The Future of Capital Markets: Democratization of Retail Investing

In collaboration with Accenture and BNY Mellon

INSIGHT REPORT

AUGUST 2022

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Foreword

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Global capital markets have undergone several simultaneous transformations over the past decade. These transformations have been driven in part by rapid technological advancements and favourable economic conditions. The Future of Capital Markets initiative at the World Economic Forum aims to explore how the industry can build and maintain trust amid these significant shifts.

As market conditions grow increasingly uncertain in 2022, the time is ripe to consider the impact of the democratization of capital markets and the rise of retail investors. Even in the middle of the current market volatility, we believe that democratization is an opportunity for individuals across the income spectrum to gain a higher return on their savings and grow their wealth for the long term. Through this initiative, we want to foster action to improve retail investor participation and to promote responsible investing across the ecosystem.

The emerging class of retail investors is heterogeneous, with distinct motivations, investing behaviours and financial goals. In some instances, retail investors have exerted unprecedented influence over capital markets, the “meme stock” effects in the US, South Africa and Europe being prominent examples. By better understanding this cohort of investors and what motivates them, organizations and the industry can uncover significant growth opportunities. Understanding where capital markets are falling short in serving retail investors, and reinforcing their participation and trust in global capital markets, are vital for ensuring their long-term financial resilience.

This report presents six months of work on charting the implications of the democratization of retail investing. Consistent with the World Economic Forum’s multistakeholder approach, and partnering with Accenture on thought leadership, the Forum brought together a diverse group of stakeholders to frame hypotheses and provide insights for this report. These included a coalition of more than 35 partner organizations as well as expert practitioners from the academia and from across the financial services ecosystem. A large-scale retail investor survey conducted in collaboration with BNY Mellon across nine global markets (Brazil, China, France, Germany, Japan, South Africa, UAE, UK and US) underpins this report’s findings and recommendations.

This Insight Report sends out some urgent calls to action for the industry as well as for governments and regulators. It suggests some key changes that would better serve retail investors and the broader industry going forward. There has never been a more critical time to reflect on these insights and lessons to ensure retail investors are empowered with sufficient access to, education of, and trust in markets.

We would like to take this opportunity to thank all those that have contributed their expertise and shaped the insights presented in this report.

Introduction

This report draws on multiple sources

A wide-ranging group of financial services experts have shared diverse perspectives on retail investing in workshops, steering committee sessions and interviews.

Global workshops

Four virtual workshops were conducted between March and June of 2022. The participants were key stakeholders from a variety of financial institutions. Each workshop featured interactive discussions with a distinct focus, covering topics including the rise of retail investing, product and service implications, market repercussions, risks and calls to action.

Steering committee

Three steering committee sessions were held from February to July of 2022. The participants were specifically chosen from across the capital markets ecosystem and helped inform, validate and support critical components of the research.

Expert interviews

Interviews were conducted with subject experts from financial services firms, regulatory bodies and academia.

Survey

More than 9,000 respondents from nine countries participated in an anonymized survey aimed at gathering insights on retail investing.

This report provides insights on the emerging class of retail investors.

The questions it will answer:

- What is driving global retail investor growth?
- What challenges are retail investors and industry players experiencing?
- How has the investment ecosystem reacted to the retail investor to date?
- How can the industry move forward to grow wealth more responsibly for current and potential retail investors?

Contributing organizations

Accenture
AXA
BlackRock
BNY Mellon
Bridgewater
Broadridge
Citi
Crypto.com
Deutsche Bank
Ellevest
eToro
Euroclear
Fidelity International
Grayscale
HKEX
HSBC
ING
Koia
Lazard
Lord Abbett
Mahila Money
Motive Partners
Nasdaq
NAX Group
NYSE
public.com
RBC (Royal Bank of Canada)
Robinhood
SIX Group
State Street
SUMA Wealth
The Despository Trust & Clearing Corporation
UBS
World Economic Forum
Zerodha
Zogo

Retail Investing Survey

To inform this report, BNY Mellon and the World Economic Forum led a global survey of individuals in nine countries. The survey was fielded by Qualtrics and sought to identify the driving factors on which investors and non-investors base crucial decisions. This report uses the insights derived from the survey to shape its key considerations and outcomes.

9

Countries were included in the survey:

- Brazil
- China
- France
- Germany
- Japan
- South Africa
- United Arab Emirates
- United Kingdom
- United States

9,287

Respondents provided insights into their mindsets, preferences and details such as:

- Financial objectives
- Annual income
- Investable assets
- Perception of financial organizations

7,289

Retail investors shared details on how and why they invest, such as:

- Access to products and services
- History of investing
- Financial understanding and education
- Approach to investment decisions

1,998

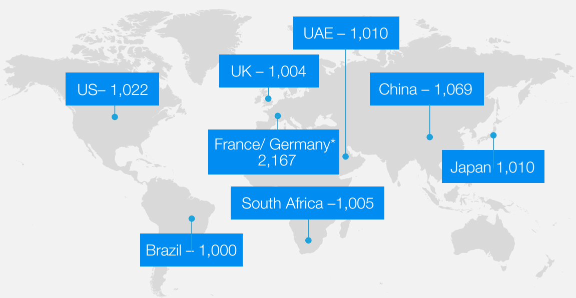
Non-investors provided insights into why they have decided to stay out of the financial markets, including:

- Level of trust in financial markets
- Awareness of products and services
- Sources of news and information

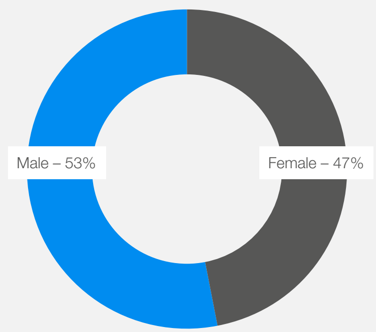
Survey demographics

Due to rounding, the survey results presented may not add up to 100% in all cases.

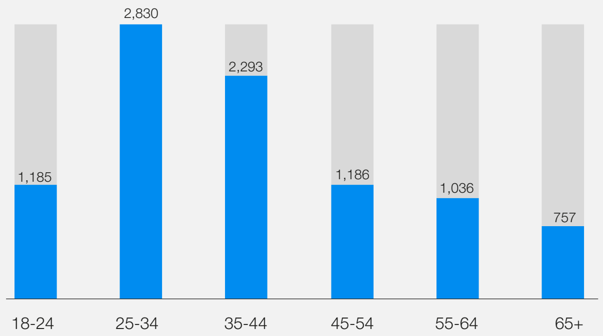
Number of participants



Gender distribution



Age distribution



* For survey analysis, France and Germany have been bucketed together.
All respondents had at least $1,000 (or local equivalent) in investable assets and were over 18 years of age. The survey was fielded in May 2022.

Key terminology

Term	Definition (as used in this report)
Market democratization	Market democratization refers to the increased ability of an individual to access capital markets, related to the newfound availability of information, investing platforms and investment products.
Retail investor	Retail investors are non-professional investors who buy and sell securities or funds (i.e. non-institutional investors).
Retail investing	Retail investing, as defined in this paper, includes any form of investment activity that involves decision-making by the individual. This includes employer-sponsored defined contribution plans but does not include government or employer pensions. Retail investing includes: – Investing via a brokerage, fund company or consumer-facing platform. – Investing through an adviser, including when the adviser makes trades on an individual’s behalf. – Investing in self-directed savings plans (such as for retirement or higher education).
Industry/Ecosystem	The investment industry and/or ecosystem refers to the system of entities that enables financial services professionals and investors to make, hold and manage investments. Entities include investors, platforms (e.g. brokerages and wealth managers), institutional investors, brokers, execution infrastructure, regulators, governments and non-governmental organizations (NGOs).
Retailization	Retailization refers to the rise of the individual investor who is benefiting from the proliferation of information, advice offerings and investment products and services that are now more readily available to everyone.
Investment channel	Investment channel refers to the medium by which investors access services and products. Channels include: – Digital (e.g. smartphones, tablets and computers). – Physical (e.g. in-person financial advisers and physical bank branches).
Hybrid advice	Hybrid advice refers to advisory models in which clients have access to digital tools that facilitate self-investing but can also tap into human or face-to-face advice on a periodic basis, or where needed and best suited for the client.
Services	Investment services refer to the range of activities that are performed by a financial institution in order to enable an investor to make and act on investment decisions.
Products	Investment products that are purchased by investors either as a security or as a set of underlying securities with the intention of achieving a favourable return.
Financial literacy	Financial literacy is the combination of knowledge, skills and behaviours to manage one’s financial resources effectively over the course of a lifetime. Being financially literate involves understanding how to spend money wisely, how to save and grow wealth for major life events and how to save for retirement.
Mass affluent	Individuals that are part of the middle class, with investable assets between $100,000 and $1 million (or equivalent in other currencies).

Executive summary

In order to enable the new wave of retail investors to grow long-term wealth while fostering a responsible retail investing ecosystem globally, **understanding the market implications of democratization is key.**

Investing in the capital markets could enable individuals to grow their wealth over the long term, more than savings alone can do. Participation in the capital markets enables people to take ownership of their financial future, not only to ensure retirement and long-term financial resilience, but also to improve their socioeconomic status. In the last few decades, retail investors across the world have been flocking to financial markets in greater numbers as the value of assets has trended upwards and the opportunity to grow wealth has been made available to a broader population. New companies are using improved technology, platforms and innovative services and products to widen access.

Despite these gains, crucial gaps persist in investor protection, reliability of information, personalization and financial literacy. Both developed and emerging markets can enhance retail investor participation in a responsible manner to realize the full potential of wealth creation via capital markets. These efforts will require collaboration within the capital markets ecosystem, including public-private partnerships.

This report was initiated in January 2022 at the peak of a favourable macroeconomic climate, and over the course of its writing, significant volatility and market headwinds have arisen, raising questions as to how retail investors will navigate this period of volatility and what the capital markets industry can do to support retail investors during this turbulent time.

This report introduces opportunities for reimagining the retail investing ecosystem by evaluating the critical components of **access, education and trust.**

The rise of retail investing, and potential headwinds

After the global financial crisis of 2007-2009, sustained growth and digital advancement culminated in a surge of retail investing during the 2019-2021 COVID-19 pandemic. An entire generation of investors, particularly millennials and Gen-Z, have experienced buoyant markets but had seen past financial crises at an arm's length. **Given the present-day market uncertainty, urgent steps must be taken to maintain retail investor engagement and trust in the capital markets.**

Factors that affected retail investors

Post-global financial crisis (2009-2017)

- **Continued rise of discount brokerages** has fast-tracked democratization
- **Digital solutions for financial advice** have disrupted the traditional fee-based adviser model

Confluence of favourable market factors (2019-2021)

- Many investors have found themselves with extra cash to **invest during the pandemic**
- Retail investors have **discovered their collective market power** via the "meme stock" saga

Growing uncertainty in 2022 (early 2022 to present)

- After a dramatic rise, **Bitcoin fell** 77% from its all-time high
- The US stock market **entered bear market territory**, as have multiple global markets

Factors that affected the general global population

Post-global financial crisis (2009-2017)

- Smartphones have **connected people around the world**
- The 2010s saw **slow but sustained growth**, bolstered by low interest rates

Confluence of favourable market factors (2019-2021)

- **The wealth inequality gap** has continued to grow in multiple emerging economies
- **Millennials increased their share of global wealth,** and are more digitally driven.

Growing uncertainty in 2022 (early 2022 to present)

- Global prices of oil and gas, minerals and grains have exploded **following Russia's invasion of Ukraine**
- To combat inflation, central banks worldwide have **raised interest rates** by the largest margins in years

The impact of past and potential market events

Now is the time to re-think retirement plan conventional wisdom

Forbes Jun 30, 2021

Pensions shift to defined contribution

The seven largest pension markets – Australia, Canada, Japan, the Netherlands, Switzerland, the United Kingdom, and the United States – make up 90% of total pension assets worldwide.

Australia, the UK and the US have experienced the most significant shift in private-sector pension plans from defined benefit to defined contribution, leaving individuals with a greater personal responsibility for saving and investing.

Without the safety net of government-sponsored pension plans, it is critical that individuals be aware that they are responsible for their own financial futures and are given the necessary tools and knowledge to ensure their welfare. Otherwise, today's young may have to contemplate life without retirement.

No end to whiplash in meme stocks, crypto and more

The New York Times Nov 8, 2021

Retail investors show their influence with "meme stock" effects

In January 2021, retail investors following a popular online message board decided to wield the power of social sentiment and caused the stock of several companies to soar more than 400%. The retail investors involved in this meme stock* movement influenced prices across the globe from the US to Germany and beyond.

The fallout of this meme stock* trend was felt most acutely by professional investors who had bet against those businesses. The situation highlighted the new-found power that retail investors wield in the global investment ecosystem, but also the distrust that retail investors may have towards the financial system and its traditional big players, questioning whether they are working for the greater benefit.

* The term "meme stock" was coined to represent shares of a company that have gained a cult-like following online and through social media platforms.

Rising food prices hit poor people the hardest: a close look at inflation in South Africa

The Conversation Jun 13, 2022

Markets decline following years of sustained growth

Since the beginning of 2020, economic indicators across the world have been largely positive, and retail investors have reaped profits in a favourable macroeconomic climate. A lot of this has been due to economic recovery efforts to address the COVID-19 pandemic, which prevented markets from crashing and have led to optimistic outlooks for future success.

However, the downside of those economic interventions are being felt in 2022 with historically high inflation, compounded by uncertainty surrounding gas prices as a result of the Russian invasion of Ukraine. Today, retail investors are wary of near-term volatility and uncertainty, with many global indices showing negative year-to-date returns.

Key questions and themes

Given that **investing is a critical tool for wealth creation and long-term financial stability,** this report addresses questions around **how to responsibly grow the retail investing ecosystem** and enable a capital markets industry that a wide variety of retail investors can trust.

While retail brokerages and platforms have become seemingly ubiquitous in recent years, **significant numbers of people across the globe are not investing.** For example, in France, only 6% of the population is considered a retail investor, and in Mexico, the figure is only 1%.[1] Even in the US, more than a third of adults are missing out on the opportunity to build wealth through investing.[2]

In order to understand what a responsible investing ecosystem could entail, this report takes a diverse view of the ecosystem, including people who are not participating in the capital markets and those who are under-participating. What types of services and products do current and potential retail investors want? **What do they need to be successful in the capital markets ecosystem?** Where are the gaps in the current retail investing environment, and the opportunities?

This report highlights the biggest gaps and the most promising opportunities for improvement, gathered through the efforts of the global steering committee of the Future of Capital Markets initiative, the industry working group, the BNY Mellon and World Economic Forum 2022 Global Retail Investing Survey and in-depth research.

The critical activities and initiatives that are recommended can be broadly categorized under the levers of **access, education and trust.** Throughout this paper, these three levers are used as a **guiding framework to understand implications and draw out solutions to build a more responsible ecosystem.**

Defining trust

This report focuses on two elements of retail investor trust in the capital markets:

Trust in the capital markets system

Confidence that the capital markets can be a source of sustainable wealth creation for an individual, and that an individual has all the tools they need to navigate the system successfully.

Trust in financial institutions

Confidence that a financial institution or service provider will act in the individual's best interest. This includes providing sound financial advice, transparency in fees and reporting, and sufficient data protection.

Access, education and trust: The three levers

Research for this report shows that overall, market democratization is a positive phenomenon. If the industry can put in place proper infrastructure and protections, **individuals can be empowered to make optimized financial decisions so that investing helps them build lasting wealth.**

Access

Existing products and services

Investment solutions must be outcome-oriented rather than product-focused in order to help incentivize investors to participate.

Current solutions are mostly out of reach or too generic, whereas retail investors seek personalized advice.

Instead of creating new products, the industry must focus on building product awareness.

Limited retail access to products and services

Access to new and private products (e.g. alternative investments, which may include shares in venture capital or private equity-type funds) should be made available to the average retail investor, but in a responsible manner.

Education

Financial literacy skills must be imparted from a very young age, and education must tie basic financial health with more advanced investment and retirement actions. Financial education also must be offered side-by-side with investment offerings.

The way companies and policy-makers are currently approaching financial education does not resonate with retail investors. Investors need more general understanding of why and how they should invest.

Companies can improve their communication of the value proposition of investing, even if that means paying for fees and services, to help retail investors see the benefits of participating in the capital markets.

Trust

Retail investors will only pay for services if they feel that institutions are working for them.

All through the survey results, trust in financial services as measured in May 2022 was relatively high. However, financial crises have significant adverse effects on retail investors' trust in capital markets. The entire industry needs to find ways to encourage investors to have long-term belief in the ability to grow wealth through investing.

Investors in developed markets tend to have lower trust in markets and financial institutions than investors in emerging markets, and are influenced by factors such as underperformance, data breaches and high fees.

This report draws on survey results from nine countries around the world.

Despite much progress in democratizing markets globally, significant gaps in servicing retail investors remain that have geographical nuances important for industry participants to understand. This report draws on **insights from the BNY Mellon and World Economic Forum 2022 Retail Investing Survey** and the global industry working group to highlight these market-wide trends.

Use case	Developed markets highlights* France, Germany, Japan, United Kingdom, United States	Emerging markets highlights* Brazil, China, South Africa, United Arab Emirates
A lack of access to investment products does not appear to be the factor inhibiting people who choose not to invest in the market; the issue is with product awareness and the need to improve services.	– More than 40% of non-investors in the US and Japan do not believe they have enough money to invest, even though numerous options for low-fee investing and investing with nominal amounts exist. This indicates gaps in awareness of solutions with low minimums.	– Brazilian and South African investors are dealing with a more fragmented brokerage market and 74% want to see a consolidated view of investments. – More investors in Brazil, China, South Africa and the UAE use between two and five different companies to manage their investments, compared to the global average of 68%, implying higher platform fragmentation in those markets.
Social media is an important source informing investment decisions in emerging markets.	– In developed markets, word of mouth and traditional media sources (such as newspapers and TV) are more influential than social media. Younger investors (aged 18-35), however, do prioritize social media slightly.	– More than 65% of investors in emerging markets ranked social media as extremely or moderately important in making investment decisions, increasing the need to prepare investors to verify and understand information coming from social media.**
Non-investors are primarily concerned with losing money in the financial markets and not having access to money when they need it.	– Japanese investors appear more aware of the underlying drivers of investment product movements and are particularly wary of market volatility, which probably induces their general hesitancy to invest.	– 57% of Emirati and 60% of South African non-investors are afraid of losing money through investing and therefore stay away from the capital markets. – 52% of Chinese investors do not believe they will be able to access money when needed if they invest it.
Investors and non-investors alike believe that gaps in financial education are the primary barrier to investing.	– In France, Germany, the UK and US, retail investors feel they have a comparatively better understanding of newer, less established products (e.g. cryptocurrency and non-fungible tokens or NFTs) compared to more traditional asset classes (e.g. bonds and stocks).	– The desire to learn is the highest in emerging markets, with more than 88% of investors in every emerging market surveyed stating they would invest more if they had better financial education.
Retail investors generally trust the brands of established financial institutions, which presents an opportunity to drive change.	– Very few (36%) Japanese investors are confident of making sound financial decisions on their own, but they continue to trust financial institutions and want better guidance from finance professionals.	– Investors in emerging markets are significantly more willing to trust traditional banks as their primary investing provider and are willing to share their financial data with those institutions to better inform financial decisions.

* Developed and emerging markets as categorized by MSCI on June 9, 2022. MSCI gauges the level of economic development, market size and liquidity requirements, and market accessibility.[3]

** In Brazil and South Africa, social media was not in the top three sources of information.

A responsible ecosystem that supports the empowered investor

The empowered investor can **access, learn about and trust** financial services. A collaborative focus on enabling the empowered investor will help spur a responsible investing ecosystem.

Access

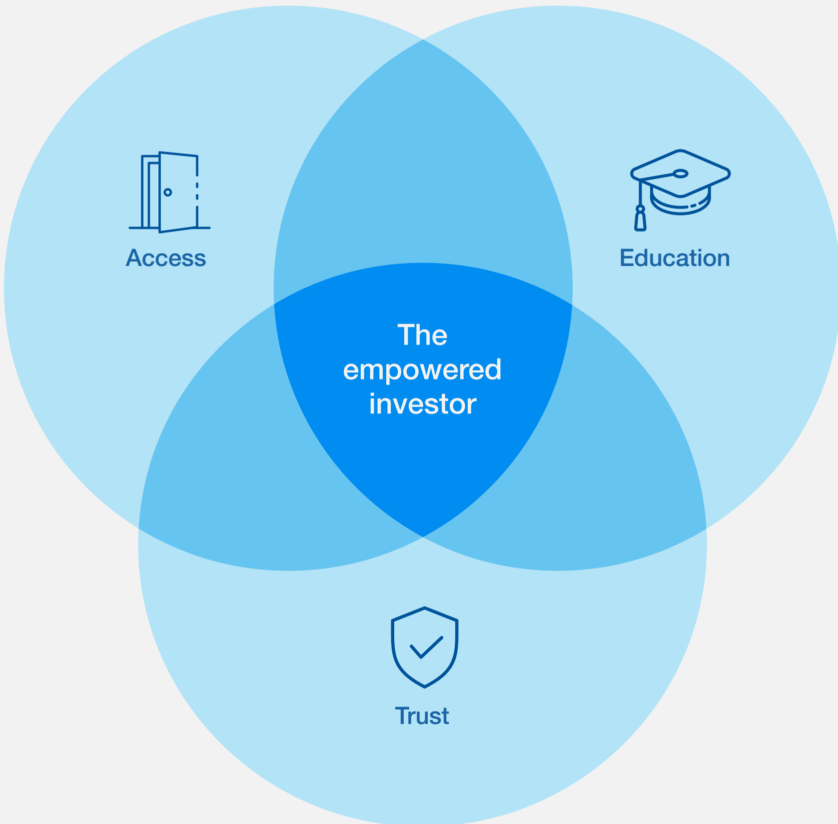
Able to easily access investment services and products

Education

Able to easily find and consume relevant financial education content

Trust

Able to trust industry institutions and the markets



The opportunity for the global financial services industry to enact meaningful change, now

The global capital markets system is at an inflection point. More than ever, retail investors need a responsible capital markets ecosystem. The industry has an opportunity to address this need, and the time to begin is now. With the rise of retail investors, the rapid pace of industry change, the increased need for people to secure their own retirement, and the current volatile market conditions, the industry must focus on ways to better serve retail investors, or **risk losing the momentum.** To begin fostering this responsible retail investing ecosystem, the industry must focus on:

Collaboration and public-private partnerships

Change will require collaboration across the industry and ecosystem, including public-private partnerships. Parties such as brokerages, wealth managers and exchanges will be one key part of this effort due to their proximity to retail investors and the speed at which they can enact change. Concrete steps can be taken today to begin establishing this collaboration.

Financial literacy and investing education

Collective efforts among industry players should focus on increasing widespread basic financial literacy, promoting responsible investing strategies and improving proactive retirement planning (in non-pension markets). While the public sector has a large role to play here, private sector actors also need to improve their tactics to meet the needs of today's investors. Both short- and long-term steps are needed to achieve this vision.

Personalized, outcome-oriented advice for the masses

All investors, regardless of wealth tier, should have access to the tools and guidance they need to be successful in the capital markets ecosystem. The industry must democratize personalized advice and scale services to thrive in an increasingly retail investor-driven industry. Though this is a large undertaking, with many components along the way, firms must begin this journey now.

> I said there's storm clouds but I'm going to change it… it's a hurricane… you'd better brace yourself.
>
> **Jamie Dimon, CEO, JP Morgan Chase. CNBC, 1 June 2022.**

1 Retail investors: more influential than ever

This section focuses on the rise of retail investors as a significant segment within the investment ecosystem and the impact of their presence on the industry.

What is driving global retail investor growth?

What challenges are retail investors and industry players experiencing?

How has the investment ecosystem reacted to retail investors to date?

How can the industry move forward to grow wealth more responsibly?

Retail investors are taking control of their own financial destiny, whether by choice or necessity.

This is a break from the traditional dependence on financial professionals and government-provided solutions.

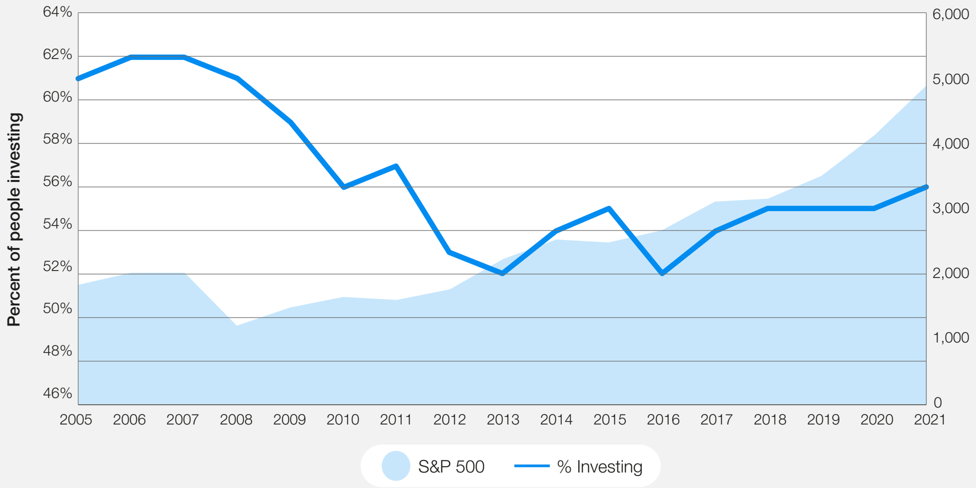
The democratization of capital markets is a positive development. **When done responsibly, it has the potential to enable wealth creation globally.**

Despite changing macroeconomic conditions, this democratization looks set to continue.

The number of retail investors globally has grown significantly, due to a favourable macroeconomic environment in recent years

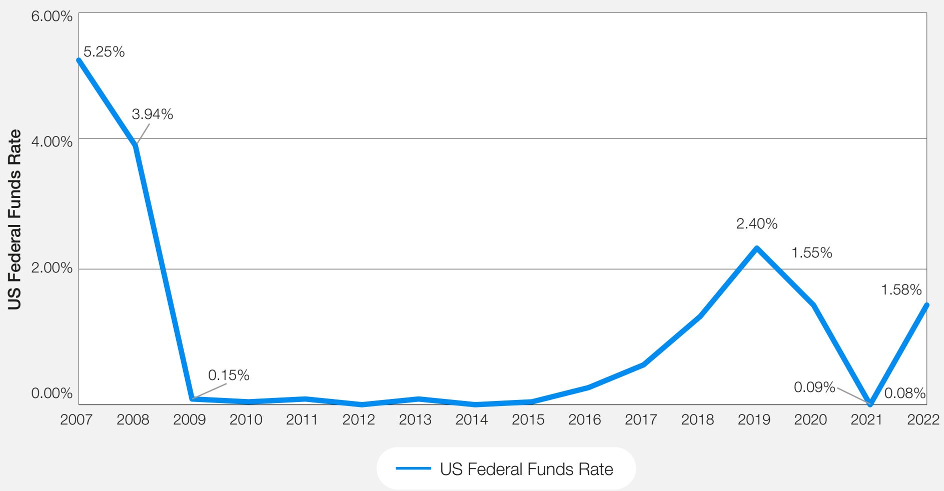
Globally, users of the major low- and no-fee stock trading apps grew from 61.9 million in 2019 to 91.5 million in 2020, representing a **48% increase.**[4]

US: Participation in the market, and market performance over time[5]



Source: Accenture, based on multiple sources (Gallup 2022, NASDAQ).

Recent high and low points of US Federal Funds Rate [6,7]



Source: Accenture, US St. Louis Fed (based on 24 June 2022 rate).

During and following the Global Financial Crisis (2007-2009), retail investor participation fell sharply. Participation has since increased, boosted by positive macroeconomic trends including rising equity markets and low interest rates. With interest rates at historic lows, retail investors have turned to the capital markets in search of investment products with higher returns. The low interest rates have also served to bolster the overall equity market as public companies have focused on high-speed growth and high returns are projected in the future.

* The US Federal Funds Rate is the target interest rate set by the Federal Open Market Committee, the policy-making body of the Federal Reserve in the US. This rate also has an influence on global markets across the world, impacting currency values, foreign trade movements and international interest rates.

Retail investors are eager to enter financial markets and seek learning opportunities

- **Retail investors are skewing younger:** As many as 70% of (the randomly selected) retail investors in the Retail Investor Survey 2022 were under 45.

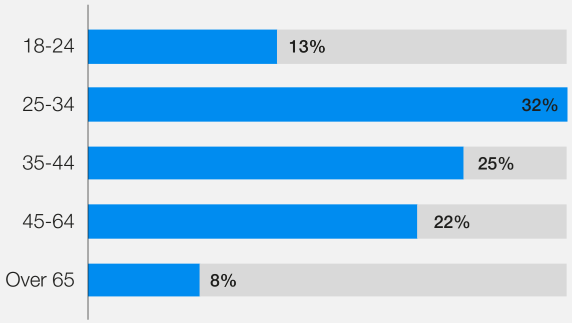
- In general, **retail investors do not seem to perceive an issue in terms of market fairness:** A majority believe that they have as much of an opportunity to succeed as institutional investors.

- **Retail investors do, however, perceive education to be an issue:** A majority would prefer to have more learning opportunities in order to better support their investment activities.

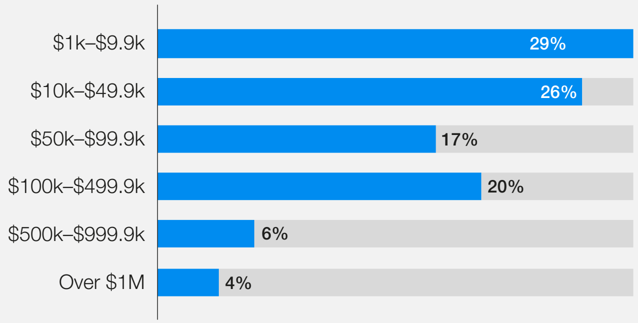
- **This gap in retail investor education opens early in their life:** Most retail investors do not have early exposure to investing principles, which contributes to a gap in financial literacy later in life.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey

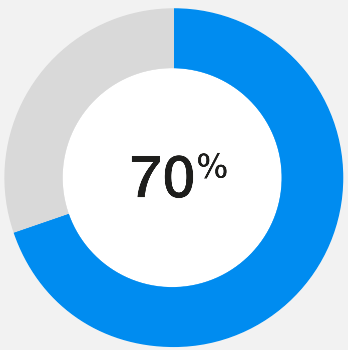
Retail investor age distribution



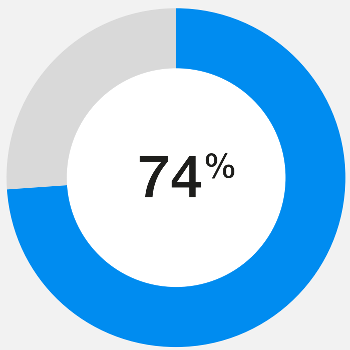
Retail investor age distribution



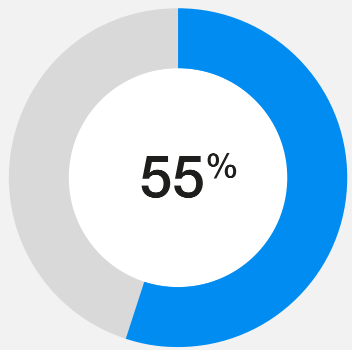
Retail investor characteristics



70% of retail investors agree with the statement that individual investors have the **same opportunities to succeed in the market as professional investors**



74% of retail investors say that they would likely invest more if they had **more opportunities to learn about investing**

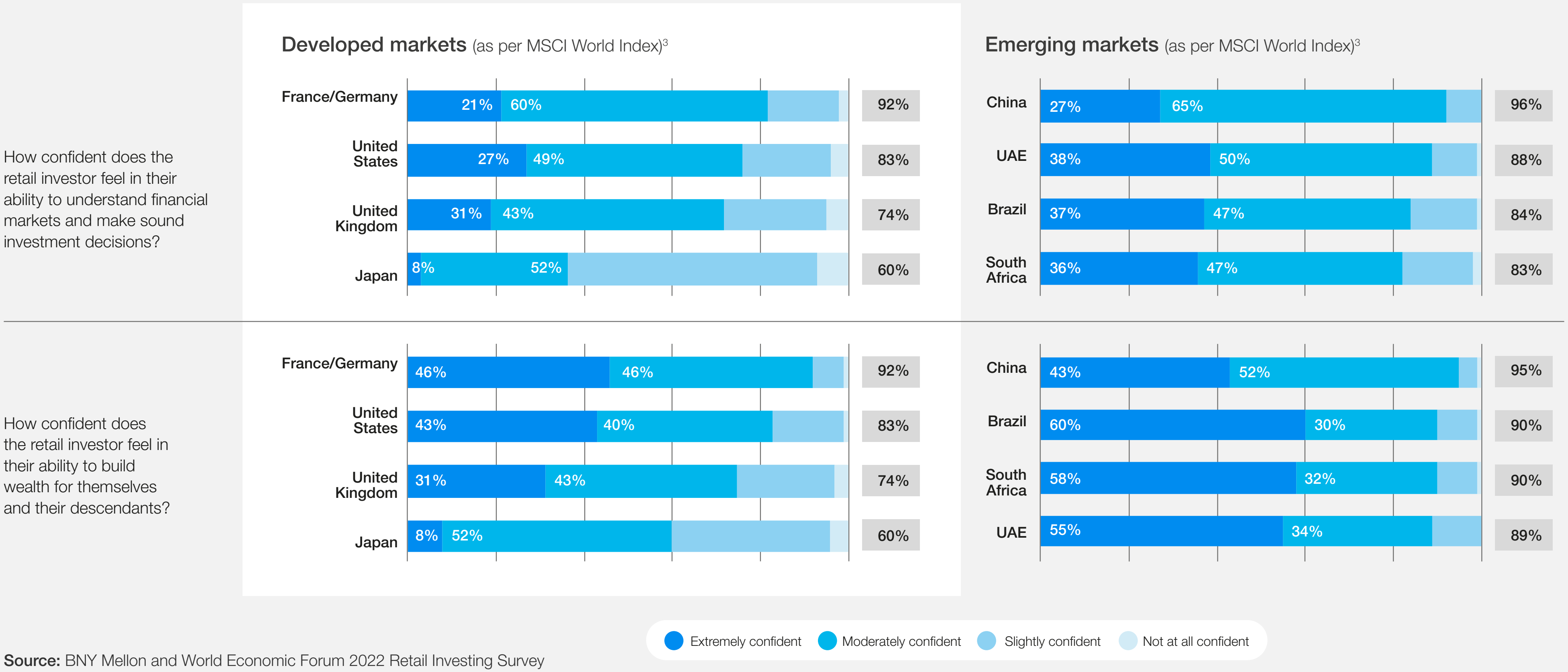


55% of retail investors **learned about investing only after entering the workforce** – less than 10% learned about investing in early schooling

Retail investors seek opportunities to build long-term wealth, particularly in emerging markets

Retail investors in the countries surveyed that are considered emerging markets (i.e. Brazil, China, South Africa and the United Arab Emirates) **seem more confident in their ability to understand markets and build generational wealth through the financial markets.** The condensed availability of products and platforms, as well as the perceived growth prospects of a country, may influence investors' confidence. Overall, it must be noted that perceived confidence may differ from actual outcomes.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey



Source: BNY Mellon and World Economic Forum 2022 Retail Investing Survey

Retail investors are showing their collective influence on global markets

Retail investors are moving markets, influencing institutional investors and having macro effects. From 2021's meme stock saga to the rise of cryptocurrency, they are making their influence felt throughout the capital markets ecosystem.

The meme-stock phenomenon spotlighted the power of the collective

- The meme-stock saga showed the power that retail investors with relatively low investment sums have to influence prices by acting collectively.
- It displayed the global influence of social media-enabled investors across Africa, Asia, Europe and the US to learn of and join in the "meme stock" movement. In South Africa, local retail investors created their own version of the infamous American online message board that had triggered the movement.
- The sudden surge of investor interest and coordinated movements highlighted new challenges for the industry as a whole and turned attention to the importance of understanding the demands and preferences of retail investors.

Retail investors influenced the institutional adoption of cryptocurrency

- Over the last several years, cryptocurrency has gone from niche to mainstream, with global adoption rising 881% between October 2020 and October 2021, and global trading volumes rising 550% over the same period, with particularly high adoption seen in emerging markets.[8]
- Retail investors largely led the adoption of cryptocurrency, with 40% of global retail investors telling the BNY Mellon and World Economic Forum 2022 Retail Investing Survey that they are currently invested in cryptocurrency assets. In 2021, many institutional investors followed by either investing in cryptocurrency with their own portfolios or adding cryptocurrency to their product suite. A major US retirement plan sponsor announced it would let investors add Bitcoin to their portfolio.

Retail investors buoyed the market during COVID-19

- During the 2020 COVID 19-related stock market drop, the presence of retail investors buoyed the market, leading to a quick recovery through the provision of liquidity. The 2020 market drop was a unique event, however, and it is yet to be seen what effect retail investors may have in future volatile markets.*
- As institutional investors were forced to liquidate their positions due to regulations and risk management protocols, retail investors were able to step in and purchase stocks* (aided in part by government stimulus money), providing important liquidity and stability to the market during a volatile period.

*Jan-Oliver Strych. Assistant Professor of Finance, Karlsrühe Institute of Technology, Germany.

Several factors have spurred retail investors to take greater control of their investments

Economic environment

Retail investors found a favourable opportunity to invest during a **relatively consistent bull run in most markets** over the past decade. At the same time, central banks gradually **lowered interest rates,** further incentivizing people to turn to the markets to invest their money rather than save it.

Technology advancements

The **rise of online trading platforms** directly allowed more individuals access to retail investment services and products. In the US alone, online stock brokerages have seen annualized market size growth of 9.2% between 2017 and 2022.[9] Many online brokerages globally now offer low- or no-fee trades.

COVID-19 impact

The pandemic created unique circumstances allowing more individuals the freedom and the **spare time to learn to invest.**[10] In addition, the **financial stimulus provided by some governments** gave more people discretionary funds to invest.[11]

Decreasing defined benefit pensions

The **decline of defined benefit plans in relation to defined contribution plans** has made individuals more responsible for their retirement savings. This has led to individuals interacting with the capital markets through **employer-sponsored retirement accounts,** rather than through traditional state-owned pension plans.

Business models and platforms have taken in a broader demographic of investors

Retail investing apps focused on user experience and ease of trading are a huge change from what was available only a few years ago. The ease of use and low fees are now becoming table stakes, especially for millennial and Gen-Z investors.

No and low commission

No- and low- fee retail brokerages have quickly become the standard in most geographies, with many brokerages beginning to offer zero account minimums. No-fee models include payment for order flow (PFOF) and tipping models. Low-fee models offer reduced transaction fees but make up for the lower costs by charging subscription, portfolio management and foreign-exchange fees.[12]

Advice

From robo-advisers to investment portfolio subscription services and embedded in-app education, the mechanisms for advice are varied and evolving. Channels such as social media have enabled more people to provide financial guidance. But as these new channels for advice have grown, so have concerns about the credibility of information, regulation and licensing.

Super-apps

Super-apps have grown to dominate the fintech landscape in Asia, where consumers are able to access many functions including investing, banking and payments from one central location. The underlying technology has enabled financial services firms to plug into additional data sources and non-financial apps to provide unified access to investors.[13]

Niche platforms

Niche platforms have been on the rise in recent years. Businesses are looking to stand apart from the crowd by:

1. Delivering to previously underserved demographics such as women and younger investors.

2. Differentiating by incorporating social components, enhancing ease of use through simplified user interface or specializing in specific investment types such as non-fungible tokens (NFTs) and cryptocurrency.

Recent product innovation has focused on enabling widespread access and lowering barriers to entry

The products and mechanisms highlighted, while not new, are helping diversify the ways in which investors invest and what they are able to invest in.

Fractional shares

The fractional share model has **enabled retail investors to purchase stocks at accessible price points** and is extending beyond traditional markets, enabling investors to own fractional shares of physical assets including vacation rentals, homes, luxury watches and more.

This represents **one way that retail investors are diversifying their portfolios** and investing in companies they believe in. On one US platform, fractional shares made up 40% of trades in 2020.[14]

Alternatives

Start-ups and major institutional players are enabling **individuals with smaller amounts of capital to pool resources and invest in traditionally high-barrier industries.** These alternative investments include private equity, venture capital and hedge funds.

Increasingly mainstream, global alternative investments are predicted to grow 18-25% by 2025, with a market size of $13.4 trillion in 2018.[15]

Cryptocurrency

The availability of cryptocurrency on platforms from fintech brokerage apps to traditional payments apps and even physical kiosks has **increased the ease of access** and possibly contributed to the rise in adoption of cryptocurrency globally.

Innovations including cryptocurrency and exchange-traded funds (ETFs), and the effect of a major US retirement plan adding crypto as a portfolio choice, are poised to make accessing crypto even easier. This will also have some associated risks.

Custom portfolios

Previously available to only high net-worth individuals, mechanisms for personalizing portfolios such as direct indexing are becoming more mainstream as some well-known wealth managers have made high-profile acquisitions of the direct indexing technology. **Global assets in direct indexing* are expected to grow by at least 12% over the next five years,** outpacing ETFs and mutual funds.[16]

* Direct indexing refers to the ability to mimic an index (such as the S&P 500) in an investor's own portfolio by holding the same percentage mix of underlying securities but on a smaller scale. Industry solutions today automate this process.

Growth in retail investing has had ripple effects across the capital markets ecosystem

Proliferation of customers

First-time US investors in 2020 were "younger, had lower incomes, and were more racially diverse" than investors with previous experience.[17] In Brazil, 1.5 million people joined the markets in 2020 alone and made up around 15% of the Brazilian exchange's trading volume.[18] At the same time, retail investing platforms have expanded their scope to accommodate and attract these first-time investors, enabling institutions to extend offerings and revenue streams across the board.

Rise of fintech funding

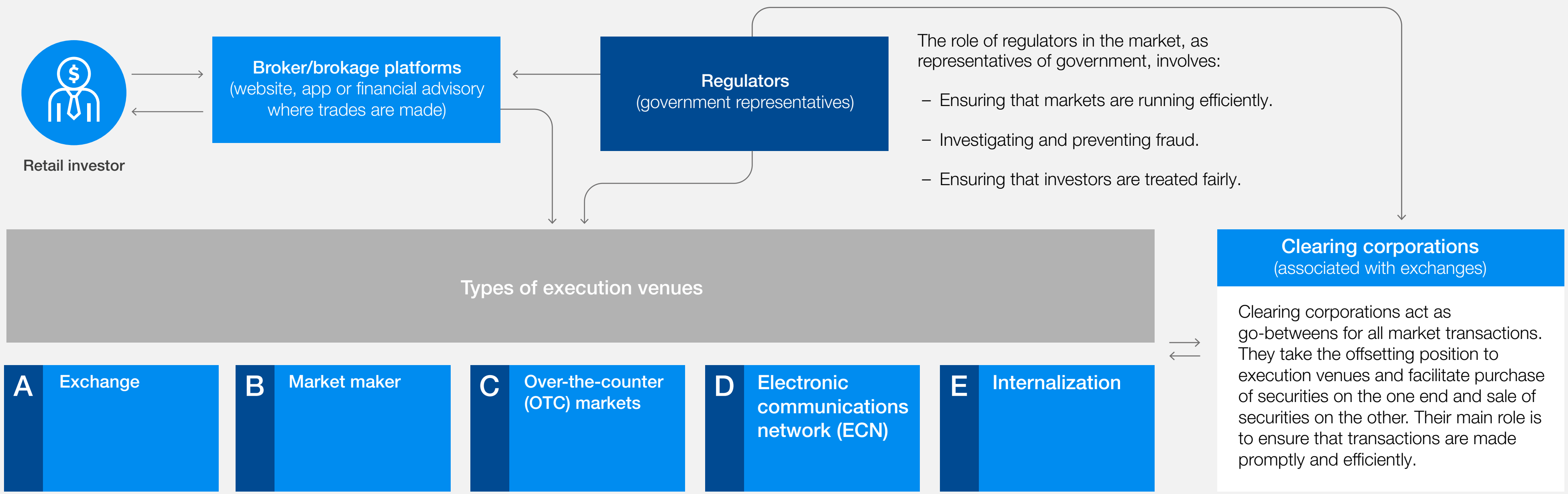
Global fintech funding increased by $100 billion to $131.5 billion in a year to 2021.[19] The accelerated pace of investment into the fintech ecosystem has enabled new platforms, products and services to emerge, bolstering the growth of the ecosystem as a whole. Fintech is growing particularly fast in emerging markets in part due to demand for unique solutions to address unbanked populations. For example, funding in Latin America grew 269% between 2020 and 2021.[20] In 2022, some of the top trends in fintech are expected to be the integration of embedded finance, Web3 and blockchain, which are poised to further aid innovation in the capital markets industry.[21]

Expansion of ecosystem

The capital markets ecosystem has expanded alongside the growth of retail investors as new technologies and service models have become more prominent. A variety of ancillary businesses have emerged to further enhance the stability and scale of the industry. Such businesses include risk management, data analysis and insight generation, marketing services and consumer education. New ecosystem players are finding their own unique positions and collaboration points with existing industry players.

When retail investors place a trade, they activate a chain of financial services institutions

An entire ecosystem of businesses and government representatives works cohesively to ensure that markets function smoothly and that retail investors have access to investment products and platforms. Several different business and revenue models underpin this ecosystem.



The execution venues involved in a trade will depend on the specific trade, but may include:

A. Exchange

For exchange-listed securities (e.g. stocks, ETFs, bonds and derivatives), brokers may choose to place buy/sell orders directly with the listing exchange. Exchanges are auction markets, where prices are based on supply and demand.

B. Market maker

Market makers act as wholesalers and are at the ready to buy and sell securities and set the price. They may pay brokers to place trades on their behalf, which is known as payment for order flow (PFOF).

C. OTC (dealer) markets

Over-the-counter markets are quote-driven and sometimes known as dealer markets, in which competing brokerages trade securities. Brokers go to OTC markets to trade non-listed securities (e.g. penny stocks, corporate bonds and swaps).

D. ECN

Brokers may send certain transactions (such as limit orders which trade at a specific price) to an ECN, where a computer will execute transactions.

E. Internalization

Sometimes, a broker may already own shares of the security that the investor is looking to trade, in which case they will fill the order themselves.

For more detailed explanations of these mechanisms, visit the US SEC investor publication on "Trade Execution".

New challenges within the industry greatly impact retail investor trust and overall stability of the ecosystem

Fragmented information that is difficult to decipher, compounded by limited overall financial literacy

Volatile macroeconomic climate posing a particular risk for newer and inexperienced investors

Innovation outpacing **protective regulations**

Increased volume of investors causing a **strain on infrastructure**

More chances for unintentional **retail investor harm**

New challenges within the industry greatly impact retail investor trust and overall stability of the ecosystem

Information about investing is fragmented and at times difficult to decipher.

Increasingly, do-it-yourself investors have leveraged the plethora of financial information available to them on the internet. According to the BNY Mellon and World Economic Forum 2022 Retail Investor Survey, nearly 31% of retail investors turn to more than three sources for information on what to invest in. Increased speed and scale of information sharing enabled by the social media has shifted the power dynamics of gathering and acting upon financial information.

In newer consumption channels, it is often hard to know if the information being consumed is grounded in financial fundamentals or someone's individual perspective and advice. Widespread free information comes with its own challenges and potentially steep consequences for retail investors and the entire system.

Especially in times of economic volatility, consumers expect more financial education and a "personalized mix of financial advice, hands-on help with problem resolution and guidance on how to grow their money".[22]

> If you are exposed to low market returns early in your life, then you tend to shy away from financial risk later on. Millennials and Gen Z don't have any other experiences of investing during a crisis. They have not yet seen a rebound. The rebound will happen, but they need to know that.
>
> **Camelia Kuhnen, Professor of Finance, UNC Kenan-Flagler**

Investors are being exposed to volatile macroeconomic climates, posing a particular risk to newer investors.

Those who began investing in the last few years have experienced a period of prolonged returns. But now, multiple headwinds are facing the global economy including rising inflation, a bear market and geopolitical uncertainty. As of publication, the US S&P 500 Index is down around 20% year to date.

Research indicates that for a new investor, an early-stage bear market can be a long-term deterrent to future participation. Nearly 27% of Betterment's US survey respondents said they had stopped saving for retirement after the 2007-09 global financial crisis.[23] Experiencing a downturn can also lead to "financial trauma", which can be particularly felt in minority or immigrant communities.[24]

The industry must identify how to help investors navigate market volatility and a potential recession to educate on the valuable lessons these times can provide, so they can remain in the capital markets system over the long-run.

Assessing the appropriate level of regulation to promote a healthy and responsible investing environment has become more challenging in a globalized investing context.

Regulators and policymakers rightly take time to analyse and debate new policies and initiatives. However, the rate of change is rapid, and the investing landscape is more and more globalized, calling for regulatory clarity that can still enable innovation.

Crypto is a prime example of a globalized product, with many exchanges operating across borders. The lack of a consistent, global policy around cryptocurrency spurs regulatory arbitrage and a lack of clarity for consumers around who is setting standards to protect them. In the US, individual states are currently left to create their own cryptocurrency laws, leading to varying regulations even within the country.

Increased volume and new products are creating a strain on infrastructure including exchanges and data processors, exacerbating liquidity risks.

Grouped or coordinated retail investor activity can impact prices and create a liquidity issue. New products such as fractional shares are also forcing exchanges to adapt quickly to both volume and product type.

Especially when trading volumes increase, platforms need to be able to match the liquidity and infrastructure demands of retail investors.

In extreme but possible circumstances, were a brokerage to be liquidated, retail investors could lose significant investments not covered by securities insurers.

More chances for unintentional retail investor harm.

The pace of change in the capital markets ecosystem has been so rapid over the past few years that the industry has not yet recognized that many of the newer innovations in products, channels and business models carry their own benefits and risks. Left unchecked, theses risks can seriously harm investors.

Mechanisms such as gamification, retail access to complex products including derivatives, business models such as payment for order flow, and platform outages each warrants study and discussion on whether and how to appropriately protect retail investors.

Innovation should be celebrated and embraced, but with appropriate safeguards for retail investors.

> People confound serious, wise investment with playing, with fun. This can lead people to lose a lot of money.

Camelia Kuhnen,
Professor of Finance,
UNC Kenan-Flagler
Business School

> The rise of retail trading is a black box for many of us [in academia] and we need to learn more about what is working well and what is not working.

Anna Pavlova,
Professor of Finance,
London Business School

> A lot of people my age [millennials] view their situation as so hopeless that they will take these lottery bets. For the lottery, on average you lose, and on average you lose what you put in.

Ben Charoenwong,
Assistant Professor of Finance,
National University of Singapore

Section 1 summary

Key Themes

The democratization of capital markets is overall a positive development.

Investors in both developed and emerging markets are looking for more ways to build long-term wealth and learn about investing.

Retail investors have demonstrated that they can be impactful and influential in global markets.

The surge in retail investors is due to a sustained period of macroeconomic growth, the rise of online trading platforms, impacts from the COVID-19 pandemic, and the general shift from defined benefit to defined contribution pension plans.

As more retail investors enter capital markets, new challenges are emerging for the industry to address.

Challenge

As more investors enter the market, higher volume can lead to strain on financial infrastructure and outages.

Opportunity

Financial institutions and exchanges should continue widespread investment in technology and infrastructure to meet the needs of a growing user base.

Challenge

Regulation of different products, including newer ones such as cryptocurrency, is inconsistent between countries.

Opportunity

Governments and institutions can coordinate the analysis of regulations across geographies to identify a coordinated approach to strengthening consumer protection and fiduciary guidelines.

Challenge

Information on investing is fragmented and often misleading when presented on social media by uncredited sources.

Opportunity

An independent professional certification for responsible investing information and practices can help investors identify reliable sources.

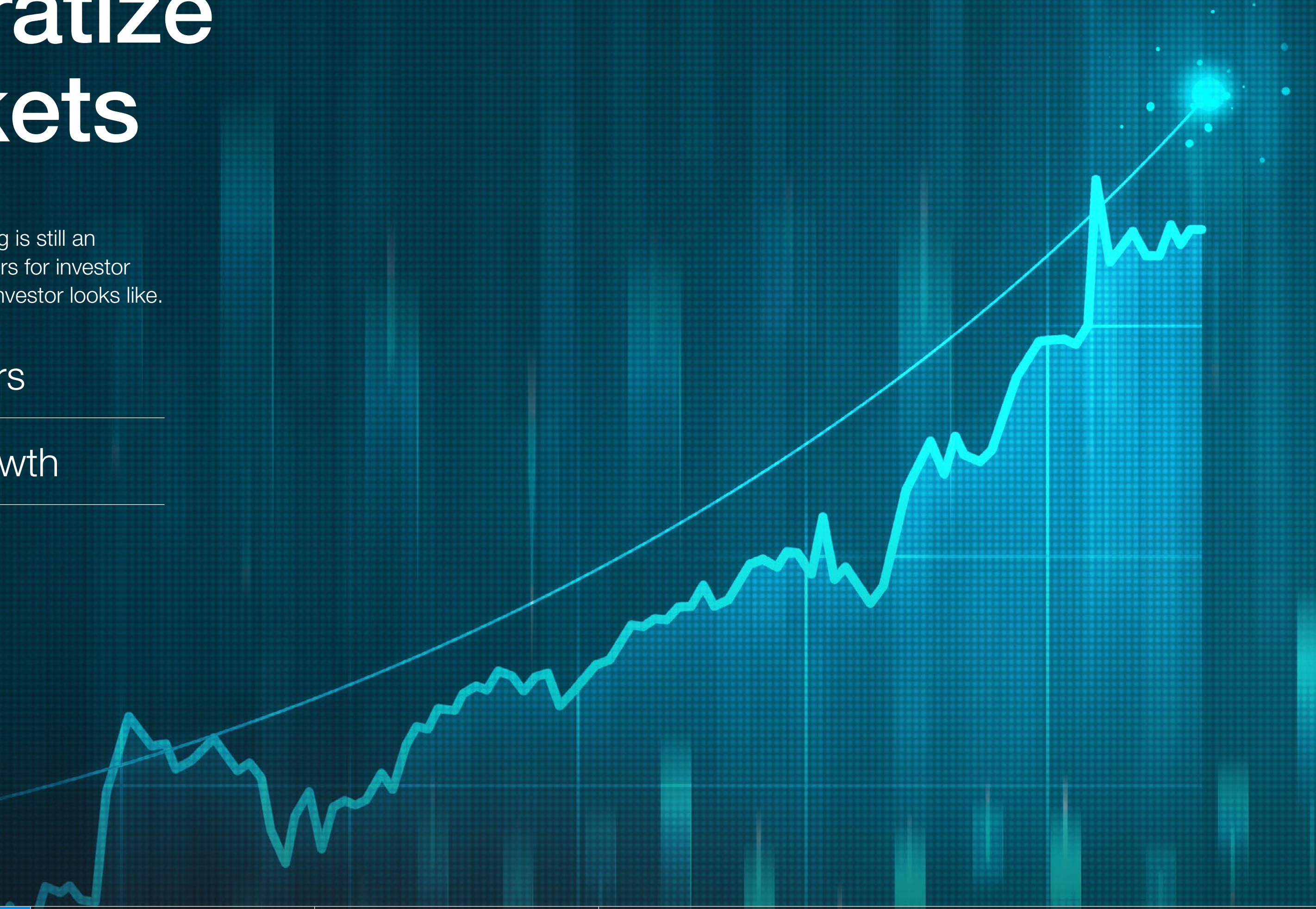
2 What's needed to fully democratize capital markets

This section focuses on the reasons why retail investing is still an underpenetrated market globally, introduces three levers for investor empowerment, and discusses what empowering the investor looks like.

A. Opportunity for non-investors

B. Levers for retail investor growth

C. Investor empowerment



Investing is an effective pathway to get people from where they are to where they want to be.

It can be an enabler of **economic growth, personal security and lasting wealth, and have ripple effects far beyond any one investment.**

To fully reap the benefits of investing, people must have access to the tools they need and be able to educate themselves throughout their investing journey. People also need to trust the institutions they interact with – that if they invest, they can be successful.

Despite recent growth in retail investing, a significant part of the global population still does not invest in the capital markets

In many countries, retail investors still lack access to and awareness of the investment products and services available to them. Moreover, even though the responsibility of managing pension plans is shifting to individuals, this has not yet translated into retail investor participation.

Mexico

1%

of the population were considered retail investors in 2020[2].

Pension rating*: D

Turkey

2%

of the population were considered retail investors in 2020[25]

Pension rating: D

Indonesia

1%

of the population were considered retail investors in 2021[25]

Pension rating: C

France

6%

of the population invested in the stock market in 2021[1]

Pension rating: C+

* As scored by the Mercer CFA Institute Global Pension Index 2020, with rankings from A (highest) to D (lowest).

Looking across the globe from Latin America to the Middle East, Asia and Europe, low participation in capital markets is more of a norm than the exception.

Even in countries where pension systems score relatively lower on the Mercer CFA Institute Global Pension Index 2020, such as Mexico, Turkey, Indonesia and France, **where citizens would likely have more incentive or need to secure their own retirement, participation numbers are low.**[26] This phenomenon is not unique to those countries, and globally, individuals must be informed of their responsibility for building wealth for their own futures.

The millions across the world not yet participating in the capital markets represent a huge missed opportunity for generations and for the capital markets industry.

> In many places, the financial system has left a lot of people behind. People can't access a lot of financial services because they don't have the capital.
>
> **Andres Garza,**
> **Social media financial educator**

Non-investors around the world are afraid to invest in capital markets due to a clear financial literacy gap and concerns over liquidity

- **Non-investors include mostly millennials (born 1981-1996) and Gen X (born 1965-1980):** 70% of non-investors in the BNY Mellon and World Economic Forum 2022 Retail Investor Survey are between 26 and 57 years old.

- **The vast majority of non-investors fall in the lower wealth brackets:** 76% have less than $50,000 (or equivalent) worth of investable assets.

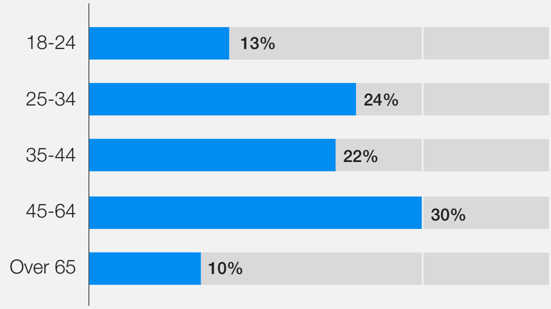
- **The primary reason why non-investors have chosen to avoid financial markets is fear of losing money:** This could be tied to issues of education and trust.

- **Non-investors are also cautious because of a knowledge gap:** More than a quarter of non-investors only learned about investing many years after entering the workforce and are limited in their understanding of the financial markets.

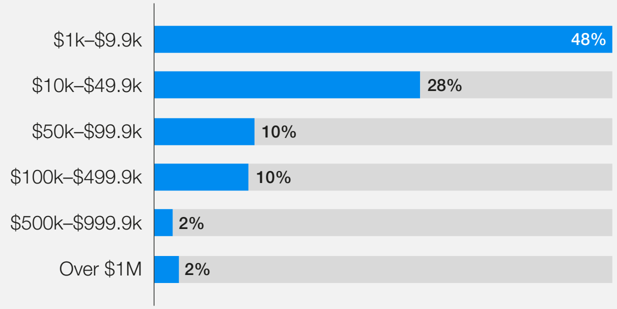
- **A generational gap is evident:** Non-investors have significantly less exposure to the financial markets through their parents as compared to retail investors.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey

Non-investor age distribution

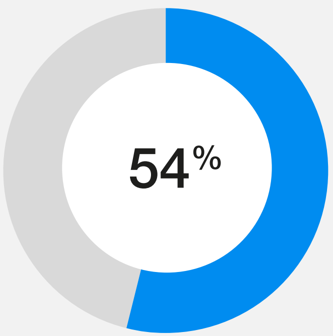


Non-investor investable assets

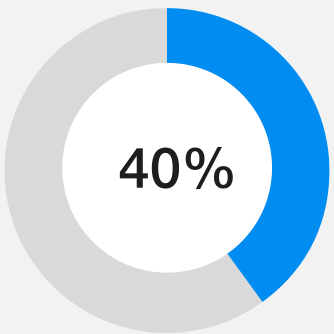


Note: Investable assets are measured in USD and USD equivalents for other regions; refer to Appendix: Table 1 for currency comparison

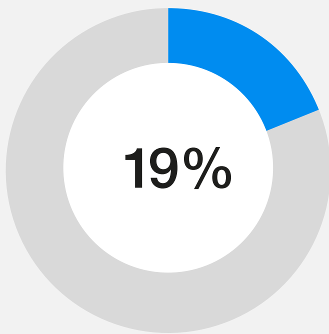
Non-investor characteristics



54% of non-investors said they had chosen not to invest because they **feared losing money in the market**



40% of non-investors said they had chosen not to invest because they **did not know how to invest or found investing too confusing**



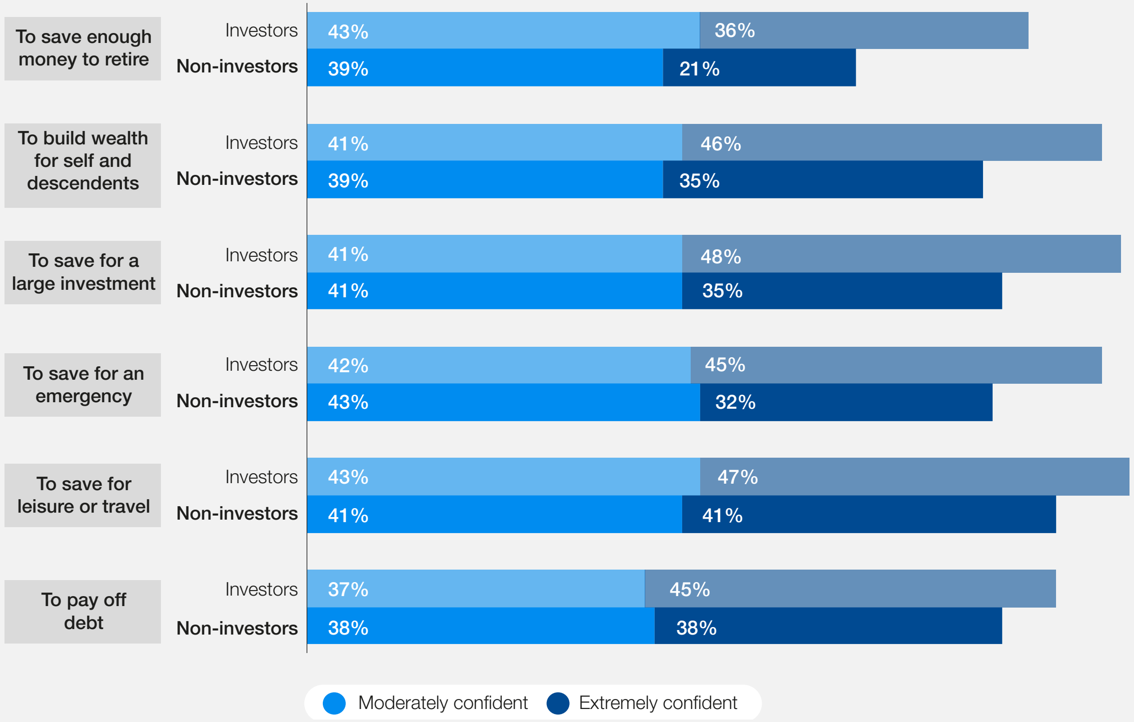
Only 19% of non-investors reported that their **parents had investment accounts**, compared to 59% of investors

Non-investors don't see a path forward to meeting their financial goals

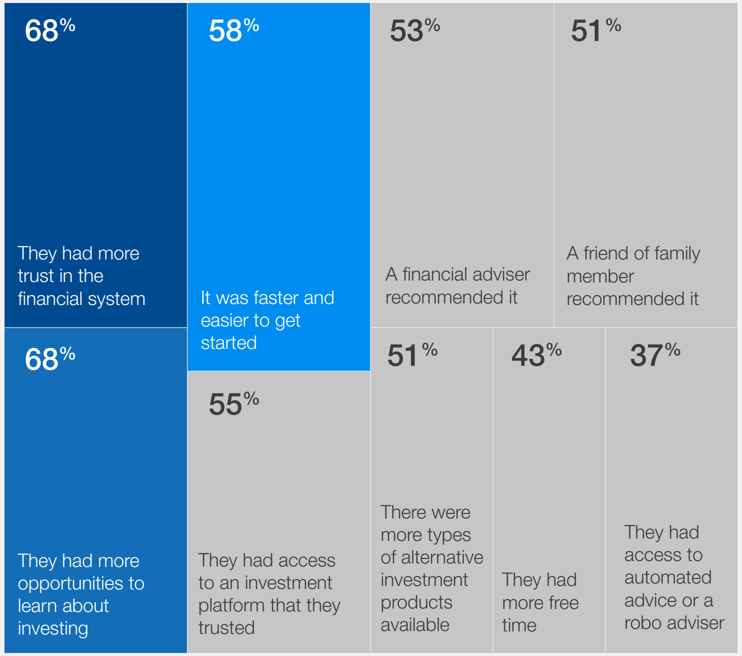
When compared to current retail investors, **individuals who do not invest are overall less confident of their ability to meet their stated financial goals.** While non-investors are primarily concerned with the potential to lose money in the markets, few solutions exist to rectify this situation beyond providing them with better guidance and information.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey

How confident are individuals of achieving their financial objectives?



Non-investors would be more likely to invest if...



Some existing investors also have concerns

Many existing investors do **not fully leverage the capital markets for wealth development.** They tend to maintain overly high rates of deposits, and besides maintaining a defined contribution pension plan, may not perform any other investing activities.

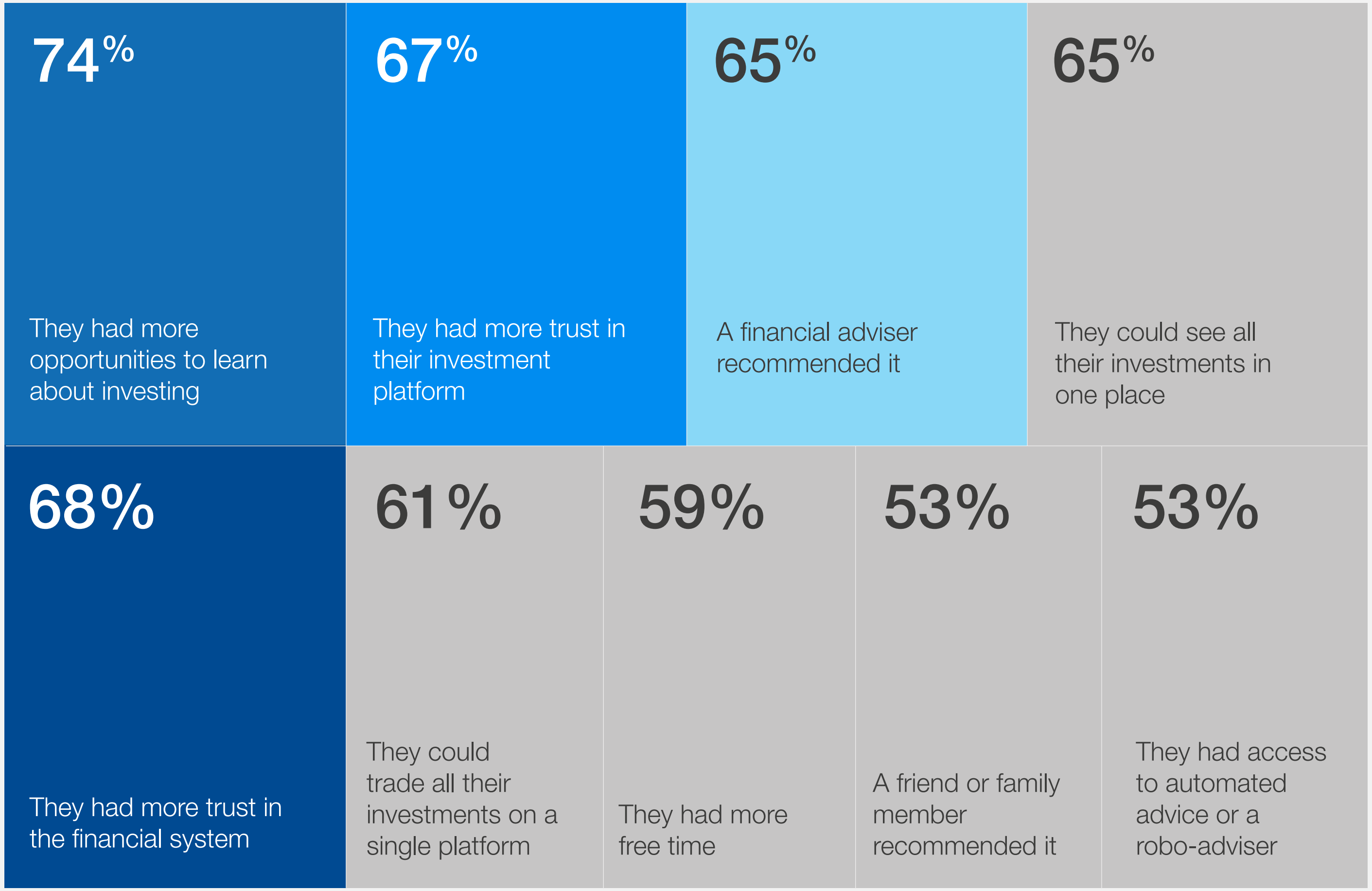
Existing retail investors share many of the same concerns that non-investors do, namely:

- Not enough opportunities to learn about investing principles and methodology.
- Lack of trust in the financial system overall and in industry services specifically.
- General paucity of access to professional support and investment advice.

Since these individuals already have money invested in the capital markets, efforts should be targeted towards getting them more involved in their wealth management and increasing the touchpoints that can provide them access to financial institutions.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey

Current retail investors would invest more if...



% of current retail investors who responded "Strongly agree" or "Somewhat agree"

Access, education and trust can catalyse retail investor participation worldwide

Research shows that access, education and trust are central to enabling the **different players in the capital markets ecosystem to work together to grow wealth in a responsible manner.** These three levers are inter-related, and the dynamics between them play out in unique ways across geographies.

Access

To technology
Internet, computers, smart devices

To financial services
Channels and mechanisms through which to invest

To products
That are wanted and needed

To information
Related to investing

Education

Financial literacy
Understanding basic personal finance and market fundamentals

Investing literacy
Knowing the value of investing, how to invest, and understanding what one can afford to invest

Media literacy
Learning how to discern good information from bad amid the plethora of information on the internet and social media

Trust

Individual players
Trust in specific companies that individuals may or may not have direct contact with

Industry and ecosystem
Trust in the ecosystem as a whole, including institutional investors

Macro-level factors
Trust may be inhibited over the long term due to previous exposure to financial crises

Access: To relevant products and services globally, while building awareness

Access to capital markets is still limited in many geographies. **Complete access in a particular country would require a capital markets ecosystem, a robust exchange for financial instruments, infrastructure to enable individual participation and appropriate regulation.** The largest apparent gaps in access lie in the paucity of investment product mixes, digital investment platforms and technology to enable real-time trading. Access must be better understood and enabled globally to fully democratize capital markets. Because the access lever hinges on so many factors, several tactical solutions can address this issue.

Solutions

Creating responsible access: As capital markets become ever more democratized through platforms and products, it is necessary to ensure that people of all backgrounds have proper access to the education, platforms, products and support they need to make informed and beneficial investment decisions.

Ensuring equitable access: Though at first glance a certain geography or demographic may technically have access to an investment platform or product, subtle barriers may hinder access, such as not understanding the language of investing, not resonating with a platform's design or usability, or a perceived exclusion of the platform's target audience. These must be analyzed and addressed.

Access throughout the world: Access to investing platforms varies by geography and is influenced by governmental policies, cultural beliefs, access to technology (e.g. internet and smartphones) and investable income. These are still unmet needs for many current and prospective investors.

Challenges

Differing levels of technological advancement: Adoption of technology varies greatly across regions, and often new technology is more quickly popularized in areas where other important infrastructure is lacking.

Varying levels of availability of platforms: The cost of investment platforms is generally higher in areas with fewer options. Commissions often restrict customers at the lower end of the wealth spectrum from entering the market. Regulations and policies in certain instances, though well-intentioned, may create friction for retail investors.

Building awareness for the masses: Awareness of not only the ability to invest, but the breadth of investment options that allow for a diversified portfolio geared towards short-term and long-term financial goals, is currently lacking.

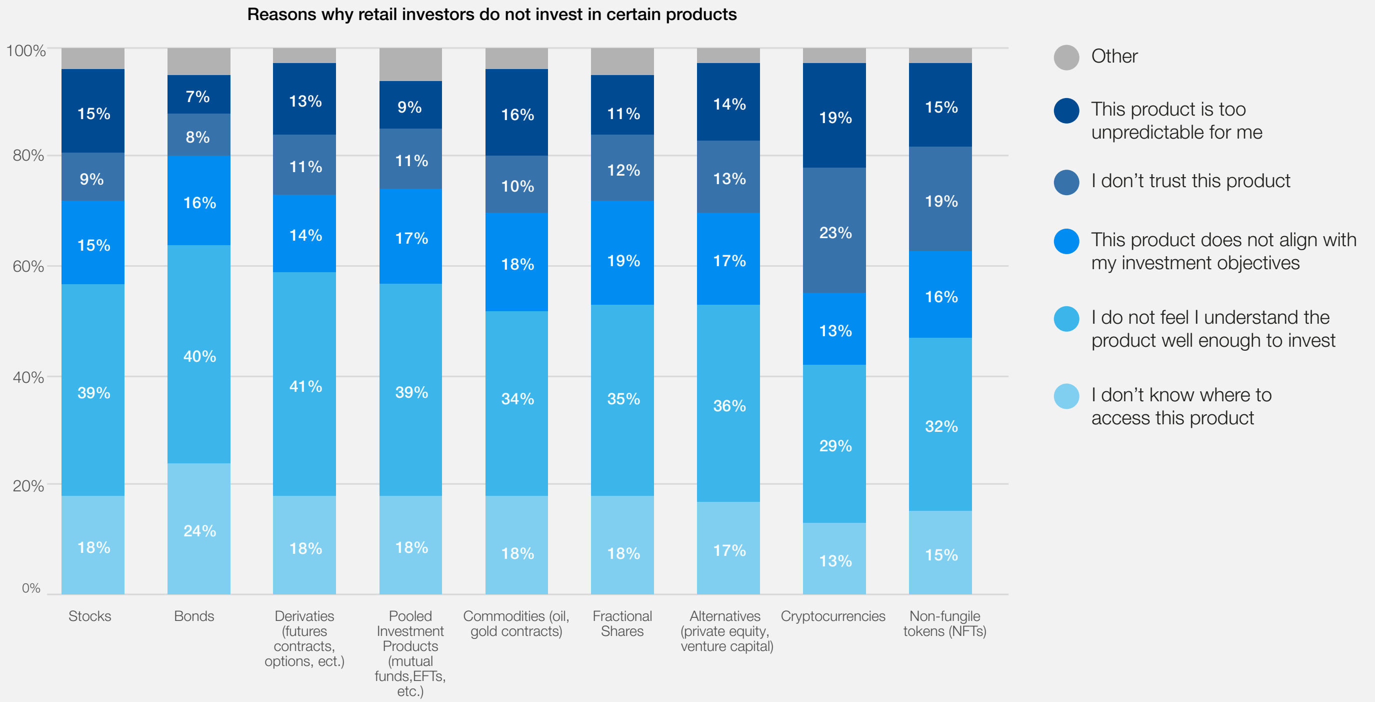
Data deep dive: Access

Access to products individually is not a primary concern: In each region surveyed, individuals reported that not knowing where to access specific investment products is not a significant inhibitor to their investment in those products, as shown above.

But gaps in product awareness and understanding exist. There are also major gaps in services that support investors making decisions, including:

- Access to reliable investment platforms that can handle scale and support newcomers.
- Access to financial advisers and wealth managers.
- Access to automatic rebalancing options.
- Accessible websites and apps that enable a good user experience.

BNY Mellon and World Economic Forum 2022 Global Investing Survey



55% of non-investors would be more likely to invest if they had access to an investment platform that they trusted

79% of current investors state that being able to speak with a financial adviser is important in making an investment decision, **BUT...**

48% only 48% of current investors are able to turn to a financial advisor or wealth manager for advice on how to invest

Education: Relatable and impactful educational content needed

Personal finance education – from setting a budget to learning how to secure one's retirement – is an integral part of building wealth responsibly. The challenge is to bring vast swaths of people to a base level of financial literacy and to provide meaningful guidance as they grow their wealth via the capital markets.

Solutions

Financial literacy today: An S&P study from 2014 found that only 33% of adults worldwide are financially literate.[27] Beyond standard financial literacy, 53% of American adults are financially anxious, and financial capability, stability and confidence are not improving. As individuals become more responsible for their financial well-being, it is crucial that they understand how to achieve their financial objectives.

Making investment information comprehensible: When it comes to investing information – how to invest, what to invest in, and why to invest – sources are numerous and fragmented. Identifying the most impactful and accessible forms of education is a key challenge, as is verifying the sources and veracity of information.

The benefits of focusing on education: A strong base of financial literacy can help individuals achieve their personal goals through wealth creation and can also create a more secure society and world. Data shows that higher rates of financial literacy are tied with higher GDP per capita.[27]

Challenges

Fragmented sources of financial education: The sources of financial education range from the media to personal advisers or coaches, literature, organizations and more. These sources are fragmented globally, making it difficult for consumers to access consistent information and understand where their knowledge gaps are.

Lack of clarity on who is responsible for providing education: Whether through schools, government agencies, financial institutions, NGOs or self-learning, no consensus exists around who is responsible for ensuring that individuals have the financial literacy they need to secure their future.

Meeting people where they are in their education journey: As more people begin to engage in the capital markets and others become more sophisticated in their investing, targeting the right audience at the right time via the right channel becomes a challenge for all entities in the financial services ecosystem.

Data deep dive: Education

Research has shown that humans are best able to react to new information and retain it between the ages of 4 and 12.[28] Complex interpretation of events, however, is performed better as a person ages.

Those who choose to invest start learning earlier than those who do not invest: Overall, the industry can do more to pair investment education with basic financial literacy education at a young age.

Retail investors prefer leveraging accredited information when it comes to making investing decisions: The top two sources of information are both tied to financial institutions:

- 47% of retail investors depend on guidance from financial advisers/wealth managers.
- 41% of retail investors rely heavily on educational resources from financial institutions.

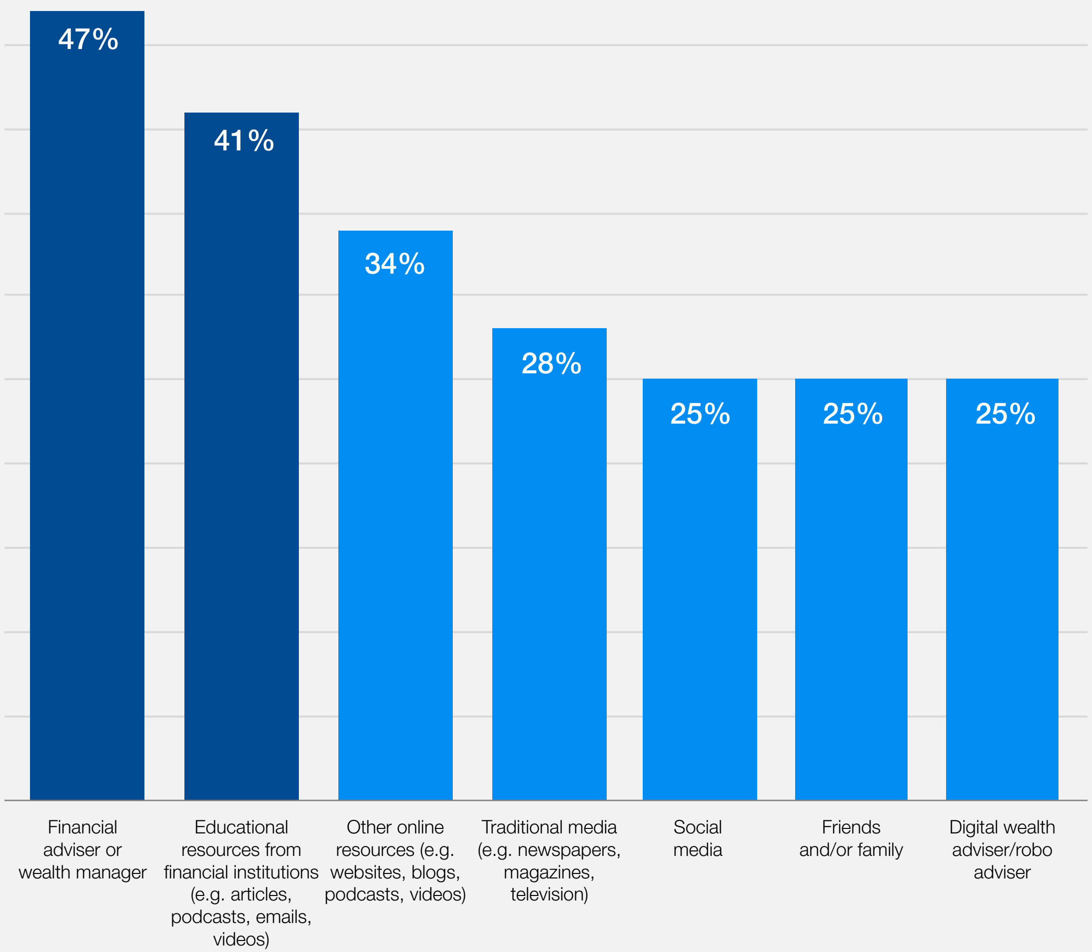
In general, people around the world get news and relevant contextual information from digital channels: Investing is also informed through world events and consumer preferences shaped by social and political changes. That information is primarily supplied by the social media and television.

Investors prefer human financial advisers to digital equivalents (such as robo-advisers): The gap between the preference for in-person advisers compared to digital advisers is vast.

Providing information is not enough – content should be fit for purpose with efforts to make it as understandable as possible: A large percentage of Americans do not understand commonly used terms including asset allocation (69%) and rebalancing of investments (66%).[29]

BNY Mellon and World Economic Forum 2022 Global Investing Survey

Retail investors find these sources of information extremely important when making investment decisions



66% of Brazilian adults go to the social media for news, but are also extremely concerned about what is real and what is fake[29]

53% of US adults go to the social media for news on investing, and 52% of US adults prefer to get their investing news from digital channels in general[30]

Trust: Building and maintaining trust in financial institutions is critical amid growing market volatility

Investor trust will vary based on the levels of consumer trust in individual financial institutions, the capital markets system and the overall financial services industry. The challenges for increasing investor trust in investment opportunities are immense today, but can be met by improving the understanding of market patterns and building communication lines between investors and financial institutions.

Solutions

Institutions: In an industry saturated with retail banks and brokerages, consumers need to choose between institutions based on cost, services offered and features. The trust lever can be used to create a win-win relationship for institutions and consumers in an industry crowded with both incumbents and new entrants.

Capital markets: A 2020 study of the Asia-Pacific markets found trust to be a crucial factor in market participation.[31] The study found that investors with a higher level of trust were more likely to invest and more likely to invest higher percentages of their wealth.

Financial services industry: Overall, trust in the financial services industry varies significantly by region. Most emerging economies have less trust in the industry but more trust in brand-name financial institutions, whereas developed economies have the opposite dynamic.

Challenges

Historical disruption and crises: As most countries around the world face lasting effects of successive global financial crises, economic disruption and market losses have long-lasting effects on trust. In the US, trust in banks dropped from a high of 53% of those surveyed in 2004 to a low of 22% after the 2007-2009 Global Financial Crisis. Trust in banks has not yet recovered, measuring only 33% in 2021. Though trust in banks is not a direct measure of trust in capital markets, it can be one proxy to understand the effect of downturns on trust.[32]

Disparate levels of availability and dependence: Developed markets throughout Europe and North America have higher levels of banked populations, and therefore, a higher dependency on financial institutions.[32]

Trusting innovation and newer technology: Emerging markets have a higher likelihood of leapfrogging innovation in financial technology, which can be used to create easier access to financial services that are historically too expensive and difficult to access for the general population. However, for adoption to rise in tandem with availability, an element of trust is needed to get people to use the services.

Data deep dive: Trust

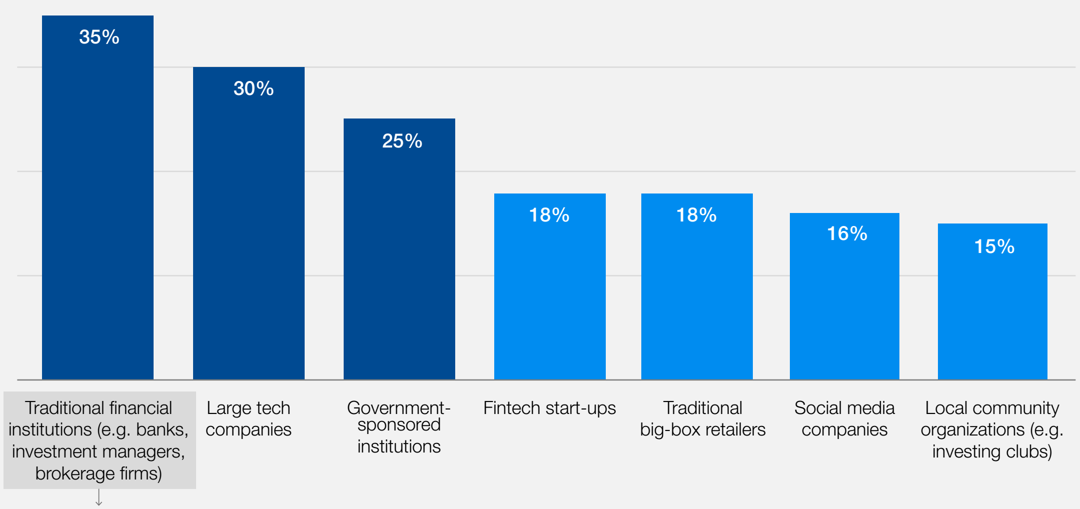
Retail investors continue to trust traditional financial institutions: Banks, investment managers and digital brokerage firms are preferred as primary investment providers. Overall, this is a strong indicator that financial institutions have an opportunity at hand to build on their existing customer base.

Trust in traditional financial institutions is very clearly concentrated in emerging markets: Nearly 50% of Brazilian investors would choose traditional financial institutions as their primary investment provider, compared to only 16% of Japanese investors.

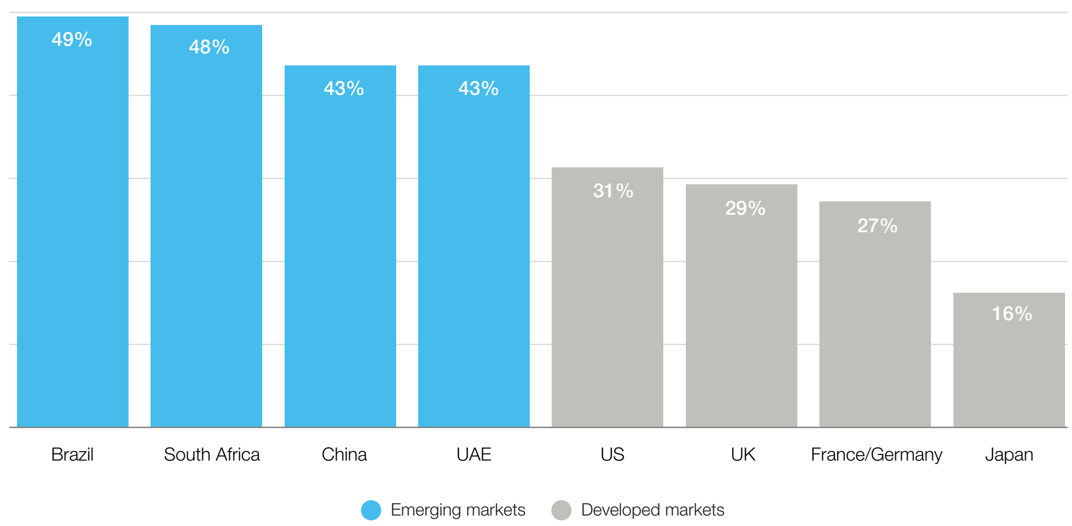
In emerging markets in particular, customers trust brands that they recognize: This may be because brand name institutions are seen as more mature and experienced at dealing with difficult situations.

BNY Mellon and World Economic Forum 2022 Global Investing Survey

Retail investors would trust these organizations as an investment platform



Trust in traditional financial institutions is significantly higher in emerging markets



Deploying access and education for sustained investor trust

Since all countries' levels of financial literacy, trust in the financial services industry, fintech leaders and banked populations vary, spotting driving forces and causal relationships becomes a challenge when designing solutions.

Size and scale

Industry must attempt to increase market participation among both non-investors and under-investors. To assuage concerns, appropriate consumer guardrails are essential.

No single solution

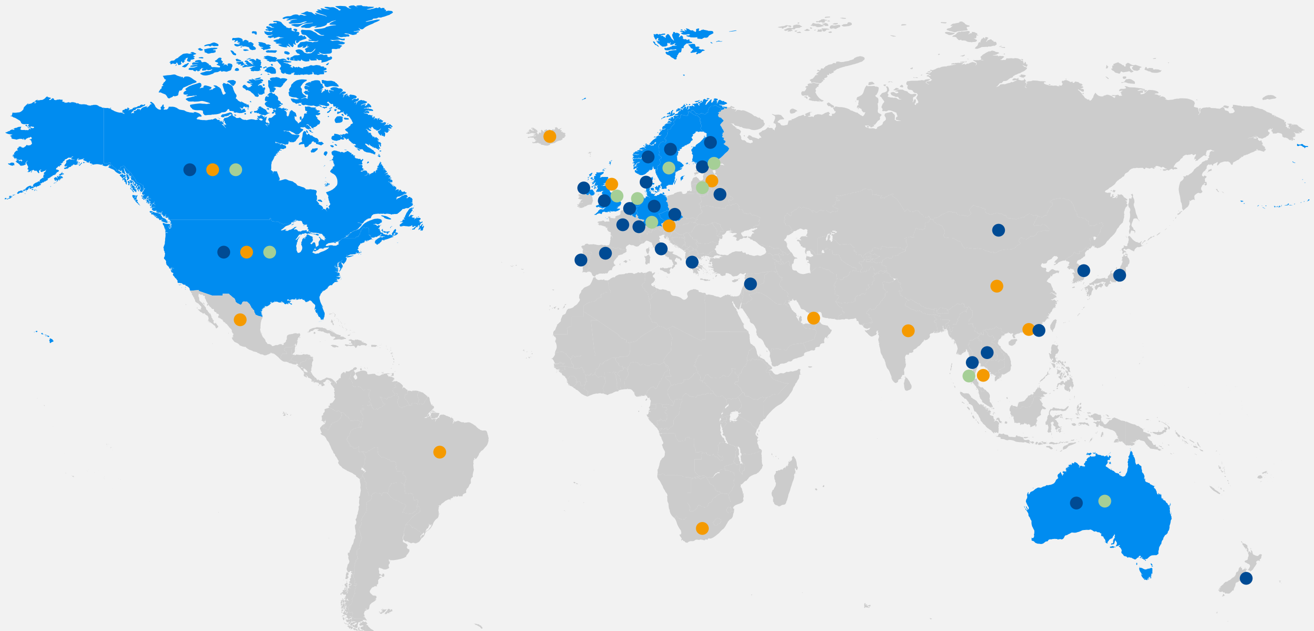
As a guiding principle, industry must not expect a one-size-fits-all solution. Demographic and regional differences must be considered, for what works in one market may act as a detractor in another. Disparities in technology, regulation and geopolitical conditions present other important challenges in increasing participation.

Solutions must be responsible

Solutions must orient towards a safe system that enables responsible wealth creation. The goal is much more than simply increasing the number of investors, rather enabling greater and widespread wealth creation across the ecosystem. Therefore, industry partners must seek to be collaborative in developing large-scale innovations.

Financial literacy, trust in financial services, access to financial services and investable assets vary across geographies*

- ≥ 55% financial literacy rate[24]
- ≥ 50% trust in financial services industry[33]
- Top 10 countries leading in fintech[34]
- ≥ 90% of population aged 15+ has a bank account[35]



*of analysed geographies (currently somewhat limited)

Source: Accenture. Based on multiple sources.

The empowered investor as the future of responsible investing

The levers of **access, education and trust** can come together to create a framework of what the empowered investor could look like.

Access

Retail investors can easily access investment services and products.

- Can find and invest in diverse products.
- Can access different public and private markets.
- Can receive advice and support in decision-making regardless of income level.
- Can get a holistic view of their overall financial situation.
- Can plan for short- and long-term goals.

Education

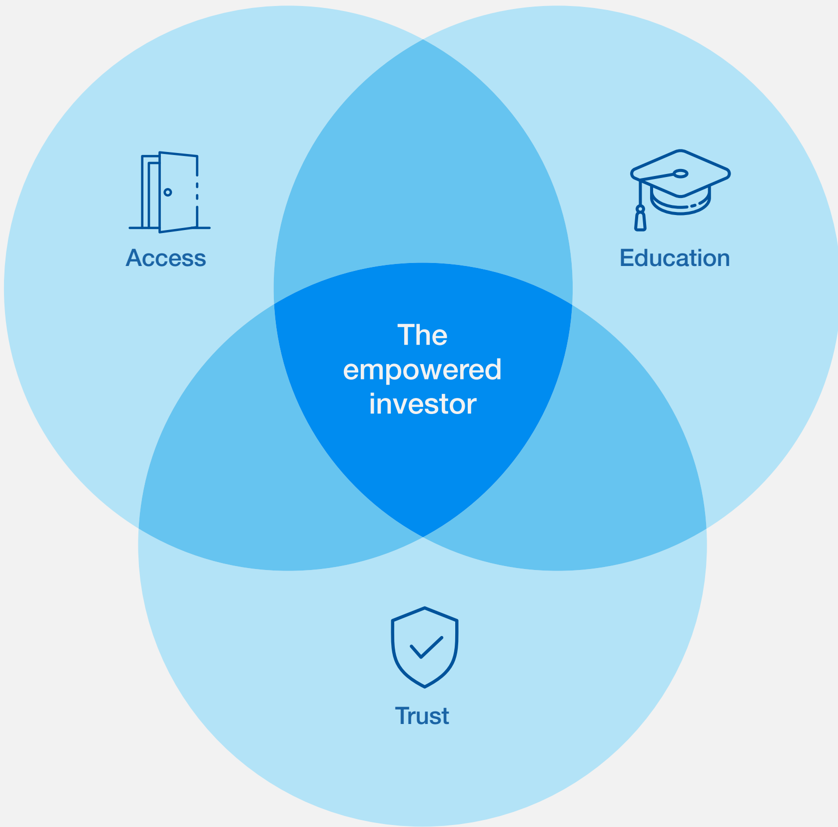
Retail investors can easily find and consume the relevant financial education content.

- Can learn about how and where to start investing.
- Can learn about strategies and products.
- Can improve their personal financial literacy.
- Can make informed wealth management decisions.

Trust

Retail investors can trust industry institutions and the markets.

- Can spur change in policy and regulations (e.g. towards purpose-driven investing).
- Can take more control of their own personal finance and investing.
- Can understand the risks and returns of investing.
- Can expect fair valuation and fraud prevention.



Solutions at the intersection of access, education and trust

Investors are looking to be **empowered through cohesive investment information and access to financial advisers.**

A **The importance of advice**

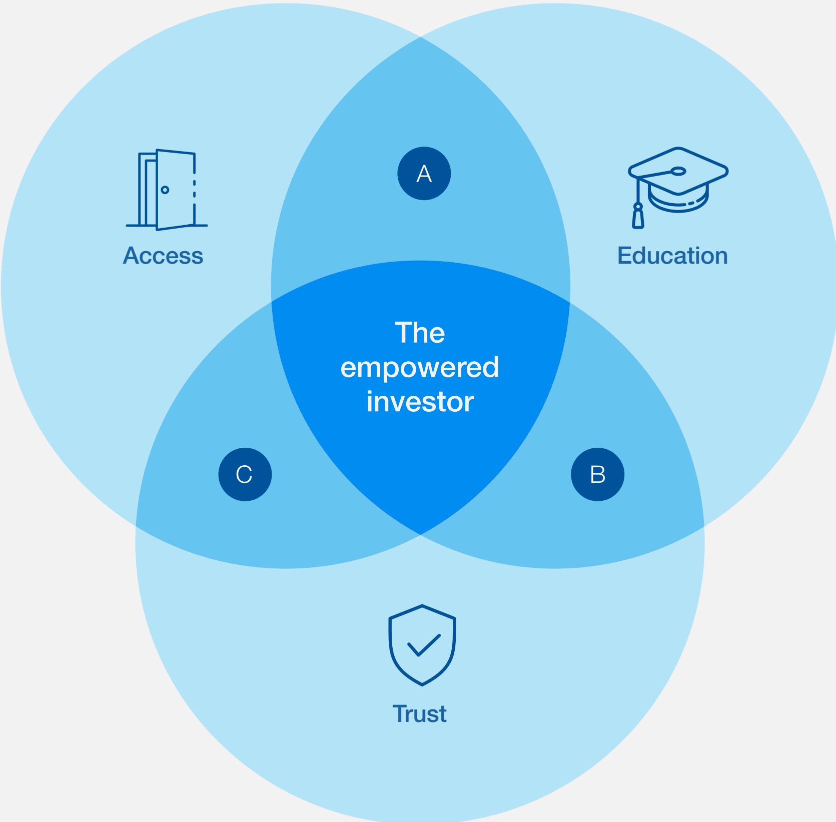
Proper investment advice is generally a paid service provided by registered investment advisers, who recommend specific actions based on a consumer's individual circumstances and financial goals. In the current ecosystem, this can be provided via brokerage platforms and financial advisers but is also available through robo-advisers.

B **Platforms embracing education to build trust**

Brokerage platforms are increasingly providing educational services along with investment services. Where platforms primarily used to provide ratings for individual assets, now retail investors can access more in-depth materials on strategies and investment principles. For instance, a leading cryptocurrency platform provides educational tutorials for various cryptocurrencies and incentivizes learning by offering free cryptocurrency.

C **Building appropriate guardrails**

Most of the responsibility for compliance with investment regulations falls on investment managers and platforms. This not only means compliance with regulatory authorities, but also alignment with financial values that govern public investing preferences. Investors expect fair valuation of assets, accurate information, risk-management solutions, measures to prevent and counteract fraud, and more recently, ESG compliance. Institutions that check more of these boxes are better able to build trust with investors.



Section 2 summary

Key Themes

The three levers of access, education and trust can be catalysts to spur retail investor engagement.

Access, education and trust are closely tied to each other, and solutions to address gaps in the industry need to solve for these levers in tandem.

The industry can empower retail investors by improving access to financial services, providing more opportunities to learn about investing and fostering trust in the industry.

Challenge

Many countries around the world still lack choices for investment platforms, especially for lower wealth brackets.

Opportunity

Established brokerages in developed countries can partner with local platforms in underserved regions to deploy solutions that are accessible (for instance with reduced jargon, fee transparency and simplified onboarding).

Challenge

It is unclear who is responsible for developing financial literacy around the world.

Opportunity

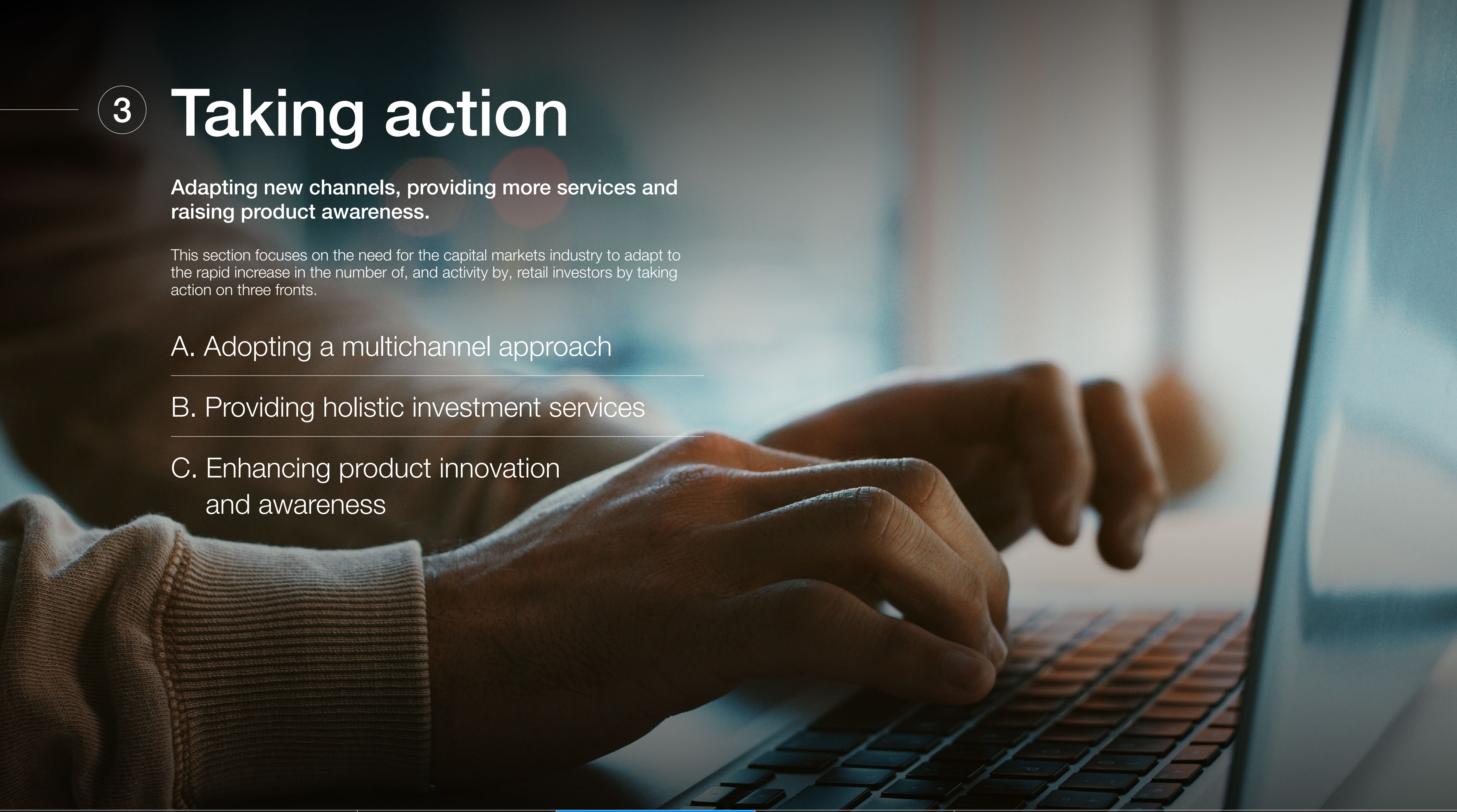
The industry can come together to create a cohesive playbook for educating and informing a new generation of investors. Policy can focus on embedding financial literacy into early education.

Challenge

Investors and non-investors may be increasingly reluctant to invest as they witness more market volatility and financial downturns.

Opportunity

Brokerages and exchanges can reach out to investors during periods of financial tension to provide in-person support and to foster trust.



3 Taking action

Adapting new channels, providing more services and raising product awareness.

This section focuses on the need for the capital markets industry to adapt to the rapid increase in the number of, and activity by, retail investors by taking action on three fronts.

A. Adopting a multichannel approach

B. Providing holistic investment services

C. Enhancing product innovation and awareness

Channels

Financial institutions provide support, information and education to investors through digital and traditional channels. However, these **solutions are often siloed within and across firms and don't always resonate with investors.** Furthermore, those at lower wealth thresholds are often left with few options for getting financial advice.

Investment channels need to be more flexible and on-demand to meet the diverse needs of today's investors. Firms must seek to service a broader set of needs across the wealth spectrum and provide tailored advice when it is most needed.

By converging digital and physical channels, financial institutions can provide impactful, personalized support to retail investors

Why digital?

In recent years, financial institutions have realized the importance of digitalizing their offerings and building more automated solutions for their customers. Gartner estimates global enterprise IT spend for the banking and investment services market to see a five-year compound annual growth rate of 6.5%, reaching an estimated $761 billion by 2025. A primary driver for this focus is the understanding that investors are looking for enhanced self-service where possible, as well as optimizing a firm's cost-to-serve. Scaled capabilities like self-directed investing, portfolios managed through mobile devices and automated portfolio rebalancing help provide more investors with control over their financial decisions.

Examples of digital services:

– Digital (robo) advisers providing automated investment management
– Interactive online learning courses for financial planning

Why physical?

Through investing, customers hope to build wealth for significant life events, and seek a human touch for such crucial decisions. Financial planners and advisers play a critical role in providing guidance to investors that is more suited to their personal situations than is currently possible through automated advice options. For individuals across the world who fall in the lower wealth tiers, the gap in advice and financial guidance is vast. By building a more diverse adviser talent pool and giving advisers digital tools to better tailor advice to individual needs, the industry can create more trust among investors on a global scale.

Examples of physical services:

– In-person advisers at bank branches or via video chat
– Financial literacy courses provided in primary school or university

Holistic = More than hybrid advice

People are increasingly becoming digitally connected – 83% of the global population has a smartphone[36] even though only 76% of people have a bank account.[50] Support in finances needs to reflect this trend while ensuring that everyone can create a financial plan that is customized to their personal needs. The digital investment solutions currently in the market are generic and limited in personalization. At the same time, most people without a great deal of personal wealth are unable to afford personalized financial advisers and often think they can find better returns investing by themselves without paying advisory fees. Although there are some tech disruptors trying to address this gap in services, more responsibility must fall on established financial institutions that have the necessary resources to scale hybrid financial planning and advice solutions to reach the average retail investor across the globe. The entire industry must work together to realize the vision of growing wealth for all, and especially for underserved clients across the wealth spectrum.

Services

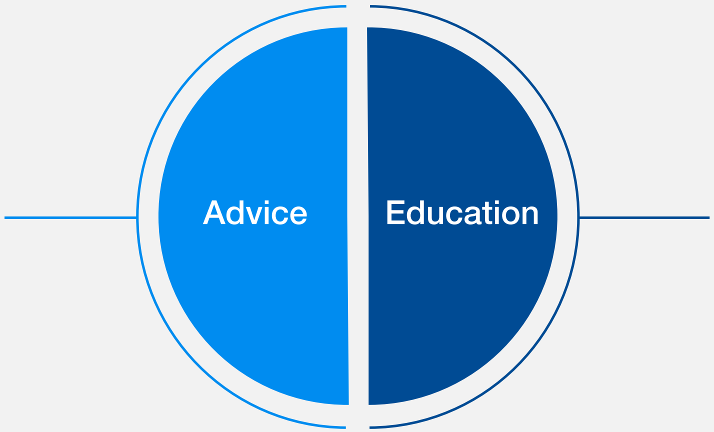
The industry must improve its ability to **provide holistic financial planning at scale and outcome-oriented advice** to meet both short- and long-term needs for a wider range of investors.

The current investment services landscape is sufficient in terms of the breadth of services offered but is siloed in terms of reach

The current investment management services span from upfront education and advisory services geared towards helping investors make trade decisions, to trade execution and ongoing portfolio and risk management.

Advice and education services*

- **Personal financial planning**
  - Investment management
  - Estate planning
  - Insurance
  - Tax
  - Caring for dependents
  - Elder care
  - Heath advisory
- **Corporate advisory**
- **Business succession planning**
- **Corporate stock plans**
- **Family office management and governance**
- **Philanthropic services**



- **Investor education**
  - Trading fundamentals
  - Technical analysis
  - Product and strategy
- **Fincancial literacy education**
  - Budgeting
  - Household fincance
  - Banking
  - Retirement planning
- **Corporate advisory**
- **Business succession planning**
- **Corporate stock plans**

Investor services*

- **Brokerage platforms**
- **Investment assets**
- **Investment data and research**
- **Managed portfolios**
- **Risk management**
- **Trade execution**

Challenges in the industry:

- Services are siloed in terms of category and between providers – customers need to go to multiple providers
- Providers are not incentivized to offer recommendations beyond their own products
- Customer information is not shared between providers, preventing a single holistic profile

* Non-exhaustive examples of advice, education and investor services that could pertain to retail investors.

Those at lower wealth thresholds cannot access sufficient quality and variety of services

Retail investors at lower wealth thresholds are looking for guidance on how to build wealth for significant life milestones and need access to advice at times that matter.

Investment advice needs to start with basic financial planning and guidance

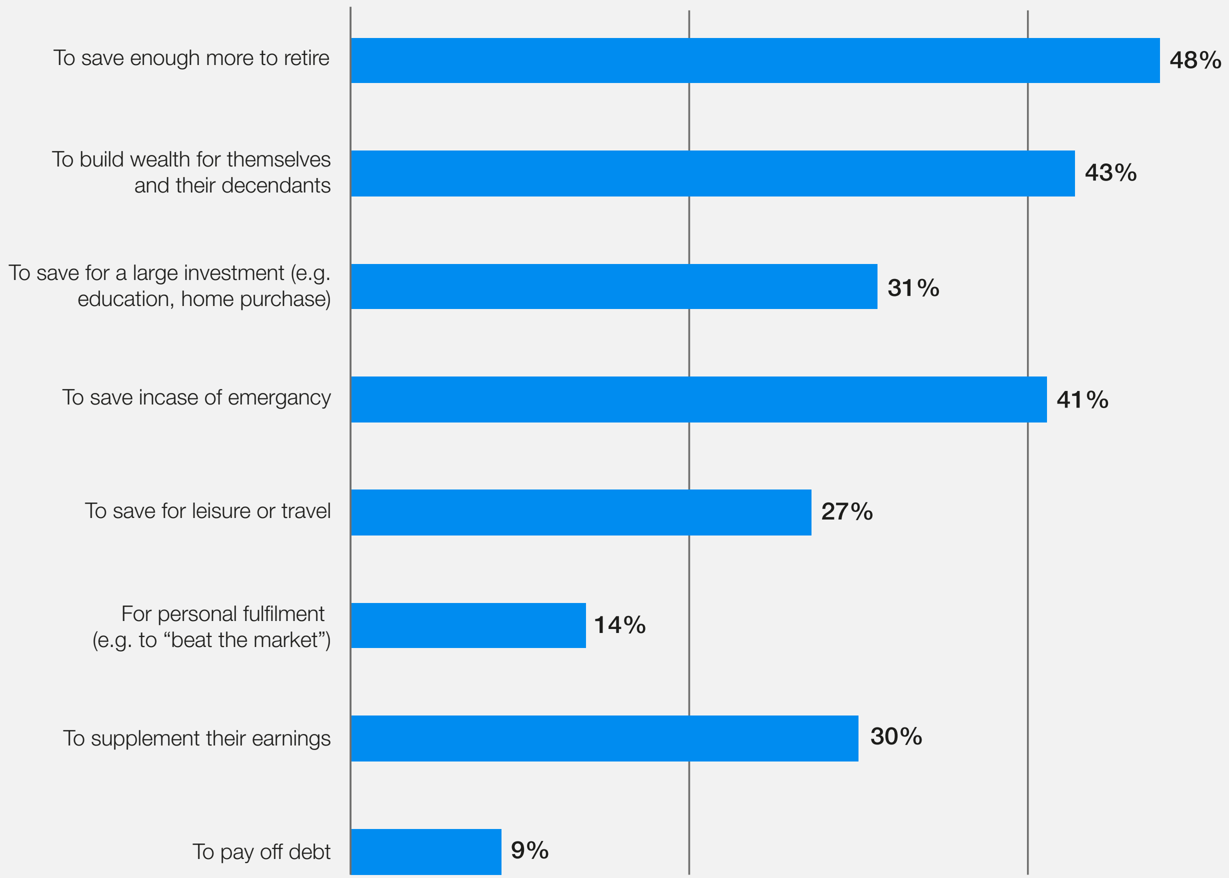
Around the world, the lack of access to a base level of financial services is making people turn to social media channels to learn about personal finance. Online "finfluencers" have amassed millions of followers by mastering the art of breaking down content into digestible pieces. Finfluencers have greatly diversified the facets of advice and the channels in which investors access advice and education. Rather than combat this trend, institutions should embrace digital channels and find ways to reach investors with content that is relevant, accessible and engaging.

Digital channels are superseding a shrinking pool of financial advisers

Individuals want to grow wealth for near-term milestones as well as for retirement, but providers are often separate and not able to build a cohesive customer profile for financial planning in the short as well as long term.

In this context, providers must scale the services that enable individuals to make sensible financial decisions (highlighted in the figure above). Although people prefer a human touch in some instances, about 40% of financial advisers will likely retire within the next 10 years as the industry shifts towards more digital channels.[37] Therefore, digital platforms need to foster a sense of community within their users and ensure that investors from all walks of life feel supported in making decisions that impact their financial future. Digital advice channels have made great strides, but can still better leverage technology to provide more personalized digital advice.

Retail investors have diverse financial objectives



Services must evolve to create a more supportive and guiding environment for investors

The new generation of retail investors desire more personalized advice, hands-on help and technologically-assisted ways to learn about investing.

What's missing?

Retail investors are looking for more and better advice with hybrid advice solutions.

A human/digital service model for advice delivery is necessary to allow financial institutions to reach a broader investor base. A new generation of investors is looking for self-service combined with in-person support when needed, coming from a more diverse set of advisers who they can relate to.

Non-investors are looking for advice on how and where to start investing.

Although an abundance of information on fundamental investing principles is available, very little is tailored to the non-investor and towards getting them to trust capital markets in the first place.

Current investors are looking for personalized, outcome-oriented financial planning.

Connecting the dots between investing and being able to achieve significant life milestones, such as a home purchase or children's education, will help structure a purposeful investment portfolio.

Retail investors are looking for reliable information sources.

Institutions must embrace the new channels that investors are gravitating towards and curate digital content to better suit the needs of today's investors. Information from credible sources needs to reach a wider audience.

Firms must scale up advice, provide personalization and make learning fun

Utilizing technology and fostering environments for innovation can help firms keep the customer's preferences front and centre when designing services that foster healthy investing behaviour and meet their preferences.

Technology enablers

Scaling advice with new business models

Meeting investors where they are, digitally

Behaviour enablers

Making advice engaging to learn and interact with

> Retail investors have more power than ever. This power has to be accompanied with more literacy, more support with investing their capital.

Jan-Oliver Strych,
Assistant Professor of Finance,
Karlsrühe Institute of Technology, Germany

Tech enabler: Scaling advice with technology solutions

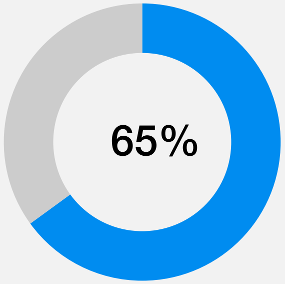
How to scale high-touch services to lower wealth tiers remains a question. Several “wealthtech” companies have launched innovative platforms that are demonstrating different pathways to scaling personalized advice. If firms can unlock this puzzle and offer high-quality offerings to a wider investor base, they can build new revenue streams and long-lasting customer relationships.

Numerous wealthtech entrants are offering innovative digital investing solutions, many of which focus on bringing better wealth management services to traditionally underserved demographics. These companies are commonly implementing tiered pricing models that allow investors from lower wealth brackets to access better advisory and portfolio management services.

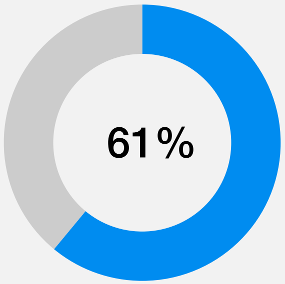
However, retail investors around the world and particularly in emerging countries **continue to trust traditional financial institutions the most.** Incumbent institutions can take note of successful wealthtech players and **bring an enhanced, scaled platform providing advisory services to the retail investor market.** This will give them new opportunities to unlock revenue sources to offset incremental costs to scale, while serving populations that need personalized services the most.

Examples of successful wealthtech market entrants

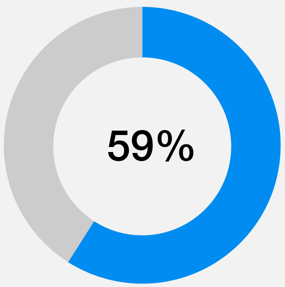
Automated investment portfolios combined with personal checking/savings	Digital platform backed by behavioural finance research	Holistic digital financial planning startup with dedicated adviser
Features	**Features**	**Features**
– All-digital banking – Investing accounts for children and adults – Educational articles on saving and investing principles	– Retirement accounts, investment accounts and trusts – Traditional banking services – Account syncing feature that allows for a holistic view of a user’s finances	– 100% virtual service with a dedicated relationship with a certified financial planner – Emphasis on entire financial life – not just investments – Educational financial material
Business model	**Business model**	**Business model**
– All-in-one membership fee-based model; personal and family plans	– Regular tier (no account minimum) and premium tier	– Free introductory call – Transparent, flat-fee pricing based on services provided



of retail investors are interested in more comprehensive investment advice



of retail investors would invest more if they could trade all their investments on a single platform



of retail investors find it extremely important for investment platforms to have clear and transparent fee structures

Source: BNY Mellon and World Economic Forum 2022 Retail Investing Survey

Tech enabler: Breaking down silos via embedded finance and super-apps

Retail investors will **increasingly prefer ease of use**, seeking to manage their investments in one place. Companies can meet investors where they spend their digital time, creating a **frictionless environment in which to invest and learn.**

Embedded finance

"Embedded finance refers to financial services offered seamlessly in consumers' everyday experiences through non-financial products and services." [38]

Embedded finance is poised to grow to a **$7 trillion market cap** in the next 10 years as more businesses, offering both financial and nonfinancial services, seek to create a frictionless experience for customers.[40]

Financial super-app

"Super-apps are digital ecosystems of products and services housed under a single application and unified user experience." [39]

Transactions through mobile wallets are expected to hit **$1.9 trillion by 2024**.[38] Mobile wallets and peer-to-peer payments are often a flagship product for super-app companies.[39]

These tech enablers also create more opportunities for firms to expand their operating models and partnerships. Embedded finance and super-apps may be one mechanism to centralize investing and education for investors through:

Holistic views

By nature, super-apps and embedded finance can expand the available services within and among platforms. Nearly 81% of Trade-Ideas survey respondents would find third-party tool integration into their existing brokerage as a value add.[40]

Personalization

By serving investors through channels that they use in daily life, super-app companies can collect and leverage data to anticipate customers' needs, tailor customers' experiences and provide additional suites of services from banking to investing to travel and shopping.[41]

Accessible education

Focusing on the captured attention and stickiness of spending more time within one platform, super-apps could be a potentially prime spot for delivering more targeted education to investors.

Behaviour enabler: Boosting healthy investment habits through "gamification for good"

Accenture has conducted research that clearly shows that certain gamification techniques on their own may influence retail investors (in particular, high-risk, high-volume investors) to panic-sell or place irregular trades. [42] However, **by tempering gamification with proper messaging and contextualization, gamifying investing habits can serve as a useful nudge to encourage retail investors to make informed investment decisions.**

Risks of gamifying trading

- Encouraging more trades with less due diligence
- Possibly nurturing an addiction to trading
- Minimizing the risks of investing
- Distorting the objectives of investing

What is "gamification for good?"

Investment management platforms can use gamification to **put market movements in context and attract non-investors, by making interactions engaging and prompting responsible behaviour.**

24% of US citizens say they are afraid of losing money in the markets and are afraid to invest. Yet 41% say they know investing is the right thing to do to prepare for their future.[43]

+

A study by the University of London's Bayes Business School demonstrates that employing gamification techniques, such as ranking against other retirement accounts, can encourage investors to lock away more of their earnings in investments. [44]

The bottom line

Gamifying wins and losses in a financial context, when built as a behavioural nudge, could help retail investors set financial targets, track their progress and reach their wealth milestones.

Products

Today, investors have a multitude of investment products to choose from, largely meeting their basic investing needs. However, **gaps persist in awareness and contextualization of products.**

Responsibly democratizing access to alternative types of investing and personalization can help investors continue to hone their investment strategies for their unique needs.

Major gaps in product awareness lead to poor adoption of investment products

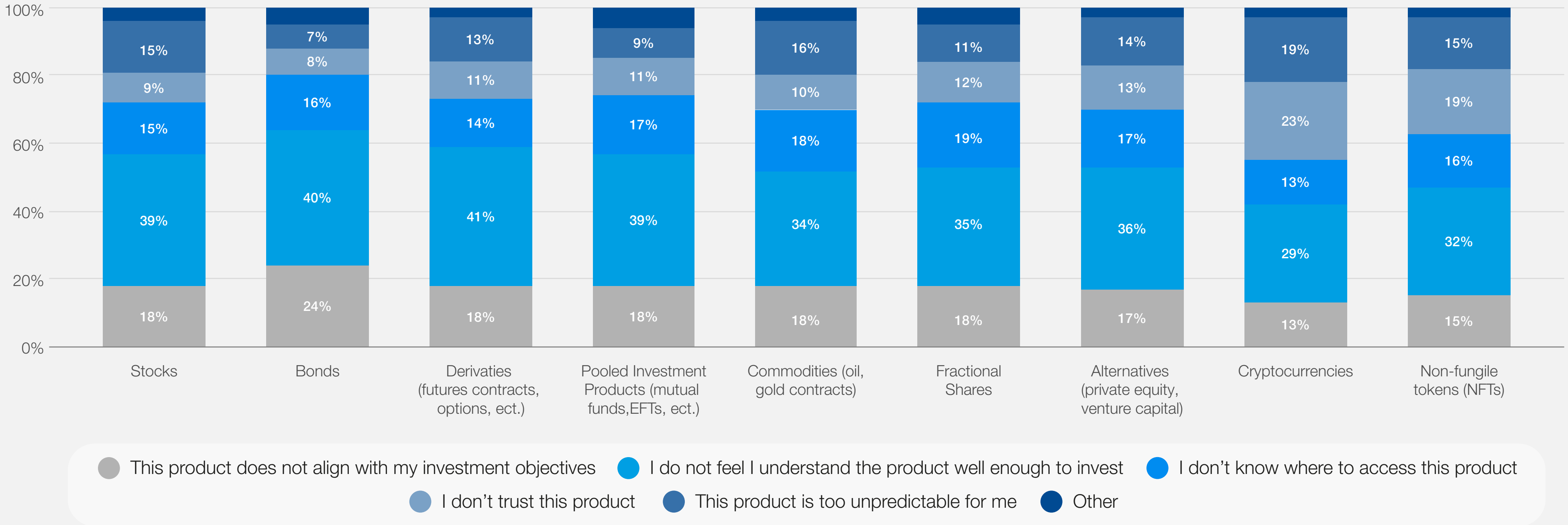
Retail investors have highlighted a lack of understanding as the single most pressing reason that they do not invest in certain products. This lack of understanding is related to the structure and purpose of those products, and often very much influenced by trends in the wider ecosystem. **Investors want to answer the question: "Why should I invest in this product?"**

For instance, **29% of investors noted that they do not understand cryptocurrencies, whereas 40% of investors noted that they do not understand bonds.** This raises an important question – do investors truly not understand products or are they simply influenced by social sentiment and more aware of other products?

Education, then, must have twin goals:

1. Teach investors about different investment assets, their purposes and associated risks.
2. Find ways to raise general product awareness through financial literacy programmes and responsible marketing.

Reasons why retail investors do not invest in certain products

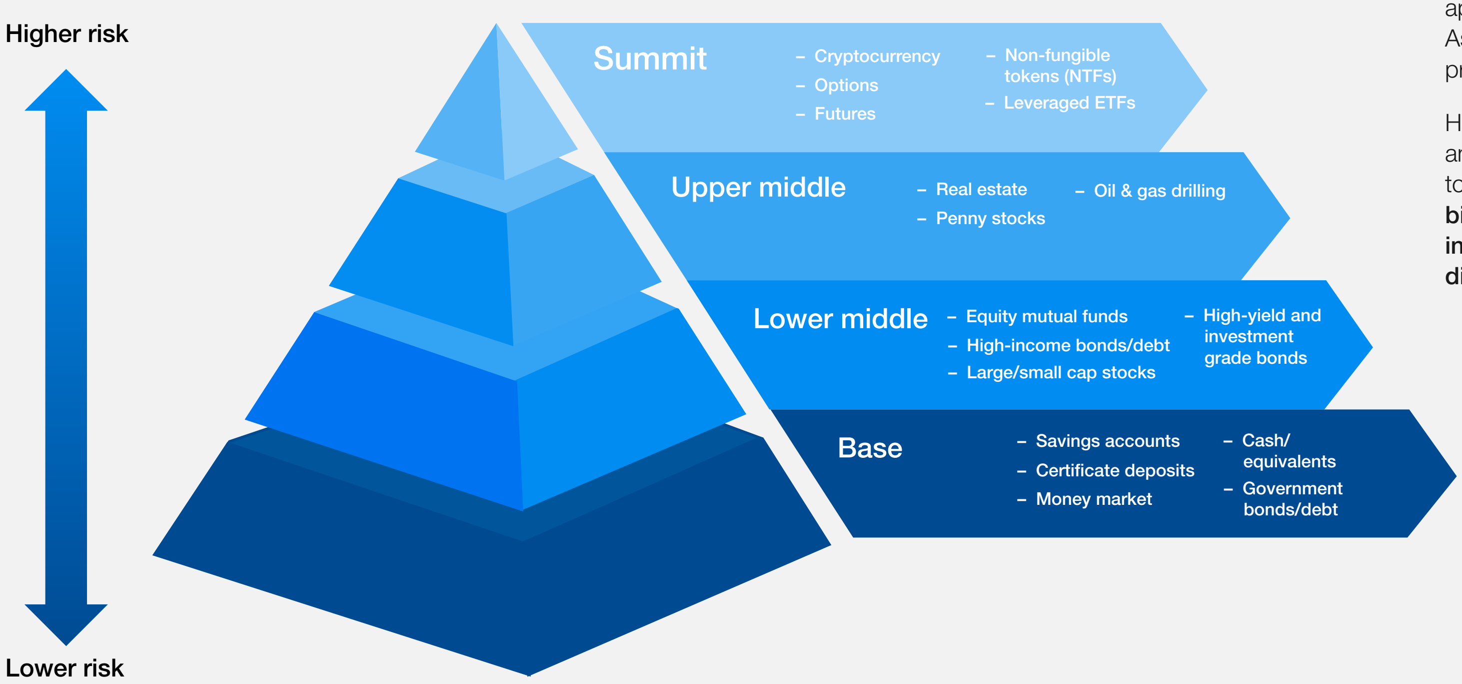


Enough products to support the risk appetites of most retail investors, but choosing assets can be difficult

A wide variety of asset types are available to invest in within the current product landscape, spread throughout the risk spectrum. However, gaps remain in retail investors' access to products and awareness of why (or why not) to invest in a particular product. **The industry should improve its efforts to reach and educate investors about the value proposition of individual products.**

The investment risk pyramid

(as per Essex Corporation and CMC Markets)



A note on diversification

Investors are advised to diversify their investment portfolio to match both their risk appetites and desire to optimize allocations. As is evident in the pyramid, numerous financial products are available at each risk level.

However, due to gaps in awareness, adoption and access, many retail investors find it difficult to select products. **The industry can play a bigger role in using digital channels to inform investors about the purposes and targets of different product types.**

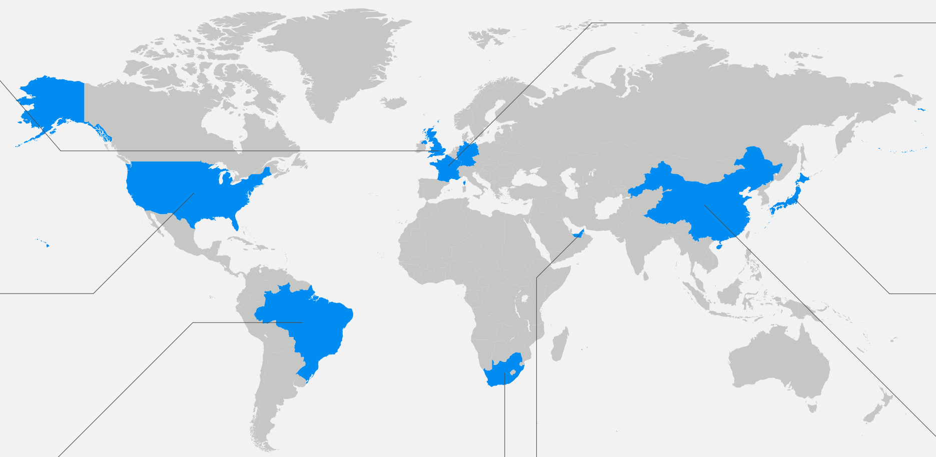
Note: This is not an exhaustive list of asset types available in the market, and this categorization may shift with market behaviour.

Investors are drawn to products they are aware of, which may affect their perceived understanding

In the figure below, the highlighted areas signify products in which more than 20% of people do not currently invest because of a perceived lack of understanding of it. Interestingly, **many of these products are basic ones such as bonds and pooled products (such as mutual funds and exchange traded funds or ETFs), signifying that people may be unaware of asset types' purpose.**

> You can have the perfect product, but no one is looking for your product because they don't know why they need it. Make people understand all your benefits. I do believe capital markets [institutions] are making efforts to educate, but they can do more, and in responsible ways [encourage investors] to use their products.
>
> **Andres Garza,**
> **Social media financial influencer, Mexico**

BNY Mellon and World Economic Forum 2022 Retail Investing Survey



United Kingdom	% investing	% not confident to invest
Stocks	59%	17%
Bonds	35%	25%
Pooled product	23%	26%
Crypto	36%	19%

France & Germany	% investing	% not confident to invest
Stocks	56%	15%
Bonds	27%	25%
Pooled product	41%	18%
Crypto	36%	14%

United States	% investing	% not confident to invest
Stocks	66%	12%
Bonds	36%	23%
Pooled product	39%	20%
Crypto	36%	18%

Japan	% investing	% not confident to invest
Stocks	71%	12%
Bonds	27%	23%
Pooled product	22%	17%
Crypto	13%	15%

Brazil	% investing	% not confident to invest
Stocks	61%	17%
Bonds	43%	24%
Pooled product	43%	23%
Crypto	61%	13%

South Africa	% investing	% not confident to invest
Stocks	64%	16%
Bonds	32%	28%
Pooled product	52%	19%
Crypto	60%	13%

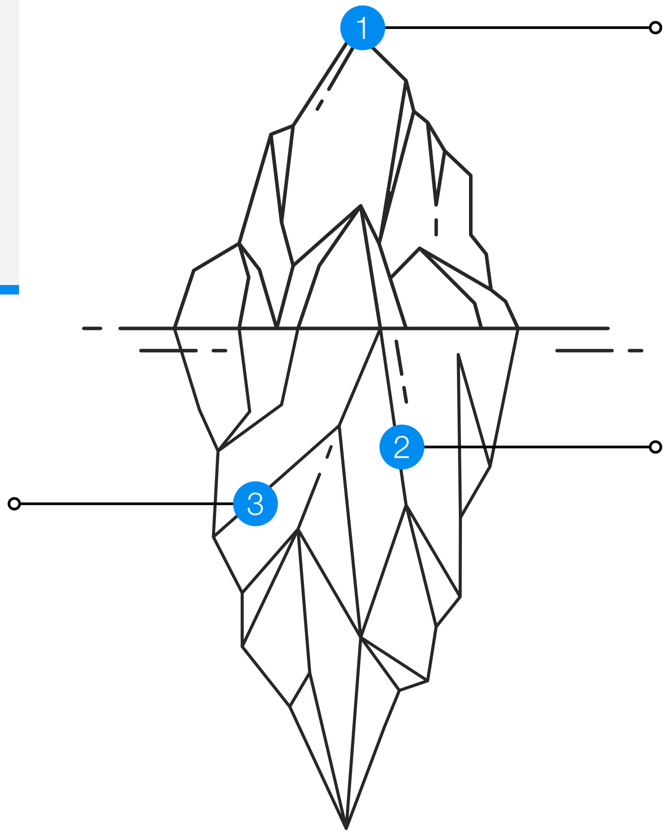
United Arab Emirates	% investing	% not confident to invest
Stocks	64%	12%
Bonds	39%	24%
Pooled product	43%	20%
Crypto	59%	12%

China	% investing	% not confident to invest
Stocks	78%	9%
Bonds	60%	19%
Pooled product	50%	20%
Crypto	28%	24%

% investing self-reported **% not confident to invest** due to perceived lack of understanding

Beyond access, a better product suite is needed

The fundamental investment products (i.e. stocks, bonds, ETFs, mutual funds and indices) are available in principle to most investors, especially with the current growth trends in digital investment solutions. **However, significant challenges remain in gearing these products to the specific needs of the mass market of retail investors.** Investors need to know how the various types of investment products will help them achieve their goals, and these needs will differ based on each person's unique financial picture.



1. Access to capital markets has improved significantly, with more progress to be made in certain geographies

The primary issue facing retail investors until recently was gaining access to the market. "The puzzle of low participation rate has gotten less puzzling over the last few years because of the entrance of fintech platforms. It's not that hard now to become an investor," according to Camelia Kuhnen, Professor of Finance, Kenan-Flagler Business School. While capital markets in certain geographies are still emerging and maturing, most investors do have access to capital markets.

2. Offering tailored products and enabling purpose-oriented investing

Investors and non-investors alike are working towards financial and personal objectives, while also being driven by social impact trends like sustainability and fair trade. The product landscape needs to reflect these perspectives and allow customers to orient their product selections towards their preferences. Technologies such as direct indexing are one way to help investors personalize, and more can be done to co-create products with a diverse set of investors in mind. Financial advisers and brokerages must also help investors create outcome-oriented plans and choose the right products according to each investor's goals.

3. Giving more retail investors responsible access to alternative investments

While providing retail investors with greater access to alternative investments such as private equity and venture capital, more education and awareness is essential to make this democratization meaningful. As retail investors begin to enter markets with higher volatility and risk (e.g. fractional alternatives and cryptocurrency), they must understand the nuances and objectives of those products alongside their potential financial implications and opportunities.

Innovating access to alternative investments

By improving access to and awareness of historically restricted markets and products, and by enabling personalization, the industry can **help investors shape a well-diversified portfolio.**

Expansion of access to historically restricted products, such as alternative investments, is one step to meaningfully support the democratization of capital markets. **At the same time, increased access can create risks via increased illiquidity both for individuals and markets, so access must be expanded responsibly and with proper educational support.**

Expand responsible access to alternative investments

In private markets where the lack of data has made the minimum investment prohibitive, new technology can allow more investors to enter and diversify their portfolios. Given that private and alternative markets are less regulated than public markets, investors need to know what they are investing in and have a full picture of the risks. Access to holistic advice and a focus on educational content can help investors make the right decisions for their portfolios, while accessing new sources of diversification. As many as 51% of non-investors would be more likely to invest if they had access to alternative investments, as per the BNY Mellon and World Economic Forum 2022 Investing Survey.

The size of the private and alternative investment market* is estimated to be $23 trillion[47]

Private equity/venture capital	Real estate	Digital assets
$15 billion+	$13 billion+	$2.6 trillion+
in funds invested **14.2%** median returns	in funds invested **10.3%** median returns	in funds invested **30.1%** median returns

* Market sizes and median returns as measured in early 2022, due to market volatility market size and returns may have changed.

New platform offerings are starting to democratize access

	Platform 1	Platform 2	Platform 3	Platform 4
	Investments in art, real estate, aviation, multi-asset funds and structured notes	Private deals in single family/ multi-family apartments and commercial real estate	Managed cryptocurrency portfolio, as well as public equity strategies	Early access to start-ups across a wipe spectrum of industries
Minimum investment	$500 - $15,000	$10 - $10,000	As low as $100	As low as $100
Time horizon	1-5 years	5+ years	5+ years	5+ years

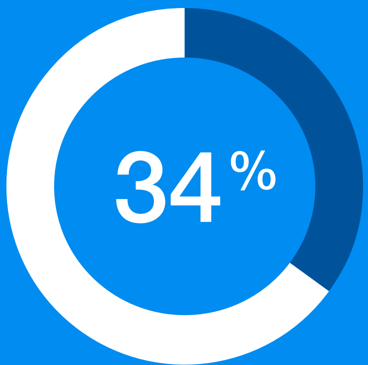
How they do it: Many such platforms use crowd-funding models in order to increase access to products that have traditionally had high investment minimums, much like mutual funds.

Personalizing investment planning to the individual

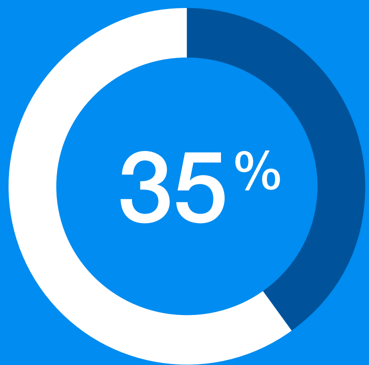
The challenge: The industry needs to figure out a model to **serve a broad range of investors at scale.** People's liquidity and risk needs, wealth goals and interests (such as societal impact and ethical considerations) are diverse and cannot be served by just one model or product.[48] In the current state, many perceive advice to be too generic and don't have faith in their adviser's abilities.

Provide more personalized investment products

Personalised content	Customized portfolios	Contextual investing	ESG solutions
Countless data providers exist in the financial ecosystem. Providing the relevant market data and news can empower investors to make better decisions.	In looking to serve individuals' unique needs, direct indexing and custom portfolios can help investors optimize for their goals, liquidity needs and risk tolerance.	Contextualization can help foster trust between customers and institutions. Building a financial plan based on the investor's individual context is key in growing wealth.	Although data on ESG is still in the growth phase, many retail investors across the world are aligned in their mindset of making investment decisions based on ESG principles.



of retail investors would be more confident in their investment decisions if they received more personalized investment advice.



of retail investors always consider the environmental and social impact of a product/company before they invest in it.

BNY Mellon and World Economic Forum 2022 Retail Investing Survey

Section 3 summary

Key Themes

Investment channels need to be flexible to provide digital self-service options to investors while giving them the ability to speak to in-person professionals when they need to. Over time, the capabilities of digital advice must improve to offer better support at scale.

Especially at lower wealth brackets, investors are looking for outcome-based investment advice that is based on their own financial context. This is a major gap that the industry needs to address.

Awareness of what products are available and how they are relevant to an individual's investment plan is lacking and can be boosted through personalizing investment planning to the individual.

Expanding access to private markets, such as alternative investments, can push democratization further by providing more diversification options. However, this needs to be done in a responsible manner due to the higher risk of these products.

Challenge

Current solutions for digital financial advice provide very generalized advice.

Opportunity

Financial institutions can expand their offerings for investment advice for the average retail investor by providing stronger digital advice paired with access to human advisers when needed.

Challenge

Investors are not fully willing to pay for financial advice, even though they seek that level of service.

Opportunity

The industry can upskill the talent pool of financial advisers and recruit from more diverse backgrounds in order to make their services relevant and of higher quality.

Challenge

Investors are unclear whether financial institutions are indeed working for the greater benefit.

Opportunity

Financial institutions can partner with independent organizations to emphasize their commitment to a common standard of ethics to promote responsible investing and high-quality services.

4 A promising future

This section highlights the key changes that would better serve investors and the industry going forward. In doing so, it lays out calls to action for specific stakeholders within the capital markets ecosystem.

What is driving global retail investor growth?

What challenges are retail investors and industry players experiencing?

How has the investment ecosystem reacted to retail investors to date?

How can the industry move forward to grow wealth more responsibly?

A new vision for the future of retail investing

Imagine if...

Investors could **access and receive personalized advice** on investments to support their financial well-being

- Investors could perceive of digital advice as affordable, accessible and tailored to their needs.
- Financial advisers would work in tandem with digital solutions to help investors create optimized portfolios and financial plans.
- Investors could responsibly access desired alternative investments.

Individuals had the proper **education to reach their desired financial goals** via the capital markets

- Investors would receive comprehensive investment education, starting from a young age.
- Investors of all wealth tiers would have the proper understanding to craft short- and long-term investment strategies for major life events.
- Investors would have the ability to analyze and understand the implications of their investments.

Retail investors held more consistent **trust in the financial services ecosystem**

- Investors would feel that financial companies had the customer's best interest in mind when designing products and services.
- Investors would feel that they were getting the best market values on their investments.
- Investors would feel protected in times of financial difficulty.

The desired outcomes: Increased inclusion and participation across the globe, more capital invested, and a narrowing of pension, retirement and wealth gaps.

The industry currently faces several challenges in bringing the vision of an empowered investor to reality

Increasing participation in the capital markets globally is a lofty challenge. **No one-size-fits-all solution exists, the size and scale of the issue is massive, and any solutions must keep the best interests of the investor in mind.**

Through the lens of the key levers of access, education and trust, the following issues are preventing the industry from realizing investor empowerment.

Access

- Access to capital markets is still limited on a global scale.
- Access to personalized advice is skewed towards wealthier segments.
- Access to certain alternative investments is still restricted for most investors.

Education

- Consumers worldwide lack widespread financial literacy.
- Awareness of investment products is low, inhibiting adoption.
- New channels and media preferences are outpacing institutions' ability to adapt.
- Verification of information is difficult as no single source of truth exists currently.

Trust

- Consumers' lack understanding of current regulations may lead to misunderstanding of risk.
- Investors lack trust that invested money will be stewarded by the financial system and available to access when needed; perception of "us" (retail investors) vs "them" (professional investors).
- As some investors still suffer trauma from past financial crises or investment bubbles, the current macroeconomic context creates an acute risk of trauma.

The time to act is now

The capital markets ecosystem is at an inflection point – more individuals are becoming retail investors and using capital markets to meet their goals, and it is **crucial to continuously adapt to the new waves of investors.**

In particular, **the macroeconomic environment has shifted, potentially risking investors' continued participation for years to come.** After over a decade of tame inflation, low interest-rates and generally rising markets, global growth is expected to slump from 5.7% in 2021 to 2.9% in 2022, and the level of per capita income in developing economies will be 5% below pre-pandemic levels.[49] Additionally, global inflation is projected to be 6.7% in 2022, more than twice the average recorded during 2010-2020.[50] Global stock markets are down by ~20% across major markets as of publication. Compounding this, a large part of the global population is not prepared for retirement.[51] **These factors and more require the capital markets community to craft new solutions, beginning with the most pressing risks.**

The industry working group has identified the following **top risks that can be solutioned for** as the industry moves towards further democratization of the capital markets:

1. Lack of global financial literacy
2. Increased retail use of complex products
3. Understanding of market volatility
4. Uneven regulation that lags innovation

Action is needed to ensure retail investor and consumer protection, stability of market infrastructure, and longevity and future personal security for investors.

*As per Statista, the 2020 global retirement readiness score is 6/10.[51]

This is an opportunity for the entire capital markets industry to change for the better

First and foremost, the investment industry needs to radically **rethink its approach to financial and investment education,** with a particular focus on the preferences of the new wave of investors.

Education is paramount to increasing retail investor success and engagement. If done successfully, education can help individuals create long-term wealth and incentivize them to be life-long participants in capital markets.	All parties need to collaborate to rethink financial education and planning in a way that creates a personalized experience for the investor, focused on short- and long-term goals.	The subsequent calls to action are broken up by sub-industry stakeholders, with education as a core theme embedded throughout.
The new wave of retail investors have different needs and preferences for the way educational messages are consumed. Education should be relatable to the individual, concentrated and be distributed through the digital channels investors are engaging with.	A holistic approach to evaluating investor needs, where all elements are taken into consideration, is imperative. To this end, companies and organizations should share best practices and enable collaboration across the ecosystem.	The calls to action are a combination of initiatives that can have immediate impact as well as longer-term goals that the industry can strive for. Companies, governments and NGOs, among others, all have a role to play in creating a responsible investing ecosystem.

Calls to action for brokerages and wealth managers

Related lever:

A Access E Education T Trust

1 A

Design products and platforms with a focus on retail investor accessibility.

Companies should focus on increasing access and designing the appropriate products and platforms to meet customers' short- and long-term goals. Investors should be able to easily access a diverse set of products in a proportional manner, from fixed-income to more complex products, to build their portfolios. For increased general accessibility, platforms should reduce use of industry jargon, ensure availability of languages, be transparent with fees and simplify the onboarding experience.

2 E T

Improve outreach with investors, particularly during times of volatility.

To help retail investors fight the urge to "buy high and sell low", firms must provide appropriate personalized, proactive outreach "in-the-moment" for their customers to build healthy financial habits. Being in front of the customer is always vital, but especially important now. The opportunity lies in meeting the customer where they are, and educating them with timely, digestible outreach. Efforts such as these can help turn periods of economic volatility, such as the ongoing one, into learning occasions rather than a time of financial scarring.

3 A E

Provide access to tailored advice for the retail investor.

Investors at all wealth thresholds need tailored advice. Making financial plans available to consumers while creating user-friendly, base-level, personalized plans (addressing financial goals, debt management, retirement plans, etc.) can be a helpful step to empower investors. Firms should strive to understand what makes a productive planning experience and incentivize its use. In tandem, hybrid advice gives investors a clear roadmap with guided support. Integrating a human touch (when needed) with enhanced digital capabilities can help firms scale advice across wealth thresholds.

4 A T

Diversify talent pool and upskill wealth managers and financial advisers.

Advisers and wealth managers should be conversant with all elements of an individual's financial picture, whether individually or as a team of advisers. They must be able to provide comprehensive advice across the board for the short and long term, and with a goal-oriented rather than product-specific approach.

5 T

Amplify the voice of the customer within financial companies.

Financial companies, regardless of proximity to the customer, need to prioritize integrating the voice of the end-user early on, through investment product design, education, risk management, corporate strategy and other client-facing areas. Whether by executive sponsorship or a net-new role, companies should also liaise with regulators and independent organizations to develop new ways to improve client experiences and outcomes.

6 A E T

Leverage the power of public-private partnerships to enact change

Many opportunities exist for the public and private sectors to come together to design creative solutions to spur more retail investor involvement and empowerment in the capital markets industry. From educational efforts to initiatives to lower the barriers to entry for retail investors, public-private partnerships will be key.

Calls to action for exchanges and infrastructure companies

Related lever:

A Access E Education T Trust

1 A T

Optimize infrastructure technology investment for the retail investing landscape.

Rapid customer growth demands increased capacity and security in parallel. Trading velocity is much higher for retail investors than institutional investors, emphasizing the need for technology resiliency and stability. Recently, several public instances of platforms being strained by the volume of trading activity have come to light, leading directly to negative retail investor sentiment. Continuing and sustained technology investment should focus on resilience, stability, capacity and security, and may include:

- Handling of increased trading volume.
- Support for access to new product offerings, such as fractional shares, alternatives and cryptocurrency.
- Ensuring of data privacy and security.

2 A T

Reimagine client-centric operations and product ecosystems.

The retailization of capital markets means that exchanges and infrastructure are more end-investor facing than ever. It is essential to begin imbuing client-centricity throughout the operations and product ecosystems.

With the growth of trading apps, more consumers expect on-demand trading beyond the traditional trading windows. To further meet the demands for flexibility from retail investors, exchanges should consider the benefits and risks of enabling extended trading windows.

Exchanges also have a role to play in designing products that cater to retail clients, such as smaller contract sizes on derivatives; supporting fractional shares of stocks; consolidating trading calendars and reducing settlement times; and making international products available.

Exchanges and infrastructure players have a key role to play in enabling financial education throughout the ecosystem.

3 E T

Act as leaders and conduits for responsibly sharing data and retail investor market intelligence.

Exchanges have the benefit of extensive data repositories that can enable ever richer and more timely intelligence on capital markets to retail investors. Further, exchanges can be catalysts for data sharing across the ecosystem to strengthen the information available to various parties.

This data can be leveraged to:

- Help inform policy related to investor activity and protection.
- Support NGO initiatives and outreach efforts.
- Support academic research.
- Identify areas to target financial literacy initiatives.

Key partner(s): Brokerages/wealth managers, policymakers and governments, third-party organizations

Calls to action for policy-makers and governments

Related lever:

A Access E Education T Trust

1 E T

Better embed financial literacy into everyday life, starting at an early age.

Early-education curriculum must include a robust, progressive, 21st century financial literacy curriculum, which could be provided through a collaboration between public and private parties.

Only one-third of the global population is financially literate,* and that rate is low even in economies with advanced financial markets. Further, **31%** of non-investors would invest if they had opportunities to learn about investing, according to the BNY Mellon and World Economic Forum 2022 Retail Investing Survey. As the number of investors grows rapidly, efforts to increase financial literacy need to also significantly increase in order to empower them to invest responsibly.

Key partner(s): Third-party organizations, brokerages and wealth managers.

2 A T

Strengthen consumer protection policies to enhance access and trust.

The democratization and globalization of public and private markets, of investment platforms and of channels of information necessitates a new look at consumer protection policies. These policies must be adapted, strengthened and coordinated globally to meet the realities of expanded access and globalized investing. Importantly, policies must be carefully designed to provide appropriate guardrails but avoid inadvertently blocking access (or the perception thereof), which will help reinforce trust among retail investors.

Key partner(s): Brokerages and wealth managers.

3 E T

Better delineate standards for information, education and advice for retail investors and companies.

The channels sharing financial information, education and advice have multiplied in recent years. Baseline standards set by policy-makers need to adapt to make information, education and advice more accessible, while maintaining their integrity. Investors should also be able to understand the roles of the different players in the ecosystem.

To this end, regulators should focus on making disclaimers effective, reducing jargon and laying out a pathway for the different types of firms within the investment ecosystem to better provide information, education and advice to retail investors. Since varying regulations in each geography create challenges, efforts must be made to be collaborative and consistent across the globe.

Key partner(s): Brokerages/wealth managers, third- party organizations

As a rule of thumb, policy-makers and governments should be aligned and work in close collaboration with private and public companies to make the investment ecosystem more understandable for retail investors.

*Financial literacy was measured by S&P using questions assessing basic knowledge of four fundamental concepts in financial decision-making: knowledge of interest rates, interest compounding, inflation and risk diversification.

Source: BNY Mellon and World Economic Forum 2022 Retail Investor Survey.

Calls to action for NGOs, think tanks and other third-party organizations

Related lever:

A Access E Education T Trust

1 E

More academic research is needed on how to enable best practices.

Academics have an important role to play in collaboration with third-party organizations and institutions. With the rapid rate of change in technology and available products and services, companies and academics should work together to study how things like behavioural nudges and gamification can establish good investing habits. Further, taking the viewpoint of someone who is just beginning their financial education journey or who may not believe they have enough money to invest, academics and third parties can illuminate the types of blocks in access and understanding that capital markets players can address through platform and product design.

Continued study and collaboration between institutions and academia can help identify and share best practices throughout the ecosystem.

Key partner(s): Brokerages, wealth managers, exchanges and infrastructure players.

2 T

Create an independent, consumer-facing label for companies encouraging investing best practices.

Industry leaders have themselves highlighted the need for a globally-accepted standard of responsible investing. Third-party certifications in other industries play a significant role in reinforcing healthy consumer behaviour and helping consumers identify which products or platforms align with a certain standard. The definition of what "best practices" entails would be worked through with a coalition of companies. Notable examples across industries include:

- "Certified organic" pertaining to agriculture, issued by the US Department of Agriculture.
- "Fair trade" pertaining to sustainability efforts in consumer goods, issued by Fairtrade International.
- "LEED Certification" pertaining to green building development, issued by USGBC.

To enable the levers of access, education and trust and meet the needs of the investors of today and tomorrow, consistent global collaboration is essential.

Conclusion

Retail investing presents a unique opportunity for capital markets but must be carefully strengthened to reach its greatest potential and **ensure long-lasting wealth creation for individuals.**

The capital markets industry must act now to drive towards a responsible investing ecosystem where retail investors are equipped with access to, education by and trust in the system to achieve their desired outcomes through investing.

Regulators and non-governmental organizations have a significant role to play in emphasizing the importance of a global financial ecosystem that enables collective financial awareness and growth in a stable manner.

Retail investors have a huge opportunity to capitalize on burgeoning service and product offerings in the capital markets; however, given the current volatility in the global macroeconomic environment, much attention is needed on solving the gaps in access, education and trust to create a sustained global retail investor presence.

Over the coming years, these stakeholders **will need to collaboratively explore their roles and purpose within the ecosystem** and enable the appropriate levers to reshape capital markets and enrich the experience for all.

Open questions and future research agenda

As the capital markets industry navigates towards a more democratized future, the following questions remain open:

Global data	Regulation	Emerging technology	Business models
Is there data-supported evidence for educational moments leading to investor behaviour change? How can global data sharing be effectively and responsibly integrated into the capital markets ecosystem?	Which countries lack the appropriate regulations to create financial stability and maintain confidence in the capital markets, and can this be addressed in a coordinated ecosystem-wide effort? Which countries' existing regulations have the unintended effect of discouraging or even prohibiting long-term investment and how may these be solved for or eliminated?	How can artificial intelligence, virtual reality and other emerging technologies be deployed for scaling services and/or educating investors? Where does decentralized finance play a role in augmenting the capital markets ecosystem?	What are the effects of retail investing on the underlying market infrastructure? How will new business models or alternative ecosystems such as decentralized finance disrupt the current landscape? Who is best suited to lead efforts to conduct further research on a code of ethics and a best practices playbook?

Next steps

– Investigate most effective sources and mechanisms to deliver financial education (with a combination of public policy, technology and business models).

– Continue to convene key capital markets ecosystem players across geographies and business stages to craft joint solutions and determine short-, medium- and long-term initiatives.

While this report focuses on various demographics of non-investors and investors with investable assets greater than $1,000, a much broader population of investors exists that is mostly neglected by the capital markets. They desperately need opportunities to build and grow their wealth, and further exploration is much needed here.

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Table 1: Investable assets

Currency equivalents leveraged as part of the BNY Mellon and World Economic Forum 2022 Global Retail Investor Survey to compare wealth brackets across countries – based on purchasing power parity:

US	UAE	Japan	France/Germany	UK	Brazil	China	South Africa	Global count
< $1,000	< DH 3,500	< ¥95,000	< €700	< £700	< R$2,500	< RMB 5,000	< R7,000	0
$1,000 - $9,999	DH 3,500 - DH 34,999	¥95,000 - ¥949,999	€700 - €6,999	£700 - £9,999	R$2,500 – R$24,999	RMB 5,000 – RMB 49,999	R7,000 – R69,999	3039
$10,000 - $49,999	DH 35,000 - DH 199,999	¥950,000 - ¥4,999,999	€7,000 - €34,999	£10,000 - £39,999	R$25,000 – R$124,999	RMB 50,000 - RMB 199,999	R70,000 – R349,999	2418
$50,000 - $99,999	DH 200,000 – DH 349,999	¥5,000,000 - ¥9,499,999	€35,000 - €69,999	£40,000 - £69,999	R$125,000 – R$249,999	RMB 200,000 – RMB 499,999	R350,000 – R699,999	1429
$100,000 - $499,999	DH 350,000 – DH 1,999,999	¥9,500,000 - ¥49,999,999	€70,000 - €349,999	£70,000 - £349,999	R$250,000 – R$1,499,999	RMB 500,000 – RMB 1,999,999	R700,000 – R3,499,999	1617
$500,000 - $999,999	DH 2,000,000 – DH 2,499,999	¥50,000,000 - ¥94,999,999	€350,000 - €699,999	£350,000 - £699,999	R$1,500,000 – R$2,499,999	RMB 2,000,000 – RMB 3,999,999	R3,500,000 – R6,999,999	466
> $1,000,000	> DH 2,500,000	> ¥95,000,000	> €700,000	> £700,000	> R$2,500,000	> RMB 4,000,000	> R7,000,000	318
								9287

Table 2: How respondents invest

	Age					Gender					Country								Total
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
Through a trading account where they pick their own investments	512	1626	1221	981	317	2715	1930	11	-	1	415	521	631	794	426	618	684	568	**4657**
Through an employer-sponsored plan	172	509	418	246	34	664	712	2	-	-	254	191	60	272	132	82	217	171	**1379**
Through a robo-adviser	157	340	241	107	10	473	380	2	-	-	97	134	61	150	85	76	177	75	**855**
Through a college savings programme	203	445	274	90	7	456	557	6	-	-	100	143	18	162	77	96	166	257	**1019**
Through a friend or family who invests on their behalf	272	596	406	217	19	718	781	8	-	3	145	282	57	264	171	92	387	112	**1510**
Through a professional financial adviser or wealth manager	331	1134	791	621	209	1506	1573	6	-	1	316	378	138	634	272	325	615	408	**3086**
Other	26	51	50	61	39	124	100	3	-	-	24	20	20	65	37	33	4	24	**227**
Total respondents	**930**	**2344**	**1844**	**1617**	**554**	**4010**	**3249**	**25**	**-**	**5**	**811**	**805**	**805**	**1599**	**800**	**799**	**866**	**804**	**7289**

Table 3: Investment in specific products

		Age					Gender					Country							
		18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa
Stocks	Aware of what it is and currently invest	507	1532	1156	1060	409	2637	2010	15	-	2	534	516	569	894	474	490	672	515
	Invested in the past but no longer invest	270	515	406	317	98	865	734	4	-	3	182	183	142	474	205	152	149	119
	Aware of what it is but never invested	145	276	259	227	47	480	469	5	-	-	92	98	90	210	111	149	45	159
	Not aware of the product	8	21	23	13	-	28	36	1	-	-	3	8	4	21	10	8	-	11
Bonds	Aware of what it is and currently invest	248	956	711	531	203	1375	1265	7	-	2	296	311	216	425	283	340	517	261
	Invested in the past but no longer invest	310	667	548	458	164	1226	909	10	-	2	258	275	194	536	251	231	232	170
	Aware of what it is but never invested	309	638	527	567	166	1254	945	7	-	1	243	192	354	539	225	205	105	344
	Not aware of the product	63	83	58	61	21	155	130	1	-	-	14	27	41	99	41	23	12	29
Derivatives (futures contracts, options, etc.)	Aware of what it is and currently invest	218	601	362	188	36	736	661	8	-	-	127	205	45	317	127	177	234	173
	Invested in the past but no longer invest	275	652	462	327	78	1019	768	4	-	3	182	236	114	453	180	207	278	144
	Aware of what it is but never invested	320	819	753	849	347	1824	1256	7	-	1	361	286	535	619	332	322	311	322
	Not aware of the product	117	272	267	253	93	431	564	6	-	1	141	78	111	210	161	93	43	165
Pooled investment products (mutual funds, ETFs)	Aware of what it is and currently invest	311	1039	779	574	173	1523	1343	10	-	-	318	349	176	653	180	345	437	418
	Invested in the past but no longer invest	275	564	376	311	87	918	691	3	-	1	189	213	96	387	190	180	213	145
	Aware of what it is but never invested	249	586	522	538	202	1201	882	10	-	4	229	191	347	438	286	226	182	198
	Not aware of the product	95	155	167	194	92	368	333	2	-	-	75	52	186	121	144	48	34	43
Commodities (oil, gold contracts, etc.)	Aware of what it is and currently invest	250	717	444	221	49	937	735	8	-	1	139	310	41	334	142	144	318	253
	Invested in the past but no longer invest	223	555	442	272	73	903	657	3	-	2	193	227	100	341	175	153	239	137
	Aware of what it is but never invested	372	911	809	949	352	1870	1513	9	-	1	404	234	502	826	381	397	279	370
	Not aware of the product	85	161	149	175	80	300	344	5	-	1	75	34	162	98	102	105	30	44
Fractional shares	Aware of what it is and currently invest	241	562	407	232	46	849	630	7	-	2	173	189	98	294	123	245	112	254
	Invested in the past but no longer invest	240	609	405	242	71	882	680	4	-	1	143	215	111	366	177	178	249	128
	Aware of what it is but never invested	327	836	685	699	277	1583	1233	8	-	-	346	277	362	641	289	280	326	303
	Not aware of the product	122	337	347	444	160	696	706	6	-	2	149	124	234	298	211	96	179	119
Alternatives (private equity, venture capital, etc.)	Aware of what it is and currently invest	220	543	340	168	21	681	603	6	-	2	114	194	31	282	115	180	159	217
	Invested in the past but no longer invest	244	556	446	237	44	858	661	7	-	1	152	213	80	363	168	175	249	127
	Aware of what it is but never invested	326	936	779	853	318	1808	1396	8	-	-	391	297	420	711	359	332	359	343
	Not aware of the product	140	309	279	359	171	663	589	4	-	2	154	101	274	243	158	112	99	117
Cryptocurrencies (Bitcoin, Ethereum, etc.)	Aware of what it is and currently invest	436	1233	828	403	47	1700	1235	11	-	1	288	471	106	579	289	489	240	485
	Invested in the past but no longer invest	225	421	340	175	23	654	526	4	-	-	129	151	70	267	156	87	218	106
	Aware of what it is but never invested	227	630	598	907	409	1460	1298	10	-	3	344	169	523	650	305	198	377	205
	Not aware of the product	42	60	78	132	75	196	190	-	-	1	50	14	106	103	50	25	31	8
Non-fungible tokens (NFTs)	Aware of what it is and currently invest	234	628	340	134	9	816	524	5	-	-	136	256	27	264	121	224	159	158
	Invested in the past but no longer invest	230	471	344	133	23	640	556	3	-	2	144	189	52	271	139	102	186	118
	Aware of what it is but never invested	358	932	825	814	271	1762	1422	14	-	2	414	295	313	673	375	364	399	367
	Not aware of the product	108	313	335	536	251	792	747	3	-	1	117	65	413	391	165	109	122	161

Table 4: When respondents started learning about personal investing

	Age					Gender					Country								Total
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
In adolescence/ primary school	274	291	182	117	25	465	420	3	-	1	150	73	17	205	73	150	10	211	**889**
In early adulthood/ at university	642	1240	753	465	95	1579	1602	10	1	3	402	387	90	666	427	396	413	414	**3195**
When they entered the workforce	216	889	781	633	152	1366	1295	7	-	3	268	385	152	631	284	263	453	235	**2671**
Years after entering the workforce	43	399	571	940	370	1367	949	7	-	-	177	161	673	593	209	183	185	142	**2323**
In retirement	10	11	6	67	115	133	74	1	1	-	25	4	78	72	11	8	8	3	**209**
Total respondents	**1185**	**2830**	**2293**	**2222**	**757**	**4910**	**4340**	**28**	**2**	**7**	**1022**	**1010**	**1010**	**2167**	**1004**	**1000**	**1069**	**1005**	**9287**

Table 5: When retail investors started investing

	Age					Gender					Country								Total
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
In adolescence/ primary school	97	95	62	29	9	163	128	1	-	-	58	22	3	97	23	47	4	38	**292**
In early adulthood/ at university	473	697	374	177	31	943	804	4	-	1	227	191	39	364	224	243	193	271	**1752**
When they entered the workforce	247	989	712	458	120	1291	1224	7	-	4	279	347	109	533	289	275	409	285	**2526**
Years after entering the workforce	92	545	684	894	310	1494	1022	9	-	-	218	242	582	557	247	222	256	201	**2525**
In retirement	16	8	3	48	79	104	47	3	-	-	21	0	64	39	11	9	3	7	**154**
Not applicable	5	10	9	11	5	15	24	1	-	-	8	3	8	9	6	3	1	2	**40**
Total respondents	**930**	**2344**	**1844**	**1617**	**554**	**4010**	**3249**	**25**	**-**	**5**	**811**	**805**	**805**	**1599**	**800**	**799**	**866**	**804**	**7289**

Table 6: Retail investor consideration of environmental and social impact (ESG)

	Age					Gender					Country								Total
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
Always consider	370	1024	690	346	94	1270	1243	10	-	1	228	442	133	340	197	371	413	400	**2524**
Sometimes consider	419	1038	866	813	246	1900	1473	6	-	3	367	300	415	851	410	315	417	307	**3382**
Never consider	81	162	182	258	121	539	259	5	-	1	134	33	143	239	112	70	14	59	**804**
Would like to consider but don't know where to access information about it	48	96	66	119	40	173	194	2	-	-	43	23	61	97	57	37	17	34	**369**
Not aware and do not consider	210	12	24	40	81	53	128	80	2	-	-	7	53	72	24	6	5	4	**210**
Total respondents	**930**	**2344**	**1844**	**1617**	**554**	**4010**	**3249**	**25**	**-**	**5**	**811**	**805**	**805**	**1599**	**800**	**799**	**866**	**804**	**7289**

Table 7: Where retail investors turn to for advice on how to invest*

	Age					Gender					Country								Total responses
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
Traditional media (e.g. newspapers, magazines, television)	227	674	566	528	227	1363	852	5	-	2	209	226	323	490	188	284	302	200	2222
Other online resources (e.g. websites, blogs, podcasts, videos)	374	1141	913	640	159	1868	1351	7	-	1	300	391	318	577	317	459	403	462	3227
Social media	376	970	623	282	62	1259	1048	5	-	1	195	324	179	396	203	336	390	290	2313
Educational resources from financial institutions (e.g. articles, podcasts, emails)	389	1248	856	564	170	1712	1503	10	-	2	315	382	264	456	277	468	546	519	3227
Friends and/or family	387	1100	745	483	101	1364	1440	11	-	1	311	422	149	564	314	289	428	339	2816
Financial adviser or wealth manager	375	1228	922	745	243	1730	1775	7	-	1	381	446	156	709	309	438	567	507	3513
Digital wealth adviser (robo-adviser)	214	644	419	179	22	717	755	5	-	1	135	233	57	255	130	120	324	224	1478
Other	15	27	20	35	22	72	45	2	-	-	18	5	17	29	13	20	4	13	119
Not applicable (do not seek this information)	14	13	26	58	35	97	47	2	-	-	13	4	57	34	24	7	4	3	146
Total respondents	**930**	**2344**	**1844**	**1617**	**554**	**4010**	**3249**	**25**	**-**	**5**	**811**	**805**	**805**	**1599**	**800**	**799**	**866**	**804**	

***Note:** Respondents were able to select more than one answer

Table 8: Importance of factors in making investments

		Age					Gender					Country							
		18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa
Past performance	Extremely important	409	1224	891	675	196	1706	1676	12	-	1	397	429	156	687	337	425	394	570
	Moderately important	350	855	779	727	276	1751	1224	9	-	3	311	300	491	683	336	290	380	196
	Slightly important	138	227	155	176	68	465	294	4	-	1	82	71	132	191	101	68	85	34
	Not at all important	33	38	19	39	14	88	55	-	-	-	21	5	26	38	26	16	7	4
Alignment with personal values (e.g. for ESG priorities)	Extremely important	386	1081	810	475	117	1443	1417	8	-	1	288	408	142	523	243	435	372	458
	Moderately important	356	901	743	767	264	1716	1301	11	-	3	298	318	496	699	330	258	387	245
	Slightly important	155	296	246	284	116	646	445	5	-	1	160	70	140	289	171	85	97	85
	Not at all important	33	66	45	91	57	205	86	1	-	-	65	9	27	88	56	21	10	16
Low fees charged	Extremely important	423	1253	1061	915	304	2152	1787	16	-	1	429	449	380	873	369	582	290	584
	Moderately important	331	827	599	573	206	1403	1123	7	-	3	283	276	361	549	303	169	417	178
	Slightly important	138	227	171	115	39	393	295	1	-	1	80	73	60	144	115	38	139	41
	Not at all important	38	37	13	14	5	62	44	1	-	-	19	7	4	33	13	10	20	1
Automatic rebalancing ("set it and forget it")	Extremely important	299	768	551	348	59	1024	994	7	-	-	237	301	81	419	170	262	268	287
	Moderately important	405	1123	909	759	251	1891	1544	9	-	3	345	399	439	764	366	364	417	353
	Slightly important	179	372	292	372	173	817	563	6	-	2	171	92	241	296	191	120	146	131
	Not at all important	47	81	92	138	71	278	148	3	-	-	58	13	44	120	73	53	35	33
Frequent mentions in social media or on social networks	Extremely important	288	749	493	260	34	924	891	9	-	-	168	302	48	329	148	280	254	295
	Moderately important	383	956	739	539	147	1511	1242	9	-	2	228	355	323	584	263	325	380	306
	Slightly important	191	463	423	459	200	997	732	4	-	3	206	121	354	385	206	137	190	137
	Not at all important	68	176	189	359	173	578	384	3	-	-	209	27	80	301	183	57	42	66
Recommendations from friends or family	Extremely important	270	725	488	276	41	851	941	7	-	1	206	312	37	346	192	232	257	218
	Moderately important	366	995	798	576	141	1547	1317	10	-	2	276	349	260	652	294	313	408	324
	Slightly important	226	493	423	501	236	1121	750	6	-	2	206	122	395	390	211	189	169	197
	Not at all important	68	131	135	264	136	491	241	2	-	-	123	22	113	211	103	65	32	65

Table 9: Retail investor awareness of data usage

	Age					Gender					Country								Total
	18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France/ Germany	UK	Brazil	China	South Africa	
They know how their investment provider(s) use(s) their personal data	692	1616	1125	712	187	2291	2025	12	-	4	505	600	206	854	466	543	659	499	**4332**
They do not know how their investment provider(s) use(s) their personal data	238	728	719	905	367	1719	1224	13	-	1	306	205	599	745	334	256	207	305	**2957**
Total respondents	**930**	**2344**	**1844**	**1617**	**554**	**4010**	**3249**	**25**	**-**	**5**	**811**	**805**	**805**	**1599**	**800**	**799**	**866**	**804**	**7289**

Table 10: Non-investors would be more likely to invest if...

		Age					Gender					Country							
		18-24	25-34	35-44	45-64	Over 65	Male	Female	Gender non-binary	Other	Prefer not to answer	US	UAE	Japan	France / Germany	UK	Brazil	China	South Africa
They had access to an investment platform that they trusted	Strongly agree	71	161	123	82	12	192	255	-	1	1	35	66	8	65	45	100	52	78
	Somewhat agree	85	187	176	165	46	292	365	1	1	-	65	77	33	177	82	64	95	66
	Neither agree nor disagree	62	91	105	200	69	248	277	1	-	1	70	43	90	159	54	28	49	34
	Somewhat disagree	23	30	25	95	47	110	109	1	-	-	26	16	52	90	12	3	5	16
	Strongly disagree	14	17	20	63	29	58	85	-	-	-	15	3	22	77	11	6	2	7
They had more opportunities to learn about investing	Strongly agree	100	200	154	139	17	253	356	-	-	1	41	76	19	111	62	122	68	111
	Somewhat agree	79	173	191	228	72	327	413	1	2	-	76	80	66	238	86	53	93	51
	Neither agree nor disagree	46	81	58	142	56	191	191	-	-	1	62	36	70	99	36	19	34	27
	Somewhat disagree	19	21	34	58	34	88	76	2	-	-	19	11	34	72	10	6	4	10
	Strongly disagree	11	11	12	38	24	41	55	-	-	-	13	2	16	48	10	1	4	2
A friend or family member recommended it	Strongly agree	59	132	91	68	10	156	203	-	1	-	18	65	2	80	41	56	55	43
	Somewhat agree	82	178	162	176	52	274	375	1	-	-	62	77	30	191	81	72	76	61
	Neither agree nor disagree	67	118	129	199	63	264	309	1	-	2	89	45	68	152	46	53	57	66
	Somewhat disagree	32	37	42	98	41	127	123	-	-	-	29	13	69	77	20	11	12	19
	Strongly disagree	15	21	25	64	37	79	81	1	1	-	13	5	36	68	16	9	3	12
A financial adviser recommended it	Strongly agree	73	150	109	83	13	179	249	-	-	-	35	59	10	85	49	72	53	65
	Somewhat agree	78	155	172	186	50	268	372	-	1	-	63	73	36	191	69	63	74	72
	Neither agree nor disagree	66	123	105	202	54	268	281	-	-	1	71	54	79	139	60	48	59	40
	Somewhat disagree	28	36	44	71	52	119	107	3	1	1	28	13	52	85	17	11	13	12
	Strongly disagree	10	22	19	63	34	66	82	-	-	-	14	6	28	68	9	7	4	12
They had access to automated advice or a robo-adviser	Strongly agree	42	90	68	45	8	107	146	-	-	-	19	45	10	37	17	46	36	43
	Somewhat agree	57	138	138	118	25	214	260	-	2	-	42	65	34	89	59	61	84	42
	Neither agree nor disagree	93	145	128	204	52	300	319	2	-	1	83	57	80	161	69	53	61	58
	Somewhat disagree	43	74	71	136	66	170	219	1	-	-	40	24	53	161	38	27	15	32
	Strongly disagree	20	39	44	102	52	109	147	-	-	1	27	14	28	120	21	14	7	26
It was faster and easier to get started	Strongly agree	70	159	130	97	12	206	260	-	1	1	31	60	16	88	39	93	59	82
	Somewhat agree	88	191	187	180	53	301	397	-	1	-	72	85	43	187	95	67	87	63
	Neither agree nor disagree	54	91	85	201	68	239	258	1	-	1	66	45	82	150	51	33	39	33
	Somewhat disagree	31	31	32	81	43	103	114	1	-	-	29	11	46	86	8	7	16	15
	Strongly disagree	12	14	15	46	27	51	62	1	-	-	13	4	18	57	11	1	2	8
They had more free time	Strongly agree	53	113	80	52	4	150	152	-	-	-	26	38	20	51	31	42	59	35
	Somewhat agree	69	168	160	133	22	247	304	-	1	-	45	92	34	116	67	60	77	61
	Neither agree nor disagree	71	136	114	205	61	276	308	1	-	2	79	42	73	161	54	62	54	62
	Somewhat disagree	37	41	68	131	66	145	197	1	-	-	35	24	54	151	29	19	10	21
	Strongly disagree	25	28	27	84	50	82	130	1	1	-	26	9	24	89	23	18	3	22
There were more types of alternative investment products available to them	Strongly agree	56	129	110	74	9	169	209	-	-	-	27	53	6	56	31	88	51	66
	Somewhat agree	77	173	166	183	47	272	372	-	1	1	56	83	37	176	78	67	76	73
	Neither agree nor disagree	81	140	126	221	81	303	342	2	1	1	94	53	84	206	66	37	64	45
	Somewhat disagree	29	35	37	81	37	107	111	1	-	-	20	15	58	79	19	5	10	13
	Strongly disagree	12	9	10	46	29	49	57	-	-	-	14	1	20	51	10	4	2	4

Endnotes

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