



Fintech and Wealthtech: The Road to Easy



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Introduction:

Not long ago, a phone served as a simple vessel of communication, taking phone calls and sending messages. Now, a phone can be a bank, brokerage, or payment mechanism. This all-in-one system is a result of fintech. Most of the developed world's population uses or benefits from the fintech revolution in more ways than they recognize. Today, we are increasingly going cashless and becoming more digitized in our financial dealings. From the late 1990s to the early 2020s, the integration of technology and finance led to a significant evolution, if not revolution, in how we handle, invest, and think about money. Initially, fintech was limited to simple transactions, such as sending money to friends and purchasing items. Now, in 2024, fintech has evolved to encompass interactions with the entire economy. We can trade stocks and manage investments at our fingertips. Within just a few decades of fintech innovation, people are buying shares and fractions of shares of companies online, having AI design and manage their portfolios, and accessing previously inaccessible alternative investments. This transformation has democratized finance, making it more efficient, inclusive, and aligned with the digital needs of today's market.

Marked by the transition from paper to smartphones,

technology reshapes how we conduct work, think, and manage financial transactions. Despite its transformative potential, technological advancement in fintech, like any innovation, navigates a complex journey of research, experimentation, and iterative refinement before achieving enduring success. Above all, there are technologies that are built to last and make the old ways obsolete. What do these successful technologies and firms do that make their products survive and outcompete others?

Our research concludes that this achievement stems from a synthesis of innovation, agility and adaptability, customer-centricity, competitive advantage, adoption, and reputation. Successful technologies and firms exhibit these attributes:

Innovation: the process of creating a new and unique product offering or solution that addresses an existing problem or appeals to demand. Innovation can also refine an existing product or solution and make it significantly better;

Agility and adaptability: Understanding emerging needs and challenges is crucial for developing innovative approaches to operations and interactions. Companies succeed by recognizing, reacting, and adapting to change;

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Customer-centricity: Consumers prefer easy-to-use products that are accessible, transparent, and understandable and have an educational component. Without targeting the consumer, technology cannot stand on its own;

Competitive advantage: By identifying and exploiting market opportunities and outperforming competitors, companies need to differentiate themselves through unique offerings and functions. They also need to remain cost-effective through their pricing structures, to achieve maximum benefits;

Adoption: Through successful marketing and strong partnerships, companies gain market access and share. Effective marketing and targeting productive partnerships enable market education and penetration, raising the likelihood that customers will adopt those products; and

Reputation: Consumers value trust, status, and familiarity. The stronger a company's reputation, the more likely individuals will want to do business with it.

Without a number of these characteristics, success is rare, and the product's survival is highly unlikely. However, products with these attributes can help a company succeed because those products become indispensable to the public, providing seamless transactions, democratizing market access for pursuing financial goals, and enabling customers to keep numerous financial transactions at their fingertips. The extent of fintech's potential remains uncertain, but it is evident that fintech is reshaping economic interactions by advancing innovation. This ongoing evolution ensures sustainable growth and transformative impacts on global financial systems.

Democratization

The stock market has existed for centuries, but it was not until the late 1990s that investing became heavily digital. Today, technology in the finance sector has advanced the process of investing, providing an array of tools to both sophisticated and retail investors. Gone are the days when you had to hire a broker to manage your portfolios by buying and selling shares of stock. One dynamic advancements in the fintech arena is the concept of democratization. Democratization is the

process of simplifying and making the investment process accessible so that more individuals with different backgrounds, experiences, and roles can participate. This means more people beyond the affluent can participate in all types of investing.

Democratization allows individuals to use online platforms to invest. These platforms provide access to a broad array of public and private asset classes, securities, vehicles, and investment strategies that were once the domain of the largest and most sophisticated investors. Democratization also allows financial literacy, broader demographic access, lower costs, and potentially higher opportunities for profit.

One significant way democratization has revolutionized financial services is through platforms offering commission-free trading. Before this transformative shift, investing was largely the domain of the wealthy, with investors facing significant transaction fees for each trade and some platforms requiring a high minimum investment to open an account. Commission-free trading platforms have changed this landscape, enabling a new generation of investors who are younger, less experienced, and less wealthy. These platforms have made investing more accessible, breaking down traditional barriers and opening opportunities for a broader audience.¹

“By simplifying the investment process and making it more accessible, these platforms empower you to take control of your financial future, ultimately fostering a more inclusive and engaged investment community”

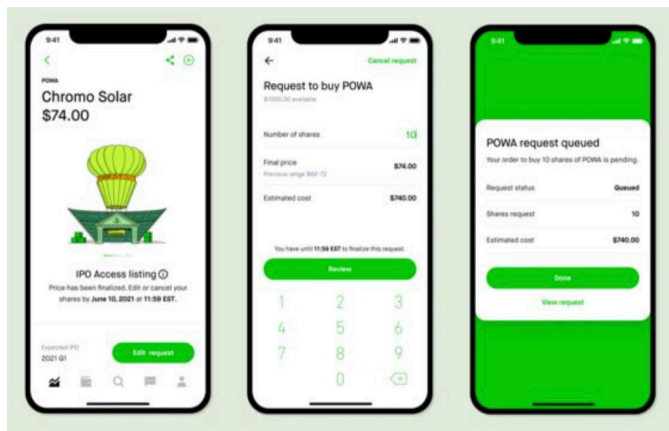
Opening a commission-free trading brokerage account is simple. Unlike the previous generation, now you can download an app or use a web browser to create an account and link it to your bank account. From there, you are ready to trade

and invest. This process has not only created broader opportunities for people to invest but has also increased efficiency in managing personal finances.² By simplifying the investment process and making it more accessible, these platforms empower you to take control of your financial future, ultimately fostering a more inclusive and engaged investment community.

Some well-known commission-free trading companies, such as Robinhood, Charles Schwab, and Fidelity, have seen great success.³ What makes these high-performing firms stand out in their competitive market are their innovative mindsets, willingness to adapt to their customers' needs, provision of user-friendly platforms, and offering a diverse range of products and services.

Commission-free trading platforms began launching only 10 years ago. In 2014, the founders of Robinhood created the first-ever commission-free trading platform with the mission of providing everyone with access to financial markets, not just the wealthy.⁴ True to its their mission, Robinhood has a reputation for being user-friendly, easy to use, and transparent, attracting many first-time traders. The Robinhood trading app is colorful and intuitive, as Exhibit 1 shows, allowing users to start trading with as little as \$1 in their account. In Robinhood's early days, new investors were congratulated for their first trade with a confetti animation, making investing a fun, easy experience for the user.⁵

Exhibit 1. Robinhood Digital Platform



For experienced investors, Charles Schwab and Fidelity are popular choices. Both companies, with histories dating back to the 1970s (Schwab) and 1940s (Fidelity), went commission-free in 2019 with missions like Robinhood's. As large financial services firms, they offer a wide range of investment products and tools.⁶ Schwab's investment platform, including the Schwab mobile app, is successful due to its advanced research tools. It provides easy access to interactive charts to research the security a trader wants to buy and sell. Similarly, Fidelity's investment platform, including the Fidelity mobile app, excels with robust trading products and services.⁷ Fidelity not only offers trading options but also services retirement accounts, checking and savings accounts, and other educational resources, creating comprehensive one-stop financial management platforms.

Robinhood, Charles Schwab, and Fidelity have different success attributes that make them stand out from their competitors. But their innovative approaches, customer-centric services, and diverse product offerings have revolutionized the investment landscape, making it more inclusive and accessible for all types of investors. These platforms continue to shape the future of investing, ensuring that financial markets are open to everyone.

Similar to commission-free trading, robo-advisory is another means of democratization, shaping the way individuals invest.⁸ Robo advisors are online automated systems and software that can capture the goals of an investor and create a diversified portfolio based on their preferences, risk tolerance, and inputs. The process requires only a few steps but yields strong rewards for the investor.⁹

The process begins with the individual creating an account and filling out an online questionnaire through a broker portal that uses a robo-advisor. From there, algorithms and software create an automated investment portfolio gauging the investor's investment profile weighed against risks, all while attempting to maximize potential returns. Investors must pay a fee. However, because robo-advising uses technology (rather than human

advisors) and is direct-to-consumer (DTC), the fees are much lower than those for traditional advisors. Once an account is established, the investor can log into their account anytime to view their portfolio and monitor the changes taking place with their investments in relation to the market and the performance of their funds.¹⁰

Many companies provide robo-advising today, which continues to expand as it becomes a popular, easy, and secure way of investing. To remain competitive, more and more financial firms are introducing or implementing the use of robo-advisory into their practices. Betterment and Wealthfront were two of the first companies to use robo-advisory in their practices launching in 2008 and 2011, respectively, achieving high levels of success in their implementation.¹¹ This accomplishment derived from their ability to integrate robo-advisory successfully into their practices, recognizing the need for innovation in the investment process and adaptability for the growth in technology. Furthermore, they are customer-centric by providing nonexperts with a simplified ability to invest in a manner similar to that used by institutional investors and wealthy investors but with lower fees. Robo advisors are user-friendly and transparent, with clear instructions. As noted previously, robo-advisors also invite a variety of clients to invest with low fees.¹² As a result of these attributes, Wealthfront has been cited as the best overall platform and service and the best and easiest platform for goal planning, portfolio construction, and portfolio management. Similarly, Betterment is widely recognized for its ease of use for beginners and its cash management.¹³

Though some can argue that robo-advisors come with the added risk of technological limitations, market risk, and misrepresentation of clients' interests, companies have taken steps to mitigate these issues. Robo advisors rely on strict algorithms to create and manage portfolios based on academically substantiated investment theory practiced by institutional investors and financial advisors.¹⁴ As for the clients' interests, robo-advising invests only at the level of risk-tolerance and with the information that its clients provide. It is up to the client to recognize how much risk-tolerance they have and what their financial goals are.

In the new age of investing, democratization, guided by commission-free trading and robo-advisors, is the modern paradigm that enables a wide range of people to invest by simplifying the creation of diversified portfolios and offering the potential for higher rewards at lower fees.

Index Funds, ETFs, and Direct Indexing

The year 1971 was monumental for investing. That year Wells Fargo created the first index fund, which may be defined as a mutual fund that tracks a sample of financial instruments (i.e., stocks or bonds) that represent a section of or the entirety of the market. The concept was based on academic research by economist Paul Samuelson, who argued that passively managed funds would outperform actively managed funds in the long term. This Wells Fargo fund was available only to institutional investors. But in 1976, John Bogle's Vanguard Group released its Vanguard 500 Index Fund, the first publicly available index fund.

Although most of the financial industry felt that index investing would not appeal to investors, Bogle and his team believed that providing public accessibility was the key to its potential success. This innovative strategy combined with the ability to offer the fund with lower fees than active funds met the retail investor's desire for market exposure and low product fees. As a result, Vanguard initially prioritized index funds almost exclusively in their product offering.

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Customer-centricity was key to Vanguard's initial success. First, Vanguard is a mutual company, owned by the shareholders of its funds, which

aligns the company's and the investors' interests. Second, the underlying philosophy behind public index funds made them easy to understand and low-cost. Initially Vanguard had very low or no investment minimums, which gave the company a competitive advantage through accessibility. Vanguard has built a very strong reputation with its clients and the broader marketplace over time. However, more recently Vanguard has faced negative feedback for its customer service, operations, and administrative fees.¹⁵ With new leadership as of the summer of 2024, it is likely that the firm will attempt to address this issue.¹⁶

Vanguard met with skepticism initially, particularly from institutional investors who believed that active management was the most effective way to meet their investment goals. However, retail adoption was successful, as retail investors saw indexed funds as a low-cost alternative to active management. Through time, the proof of concept behind index funds succeeded, vindicating John Bogle's vision.¹⁷ As an early mover in indexing, Vanguard captured a significant market share. This led to its ability to provide the most competitive pricing and maintain a competitive advantage through broad adoption by the investment public. As indexing is simply tracking a market index, it allows for significant scale and operational efficiency, both of which allow for the accumulation of more assets under management and lower operational and human resources costs.

In the 1990s, access to indexes and the demand for new or specialized index exposure improved through two innovations: the exchange-traded fund (ETF)¹⁸ and direct indexing.¹⁹ ETF investors trade index funds like individual stocks on an exchange, providing greater flexibility and liquidity. The first US ETF, the SPDR S&P 500 ETF (SPY), was launched in 1993 and revolutionized the investment landscape by offering lower costs and tax efficiency than traditional mutual funds. In contrast to the broader application of ETFs, direct indexing, a type of separately managed account (SMA), was created to enhance tax efficiency by allowing investors to use tax-loss harvesting, something index funds cannot do. Direct indexing involves purchasing individual constituents of an index instead of purchasing a vehicle that replicates the index, which allows investors to

claim investment losses from certain stocks to offset tax accrued from investment gains (the practice of tax-loss harvesting).

Many companies, including Vanguard, currently offer ETFs, and in the last three years, more and more offer direct indexing. The company that has seemingly had the most success with ETFs is BlackRock, which recently entered the direct indexing market. BlackRock is the largest asset manager in the world. Founded by Larry Fink as a fixed-income manager, it has evolved into an investment management leader providing active, passive, public, and private investment management. It is a leader in ETFs and offers a renowned risk management system, Aladdin.

Innovation and adaptability are at the core of BlackRock's business, enabling it to offer a wide array of services. Notably, BlackRock does this through a fast-following strategy. In 2009, BlackRock acquired Barclays Global Investors (BGI), along with its ETF provider iShares, the most successful ETF provider at the time.²⁰ The acquisition propelled BlackRock into a very lucrative position in the ETF market. BlackRock then focused on integrating iShares into its overall ecosystem, turning iShares into a product with almost \$3 trillion in assets under management (AUM) in ETFs alone. Following BlackRock's recent acquisition of Aperio, a large SMA provider, it will take time to see how BlackRock plans to use its other success factors like customer-centricity to bring out new value from its acquisition.²¹ Through its acquisition of Aperio, BlackRock can now provide excellent SMA as part of a system that was deemed too tedious to build internally. Since direct indexing is likely the next phase of indexing services, BlackRock showed adaptability and agility by purchasing another company with a capability it believes will meet its clients' needs.

Critical to BlackRock's success is its ability to combine its innovative and adaptable nature with a customer-centric product design. The firm offers a range of ETFs, including core portfolio building blocks, thematic investments, and sustainable ETFs and model portfolios that allow advisors to easily build varying client portfolios. Similarly, many types of SMAs offering direct indexes

and model portfolios can fulfill customer needs. Finally, BlackRock exhibits an economies-of-scale structure; by focusing on integrated offerings, BlackRock has seen high adoption rates.

In summary, BlackRock's competitive advantage in these modern indexing methods results from its ability to integrate and scale its offerings, both internally and externally, giving the company a cost competitive cost advantage which we believe creates a captive client and advisor base. Historically, BlackRock maintained an excellent reputation due to its extensive offerings, product innovation, and technological leadership. However, more recently the company has experienced the activism of CEO Larry Fink and fellow executives, which has led to a polarizing public image.²² BlackRock is trying to address this issue, though it continues to be a challenge that has hurt BlackRock's reputation.

Portfolio Design

For decades since the 1950s, the 60% stock and 40% bonds portfolio introduced by Nobel laureate Harry Markowitz has been arguably the most recognized and commonly used portfolio design for risk-adjusted returns. Seventy years later, with the advent of ETFs and new asset classes—including alternatives, private markets, and advances in derivatives and structured investment products—the investment landscape has become more complicated and nuanced than ever, and the 60–40 ratio has become inadequate because it no longer covers all or most of the investment products available on the retail market. Increasing complexity means that more and more of the investing public seeks help to make sense of the market. According to Bankrate, 57% of Americans sought out financial advice in 2023,²³ and 69% of investors²⁴ wish to invest in a socially responsible way, the second of which is a relatively new development.

This section explores portfolio design, which involves constructing an investment portfolio that aligns with an investor's goals, risk tolerance, and time horizon. It includes selecting a mix of asset classes and diversifying within those classes to optimize returns while managing risk. Effective

portfolio design can blend active management, passive investments, and innovative financial products.

The many facets of portfolio design continuously evolve over time. The following section will explore several innovations related to next-generation portfolio design. NDVR, a firm that serves retail investors, and MSCI Fabric, a company that creates powerful solutions for wealth managers, will be covered.

NDVR is a next-generation portfolio design technology firm at the forefront of the wealth technology industry. NDVR's approach to wealth management is to introduce a boutique platform that tailors to its users' needs. Specifically, NDVR builds and manages custom portfolios based on investors' set goals, such as protected withdrawals, aggressive long-term growth, a safe retirement, legacy planning for the future of a family, lifestyle protection, and more (see Exhibit 2). Through what it calls Plan Optimized Portfolios, specifically Lifestyle Protection, Embedded Alternatives, Short-term US Treasuries, Personalized Indexing, Enhanced Treasuries, and Hedged Equity, as well as its team of advisors, NDVR provides a platform that anyone can use to accomplish their financial goals.²⁵ Each of these offerings is designed to achieve a specific goal and uses public market securities, derivatives, and, in certain cases, leverage.

Exhibit 2. Sample Generated Portfolios

The screenshot shows the NDVR Portfolio Lab interface. At the top, it displays 'NDVR Portfolio Lab — Alex's Portfolio 7/10 - 11:10 PM'. Below this is a navigation bar with 'Requirements', 'Preferences', 'Optimization', 'Strategy', and 'Review'. The main section is titled 'Compare & Select' and shows three portfolio options for comparison. The 'Optimized' portfolio is selected.

Portfolio Type	Ending Value	Net Return	Plan Security Score	Typical Max Drawdown
TYPICAL PORTFOLIO Traditional 60% Global Equities 40% Bonds	\$13.5M	4.3%	99+/100	-29.4%
Optimized GROWTH STRATEGY Global Growth with Embedded Alternatives	\$26.2M	8.6%	99+/100	-34.0%
For Comparison Only PASSIVE EQUITY INDEX 100% Global Passive Equities	\$21.0M	6.3%	99+/100	-52.1%

Source: NDVR, July 2024²⁶

NDVR's focus on customer-centricity is most obvious when a first-time user creates an account. You start by creating an account and inputting information such as your preferred risk tolerance, income, the amount of capital you wish to commit at the start, your planned withdrawals and contributions, and many more details. Then you submit your custom portfolio for review. Once approved by one of NDVR's advisors, your modernized investing journey begins.

You can go back at any time to adjust your preferences, allocations, etc. If you are unfamiliar with the terminology, there are thorough explanations and a reference tool, all highlighting NDVR's attention to detail and its focus on making the platform as accessible as possible, especially for those without a formal financial background. The "optimization" section of the setup highlights how the NDVR Portfolio Optimization Engine designs your specific portfolio strategies based on your preferences. Finally, in the FAQs, NDVR notes that its fees start at 0.75% of your household's portfolio value for the first \$2M in AUM, which is below typical financial advisory charges of 1%–1.5%.

NDVR offers additional custom portfolio technology by offering easy integration with other technologies. For example, you can have an external portfolio manager added to each of your accounts in your investment portfolio. You can provide information such as asset allocation splits, the type of account,²⁷ external AUM fee, distribution details, and more depending on the account type. This, coupled with NDVR's algorithms, allows the platform's technology to create portfolio offerings specific to every customer.

Traditionally, custom investment portfolios such as those offered by NDVR were available only for high-net-worth (HNW) and ultra-high-net-worth (UHNW) clients, with only basic tools offered to the public. Today, firms like NDVR offer cost-effective customization options and institutional-type investment techniques are accessible to all types of investors. This allows NDVR to have for a competitive advantage over traditional financial advisors. The firm's

cost efficiency—a result of its technological innovations—is made visible by a calculator at the bottom of its homepage, where you can compare rates against traditional advisors based on your own portfolio size. The platform excels in usability due to its simple yet clever design and large selection of feature offerings.

Taking a different approach, MSCI Fabric is another next-generation wealth technology platform providing wealth managers with cutting-edge tools to design custom client portfolios. MSCI's value proposition is simple: it says that previous wealth management technology is built for the past, with managers using manual rebalancing, spreadsheets, and static tools, whereas Fabric is built for the future, offering multi-asset class portfolio customization, customized asset allocation, integration of clients' desires to invest in funds that take environmental, social, and governance (ESG) and climate risk factors into account, forward-looking portfolio analysis, private asset risk transparency, and application programming interface (API) implementation. MSCI Fabric possesses numerous compelling attributes of successful wealth technology companies and their products. Four key elements of MSCI's platform captured our attention: its multi-asset portfolio design, its ESG and climate risk analysis, private asset risk decomposition, and seamless data integration. These elements highlight the innovative approach Fabric has taken toward creating value, whereas other platforms struggle to implement algorithms similar to MSCI's, which gives MSCI a competitive edge. For example, MSCI Fabric claims to offer private asset modeling tools for multi-asset portfolios, a feature that no firm other than competitor NEBO²⁸ currently offers. For example, Aladdin from BlackRock does not have this ability. Next, MSCI Fabric reportedly offers tools for analyzing ESG and climate risk. Wealth managers can show clients ESG risk in real time. Finally, Fabric's API allows for seamless data integration with leading technology platforms and systems such as those belonging to Schwab, Fidelity, and Black Diamond.

Exhibit 3. MSCI Fabric Platform Showcase

Modeling Private Assets in Multi-Strategy Portfolios

The toughest challenge of managing private assets is that they can't be easily analyzed alongside the rest of a portfolio. Fabric allows wealth managers to easily model private asset risk/return and show clients the benefits of a multi-asset class portfolio.

Explore features →

BROAD ASSET CLASS	PERCENTAGE	SUBTOTAL	VALUE
Alternatives	23.37%	SUBTOTAL	\$81,152,773.60
Private Equity	8.04%	SUBTOTAL	\$27,914,111.24
Hedge Funds	6.98%	SUBTOTAL	\$24,246,861.61
Public Real Estate	4.81%	SUBTOTAL	\$16,700,294.79
Private Cashflow	2.16%	SUBTOTAL	\$7,512,802.40
Commodities	1.38%	SUBTOTAL	\$4,778,703.56

The bar chart below shows the relative contribution of each asset class to the total portfolio value:

Asset Class	Value
Private Equity - Growth-Oriented	\$27,914,111.24
Private Equity - Income	\$24,246,861.61
Private Real Estate - Core	\$16,700,294.79
Hedge Equity	\$7,512,802.40

Source: MSCI Fabric, July 2024²⁹

MSCI Fabric's website has a sophisticated graphic design that we believe clients and wealth managers will appreciate. However, despite MSCI Fabric's impressive platform, showcase images, and claimed technological capabilities (as shown on its website), we needed access to MSCI's platform to conclude our analysis on the platform's functionality—but couldn't get it.

Fabric's reliance on MSCI's renowned data systems, investment research, analytics, tools and indices began long before MSCI fully acquired Fabric in December 2023 for \$16.1 million.³⁰ In fact, Fabric relied on MSCI's Multi-Asset Class and Factor and Private Asset Models to help power its powerful analytics engine. MSCI displays impressive agility through this acquisition, as it aims to bolster its capabilities in the wealth management industry by combining Fabric's proprietary algorithms with MSCI's vast array of readily available data. Our analysis leaves us with high expectations for the future of Fabric, since MSCI possesses a strong market reputation and impressive leadership with decades of experience. In fact, MSCI's CEO, Henry A. Fernandez, is listed on Barron's top 30 CEOs list. Furthermore, according to the firm's website, MSCI's services are used by asset managers, wealth managers, hedge funds, banks, insurance companies, and more, though the specific

companies, and more, though the specific companies are not disclosed.

To conclude, we will address MSCI's customer-centricity shortfalls. Specifically, accessibility to the platform, as mentioned previously, is a concern. Non-professionals like you and I are unable to create an account and demo the platform. Instead, wealth managers interested in using Fabric must schedule a demo through an online form on their website. Thus, our research team made repeated attempts to contact MSCI for a demo, which proved futile. As of August 2024, no information is available regarding MSCI Fabric's educational resources, reference documents, and pricing structure. Wealth managers searching for a new portfolio management tool may be dissuaded by the lack of readily available information. Time will tell as to whether MSCI Fabric will succeed.

Alternatives

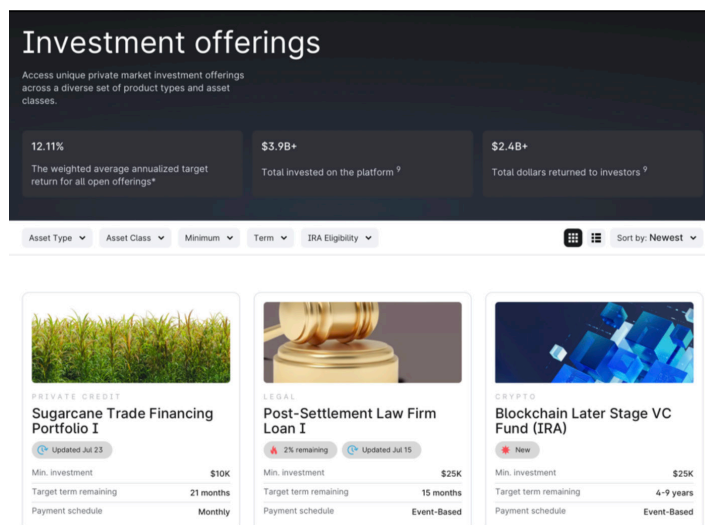
Private market investors in 2024 are seeing a completely altered investment landscape compared to the previous two decades. From a long-term perspective, depending on the metric, private market equity has seemingly outperformed public equity markets. Over the next decade, asset managers expect AUM in private equity

to continue to increase.³¹ This is due to the expectation that a larger percentage of investors will have access to private investment opportunities. In this section, we will review several recent developments in alternatives-focused wealth technologies. Developments in wealth technologies in the alternatives sector introduce something new to finance: the ability for the general public to make investments traditionally reserved for institutional and HNW and UHNW investors. Through technologies from companies like Yieldstreet, Nasdaq Private Markets, AngelList, and SeedInvest, the public may now invest in private lending opportunities, early-stage firms, and shares of companies such as SpaceX and Canva.³²

Yieldstreet is a platform that offers alternative investment opportunities for individual investors. It features a broad range of alternative asset classes and gives the public access to what the company claims are institutional quality investments for a fraction of the cost. Investments featured on the platform must pass a due diligence process conducted by Yieldstreet's research team, and the platform provides tools to track performance and payments.³³

Yieldstreet's platform introduces investors to 10 alternative asset classes across 470+ opportunities with new offerings introduced monthly. Several account types, such as individual and retirement accounts, along with accessibility innovations such as a mobile app and educational resources, allow the firm to stand out from traditional alternative asset management firms. Experienced investors will also appreciate the resources provided, such as annual reports and distribution notices. Traditionally, institutions or wealthy individuals have dedicated teams to find and deploy capital in private opportunities, and investors must meet with advisors to explore alternative opportunities via traditional firms. Yieldstreet eliminates that barrier and others, such as minimum capital requirements. Despite these benefits, it's important to note that Yieldstreet did not pioneer this space, since firms such as LendingClub, AngelList, and Fundrise first paved the way toward offering alternative investments to the public.

Exhibit 4. Yieldstreet Sample Investment Offerings



Source: Yieldstreet, July 2024³⁴

Of course, companies cannot succeed without having a clear competitive advantage over their rivals. For this analysis, competitive advantage breaks down into two key subcategories: cost efficiency and accessibility. Yieldstreet's individual investment fees are on par with competitor offerings, charging 1%–2% depending on the investment. For reference, traditional private equity fund management fees typically range between a 2% management fee plus a performance fee up to 20%.³⁵ In addition, the Yieldstreet Alternative Income Fund charges an annual expense ratio that is on par with offerings from major alternative investment managers. Yieldstreet's value proposition—making alternative investing accessible to all—is diminished when we analyze the platform's accessibility, due to no fault of its own. Although the public may explore Yieldstreet's offerings through a simple sign-up process, most of the platform's available investments favor accredited investors,³⁶ a requirement set forth by the US Securities and Exchange Commission (SEC) in rule 501 of Regulation D. To put this issue into perspective, as of July 14, 2024, there were thirteen available offerings for accredited investors—and none for nonaccredited investors. These regulations ensure that investors with little to no knowledge of private investments may be protected from making investments that can lead to significant financial loss; private investments

aren't nearly as regulated as public ones, and reporting requirements are very loose in the private world. Despite this, Yieldstreet can be used by non-accredited investors via a wealth manager, leading to better accessibility.

“Historically, finance firms have collapsed due to the lack of one essential attribute: reputation.”

Historically, finance firms have collapsed due to the lack of one essential attribute: reputation. An article in Global Village Space covering the June 2024 collapse of fintech firm Synapse states that Yieldstreet led its investors to believe that the collapse had nothing to do with the firm. The reality was that Yieldstreet relied on Synapse to manage its investor funds, and as a result of Synapse's collapse, some of Yieldstreet's own customers cannot access their funds. In addition, because the Synapse collapse was not a “bank collapse,” Yieldstreet's clients were unable to receive relief from the Federal Deposit Insurance Corporation (FDIC).³⁷ As if this calamity were not enough, Yieldstreet was already battling federal charges stemming from when, in 2023, the SEC charged the firm with misleading its investors over its lack of the collateral necessary to secure an investment. The suit has now been settled,³⁸ but the damage to Yieldstreet's reputation is done.

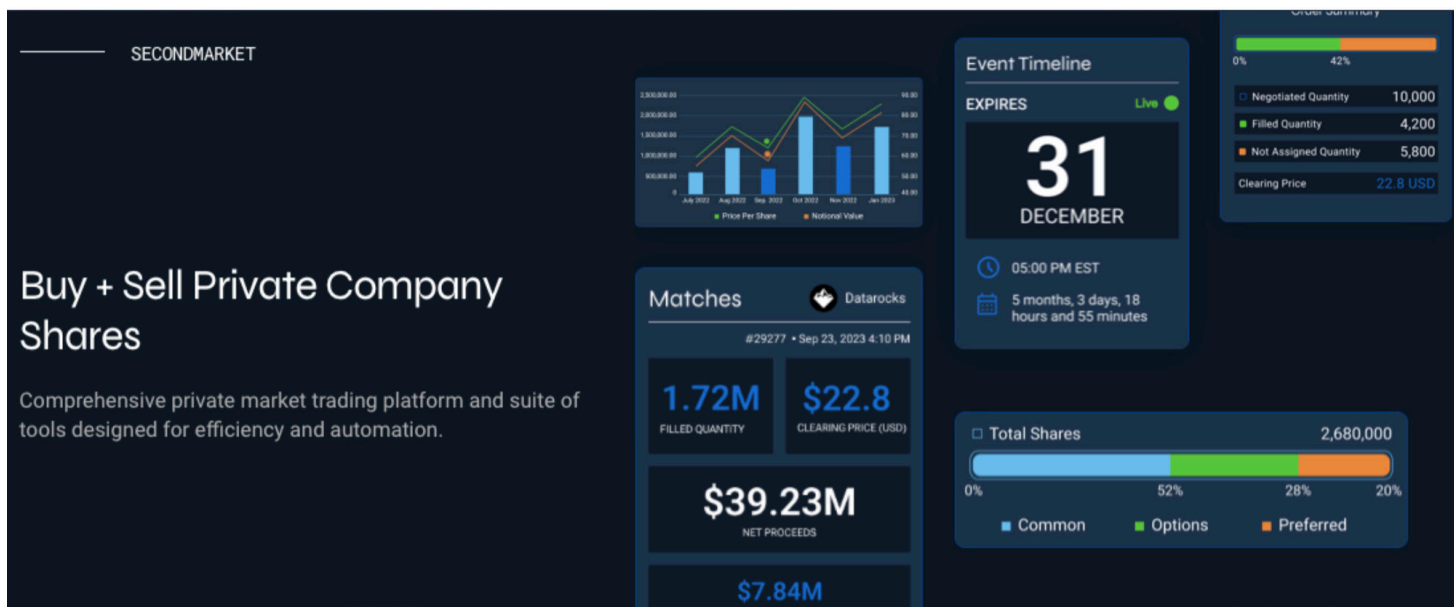
At the beginning of this section on alternatives, we mentioned that investors in 2024 can purchase shares of stock in privately held companies, such as SpaceX, Canva, and ByteDance. Since 2013, wealth technology company Nasdaq Private Market (NPM) has provided a platform—SecondMarket Trading Platform—that allows select investors (investors that are insiders, are accredited, or are part of a financial institution) to trade alternatives, specifically to purchase restricted securities³⁹

and buy and sell shares in private companies. In addition, investors can sell employee-based options and participate in tender offers,⁴⁰ auctions, capital introductions, options extensions, and more. Since its inception, NPM has hosted \$50+ billion in transactions, with over 700 company-sponsored programs, 190,000 eligible program participants, and 320 onboarded institutional investors.

NPM excels in adapting to industry needs, such as providing a large pool of suitable investments or specialized platforms for a specific investing strategy. For instance, it offers the ability to invest in over 400 privately owned companies, with new offerings being listed every year. The company offers a wide array of tools for individual and institutional investors, banks, employees, law firms, and private companies. Examples include specialized trading technology for banks and brokers, an employee liquidity platform, corporate liquidity programs, and its upcoming Tape D platform, which offers valuation data and market intelligence for investors.

NPM's biggest strength is its ability to weave innovation and competitive advantage together. NPM offers a wide range of platform-exclusive investment opportunities, which shows a blend of both innovation and competitive advantage. One important innovation is integration with smart contracts from dozens of firms, such as ByteDance, Fanatics, Epic Games, Discord, and hundreds more. This itself is also a competitive advantage, since continued partnerships with these firms and their employees may lead to tremendous growth; NPM's potential is nearly endless so long as it continues to innovate and leverage the partnerships it has built. NPM was also the first to introduce Streamlined Liquidity Platforms, allowing for tender offers and auctions for employees and early investors. This further increases the firm's' competitive advantage, as the platform broadens investors' access to NPM offerings.

Exhibit 5. Nasdaq Private Market SecondMarket Platform



Source: Nasdaq Private Market, July 2024⁴¹

NPM handles billions of dollars in transactions every year, with a 75% participation rate across the NPM-facilitated secondaries market. With over 190,000 participants and impressive company partnerships, NPM possesses a solid network. Despite the foundation NPM has built, the platform lags behind one competitor, EquityZen, which has more than three times the subscribers. We believe this leaves the door open for future growth for NPM. In fact, its partnerships and investments from large financial institutions such as Goldman Sachs, UBS, Citi, Morgan Stanley, and more should allow for continued adoption and growth. NPM also has growth potential in another business line, enterprise software solutions.

Two more companies focused on providing access to private markets for public investors are AngelList and SeedInvest, both of which focus on startup equity. After posting a list of angel investors to the Venture Hacks blog, Naval Ravikant and Babak Nivi founded AngelList in 2010.⁴² Two years later, Ryan Feit and James Han founded SeedInvest in response to the 2012 JOBS Act—the Jumpstart Our Business Startups Act—a piece of legislation that allowed non-accredited investors to buy equity in private companies.⁴³ Created to democratize startup equity, AngelList acts as a matchmaker between

startup founders and accredited potential investors. SeedInvest, in contrast, functions similarly to a crowdfunding site, allowing startups to get funding from many smaller and nonaccredited investors rather than from a single angel investor. Traditionally, angel investors have been UHNW individuals, making startup equity highly exclusive. AngelList and SeedInvest have lowered the bar substantially for users, allowing retail investors to partake in this historically exclusive market.

Customer-centric design is a major strength of both AngelList and SeedInvest’s platforms. Dubbed “Match.com for investors and startups” by Business Insider, AngelList’s software is remarkably easy to use.⁴⁴ Its platform is simple and intuitive, allowing users to search through investment opportunities and swipe right to view detailed data on each startup. AngelList’s ease of use is a major contributing factor to its success among entrepreneurs and investors alike. According to one Harvard case study, “For most entrepreneurs, posting a profile on AngelList had become as commonplace as setting up a personal profile on Facebook or LinkedIn.”⁴⁵

AngelList’s main advantage over competitors is cost efficiency and exclusivity. Whereas traditional methods of investing in private equity charge

large fees, AngelList allows investors to make investments in startups with no upfront costs. Although AngelList charges interest on investments that it facilitates for startups, for investors it charges interest only on profits, incentivizing investors to use AngelList to gain access to startup equity. AngelList has also partnered with private market service providers such as Navigation Fund Services, enabling improved efficiency on their platform and improving their reputation among potential clients.

SeedInvest's biggest competitive advantage is its accessibility and remarkably low barriers to entry. While other platforms like AngelList require customers to be accredited investors, SeedInvest has no restrictions on the customers it accepts on its platform. While the minimum investment is \$500, not zero, this minimum is still roughly one-fiftieth of the minimums traditionally required for an accredited investor's stake. This makes SeedInvest an appealing method of gaining exposure to the startup equity market.

AngelList's and SeedInvest's access to this exclusive market, their relatively low costs, and their easy-to-use platforms have fueled their exceptional growth. Starting as a simple email list of angel investors in 2010, in 2024 AngelList has reached over \$124 billion in assets, over 85,000 investors, and over 12,000 active startups on the platform.⁴⁶ Similarly, SeedInvest raised over \$300 million from over 500,000 individual investors since its founding in 2012, prompting Circle to acquire SeedInvest in 2018.⁴⁷ Although the growth of the private equity market has fueled the growth of both companies, lowering the requirements to invest on AngelList's platform would provide a massive opportunity for the company, since only 24 million households, or 18.5% of Americans, qualified as accredited investors in 2022.⁴⁸

Ease of Use and Accessibility Alternative Investment

In recent years, the investment landscape has seen a notable shift toward alternative investments. Due to their potential to generate outsized returns uncorrelated with the movements of traditional assets, a growing number of high-net-worth and retail investors have turned to

alternatives to diversify their portfolios and decrease volatility. Growing demand for alternative assets has resulted in increased pressure for wealth managers and financial advisors to offer access to these financial products, providing firms that are able to satiate this demand with a new opportunity.

iCapital and CAIS currently stand as the two largest platforms democratizing access to alternatives. Although different in their individual offerings, both firms have achieved great success in the wealth management sector by leveraging cutting-edge technologies, creating user-friendly interfaces, and offering transparency and education to make investing in alternatives easy and efficient for advisors.

“Growing demand for alternative assets has resulted in increased pressure for wealth managers and financial advisors to offer access to these financial products, providing firms that are able to satiate this demand with a new opportunity.”

CAIS was formed in 2009 by current CEO and chairman Matt Brown. With the mission to democratize access to alternative investments, Brown set out to create a market for alternatives that would make alternative investments more available to financial advisors.⁴⁹ Formed in 2013, iCapital was founded by former employees of the private equity firm Veronis Suhler Stevenson. Similar to the founders of CAIS, they noticed that individual investors had no method of investing in private equity and hedge funds.⁵⁰ Like CAIS, the founders of iCapital set out to address this potential market by developing a platform that would both educate investors about alternative investments and provide unprecedented access to them.

In 2009, CAIS launched its platform, giving independent financial advisors access to many alternative investment offerings. CAIS's platform differentiated itself from competitors not only through the unprecedented access to private markets it provided but also through custom solutions offered by CAIS such as exclusive custom funds and structured investments. CAIS's marketplace remains its strongest competitive advantage, however. Whereas private equity markets were historically exclusive and expensive to access, CAIS Marketplace allowed financial advisors to gain private equity exposure both cheaply and with the flexibility to address their clients' unique needs. Further differentiating CAIS Marketplace from competitors was its partnership with the financial services firm Mercer, the first of many strategic partnerships that strengthened CAIS's position as a leader in the alternatives space.⁵¹ By partnering with Mercer, CAIS can make use of its investment services by performing due diligence on every potential offering on CAIS Marketplace. This partnership aims to provide clients with a sense of security knowing that the products on CAIS have been vetted by a third party that offers a great deal of transparency from the research Mercer provides.

Five years later in 2014, iCapital launched its own platform, which not only provided customers with a wide range of alternative investment offerings but also data analytics and asset management features. The platform's ease of use immediately appealed to wealth managers, since iCapital claimed to make investing in private equity and hedge funds "almost as simple as it would be to subscribe to a mutual fund."⁵² Behind the scenes, iCapital established a dedicated team of investment professionals to perform due diligence on all of the investments offered on the company's platform. In doing so, iCapital was able to vet potential investment opportunities and provide detailed reports on each offering's historical performance, risk profile, and investment strategy. Similar to CAIS's partnership with Mercer, due diligence differentiated iCapital from competitors by giving clients both a sense of security and transparency when investing on their platform.

As previously mentioned, partnerships with large, established firms were crucial to CAIS's

success. Four years after launching, CAIS formed a strategic alliance with Fidelity that proved crucial to its platform's early growth and adoption.⁵³ Leveraging CAIS's its own wealth management branch, providing the CAIS platform to the roughly 3,500 wealth management firms whose retirement accounts are held by Fidelity. Partnering with Fidelity therefore cemented CAIS's position as a market leader by expanding its reach through exposure to Fidelity's wealth management clients and creating a trustworthy reputation in the financial ecosystem. To solidify its position as a leader in the alternatives and wealth management industries, CAIS has continued through alliances with larger firms over the years. CAIS currently partners with large private equity firms such as Apollo Global Management, increasing its trustworthiness in the eyes of customers and expanding its platform's reach.⁵⁴

Strategic partnerships have played a similarly important role in the success of iCapital. Immediately after launching, iCapital received backing from several large asset management and private equity groups including Credit Suisse. Two years later, iCapital formed one of its most important partnerships with BlackRock.⁵⁵ Not only did BlackRock provide funding to the young company, but it also installed Frank Porcelli, the chairman of its US Wealth Advisory business, on iCapital's board of directors. By receiving the backing of BlackRock early in its history, iCapital received a valuable advisor in Porcelli, integrated itself more thoroughly into the financial ecosystem through exposure to BlackRock's clients, and bettered its reputation by leveraging the backing of a larger, already trusted company. iCapital has strengthened its competitive advantage over smaller firms by continuing to partner with large financial institutions. It currently lists 29 companies as investors, including several bulge-bracket banks and large private equity companies such as KKR among others, which serve to solidify iCapital's position as a leading financial technology platform in alternative investing.⁵⁶

The adaptability and agility of iCapital and CAIS's platforms have served as another of their main strengths. Both firms continue to integrate cutting-edge technology into their platforms through in-

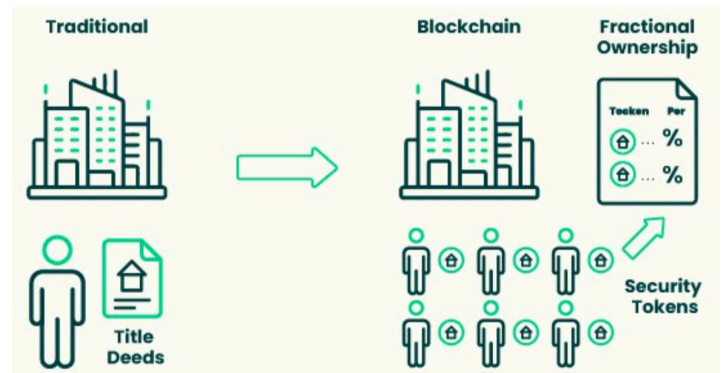
house innovations and acquisitions, allowing them to compete in the ever-changing and evolving wealth-tech industry. For example, on May 23, 2024, iCapital announced the launch of the first fund of its new Distributed Ledger Technology (DLT).⁵⁷ iCapital's DLT is expected to increase efficiency in alternative investment management by "improving data processing visibility and efficiency, reducing errors, and enhancing overall investment handling." This will not only result in thousands of hours saved for iCapital's clients but also will result in fewer errors and increased cost efficiencies, making it even less expensive for wealth managers to use iCapital's products. Rather than stay stagnant and rest on their laurels, iCapital and CAIS continue to innovate and improve their products, allowing them to remain on top of their industry with nearly \$5 trillion in combined network assets and over 135 thousand total users.

The Future of Fintech

In an era marked by technological advancement and expansion, the fields of investing and fintech stand at the forefront of innovation and adaptation. Fintech has significantly transformed the broader economy and with it the experiences of consumers and financial institutions. One notable development in this ongoing evolution is asset tokenization, a testament to fintech's capacity for continual progress and innovation.

What is tokenization? Imagine you possess a highly valuable pie, and you want as many people as possible to share in its ownership. The entire pie is too costly for any single person to purchase outright. To address this, you allow individuals to buy individual slices, thereby obtaining partial ownership of the pie. This analogy illustrates the concept of asset tokenization. Tokenization involves taking a valuable asset and converting it into digital segments, or tokens, through blockchain technology. These tokens represent a fraction of ownership in the asset, facilitating transactions by enabling people to invest in the asset without needing to purchase it in its entirety. This can also be known as asset digitization.⁵⁸ As Exhibit 6 shows...

Exhibit 6. Benefits of Tokenization



For asset tokenization to advance fintech, it must incorporate transparency to earn the trust of investors, customization to address diverse groups, and robust cybersecurity protocols to safeguard advanced technology. Additionally, regulatory compliance is crucial to ensure the legitimacy and legal standing of tokenized assets in various jurisdictions. The integration of smart contracts can automate and enforce the terms of asset transactions, reducing the potential for disputes and enhancing efficiency.⁵⁹ By fostering an ecosystem that emphasizes security, adaptability, and legal clarity, asset tokenization can unlock new opportunities for investment, democratize access to valuable assets, and drive the evolution of the financial sector.

Asset tokenization has already begun and is rapidly growing within the fintech industry. Many investors indicate they are interested in allocating up to 9% of their total portfolio in tokenized assets by 2027.⁶⁰ This interest is driven by firms such as Polymath and AlphaPoint, which are at the forefront of this movement. These companies emphasize that a key benefit of tokenization is liquidity, making alternative investments more accessible to individuals who previously may not have been able to invest in them due to their illiquidity.

There are already software solutions available on the internet where you can use tokenization models. For example, Polymath has innovated with its technology, Polymesh, to tokenize real estate.⁶¹ By leveraging their knowledge of blockchain, the company integrates governance, identity compliance, confidentiality, and deterministic

finality to make real estate investment more accessible and easier to use. This sounds very futuristic but is a reality that the fintech industry has embraced and nurtured. To bridge the gap between experts and nonexperts in this transformation, AlphaPoint excels in providing liquidity solutions and educational resources, helping investors navigate the complexities of the tokenized asset market.⁶²

The advancements in asset tokenization are clear indicators of the new generation offintech. By making investments more accessible and user-friendly, companies like Polymath and AlphaPoint are paving the way for a more inclusive financial landscape. Their innovative approaches and commitment to leveraging technology have not only democratized finance but also set new standards for efficiency and accessibility in the industry. As digitalization progresses, these companies will remain at the forefront, driving further changes and opportunities in the financial world.

Conclusion

In this paper, we set out to answer a question: Are there systematic success attributes exhibited by successful fintech companies that wealthtech companies have followed? This paper identifies the following six attributes: innovation, agility, customer-centricity, competitive advantage, adoption, and reputation. We explored these

attributes by analyzing both well-known asset management companies that may not be traditionally considered fintech but nonetheless have been leaders in the fintech space, such as BlackRock, as well as more esoteric companies that many readers may have never heard of, such as NDVR and MSCI Fabric. While alternative asset classes like private equity are gaining attention, many investors might not recognize how fintech has penetrated the alternatives field in underappreciated ways, bringing transformation through technology and innovation.

This paper pursued a journey reviewing all aspects of technology in investment management, from the creation of online brokerage platforms to the development of new instruments such as ETFs, and from the advent of robo-advisors to the advanced technologies and structures of companies like NDVR. We view all of these changes through the lens of democratization, creating structures and access through technology at a level unimaginable 20 years ago—all of which are now available on one's phone. As we move forward, the next frontier in fintech appears to be tokenization, which promises to further democratize investment by breaking down valuable assets into accessible digital tokens. We hope you enjoyed this journey through the fintech ecosystem into wealthtech and our exploration of the factors we believe are critical to success.

Authors' Note

Technology is our future, and it pervades the fintech ecosystem. Throughout this Opinion Snapshot we examined, explored, and analyzed the success behind fintech companies, leading us to develop a key question, "Is there a true algorithm for this success?" Our team outlined a series of six successful attributes that we believe are pivotal to the growth and survival of fintech and wealthtech companies.

We would like to express our utmost gratitude to Sapere Aude Consortium for an invaluable summer full of education, experience, and mentorship. Beyond that, we would like to acknowledge their mission and allowing students like us to be heard and seen. Additionally, we want to especially recognize our mentors Kaitlyn Fischer and Robert Job and our alumni mentor, Dylan Essandoh, for their unwavering commitment and dedication to our team and its success. We could not have done this without them.

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