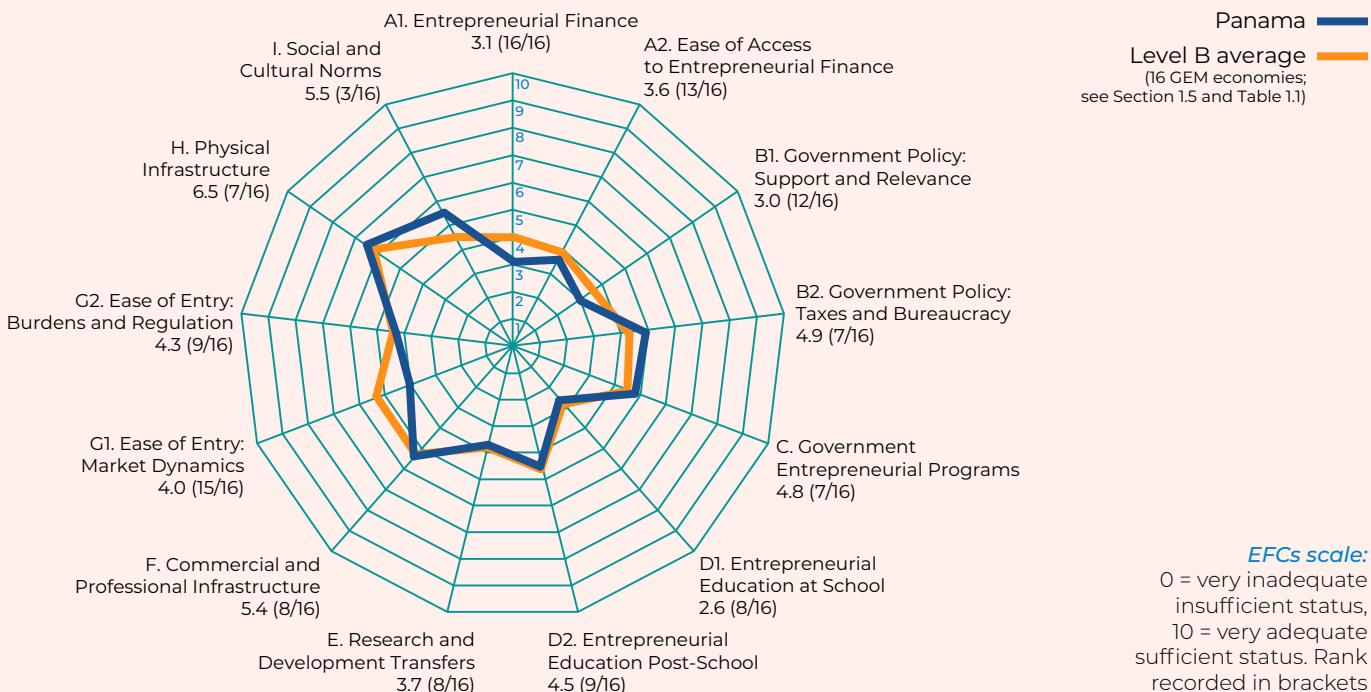
Panama

■ Population (2021): **4.4 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **31.7 thousand** (World Bank)

Attitudes and perceptions			Motivational			
	% Adults	Rank/49	(somewhat or strongly agree)			
Know someone who has started a new business	48.0	30				
Good opportunities to start a business in my area	53.4	27=	To make a difference in the world	68.5	8	
It is easy to start a business	54.2	21	To build great wealth or very high income	59.5	23	
Personally have the skills and knowledge	76.7	7	To continue a family tradition	45.7	7	
Fear of failure (opportunity)	48.3	17	To earn a living because jobs are scarce	85.0	8	
Entrepreneurial intentions*	53.0	1=				
Entrepreneurship impact			Activity			
	% Adults	Rank/49	% Adults	Rank/49	% Female % Male	
Job expectations (expecting to employ six or more people in five years' time)	11.2	2	TEA (Total early-stage Entrepreneurial Activity)	27.9	3	24.6 31.2
International (25%+ revenue)	3.6	41	EBO (Established Business Ownership)	5.8	28	3.7 7.9
Always consider social impact	90.9	2=				
Always consider environmental impact	93.7	1				
Industry (% TEA in business services)	11.5	37				
COVID-19 related						
	% Adults	Rank/49		% Adults	Rank/49	
Pandemic has led household income to decrease**	70.4	9				
Starting a business is more difficult than a year ago	58.1	8				
Use more digital technology to sell products or services	80.3	3				
Pursue new opportunities due to pandemic	61.1	7				

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

After GDP in Panama fell by 18% in 2020 due to the pandemic, recovery has been strong, with a 15% increase in 2021 and 12% growth in the first quarter of 2022. Inflation, running at just 1.5% for consumer prices, has had little impact on entrepreneurship.

Since the implementation of Law 186 in 2021/2022, regulating entrepreneurship, complex legal procedures have been simplified, excessive costs reduced and several tax benefits increased.

2022 Framework Conditions Review

The assessed quality of Panama's overall entrepreneurial framework, as measured by its National Entrepreneurship Context Index (NECI) score, has endured a roller-coaster ride over the pandemic period. It scored 4.0, ranked 44th in 2019, at the onset of the pandemic and increased to 4.2 in 2020, ranked 32nd, before falling to 3.9 in 2021, ranked 42nd, and then surging to 4.3, ranked 34th, in 2022. So both the overall score and ranking were, in 2022, pretty much back to what they had been in 2020.

There is no doubt that Panama's expert-assessed Framework Conditions in 2022 were much improved in 2021, with 12 conditions improving their scores and just one, Ease of Entry: Market Dynamics, falling. These across-the-board improvements were highest for Social and Cultural Norms, Entrepreneurial Education at School and for Government Entrepreneurial Programs. These gains were enough to push both Social and Cultural Norms, and Commercial and Professional Infrastructure, into sufficiency (≥ 5.0), with the former achieving Panama's highest rank of 17th among the 51 GEM economies.

However, there remains much work to be done in Panama, both to consolidate recent improvements and to begin to address some remaining weaknesses. Just how much work can be illustrated by Panama's national experts' score of 3.6 for Ease of Access to Entrepreneurial Finance: not Panama's worst score but by far its lowest rank — 48th of the 51 economies.

2022 Entrepreneurial Activity Review

The proportion of adults in Panama reporting that their household income had been reduced by the pandemic remained high in 2022, at more than

seven in 10, as it has been since this was first asked in the GEM Adult Population Survey (APS) in 2020. Despite the pandemic, the percentage of adults in Panama investing in someone else's business has been increasing in recent years, from just 3% in 2018 to almost 9% in 2022, although this may simply reflect poor returns on alternative investment opportunities. The intention to start a business in the next three years was both high and rising, up from a half of all adults in 2019 to a bit more than this in 2022.

Entrepreneurial confidence was relatively high among adults in Panama, with more than three in four agreeing they have the skills and experience to start their own business. Almost half knew someone who has recently started a business, with a slightly higher proportion seeing good opportunities to start a business locally, although, and once more, a half of these would be deterred by fear of failure.

The percentage of adults starting or running a new business in Panama has fluctuated in recent years, rising at the onset of the pandemic (from 23% to 33% between 2019 and 2020), then falling back (22% in 2021), and finally increasing in 2022 (to 28%). Over the same period, the relative gender gap in entrepreneurship narrowed slightly. In 2019, there were four men starting or running a new business for every three women doing the same. By 2022 this ratio had become five to four. EBO has been more stable than new entrepreneurship, falling a little and then increasing (4.7% in 2019 and 5.8% in 2022).

"To earn a living because jobs are scarce" has been agreed as a motivation by four out of five new entrepreneurs since these questions were introduced by GEM in 2019. "To make a difference in the world" has also been agreed by two-thirds or more over the same period.

The percentage of new entrepreneurs in Panama with customers beyond that country has fallen recently, from 17% in 2020 to 10% in 2022. One way to reach customers elsewhere is through digital technologies: four in five new entrepreneurs expected, in the next six months, to use more digital technology to sell their products. Job expectations were high, with two in five new entrepreneurs expecting to employ an additional six people in five years' time.

Institution

Lead institution

City of Knowledge Foundation



Type of institution

Foundation

Website

<https://ciudaddelsaber.org/en>

Other institutions involved

IESA Management School (Panama Campus)

Team

Team leader

Alejandro Carbonell

Team members

Carla Donalicio
Federico Fernandez Dupouy
Cristina Collazos

Funders

AMPYME

APS vendor

IPSOS

Contact

acarbonell@cdspanama.org



Poland

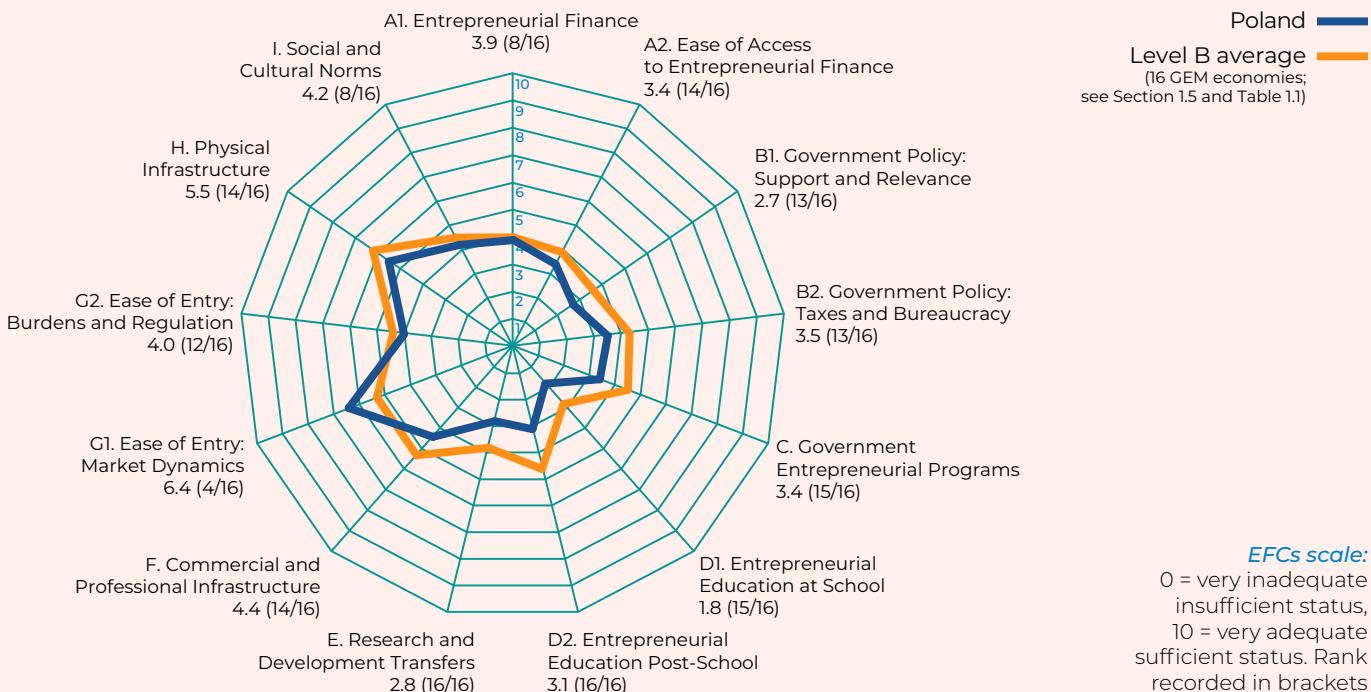
■ Population (2021): **37.8 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **37.5 thousand** (World Bank)

Attitudes and perceptions		% Adults	Rank/49	Motivational	
		(somewhat or strongly agree)		% TEA	Rank/49
Know someone who has started a new business		46.7	36	To make a difference in the world	16.7 46
Good opportunities to start a business in my area		72.3	9	To build great wealth or very high income	47.6 36
It is easy to start a business		79.4	5	To continue a family tradition	14.4 47
Personally have the skills and knowledge		47.8	40	To earn a living because jobs are scarce	73.1 18
Fear of failure (opportunity)		53.1	6		
Entrepreneurial intentions*		2.5	49		

Entrepreneurship impact		% Adults	Rank/49	Activity	
		% Adults	Rank/49	% Adults	Rank/49
Job expectations (expecting to employ six or more people in five years' time)		0.3	49	TEA (Total early-stage Entrepreneurial Activity)	1.6 49 1.6 1.5
International (25%+ revenue)		3.7	40	EBO (Established Business Ownership)	9.8 9 9.6 10.0
Always consider social impact		85.4	11=		
Always consider environmental impact		83.5	16		
Industry (% TEA in business services)		19.5	26=		

COVID-19 related		% Adults	Rank/49
Pandemic has led household income to decrease**		60.8	15
Starting a business is more difficult than a year ago		30.2	39
Use more digital technology to sell products or services		29.1	46
Pursue new opportunities due to pandemic		38.1	31

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In Q3 2022, Poland's economy grew by just under 4%. Higher energy and food prices pushed inflation to 16% in October 2022. The labour market remained robust, with unemployment at an all-time low of 5%. Higher prices and increasing energy costs were the primary concerns of entrepreneurs, some of whom may have been deterred by rising economic uncertainty.

Poland introduced widespread tax reforms in 2022 (the "Polish Deal"), raising tax thresholds and providing some extra incentives for entrepreneurs, including tax reliefs for robotization and for prototypes, as well as relief to encourage Poles to return from abroad.

2022 Framework Conditions Review

Poland continued to score below average for the quality of all its Framework Conditions, apart from Ease of Entry: Market Dynamics, compared to other Level B economies in the 2022 GEM National Expert Survey (NES).. The quality of its entrepreneurial framework actually diminished in 2022, with its score for overall quality in the National Entrepreneurship Context Index (NECI) falling from 4.2 in 2021 (36th) to just 3.8 in 2022 (45th).

This reduction was because of falls in nine of 13 framework condition scores, leaving Poland with just two conditions assessed as sufficient (≥ 5.0): Ease of Entry: Market Dynamics and Physical Infrastructure. Eleven are insufficient, usually by a wide margin. Eight Framework Conditions scored less than four in 2022, compared to five the year before. Government must bear at least some of the responsibility for this deterioration, with both government policy conditions and Government Entrepreneurial Programs having lower scores this year than last. One bright note was slightly higher scores for both educational Framework Conditions.

The expert assessment of the Entrepreneurial Framework Conditions has never been so pessimistic in the 11-year history of collecting GEM data in Poland. Even conditions such as Ease of Access to Entrepreneurial Finance, Government Entrepreneurial Programs, Government Policy: Support and Relevance and Commercial and Professional Infrastructure saw a drop from usually decent scores. Areas that have needed action for years, such as level of Research and Development Transfers as well as Government Policy: Taxes and Bureaucracy, were assessed even lower this year.

These results constitute a red flag for the Polish government and require appropriate strategies,

radical actions and significant investment. However, much of the blame for the falling quality of Poland's entrepreneurial environment can be attributed to the war next door in Ukraine and its repercussions, which appear to have impacted Poland more than Ukraine's other neighbours in the 2022 GEM economies (Hungary, the Slovak Republic and Romania).

2022 Entrepreneurial Activity Review

As in 2021, more than half of Polish adults reported that the pandemic had reduced their household income in 2022, the highest level among European economies participating in the 2022 Adult Population Survey (APS). Perhaps as a result, adults in Poland had very low business intentions, with just under 3% expecting to start a business in the next three years, well below the pre-pandemic level of 8% in 2019.

The percentage of adults starting or running a new business in Poland collapsed at the start of the pandemic, from 5.4% in 2019 to 3% in 2020, and has continued to fall, reaching 1.7% in 2022 as rising tensions and the conflict in next-door Ukraine have compounded the impacts of rising prices and business uncertainty. This in an economy where almost 9% of adults were starting or running a new business just five years ago. EBO had also fallen, though not as sharply: from 12% in 2020 to 10% in 2022. Given the low level of new starts, future falls in the level of established businesses may be likely.

In terms of social perceptions, Poland was little different from its neighbours, or indeed the European average. A half of Polish adults reported knowing a new entrepreneur, and three out of four saw good conditions to start a new business, although more than half would have been deterred from doing so by the fear of failure.

The small number of new entrepreneurs in Poland in 2022 make it very difficult to compare within that group. "To earn a living because jobs are scarce" has become by far the dominant motivation, agreed by almost three-quarters of new entrepreneurs. Relatively few new entrepreneurs in Poland had customers outside of that country, although a significant proportion (three in 10) expected to use more digital technology in the next six months to sell their products. Just one in 10 new entrepreneurs expected to employ another six or more people in five years' time.

Institution

Lead institution

Polish Agency for Enterprise Development (PARP)



Type of institution

Public Body

Website

<https://en.parp.gov.pl>

Other institutions involved

Polish Agency for Enterprise Development

University of Economics in Katowice

Team

Team leader

Anna Tarnawa

Team members

Melanía Nieć
Anna Skowrońska
Paulina Zadura
Robert Zakrzewski
Przemysław Zbierowski

University of Economics in Katowice

APS vendor

Centrum Badań Marketingowych INDICATOR Sp. z o.o.

Contact

anna_tarnawa@parp.gov.pl



Puerto Rico

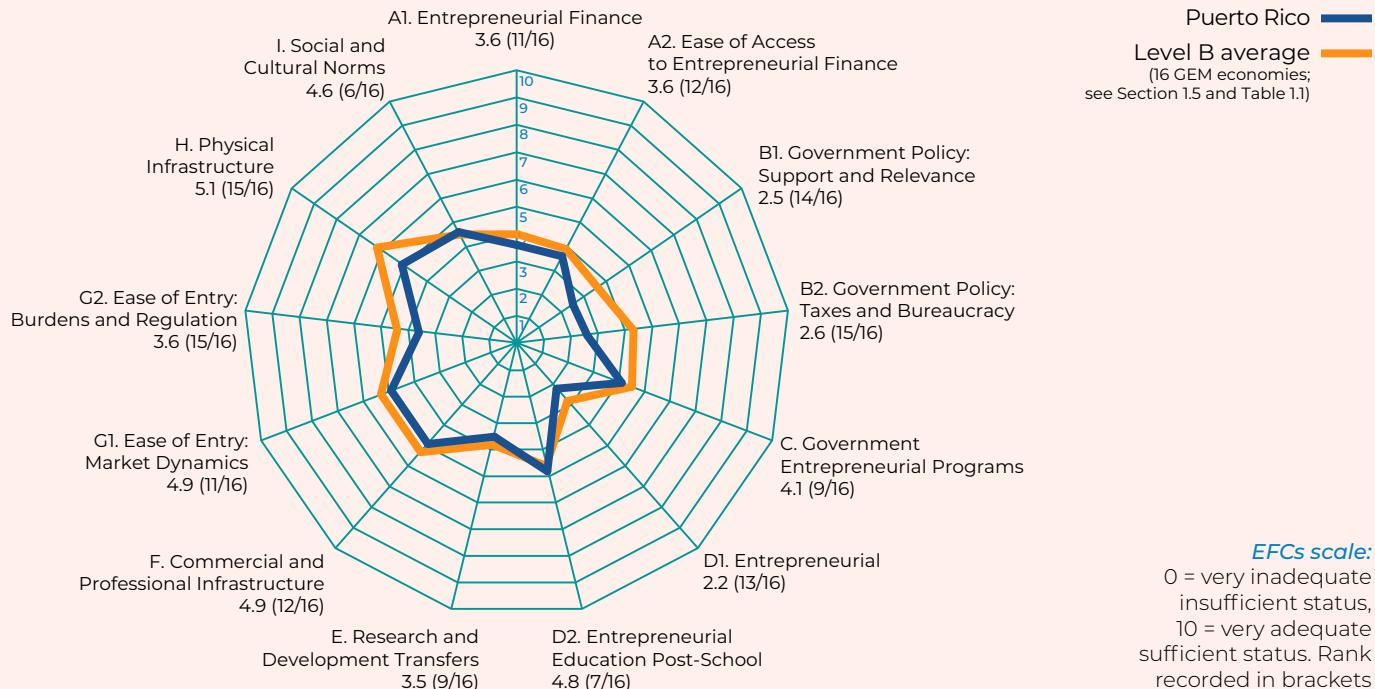
■ Population (2021): **3.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **34.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	66.0	9	
Good opportunities to start a business in my area	64.1	13	
It is easy to start a business	26.7	45	
Personally have the skills and knowledge	68.9	14	
Fear of failure (opportunity)	45.2	21	
Entrepreneurial intentions*	26.3	17	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	6.3	8	TEA (Total early-stage Entrepreneurial Activity)	20.0	8=	17.9	22.3
International (25%+ revenue)	9.5	26	EBO (Established Business Ownership)	5.6	31=	3.4	8.0
Always consider social impact	89.4	6					
Always consider environmental impact	90.3	6					
Industry (% TEA in business services)	22.4	21					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	56.0	20
Starting a business is more difficult than a year ago	55.1	11
Use more digital technology to sell products or services	78.4	5
Pursue new opportunities due to pandemic	66.9	3

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

For the fiscal year to end June 2022, the Puerto Rico economy grew by around 4%, with an unemployment rate of 6% and consumer prices rising a little faster than this. Rising energy costs have added to the already high costs of doing business in Puerto Rico, while changing household consumption patterns in response to rising prices is adding to business uncertainty.

In May 2022, the Department of Economic Development and Commerce (DDEC, in Spanish) unveiled PRopósito ("purpose"), a strategic framework including entrepreneurship as a growth pillar that is intended to create a more competitive entrepreneurial ecosystem by streamlining the permit process and facilitating access to capital programs, incentives and other benefits.

2022 Framework Conditions Review

Puerto Rico did not participate in the 2021 GEM National Expert Survey (NES), so comparisons will mostly be made between 2020 and 2022 results. In terms of the quality of its overall entrepreneurial environment, as assessed by its national experts and as measured by the National Entrepreneurship Context Index (NECI), Puerto Rico has been improving steadily in recent years, from a score of 3.2 in 2019, ranked 53rd of 54 economies, to 3.6 in 2020, 42nd of 44, and then to a score of 3.8, ranked 42nd of 51 economies in the GEM NES in 2022.

However, the entrepreneurial environment in Puerto Rico remains weak, despite those improvements, with 12 of 13 Framework Conditions scored as insufficient (<5.0) in 2022, one more than two years earlier. In that two-year period, eight conditions did improve their scores, including both government policy conditions, both entrepreneurial education conditions and the score for Government Entrepreneurial Programs, which, with the policy changes noted above, provides clear indications that the Puerto Rico government is increasing its commitment to entrepreneurship.

There is much room for continuing improvement, with Puerto Rico still having six conditions ranked in the bottom 10 of the 51 economies. Government Policy: Taxes and Bureaucracy was the lowest, ranked at 49th. Conversely, Puerto Rico had no conditions in the top half of ranks in 2022. Its highest-ranked condition was Social and Cultural Norms at 28th.

2022 Entrepreneurial Activity Review

Puerto Rico last participated in the GEM Adult Population Survey (APS) in 2019, pre-pandemic, so comparisons are limited to then and 2022. Levels of entrepreneurial activity have improved substantially over that period, despite more than half of adults in Puerto Rico reporting that the pandemic had reduced their household income in 2022.

The percentage of adults starting or running a new business in Puerto Rico increased from 13.4% in 2019 to 20% in 2022. The percentage of adults running an established business increased at an even faster rate, from a very low 1.3% in 2019 to a more sustainable 5.6% in 2022, reducing the ratio of adults starting a new business to those running an established one, from an extreme of 10 to one to a still high five to one. Men are more likely than women to be starting a new business, roughly three male starts to every two female ones.

Corresponding to these increases in entrepreneurial activity rates has been improvements in social perceptions. In 2020, two out of three adults knew someone who had recently started a business, having been less than a half in 2019. The share of adults considering themselves to have the skills and experience to start their own business followed a similar pattern, rising from just over a half to almost seven in 10, as did the proportion seeing good opportunities to start a business locally, from just two in five in 2019 to more than three in five in 2022.

In 2019, "to earn a living because jobs are scarce" had been the most commonly agreed motivation among new entrepreneurs in Puerto Rico, agreed by more than four in five, with two-thirds agreeing with "to make a difference in the world". By 2022 this situation had been reversed, with more than seven out of 10 agreeing with making a difference and just under two-thirds with making a living.

Also in 2022, four out of five of those starting or running a new business expected, in the next six months, to use more digital technology to sell their products, while three in 10 expected to employ another six or more people in five years' time, up from a quarter in 2019.

Institution	Team	Funders	APS vendor
Lead institution University of Puerto Rico School of Business, Rio Piedras Campus 	Team leader Theany M. Calderon Abreu Team members Arleen Hernandez Segundo Castro Jairo Arturo Ayala	University of Puerto Rico School of Business, Rio Piedras Campus Banco Popular de Puerto Rico The Department of Economic Development and Commerce	Gaither International theany.calderon1@upr.edu
Type of institution Business School			Contact
Website https://www.uprrp.edu/english/			



Qatar

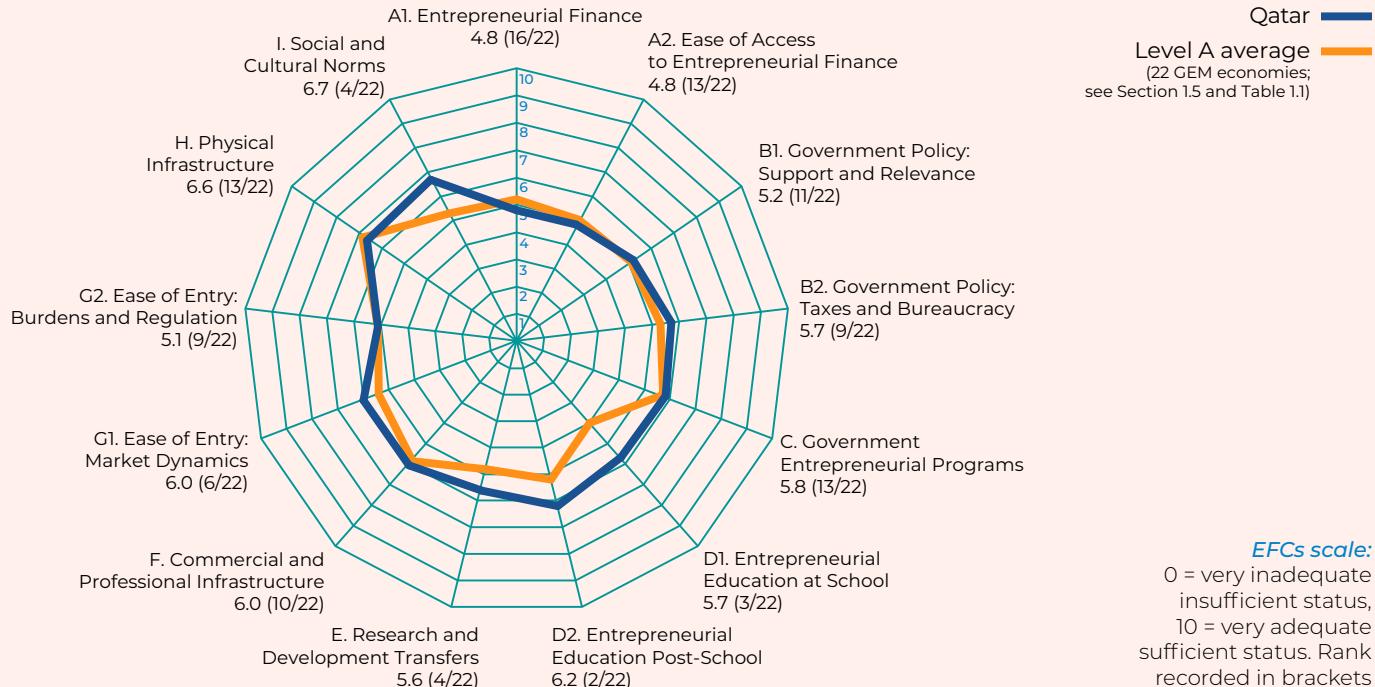
■ Population (2021): **2.9 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **93.5 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	64.2	10	
Good opportunities to start a business in my area	81.0	3	
It is easy to start a business	67.3	11	
Personally have the skills and knowledge	64.1	19	
Fear of failure (opportunity)	43.0	29	
Entrepreneurial intentions*	43.6	10	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	6.2	9	
	% TEA	Rank/49	
International (25%+ revenue)	11.5	23	
Always consider social impact	78.7	22	
Always consider environmental impact	82.7	17	
Industry (% TEA in business services)	27.5	17	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	44.1	28
	% TEA	Rank/49
Starting a business is more difficult than a year ago	36.0	32
Use more digital technology to sell products or services	55.6	18
Pursue new opportunities due to pandemic	60.0	8

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Qatar economy grew by more than 6% in Q2 2022, with consumer prices rising by just under 5% in October 2022, while unemployment was virtually zero in Qatar (0.3%).

2022 Framework Conditions Review

In 2019, pre-pandemic, the quality of Qatar's entrepreneurial environment, as assessed by its experts, was expressed by a National Entrepreneurial Context Index (NECI) score of 5.9, ranking Qatar third among the GEM economies. By 2020 this score had declined to 5.7, with a ranking of eighth, and by 2021 to 5.5, but still ranked eighth. In 2022, Qatar's NECI score jumped back to 5.7. However, improvements in entrepreneurial environments elsewhere meant that this score only placed it 10th out of the 51 GEM economies in 2022.

Qatar's NECI score increase can be attributed to improvements in the assessed quality of seven of the 13 Framework Conditions between 2021 and 2022. The biggest increases were for Social and Cultural Norms, and for Ease of Entry: Market Dynamics, with modest increases elsewhere. Two conditions saw their scores decline slightly — Research and Development Transfers and Physical Infrastructure. Qatar scores very well on both entrepreneurial education conditions (school and post-school stage), each ranked third out of 51 economies, but relatively poorly on both the level of, and access to, entrepreneurial finance. Finally, Qatar's national experts rated its recovery from the economic effects of the pandemic as well sufficient, but firmly in the middle range of GEM economies.

2022 Entrepreneurial Activity Review

The proportion of adults in Qatar reporting that their household income had declined because of the pandemic was 44% in 2022 but lower than a year earlier, when it had been 52%. Informal investments

were also relatively high, with 11% of adults investing in someone else's new business in 2022.

Just under a half of all adults in Qatar intend to start their own business in the next three years, a proportion that has, despite the pandemic, changed little in the last four years. However, the proportion actually doing so is much lower, with just 11% of adults in Qatar starting or running their own business in 2022, well down on the 17% two years earlier. This proportion had increased at the start of the pandemic, having been 15% in 2019, but has fallen year by year since. Women were slightly more likely than men to be starting their own business in Qatar in 2022, as they had been pre-pandemic in 2019. In between, however, the rate of men starting new businesses was much higher than that of women. So at the onset of the pandemic, and in its early days, many more men than women took the opportunity to start their own business. By 2022, virtual parity had been restored.

Two out of three adults in Qatar know someone who has recently started a business, or consider they have the skills and experience to do so themselves. More than four in five see good opportunities to start a business locally, but nearly half of these would be deterred by fear of failure.

"To build great wealth or very high income" has been the most common motivation among new entrepreneurs since this question was introduced by GEM, and was agreed by more than four out of five in 2022. "To continue a family tradition" got some support, agreed by a third.

Almost a quarter of those starting or running a new business have customers outside of Qatar, a proportion that has been fairly stable in recent years. About a half expect, in the next six months, to use more digital technology to sell their products. Job expectations are very strong, with three out of five new entrepreneurs expecting to employ another six or more people in five years' time.

Institution

Lead institution
Qatar Development Bank



Type of institution
Public Body

Website
<https://www.qdb.qa/en>

Team

Team leader
Farha Al Kuwari
Team members
Ahmed Badawy
Mohammed Abughali
Dalal Al Shammari

Funders

Qatar Development Bank (QDB)

APS vendor

Wise Consultancy

Contact

falkuwari@qdb.qa



Republic of Korea

■ Population (2021): **51.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **46.9 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	39.5	41
Good opportunities to start a business in my area	41.0	39
It is easy to start a business	37.4	35
Personally have the skills and knowledge	54.8	27
Fear of failure (opportunity)	18.3	49
Entrepreneurial intentions*	23.9	18

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	8.4	49
To build great wealth or very high income	79.2	7
To continue a family tradition	4.6	49
To earn a living because jobs are scarce	27.1	48

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	11.9	22	8.5	15.2
EBO (Established Business Ownership)	19.9	1	15.3	24.3

COVID-19 related

% Adults Rank/49

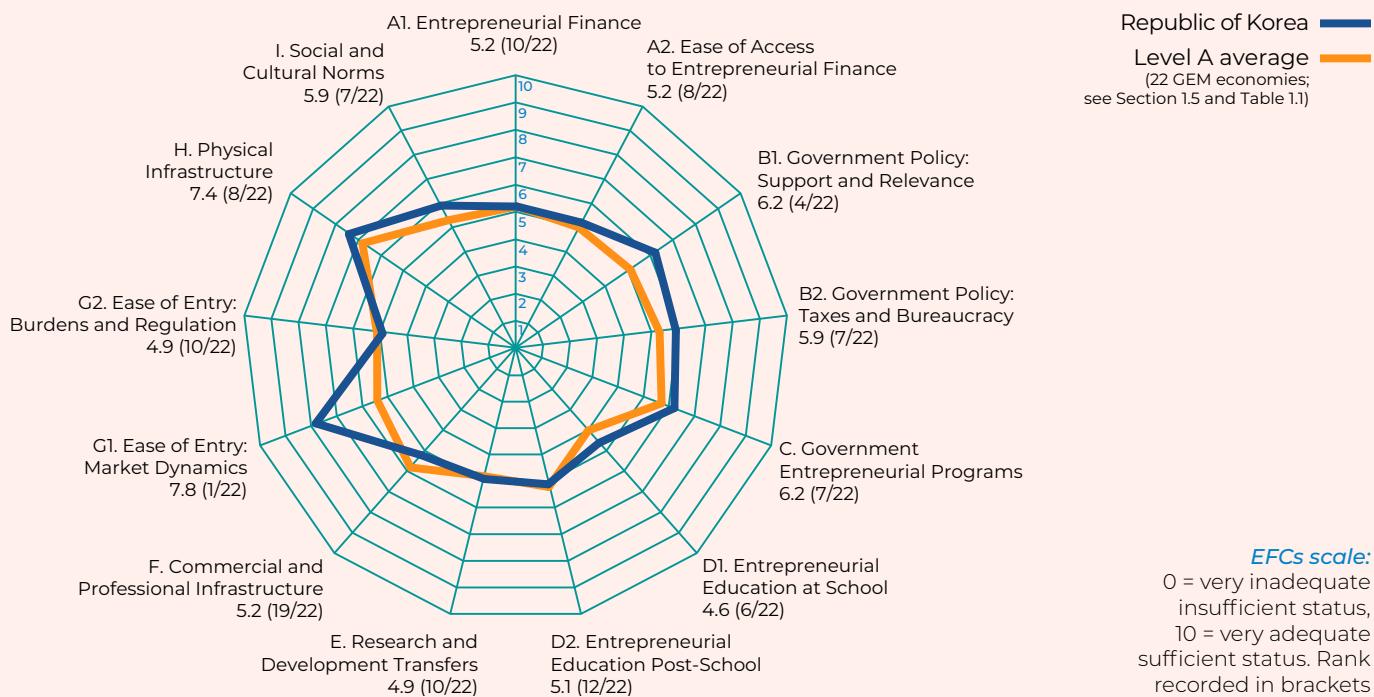
Pandemic has led household income to decrease**	35.0	31
Starting a business is more difficult than a year ago	49.6	19
Use more digital technology to sell products or services	46.4	31
Pursue new opportunities due to pandemic	10.5	49

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In 2021, Korean GDP reached almost \$1,800 billion, with inflation and unemployment both running at less than 3%. However, recent price increases have dampened investor sentiment for late startups, and the venture capital industry is shifting to an investment atmosphere that focuses on fund recovery rather than growth potential.

2022 Framework Conditions Review

The Republic of Korea has a high-quality entrepreneurial environment. In 2022, just three of its 13 Framework Conditions were rated by experts as insufficient (<5.0), and only one (Entrepreneurial Education at School) by a significant margin. In 2022, seven Framework Conditions had improved scores over 2021, while four saw their scores decline, and none by much. In 2022, the Republic of Korea had six Framework Conditions ranked in the top 10 of the 51 economies, and just one in the lower half of ranks: Commercial and Professional Infrastructure.

The Republic of Korea's overall quality of entrepreneurial environment score in 2022, as measured by the National Entrepreneurial Context Index (NECI), was 5.7, ranking it ninth out of the 51 GEM economies. In 2021, its score had been the same, but it ranked one place higher at eighth.

Two of the Korean Framework Conditions were assessed as insufficient in 2022 by the smallest of margins: just a slight improvement could push them into sufficiency. The third, Entrepreneurial Education at School, as in many economies, requires substantial new investment for long-term improvements.

2022 Entrepreneurial Activity Review

The Republic of Korea has felt the economic impacts of the pandemic, with a third of adults reporting that it had reduced their household income in 2022, a proportion little changed in two years. Despite this, in 2022 around a quarter of adults expected to start a

business in the next three years: again, a proportion that has changed little.

Two in five Korean adults knew someone who had started a business, or saw good opportunities locally to do so themselves. Confidence was abundant, with more than half of adults considering themselves as having the skills and experience to start their own. Another indication of that confidence was that less than one in five of those seeing good opportunities locally would be deterred by the fear of failure.

Despite this confidence, the percentage of Korean adults starting or running a new business has fallen slowly through the pandemic to 12% in 2022, having been 15% in 2019. Over the same period, the entrepreneurial gender gap has widened. In 2019 three men were starting a new business for every woman doing the same. Female new entrepreneurship has fallen faster than that of men since, so that by 2022 there were nearly two men starting a business for every woman doing so.

EBO tells a very different story, having risen from 13% in 2019 to 20% in 2022. That story is the exact opposite to nearby China. In 2019 in Korea there was just over one adult running an established business for every adult starting a new business. By 2022, there were almost two adults running an established business for every adult starting a new one.

The Republic of Korea's new entrepreneurs are very consistent in their choice of motivations. In 2022, three times as many Koreans agreed with the motivation "to build great wealth or very high income" over the other motivation options. Building great wealth has been the dominant motivation for new entrepreneurs in the Republic of Korea since this question was introduced by GEM in 2019.

In 2022, around a half of new entrepreneurs in the Republic expect to use more digital technology to sell their products in the next six months, while a third expect to employ an additional six or more people in five years' time. Finally, the percentage of new entrepreneurs with customers beyond the Republic of Korea has been increasing slowly over the pandemic period, from 14% in 2019 to 19% in 2022.

Institution	Team	Funders	APS vendor
Lead institution Korea Institute of Startup & Entrepreneurship Development (KISED)  Type of institution Research Institute	Team leader Yongmun Kim Team members Myoung-jong Lee Min-Wook Noh Dongha Lee Heeju Lim	Ministry of SMEs and Startups	Korea Research & Institute
Website www.kised.or.kr			Contact djnom@kised.or.kr lhj@kised.or.kr



Romania

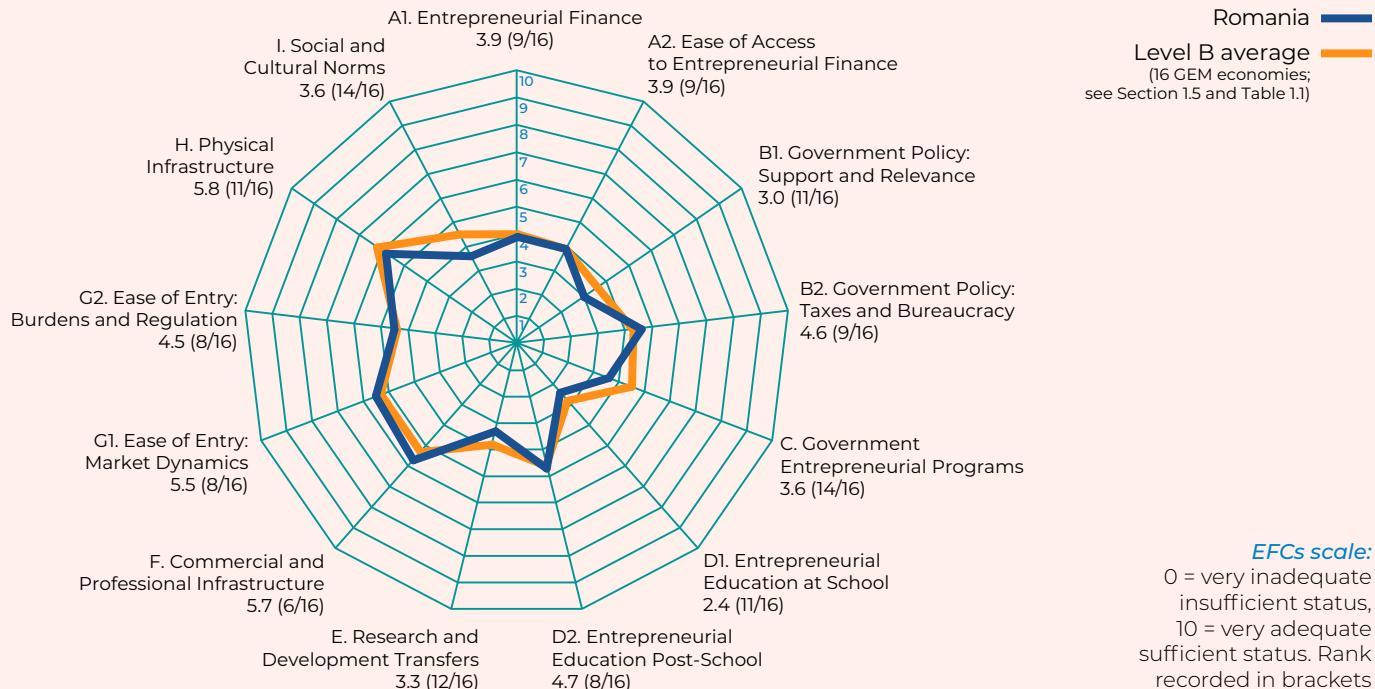
■ Population (2021): **19.1 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **35.4 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	46.2	37	
Good opportunities to start a business in my area	63.8	14	
It is easy to start a business	42.5	31	
Personally have the skills and knowledge	62.7	24	
Fear of failure (opportunity)	55.7	4	
Entrepreneurial intentions*	6.4	43=	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	2.0	28	
	% TEA	Rank/49	
International (25%+ revenue)	13.7	19	
Always consider social impact	88.8	7	
Always consider environmental impact	85.0	13	
Industry (% TEA in business services)	21.2	23	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	33.8	32
	% TEA	Rank/49
Starting a business is more difficult than a year ago	43.9	23
Use more digital technology to sell products or services	38.4	38
Pursue new opportunities due to pandemic	63.0	6

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Romanian economy grew by more than 5% in Q2 2022, but with a downturn anticipated later in the year. The economic environment was burdened by inflationary pressures, with rising costs transmitted into higher consumer prices by resilient demand, especially in the food sector. Inflation, plus changes in the Fiscal Code, have encouraged entrepreneurs to invest in digitization and automation to reduce costs.

2022 Framework Conditions Review

Romania has been improving its entrepreneurial framework recently, with increased scores for seven of 13 Framework Conditions in the period 2021–2022, pushing Romania's overall entrepreneurial environment score in the National Entrepreneurial Context Index (NECI) up to 4.2 from 4.0 a year earlier, with a rise in Romania's relative rank from 40th to 36th. The largest increases were for Entrepreneurial Education Post-School and for Research and Development Transfers, although both remain less than sufficient (<5.0), and for Ease of Entry: Market Dynamics, pushing this score into sufficiency. Romania's other sufficient scores are for its Commercial and Professional Infrastructure and for its Physical Infrastructure, suggesting that the major obstacles to entrepreneurial development in Romania are either financial resources (levels of, and access to, entrepreneurial finance) or are within the purview of the government, including both policies, programs and education.

Entrepreneurship in Romania may now be at a crossroads, with a government that has to decide how it prioritizes enterprise development. It is easy, but mistaken, to regard spending on entrepreneurship education and programs as a current cost rather than as an investment in the future.

2022 Entrepreneurial Activity Review

Like its neighbour Hungary, Romania has only participated in GEM in the last two years. Also like Hungary, Romania shares a border (much longer)

with Ukraine and can be expected to have been significantly impacted by events there. In addition, a third of adults in Romania reported that their household income had fallen in 2022 because of the pandemic.

Perhaps reflecting the instability of the regional situation, the level of TEA fell from 9.7% in 2021 to 8.3% in 2022, although this was largely the result of sharp fall in female entrepreneurship (down from 9.6% to 6.5%), while male entrepreneurship actually rose slightly. Consequently, the entrepreneurial gender gap widened substantially, with three men starting or running a new business for every two women doing the same in Romania in 2022.

In contrast, the level of EBO more than doubled over the same period, from 4.1% to 8.6%, and almost matched the level of TEA. Only 6% of Romanian adults intended to start a business in the next three years, down from 15% a year earlier. Nearly half of Romanian adults knew someone who had recently started a business, so there is no lack of role models, while two-thirds considered they have the skills and experience to start a business themselves, so no lack of confidence. A similar proportion saw good local opportunities to start a business, but well over half of these would be deterred by fear of failure, an increase from the previous year. This is an increasingly common constraint on business intentions, and not just in Romania.

"To make a difference in the world" was the motivation agreed by most new entrepreneurs in 2022, followed by "to build great wealth or very high income". A year earlier, "to earn a living because jobs are scarce" had been the most popular motivation. As in Hungary, the proportion of new entrepreneurs with customers outside the country had increased in the past year, though more modestly in Romania (from 14% to 16%). However, a quarter of new entrepreneurs were expecting to employ six or more additional people in the next five years. Just as positively, the percentage of those starting or running a new business who expected to use more digital technologies to sell their products in the next six months increased from 28% in 2021 to 38% in 2022.

Institution	Team	Funders	APS vendor
Lead institution Faculty of Economics and Business Administration, Babes-Bolyai University  Curine	Team leader Szabó Tünde Petra Team members Dézsi-Benyovszki Annamária Bálint Csaba Györfy Lehel-Zoltán Szász Levente Benedek Botond Csala Dénes	Faculty of Economics and Business Administration, Babes-Bolyai University	Metro Media Transilvania
Type of institution University			Contact petra.szabo@econ.ubbcluj.ro
Website https://econ.ubbcluj.ro/			



Saudi Arabia

■ Population (2021): **35.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **49.6 thousand** (World Bank)

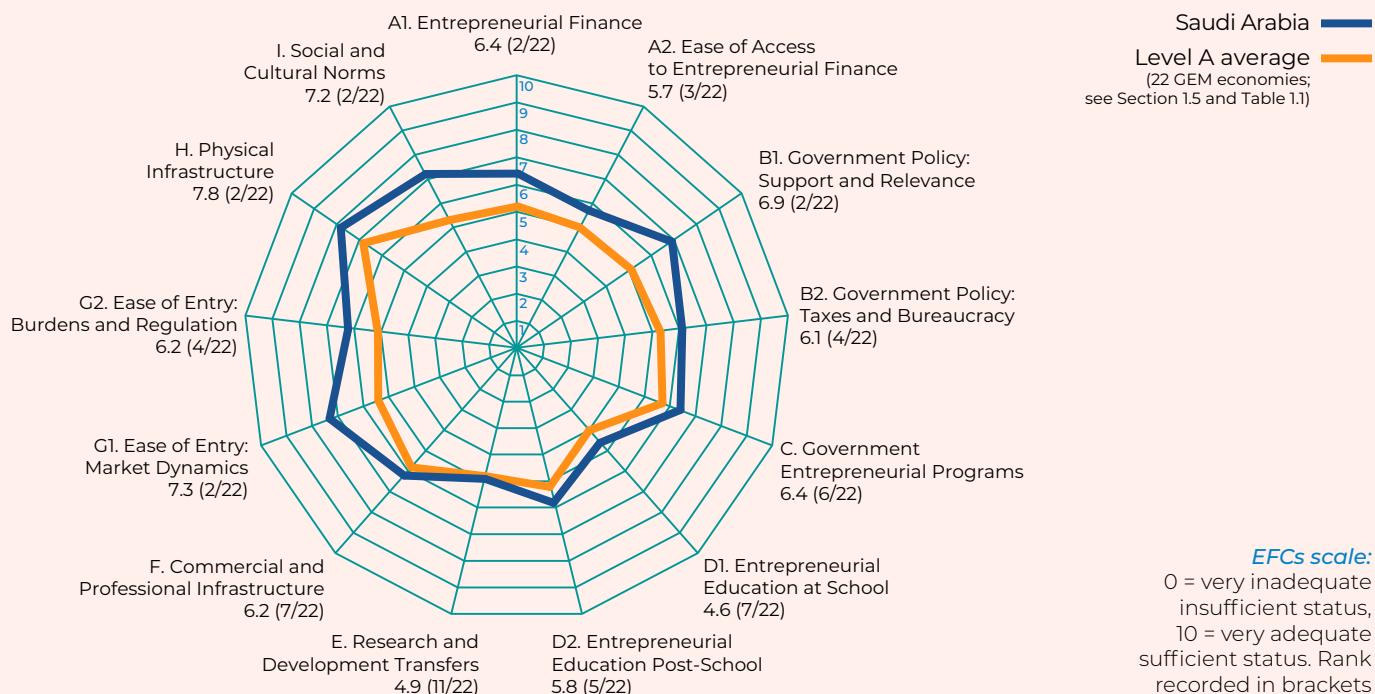
Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	88.2	1			
Good opportunities to start a business in my area	89.5	1	To make a difference in the world	64.6	11
It is easy to start a business	88.7	1	To build great wealth or very high income	87.3	1
Personally have the skills and knowledge	88.1	1	To continue a family tradition	61.9	2
Fear of failure (opportunity)	63.3	1	To earn a living because jobs are scarce	85.2	7
Entrepreneurial intentions*	31.8	14			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female
Job expectations (expecting to employ six or more people in five years' time)	4.5	12	TEA (Total early-stage Entrepreneurial Activity)	19.2	10=
International (25%+ revenue)	5.2	34	EBO (Established Business Ownership)	9.7	10
Always consider social impact	79.5	21			% Male
Always consider environmental impact	82.5	18=	Pandemic has led household income to decrease**	47.9	24
Industry (% TEA in business services)	4.2	47			% TEA
			Starting a business is more difficult than a year ago	15.5	48
			Use more digital technology to sell products or services	62.1	12
			Pursue new opportunities due to pandemic	67.2	2

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The outlook for Saudi Arabia's economy is positive, particularly if the reform process can stay on course and investment keeps flowing into the nation's key initiatives and expansion areas. However, rising costs are squeezing business margins. Government policies have simplified the process of starting a firm and made it simpler for foreign corporations to invest in the economy, two factors that are essential to the kingdom's long-term development ambitions under the Vision 2030.

2022 Framework Conditions Review

Saudi Arabia is a clear example of an economy that has invested heavily in its entrepreneurial environment in recent years and seen that environments improve. The highest-rated condition in Saudi Arabia is in Physical Infrastructure: services and structures that facilitate communication, transportation and other business operations. Also highly rated are Ease of Entry: Market Dynamics — the extent to which there is a free and open market — and Social and Cultural Norms that encourage acceptance, support and high regard for entrepreneurship. Among the lowest-rated, but showing the most improvement, was entrepreneurship education, both at primary- and secondary-school level and in higher education and vocational training.

Compared to the average for the other 21 Level A economies participating in GEM this year, Saudi Arabia has higher rankings on all conditions, especially Government Policy: Support and Relevance. Research and Development Transfers is among the lowest-rated, although close to the average for the Level A economies. This refers to the transfer of research and development from universities and research centres to the business sector and the degree to which engineers and scientists can commercialize research findings. With regard to government efforts to counter the negative effects of COVID-19, the experts had positive comments about government measures and policies in general, specific programs addressing the impact of COVID-19, support for digitalization, subsidies for employment preservation, wage subsidies, deferment of tax liabilities, credit and loan repayment extensions, and financial support.

2022 Entrepreneurial Activity Review

In 2022, compared to 2020, COVID-19 had a less negative impact on business startup activity and this was especially the case in Saudi Arabia. With COVID-19 rates declining and fewer restrictions, business activity has rebounded, and businesses had time to adapt to any lasting changes that had taken place. Additionally, a lower proportion of Established Business Owners were perceiving constraints on growth from the pandemic, compared to 2020.

Societal attitudes are highly positive in Saudi Arabia, with 95% or more of adults stating entrepreneurship is a good career choice, and that entrepreneurs have high status and media attention. Somewhat fewer (89%) state it is easy to start a business — a high percentage nonetheless. A similar amount (88%) know at least one entrepreneur personally, a result that jumped back up after low results the prior two years which were likely due to reduced personal interaction during the pandemic.

Nearly 90% of adults in Saudi Arabia see good opportunities to start a business locally and believe they have the capabilities for entrepreneurship. But fear of failure continues to climb, reaching 57% of those seeing opportunities. Nonetheless, startup intentions are high (32%) and so is TEA (19%). Contributing to these high rates was a jump in startup activity among the youngest age group. This is important, because Saudi Arabia has a young population, with nearly 40% of citizens under 25 years of age.

Most notably, EBO rates increased to 10%. This was a concern in prior years, as EBO had hovered at around 5% or lower, among the lowest in the Level A group. Support for entrepreneurship, and the popularity of this, along with high and increasing startup rates, started to materialize into mature business activity.

Most entrepreneurs in Saudi Arabia start consumer-focused businesses, accounting for 89% of TEA. Similarly, 85% of EBO is in the consumer sector. This is distinct among the Level A economies and is accompanied by low participation in medium- and high-technology industries (less than 2% for TEA and for EBO). This is likely to command increased attention as the Kingdom's 2030 vision emphasizes the creation of jobs, economic opportunities for entrepreneurs and the diversification of the economy.

Institution

Lead institution

Prince Mohammed bin Salman College (MBS) 

Babson Global Center for Entrepreneurial Leadership (BGCEL)



Type of institution

Business School

Website

<https://www.mbsc.edu.sa>

Other institutions involved

Emaar The Economic City

Team

Team leader

Prof. Muhammad Azam Roomi, PhD
David Abdow

Team members

Alicia Coduras
Kim Stanhouse
Donna Kelley

Funders

The Babson Global Center for Entrepreneurial Leadership (BGCEL) at MBS

APS vendor

Field Interactive-MR, Market Research Provider, monitored by Opinometre Institute LLS

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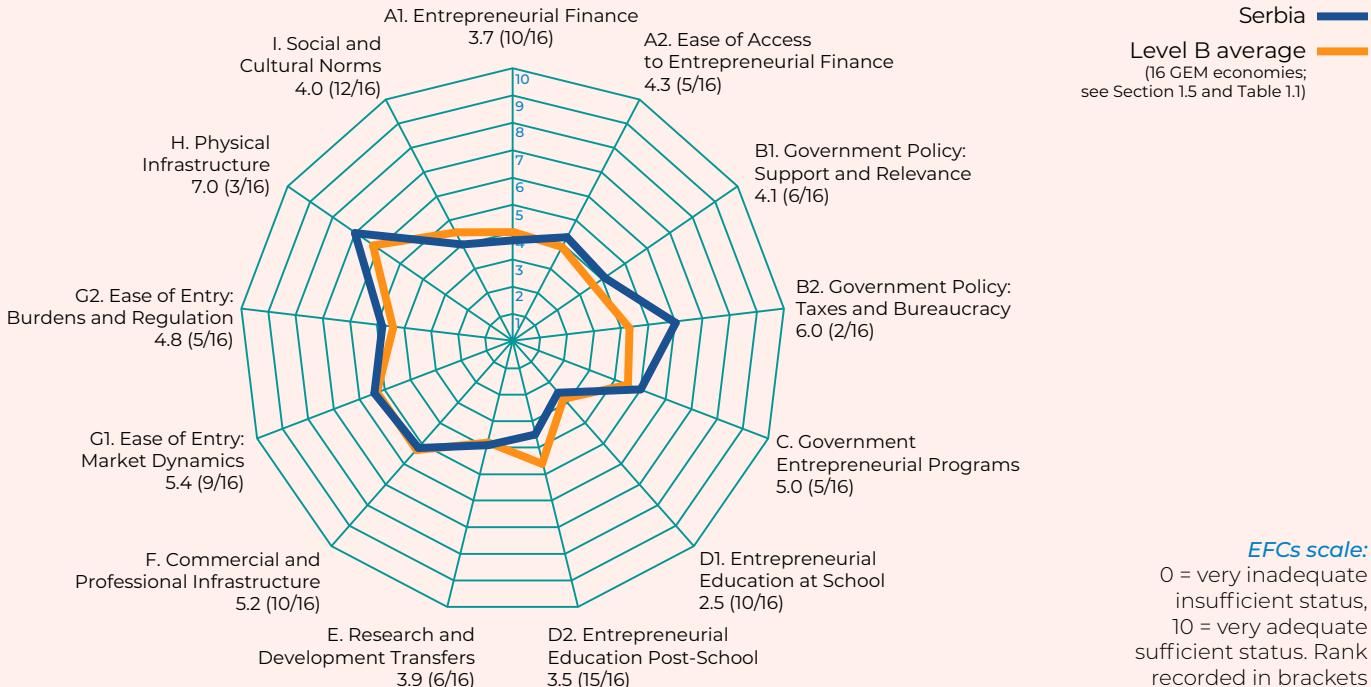


Serbia

■ Population (2021): **6.8 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **21.4 thousand** (World Bank)

Attitudes and perceptions			Motivational		
	% Adults	Rank/49	(somewhat or strongly agree)		
Know someone who has started a new business	54.6	22			
Good opportunities to start a business in my area	37.8	42	To make a difference in the world	21.6	45
It is easy to start a business	32.7	40	To build great wealth or very high income	43.4	41
Personally have the skills and knowledge	66.1	18	To continue a family tradition	22.6	37=
Fear of failure (opportunity)	41.3	34	To earn a living because jobs are scarce	81.0	13
Entrepreneurial intentions*	12.4	34			
Entrepreneurship impact			Activity		
	% Adults	Rank/49	% Adults	Rank/49	% Female
Job expectations (expecting to employ six or more people in five years' time)	1.3	36=	TEA (Total early-stage Entrepreneurial Activity)	10.5	27
International (25%+ revenue)	7.9	29	EBO (Established Business Ownership)	2.9	44=
Always consider social impact	74.0	27			% Male
Always consider environmental impact	78.3	22	Pandemic has led household income to decrease**	50.2	22
Industry (% TEA in business services)	13.6	34=			
An equals sign (=) indicates that the ranking position is tied with another economy or economies.			COVID-19 related		
* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.			% Adults		
** Those reporting "somewhat decrease" or "strongly decrease".			Rank/49		
			Starting a business is more difficult than a year ago		
			Use more digital technology to sell products or services		
			Pursue new opportunities due to pandemic		

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In a year characterized by the global energy crisis and the ongoing conflict in Ukraine, Serbia experienced a record-high level of direct foreign investments - in 2022, the amount invested by foreign companies and individuals exceeded four billion EUR. GDP growth forecast for 2023 is between 2.5 and 3%. The inflation rate in 2022 was over 15%. This has greatly impacted entrepreneurs in the country as the costs of inputs increase, including borrowing costs.

Over the past decade, the Serbian Government has worked to steadily improve the entrepreneurship ecosystem, including a range of programs of the Serbia Innovation Fund.

2022 Framework Conditions Review

In 2022 Serbia's National Entrepreneurial Context Index (NECI) score for the overall quality of its entrepreneurial environment was 4.6, almost exactly in the middle of the 51 GEM economies, being ranked 27th. In the assessments of its individual framework scores, Serbia was scored by its national experts as sufficient (≥ 5.0) in five conditions and insufficient in the remaining eight. Serbia's lowest scores were for entrepreneurial education, both in schools and post-school, and for the level of entrepreneurial finance. The former is an obvious opportunity for the Serbian government to improve its entrepreneurial environment, while the latter may encourage those Serbians starting a business to look beyond conventional sources of finance.

More positively, Serbia scored relatively well for its Government Entrepreneurial Programs and for its Physical Infrastructure. Both of these are good foundations for an entrepreneurial future. Serbia also scored fairly highly in its experts' assessment of recovery from the economic impacts of the pandemic.

2022 Entrepreneurial Activity Review

One in two adults in Serbia reported that the pandemic had reduced their household income in 2022, just about in the middle of the Level B economies. Investing in someone else's new

business was a rare activity in Serbia, undertaken by just 3% of adults, one of the lowest levels among the economies surveyed by GEM.

Fewer than one in eight adults in Serbia expected to start a business in the next three years, the second-lowest rate among Level B economies, just above Hungary, and fourth lowest of the GEM economies behind Japan and South Africa as well. On most other indicators, Serbia was close to the middle of the GEM economies.

More than half of Serbian adults knew someone who had recently started a new business, and two-thirds considered themselves as having the skills and experience to do the same. A similar proportion saw good opportunities to start a business locally, although two in five of these would be deterred by fear of failure.

The percentage of adults starting or running a new business in Serbia was 10.5% in 2022, although male new entrepreneurship was higher at 14.7% and female new entrepreneurship lower at 6.4%, meaning that there were more than two Serbian men starting a new business for every woman doing the same. Meanwhile, EBO was relatively low at just under 3%, implying a ratio of more than three people starting a new business for every one running an established one. Turning those new into established businesses will be a major challenge for the Serbian entrepreneurial environment.

Making a living because jobs are scarce was by far the most common agreed motive among new entrepreneurs, with more than four out of five in agreement. The next highest was building great wealth or very high income, with just two in five agreeing.

Fewer than one in five of Serbia's new entrepreneurs had customers beyond its borders, a figure that is unlikely to improve given that just one in three expected to use more digital technology to sell their products in the next six months. This was the second lowest proportion of the Level B economies, and seventh lowest of the 51 economies in GEM in 2022. One in eight of those starting or running a new business in Serbia expected to employ another six or more people in the next three years.

Institution

Lead institution

University of Novi Sad, Faculty of Technical Sciences



Type of institution

University

Website

<https://www.uns.ac.rs/index.php/en/faculties/ffaculties/faculty-technical-sciences>

Team

Team leader

Ugljesa Marjanovic

Team members

Igor Graić

Bojan Lalić

Funders

Government of Serbia

European Union

World Bank

APS vendor

IPSOS

Contact

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Slovak Republic

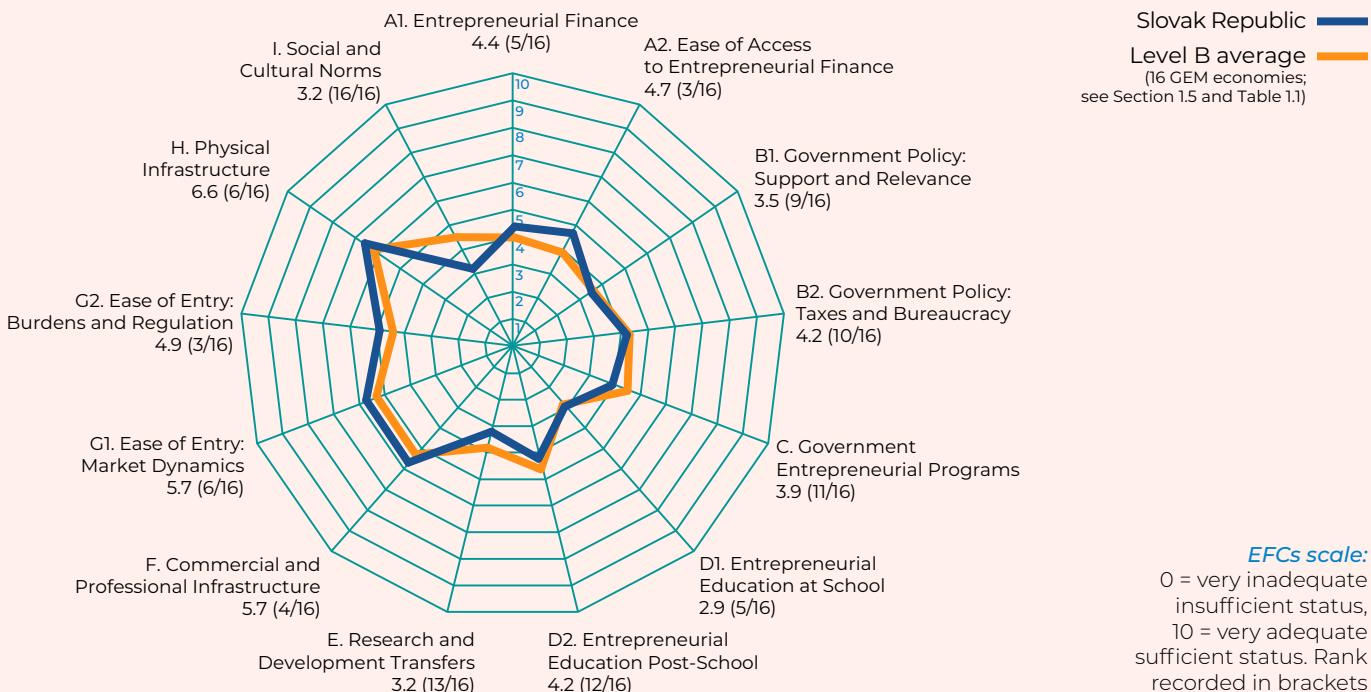
■ Population (2021): **5.4 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **33.0 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	59.3	16	
Good opportunities to start a business in my area	29.4	45	
It is easy to start a business	20.4	48	
Personally have the skills and knowledge	42.9	43	
Fear of failure (opportunity)	42.9	30=	
Entrepreneurial intentions*	8.6	39	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	0.7	47	TEA (Total early-stage Entrepreneurial Activity)	10.7	25=	9.5	11.9
International (25%+ revenue)	14.0	18	EBO (Established Business Ownership)	6.6	24	4.0	9.1
Always consider social impact	71.1	34					
Always consider environmental impact	70.7	34					
Industry (% TEA in business services)	22.6	20					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	56.6	19
Starting a business is more difficult than a year ago	9.3	49
Use more digital technology to sell products or services	34.0	42
Pursue new opportunities due to pandemic	32.6	38

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The war in Ukraine and the global energy crisis reduced economic growth in the Slovak Republic to just under 2% in 2022, with inflation at around 16%. Rising business costs have led to more indebtedness and liquidity problems, contributing to pessimism that is expected to reduce business activity.

2022 Framework Conditions Review

According to the assessments of its own national experts, the Slovak Republic's entrepreneurial environment is improving slowly, but remains fairly weak on a number of fronts. Five conditions within the National Entrepreneurship Context Index (NECI) were assessed as poor (score <4.0) in 2022: Government Policy: Support and Relevance, Government Entrepreneurial Programs, Research and Development Transfers, Social and Cultural Norms and Entrepreneurial Education at School. Government is influential in each of these, and could do much more to support entrepreneurship, encourage people to start a business and celebrate successful entrepreneurs. While both scores of the government policy conditions improved in 2022, each is still some way from sufficiency.

Another improved area in 2022 were the two ease of entry conditions, while access to commercial and professional services also improved. Both education and entrepreneurial finance experiences were mixed, with improving scores for Ease of Access to Entrepreneurial Finance, but decreasing availability of that finance. Similarly, assessed entrepreneurial education in schools improved, but post-school declined.

One consequence of these changes is that the overall assessed quality of the entrepreneurial environment in the Slovak Republic, as measured by its NECI score, improved from 4.3 in 2021 (ranked 33rd) to 4.4 in 2022 (ranked 31st). One influence may have been the Slovak Republic's handling of the response to the economic effects of the pandemic, rated by its experts as more than sufficient.

2022 Entrepreneurial Activity Review

The Slovak Republic has been heavily affected by the pandemic, with more than half of adults reporting that the it had reduced their household income in 2022, a proportion little changed since 2020. As in many GEM participating economies, the percentage of adults investing in someone else's new business fell in the early days of the pandemic but has recovered strongly, reaching one in 10 in 2022 (having been one in eight in 2019). One influence may be the shortage of entrepreneurial finance from other sources, noted earlier.

Business intentions also fell in those early days of the pandemic (from 20% in 2019 to 8% in 2021), but have yet to recover fully, reaching just 9% in 2022. The percentage of adults actually starting or running their own business in the Slovak Republic more than halved as the impacts of the pandemic deepened (from 14% in 2020 to 6% in 2021), but has since increased to 11%, despite events next door in Ukraine. In the process, the absolute entrepreneurial gender gap has fallen, from six percentage points in 2019 to just two in 2022. The level of EBO has been more stable, increasing slightly at the start of the pandemic and hovering at around 6.5% since.

Social perceptions in the Slovak Republic presented a mixed picture in 2022, with six in 10 knowing someone who has recently started a business, four in 10 agreeing they have the skills and experience to start their own, but just three in 10 seeing good opportunities to start a business locally.

"To earn a living because jobs are scarce" has been by far the dominant agreed motivation for new entrepreneurs in the Slovak Republic since these questions were introduced by GEM in 2019, with four out of five agreeing in 2022. Agreement with the motivation "to make a difference in the world" has declined from four out of 10 new entrepreneurs in 2019 to three out of 10 in 2022.

In the year to 2022, the proportion of those starting or running a new business who, in the next six months, intend to use more digital technology to sell their products doubled, from one in six to one in three. However, the percentage of new entrepreneurs who expect to employ another six or more people in five years' time has fallen sharply, from 29% in 2020 to just 6% in 2022.

Institution	Type of institution	Team	Funders
Lead institution Comenius University in Bratislava, Faculty of Management 	Type of institution University Website https://www.fm.uniba.sk/en	Team leader Prof. Ing. Anna Pilková, PhD, MBA Team members Assoc. Prof. Marian Holienka, PhD RNDr. Zuzana Kovačičová, PhD Mgr. Juraj Mikuš, PhD Mgr. Ján Rehák, PhD	Slovak Business Agency (SBA) Comenius University in Bratislava, Faculty of Management
Other institutions involved Slovak Business Agency (SBA)		APS vendor Actly s. r. o.	
		Contact anna.pilkova@fm.uniba.sk	



Slovenia

■ Population (2021): **2.1 million** (IMF)
 ■ GDP per capita (2021; PPP, International \$): **43.6 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	53.5	24
Good opportunities to start a business in my area	55.0	26
It is easy to start a business	67.7	9=
Personally have the skills and knowledge	62.8	22=
Fear of failure (opportunity)	50.2	13
Entrepreneurial intentions*	15.3	27

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	50.2	22
To build great wealth or very high income	57.0	24
To continue a family tradition	29.8	24
To earn a living because jobs are scarce	57.4	36

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	8.0	37	5.6	10.3
EBO (Established Business Ownership)	8.1	18	6.2	9.8

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	24.9	44
Starting a business is more difficult than a year ago	21.9	47
Use more digital technology to sell products or services	52.4	25
Pursue new opportunities due to pandemic	48.5	21

Entrepreneurship impact

% Adults Rank/49

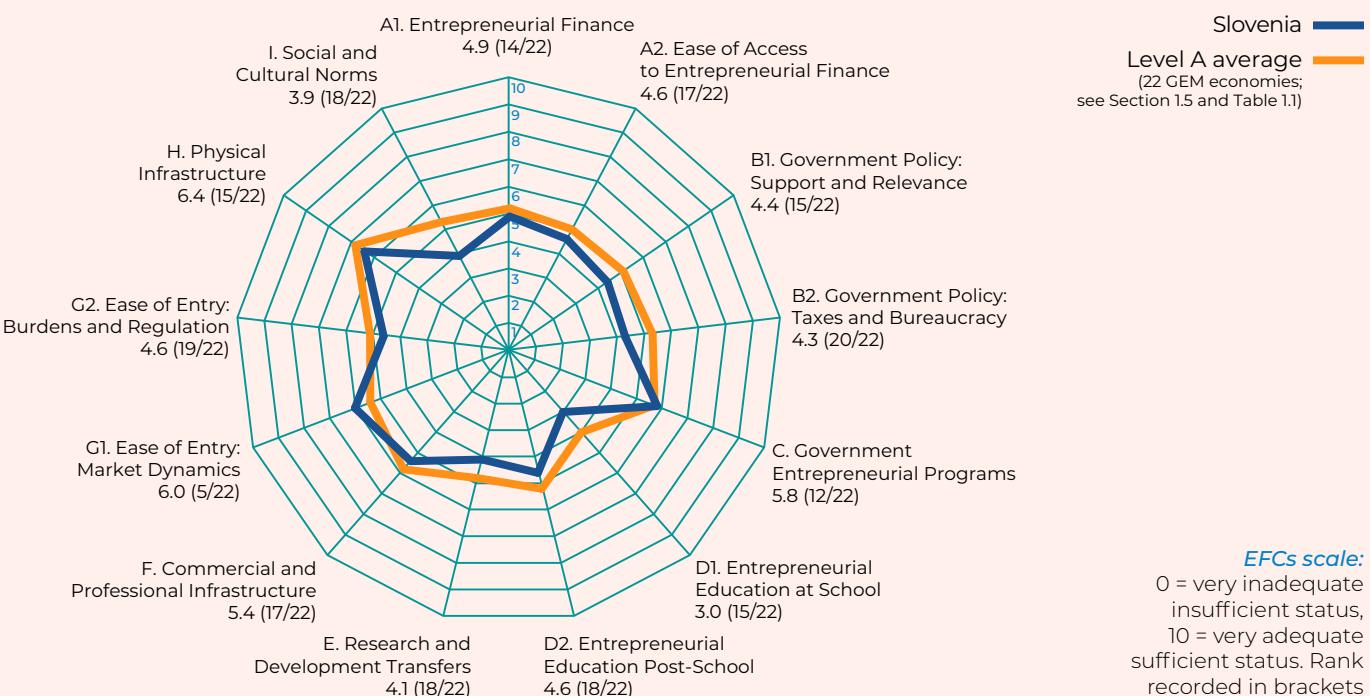
Job expectations (expecting to employ six or more people in five years' time)	1.3	36=
	% TEA	Rank/49
International (25%+ revenue)	24.0	5
Always consider social impact	83.4	17
Always consider environmental impact	93.0	3
Industry (% TEA in business services)	35.7	7

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Economic growth reached 5% in Slovenia in 2022, but was expected to slow in 2023. Employment continued to increase, and unemployment fell, while inflation was expected to touch 10% by the end of 2022.

Economic recovery from the pandemic has combined with higher energy costs to push up prices, although some of the effects on inflation have been mitigated by government actions to reduce taxes on electricity and energy products. Entrepreneurs face shortages of labour, putting upward pressure on wages. Confidence indicators have declined following the war in Ukraine.

In March 2022, an amendment to the Investment Promotion Act came into effect to help businesses adapt to the demands of the green transformation without losing international competitiveness. The law also provides incentives for investment in research, development and innovation.

2022 Framework Conditions Review

Like its neighbours Croatia and Hungary, Slovenia has been gradually improving its entrepreneurial environment. While it still had a large number of Framework Conditions regarded by its national experts as insufficient (<5.0) (nine in 2022, the same as in 2021), many of those conditions had moved a lot closer to sufficiency by 2022. The ratings by national experts improved for 11 of the 13 Entrepreneurial Framework Conditions in 2022, with one unchanged and one declining (Commercial and Professional Infrastructure, and not by much). In 2021, five conditions scored as much less than sufficient (>4.0). By 2022 this fell to just two. The biggest improvements were for Ease of Access to Entrepreneurial Finance, Entrepreneurial Education at School, Social and Cultural Norms and Government Entrepreneurial Programs.

One consequence of all these changes is that the overall National Entrepreneurship Context Index (NECI) score for Slovenia's entrepreneurial environment improved from 4.3 in 2021, when Slovenia had ranked 32nd of the GEM economies, to 4.8 in 2022, or 23rd. For the individual Framework Conditions, Slovenia's best rank in 2022 was for Ease of Access to Entrepreneurial

Finance (14th of the 51 GEM economies), while the lowest was 43rd for Social and Cultural Norms.

2022 Entrepreneurial Activity Review

The percentage of adults in Slovenia reporting that the pandemic reduced household income continues to fall: from 45% in 2020, to 34% a year later and to 25% in 2022. Under one in five adults intend to start a business in the next three years. While this share had fallen at the onset of the pandemic, it since recovered strongly, and was only slightly lower in 2022 than in 2019.

More than half of adults in Slovenia knew an entrepreneur, or saw good opportunities to start a business locally, although half of the latter would be deterred by fear of failure. Confidence in one's own abilities was high, with three out of five adults agreeing they had the skills or experience to start a business themselves.

Both the percentage of adults starting and running a new business, and of those running an established business, fell slightly at the start of the pandemic but had largely recovered, the former from 7.8% in 2019 and 6.0% in 2020 to 8.0% in 2022, and the latter from 8.5% in 2019 and 7.0% in 2020 to 8.1% in 2022. Men were more likely than women to be starting a business in Slovenia in 2022, with around seven men starting a new business for every four women doing the same.

Each of the three motives "to earn a living because jobs are scarce", "to build great wealth or very high income" and "to make a difference in the world", were agreed by just over half of all new entrepreneurs in Slovenia in 2022. Meanwhile, the share of new entrepreneurs with customers beyond Slovenia was both relatively high and rising: from one in three in 2020 to just under one-half in 2022.

However, job expectations among new entrepreneurs have been declining. In 2020, 30% of those starting or running a new business had expected to employ another six people or more in five years' time. One year later this had fallen to 22% and then fell further to 17% in 2022. More optimistically, more than a half of new entrepreneurs expect to use more digital technology to sell their products in the next six months.

Institution	Team	Funders	APS vendor
Lead institution University of Maribor, Faculty of Economics and Business  Faculty of Economics and Business	Team leader Prof. Karin Širec, PhD Team members Prof. Polona Tominc, PhD Prof. Katja Crnogaj, PhD Prof. Barbara Bradač Hojnik, PhD Matej Rus, MSc Prof. Emeritus Miroslav Rebernik, PhD 	SPIRIT Slovenia — Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology Slovenian Research Agency Institute for Entrepreneurship and Small Business Management at Faculty of Economics & Business, University of Maribor	Mediana
Type of institution University			Contact karin.sirec@um.si
Website https://www.um.si/en https://www.epf.um.si/en/ https://ipmmp.um.si/globalni-podjetniški-monitor/			



South Africa

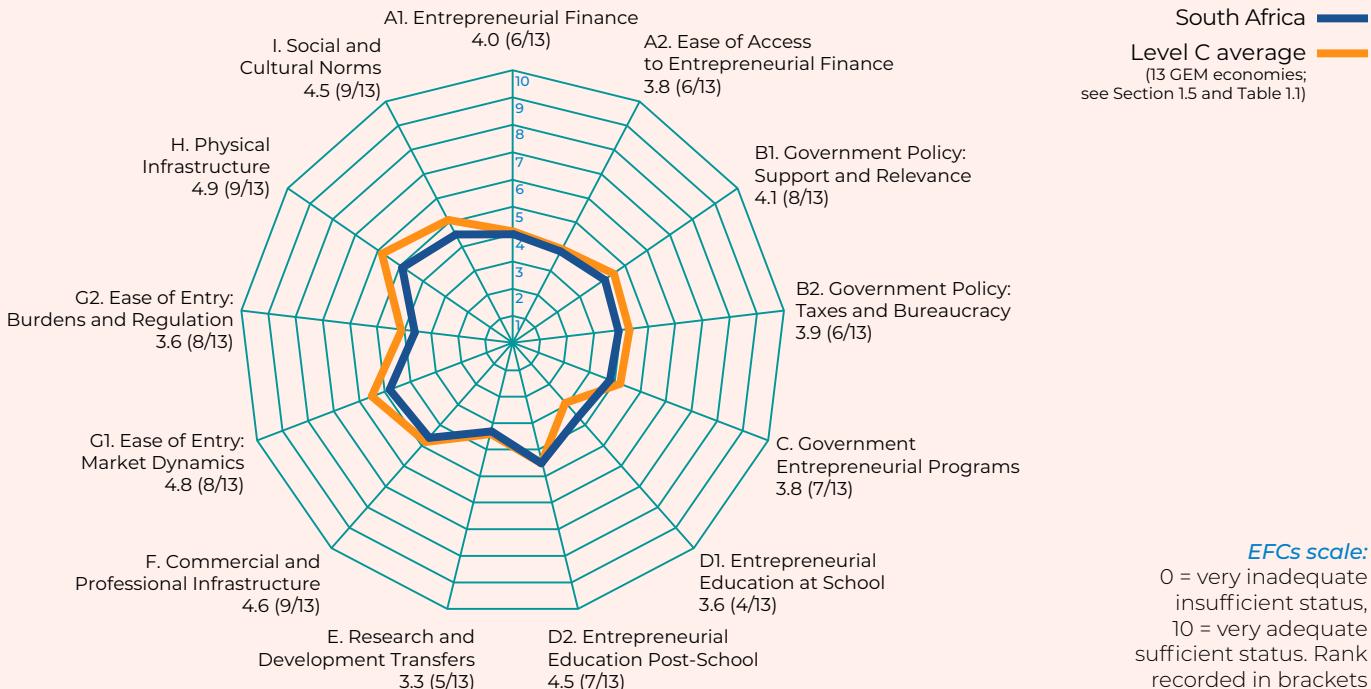
■ Population (2021): **60.0 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **14.4 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	33.6	45	
Good opportunities to start a business in my area	61.3	20	
It is easy to start a business	63.9	16	
Personally have the skills and knowledge	63.7	20	
Fear of failure (opportunity)	59.4	2	
Entrepreneurial intentions*	6.0	45	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	1.8	29	
	% TEA	Rank/49	
International (25%+ revenue)	21.3	10=	
Always consider social impact	83.0	18	
Always consider environmental impact	75.5	29	
Industry (% TEA in business services)	7.9	40	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	63.7	14
	% TEA	Rank/49
Starting a business is more difficult than a year ago	57.8	9
Use more digital technology to sell products or services	45.1	35
Pursue new opportunities due to pandemic	58.9	9

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

GDP for the South African economy was expected to grow by around 2% in 2022. This is too low to have much impact on the national unemployment rate of almost 33%, among the highest globally.

Inflation was high at nearly 7% and the cost of borrowing was becoming prohibitive for many startups and growing businesses. The government has approved the National Integrated Small Enterprise Development (NISED) strategic framework, strengthening support for small and medium-sized enterprises

2022 Framework Conditions Review

South Africa showed year-on-year improvements on 10 of the 13 framework conditions, including the three conditions directly dependent on government: Government Policy: Support and Relevance, Government Policy: Taxes and Bureaucracy and Government Entrepreneurial Programs. Just as importantly, both the level and access to entrepreneurial finance also improved. As a result, South Africa's overall score for its entrepreneurial environment in the National Entrepreneurship Context Index (NECI) increased from 3.7 in 2021 to 4.1 in 2022, lifting it from 45th to 40th overall. However, South Africa was just one of three economies in 2022, alongside Togo and Tunisia, with all Framework Conditions scored as insufficient (<5.0), although, in the case of South Africa, at least two (Physical Infrastructure and Ease of Entry: Market Dynamics) are edging closer to sufficiency.

2022 Entrepreneurial Activity Review

The early stages of the pandemic saw a substantial increase in the proportion of adults starting or running a new business in South Africa, up from 11% in 2019 to

17% in 2021, before falling back to 8% in 2022. Similar volatility was seen in business intentions, with 12% of adults intending to start a business in the next three years in 2019, rising to 20% in 2021, then falling back to 6% in 2022. EBO was 3.5% in 2019, went up to 5.2% in 2021, and then fell further to 1.8% in 2022. This entrepreneurial instability, of course, mirrors the wider economy. More than three in five South Africans report that their household income has fallen in 2022 because of the pandemic.

Just over a third of South Africans know someone who has recently started a business, while twice this level consider they have the skills and experience to run their own business. More than three in five see good opportunities to start a business, although more than half of these would be deterred by fear of failure.

In South Africa, men are slightly more likely than women to be starting a new business, although the entrepreneurial gender gap remains small. However, job expectations continue to decline: in 2019 three in 10 of those starting or running a new business expected to employ another six or more people in the next five years, but by 2022 this share had fallen to just two in 10. Not surprisingly, earning a living because jobs are scarce continues to be the dominant agreed motive in an economy in which 97% of new businesses have local customers, although almost a quarter also have customers outside of South Africa, up from less than a fifth in 2021.

More than four out of five new entrepreneurs in South Africa agreed with the motivation to start a business in order "to earn a living because jobs are scarce", while almost as many agreed with the motivations "to make a difference in the world" and "to build great wealth or very high income". Clearly, for South African entrepreneurs, these motivations are not exclusive.

Institution	Team	Funders	APS vendor
Lead institution Stellenbosch University  Stellenbosch Business School Responsible leaders for a better world.	Team leader Angus Bowmaker-Falconer Team members Prof. Marius Ungerer Prof. Natanya Meyer Dr. Mike Herrington	Stellenbosch Business School Small Enterprise Development Agency (Seda) Standard Bank of South Africa Limited	NielsenIQ South Africa Contact abf@sun.ac.za
Type of institution University			
Website http://www.sun.ac.za/			
Other institutions involved University of Johannesburg			



Spain

■ Population (2021): **47.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **40.8 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	41.3	39=
Good opportunities to start a business in my area	26.0	48
It is easy to start a business	32.2	41
Personally have the skills and knowledge	46.5	42
Fear of failure (opportunity)	50.9	10=
Entrepreneurial intentions*	8.3	40=

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	39.3	34
To build great wealth or very high income	39.1	45
To continue a family tradition	21.4	41
To earn a living because jobs are scarce	70.6	20

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	6.0	44=	5.9	6.0
EBO (Established Business Ownership)	7.0	20	6.5	7.5

Entrepreneurship impact

% Adults Rank/49

Job expectations (expecting to employ six or more people in five years' time)	0.6	48
	% TEA	Rank/49
International (25%+ revenue)	12.0	22
Always consider social impact	68.5	39
Always consider environmental impact	68.9	37
Industry (% TEA in business services)	38.5	5

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

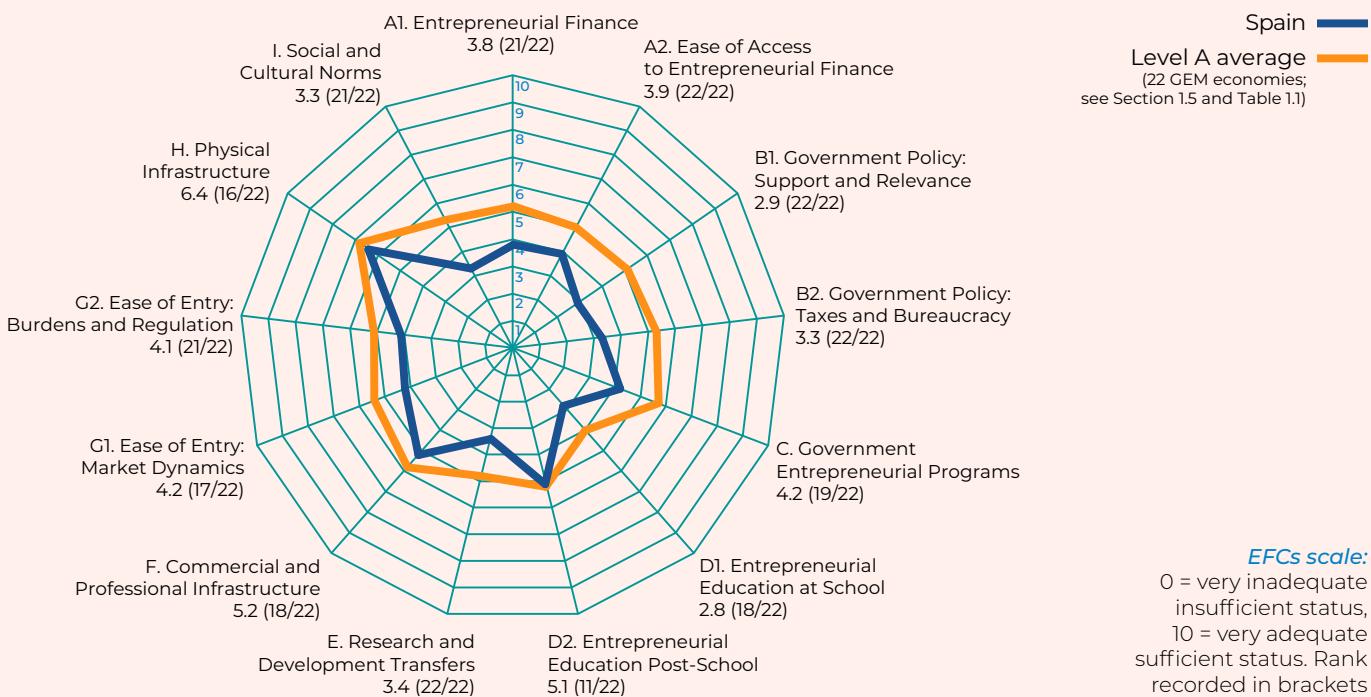
** Those reporting "somewhat decrease" or "strongly decrease".

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	40.2	29
	% TEA	Rank/49
Starting a business is more difficult than a year ago	53.1	14
Use more digital technology to sell products or services	46.5	30
Pursue new opportunities due to pandemic	40.3	28

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

In 2021, GDP in Spain grew by more than 5%, while employment growth was nearly 7%. Inflation was below the Eurozone average at 6.6%, increasing the competitiveness of startups in Spain. In 2022, the Spanish government approved new laws to support business creation and growth and to promote the startup ecosystem.

2022 Framework Conditions Review

In 2021 the overall entrepreneurial environment in Spain, as measured by the National Entrepreneurship Context Index (NECI), had scored 5.4, placing it 10th out of 47 economies, with 10 Framework Conditions scored as sufficient or better (≥ 5.0) and just three as insufficient (and two of those were very close to sufficient). Just one year later, the entrepreneurial environment in Spain had suffered a cataclysmic collapse, leaving it with a score of 4.0 and a rank of 41st of 51 economies. Ten Framework Conditions were assessed as insufficient and just three as sufficient or better.

All of Spain's Framework Condition scores in 2022 were lower compared to 2021, with falls in scores for Government Policy: Support and Relevance (5.4 to 2.9), Government Entrepreneurial Programs (6.3 to 4.2), Research and Development Transfers (5.6 to 3.4) and Government Policy: Taxes and Bureaucracy (5.1 to 3.3).

Urgent action to support new businesses is required if further falls are to be prevented. A new legal framework that supports startup creation has been developed in 2022, which includes measures to reduce entry costs and favour the attraction of personnel and foreign investment. These measures come into effect in 2023 and should improve perceptions of the entrepreneurial environment in Spain.

2022 Entrepreneurial Activity Review

Spain continues to have the largest Adult Population Survey (APS) sample size of any GEM participating economy, allowing its national and regional teams to conduct analysis at a fine level of detail. Because of this

sample size, even small changes in variables may be significant.

The percentage of adults in Spain intending to start a business in the next three years fell slightly in the first year of the pandemic and has been rising steadily since then, although the level in 2022 (8.3%), was half of its largest neighbour, France. This is despite the collapse in the entrepreneurial environment outlined above. Two out of five adults in Spain consider they have the skills and experience to start a business, with a similar proportion knowing someone who had already done so. However, just one in four see good opportunities to start a business locally, while more than half of these would be deterred from doing so by the fear of failure.

The upshot of all this was that just 6% of adults in Spain were starting or running a new business in 2022, a proportion that has hardly changed in the past five years. There was hardly any entrepreneurial gender gap in Spain in 2022, with proportions of men and women starting new businesses virtually the same. However, this is significantly less than France next door. The level of EBO in Spain has also proved remarkably stable at 7% in 2022, slightly higher than the pre-pandemic level of 6.3% in 2019 (and more than twice the level of its neighbour!).

Nearly two in five adults in Spain reported that their household income had fallen due to the pandemic. Since that pandemic started, "to earn a living because jobs are scarce" has been by far the dominant motive, agreed by seven out of 10 new entrepreneurs, almost twice the level of agreement of the next highest motive ("to build great wealth or very high income"). Two in five entrepreneurs agreed with the motive "to make a difference in the world", and just one in five with "to continue a family tradition".

Despite its relatively low level, starting or running a new business in Spain offers considerable potential in terms of impact. Almost a third of new entrepreneurs had customers outside of Spain, while nearly a half expected to use more digital technologies in the next six months to sell their products, a much higher proportion than in France. However just one in 10 new entrepreneurs expected to employ six or more additional people in the next five years.

Institution

Lead institution

Observatorio del Emprendimiento de España (OEE)



Type of institution

Non Profit Organisation

Website

<http://www.gem-spain.com>

Regional teams

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Funders

ENISA (Ministry of Industry, Commerce and Tourism)

APS vendor

Opinometre

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Sweden

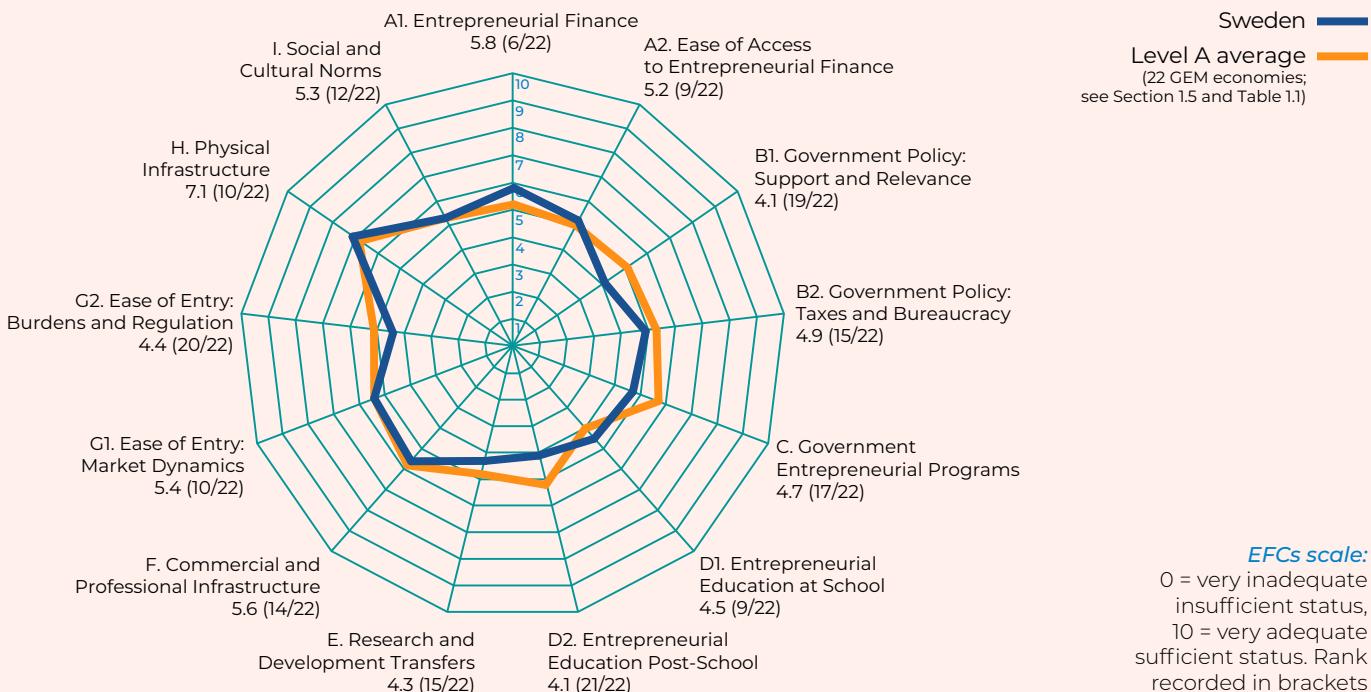
■ Population (2021): **10.4 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **59.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	53.8	24	
Good opportunities to start a business in my area	76.7	5	
It is easy to start a business	79.8	4	
Personally have the skills and knowledge	49.4	38	
Fear of failure (opportunity)	41.5	33	
Entrepreneurial intentions*	13.7	32	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	1.3	36=	TEA (Total early-stage Entrepreneurial Activity)	9.1	30=	7.1	11.0
International (25%+ revenue)	19.4	13	EBO (Established Business Ownership)	4.8	35	3.4	6.1
Always consider social impact	60.0	45					
Always consider environmental impact	60.8	44					
Industry (% TEA in business services)	33.1	12					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	22.0	47
Starting a business is more difficult than a year ago	23.7	46
Use more digital technology to sell products or services	36.5	41
Pursue new opportunities due to pandemic	33.4	37

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The Swedish economy is estimated to have grown by about 3% in 2022, although high inflation (8%), higher interest rates and increased pessimism among households and firms were expected to lead to a slowdown in 2023. Inflation has led to higher interest rates, reducing demand and creating a more challenging climate for both new and established businesses.

Favourable tax rules for employee stock options have been extended to young growth companies to help them to recruit and retain staff.

2022 Framework Conditions Review

In recent years Sweden had improved its entrepreneurial environment, having had an overall National Entrepreneurial Context Index (NECI) score for the quality of that environment of 4.5 (less than sufficient; <5.0) in 2020, ranked 23rd, and then rising to a well-sufficient score of 5.3 (12th) in 2021. This momentum faltered in 2022, with eight Framework Condition scores being lower than a year earlier, reducing Sweden's overall score to 5.0, or to just sufficient, with a ranking of 19th. The largest fall was in Commercial and Professional Infrastructure; followed by Research and Development Transfers; Entrepreneurial Finance; and Government Policy: Support and Relevance. For an economy ranked among the top 10 in terms of average incomes, resources should not be an issue.

Take Entrepreneurial Education Post-School, for example. The score for this Framework Condition in 2022 was 4.1, down from a year earlier, and much less than sufficient. However, other economies have invested in and improved their post-school education, so that Sweden's relative position in terms of physical infrastructure fell to 41st of the 51 economies in 2022, having been 22nd just three years earlier.

Sweden did score relatively highly in the new questions about COVID recovery, a result consistent with its improving Framework Condition score for market dynamics. But there is clearly much work to do elsewhere in improving Sweden's entrepreneurial environment to a level compatible with her Level A status.

2022 Entrepreneurial Activity Review

Around one in eight adults in Sweden invested in someone else's new business in 2022, a proportion that has been both relatively high and relatively stable over the past few years. However, the proportion of adults intending to start a business fell at the start of the pandemic (from 15% in 2019 to 11% in 2020), but has since recovered, reaching 15% in 2021 but 14% in 2022. Swedish women remain less likely to be starting a new business than Swedish men, although the gender gap has narrowed in recent years as female entrepreneurship has risen faster than male. EBO actually increased at the start of the pandemic, but has subsequently stabilized at 4.8%, more or less what it was before the pandemic.

In 2022 more than half of Swedish adults knew someone who has started a business recently, with a similar proportion agreeing they have the skills and experience to do so. A relatively high proportion (more three in four) saw good opportunities to start a business locally, although nearly half of these would be deterred by fear of failure.

"To build great wealth or very high income" has been the most commonly chosen motivation of new entrepreneurs since this question was introduced by GEM in 2019, while the proportions agreeing with the motivation of "to continue a family tradition" or "to earn a living because jobs are scarce" have both fallen continuously since then.

The pandemic may have encouraged new entrepreneurs to focus more on local markets. The proportion with customers outside of the country declined from 46% in 2019 to 30% in 2021, before some slight recovery in 2022 (to 36%). This may have influenced more than a third of new entrepreneurs who expected to use more digital technology to sell their products in the next six months. Optimistically, the proportion of new entrepreneurs expecting to employ six or more additional people in five years stood at 15% in 2022, up sharply from just 9% a year earlier.

Institution	Team	Funders	APS vendor
Lead institution Swedish Entrepreneurship Forum (Entreprenörskapsforum) 	Team leader Per Thulin Team members Marcus Kardelo Martin Svensson Anders Broström Frans Prenkert	Confederation of Swedish Enterprise Triton Advisers Sweden	Norstat
Type of institution Research Institute			Contact marcus.kardelo@ entreprenorskapsforum.se
Website https://entreprenorskapsforum.se			



Switzerland

■ Population (2021): **8.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **77.3 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	52.1	27
Good opportunities to start a business in my area	47.0	34
It is easy to start a business	66.5	12
Personally have the skills and knowledge	47.6	41
Fear of failure (opportunity)	32.3	47
Entrepreneurial intentions*	10.5	37

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	57.4	14
To build great wealth or very high income	37.1	47
To continue a family tradition	11.2	48
To earn a living because jobs are scarce	47.1	40

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	7.4	38	6.3	8.4
EBO (Established Business Ownership)	8.2	17	8.0	8.4

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	22.9	46
Starting a business is more difficult than a year ago	28.8	42
Use more digital technology to sell products or services	31.9	45
Pursue new opportunities due to pandemic	36.4	32

Entrepreneurship impact

% Adults Rank/49

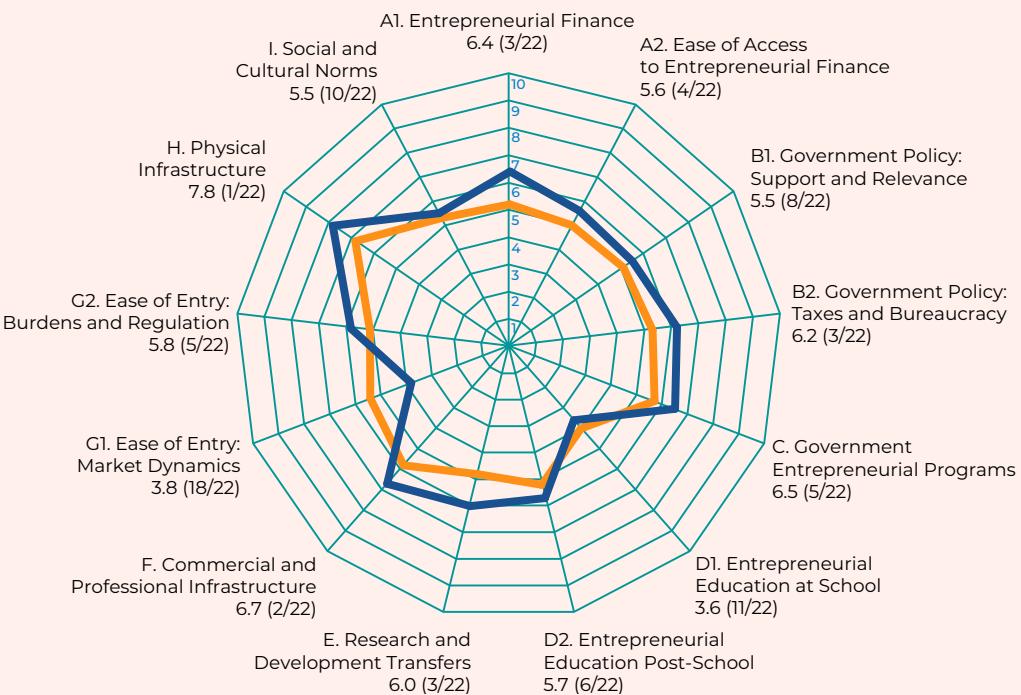
Job expectations (expecting to employ six or more people in five years' time)	0.8	46
	% TEA	Rank/49
International (25%+ revenue)	14.8	17
Always consider social impact	71.4	31=
Always consider environmental impact	75.3	30
Industry (% TEA in business services)	38.4	6

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



Switzerland
 Level A average
 (22 GEM economies;
 see Section 1.5 and Table 1.1)

EFCs scale:

0 = very inadequate insufficient status,
 10 = very adequate sufficient status. Rank recorded in brackets

POLICY ROADMAP

Swiss GDP grew very little in the second and third quarters of 2022 (0.2% and 0.1% respectively). The services sector drove the little growth there was. So far, Switzerland has avoided high inflation, with consumer prices rising around 3% in 2022. However, some entrepreneurship has been impacted by the rising costs of imported goods and services. In 2022, the Swiss Innovation Agency launched "Innosuisse", an initiative to support science-based innovation projects with significant market potential.

2022 Framework Conditions Review

In pre-pandemic 2019, Switzerland topped the then new league table of entrepreneurial framework overall scores in the National Entrepreneurship Context Index (NECI) with a score of 6.1. The pandemic period saw some deterioration in that score to 5.4 (10th) in 2020, and to 5.5 in 2021 (ninth). But 2022 marked something of a recovery in Switzerland's overall score: to 5.8. Improvements in the entrepreneurial environment scores of other economies, however, meant that Switzerland only ranked eighth of the 51 GEM economies in 2022.

In the 2021–2022 period, Switzerland increased its scores in nine Framework Conditions, with Entrepreneurial Education Post-School accounting for the largest increase. However, despite a creditable COVID recovery score of 6.5, well sufficient and 10th of 51 economies, Switzerland continues to have its overall score dragged down by poor scores for Entrepreneurial Education at School and for Ease of Entry: Market Dynamics. In the latter Framework Condition, Switzerland ranked 45th of 51 economies, in stark contrast to the 10 Framework Conditions for which it ranked 10th or better. In an economy in which six Framework Conditions scored 6 or more, scoring 3.8 for Ease of Entry: Market Dynamics and 3.6 for Entrepreneurial Education at School is both problematic and inconsistent.

2022 Entrepreneurial Activity Review

Like its similarly high-income neighbours Austria, France and Germany (but not Italy), Switzerland has a reputation for high levels of quality entrepreneurship. However, that reputation may be at risk, with the percentage of adults starting or running a new business in Switzerland falling in 2022 to 7.4%, down from 9.8% a year earlier, which in turn had been comparable to the pre-pandemic level of 2019. However the level of EBO, which had fallen precipitously at the start of the pandemic (from 12% in 2019 to 7% in 2020), continues to recover, reaching just over 8% in 2022.

Just over one in ten Swiss adults intend to start a business in the next three years, nearly back to pre-pandemic levels, while one in 10 are investing in someone else's new business. More than half of Swiss adults know someone who has recently started a business, with only slightly less seeing good opportunities to start a business locally, or considering they have the skills and experience to be able to do so. Less than a third of those seeing good opportunities would be deterred by fear of failure.

"To make a difference in the world" remains the most agreed motivation for new Swiss entrepreneurs, as it has been since these questions were introduced by GEM in 2019, apart from the immediate aftermath of the pandemic (2020), when it was temporarily overtaken by "to earn a living because jobs are scarce". In 2022, almost three in five new Swiss entrepreneurs agreed with the motivation "to make a difference in the world".

While one in three new entrepreneurs expected to use more digital technology to sell their products in the next six months, just one in 10 of those new entrepreneurs were expecting to employ another six or more people in five years' time.

Institution	Team	Funders	APS vendor
Lead institution School of Management Fribourg (HEG-FR)  HAUTE ÉCOLE DE GESTION HOCHSCHULE FÜR WIRTSCHAFT SCHOOL OF MANAGEMENT 	Team leader Prof. Rico Baldegger, PhD Team members Assoc. Prof. Raphael Gaudart Assoc. Prof. Pascal Wild Gabriel Simonet, MSc BA Lucia Zurkinden, MSc BA	School of Management Fribourg (HEG-FR) University of Applied Sciences and Arts of Western Switzerland (HES-SO)	Gfs Bern
Type of institution Business School			Contact Rico.baldegger@hefr.ch
Website https://www.heg-fr.ch/en			
Other institutions involved Swiss Start-up Factory Swiss Economic Forum Impact Hub Switzerland			



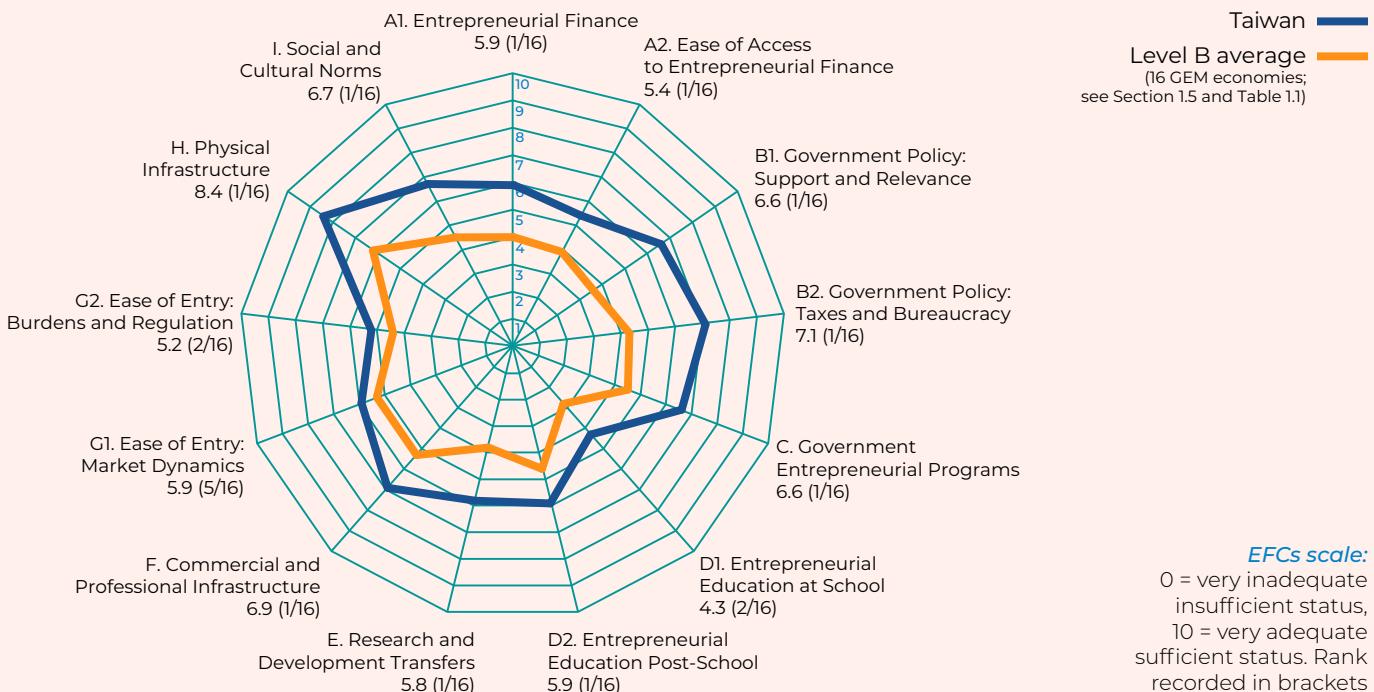
Taiwan

■ Population (2021): **23.9 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **34.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	29.0	47	
Good opportunities to start a business in my area	46.8	35=	To make a difference in the world
It is easy to start a business	40.5	33	To build great wealth or very high income
Personally have the skills and knowledge	39.9	45	To continue a family tradition
Fear of failure (opportunity)	42.9	30=	To earn a living because jobs are scarce
Entrepreneurial intentions*	15.2	28	
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	2.1	26=	TEA (Total early-stage Entrepreneurial Activity) 5.6 46 4.3 6.9
International (25%+ revenue)	8.6	28	EBO (Established Business Ownership) 9.0 12= 5.0 13.0
Always consider social impact	90.9	2=	
Always consider environmental impact	87.4	10	
Industry (% TEA in business services)	13.6	34=	
COVID-19 related		COVID-19 related	
	% Adults	Rank/49	% Adults Rank/49
Pandemic has led household income to decrease**	44.2	27	
Starting a business is more difficult than a year ago	39.5	29	
Use more digital technology to sell products or services	57.8	16	
Pursue new opportunities due to pandemic	41.9	27	

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

Inflation has impacted the global economy and this is certainly the case for Taiwan. GDP growth in the economy has slowed to 3%, lower than earlier forecasts. The consumer price index edged up to about 3%, while unemployment remains low at 3.6%.

Entrepreneurs in Taiwan have become more cautious due to rising prices. Nevertheless, the level of incubation activities remain quite high, demonstrating that many individuals are proactively looking for opportunities to take the next step in starting a business.

2022 Framework Conditions Review

It is easy for governments to argue that they don't have enough resources to afford an excellent environment for entrepreneurship. It certainly is the case that some rich economies have invested heavily in their entrepreneurial environments in recent years and have seen their environments improve. But it is also the case that some relatively low- or middle-income economies have achieved excellence in their environments, and this Global Report outlines two obvious examples: Taiwan and India. High-income economies with governments that have presided over sharp declines in their entrepreneurial environments, including Spain and Italy, may care to take note. The quality of their entrepreneurial environment is as much about choice as it is about resources.

In 2022, the quality of the entrepreneurial environment in Level B Taiwan was assessed by its national experts, in terms of National Entrepreneurship Context Index (NECI) score, at 6.2, third among the 51 GEM economies, just as it had been two years earlier with a NECI score of 6.1. Taiwan did not participate in the GEM National Expert Survey (NES) in 2021, so comparisons will be made with results for 2020. In both 2020 and 2022, the only Framework Condition scoring as insufficient (<5.0) was Entrepreneurial Education at School, with the score actually dipping between the two years. However, entrepreneurship courses and programs were only recently added into tertiary education in Taiwan in recent years, and the effects of this will take time.

On all other Framework Conditions, Taiwan scored sufficiently, and usually as much better than this. In 2022, Taiwan had 10 of its Framework Conditions scored among the top 10 of the 51 GEM economies, with three conditions ranked first: Government Policy:

Taxes and Bureaucracy, Commercial and Professional Infrastructure, and Physical Infrastructure. The biggest improvement since 2020 was for Government Policy: Taxes and Bureaucracy. If Taiwan can approach improving entrepreneurial education in schools with the same commitment given to improving government entrepreneurial policy, then quality could permeate its entire entrepreneurial landscape.

2022 Entrepreneurial Activity Review

Just over two in five Taiwanese adults reported that their household income in 2022 was lower because of the pandemic, up slightly from two years earlier. The percentage of adults investing in someone else's new business was both low and stable, at around 6%, possibly because high-quality entrepreneurial finance is available elsewhere in Taiwan. Business intentions are also stable and relatively modest around 15% since 2019.

Less than three in 10 adults in Taiwan in 2022 knew someone who had recently started their own business, down slightly from one in three in 2020. Almost two in five adults agreed they have the skills and experience to start their own business, and nearly half saw good opportunities to do so locally, although two in five of these would be deterred by the fear of failure.

The rate of adults starting or running a new business was stable at 8.4% in both 2019 and 2020, but had since fallen to 5.6% in 2022. Men were more likely than women to start a new business in Taiwan, with around three new businesses started by men for every two started by women. EBO has followed a similar pattern to new starts, falling from 12.8% in 2019 to 9% in 2022. So, in Taiwan, the proportion of adults starting or running a new business was about two-thirds of the proportion running an established business.

"To make a difference in the world" was the most commonly agreed motivation for new entrepreneurs in Taiwan, at just over one in two, closely followed by "to build great wealth or very high income", at just under one in two. The proportion of new entrepreneurs with customers beyond Taiwan was 27% in 2022, back to the pre-pandemic level of 2018, but below the level of 2020.

More than half of new entrepreneurs in Taiwan expected, in the next six months, to use more digital technology to sell their products, and job expectations were strong, with more than one in three expecting to employ an additional six people or more in five years' time, up from one in four in 2020.

Institution	Team	Funders	APS vendor
Lead institution Taiwan Institute of Economic Research (TIER)  台灣經濟研究院 Taiwan Institute of Economic Research	Team leader Xin-Wu Lin Team members Jia-Jing Lin Hsiang-Chih Hwang	Small and Medium Enterprise Administration, Ministry of Economic Affairs of Taiwan	China Credit Information Service, Ltd (CRIF_CCIS)
Type of institution Research Institute			Contact Xin-WuLin@tier.org.tw
Website https://english.tier.org.tw/			

ECONOMY PROFILE



Togo

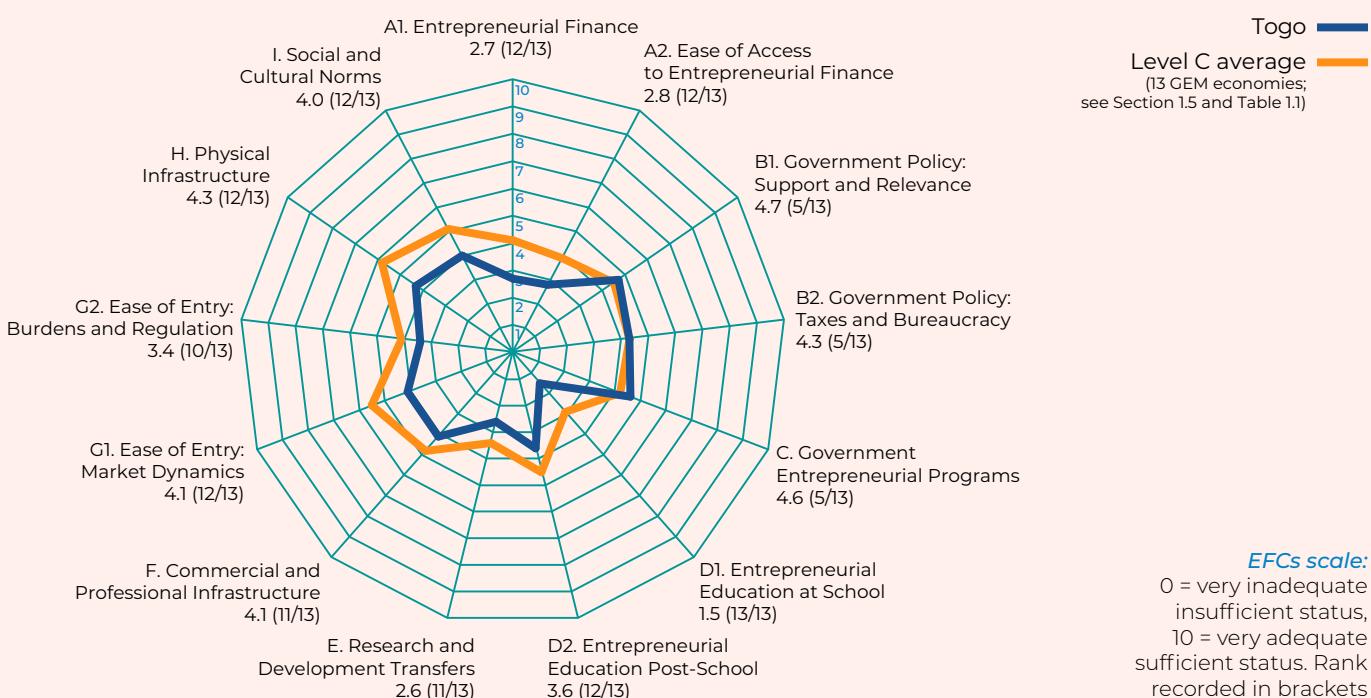
■ Population (2021): **8.5 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **2.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	58.9	18	
Good opportunities to start a business in my area	77.2	4	
It is easy to start a business	54.3	20	
Personally have the skills and knowledge	87.5	2	
Fear of failure (opportunity)	40.6	37	
Entrepreneurial intentions*	52.3	3	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	4.0	13=	
	% TEA	Rank/49	
International (25%+ revenue)	9.1	27	
Always consider social impact	75.4	24	
Always consider environmental impact	70.4	35	
Industry (% TEA in business services)	3.3	48	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	88.0	1
	% TEA	Rank/49
Starting a business is more difficult than a year ago	75.4	2
Use more digital technology to sell products or services	32.4	44
Pursue new opportunities due to pandemic	18.1	47

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The economy of Togo has been recovering strongly after the pandemic, with GDP forecast to have risen by about 6% in 2022. Although inflation increased to around 9%, unemployment has remained stable, suggesting some economic resilience. However, the costs of business essentials have been increasing even faster, with a 13% increase in water, gas, electricity and other fuel prices, and a 17% increase in transport costs (both to November 2022).

The government has acted to support businesses, with measures including rescheduling credit payments, reducing the tax burden on business, exempting traders and artisans for market ticket taxes and reducing interest rates for businesses borrowing from the National Fund for Inclusive Finance (FNFI).

2022 Framework Conditions Review

Togo last participated in GEM in 2020, so its participation in 2022 allows some comparisons. In the earlier year, the overall quality of Togo's entrepreneurial environment, as measured by the National Entrepreneurship Context Index (NECI), scored 3.8, placing it 38th of the 44 participating economies. In 2022, that NECI score fell to 3.6, placing Togo 49th of the 51 GEM participating economies.

Between 2020 and 2022, all but one of Togo's Entrepreneurial Framework Conditions showed a change in quality assessment. Five conditions improved, while six experienced declines. The biggest increase was for Social and Cultural Norms, although that increase was matched by equivalent falls in scores for both Commercial and Professional Infrastructure and for Ease of Entry: Burdens and Regulation.

The Togolese government is clearly trying to make the best of its limited resources. Togo's highest framework scores in 2022 were for the two government policy conditions and for Government Entrepreneurial Programs. However, already low scores for the two education conditions declined still further between 2020 and 2022, with Togo ranked as bottom of all 51 economies for the former and 48th for the latter.

2022 Entrepreneurial Activity Review

Around nine in 10 adults in Togo reported that their household income reduced due to the pandemic in 2022, the highest level in all GEM participating economies. Possibly because of this, or perhaps reflecting poor access to alternative entrepreneurial funding, around one in eight Togolese adults invested in someone else's new business in both 2020 and 2022.

Entrepreneurial self-confidence was sky-high in Togo in 2022, with almost nine out of 10 adults considering themselves to have the skills and experience to start their own business and over a half of adults expecting to start their own business in the next three years. A similar proportion knew someone who has started their own business recently. More than three-quarters saw good opportunities to start a business locally, although two in five of these would not do so because of the fear of failure.

In 2020, almost a third of adults in Togo (33%) were starting or running their own business. By 2022 this had fallen to just under a quarter (24.1%), with male entrepreneurship falling less than female entrepreneurship. This means that both the relative and absolute entrepreneurial gender gaps in Togo had fallen: by 2022, there were 11 women starting a new business in Togo for every 10 men doing the same. The level of EBO has been much more stable at 18% in both 2020 and 2022.

The two material motivations ("to build great wealth or very high income" and "to earn a living because jobs are scarce") had the highest levels of agreement among new entrepreneurs in Togo, although one in two also agreed with the "to make a difference in the world" motive and one in three with "to continue a family tradition". Many Togolese new entrepreneurs clearly have multiple motivations in starting their new businesses.

Around one-third of Togo's new entrepreneurs expected to use more digital technology in the next six months to sell their products. Relatively few (16%) had customers beyond Togo, while a similar proportion expected to employ another six or more people in five years' time.

Institution	Team	Funders	APS vendor
Lead institution Coalition Nationale Pour L'Emploi Des Jeunes (CNEJ)	Team leader Eric M. Tamandja Team members Gnassingbe-E Odilia B. Kola Koboyo Abalo-Koboyo Padakale Ayao Kokou-Maduvo Korku Kofi Soweto Abdel Adhime A. A. Salami Junien Roxan Nze Biyoghe Koulalo Kodjo Amewokunu Yao A.	Coalition Nationale Pour L'Emploi Des Jeunes (CNEJ)	Centre autonome d'études et de renforcement des capacités pour le développement au Togo (CADERTD)
Website https://jeunestogolais.tg/			Contact tamandja@gmail.com



Tunisia

■ Population (2021): **11.9 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **11.6 thousand** (World Bank)

Attitudes and perceptions

% Adults Rank/49

Know someone who has started a new business	66.6	7
Good opportunities to start a business in my area	61.8	18
It is easy to start a business	44.7	30
Personally have the skills and knowledge	78.6	4
Fear of failure (opportunity)	42.6	32
Entrepreneurial intentions*	50.7	4

Motivational

(somewhat or strongly agree)

% TEA Rank/49

To make a difference in the world	31.8	40
To build great wealth or very high income	56.2	26
To continue a family tradition	33.3	17
To earn a living because jobs are scarce	89.7	2

Activity

% Adults Rank/49 % Female % Male

TEA (Total early-stage Entrepreneurial Activity)	17.1	12	14.7	19.7
EBO (Established Business Ownership)	10.0	8	5.0	15.1

Entrepreneurship impact

% Adults Rank/49

Job expectations (expecting to employ six or more people in five years' time)	3.7	15
	% TEA	Rank/49
International (25%+ revenue)	6.4	32
Always consider social impact	86.2	10
Always consider environmental impact	88.3	8
Industry (% TEA in business services)	6.9	42

An equals sign (=) indicates that the ranking position is tied with another economy or economies.

* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.

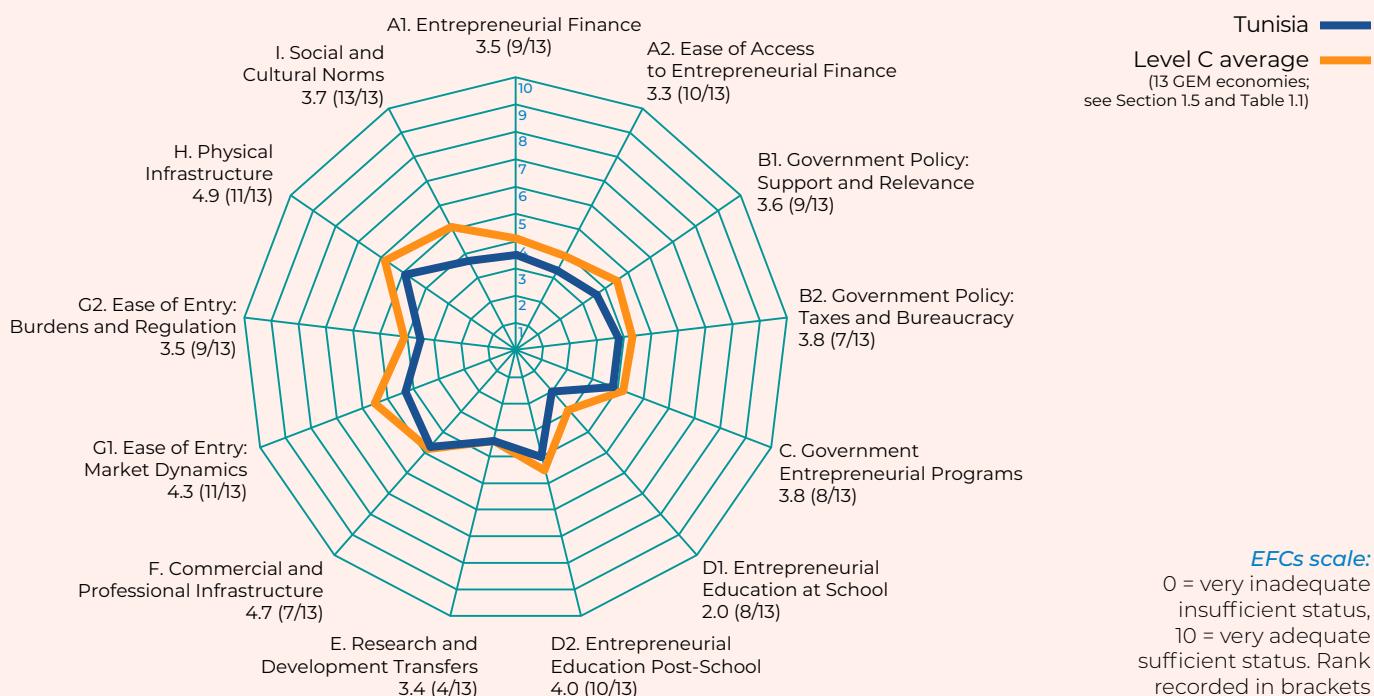
** Those reporting "somewhat decrease" or "strongly decrease".

COVID-19 related

% Adults Rank/49

Pandemic has led household income to decrease**	68.5	10
	% TEA	Rank/49
Starting a business is more difficult than a year ago	65.2	5
Use more digital technology to sell products or services	45.9	33
Pursue new opportunities due to pandemic	20.4	45

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The economy in Tunisia was going through a critical period in 2022, with existing structural problems aggravated by the aftermath of the pandemic and the consequences of the war in Ukraine. In the year to Q3 2022, GDP grew by nearly 3%, inflation reached almost 10% and the unemployment rate exceeded 15%. Inflation has hindered entrepreneurial intentions by raising costs, especially raw materials and borrowing costs.

In 2022, the government published three decrees regulating laws on crowdfunding, while the Ministry of Employment organized a national "Your Project" competition.

2022 Framework Conditions Review

The collective judgement of national experts in Tunisia was that the quality of the overall entrepreneurial environment was poor in 2022, deriving a score of 3.7 in the National Entrepreneurial Context Index (NECI), well below sufficient (<5.0). This ranked Tunisia 47th of the 51 economies participating in the GEM National Expert Survey (NES). None of the 13 individual conditions was rated as sufficient (≥ 5.0), although its Physical Infrastructure and Commercial and Professional Infrastructure came closest. Ten of the Entrepreneurial Framework Conditions were poor. Tunisia had eight Framework Conditions ranked in the bottom 10 among the GEM economies, with its highest ranks being for government policy, ranked 38th.

So there is much to do to improve the entrepreneurial environment in Tunisia. A good place to start might be entrepreneurial education in schools, rated lowest of the Framework Conditions, although investment here takes a long time to bear fruit. A faster return may come from investment in entrepreneurial finance, a significant obstacle to starting or developing a new business in Tunisia.

2022 Entrepreneurial Activity Review

Two out of three adults in Tunisia reported that the pandemic had reduced their household income in 2022, a high rate but middle-ranking among the GEM Level C economies. However, the proportion of adults investing in someone else's new business was relatively high at one in seven, perhaps reflecting the paucity of entrepreneurial finance.

There was good awareness of entrepreneurship in Tunisia, with two out of three adults knowing someone who had recently started their own business. Three in four considered they have the skills and experience to start a business. The proportion who saw good opportunities to start a business locally was a little lower at three in five, although nearly half of these would be deterred by fear of failure.

The percentage of adults actually starting or running a new business in Tunisia in 2022 was 17%, although higher for men (20%) than for women (15%). Hence there were four men starting or running a new business for every three women doing the same. The percentage of adults running an established business was relatively high at 10%, so there were less than two adults starting a new business for every adult running an established one, a healthy ratio that suggests that, despite the generally unsupportive entrepreneurial environment, many new businesses are surviving long enough to become established. This may be helped by the fact that only a half of new businesses in Tunisia were in consumer services, a sector that typically has lower chances of survival.

Not surprisingly, "to earn a living because jobs are scarce" was agreed as a motivation by nine in 10 new entrepreneurs, with "to make a difference in the world" agreed by less than one in three. However, job expectations were relatively strong, with one in five expecting to employ an additional six people or more in five years' time. Conversely, one in three of those starting or running a new business expected to employ no new people in that period.

Institution	Team	Funders	APS vendor
Lead institution The Arab Institute of Business Leaders IACE 	Team leader Majdi Hassen Team members Hajer Karaa Manara Toukabri Moez Labidi Kamel Ghazouani Mokhtar Kouki	The Arab Institute of Business Leaders IACE Expertise France	IACE
Type of institution Institute			Contact majdi.hassen@iace.org.tn hkaraa@iace.org.tn
Website https://iace.tn/			
Other institutions involved Expertise France			



United Arab Emirates

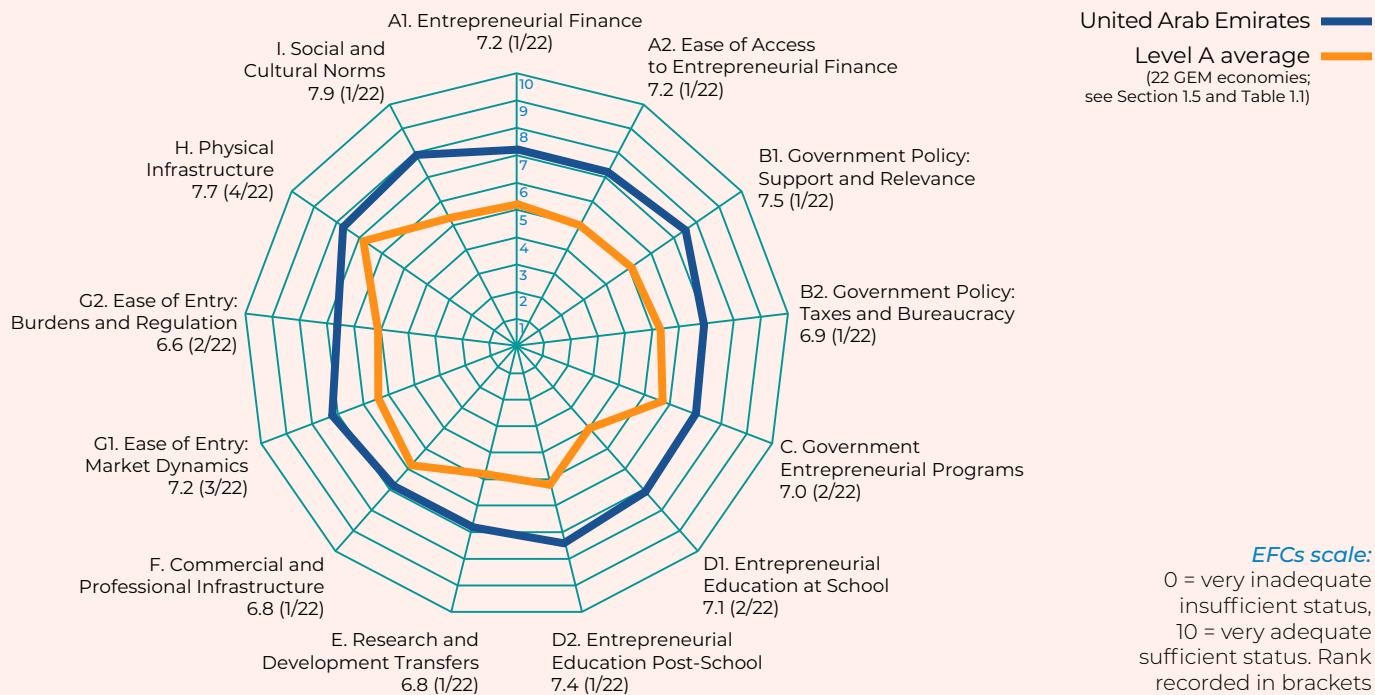
■ Population (2021): **9.9 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **66.8 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	60.1	14	
Good opportunities to start a business in my area	72.2	10	
It is easy to start a business	77.2	7	
Personally have the skills and knowledge	71.7	10	
Fear of failure (opportunity)	39.2	38	
Entrepreneurial intentions*	44.5	8	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	19.6	1	
	% TEA	Rank/49	
International (25%+ revenue)	35.6	1	
Always consider social impact	90.2	4=	
Always consider environmental impact	90.0	7	
Industry (% TEA in business services)	19.5	26=	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	66.2	12
	% TEA	Rank/49
Starting a business is more difficult than a year ago	25.7	44
Use more digital technology to sell products or services	81.9	2
Pursue new opportunities due to pandemic	50.2	19

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

2022 GDP growth in the United Arab Emirates was over 6%, with an average inflation rate of approximately 5% and unemployment rate a little below 4%.

Inflation in the United Arab Emirates appears to be under control and entrepreneurs have been given opportunities to offset its impacts.

Entrepreneurship remains a high priority in the United Arab Emirates, with the recently launched “Projects of the 50” targeting the next 50 years of development there as it moves towards its 100th independence anniversary in 2071.

2022 Framework Conditions Review

The quality of the entrepreneurial environment in the United Arab Emirates has been on an upward trajectory in recent years, backed by high levels of investment and government commitment. In 2019, the United Arab Emirates entrepreneurial environment was assessed by its national experts to give a National Entrepreneurship Context Index (NECI) score of 5.8, ranking it fifth of GEM economies and well above regional comparators. This score improved in 2020 to 6.0, still ranked fifth among GEM economies, and then leapt forward to 6.8 in 2021 to become the most highly rated of all GEM economies. In 2022, the NECI rank was further improved to a score of 7.2, the highest achieved since the NECI was introduced in 2019 — just as the United Arab Emirates score of 6.8 had been the year before.

The United Arab Emirates is not confined to a few high scores in specific Framework Conditions. In 2022, the UAE ranked first in seven of the 13 Framework Conditions, and second in five more. Its lowest rank among the 51 GEM economies was fifth for Physical Infrastructure. Between 2021 and 2022, the United Arab Emirates improved its scores in nine Framework Conditions, with the largest increases for Entrepreneurial Finance and Entrepreneurial Education Post-School. Just two framework scores declined in 2022, with Ease of Entry: Market Dynamics falling a little, and Government Policy: Taxes and Bureaucracy by rather more. In addition, the United Arab Emirates had the second highest score for the quality of its recovery from the economic impacts of the pandemic.

2022 Entrepreneurial Activity Review

The United Arab Emirates has not been immune to the impacts of the pandemic, with three in five adults reporting that the pandemic had reduced their household income in 2022, a proportion little changed since this question was introduced in 2020. Perhaps as a consequence, the share of adults investing in someone else's new business declined in the early days of the pandemic, from 10% in 2019 to 4% in 2020. However, this has largely recovered since, reaching 9% in 2022. Similarly, business intention fell in those early days, from half of all adults intending to start their own business in the next three years, to one-third. This has also recovered strongly, and was almost a half in 2022.

Not surprisingly, many adults (three in five) in the United Arab Emirates knew someone who had started their own business recently, while seven in 10 saw good opportunities to start a business locally. However, and in what is a recurring theme in the United Arab Emirates, almost half would be deterred by fear of failure. New entrepreneurs are most motivated “to build great wealth or very high income” and “to earn a living because jobs are scarce”, although “to make a difference in the world” was not far behind.

TEA fell slightly when the pandemic began, edged back the following year, and has since surged ahead. While it was one in six pre-pandemic, it reached one in four adults in 2022. EBO, on the other hand, fell more sharply in the early days of the pandemic, from 7% in 2019 to 2.5% in 2020. However, it recovered to 6.4% in 2021, but has dropped to 4.5% in 2022. This means the United Arab Emirates has gone from just over two new adults starting a new business for every one running an established business, to a ratio of more than five to one in 2022. Converting these many new businesses to become established will be a challenge, even within such a high-quality entrepreneurial environment.

Considering the types of businesses being launched, as with other entrepreneurial variables, the proportion of international business (new entrepreneurs with customers beyond the United Arab Emirates) fell at the onset of the pandemic but has recovered strongly, reaching more than one in two in 2022. Encouragingly, more than seven in 10 new entrepreneurs expected, in the next six months, to use more digital technology to sell their products. As has become usual in the United Arab Emirates, job creation expectations were very strong, with three out of four new entrepreneurs expecting to employ another six people or more in five years' time, rising from two out of three.

Institution

Lead institution

United Arab Emirates University (UAEU)



Type of institution

University

Website

<https://www.uaeu.ac.ae/en>
<https://gemuae.uaeu.ac.ae/en/>

Team

Team leader

Teemu Kautonen

Team members

Chafik Bouhaddiou
Llewellyn Thomas
Elif Bascavusoglu-Moreau

Funders

United Arab Emirates University (UAEU)

APS vendor

Kantar

Contact

gemuae@uaeu.ac.ae



United Kingdom

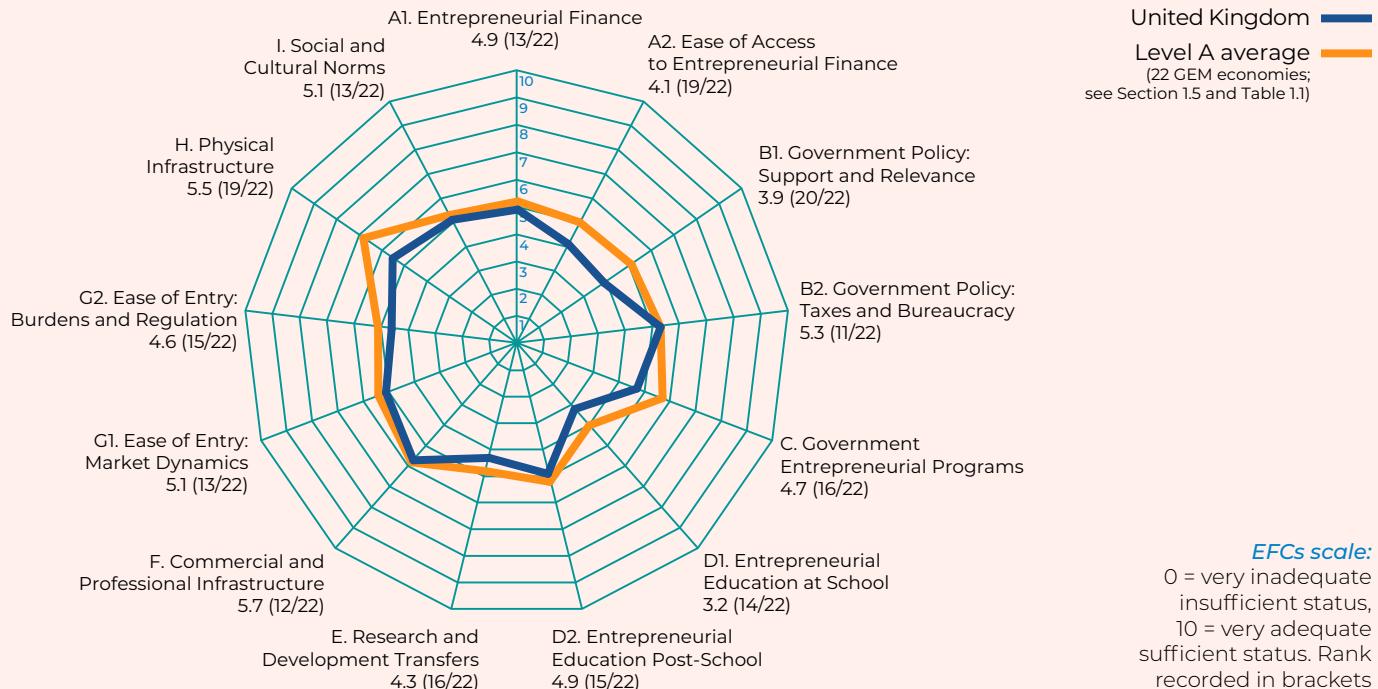
■ Population (2021): **67.3 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **49.7 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	47.6	33	
Good opportunities to start a business in my area	44.4	38	
It is easy to start a business	65.9	13	
Personally have the skills and knowledge	53.5	32	
Fear of failure (opportunity)	52.9	7	
Entrepreneurial intentions*	10.9	36	

Entrepreneurship impact		Activity					
	% Adults	Rank/49	% Adults				
Job expectations (expecting to employ six or more people in five years' time)	2.5	23=	TEA (Total early-stage Entrepreneurial Activity)	12.9	18=	10.7	15.1
International (25%+ revenue)	13.0	21	EBO (Established Business Ownership)	6.8	22=	4.3	9.4
Always consider social impact	74.4	25					
Always consider environmental impact	73.3	33					
Industry (% TEA in business services)	34.0	9					

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	27.0	42
Starting a business is more difficult than a year ago	46.1	22
Use more digital technology to sell products or services	60.0	14=
Pursue new opportunities due to pandemic	57.0	10

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

After post-COVID expansion in 2021, the UK economy slowed in 2022, with real GDP 0.4% below its pre-COVID level in Q4 2019. Consumer price inflation reached 11% in October 2022. Higher input prices, especially for energy, pushed some businesses to pass on price increases to consumers, others to change suppliers, and some to scale down or consider closure.

Late in 2021 the government launched a large-scale business support scheme “Help to Grow: Management”, aimed at businesses with 5–249 employees, and designed to enhance their leadership and management skills to enable future growth in productivity (<https://www.gov.uk/business-finance-support/help-to-grow-management-uk>). The Rose Review, launched in 2018 by Dame Alison Rose (CEO, NatWest Group) and informed by GEM UK data, provides a sharp focus on the challenges facing female entrepreneurs.

2022 Framework Conditions Review

In 2022, the United Kingdom ranked 25th in terms of its overall entrepreneurial environment with a National Entrepreneurship Context Index (NECI) score of 4.7, pretty much in the middle of the 51 economies in the GEM National Expert Survey (NES), having scored 4.9 and been ranked 19th just a year earlier. It is not surprising that framework scores worsened over the year given chaotic trading conditions and supply chain blockages, as the implications of Brexit continued to be multiplied by the aftermath of the pandemic and compounded by rising energy prices. In the period 2021 to 2022, nine Framework Condition scores worsened, led by Physical Infrastructure and Ease of Entry: Burdens and Regulation, both directly related to the post-Brexit, post-pandemic turmoil.

An economy once lauded for its world-leading financial markets was assessed as insufficient in both the level of, and access to, entrepreneurial finance, alongside insufficient entrepreneurial education at all levels, and diminishing government policy support. An economy with two of the world's top five universities¹

¹ World University Rankings 2022,
<https://www.timeshighereducation.com>

was rated as not sufficient (<5.0) in Research and Development Transfers.

2022 Entrepreneurial Activity Review

Over a quarter of adults in the United Kingdom reported their household income had been reduced by the pandemic in 2022. However, after falling in the initial aftermath of the pandemic (from 9.3% to 7.8%), the proportion of adults in the United Kingdom starting or running a new business had recovered strongly, reaching a level of 12.9% in 2022, well above pre-pandemic levels. The level of female entrepreneurship had increased a little more than male, so that the male-to-female entrepreneurship ratio fell from 1.7 in 2019 to 1.4 in 2022. This was still a significant gender gap, suggesting many women were missing out on entrepreneurial opportunities.

In 2022, just under half of all adults knew someone who had recently started a new business, while slightly less saw good opportunities to start a business locally. Well over half considered themselves to have the skills and experience to start that new business, although a small majority of those seeing good opportunities to start a new business would be deterred by fear of failure.

Perhaps as a consequence of Brexit, the proportion of new entrepreneurs reporting they had customers outside of the country fell between 2021 and 2022 (from 39% to 26%). “To building great wealth or very high income” was the most commonly agreed motivation for starting a new business in 2022, closely followed by “to earn a living because jobs are scarce”. Nevertheless, “to make a difference in the world” was agreed by more than half of all new entrepreneurs.

A promising three out of five new entrepreneurs expected to use more digital technology to sell their products in the next six months, with one in five expecting to employ another five or more people in five years' time.

Institution	Team	Funders	APS vendor
Lead institution Aston Business School, Aston University  Aston University	Team leader Prof. Mark Hart, PhD Team members Professor Jonathan Levie Professor Tomasz Mickiewicz Professor Niels Bosma Wendy Ferris Dr Neha Prashar Dr Karen Bonner Dr Anastasia Ri Dr Samuel Mwaura Dr Sreevas Sahasranamam Dr Andy Loung	Department for Business, Energy and Industrial Strategy (BEIS) Welsh Government British Business Bank Hunter Centre for Entrepreneurship, University of Strathclyde Invest Northern Ireland NatWest Group Department for the Economy in Northern Ireland	BMG Ltd, Birmingham, UK
Type of institution University			Contact mark.hart@aston.ac.uk w.ferris@aston.ac.uk
Website https://www aston.ac.uk/research/bss/abs/research-in-action/gem			
Other institutions involved Queen's University Management School, Queen's University Belfast			



United States

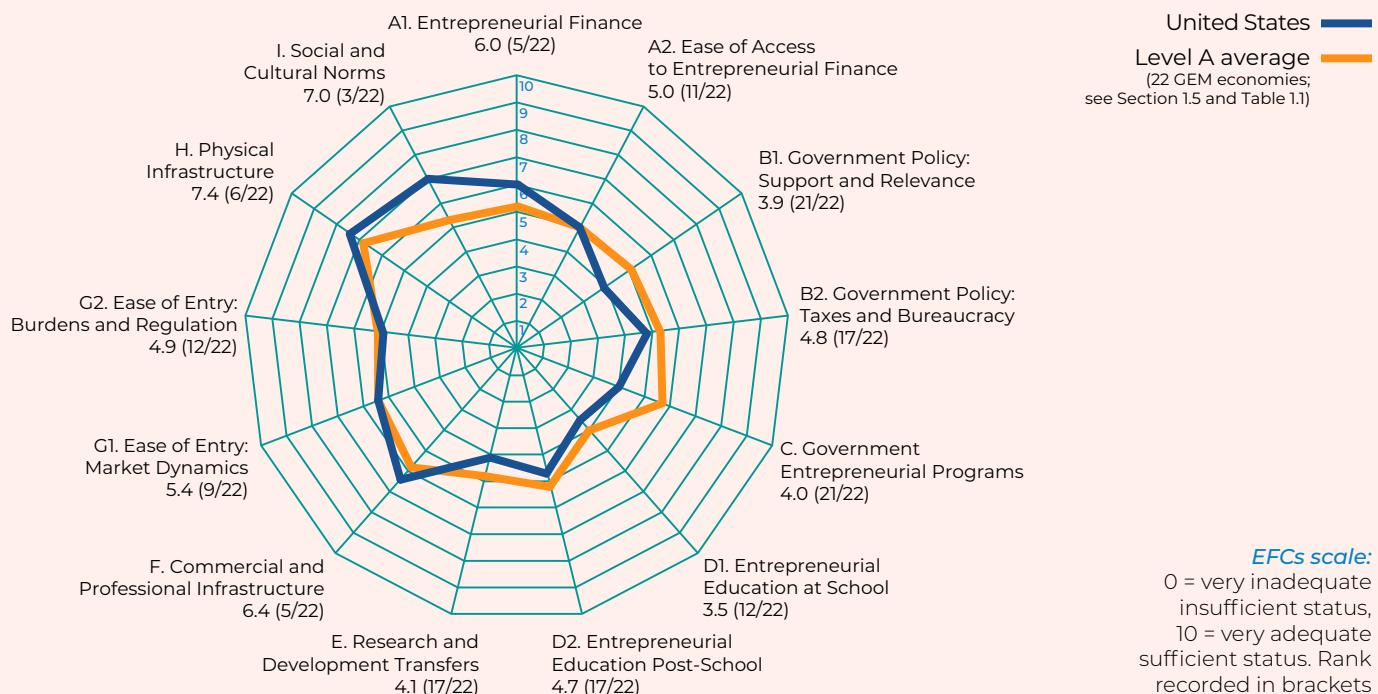
■ Population (2021): **331.9 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **69.3 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	55.6	21	
Good opportunities to start a business in my area	46.0	37	
It is easy to start a business	65.8	14	
Personally have the skills and knowledge	66.8	16	
Fear of failure (opportunity)	43.1	28	
Entrepreneurial intentions*	13.6	33	

Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults
Job expectations (expecting to employ six or more people in five years' time)	4.7	11	
	% TEA	Rank/49	
International (25%+ revenue)	16.5	16	
Always consider social impact	72.8	29	
Always consider environmental impact	68.8	38=	
Industry (% TEA in business services)	22.3	22	

COVID-19 related		
	% Adults	Rank/49
Pandemic has led household income to decrease**	32.9	34
	% TEA	Rank/49
Starting a business is more difficult than a year ago	53.3	13
Use more digital technology to sell products or services	56.6	17
Pursue new opportunities due to pandemic	50.4	18

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

The US economy remained unsettled, with the positive impact of a declining unemployment rate (5.9% in July 2021 down to 3.5% in July 2022) being offset by first- and second-quarter contractions (GDP declined 1.6% and 0.6% respectively), and the highest inflation rates (8.5% or more) in 40 years. Such high inflation rates add uncertainty for entrepreneurs, as they must consider the impact of price increases on everything from customer demand to resource procurement.

2022 Framework Conditions Review

The United States continues to score high for Physical Infrastructure and for Social and Cultural Norm, giving a favourable view of entrepreneurship, but also low in terms of government policy and programmes, Research and Development Transfers and Entrepreneurial Education at School, each of which scored as less than sufficient (<5.0). In terms of Research and Development Transfers, the United States ranked 25th of the 51 economies participating in the National Expert Survey (NES) in 2022, and in the bottom half of economies for all three government-related conditions. As a result, the it ranked 15th in terms of the overall entrepreneurial environment as measured by the National Entrepreneurship Context Index (NECI) score. More positively, that overall score has remained stable throughout the pandemic period, with the United States scoring better than sufficient on the new COVID recovery topic in the NES questionnaire.

2022 Entrepreneurial Activity Review

The United States has a reputation as a hub of entrepreneurship, perhaps justified by years of consistently high rates of adults starting or running a

new business, especially for a Level A economy. Since 2018, despite the pandemic (or perhaps because of it), the level of TEA has exceeded 15%, reaching more than 19% in 2022. Meanwhile, the entrepreneurial gender gap (male TEA-female TEA) has been closing, from six percentage points in 2017 to just two in 2022.

Although the peak of the pandemic appears to have passed, uncertainty about the future remains. For example, a declining proportion of new entrepreneurs expect to employ six or more people in five years' time, from a third in 2019 to less than a quarter in 2022. More optimistically, there is keen awareness of the nature of market change, with more than half of new entrepreneurs expecting to use more digital technologies in the next six months.

In 2022, the level of EBO was just over 9%, implying around two new businesses started for every established business. More than half of US adults know someone who has started a business, and self-confidence is high, with two out of three considering they have the knowledge and experience to start their own business. However, two in five of those seeing good opportunities would be deterred by fear of failure. Around one in seven US adults intend to start a business in the next three years, a proportion that has fluctuated since 2020, after falling slightly at the start of the pandemic. "To build great wealth or very high income" and "to make a difference in the world" share the dominant position among motivations, agreed by seven out of 10 US entrepreneurs.

In 2022 there was a sharp rise in the proportion of adults investing in someone else's new business, up to 13% from 9% in 2021, reflecting post-COVID business opportunities, but also perhaps perceived low returns on other investments.

Institution	Team	Funders	APS vendor
Lead institution Babson College BABSON COLLEGE	Team leader Jeff Shay, PhD Prof. Donna Kelley, PhD Team members Prof. Mahdi Majbouri, PhD Prof. Andrew Corbett, PhD Prof. Candida Brush, PhD Prof. Caroline Daniels, PhD Smaiyya Million Clare Currie	Babson College	Qualtrix
Type of institution Business School			Contact smillion@babson.edu
Website https://www.babson.edu			



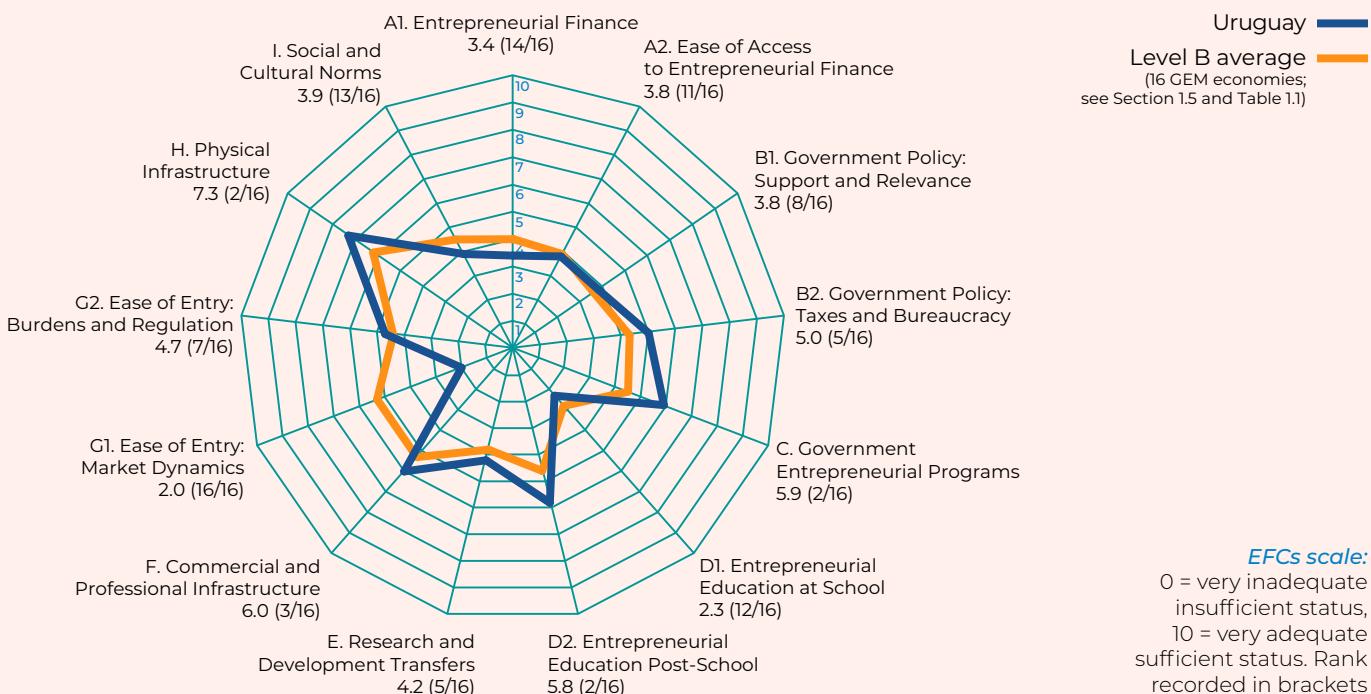
Uruguay

■ Population (2021): **3.5 million** (UN)
 ■ GDP per capita (2021; PPP, International \$): **24.6 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	61.3	13	
Good opportunities to start a business in my area	58.2	23	
It is easy to start a business	38.7	34	
Personally have the skills and knowledge	69.1	13	
Fear of failure (opportunity)	46.7	18	
Entrepreneurial intentions*	32.7	13	
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	6.4	6=	TEA (Total early-stage Entrepreneurial Activity) 26.3 5 23.9 28.9
International (25%+ revenue)	4.4	37	EBO (Established Business Ownership) 6.4 25 4.5 8.4
Always consider social impact	85.0	15	
Always consider environmental impact	87.3	11	
Industry (% TEA in business services)	16.1	31	
COVID-19 related		COVID-19 related	
	% TEA	Rank/49	% Adults Rank/49
Pandemic has led household income to decrease**			Pandemic has led household income to decrease** 56.8 17=
Starting a business is more difficult than a year ago			Starting a business is more difficult than a year ago 33.5 36
Use more digital technology to sell products or services			Use more digital technology to sell products or services 60.0 14=
Pursue new opportunities due to pandemic			Pursue new opportunities due to pandemic 42.2 26

An equals sign (=) indicates that the ranking position is tied with another economy or economies.
 * Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.
 ** Those reporting "somewhat decrease" or "strongly decrease".

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

GDP in Uruguay increased by more than 5% in 2022, with inflation rising above 9% and unemployment at almost 8%. Uruguay is a “dollarized” economy due to its historic high inflation, causing inefficiencies in inventory management.

The government introduced the “law of urgent consideration” giving tax benefits to small businesses to help offset the economic impacts of the pandemic.

2022 Framework Conditions Review

In 2022 improvements were evident in the assessed quality of 10 of Uruguay’s 13 individual Framework Conditions, which together pushed the overall assessment of its entrepreneurial environment in the National Entrepreneurship Context Index (NECI) score up from 4.3 in 2021 to 4.5 in 2022, edging its rank among GEM economies from 31st to 30th. Despite these improvements, Uruguay still has too many (eight) conditions assessed as insufficient (<5.0), often by a considerable margin. Much of the improvement since 2021 has been in conditions already scored as sufficient: in 2021, Uruguay had six conditions scored as poor (<4.0) — and the same number in 2022.

Of particular concern is both the level of, and access to, entrepreneurial finance, each assessed as poor in 2022. Finance is the lifeblood of the growing new business: without it, both inception and growth can be very difficult. Other areas suggest a very mixed picture. For example, the score for Ease of Entry: Burdens and Regulation improved sharply, while that for Ease of Entry: Market Dynamics declined equally sharply. At the same time three conditions that are the direct responsibility of the government all improved: both government policy conditions and Government Entrepreneurial Programs.

So, while the improvements in 2022 are welcome, there is still much to do, particularly in addressing those conditions scored as very poor. Uruguay is a Level B economy with big ambitions: continuing to improve its entrepreneurial environment is key to realizing those ambitions.

2022 Entrepreneurial Activity Review

The percentage of adults in Uruguay reporting that the pandemic has reduced their household income remains high at 56%, but is continuing to fall slowly. In

2018, the percentage of adults in Uruguay intending to start a business in the next three years stood at 28%. In the early stages of the pandemic this rose to 37%, subsequently declining to 33% in 2022. Similarly the percentage of adults investing in someone else’s business also rose in those early days and has continued to increase, reaching 7% in 2022.

Adults in Uruguay do not lack confidence in their own abilities. In 2022, seven out of 10 agreed they have the skills and experience to start their own business. Six out of 10 knew someone who had recently started a business, and almost as many saw good opportunities to start a new business locally, although, as in most economies, around a half of these would be deterred from starting that business by fear of failure.

The percentage of adults starting or running their own business increased over the pandemic cycle, from 16% in 2018 to 22% in 2020, and then up to 26% in 2022. So the share of adults starting or running a new business had risen from just one in six to more than one in four. Female rates have been increasing fastest: while the male rate increased by a half since 2018, the female rate has almost doubled over this period. The proportion of adults running an established business has been much more stable, falling slightly at the onset of the pandemic and then recovering. By 2022, there were more than four new businesses for every established business in Uruguay, raising questions about what obstacles may be preventing new businesses from transitioning into established ones. Some of the answers may well be evident from the review of Entrepreneurial Framework Conditions above.

“To earn a living because jobs are scarce” remained the most commonly agreed motive among new entrepreneurs, although agreement with this had fallen from four out of five in 2020 to just under two out of three in 2022. Meanwhile, “to make a difference in the world” had increased in popularity, agreed by three in 10 new entrepreneurs in Uruguay in 2020 and four in 10 in 2022.

Just one in six new entrepreneurs had customers beyond Uruguay, and three in five expected to use more digital technology in the next six months to sell their products. Job expectations were strong, with one in four of those starting or running a new business expecting to employ another six or more people in five years’ time.

Institution

Lead institution

IEEM Business School, University of Montevideo



Type of institution

University

Website

<https://www.ieem.edu.uy/en>

Team

Team leader

Professor Leonardo Veiga, PhD

Team members

Gonzalo Avellanal

APS vendor

Equipos Mori

Contact

lveiga@um.edu.uy

Funders

ANDE

COUSA

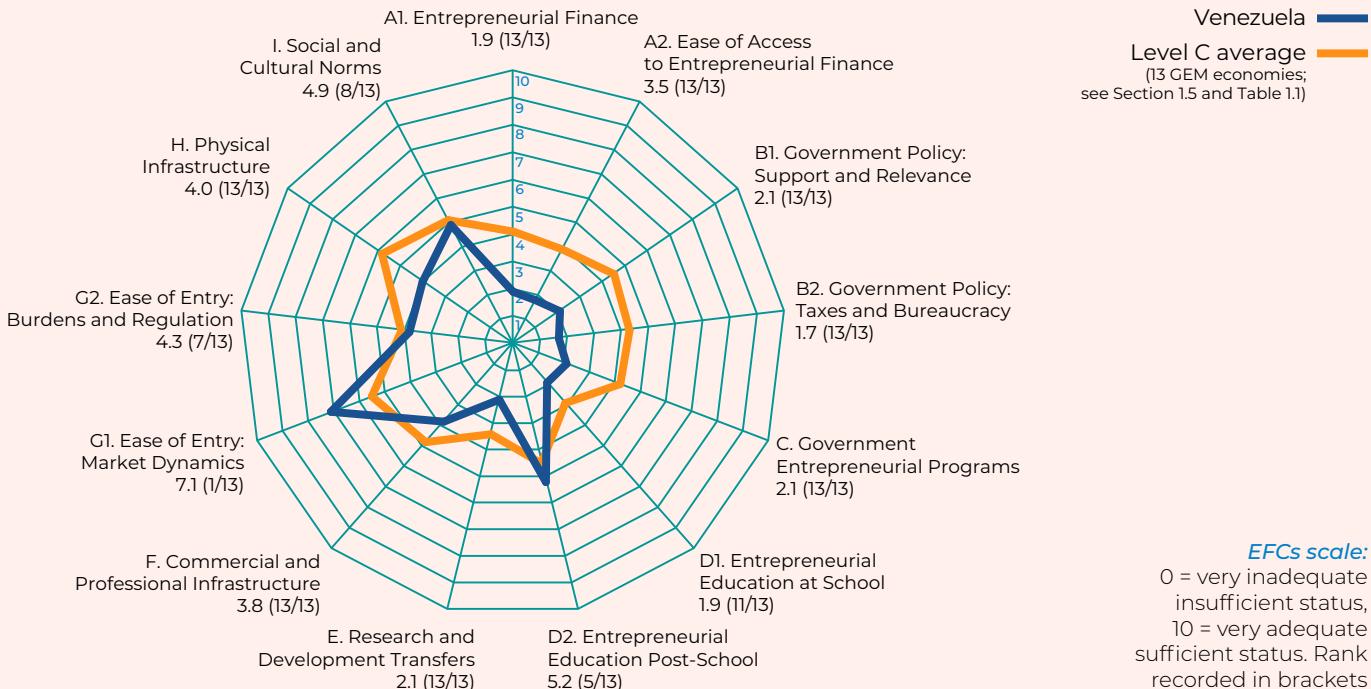


Venezuela

■ Population (2021): **28.7 million** (UN)
 ■ GDP per capita (2021; PPP, international \$): **17.5 thousand** (World Bank)

Attitudes and perceptions		Motivational	
	% Adults	Rank/49	(somewhat or strongly agree)
Know someone who has started a new business	37.8	43	
Good opportunities to start a business in my area	63.7	15=	To make a difference in the world 53.1 19
It is easy to start a business	52.6	22	To build great wealth or very high income 62.5 19
Personally have the skills and knowledge	83.2	3	To continue a family tradition 33.0 18
Fear of failure (opportunity)	33.4	45	To earn a living because jobs are scarce 89.9 1
Entrepreneurial intentions*	29.4	15	
Entrepreneurship impact		Activity	
	% Adults	Rank/49	% Adults Rank/49 % Female % Male
Job expectations (expecting to employ six or more people in five years' time)	2.1	26=	TEA (Total early-stage Entrepreneurial Activity) 15.9 15 15.0 16.9
International (25%+ revenue)	3.3	42=	EBO (Established Business Ownership) 2.6 46= 2.7 2.4
Always consider social impact	85.4	11=	
Always consider environmental impact	84.9	14	
Industry (% TEA in business services)	4.9	45	
COVID-19 related		COVID-19 related	
	% TEA	Rank/49	% Adults Rank/49
An equals sign (=) indicates that the ranking position is tied with another economy or economies.			Pandemic has led household income to decrease** 78.6 2
* Strictly, as noted on p. 46, through this Report this is the percentage of those adults not already engaged in entrepreneurial activity.			
** Those reporting "somewhat decrease" or "strongly decrease".			
			% TEA Rank/49
			Starting a business is more difficult than a year ago 41.3 25=
			Use more digital technology to sell products or services 70.6 8
			Pursue new opportunities due to pandemic 51.0 16

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



POLICY ROADMAP

According to estimates by the Central Bank of Venezuela (BCV), GDP will have grown by nearly 19% in 2022. Venezuela has one of the highest inflation rates in the world, estimated at 125% in 2022.

Towards the end of 2021, the government published the Law for the Promotion and Development of New Ventures to encourage new business creation and an entrepreneurial culture. A “National Venture Fund” was established, with seed capital of around \$10 million, as well as the Registro Nacional de Emprendimientos (RNE).

2022 Framework Conditions Review

In 2022, the National Entrepreneurial Context Index (NECI) score for Venezuela was 3.2, lowest of all 51 economies participating in the GEM National Expert Survey (NES) that year. Of the 13 Entrepreneurial Framework Conditions, Venezuela was ranked last for six, and next to last for two more. If an individual framework score of less than three denotes very poor, then the Venezuelan entrepreneurial environment was very poor for both entrepreneurial finance conditions, both government policy conditions, Government Entrepreneurial Programs, Entrepreneurial Education at School and for Research and Development Transfers. So both the market and the government have been failing to provide a supportive or enabling environment for entrepreneurship. Yet Venezuela also had two conditions rated as sufficient: Ease of Entry: Market Dynamics and Entrepreneurial Education Post-School.

So, overall, there is a poor entrepreneurial environment, but with some evidence that Venezuela can get some Framework Conditions right. How that entrepreneurial environment develops in the future is a matter of political commitment as well as resources. The new Law and National Venture Fund may signal a positive direction for both.

2022 Entrepreneurial Activity Review

Almost four out of five Venezuelan adults reported that the pandemic had reduced their household income in 2022, second highest of the GEM economies behind Togo. Almost three in ten adults expected to start a business in the next three years.

Only one in three adults knew someone who had recently started a business, but confidence was high, with more than four out of five adults considering themselves to have the skills and experience to be able to start their own, second highest of the Level C economies, again behind Togo. Almost two in three saw good opportunities to start a business locally, and only one-third of these would have been deterred from doing so by the fear of failure.

The percentage of adults in Venezuela actually starting or running a business in 2022 was almost 16%, although with slightly more men doing so than women. Seven out of 10 of those new businesses were in consumer services, in the middle for a Level C economy. The percentage of adults running an established business was very low at less than 3%, joint third lowest with Egypt and behind South Africa and Mexico. The ratio of more than five people starting new businesses for every person running an established business probably reflects the difficulties of keeping a new business viable long enough for it to become established. This ratio was only exceeded by Mexico among the 2022 GEM participants.

It is not surprising that nine out of 10 new entrepreneurs in Venezuela agreed with the motivation “to earn a living because jobs are scarce”. Rather more surprising is that six out of 10 agreed with the motive “to make a difference in the world”. Just one in 10 of those new entrepreneurs had customers outside of Venezuela, although that may change, with seven out of 10 agreeing that they expect to use more digital technology to sell their products in the next six months. Finally, just one in eight of those starting or running a new business in Venezuela expect to employ another six or more people in five years’ time.

Institution	Team	Funders	APS vendor
Lead institution IESA  UCAB 	Team leader Edwin Ojeda Aramis Rodríguez Team members Patricia Monteferrante Anitza Freites Demetrio Marotta Federico Fernandez Maria Ponce Jenifer Campos Susana Chu Gustavo Garcia Luz Aimara Morales Luis Lauriño	IESA/UCAB	N/A
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PART 3

Appendix Tables



GEM Indicators

Knowing a Startup Entrepreneur	Percentage of adults aged 18–64 who personally know someone who has started a business in the past two years.
Perceived Opportunities	Percentage of adults aged 18–64 who agree that they see good opportunities to start a business within the next six months in the area in which they live.
Ease of Starting a Business	Percentage of adults aged 18–64 who agree that it is easy to start a business in their country.
Perceived Capabilities	Percentage of adults aged 18–64 who agree that they have the required knowledge, skills and experience to start a business.
Fear of Failure Rate	Percentage of adults aged 18–64 who agree that they see good opportunities but would not start a business for fear it might fail.
Nascent Entrepreneurship Rate	Percentage of adults aged 18–64 who are currently nascent entrepreneurs, i.e. are actively involved in setting up a business they will own or co-own; this business has not yet paid salaries, wages or made any other payments to the owners for more than three months.
New Business Ownership Rate	Percentage of adults aged 18–64 who are currently owner-managers of a new business, i.e. who own and manage a running business that has paid salaries, wages or made any other payments to the owners for more than three months, but not more than 42 months (3.5 years).
Total early-stage Entrepreneurial Activity (TEA)	Percentage of adults aged 18–64 who are either a nascent entrepreneurs or owner-managers of a new business, i.e. the proportion of the adult population who are either starting or running a new business.
Established Business Ownership Rate (EBO)	Percentage of adults aged 18–64 who are currently owner-managers of an established business, i.e. who are owning and managing a running business that has paid salaries, wages or made any other payments to the owners for over 42 months (3.5 years).
Business Services	Percentage of TEA respondents involved in business services.
Consumer Services	Percentage of TEA respondents involved in consumer services.
Entrepreneurial Employee Activity (EEA)	Percentage of adults aged 18–64 who, as employees, have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment, or a subsidiary in the last three years.
Sponsored	Percentage of adults aged 18–64 who are involved in TEA and that business is part-owned with their employer.
Independent	Percentage of adults aged 18–64 who are involved in TEA and that business is independently owned.
Motive for Starting a Business: "To make a difference in the world"	Percentage of TEA respondents who agree that a reason for starting their business is "to make a difference in the world".

Motive for Starting a Business: "To build great wealth or very high income"	Percentage of TEA respondents who agree that a reason for starting their business is "to build great wealth or a very high income".
Motive for Starting a Business: "To continue a family tradition"	Percentage of TEA respondents who agree that a reason for starting their business is "to continue a family tradition".
Motive for Starting a Business: "To earn a living because jobs are scarce"	Percentage of TEA respondents who agree that a reason for starting their business is "to earn a living because jobs are scarce".
High Growth Expectation Entrepreneurial Activity	Percentage of adults aged 18–64 involved in TEA who expect to employ six or more people five years from now.
Internationally Oriented Entrepreneurial Activity	Percentage of adults aged 18–64 involved in TEA who anticipate 25% or more revenue coming from outside their country.
Scope (local/national/international)	Percentage of adults aged 18–64 involved in TEA having customers only within their local area, only within their country, or those having international customers.
Product/Services Impact (local/national/global)	Percentage adults aged 18–64 involved in TEA having products or services that are either new to the area, new to their country or new to the world.
Technology/Procedures Impact (local/national/global)	Percentage of adults aged 18–64 involved in TEA having technology or procedures that are either new to the area, new to their country or new to the world.
Informal Investment	Percentage of adults aged 18–64 investing in someone else's new business in the last three years.
Business Exit Rate	Percentage of adults aged 18–64 who have exited a business in the past 12 months, either by selling, shutting down or otherwise discontinuing an owner/management relationship with that business.
Exit, Business Continues	Percentage of adults aged 18–64 who have exited a business in the past 12 months and that business has continued.
Exit, Business Does Not Continue	Percentage of adults aged 18–64 who have exited a business in the past 12 months and that business has not continued.

PANDEMIC-RELATED INDICATORS

Household Income Impact	Percentage of adults aged 18–64 who consider that the pandemic has led their household income to somewhat or strongly decrease.
Knowing an Entrepreneur Who Stopped a Business	Percentage of adults aged 18–64 who know someone who has stopped a business because of the pandemic.
Knowing an Entrepreneur Who Started a Business	Percentage of adults aged 18–64 who know someone who has started a business because of the pandemic.
Pandemic Opportunities	Percentage of TEA respondents who agree or strongly agree that the pandemic has provided new opportunities they wish to pursue.

Table A1. Impact of pandemic on household income in past year
(% of adults aged 18–64)

		Strongly decrease	Somewhat decrease	No substantial change
Austria	A	8.6	23.4	61.2
Brazil	C	34.9	21.9	31.5
Canada	A	11.7	21.8	50.4
Chile	B	22.4	29.2	37.7
China	C	19.5	54.2	24.6
Colombia	C	32.5	40.5	17.7
Croatia	B	5.6	13.7	32.1
Cyprus	A	22.6	22.1	49.2
Egypt	C	40.1	32.3	23.2
France	A	11.1	21.3	58.6
Germany	A	8.3	23.4	56.5
Greece	B	28.7	29.4	40.4
Guatemala	C	25.7	38.2	22.7
Hungary	B	9.3	19.8	58.0
India	C	33.5	40.4	20.3
Indonesia	C	26.2	49.0	23.5
Iran	C	14.7	35.1	44.6
Israel	A	9.7	26.6	57.8
Japan	A	5.8	20.0	67.0
Latvia	B	11.5	16.9	59.7
Lithuania	A	8.1	21.0	58.2
Luxembourg	A	6.8	20.7	63.6
Mexico	B	39.6	37.9	14.5
Morocco	C	30.1	36.2	31.6
Netherlands	A	6.4	17.2	65.9
Norway	A	1.6	7.0	84.3
Oman	B	16.4	29.1	52.6
Panama	B	37.6	32.8	18.2
Poland	B	17.1	43.7	30.1
Puerto Rico	B	25.8	30.2	30.2

Somewhat increase	Strongly increase
5.9	0.9
7.6	4.0
12.0	4.0
7.1	3.5
1.4	0.4
5.8	3.5
42.1	6.4
4.5	1.5
3.3	1.1
6.9	2.0
10.3	1.4
1.3	0.3
8.7	4.7
10.8	2.1
5.6	0.2
1.3	0.0
5.1	0.5
5.0	1.0
6.1	1.1
10.5	1.4
10.6	2.1
7.0	1.9
4.0	4.0
1.8	0.3
8.3	2.1
5.4	1.6
1.6	0.3
6.3	5.1
8.3	0.8
8.8	5.0

Table A1 (continued)

		Strongly decrease	Somewhat decrease	No substantial change
Qatar	A	13.6	30.5	51.6
Republic of Korea	A	0.7	34.3	49.3
Romania	B	11.5	22.3	54.2
Saudi Arabia	A	10.2	37.7	43.6
Serbia	B	19.0	31.2	44.7
Slovak Republic	B	21.3	35.3	37.2
Slovenia	A	6.1	18.8	61.2
South Africa	C	40.2	23.5	19.2
Spain	A	14.7	25.5	54.6
Sweden	A	5.5	16.5	61.0
Switzerland	A	4.9	18.0	70.5
Taiwan	B	18.2	26.0	53.9
Togo	C	75.8	12.2	8.4
Tunisia	C	40.8	27.7	29.9
United Arab Emirates	A	29.1	37.1	26.4
United Kingdom	A	8.4	18.6	60.8
United States	A	12.6	20.3	49.5
Uruguay	B	28.2	28.6	35.9
Venezuela	C	52.2	26.4	17.0

Somewhat increase	Strongly increase
3.8	0.6
15.7	0.0
10.6	1.4
7.7	0.8
4.9	0.2
4.8	1.4
11.9	2.0
7.3	9.9
4.5	0.7
14.1	2.9
5.3	1.4
1.4	0.6
0.8	2.8
1.4	0.3
4.9	2.5
9.0	3.1
12.5	5.0
4.6	2.8
3.2	1.2

Table A2. Entrepreneurial activity (% of adults aged 18–64)

An equals sign (=) indicates that the ranking position is tied with another economy or economies

	Total early-stage Entrepreneurial Activity		Established Business Ownership		Informal investment	
	Score	Rank/49	Score	Rank/49	Score	Rank/49
Austria	6.8	40	8.3	15=	4.3	20=
Brazil	20.0	8=	10.4	7	10.8	5
Canada	16.5	13	6.2	27	4.5	18=
Chile	27.0	4	7.3	19	22.4	1
China	6.0	44=	3.2	43	4.3	20=
Colombia	28.0	2	5.1	34	2.6	34=
Croatia	13.2	17	3.4	42	2.8	32=
Cyprus	8.3	34=	5.7	29=	3.3	27
Egypt	6.6	41	2.6	46=	2.0	39=
France	9.2	29	2.9	44=	5.3	15=
Germany	9.1	30=	3.6	40	3.1	29
Greece	4.9	47	13.3	3	2.1	38
Guatemala	29.4	1	11.6	5	14.0	2
Hungary	9.9	28	6.9	21	2.0	39=
India	11.5	24	9.0	12=	2.5	36
Indonesia	8.1	36	5.7	29=	3.2	28
Iran	16.4	14	10.8	6	4.6	17
Israel	8.7	32	3.5	41	2.4	37
Japan	6.4	43	6.3	26	1.5	47=
Latvia	14.2	16	12.3	4	4.2	22=
Lithuania	12.7	20	8.3	15=	3.9	25
Luxembourg	7.0	39	5.3	33	4.5	18=
Mexico	12.9	18=	1.6	49	1.8	42=
Morocco	4.2	48	4.1	37=	1.9	41
Netherlands	12.5	21	6.8	22=	6.3	12
Norway	6.5	42	5.6	31=	4.2	22=
Oman	11.7	23	4.1	37=	3.5	26
Panama	27.9	3	5.8	28	8.2	8

	Total early-stage Entrepreneurial Activity		Established Business Ownership		Informal investment	
	Score	Rank/49	Score	Rank/49	Score	Rank/49
Poland	1.6	49	9.8	9	1.6	45=
Puerto Rico	20.0	8=	5.6	31=	1.8	42=
Qatar	10.7	25=	3.9	39	9.1	7
Republic of Korea	11.9	22	19.9	1	2.8	32=
Romania	8.3	34=	8.6	14	1.5	47=
Saudi Arabia	19.2	10=	9.7	10	12.0	4
Serbia	10.5	27	2.9	44=	1.3	49
Slovak Republic	10.7	25=	6.6	24	2.9	30=
Slovenia	8.0	37	8.1	18	4.0	24
South Africa	8.5	33	1.8	48	1.6	45=
Spain	6.0	44=	7.0	20	2.9	30=
Sweden	9.1	30=	4.8	35	6.7	9=
Switzerland	7.4	38	8.2	17	6.7	9=
Taiwan	5.6	46	9.0	12=	5.3	15=
Togo	24.1	7	18.0	2	12.3	3
Tunisia	17.1	12	10.0	8	9.4	6
United Arab Emirates	25.5	6	4.5	36	5.4	13=
United Kingdom	12.9	18=	6.8	22=	2.6	34=
United States	19.2	10=	9.2	11	6.5	11
Uruguay	26.3	5	6.4	25	5.4	13=
Venezuela	15.9	15	2.6	46=	1.7	44

Table A3. Public attitudes and perceptions (% of adults aged 18–64 somewhat or strongly agree)

	Knowing someone who has started a business in the past two years	“There are good opportunities to start a business in the area where I live”	“In my country, it is easy to start a business”
Austria	50.9	49.5	48.4
Brazil	75.8	67.9	46.8
Canada	47.3	58.8	63.0
Chile	68.6	50.5	51.1
China	56.3	56.5	25.9
Colombia	63.8	53.4	41.4
Croatia	66.5	60.0	34.0
Cyprus	82.4	26.8	48.4
Egypt	32.9	63.7	67.7
France	59.7	52.4	55.4
Germany	34.2	39.5	34.6
Greece	28.5	36.4	31.9
Guatemala	71.5	68.3	47.8
Hungary	47.9	27.2	47.4
India	47.4	75.5	78.0
Indonesia	71.4	87.2	72.2
Iran	64.1	51.3	23.7
Israel	59.2	46.8	12.9
Japan	20.4	12.7	27.5
Latvia	38.0	34.6	29.4
Lithuania	53.1	40.4	36.5
Luxembourg	41.3	52.4	64.2
Mexico	47.7	56.4	46.3
Morocco	51.6	62.5	36.5
Netherlands	54.5	61.6	82.9
Norway	42.6	73.6	82.8
Oman	58.5	75.7	56.5

“You personally have the knowledge, skills and experience required to start a business”	“You see good opportunities, but would not start a business for fear it might fail” (% of those seeing good opportunities)	“Are you expecting to start a business in the next three years?”*
53.2	37.9	5.4
69.2	49.0	53.0
55.4	51.8	14.2
70.1	44.9	46.1
54.4	56.7	6.4
66.6	38.5	21.2
73.6	48.6	19.5
52.7	51.7	18.3
62.8	50.6	47.3
49.8	41.0	15.8
36.2	44.3	6.5
53.8	49.5	8.3
77.5	43.2	46.5
36.8	34.0	8.7
78.1	54.0	20.1
75.5	36.8	33.3
54.2	30.9	27.5
35.4	44.0	12.3
14.9	50.9	5.1
53.9	36.7	17.6
49.8	46.2	15.1
50.0	44.1	14.0
67.1	45.5	17.5
63.3	44.4	37.3
42.2	33.8	16.2
49.2	41.0	5.5
57.6	33.3	44.3

* Strictly, this is the percentage of adults excluding those already engaged in entrepreneurial activity.

Table A3 (continued)

	Knowing someone who has started a business in the past two years	"There are good opportunities to start a business in the area where I live"	"In my country, it is easy to start a business"
Panama	48.0	53.4	54.2
Poland	46.7	72.3	79.4
Puerto Rico	66.0	64.1	26.7
Qatar	64.2	81.0	67.3
Republic of Korea	39.5	41.0	37.4
Romania	46.2	63.8	42.5
Saudi Arabia	88.2	89.5	88.7
Serbia	54.6	37.8	32.7
Slovak Republic	59.3	29.4	20.4
Slovenia	53.5	55.0	67.7
South Africa	33.6	61.3	63.9
Spain	41.3	26.0	32.2
Sweden	53.8	76.7	79.8
Switzerland	52.1	47.0	66.5
Taiwan	29.0	46.8	40.5
Togo	58.9	77.2	54.3
Tunisia	66.6	61.8	44.7
United Arab Emirates	60.1	72.2	77.2
United Kingdom	47.6	44.4	65.9
United States	55.6	46.0	65.8
Uruguay	61.3	58.2	38.7
Venezuela	37.8	63.7	52.6

“You personally have the knowledge, skills and experience required to start a business”	“You see good opportunities, but would not start a business for fear it might fail” (% of those seeing good opportunities)	“Are you expecting to start a business in the next three years?”*
76.7	48.3	53.0
47.8	53.1	2.5
68.9	45.2	26.3
64.1	43.0	43.6
54.8	18.3	23.9
62.7	55.7	6.4
88.1	63.3	31.8
66.1	41.3	12.4
42.9	42.9	8.6
62.8	50.2	15.3
63.7	59.4	6.0
46.5	50.9	8.3
49.4	41.5	13.7
47.6	32.3	10.5
39.9	42.9	15.2
87.5	40.6	52.3
78.6	42.6	50.7
71.7	39.2	44.5
53.5	52.9	10.9
66.8	43.1	13.6
69.1	46.7	32.7
83.2	33.4	29.4

* Strictly, this is the percentage of adults excluding those already engaged in entrepreneurial activity.

Table A4. Attitudes and perceptions of entrepreneurs: % of Total early-stage Entrepreneurial Activity (TEA) and % of Established Business Ownership (EBO)

	The % of those starting or running a new or established business who agree/strongly agree that pandemic has provided new opportunities that they want to pursue/are pursuing		The % of those starting or running a new or established business who think starting a business is somewhat or much more difficult as a year ago	
	% TEA	% EBO	% TEA	% EBO
Austria	41.3	40.4	34.9	28.4
Brazil	53.7	51.6	64.8	60.8
Canada	49.8	48.6	55.5	36.8
Chile	67.5	70.1	63.3	50.7
China	84.2	88.4	31.3	18.4
Colombia	50.6	59.9	51.2	37.2
Croatia	32.2	22.9	34.8	29.0
Cyprus	56.5	57.0	40.1	19.3
Egypt	35.2	20.8	43.5	44.8
France	29.5	36.0	39.7	20.7
Germany	40.2	44.2	45.5	38.1
Greece	40.3	59.4	21.2	14.9
Guatemala	59.6	60.9	53.0	39.7
Hungary	42.9	33.9	17.4	10.2
India	68.0	50.2	68.8	68.2
Indonesia	34.8	39.6	46.7	25.0
Iran	62.3	67.2	21.6	14.2
Israel	38.5	40.1	49.9	37.9
Japan	26.8	45.4	28.2	12.3
Latvia	46.3	48.8	35.0	22.3
Lithuania	50.2	58.9	29.2	27.0
Luxembourg	49.7	44.5	50.7	49.3
Mexico	48.5	42.8	54.9	49.5
Morocco	33.6	34.4	32.1	23.0
Netherlands	32.6	35.1	48.1	32.3

The % of those starting or running a new or established business who expect to use more digital technologies to sell products or services in the next six months		The % of those starting or running a new or established business who agree/strongly agree that they always consider the social implications of decisions		The % of those starting or running a new or established business who agree/strongly agree that they always consider the environmental implications of decisions		The % of those starting or running a new or established business who are aware of the United Nations Sustainable Development Goals	
% TEA	% EBO	% TEA	% EBO	% TEA	% EBO	% TEA	% EBO
43.6	20.8	69.3	62.4	67.4	64.4	30.4	25.7
85.4	70.6	90.2	91.0	91.3	94.5	–	–
55.3	43.4	69.9	74.9	75.8	75.0	30.8	25.7
75.4	56.8	88.1	86.9	91.9	90.2	15.0	17.2
36.9	34.1	78.4	71.5	85.8	86.8	34.4	36.8
62.3	46.0	69.6	74.3	76.3	79.4	11.8	13.2
50.1	49.2	81.0	71.2	82.5	82.2	27.8	30.3
53.0	30.9	73.4	62.9	70.2	56.9	14.1	19.6
64.0	44.8	79.7	75.6	77.2	73.9	7.8	10.0
17.6	30.3	74.3	58.9	74.0	63.6	28.0	27.3
46.0	33.3	61.1	50.3	54.5	61.5	–	–
47.3	22.0	72.2	69.6	77.1	79.6	19.3	17.3
72.6	61.4	93.3	90.3	93.5	90.0	–	–
37.7	18.1	66.6	57.1	80.3	65.9	24.7	22.7
28.2	22.8	84.7	82.6	74.2	79.6	7.9	4.4
60.9	40.0	88.6	83.4	84.2	80.0	6.9	12.6
53.4	33.5	71.3	42.6	68.8	36.9	–	–
48.5	23.3	55.2	47.2	47.6	36.2	15.4	8.8
54.4	40.7	64.6	51.2	55.6	59.7	–	–
45.6	25.8	70.7	68.0	76.0	78.3	25.9	19.7
28.8	23.3	71.4	81.9	76.3	82.0	16.2	23.8
55.0	43.8	85.3	80.4	82.4	82.0	–	–
78.9	73.6	85.2	87.9	87.5	84.1	8.9	15.4
63.4	38.2	58.9	57.7	55.6	61.2	5.0	5.0
38.5	23.6	67.8	67.1	66.1	63.3	–	–

Table A4 (continued)

	The % of those starting or running a new or established business who agree/strongly agree that pandemic has provided new opportunities that they want to pursue/are pursuing		The % of those starting or running a new or established business who think starting a business is somewhat or much more difficult as a year ago	
	% TEA	% EBO	% TEA	% EBO
Norway	39.1	33.4	36.0	33.0
Oman	25.1	26.7	51.9	25.8
Panama	58.1	58.6	61.1	44.4
Poland	30.2	16.6	38.1	36.7
Puerto Rico	55.1	57.9	66.9	38.8
Qatar	36.0	50.2	60.0	42.2
Republic of Korea	49.6	67.8	10.5	1.8
Romania	43.9	60.0	63.0	38.0
Saudi Arabia	15.5	15.2	67.2	51.1
Serbia	29.4	45.5	20.3	19.3
Slovak Republic	9.3	7.1	32.6	25.7
Slovenia	21.9	20.8	48.5	35.7
South Africa	57.8	55.4	58.9	46.5
Spain	53.1	52.5	40.3	27.2
Sweden	23.7	23.1	33.4	33.0
Switzerland	28.8	40.1	36.4	27.0
Taiwan	39.5	69.3	41.9	21.5
Togo	75.4	81.2	18.1	18.4
Tunisia	65.2	75.0	20.4	23.8
United Arab Emirates	25.7	36.7	50.2	51.7
United Kingdom	46.1	55.2	57.0	36.9
United States	53.3	57.2	50.4	45.4
Uruguay	33.5	37.8	42.2	31.4
Venezuela	41.3	21.5	51.0	36.9

The % of those starting or running a new or established business who expect to use more digital technologies to sell products or services in the next six months		The % of those starting or running a new or established business who agree/strongly agree that they always consider the social implications of decisions		The % of those starting or running a new or established business who agree/strongly agree that they always consider the environmental implications of decisions		The % of those starting or running a new or established business who are aware of the United Nations Sustainable Development Goals	
% TEA	% EBO	% TEA	% EBO	% TEA	% EBO	% TEA	% EBO
47.7	31.9	48.5	54.0	61.8	66.9	61.3	54.1
54.7	37.7	54.6	68.7	48.5	63.4	–	–
80.3	62.4	90.9	88.0	93.7	91.5	–	–
29.1	14.7	85.4	91.9	83.5	90.6	43.2	60.3
78.4	56.2	89.4	92.1	90.3	88.9	–	–
55.6	64.9	78.7	79.2	82.7	77.8	14.9	14.8
46.4	61.0	67.7	63.3	62.2	72.6	30.5	22.9
38.4	31.0	88.8	90.5	85.0	88.0	29.2	47.3
62.1	71.7	79.5	82.2	82.5	83.0	–	–
33.1	28.2	74.0	75.3	78.3	77.6	12.4	11.6
34.0	22.0	71.1	71.4	70.7	71.8	30.2	26.0
52.4	26.0	83.4	88.2	93.0	86.9	30.2	22.9
45.1	36.5	83.0	80.4	75.5	70.9	18.7	15.4
46.5	26.6	68.5	65.9	68.9	71.7	30.8	26.1
36.5	29.2	60.0	57.7	60.8	59.9	–	–
31.9	20.8	71.4	69.6	75.3	69.9	32.6	17.7
57.8	31.3	90.9	77.6	87.4	80.3	31.7	23.6
32.4	18.2	75.4	61.1	70.4	54.3	22.9	7.0
45.9	31.7	86.2	90.1	88.3	91.1	6.5	9.3
81.9	79.1	90.2	87.9	90.0	84.4	30.6	26.8
60.0	31.3	74.4	61.7	73.3	61.7	–	–
56.6	40.6	72.8	64.3	68.8	63.1	–	–
60.0	41.9	85.0	78.2	87.3	78.7	11.0	16.4
70.6	70.8	85.4	86.2	84.9	82.6	–	–

Table A5. Entrepreneurial activity by age, gender and education

	Total early-stage Entrepreneurial Activity (TEA) by gender		Established Business Ownership (EBO) by gender	
	% Male	% Female	% Male	% Female
Austria	7.4	6.1	10.6	6.1
Brazil	23.0	17.2	14.2	6.8
Canada	18.3	14.8	7.0	5.4
Chile	28.9	25.2	8.8	5.8
China	6.9	5.0	3.5	2.9
Colombia	30.1	26.1	6.2	4.0
Croatia	17.0	9.5	4.3	2.5
Cyprus	11.7	4.9	7.6	3.9
Egypt	9.4	3.7	4.0	1.1
France	11.2	7.3	3.7	2.2
Germany	11.0	7.1	4.5	2.6
Greece	6.3	3.4	16.5	10.2
Guatemala	30.8	28.2	13.6	9.7
Hungary	12.0	7.9	9.4	4.6
India	11.6	11.4	10.5	7.6
Indonesia	7.0	9.2	5.5	5.9
Iran	19.3	13.6	17.6	3.9
Israel	10.5	7.0	3.3	3.6
Japan	9.1	3.6	8.6	4.1
Latvia	17.8	10.6	16.3	8.4
Lithuania	16.6	9.0	10.9	5.7
Luxembourg	8.5	5.4	6.6	3.5
Mexico	13.8	12.1	2.2	1.0
Morocco	5.4	3.1	6.8	1.5
Netherlands	15.3	9.6	8.3	5.3
Norway	8.3	4.5	7.6	3.5
Oman	11.8	11.6	5.5	2.6

Total early-stage Entrepreneurial Activity (TEA) by % of age group		Level of Total early-stage Entrepreneurial Activity (TEA) for graduates and for non-graduates	
% 18–34	% 35–64	% of graduates	% of non-graduates
7.1	6.6	9.4	6.3
22.8	18.1	17.8	20.7
24.4	12.3	17.9	11.6
26.6	27.3	27.5	25.9
8.9	4.4	7.5	4.7
29.1	27.0	31.3	24.6
21.3	9.6	17.3	10.4
12.4	5.8	10.4	5.1
7.5	5.5	8.4	5.1
11.4	8.0	10.9	6.7
13.9	6.8	12.2	7.2
5.1	4.7	5.3	4.4
35.2	22.3	42.2	28.2
12.4	8.6	11.8	8.8
9.8	13.3	11.6	11.5
7.4	8.6	9.0	8.0
19.9	13.3	17.9	14.9
8.4	8.9	8.9	0.0
6.1	6.5	6.4	6.0
21.1	11.1	17.7	11.5
18.3	10.2	13.2	11.3
6.2	7.4	10.3	3.8
14.8	11.3	17.2	12.0
5.2	3.1	5.8	3.3
17.7	9.6	15.1	11.1
4.8	7.4	7.3	5.4
13.4	9.6	15.3	8.1

Table A5 (continued)

	Total early-stage Entrepreneurial Activity (TEA) by gender		Established Business Ownership (EBO) by gender	
	% Male	% Female	% Male	% Female
Panama	31.2	24.6	7.9	3.7
Poland	1.5	1.6	10.0	9.6
Puerto Rico	22.3	17.9	8.0	3.4
Qatar	10.6	11.0	4.4	2.1
Republic of Korea	15.2	8.5	24.3	15.3
Romania	9.9	6.5	10.1	7.1
Saudi Arabia	21.6	16.1	9.5	10.1
Serbia	14.7	6.4	4.1	1.8
Slovak Republic	11.9	9.5	9.1	4.0
Slovenia	10.3	5.6	9.8	6.2
South Africa	9.1	7.9	2.0	1.7
Spain	6.0	5.9	7.5	6.5
Sweden	11.0	7.1	6.1	3.4
Switzerland	8.4	6.3	8.4	8.0
Taiwan	6.9	4.3	13.0	5.0
Togo	22.6	25.4	17.0	18.9
Tunisia	19.7	14.7	15.1	5.0
United Arab Emirates	28.0	19.7	5.1	3.1
United Kingdom	15.1	10.7	9.4	4.3
United States	20.3	18.1	10.5	7.9
Uruguay	28.88	23.87	8.4	4.5
Venezuela	16.89	15.02	2.4	2.7

Total early-stage Entrepreneurial Activity (TEA) by % of age group		Level of Total early-stage Entrepreneurial Activity (TEA) for graduates and for non-graduates	
% 18–34	% 35–64	% of graduates	% of non-graduates
29.1	27.0	30.4	25.1
3.0	0.9	1.6	1.4
23.1	18.3	22.6	12.5
9.5	11.8	10.4	11.5
10.7	12.4	12.7	10.8
11.3	6.8	9.4	2.4
18.8	19.6	18.8	20.1
14.3	8.6	16.5	8.4
13.5	9.4	15.0	8.8
13.4	5.8	10.2	6.1
9.3	7.5	11.3	6.6
6.0	6.0	8.0	4.1
12.2	7.3	10.2	7.8
6.6	7.8	7.5	7.0
7.5	4.6	5.9	4.8
26.3	21.1	29.0	23.3
15.8	18.1	15.4	18.0
24.7	26.5	26.5	18.2
15.9	11.2	15.2	10.3
27.0	14.5	19.5	18.3
31.7	22.5	29.1	25.9
16.3	15.7	18.8	14.7

Table A6. Sector distribution of new entrepreneurial activity
(% of Total early-stage Entrepreneurial Activity)

	Business-oriented services	Consumer-oriented services	Extractive sector	Transforming sector
Austria	34.7	46.2	5.1	14.0
Brazil	19.8	57.4	2.3	20.5
Canada	33.8	43.0	1.9	21.3
Chile	16.9	53.5	4.4	25.3
China	8.5	75.2	1.5	14.8
Colombia	8.2	72.8	0.6	18.5
Croatia	32.7	32.8	11.2	23.3
Cyprus	27.1	54.8	2.9	15.2
Egypt	7.4	47.8	17.4	27.5
France	33.9	42.3	3.5	20.3
Germany	29.9	51.6	1.6	16.9
Greece	17.4	49.6	9.0	24.0
Guatemala	5.4	77.9	2.8	14.0
Hungary	26.6	39.1	6.6	27.8
India	4.8	66.8	7.6	20.8
Indonesia	2.3	87.9	2.7	7.1
Iran	17.5	56.3	5.3	20.9
Israel	42.7	44.7	0.6	11.9
Japan	41.7	51.6	0.8	5.9
Latvia	28.5	36.6	6.9	28.0
Lithuania	20.0	42.2	10.1	27.7
Luxembourg	40.3	49.2	2.9	7.6
Mexico	5.3	74.9	2.7	17.2
Morocco	11.8	71.7	2.1	14.5
Netherlands	30.8	49.8	1.1	18.3
Norway	38.7	31.2	14.5	15.6
Oman	14.4	64.0	2.8	18.8
Panama	11.5	66.7	5.5	16.3
Poland	19.5	44.3	5.5	30.7

	Business-oriented services	Consumer-oriented services	Extractive sector	Transforming sector
Puerto Rico	22.4	60.0	2.3	15.4
Qatar	27.5	40.7	0.3	31.5
Republic of Korea	15.4	55.1	2.1	27.4
Romania	21.2	51.5	6.3	21.0
Saudi Arabia	4.2	89.2	1.2	5.4
Serbia	13.6	48.5	7.3	30.7
Slovak Republic	22.6	47.7	2.3	27.4
Slovenia	35.7	31.3	2.5	30.5
South Africa	7.9	67.3	4.5	20.3
Spain	38.5	45.6	2.5	13.4
Sweden	33.1	41.0	6.1	19.8
Switzerland	38.4	52.4	0.9	8.3
Taiwan	13.6	66.2	0.0	20.3
Togo	3.3	49.4	13.7	33.7
Tunisia	6.9	52.5	15.5	25.1
United Arab Emirates	19.5	64.3	1.8	14.4
United Kingdom	34.0	50.5	0.0	15.5
United States	22.3	47.4	3.8	26.5
Uruguay	16.1	56.7	4.9	22.3
Venezuela	4.9	70.7	3.4	21.0

Table A7. Business exits, and reason for exit (positive, negative [non-COVID] and COVID-related), % of adults aged 18–64

	Business exits	Positive	Negative, not including COVID-19 pandemic	COVID-19 pandemic
Austria	3.7	1.7	1.4	0.4
Brazil	13.0	0.9	8.2	3.0
Canada	8.2	2.8	4.0	0.6
Chile	7.6	1.6	4.0	1.6
China	3.4	0.8	1.7	0.7
Colombia	6.4	0.7	3.3	2.3
Croatia	3.6	0.9	1.9	0.4
Cyprus	4.1	0.5	2.3	1.1
Egypt	9.8	0.8	7.3	1.7
France	3.6	1.3	1.9	0.2
Germany	5.2	1.8	2.8	0.5
Greece	2.0	0.4	1.4	0.1
Guatemala	7.2	1.1	3.7	1.5
Hungary	1.9	0.5	0.7	0.3
India	6.3	1.6	3.5	0.9
Indonesia	10.5	2.1	4.7	2.4
Iran	7.4	1.1	5.4	0.2
Israel	3.7	0.7	2.2	0.4
Japan	2.0	0.6	1.0	0.2
Latvia	3.9	0.6	2.3	0.5
Lithuania	4.2	0.9	2.4	0.4
Luxembourg	4.5	1.9	1.8	0.2
Mexico	9.5	1.0	5.9	2.5
Morocco	4.3	0.2	3.2	0.8
Netherlands	5.6	2.3	2.7	0.4
Norway	1.6	0.4	0.7	0.1
Oman	11.2	1.1	6.3	3.4
Panama	11.1	1.0	5.7	4.4
Poland	3.7	0.9	0.7	2.2

	Business exits	Positive	Negative, not including COVID-19 pandemic	COVID-19 pandemic
Puerto Rico	3.7	0.5	1.7	0.9
Qatar	9.1	1.8	4.8	1.9
Republic of Korea	3.5	0.3	3.1	0.2
Romania	1.6	0.4	0.9	0.2
Saudi Arabia	11.5	5.2	6.0	0.2
Serbia	3.7	1.1	2.1	0.2
Slovak Republic	5.3	1.1	2.3	1.2
Slovenia	2.5	0.7	1.1	0.4
South Africa	4.9	0.3	3.1	1.2
Spain	2.5	0.7	1.5	0.2
Sweden	4.1	1.5	1.8	0.1
Switzerland	2.2	0.9	0.9	0.3
Taiwan	1.9	0.7	0.8	0.3
Togo	9.7	0.5	7.4	0.9
Tunisia	8.8	0.5	6.3	1.1
United Arab Emirates	14.6	3.4	8.1	1.9
United Kingdom	2.8	0.9	1.1	0.5
United States	9.1	2.7	4.3	1.1
Uruguay	9.8	1.8	5.9	1.3
Venezuela	5.3	0.1	3.5	0.7

Table A8. Entrepreneurial expectations and scope (% of adults aged 18–64)

	Job creation expectations			The % of adults (aged 18–64) starting or running a new business and anticipating 25% or more revenue from outside their country	The % of adults starting a new business with products or services that are either new to their area, new to their country or new to the world		
	0 jobs	1–5 jobs	6 or more jobs		New to their area	New to their country	New to the world
Austria	4.1	1.6	1.1	1.2	1.1	0.5	0.3
Brazil	6.2	7.4	6.4	0.4	3.0	0.4	0.1
Canada	9.2	4.2	3.1	3.0	4.2	2.2	0.9
Chile	4.6	14.4	8.0	0.1	8.6	3.4	2.6
China	3.1	1.7	1.2	0.1	0.9	0.2	0.1
Colombia	5.8	14.6	7.6	1.2	5.7	0.6	0.3
Croatia	5.6	4.2	3.4	2.7	2.6	1.6	0.7
Cyprus	1.8	3.8	2.7	1.7	0.7	1.4	0.7
Egypt	2.9	2.0	1.7	0.1	1.0	0.1	0.0
France	3.6	3.1	2.4	1.1	1.7	0.9	0.8
Germany	6.2	1.7	1.2	1.7	3.1	0.8	0.6
Greece	1.8	2.1	1.0	0.9	0.7	0.8	0.1
Guatemala	4.6	16.2	8.6	1.8	8.8	1.1	0.4
Hungary	4.5	3.6	1.7	1.0	1.0	0.7	0.4
India	4.7	5.0	1.7	0.2	2.6	0.6	0.2
Indonesia	5.2	1.6	1.3	0.3	1.4	0.1	0.0
Iran	5.4	5.5	5.5	0.5	2.2	1.5	0.5
Israel	5.3	1.7	1.7	1.3	1.1	0.4	0.6
Japan	3.5	1.7	1.1	0.4	1.4	0.9	0.4
Latvia	6.1	4.6	3.5	3.2	0.8	1.5	0.5
Lithuania	5.4	4.1	3.2	2.2	1.0	0.9	0.6
Luxembourg	2.5	1.8	2.7	1.7	0.9	1.5	0.7
Mexico	2.2	7.6	3.1	0.5	3.5	0.7	0.3
Morocco	1.5	1.6	1.2	0.2	0.5	0.1	0.0
Netherlands	6.0	3.9	2.5	2.7	2.4	1.3	0.7

The % of adults starting or running a new business using technology or processes that are either new to their area, new to their country or new to the world			The % of adults starting or running a new business having customers only within their local area, only within their country, and those having international customers		
New to their area	New to their country	New to the world	Local only	National	International
0.9	0.3	0.3	2.1	1.9	2.5
3.4	0.5	0.2	9.8	8.7	1.3
3.5	2.1	0.3	5.8	4.8	4.7
6.6	2.6	1.5	20.3	6.2	0.5
0.7	0.3	0.1	3.3	2.3	0.2
5.1	0.6	0.4	12.7	9.5	3.9
2.8	1.8	0.5	3.1	3.9	6.0
1.0	1.4	0.8	1.6	3.2	3.4
1.0	0.1	0.0	2.4	3.4	0.4
1.7	0.8	0.9	3.0	2.8	3.1
2.5	1.4	0.5	2.8	3.0	2.5
0.7	0.7	0.0	1.6	1.1	2.0
9.5	1.3	0.7	14.8	11.0	3.2
1.6	0.4	0.5	2.8	4.5	2.6
2.0	0.6	0.2	9.0	1.6	0.3
1.4	0.0	0.0	4.6	2.2	0.4
2.0	1.2	0.5	3.6	9.3	2.9
0.6	0.6	0.6	1.8	4.5	2.2
1.2	1.2	0.5	1.4	3.2	1.3
0.7	1.3	0.4	1.7	6.3	6.1
0.8	1.2	0.5	2.3	5.2	4.9
0.8	0.5	0.5	0.7	2.3	3.6
3.8	0.5	0.5	7.1	3.8	1.2
0.4	0.1	0.0	2.2	1.5	0.4
2.2	1.4	0.8	2.2	5.1	4.8

Table A8 (continued)

	Job creation expectations			The % of adults (aged 18–64) starting or running a new business and anticipating 25% or more revenue from outside their country	The % of adults starting a new business with products or services that are either new to their area, new to their country or new to the world		
	0 jobs	1–5 jobs	6 or more jobs		New to their area	New to their country	New to the world
Norway	2.5	2.5	1.5	0.7	0.7	0.5	0.5
Oman	8.2	1.7	1.7	0.7	1.7	0.7	0.1
Panama	2.5	14.1	11.2	1.0	5.4	2.4	0.7
Poland	0.2	1.1	0.3	0.1	0.2	0.1	0.0
Puerto Rico	3.7	10.1	6.3	1.7	3.4	2.4	1.5
Qatar	2.5	1.9	6.2	1.1	2.0	1.1	0.9
Republic of Korea	2.4	5.6	4.0	0.6	1.1	1.9	0.4
Romania	2.7	3.6	2.0	1.1	1.3	0.4	0.0
Saudi Arabia	3.9	10.8	4.5	1.0	4.6	0.8	0.1
Serbia	3.8	5.4	1.3	0.7	1.1	0.3	0.0
Slovak Republic	7.6	2.5	0.7	1.2	2.3	1.3	0.5
Slovenia	3.1	3.6	1.3	1.8	0.8	1.0	0.9
South Africa	2.3	4.3	1.8	1.6	2.4	0.3	0.0
Spain	3.3	2.0	0.6	0.6	0.9	0.5	0.3
Sweden	5.5	2.3	1.3	1.3	1.0	0.7	0.6
Switzerland	3.9	2.7	0.8	0.9	1.5	0.6	0.7
Taiwan	2.0	1.5	2.1	0.5	0.7	0.5	0.3
Togo	9.6	10.5	4.0	2.1	1.8	0.2	0.3
Tunisia	6.4	7.1	3.7	1.0	3.0	0.3	0.0
United Arab Emirates	2.7	3.2	19.6	8.7	3.9	4.3	2.3
United Kingdom	5.8	4.5	2.5	1.6	1.7	0.8	0.5
United States	9.2	5.4	4.7	2.8	3.3	2.3	1.9
Uruguay	10.2	9.7	6.4	1.1	4.9	2.1	0.9
Venezuela	4.7	9.1	2.1	0.5	2.5	0.4	0.6

The % of adults starting or running a new business using technology or processes that are either new to their area, new to their country or new to the world			The % of adults starting or running a new business having customers only within their local area, only within their country, and those having international customers		
New to their area	New to their country	New to the world	Local only	National	International
0.2	0.4	0.4	1.9	2.4	2.0
1.5	0.5	0.0	2.7	5.7	3.1
6.0	2.2	0.5	8.1	16.5	2.8
0.2	0.1	0.1	1.0	0.5	0.1
3.3	2.8	1.3	2.1	10.9	6.4
1.8	1.1	0.8	2.2	4.7	2.8
0.7	1.4	0.2	1.1	8.2	2.3
1.1	0.3	0.1	3.6	3.4	1.3
5.1	1.1	0.1	10.0	5.7	3.4
0.8	0.5	0.0	4.6	4.1	1.6
2.1	1.1	0.1	3.5	3.5	2.7
0.7	1.5	1.1	1.0	2.7	4.3
2.3	0.2	0.1	5.0	1.5	1.7
0.8	0.5	0.2	2.3	1.8	1.7
0.8	0.6	0.5	1.8	3.8	2.6
1.2	0.6	0.5	2.0	2.6	2.3
0.7	0.7	0.4	1.4	2.6	1.5
1.0	0.3	0.3	9.8	10.2	3.6
2.8	0.6	0.0	6.7	7.3	2.6
4.4	4.9	2.3	4.5	7.2	13.2
1.2	0.9	0.3	3.3	5.9	3.3
3.3	1.8	2.2	6.3	6.9	5.1
4.6	1.7	1.0	10.1	11.2	3.7
2.3	0.5	0.3	9.3	4.2	1.6

Table A9. The motivation to start a business (% of Total early-stage Entrepreneurial Activity who somewhat or strongly agree)

	“To make a difference in the world”	“To build great wealth or very high income”	“To continue a family tradition”	“To earn a living because jobs are scarce”
Austria	37.9	37.4	19.1	46.0
Brazil	75.2	64.3	44.1	82.0
Canada	64.1	65.8	38.1	58.5
Chile	55.1	54.7	27.9	69.6
China	14.7	60.9	27.2	60.3
Colombia	47.6	54.0	34.5	86.6
Croatia	40.8	48.8	26.7	70.2
Cyprus	45.3	78.3	25.4	60.5
Egypt	58.7	71.9	52.6	84.8
France	23.7	42.3	22.2	42.6
Germany	42.8	47.8	32.9	47.2
Greece	23.5	56.7	39.6	63.6
Guatemala	80.9	78.5	52.4	89.1
Hungary	66.9	37.0	21.6	57.9
India	80.9	69.0	68.6	78.0
Indonesia	48.5	81.6	31.0	80.6
Iran	34.9	85.1	22.8	69.9
Israel	33.4	77.7	16.5	50.9
Japan	31.9	41.1	26.5	37.1
Latvia	29.3	40.4	22.6	63.9
Lithuania	40.8	46.5	24.0	66.6
Luxembourg	55.8	48.3	37.6	47.0
Mexico	68.2	51.4	53.1	86.9
Morocco	13.5	61.2	19.5	82.5
Netherlands	46.8	45.8	24.6	39.4
Norway	48.0	46.1	22.9	30.4
Oman	32.8	75.1	36.9	73.2
Panama	68.5	59.5	45.7	85.0
Poland	16.7	47.6	14.4	73.1

	“To make a difference in the world”	“To build great wealth or very high income”	“To continue a family tradition”	“To earn a living because jobs are scarce”
Puerto Rico	70.6	48.6	29.5	67.2
Qatar	46.9	82.0	32.5	59.9
Republic of Korea	8.4	79.2	4.6	27.1
Romania	81.7	74.3	41.3	71.1
Saudi Arabia	64.6	87.3	61.9	85.2
Serbia	21.6	43.4	22.6	81.0
Slovak Republic	29.2	36.5	29.9	78.8
Slovenia	50.2	57.0	29.8	57.4
South Africa	80.4	80.8	49.2	89.5
Spain	39.3	39.1	21.4	70.6
Sweden	44.0	52.1	16.3	24.9
Switzerland	57.4	37.1	11.2	47.1
Taiwan	53.6	49.5	24.0	30.8
Togo	52.4	83.3	30.3	81.3
Tunisia	31.8	56.2	33.3	89.7
United Arab Emirates	54.8	69.5	34.4	65.3
United Kingdom	51.9	61.1	18.7	60.6
United States	69.3	70.8	36.5	54.5
Uruguay	40.5	46.1	27.2	65.4
Venezuela	53.1	62.5	33.0	89.9

Table A10. National Entrepreneurship Context Index and number of Entrepreneurial Framework Conditions (EFCs) scored as sufficient or better (score ≥ 5)

	Income level	Number of Entrepreneurial Framework Conditions (EFCs) scored as sufficient or better (≥ 5)	NECI score
Argentina	Level B	3	3.7
Austria	Level A	5	4.8
Brazil	Level C	2	3.6
Canada	Level A	7	5.1
Chile	Level B	6	4.5
China (PRC)	Level C	9	5.6
Colombia	Level C	5	4.5
Croatia	Level B	3	4.1
Cyprus	Level A	4	4.3
Egypt	Level C	4	4.3
France	Level A	8	5.1
Germany	Level A	6	5.1
Greece	Level B	3	4.6
Guatemala	Level C	4	3.8
Hungary	Level B	4	4.7
India	Level C	13	6.1
Indonesia	Level C	11	5.8
Iran	Level C	1	3.6
Israel	Level A	8	5.5
Italy	Level A	2	4.2
Japan	Level A	5	5
Latvia	Level B	10	5.5
Lithuania	Level A	12	5.8
Luxembourg	Level A	7	5
Mexico	Level B	3	3.8
Morocco	Level C	2	4.3
Netherlands	Level A	13	5.9
Norway	Level A	7	5.2
Oman	Level B	1	4.2

	Income level	Number of Entrepreneurial Framework Conditions (EFCs) scored as sufficient or better (≥ 5)	NECI score
Panama	Level B	3	4.3
Poland	Level B	2	3.8
Puerto Rico	Level B	1	3.8
Qatar	Level A	11	5.7
Republic of Korea	Level A	10	5.7
Romania	Level B	3	4.2
Saudi Arabia	Level A	11	6.3
Serbia	Level B	5	4.6
Slovak Republic	Level B	3	4.4
Slovenia	Level A	4	4.8
South Africa	Level C	0	4.1
Spain	Level A	3	4
Sweden	Level A	6	5
Switzerland	Level A	11	5.8
Taiwan	Level B	12	6.2
Togo	Level C	0	3.6
Tunisia	Level C	0	3.7
United Arab Emirates	Level A	13	7.2
United Kingdom	Level A	5	4.7
United States	Level A	6	5.2
Uruguay	Level B	5	4.5
Venezuela	Level C	2	3.2
GEM total		5	4.8

GEM Global Sponsor



BABSON COLLEGE

Babson College is a founding institution and sponsor of the Global Entrepreneurship Monitor (GEM).

Located in Wellesley, Massachusetts, USA, with hub locations in Boston and Miami, Babson is recognized internationally as a leader in entrepreneurship education.

Ranked No. 1 in entrepreneurship education for 26 consecutive years by US News & World Report, Babson is the first to understand that thinking and acting entrepreneurially is more than just an inclination. It can be taught. And Babson does it better than anyone.

Babson grants BS degrees through its innovative undergraduate program, and offers MBA and MS degrees, as well as certificate programs through its F.W. Olin Graduate School of Business.

Babson Executive Education and the Babson Academy for the Advancement of Global Entrepreneurial Learning also help drive growth and innovation at organizations and other universities all around the world.

At Babson, we believe that entrepreneurship is the most powerful force in creating great economic and social value everywhere.

The College's student body is globally diverse, representing 77 countries and speaking more than 50 languages. Twenty-nine per cent of undergraduates and 39% of graduates are international. An additional 7% and 9% hold dual passports, respectively.

One hundred per cent of Babson students take entrepreneurship courses. A broad variety of entrepreneurship topics are taught by 25 tenured or tenure-track entrepreneurship faculty, all having practical startup experience, and by 22 highly accomplished entrepreneurs, investors and business leaders serving as adjunct faculty. In addition, entrepreneurship is integrated throughout the curriculum across all business and liberal arts disciplines.

As the educator, convener and thought leader for Entrepreneurship of All Kinds®, Babson College shapes the entrepreneurial leaders our world needs most: those with strong functional knowledge and the skills and vision to navigate change, accommodate ambiguity, surmount complexity, and motivate teams in a common purpose to create sustainable economic and social value in organizations of all types and sizes.

Besides GEM, Babson has co-founded and continues to sponsor the Babson College Entrepreneurship Research Conference (BCERC), the largest academic research conference focused exclusively on entrepreneurship, as well as the Successful Transgenerational Entrepreneurship Project (STEP) — a global family business research project. Babson is home to The Diana Project™, which engages in research activities, forums and scholarship focusing on women entrepreneurs and their growth.

For more information, visit www.babson.edu.

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CARTIER WOMEN'S INITIATIVE



The Cartier Women's Initiative is an annual international entrepreneurship program which aims to drive change by empowering women impact entrepreneurs. Founded in 2006, the program is open to women-run and women-owned businesses from any country and sector that aim to have a strong and sustainable social and/or environmental impact.

At the heart of the Cartier Women's Initiative is the vision of a world where every woman impact entrepreneur can realize her full potential. To reach this vision, obtaining and monitoring hard data related to the state of women's entrepreneurship is critical in enrolling more support into the ecosystem and to drive collaboration. Cartier Women's Initiative partnered with GEM as it was in search of a partner to track, monitor and assess women entrepreneurship activities.

THE SCHOOL OF MANAGEMENT FRIBOURG



The School of Management Fribourg (HEG-FR) is a bilingual public business school located in Fribourg, Switzerland, and a member of the University of Applied Sciences and Arts of Western Switzerland (HES-SO). Its Institute of Small and Medium Enterprises houses the Swiss chapter of GEM research, which is headed by Professor Rico Baldegger, PhD, in collaboration with other colleagues such as those at SUPSI Manno in Ticino, Switzerland.

One of the forerunners in Switzerland for training and interdisciplinary research in the area of entrepreneurship and SMEs (small and medium enterprises), the School of Management Fribourg has a particular thematic interest in research on women's entrepreneurship and impacts of entrepreneurship on the UN Sustainable Development Goals (SDGs).

Sponsor GEM

Most stakeholders want to advance entrepreneurial activity. But it is difficult to make informed decisions without having the right data. Global Entrepreneurship Monitor fills this void. Watch this short video to learn why many organizations — such as Babson College, Cartier Women's Initiative, Fribourg School of Management, Shopify and the Women Entrepreneurs Finance Initiative — sponsor GEM, the world's longest-running study of entrepreneurship. (Click on the image or go to <https://www.youtube.com/watch?v=UAFWuMSUxE>.)

Global Entrepreneurship Monitor (GEM) is a consortium of national country teams, primarily associated with top academic institutions, that carries out survey-based research on entrepreneurship around the world. GEM is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs. GEM's Adult Population Survey (APS) provides analysis on the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship. The National Expert Survey (NES) looks at the national context in which individuals start businesses. The unique GEM tools and data benefit numerous stakeholder groups:

- Academics are able to apply unique approaches to studying entrepreneurship at the national level;
- Policymakers are able to make better-informed decisions to help their entrepreneurial ecosystems thrive;
- Entrepreneurs have better knowledge on where to invest and influence;
- Sponsors collaborate with GEM to advance their organizational interests;
- International organizations leverage the entrepreneurial insights from GEM through reports and events.

In numbers, GEM is:

- 24 years of data;
- 3,600,000+ GEM Adult Population Survey interviews since 1999;
- 173,000+ respondents in the 2022 Adult Population Survey;
- 2,000+ expert interviews for the 2022 GEM National Expert Survey;
- 120+ economies since 1999;
- 370+ specialists in entrepreneurship research (GEM National Team members);
- 300+ academic and research institutions;
- 200+ funding institutions;
- 1,000+ publications in peer reviewed journals.

GEM began in 1999 as a joint project between Babson College (USA) and London Business School (UK). The consortium has become the richest resource of information on entrepreneurship, publishing a range of global, national and “special topic” reports on an annual basis.



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