Journal of Ecohumanism
2025
Volume: 4, No: 1, pp. 5578–5586
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.7060

FinTech as a Lever for the Digital Economy: Between Growth and Challenges – An Analytical Approach

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Abstract

This study aims to shed light on the growing role of financial technology (FinTech) as a key lever of the digital economy, through an analysis of the current state of global investments in this sector, as well as an examination of usage trends and the expansion of FinTech start-ups. The analysis is based on international reports, academic studies, and recent applied experiences. The findings indicate that, despite the decline in FinTech investments in 2022 due to economic pressures and geopolitical crises, the sector continues to maintain its position as one of the most important areas of digital finance. Notably, emerging segments such as digital payments and regulatory technology (RegTech) have gained prominence, while other segments, including insurance technology and cryptocurrencies, have experienced a relative downturn. The study also highlights that start-ups constitute a major driving force behind this transformation, with the United States, China, and the United Kingdom leading the global landscape in terms of the number of companies and investment volumes. Furthermore, projections suggest that the number of FinTech users is expected to exceed seven billion by 2027, reflecting the sector's pivotal role in strengthening the digital economy and consolidating pathways toward sustainable growth.

Keywords: *Financial Technology (Fintech), Digital Payments, Digital Economy, Financial Inclusion, Global Investments, Start-Ups, Cryptocurrencies, Regulatory Technology (Regtech).*

JEL Classification: G20, G23, E44, O33, O16, F65, L26.

Received: 12/12/2024 *Accepted: 10/02/2025* *Published: 17/04/2025*

Introduction

In recent decades, the world has witnessed profound transformations driven by the digital revolution, as technology has reshaped patterns of production and consumption and fundamentally altered the nature of economic and financial relations. Within this context, financial technology (FinTech) has emerged as one of the most prominent manifestations of this transformation, representing an innovative integration of financial services and modern technologies aimed at developing more efficient, faster, and more transparent solutions. This industry has contributed to a qualitative shift in the world of finance and business by expanding access to banking services, enhancing financial inclusion, and developing alternative payment and investment channels, thereby positioning FinTech as a core pillar of the global digital economy.

Interest in financial technology is no longer confined to traditional financial institutions; rather, it has extended to start-ups, international investors, and policymakers, given its potential to transform financial and economic structures at both national and international levels. The rapid growth of this sector, along with the diversity of business models it offers, has made it one of the most attractive fields for investment and a key force reshaping the competitive landscape of global markets.

The importance of examining the current state of financial technology has increased in light of its high degree of dynamism and its capacity to create new growth opportunities, particularly with the continuous expansion of digital solutions, the growing number of users worldwide, and the emergence of innovative forms of digital financial services. An analysis of investment trends in this sector enables the identification of its major orientations and the factors underlying its heterogeneous performance, while also highlighting

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the role of start-ups in driving innovation and strengthening the presence of FinTech within the global economic system.

Accordingly, this article aims to provide an analytical approach to the financial technology sector by reviewing the state of global investments, examining usage trends, and analyzing the spread of start-ups. This approach seeks to contribute to a more comprehensive understanding of the role of FinTech as one of the main drivers of the digital economy and pathways toward sustainable growth.

The State of Global Investments in Financial Technology;

Global Trends in the Use of Financial Technology;

The Expansion of FinTech Start-ups.

The State of Global Investments in Financial Technology

The technology sector as a whole is currently facing significant challenges, and the financial technology (FinTech) sector is no exception. The convergence of macroeconomic forces—such as rising inflation rates, the rapid increase in interest rates, and the ongoing conflict between Russia and Ukraine—alongside FinTech-specific challenges, including the collapse of several cryptocurrency firms and the difficulties encountered by the U.S. banking sector, has contributed to a more cautious stance among investors regarding funding decisions (1).

Despite the decline in global FinTech investment in 2022, particularly during the second half of the year, accompanied by a contraction in large merger and acquisition transactions, the year cannot be considered unfavorable overall. Total investment levels remained the third highest on record, while the number of FinTech deals ranked second only to the record set in 2021 (2).

The year 2022 was particularly noteworthy for the technology industry, as investment exhibited a significant year-on-year increase, a trend that is illustrated in Figure 1.

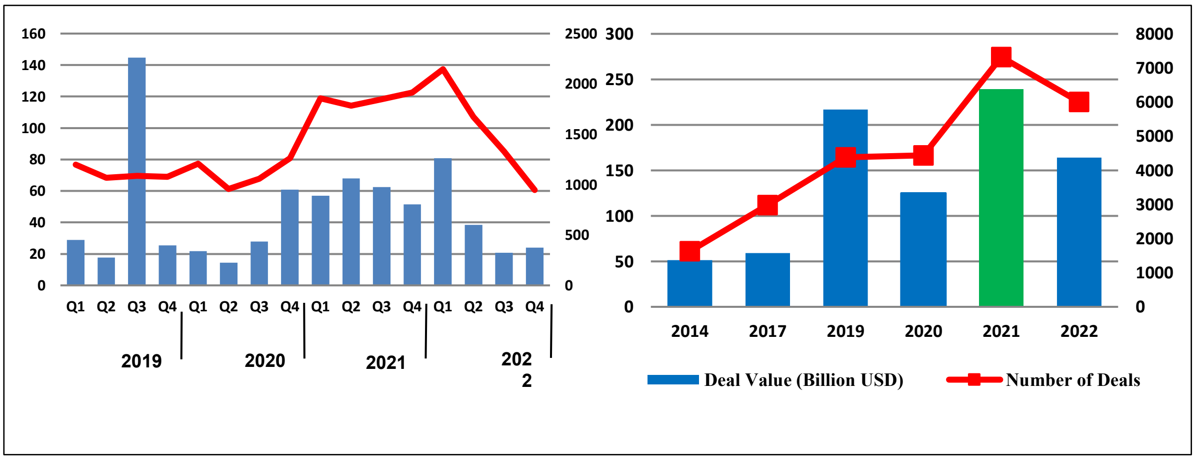

Figure 1: Global FinTech Investment Activity (2014–2022)

Prepared by the authors based on: (2) (3) (4)

Based on the figure above, it is evident that following the record-high levels of global FinTech investment in 2021—totaling $238.9 billion with 7,321 deals—the year 2022 experienced a decline in both total investment and deal volume, reaching $164.1 billion and 6,006 deals, respectively. Despite this decrease,

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2022 still represented the third-highest year on record for FinTech investment and the second-highest in terms of deal volume.

Global FinTech investment in the second half of 2022 amounted to $44.9 billion, compared to $119.2 billion in the first half. This decline was largely driven by a sharp reduction of over 50% in large-scale deals. In the first half of 2022, there were eight M&A transactions exceeding $1 billion, including the acquisition of Australia-based Afterpay for $27.9 billion, two venture capital (VC) funding rounds for Germany-based Trade Republic and UK-based Checkout.com, and one private equity (PE) deal for the US-based Genesis Digital Assets globally. In contrast, the second half of 2022 recorded only four M&A deals exceeding the same threshold, the largest of which was the $8.4 billion acquisition of US-based Avalara. The largest VC funding round in H2 2022 was an $800 million investment in Sweden-based Klarna, while the largest PE deal consisted of a $250 million funding round for US-based Avant (5).

The decline observed in the first half of 2022 indicates that global FinTech investment began to be affected by geopolitical uncertainty, rising interest rates, inflation, and a weak IPO market. In the second half of the year, investors refrained from executing several large deals and postponed them due to the continuing contraction of the public listing market, which substantially reduced exit opportunities for investments. Additionally, FinTech investors worldwide increasingly focused on cash flow and profitability of their existing portfolio companies (2).

II.Global Trends in the Use of Financial Technology

The adoption of financial technology (FinTech) by both individuals and institutions represents a critical indicator of the sector's entrenchment in economic life. The user base of digital financial services has expanded rapidly, driven primarily by significant growth in the digital payments and digital assets sectors.

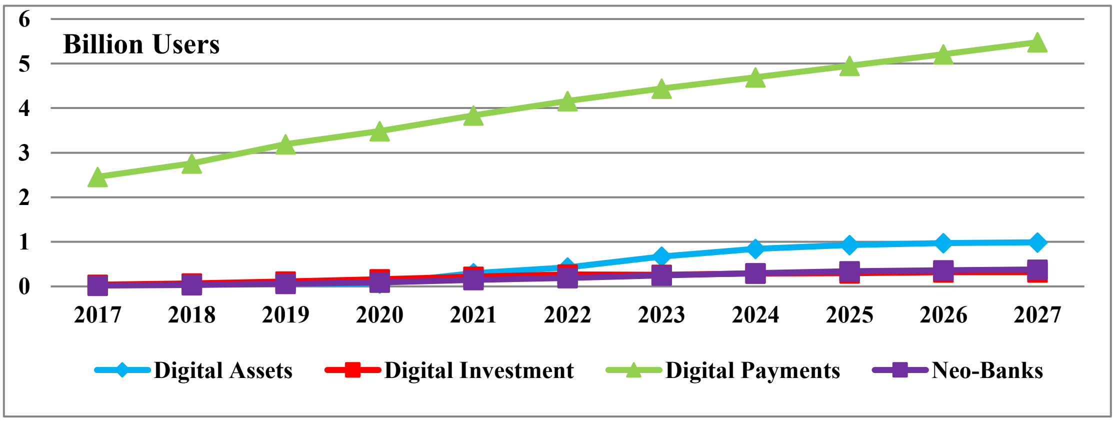

Figure 2: Number of FinTech Users Worldwide by Sector

Prepared by the authors based on: (6)

As illustrated in the figure above, the number of FinTech users worldwide is expected to increase annually across all industry sectors between 2023 and 2027. As of 2023, there were approximately 5.62 billion FinTech users globally, with the digital payments sector accounting for the largest share at 4.4 billion users. The digital assets sector also experienced significant growth, with revenues projected to increase by 33.6%

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in 2024. By 2027, the total number of FinTech users worldwide is expected to exceed seven billion, underscoring the rapid expansion and widespread adoption of digital financial services across sectors.

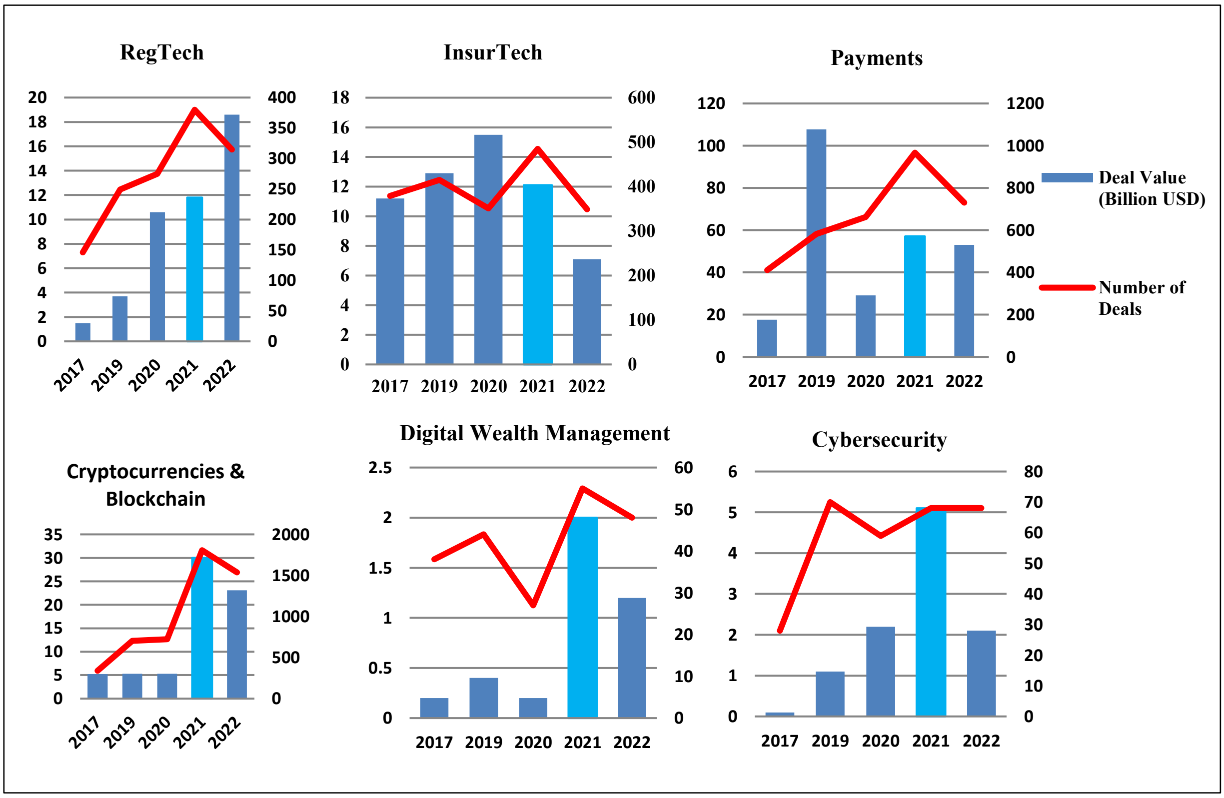

Figure 3: Leading FinTech Subsectors Worldwide (2017–2022)

Prepared by the authors based on: (3) (4)

Despite the year-on-year decline in investment, the figure above highlights several key observations:

- Payments remained the most attractive FinTech sector for investment globally in 2022, accounting for over $53.1 billion of total investment. The acquisition of Afterpay alone represented more than half of this total. The largest M&A deals in the second half of 2022 were considerably smaller, including the acquisition of Computer Services Inc. (USA) for $1.6 billion and International Game Technology (Payments) for $700 million. Payments also recorded the second-highest deal volume ever in 2022, with 731 deals, far exceeding all years except 2021.

While global investment decreased, the substantial number of deals indicates broad opportunities in the payments sector and its long-term attractiveness to investors. Notably, there was significant geographic diversification of venture capital deals in H2 2022, with seven different countries hosting the seven largest transactions, including: Sweden-based Klarna ($800 million), UK-based SumUp ($603 million), South Korea-based Toss ($405 million), Luxembourg-based Satispay ($318 million), Indonesia-based Xendit ($300 million), Italy-based Piteco ($252 million), ezetap ($200 million), and US-based Evertec ($196 million) (7).

- InsurTech saw a global investment decline to its lowest level in seven years at $7.1 billion in 2022, reflecting investor caution amid challenges faced by insurance companies following recent IPOs. Despite this overall downturn, H2 2022 experienced a recovery across the three main regions (Americas, EMEA, and APAC), with several large transactions, including the acquisition of Metromile by Lemonade (USA) for

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$500 million, a $400 million VC round for Germany-based Wefox, a $315 million VC round for US-based Pie Insurance, and a $300 million VC round for Singapore-based Bolttech (8).

Investment in InsurTech in 2022 was relatively subdued, as many investors opted to exercise caution due to difficult economic conditions, slowing the pace of investments and affecting the performance of insurance companies in public markets.

- RegTech demonstrated remarkable resilience in 2022, attracting a record $18.6 billion in total global investment, up from $11.8 billion in 2021. Several large M&A deals in the US during H2 2022 contributed to this increase, totaling 315 deals, including Vista Equity Partners' acquisition of Avalara for $8.4 billion and Centerbridge Partners and Bridgeport Partners' acquisition of Computer Services Inc. for $1.6 billion (2).

The resilience of RegTech investment amid geopolitical uncertainty and macroeconomic challenges reflects the sector's critical role in helping financial institutions manage compliance and reporting obligations. With the increasing digitization of financial activities and transactions, the adoption of RegTech has become a necessity rather than an option for most institutions.

The growth of digital banking, payments, and cryptocurrencies in recent years has further driven RegTech investment to ensure accurate, transparent, and reliable transactions. In 2022, investors particularly favored companies offering multi-dimensional services, such as US-based Cross River Bank, which raised $620 million in private equity to expand its FinTech-focused compliance offerings supporting payments, marketplace lending, banking-as-a-service platforms (SaaS), capital markets, and other digital banking activities (9).

- Cybersecurity continued to attract strong investor interest globally in 2022, despite a decrease in total investment from $5.1 billion in 2021 to just over $2.1 billion in 2022. The lack of large M&A transactions largely explains this decline, as the deal count remained constant at 68 deals year-on-year.

Venture capital rounds accounted for the majority of investment in 2022, including a $200 million round for Matter Labs (Cayman Islands, Ethereum scaling), a $152 million round for Alloy (USA, KYC-focused), and a $150 million round for nsKnox (Israel) in H2 2022.

Data management and protection-focused companies continued to attract significant VC attention, with several raising over $100 million in funding throughout the year. The growing deal sizes reflect the increasing importance placed by regulators and companies on data protection, with a substantial portion of 2022 cybersecurity investment directed toward solutions leveraging automation, machine learning, and advanced data analytics to accelerate issue detection and response within security operations centers (9).

- Digital Wealth Management attracted over $1.2 billion in global investment in 2022, a strong year despite being below the 2021 peak of $2 billion. The second half of the year featured the two largest deals, including the acquisition of UK-based Pollen Street Capital for $323 million and a $300 million funding round for Singapore-based cryptocurrency firm Amber (10).

- Cryptocurrencies and Blockchain experienced a decline in total global investment to $23.1 billion in 2022, following a record $30 billion in 2021, though investment remained significantly higher than pre-2021 levels. The bulk of investment occurred in H1 2022, including a $1.1 billion SPAC merger for Japan-based Coincheck and a $1.1 billion VC round for Germany-based Trade Republic (11).

Deal volume in cryptocurrencies and blockchain reached 1,537 deals in 2022, higher than all pre-2021 years. The largest H2 2022 deals were relatively smaller, including a $300 million VC round for Singapore-based Amber, a $200 million round for Ethereum developer Matter Labs (Cayman Islands), and a $165 million round for US-based decentralized exchange Uniswap. The sector's decline was primarily driven by the collapse of Terra, the third-largest cryptocurrency ecosystem after Bitcoin and Ethereum, and the $32.5

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billion FTX exchange bankruptcy, which prompted regulators to intensify efforts to protect investors and consumers, including the introduction of crypto-related frameworks, guidelines, and regulatory proposals (2).

The Expansion of FinTech Start-ups

Start-ups play a pivotal role in shaping the global FinTech sector, serving as the primary source of innovation and agility in responding to rapidly evolving market dynamics. In recent years, the number of these companies has grown significantly, particularly those classified as “unicorns”, reflecting their increasing prominence in driving the digital transformation of financial services.

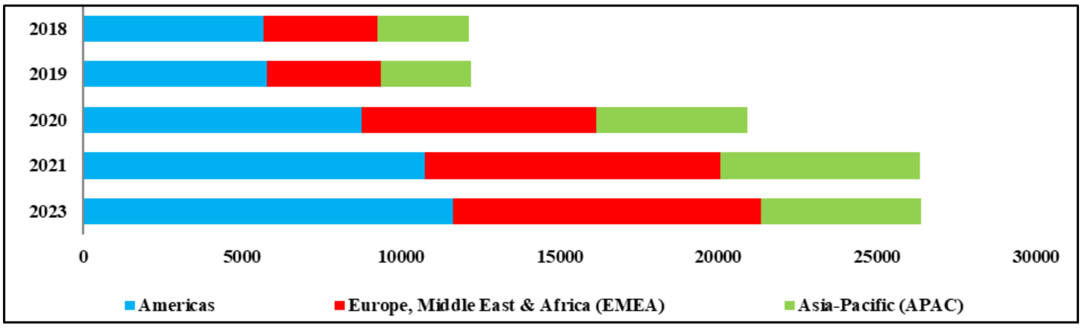

Figure 4: Number of FinTech Start-ups Worldwide by Region

Prepared by the authors based on: (12)

As shown in the figure above, there were approximately 11,651 FinTech start-ups in the Americas in 2023, making it the region with the largest number of FinTech start-ups worldwide. By comparison, the EMEA region (Europe, Middle East & Africa) had 9,681 start-ups, while the Asia-Pacific (APAC) region hosted 5,061. Notably, in 2023, the United States ranked first globally in terms of the number of FinTech unicorns.

FinTech services have become an integral part of daily life in recent years, with new companies emerging each year. The majority of these start-ups are concentrated in the United States and China, which together are home to seven of the ten largest FinTech companies worldwide. Despite the dominance of the US and China in 2022, the highest-valued FinTech unicorn globally was the Irish payment processing platform, Stripe (12).

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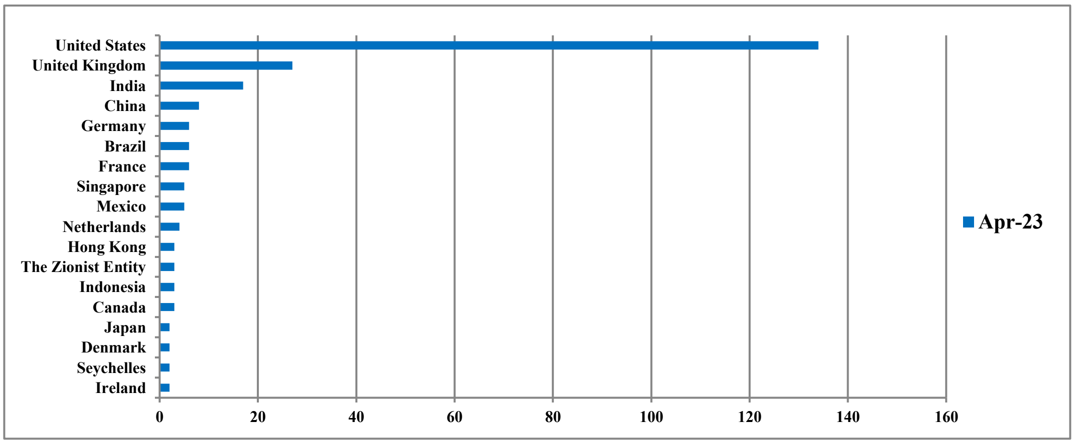

Figure 5: Number of FinTech Unicorns Worldwide by Country

Prepared by the authors based on: (13)

The United States ranked first globally in terms of the number of fintech startups in 2023, with a total that was nearly five times higher than that of the United Kingdom. More specifically, the United States recorded 134 fintech unicorn companies, the majority of which are concentrated in California and New York. The United Kingdom ranked second with 27 fintech unicorns, followed by India with 17 companies.

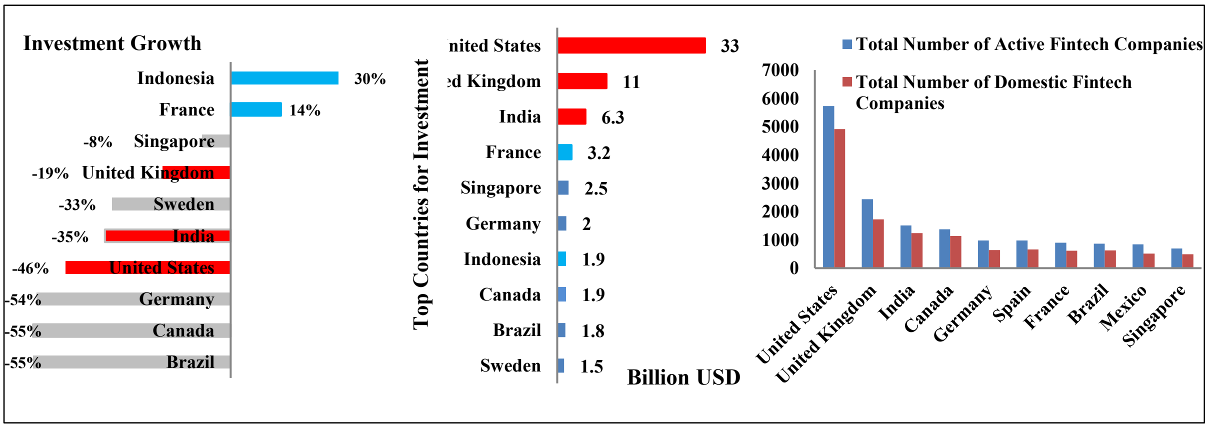

Figure 6: Comparison of the Top 10 Fintech-Investing Countries Worldwide in 2022

Prepared by the authors based on**:** (14) (15)

The figure above highlights the prominence of the United States as the country hosting the largest number of fintech companies, with a total of 5,730 active firms and 4,910 operating domestic companies. This figure represents nearly twice the number of fintech companies found in the United Kingdom and in the other countries included in the comparison. Despite a decline in fintech funding of 19%, 35%, and 46% in the United Kingdom, India, and the United States respectively in 2022, these countries maintained their positions as the world's three leading fintech funding hubs. Fintech startups in these countries collectively secured a total of USD 50.3 billion in funding. The United States ranked first with USD 33 billion, followed by the United Kingdom with USD 11 billion and India with USD 6.3 billion. Nevertheless, amid the global disruptions experienced during this period, some of the most innovative fintech firms managed to achieve growth in 2022, expand their market share, pursue international expansion, and attract support from major

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investors. Notably, Indonesia and France were the only two leading countries to record positive growth during this year.

Conclusion

Based on the foregoing analysis, fintech has clearly emerged as one of the most significant drivers of the global digital economy. It has contributed to reshaping financial services by developing innovative alternatives that have enhanced transaction speed, increased levels of financial inclusion, and expanded access to banking solutions through digital platforms. The analysis of investment trends in this sector reveals that 2022 marked a major turning point, as investment flows declined due to economic and geopolitical pressures. Nevertheless, investment volumes remained relatively high compared to the historical evolution of the industry, reflecting the resilience of the fintech sector and its capacity to withstand periods of volatility.

The findings also indicate that certain fintech activities, such as digital payments and regulatory technology, have continued to grow at an accelerated pace, while other segments, including insurance technology and cryptocurrencies, experienced a relative slowdown as a result of market conditions and associated risks. This underscores the dynamic nature of the fintech sector, which does not follow a linear growth trajectory but is instead subject to continuous restructuring in response to economic conditions and technological advancements.

Moreover, fintech startups have emerged as the primary driving force behind this transformation. The United States, China, and the United Kingdom have dominated in terms of both the number of firms and investment volumes, reflecting a concentration of leadership within these economies. Nonetheless, future prospects point toward a broader diffusion of fintech across different regions of the world, particularly in light of projections indicating that the number of fintech users could exceed seven billion by 2027.

In light of these findings, fintech can be regarded as a strategic sector that supports digital transformation and fosters pathways toward sustainable growth. At the same time, it imposes the need for policymakers and investors to adapt to its evolving dynamics by developing flexible regulatory frameworks, encouraging innovation, and keeping pace with technological developments in order to maximize benefits while mitigating risks. Consequently, the future of the global digital economy will remain closely linked to the ability of various stakeholders to effectively leverage the vast potential of fintech within an increasingly volatile and rapidly changing international environment.

Based on the results of this study, a set of practical recommendations can be proposed to support the development of the fintech sector and enhance its role in the digital economy. These recommendations are directed at three main levels: policymakers (governments), market participants (startups and financial institutions), and the academic and research community, as outlined below:

1. *At the Level of Public Policies*

- Developing flexible and innovation-supportive regulatory frameworks that enable the creation of new digital financial services without compromising financial stability.

- Strengthening digital infrastructure (internet services, payment systems, and information security) to ensure broader access to fintech solutions across different regions, particularly in developing countries.

- Supporting financial inclusion initiatives through public policies that encourage the use of digital payments and facilitate the integration of unbanked populations into the formal financial system.

2. *At the Level of Economic Actors*

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- Encouraging fintech startups and traditional financial institutions to develop strategic partnerships that accelerate innovation and reduce costs, rather than relying solely on pure competition.

- Investing in artificial intelligence and data analytics technologies to enhance customer experience and improve risk management practices.

- Focusing on building trust by adhering to transparency, ensuring the protection of user data, and developing robust cybersecurity systems.

3. *At the Academic and Research Level*

- Promoting applied research on new fintech business models and their implications for financial stability and emerging markets.

- Developing comparative studies of international experiences to support policymakers in adopting best practices.

- Emphasizing the analysis of long-term risks associated with fintech, particularly those related to digital currencies and unregulated innovations.

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