

# Innovation Strategies for Digital Assets & Wealth Management

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A special thanks to the FinTech Consulting ALP team at the University of Maryland and Envestnet. We expanded our knowledge and grew stronger as individuals, thought leaders and as a collective team. It is a great feeling to contribute something unique to the financial industry which provides perspective to relevant events today.

Additional gratitudes to all the team sponsors, family, spouses, friends, colleagues, pets and case study experts who supported the ALP team members throughout the project.

Charles S.

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# Introduction

## Summary of Report

Action Learning Projects (ALP) serve as a method of conducting real-world research to provide strategic recommendations for a company/industry. Gathering insights in an unbiased format both as a learning exercise and a final report the team will present data to the University of Maryland and other mediums.

Given the conservative nature of the Wealth Management industry we provide insight to Financial Advisors and other wealth management industry participants to navigate today's regulated and unregulated environments. As a Request for Comment (RFC) the team invites Wealth Management and Financial Advisory professionals to participate in further research development as this is a continually growing space. Additional content may be added to this report as discussions build on the potential values and risks associated with the incorporation of cryptocurrencies and other digital assets for Registered Independent Advisors (RIAs) within the current wealth environment.

The ALP University of Maryland team serves as an independent research body to the Wealth ecosystem. The research attempts to present findings on cryptocurrency and digital assets with a less biased perspective. We believe this information can be revealing and serve as a differentiator to Technology Suppliers, Financial Advisors and Institutional Investors in the industry given the speculative nature of digital assets.

Our research publication provides opportunities for industry participants to cite the ALP team as well as make connections through conference and speakerships; while enabling firms that are slower to adopt digital assets or abstain from comment to build understanding, facilitate discussion and build brand eminence in a field that has been (more or less) non-reactive to the current events in the Digital Asset / Crypto ecosystem.

## Approach

The research presents the essentials of the Wealth Management industry from the perspective of Registered Independent Advisor (RIA) firms that provide financial advice and planning for clients. The core pillars of research separated into three parts consist of Persona/Users, Financial Valuation, and Crypto & Wealth Ecosystems.

Over the course of research, the Action Learning Project team is charged with identifying key data points and providing solutions to support the incorporation of Cryptocurrencies into 'traditional advisory segments'. This research is built in conjunction with industry leader Envestnet which specializes in the B2B FinTech, Wealth & Financial Advisory segments for independent advisors and high net worth individuals.

As part of our original research this paper expands on two important topics related to the roles of Technology and Digital Transformation in an attempt to demystify concepts that in-directly / directly impact Wealth Managers. These topics relate to (1) exploring the commonalities of the competitive landscape / market structure for RIA-related Services providing insight into the potential for network effects and economies of scale and (2) evaluating the crypto & wealth ecosystem to provide a

comprehensive viewpoint from the perspective of a Wealth Manager given its potential effect on advisory fee structures as more funds shift into digital assets.

## Research Segments

Incorporating the expertise of the University of Maryland to form an Action Learning Project, the team conducted research across the Wealth, FinTech & Financial Advisory industries which lead to a Go-to-Market approach for the incorporation of crypto into advisor portfolios.

Using management consultancy techniques gained from the ALP course the team formed three work streams to capture data points indicating rationale and feasibility of implementing a crypto-solution that integrates RIAs with crypto brokerages. Each workstream was charged with synthesizing data to determine the palatability of solutions through the use of user research, market risk methodologies, scenario modeling and scholarly research; presented in three parts as detailed below:

- 1) **Persona Research** - Persona research addresses how technology providers such as Envestnet should deal with managing customer engagement based on buying patterns, trends and competitive insights; (and if applicable) how to sell crypto in the RIA space.
- 2) **Valuation Analysis** - Valuation deals with the fear of losing customers and/or assets under management; and modeling market risk (or opportunity cost) from a Financial Statement to advise on how much investment should be made towards a particular initiative / project such as Crypto using Envestnet as a case study given public access to 10K Financial statements.
- 3) **Crypto Ecosystem** - Evaluating the relevant crypto thesis for Envestnet in order to assess the influence of Crypto and whether there is a case for RIAs today, tomorrow and what that would likely look like in the future for Wealth Management executives.

## Project Tasks & Keywords

General tasks listed below were conducted by the teams where information is abstracted and shared further in the research publication:

1. Part I: Persona/User Research
  - a. RIA industry analysis
  - b. Customer Segments / Types
  - c. Primary Interviews
  - d. Solution Stack for RIAs
  - e. Customer Discovery
  - f. Personifications
2. Part II: Valuation Analysis
  - a. Competitive & Market Landscape
  - b. Case Study / ENV 10K Financials
  - c. Project-based Investment Analysis
  - d. Scenario-based Financial Modeling for Crypto Risk
  - e. Additive Attributes of Network Effects & Pricing Economics

3. Part III: Crypto & Wealth Ecosystem
  - a. The Role of Digital Transformation in Wealth Management Industry
  - b. Digital Asset Characteristics of Blockchain Technologies
  - c. Key Mechanisms & Signals for Wealth Managers
  - d. Executive Guidance

## Project Assumptions

**1) RIAs Only** - Based on team discussion and kick-off meeting; the team will focus / limit the crypto-thesis to RIA-Only which covers the broader holdings market and may provide insight into personas. Case study will evaluate and prioritize considerations for RIAs that fulfill the needs of HNW consumers.

**2) Integrate Only** - With many companies already in the market that service, custody and provide trust services for crypto the time to market would not meet the needs of the customer to build the team decided to limit the scope to 'Integrate Only' whereas to buy would need more consideration towards Envestnet understanding of crypto for the core business.

## Marketable Objectives

Our goal is to use these findings to collaborate with parties that wish to address similar segments of Financial Advisory. The research presents an opportunity to express viewpoints from both 'traditional' and 'new' advisors for which all entities are leaders in their own respective markets for which members of the team at the University of Maryland serve as an independent research body to the Wealth ecosystem.

As a result we feel there are multiple avenues for reports, conferences and press that can be driven en masse. Several options but not limited to (A) the production of independent pieces from the University of Maryland and industry experts and/or (B) engagement with industry leading firms enabling the creation of opinion pieces, marketing content, press, brand strategy and speakership.

## About the Authors

The ALP team is composed of five individuals who are currently enrolled in the University of Maryland, Smith School of Business. Each member took on the project with limited / no exposure to wealth management with the goal of developing new and original thoughts on Digital Assets. Over the course of 14 weeks the team built the case structure to help Envestnet (ALP sponsor / client) develop a business strategy focused on the incorporation of crypto / digital-assets for Financial Advisors and High-Net-Worth individuals.

- ❖ **Charles Shorter** (Team Lead) - Charles is a former product lead at Envestnet utilizing the action learning process as a part of his MBA dissertation at the University of Maryland. His main focus areas include capability development and business line development for organizations in the Corporate Banking, Capital Markets and FinTech industries. In his spare time, he enjoys reading about technology, traveling and exploring wine cultures across the world.



- ❖ **James Taylor** - James is a recent MBA graduate from the University of Maryland's Smith School of Business, where he also earned his undergraduate degree in Finance & Data Analytics. He currently works at Morgan Stanley as an Automation Project Manager in the Corporate Finance division. Working in the finance field for 6 years, he has focused his initiatives on improving efficiencies through improving outdated processes.
- ❖ **Jessica Jones** - Jessica provides strategic support to The Eastern Transportation Coalition, which is housed under the Civil Engineering department at The University of Maryland. She has a background in finance and administration in higher education. Jessica earned her MBA from The Robert H. Smith School of Business at the University of Maryland.
- ❖ **Kevin Sanford** - Kevin currently works as a Senior Finance Associate at Virginal National Bank. Building upon his undergraduate degree in Finance & Journalism from George Mason University in 2017, he earned his MBA from the University of Maryland's Smith School of Business in 2021. His professional areas of focus include financial & economic analysis/research, financial technology, and business management.
- ❖ **Nicholas Kobloth** - Nick works as a Sr. financial consultant at Cooper University Hospital expanding his accounting background and has earned an MBA from the University of Maryland focusing on managing information and data analytics.

#### Additional Acknowledgements:

The team would like to acknowledge Blake Wood, ALP Envestnet Sponsor and the folks at Envestnet for participating through the Action Learning Process to help build the case, share market insight, review concepts and validate research further listed below. The ability to discuss and present potential values / risks associated with Envestnet and RIAs within the current context of the wealth management industry was invaluable. We hope that these findings lead to the incorporation of cryptocurrencies and digital assets and at a minimum further the creative thought process.

- Blake Wood - SVP of Product Strategy
- Dani Fava, Kevin Hong, Aaron Adolphson (Case Development)
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- Seb Taveau (Storytelling & Leadership Advice)
- And more..

Last but not least, we'd like to extend a special thanks to Dr. Protiti Dastidar who served as our ALP coach and instructor at the University of Maryland.

# Persona Research

## Overview of Persona Research

We provide a brief introduction to Wealth Management as a bit of background using Envestnet's business model for Part I of III; to baseline an understanding of the RIA industry before disclosing relevant assessments of crypto statistics and the role of technology enablement. Understanding these attributes reveal the complexity and challenges RIAs face when attempting to add crypto / digital assets to client portfolios.

Primary interviews are deep dives into personification and the basis of research. Drawing from prior comparisons of alternative investment trends e.g, Women in Wealth, Wealth Transfer, Environmental, Social & Governance (ESGs) and Millennial Investing; the personifications focus exclusively on portfolio challenges related to crypto / digital assets. Financial Advisors and Wealth Management executives will be able to view how specific persona groups address portfolio planning challenges and develop viewpoints on industry practices. This information is also helpful for technology enablers in the Wealth Management industry who rely on customer behaviors to assess platform capabilities / integrations.

As firms make considerations for adding new sales channels these fundamentals are critical to (a) build knowledge around profitability drivers and competitive landscape covered in the Financial Valuation segment as Part II of III to (b) address the need for crypto education through a consolidated framework which is discussed in the context of wealth management in the Crypto & Wealth Ecosystem segment as Part III of III.

## Registered Investment Advisors

Registered Investment Advisors (RIAs) are customer facing firms who provide wealth management services. The criterion that sets RIAs apart from other wealth managers is the oversight by the Securities and Exchange Commission, which enforces a fiduciary responsibility to the client meaning RIAs are required, by law, to prioritize the clients' interest above all else. Traditionally RIAs provide retirement services to their client portfolios. As these firms grow, it is common for RIAs to change to a Family Fund-style approach which consists of managing multiple accounts as a single investment firm. RIAs depend on technology integrations to aggregate the accounts through SaaS-based tooling that is used to conduct Portfolio Management, CRM, Trade Execution, Asset Management, Reporting, Compliance, and other Financial Services. Many of these services are outsourced, which creates an opportunity for companies, like Envestnet to provide B2B services to support RIAs' back offices.

**Elite RIAs**  
RIAs with >500 MM AUM

**Attributes:**

- Revenue per Client 13,420
- 66% have institutional clients
- 84% have HNW clients
- Employ around 15 staff

**Goals:**

- Increasing and differentiating client experience based on culture values
- Client retention and breadth of services driven by Systematic Workflows, Specialized Employees, Team-based Advisory e.g. Flexible Advisors
- Risk Mgt. for AUM is a high priority

**Success Drivers:** Teamwork, Culture, Systemic Processes & Automation

## Size & Demographics

RIAs fall into one of three status levels: Elite, Emerging, and Entry. The categorical lines are drawn based on factors such as assets under management (AUM), revenue, headcount, number of clients, etc. Elite RIAs make up roughly 53% of all RIAs, and they service more High Net Worth Individuals (HNWIs) and more institutional clients than Emerging and Entry RIAs (BlackRock, 2017)

BlackRock states, "...the defining characteristic of Elite RIAs is that they are organized and structured as wealth management businesses that provide a range of financial planning and investment management—not as large solo practices or a confederation of practitioners" (BlackRock, 2017), which can also be referred to as institutional participants. In essence, Elite

RIAs represent the one-stop-shop for financial planning needs including investing, retirement, tax regulations, compliance, estate planning, education planning, business owner services, etc. Elite RIAs main differentiation in client experience is in the organizational structure.

It is common for Elite RIAs to service clients with a team of advisors opposed to an individual advisor. Doing so ensures the client builds rapport with the firm, not only the individual advisor. In using team-based operating structures RIAs build brand recognition as the firm and can maintain their availability to the client regardless of internal events. The third benefit of this organizational structure is the enterprise value that comes from building process-driven disciplines and technological practices. In understanding the components of the RIA suite, the importance of technology and compliance cannot be understated. Elite RIAs outsource technology and compliance above other aspects of the business. This practice allows these firms to obtain the latest technologies without disruption to in house operations. Elite RIAs cite risk management and portfolio management as the most valuable technological solutions which incorporate data aggregation through the use of Application Programming Interfaces (APIs). Overall technology is seen as a tool to streamline workflows and enable scalable solutions for an

**Emerging RIAs**  
RIAs with 250MM - 500MM AUM

**Attributes:**

- Revenue per Client 9,500
- 48% have Institutional clients
- 77% have HNW clients
- Employ around 8 staff

**Goals:**

- Human capital focused where the goal is to retain talent e.g. client loyalty
- Outsource with the purpose of augmenting staff to handle more clients and scale internal processes
- Digital account opening is 'standard'

**Success Drivers:** Balancing Risk, Scaled Marketing & Technology Utilization

**Entry RIAs**  
RIAs with <250MM AUM

**Attributes:**

- Revenue per Client 4,460
- 43% have Institutional clients
- 45% have HNW clients
- Employ around 5 staff

**Goals:**

- Outsource majority of services including investment management and back office services
- Most are invested in mutual funds and other large diversified funds

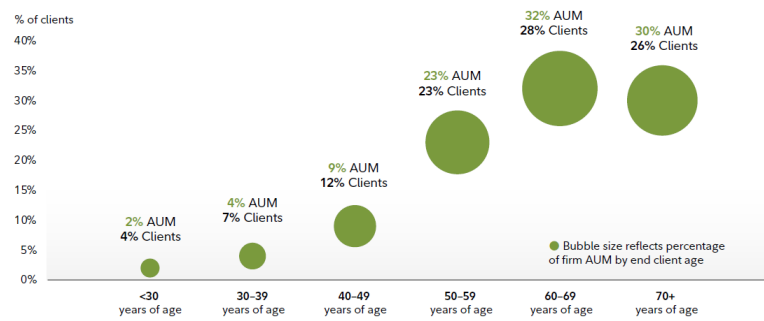
**Success Drivers:** Establish and retain personal relationships by demystifying investing.

increasing number of clients. Unlike Elite RIAs, Entry and Emerging RIAs have yet to capitalize on technological developments to enhance their product suite to enrich the client experience. As such, these firms tend to have less AUM and fewer HNWI coinciding with less revenue. The goals for these groups is to outsource their technology needs to increase their offerings.

Drilling down further into concentrations, approximately 85% of generational wealth is held by individuals 50 years of age or above. This means that firms are faced with new challenges as population shifts in the coming years.

When considering the largest trends for wealth in the future the onset of Digital Assets represents just one of the unique challenges presented to wealth managers. Amongst these products three market segments will compose of the largest clients to RIAs; two of which are differently influenced which may be indicative of a shift in generational wealth and investment trend.

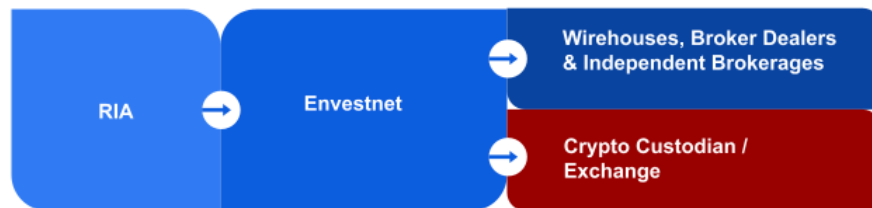
PERCENTAGE OF FIRM CLIENTS AND AUM BY CLIENT AGE



## Reviewing The Role of Technology

Investnet is a technology resource provider to RIAs. As a FinTech entity, Investnet partners with brokers/wirehouses while also competing with the same large banks, broker dealers, independent brokerages and other FinTechs including brands such as Orion, SS&C, JP Morgan and Merrill Lynch.

We utilize Investnet to describe the relationship between RIAs and exchanges within the FinTech ecosystem (pictured right). In the same essence in order to add crypto-products to it's RIA business line it would also need to utilize a crypto custodian / exchange in place of an in-house connection.



Technology is one of the most critical components to an RIAs ability to grow and scale. They use SaaS-based tools to conduct advisory tasks ranging from education, research and investment which are showcased on the right.

In reviewing the needs of RIAs through primary interviews, RIAs re-emphasized the need to address risk and conduct portfolio management which are not addressed currently in the market for crypto custody and price discovery because these fundamentals differ from traditional assets. Additionally Crypto unlike other securities requires infrastructure integrations beyond the traditional brokerage which due to RIAs reliance on software enablers creates opportunities for FinTech software providers.

**FIGURE 6: MOST VERSATILE\* CORE TECHNOLOGY SOLUTIONS**

	Elite RIAs	All Others
1	Risk Management	Portfolio Management
2	Portfolio Management	Portfolio Rebalancing
3	Account Aggregation	Account Aggregation
4	CRM	Risk Management
5	Compliance	Compliance
6	Financial Planning	Financial Planning
7	Document Management	CRM
8	Portfolio Rebalancing	Document Management

\*"Versatility" was determined by ranking each technology solution by how evenly distributed respondents rated it across the different perceived benefits it could provide to the firm.

**FIGURE 7: TECHNOLOGY SOLUTIONS WHERE TOP BENEFIT IS TO BOOST PRODUCTIVITY**

	Elite RIAs	All Others
1	Document Management	CRM
2	Portfolio Rebalancing	Portfolio Rebalancing
3	Portfolio Management	Fully-digital account opening

Thus when assessing time-to-market technology providers are generally better / equally positioned (compared to wirehouses / banks) to replicate the components needed to conduct research and analytics, practice management and investment modeling for crypto. For many firms this consists of using a Crypto integration partner via APIs, building investment strategies, connecting scenario planning tools and enabling RIAs through educational resources. These findings and more are further discussed in the Primary Interviews section.

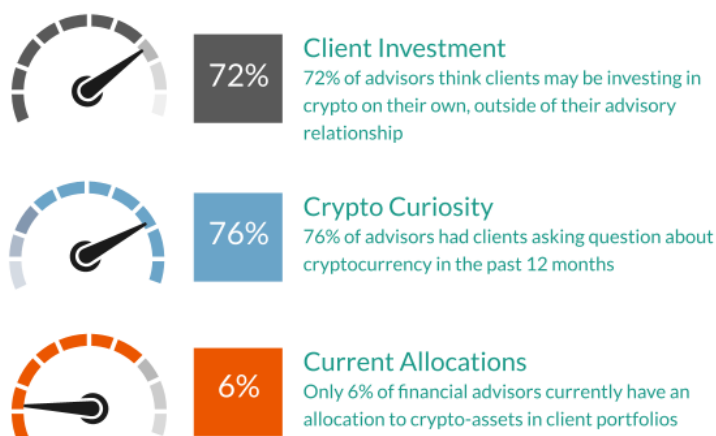
## Advisory Surveys

The team evaluated a number of surveys to abstract details that are most relevant to Wealth Managers. While the majority of existing research is still evolving, we took the best approach possible to gain a brief understanding of the existing marketplace while showcasing statistical representations which tend to focus on crypto-related advisory.

Since 2017, economic expansion, blockchain technology, and attractive investment features have driven interest in cryptocurrency (Nead, n.d.). In the last year, more than 70% of advisors have had clients inquire about cryptocurrency and more than 70% of advisors believe their clients are investing in cryptocurrency outside of the advisory relationship. Yet only 6% of financial advisors currently have an allocation to crypto-assets in client portfolios, which implies a gap between client interests and advisor recommendations (BlackRock, 2017).

For the bitwise survey of 1000 advisors, 24% of advisors own crypto in their personal portfolio, while less than 10% currently allocate crypto on their client's behalf. This number has increased by about 50% since 2019. That being said, 81% of advisors receive questions surrounding crypto and 74% believe clients are investing in crypto outside of the advisory relationship. All of which alludes to a gap between crypto interest and advisor's execution (Hougan & Lydon, 2021).

The survey by Gemini echoes what Bitwise found but on the client side which may include both advisors and retail investors. Overall, there is interest in crypto, but 63% of respondents that are interested in crypto cite they lack education resources. Of respondents who own crypto, only 4% are early adopters with their initial purchase being more than 5 years ago.



This trend is indicative of how crypto is growing and becoming mainstream with 68% of respondents purchasing in the last 2 years.

The average respondent heavily associates crypto with bitcoin. 95% of respondents have heard of bitcoin and 84% own Bitcoin with the closest alt coin being Ethereum. While even fewer respondents recognize other alt coins. This may be relevant later when thinking of crypto as a currency versus a technology and how different coins are more/less adaptable (2021 State of U.S. Crypto Report, 2021).

In evaluating advisory surveys there were several indications that there is a lack of knowledge around the use of cryptocurrencies and its technologies. In the next section we deep dive further into the motives of traditional RIAs to provide insight into why investment behaviors have not changed for this segment of the Wealth Management industry.

## Integration & Distribution

When considering integrations and distribution of digital assets, there are many solution providers that can facilitate exchanges. The team analyzed and/or interviewed companies (listed below) during the research process to understand the different strategies of early adopters based on preliminary discussions. Our methodologies considered whether or not crypto-curious participants represent the 'next generation' of wealth and advisory.

While the majority of survey insights showcased in the prior analysis indicate there is more interest in advisory participation; the team also found a significant number of surveys which indicate challenges of compliance which relay an opposing message that advisors either (a) do not intend to participate at all or (b) do not understand how to participate which presents an opportunity for technology providers, educators and various exchanges/funds to play a larger role in enabling trade execution, compliance and management of digital assets.



*Interpretation of Integration & Distribution Strategies for Crypto Advisory*

In further discussions we found that advisors and technology integrators that are considering bringing digital assets to portfolios can obtain synergy by identifying partners that help bring a balance to crypto-mindset in terms of culture, technology and investment style. RIAs often defer execution and custody towards banking/bank-like partners which manage allocation, volatility risk and educational resourcing. These attributes are discussed further in the Primary Interviews section (next), however given there are no one-size-fits-all solutions. We bucketed the general go-to-market strategy of crypto-currency advisory participants by ‘resource types’ to provide a broader view of products and services that are currently available on the market.

## Primary Interviews

Capturing feedback from primary interviews the team built upon prior industry research to develop personifications. We utilized a consultative approach to analyze user motivations, validate feedback and ask critical thinking questions to determine how RIA perceive / operate within the context of the cryptocurrency ecosystem.

As such, primary market research from RIAs in various phases of crypto adoption can provide valuable insights along the following themes:

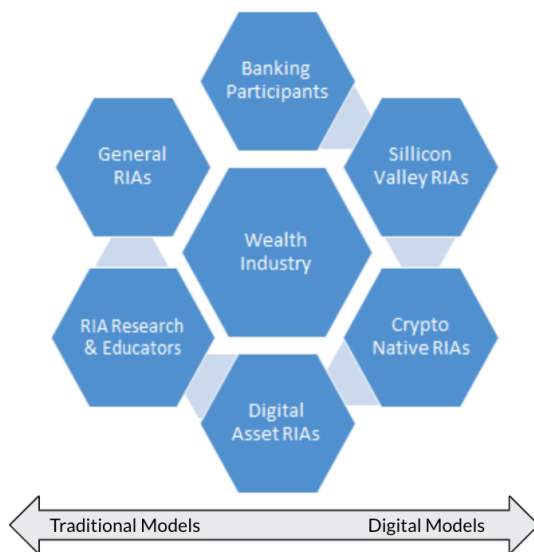
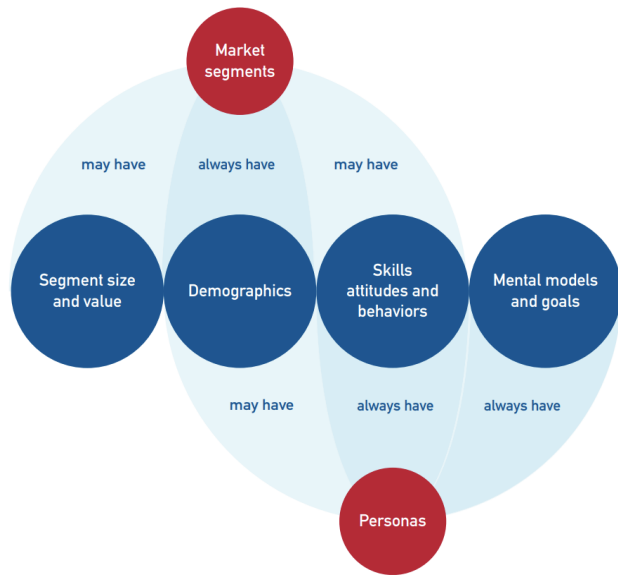
1. Do large main street firms participate in crypto?
2. How do RIA counterparts fit within this model?
3. How do institutions/advisors purchase and allocate crypto?
4. How does due diligence and regulations come into play?
5. What are the profitability drivers?



Personifications involve provisional studies and user interviews to determine the types of mindsets that exist in the market building characterizations of the traditional, digital, and cross-over combinations of the wealth management industry. This exercise is helpful as it allows companies to quickly build solutions and test with users during the product development phase. Using this technique, we showcase interview feedback starting with Traditional RIAs and conclude several industry examples.

Acknowledging the variety of challenges that come with identifying product-market-fit, target audience, their pain points and the specific problems that need to be solved; this exercise does not replace Market Sizing Estimates as crypto is a new market for the Wealth Management industry.

Based on this approach, we share several persona groups to illustrate the fundamental differences between RIAs that range from traditional to digital models in the asset management industry. There are six focal RIA categories: General RIAs, Digital Asset RIAs (with traditional field experience), Crypto-native RIAs (similar to customers of Bitwise & Greyscale), RIA Research & Educators, Silicon Valley RIAs (High-Tech Adopters I), and Banking Participants (High-Tech Adopters II).



Each personification built upon the prior beginning with the traditional models and extending into digital models where it best suits the needs of the client experience. These characterizations are created to help simplify research as the team looked for opportunities to gather best practices for industry participants which include Educators, Researchers and Banking Participants which serve as an extension groups to the General RIA, Digital Asset RIA & Crypto-Native RIAs.

### General RIAs

The business model of traditional RIAs has shifted over time from purely investment focused to a holistic client approach that includes



advising on debt, properties, charitable interest, and estate planning. Clients for this RIA model typically initiate the conversation with a focus on long term financial planning and retirement. Traditional RIAs utilize tried and true portfolios selected based on individual client needs, which are often low risk profiles to ensure the client can achieve their retirement goals over time. General RIAs tend to have a risk averse approach towards crypto due to the lack of available education / research around the technology/currency. Due to the difficulty of building crypto strategies into their current portfolios RIAs that rely on the traditional model approach are inclined to avoid crypto. For this group of RIAs, education around the functionality of blockchain technology and crypto is the first step to support the transition to include cryptocurrency in client portfolios.

### Digital Asset RIAs

Digital Asset RIAs have traditional field experience but have already begun expanding into the digital space. With a traditional background, these RIAs advise on assets such as stocks, bonds, and metals and incorporate digital assets into their client portfolios. Digital Asset RIAs have done the work on the backend to understand blockchain technology and believe it will be beneficial to the financial ecosystem. At the very least, this group understands the discretionary nature of helping clients learn and consume alternative assets. While Digital Asset RIAs have found ways to integrate cryptocurrency into client portfolios, there are challenges in building and integrating solution suites that enable the introduction of new product lines, like crypto to the wider advisory market. A single integrated suite allows for the streamlining of processes like risk management, taxation, and reporting, which affords companies the opportunity to forge economies of scale and expand growth potential. For this group of RIAs, the next step to support widespread use of cryptocurrency is procuring the technology/app/capabilities which are similar in nature to how Elite RIAs achieve scale and manage risk.

### Crypto-native RIAs

Next as we transition from the Traditional to the Digital side of RIAs are Crypto-native RIAs. Unlike the other two category groups, these RIAs take a digital/crypto first approach to investing in the wealth ecosystem largely investing in trends such as NTF, Alt Coins, Lending, and DeFi Assets. A key perspective among these RIAs is viewing crypto as a technology opposed to a currency. Under this lens, crypto delivers more utility and therefore is expected to revolutionize this space. Crypto-native RIAs encourage 1-5% crypto allocation to round out portfolios. It is believed that anything below 1% is too little to have an influence while above 5% creates too large of an impact on the overall portfolio, measured by the Sharpe ratio. A benefit to incorporating crypto in a portfolio is the enhancement of diversification since it is a non-correlated asset class. This allows for differentiated portfolio performance and therefore a distinguished client experience. As such, through volatility harvesting, incorporating crypto increases returns without increasing risk if the portfolio is rebalanced. For this group of RIAs,

the primary concern with crypto utilization is having the experience and ability to rebalance portfolios to ensure ideal growth is achieved.

### RIA Research & Educators

Within the framework of RIAs, it is also important to consider the viewpoint of those in research and education across the RIA industry. These resources look at the industry holistically to identify and address concerns. RIA Research & Educators are an important link to the RIA business model and serve as an educational resource to help RIAs demonstrate compliance and conduct research showcasing some level of due diligence while investing. Supporting RIAs in the tech-assessment process RIA Researchers in the crypto-space tend to acknowledge the significance of tech and infrastructure to recognize the full benefits of crypto expansion. In addition they may provide advice to RIAs on new approaches to incorporate crypto generating risk and investment frameworks to optimize returns, evaluate client risk tolerance and build a portfolio. In discussion with RIA Research & Educators highlight gaps where clients of RIAs are investing in crypto independent of their advisor which represents transactions that would otherwise have support of an advisor when it comes to tax loss, harvesting, rebalancing, access to ETFs, and other advantages that come with an advisor or managed service. In discussion this appears to be a key concern as RIAs who have clients that are engaging with digital assets. Many clients may take this bypass as an opportunity to funnel clients interest towards RIAs that are better suited to manage crypto volatility along with the traditional suite of services.

### Silicon Valley RIAs

Silicon Valley RIAs are in a league of their own wielding the “start-up” mindset with early knowledge of crypto technology and its cutting-edge potential. These RIAs are best suited to identify investment trends driven by the tech industry and can focus on scalable and emerging technologies much like the FANGs. Silicon Valley RIAs are more business oriented opposed to the individual orientation of previously mentioned RIAs. These RIAs envision the future applications of the multi-purpose architecture of blockchain and other protocols for an array of industries. This enables Silicon Valley RIAs to monetize these assets in various stages of growth. With venture capitalists having invested over \$17 billion in blockchain in 2021, the sector is clearly growing as the number of accredited investors and family funds are increasing participation. For this group, longevity is the central focus of crypto interest and most are investing through private placement structures.

### Banking Participants

In addition to RIAs, banks are also entering the crypto space on behalf of high net worth clients, RIAs or as a part of the trade desk. Private wealth / hedge funds have been allocating and trading crypto assets. Client assets that exceed 2 million, companies such as Morgan Stanley began offering it to clients (Mason, 2021). In interviews with compliance teams we were informed that crypto has become increasingly part of the portfolios of these large funds. Since

these holdings are private forms of investment, they report to private investors in the same way other assets are reported and because they are not registered securities it does not need to be reported to the SEC. Banks currently participate in alternative assets, crypto not being any different. Trade desk professionals actively trade crypto and are part of the bank short term investment activity. As broker dealers they look for arbitrage opportunities and volatility trading crypto provides possibility of returns. They also act as dealers looking to bring about new investment products to their clients. The banks generate additional earnings and can increase the basis points earned, greater than other less active positions.

## User Persona Findings

Analyzing the attributes and needs of a variety of participants within the wealth ecosystem there are several opportunities that may satisfy RIAs. While many RIAs prefer historical performance, Crypto being a technology innovation that has existed for a decade warrants review where firms should consider the short-term and long-term value propositions to the RIAs and its client. As crypto is an emerging trend among others, technology enablers should consider what is the right strategy to guide RIAs and how does crypto compare with other trends. In discussion with digital-leaning RIAs, crypto can be part of a diversified investment decision however for traditional-orientated models it can be treated equally among all other emerging trends such as (1) ESG, (2) Millennial, (3) Investing (4) Women and Wealth Transfer, (5) Globalization; all of which will play an important role in the years to come.

Considering the Go-To-Market approach, platform technology firms will also need to consider what role they play with RIAs. Whether they are technology facilitators or technology enablers for RIAs. As enablers, introducing new technologies/investments to market such as crypto for RIA participants to access with in-depth knowledge and tools that are able to increase returns. With insights into customer profiles and mindsets firms are able to determine market segmentation and opportunity sizing to determine the correct product market fit. Our recommendation places emphasis on offering education packages and managed services for traditional RIAs as they decide what is best for their investment approach to manage risk for clients. This realizes new opportunities for the RIAs and the platform without the need for endorsement given many RIAs are collaborating with banking partners realizing the crypto-opportunity or ensuring their clients do not bypass them.

# Financial Valuation

## Overview of Financial Valuation

As Part II of III, corporate valuation deals with quantifying the enterprise value for a particular business and its cash flows. Our analysis reviewed the potential loss of customers and/or assets under management based on future business decisions. This section is applicable to technology providers, banks and wealth management conglomerates that are seeking to build internal rationale for supporting the digital asset industry as a part of their business line. By modeling the revenue drivers, market risk, and opportunity cost from the financial statements and market research, executives can advise on how much of a project-based investment should be made towards a particular initiative, such as Cryptocurrency.

To understand potential motives / risk for adding digital assets to a product line in the Wealth Management industry we investigated companies that provide service-based solutions to RIAs. We build this knowledge by breaking down the Market Structure and its participants before developing the competitive landscape. Wealth Management executives will benefit from understanding the competitive viewpoints / synergies which we have distilled from the industry's complex siloed structures to model different scenarios adapted from the valuation approach using Envestnet as the case study.

We continue to build on the financial analysis as a means to better understand the role of technology and how it applies to Envestnet's RIA business line and similar companies given there are shared competitive/profitability challenges. The first approach utilizes several data points to estimate potential impact to stock price such as Return on Invested Capital for project-based investments. We then take a look further into the capital structure to cross-validate. In doing so we can gauge whether project-based investments affect RIAs ability to grow and scale through the use of SaaS-based tooling which emphasize the need for advisors to address risk, conduct portfolio management and produce reporting of gains/losses.

With the fundamentals in place we then conduct a further assessment of scenarios dealing with the potential volatility of crypto to understand the potential impact to earnings per share. The majority of this analysis takes in consideration Discounted Cash Flows which serve as an anchor point towards finding a relative valuation associated with AUMs and potential pricing strategies for both negative and positive outcomes using scenario analysis.

Lastly, given valuation limitations we conducted a relative comparison across the Wealth management industry by identifying adjacent firms/organizations that also provide RIA services. While not all firms can be considered equal in terms of services /products, we implement a

service cost ratio that as a framework uniquely enables the team to measure Economies of Scale which may be indicative of each firm's technology efficiency, pricing efficiencies, market capture / size and product depth. In taking note of the sheer size of the wealth industry we attempt to break down the RIA servicers, which range from wirehouses, independent broker / dealer firms, insurance firms, bank-based broker dealers and FinTechs to help further contextualize the comparisons based on the total cost of servicing.

To reiterate the intent of the valuation analysis is not to advise on potential financial investments but to explore the incentives in the existing marketplace and understand tech-driven behaviors such as the incorporation of Digital Assets in the wealth management industry using Investnet's financial statements as the candidate case study.

## Market Structure & Market Participants

As the RIA market is not black & white, we begin the financial valuation with a brief viewpoint on the market structure to define who are the market participants. These concepts are critical to understand financial modeling scenarios that are later showcased as we utilize the market structure to model against similar companies that provide services to RIAs.

The industry has a wide range of clients with specific needs, diverse investment strategies, and different fee allowance thresholds. The majority of incumbents (non-banks) tend to focus on expanding the size of its 'pie' given the nature of advisor firm exits. Wealth Management executives and technology-enablement firms can also benefit from these financial scenarios which link the personifications to the technology/digital-asset play in order to capture more market share.

To showcase the competitive landscape we segment the wealth management industry by wirehouses, independent broker-dealer firms, insurance firms, bank-based broker dealers and fin-techs. Each of these operate differently and are further defined below:

1. **Wirehouses** are typically full-service broker-dealers and range in size from small brokerages to large global institutions, like Merrill Lynch, Morgan Stanley, Wells Fargo and UBS. As a full service organization, most wirehouses offer brokerage services, research, investment advisory, financial planning, banking, custody as well as investment banking on behalf of clients which may also include extending services to RIA firms.
2. **Independent Broker Dealers (IBD)** provide back-office, operations and business support for financial advisors looking for a greater range of flexibility in how they offer their services. Generally since an IBD does not offer the same kinds of additional services to advisors such as LPL, Advisor Group, Cetera and Buckingham that also allows them to

pay out a high rate to advisors for their fees. Advisors that work and IBDs can get access to research, platform services and banking products through third parties. The primary players that come to mind are LPL Financial, Advisor Group, Cetera and Buckingham.

3. **Insurance Firms** primarily focus on insurance products however, there are many firms that also provide wealth management services through their reps. These firms generally look and feel very similar to a wirehouse since they have research resources and the relationship between these large insurance firms, their reps and clients also resemble the wires. The main difference is that the larger insurance firms will not have banking services the same way the wirehouses. Northwestern mutual, prudential securities seem to best represent this segment.
4. **Bank-based Broker Dealers** e.g, Retail Banks also offer wealth management services through a registered rep that works in the office as opposed to a completely segregated wealth management office. Examples include TD Wealth, PNC, Wells, Chase Private Client, Key Bank
5. **FinTechs within the RIA Segment** are interchangeably referred to as WealthTechs, Turnkey Asset Management Program (TAMPs) and other RIA Servicers.
  - a. FinTechs / WealthTechs enable wirehouse integrations through SaaS-based tools which enable investment and portfolio management services to the wealth ecosystem; with a predominant focus to the ‘Independent Advisor Networks’ segment an internal-term coined by Envestnet. These advisor networks allow RIAs to conduct business outside of an investment firm as an independent entity.
  - b. A TAMP allows independent financial advisors, typically fiduciaries, to outsource the management of some or all of their clients' assets, where the use of software and financial advisory consultants/ private-services allows non-traditional investment advisors to participate. More recently, Certified Public Accountants (CPA), law firms, and banks are also using TAMPs to enter the financial advice marketplace.

## Competitive Landscape

Within the context of RIA Services there are many varieties of firms that operate in the world of wealth management. The main difference between Wall Street and other incumbents that service RIAs is that banks tend to have a wirehouse whereas non-banks form integration partnerships for trade execution and other services. The advent of FinTech introduces numerous business models given the span of investment products and strategies. As a result there are many

iterations within these models however, with each configuration comes other advantages such as product availability, investment strategies, size / influence, platform capability, pricing and/or market insight.

Below is a competitive landscape that closely models similar companies and competitors using Persona Research for both public and private entities. This can be leveraged to better understand the market participants and can be taken a step further by incorporating competitive advantage. In the next few sections, we will take a closer look at financial ratios to better understand relative valuation of these identified companies and competitors in the RIA services space. Figures reflected are listed as AUMs however, not all of these are likely to be managed accounts as defined by Cerulli, a source the team discovered after the completion of the project.

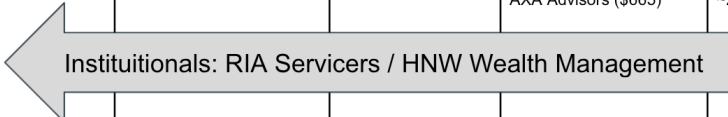
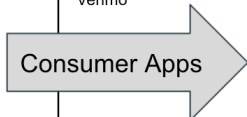
Wirehouses	Independent Broker / Dealer Firms	Insurance Firms	Bank-based Broker Dealer & Other Financials	FinTechs (RIA Services)	Consumer FinTech (examples..)
Goldman Sachs (\$2.14T)	LPL (\$1T) Advisor Group	AXA Investment Managers (\$665B)	TD Wealth (\$1.3T)	Envestnet (\$263B AUM / 1.2T AUA)	Robo-trading: WealthFront
JP Morgan (\$2.71T)	Cetera (\$25B)	MetLife Investment Management (\$659.6B)	PNC Wells Fargo	Orion (\$1T) Addepar (\$1.7T)	Exchanges: Coinbase Gemini
Morgan Stanley (\$3.73T)	Buckingham (\$37B)	Northwest Mutual (\$132B)	Chase Private Client Key Bank	SS&C / Black Diamond (\$13T) ~2019 InvestCloud (\$4T)	Funds Greyscale BitWise
RBC (\$632B)		Allianz Global Investors (\$77B)	Fidelity (\$2.42T) Charles Schwab (\$1.85T) Edward Jones (\$1.1T) Raymond James (754B) AXA Advisors (\$665)	Dynasty Financial Partners \$50B? Altruist (\$650B) DriveWealth \$843M ~2021 Edelman Financial Engines (\$260B) ~2021	Trading Platforms: Robinhood Webull IKBR  Payments: Paypal Venmo
				SEI (\$66.7B) AssetMark (\$57.9B)	

Exhibit VI

The market remains highly competitive with the introduction of digital technologies and SaaS-based servicing models which make it possible for Wall Street / firm-based investment advisors to set up their own independent shop. Advisor transfers are common in the field and can have tremendous impact to the AUMs to the balance sheet. The industry has seen many examples of advisor teams leaving major banks or wirehouses to start up their own RIA business - bringing with them billions of AUM (Martin, 2021). Depending on the profitability model, technology-enablers and FinTechs can seek to increase (or reduce attrition) their business by servicing these advisors as they venture into the independent market.

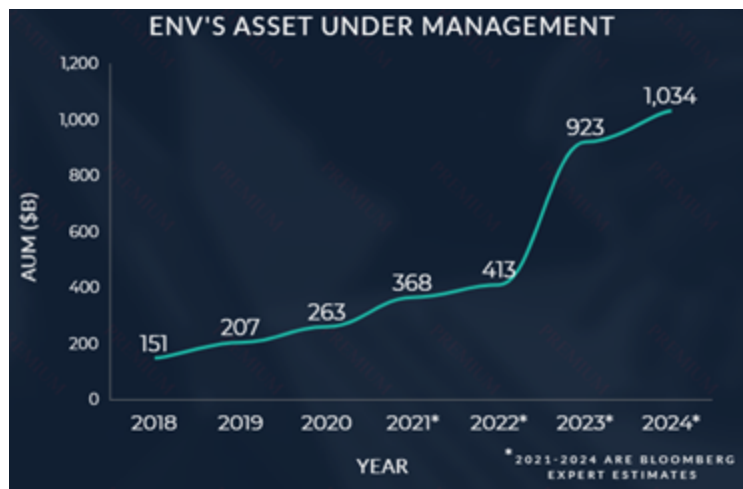
## Envestnet's Financial Performance

Envestnet (Ticker: ENV) generates the majority of its revenue through charging fees based on the market value of assets managed on its platform by its clients, the financial advisors and through licensing its technology. ENV generated around 55% of its total 2020 revenue from assets under management (AUM) or assets under administration (AUA). The remainder of its revenue came from subscriptions for its platforms and professional services (Bloomberg, 2021a)

According to the latest fiscal year 2020, ENV reported a net loss of \$3.1 million (GAAP), which is an 82% improvement compared to 2019's net loss of \$17.2 million. Over the course of the past five years ENV has reported a net loss in four of the past five years (Appendix 1). It is believed by some that the drivers for the net losses may be associated with past acquisitions such as Yodlee, a leading financial data aggregation and analytics platform made by the firm in prior years. While these activities may have increased the size of the firm, a deeper look into the timelines for forward earnings outlook as aligned to the investment thesis is required to determine when such investments should generate returns and realize value for shareholders.

Having eliminated the potential for a crypto-company acquisition from the project scope, we redirect our focus to potential impact to cash flow on the basis of a crypto-product integration. Which hasn't restricted growth as the investments in operating working capital has increased steadily over the past 5 years (Appendix 2). The company is still considered in its growth phase, as it seeks to increase its primary revenue drivers and assets under management (AUM).

ENV's platform AUM currently resides at \$253 billion (Appendix 3) and is expected to grow dramatically over the next few years (Bloomberg, 2021b). Bloomberg expert analysts expect AUM to steadily grow to \$1.034 trillion by 2024 (Appendix 4). While the team found these numbers to be on the higher-end of potential estimates we did not dig further as our main efforts were focused on assessing collective risks associated with the Envestnet business model and the incorporation of crypto. With a fundamental understanding of the financials we dig further into the implication of these capital structures.





## Return on Invested Capital

Financial spread can be defined as the Return on Invested Capital (ROIC) minus the Weighted Average Cost of Capital (WACC) and is a measure of risk, funding, and investment productivity. Below you can see ENV's ROIC of 3.46% relative to similarly publicly traded peers which average 6.11% (weighted by market capitalization). This gives us an indication that the street is less likely to react to small enhancements to the product suite that do not increase revenue. Similarly, a higher WACC of 9.77% vs. 7.22% to publicly traded peers implies that funding is more expensive to obtain and investors are more likely to respond negatively to changes in project investments that go beyond the company's typical cash flows (Damodaran, 2007).

Name	Ticker	Mkt Cap	ROIC	ROIC:Y-1	ROIC:Y-2	Tot Inv Cap	WACC	AUM	P/E	EV / EBIT
Market Cap Weighted		222.83B	6.11%	6.70%	6.45%	454.23B	7.22%	2.33T	23.84	24.97
ENVSTNET INC	ENV US	4.20B	3.46%	0.61%	2.53%	1.89B	9.77%	263.04B	82.87	56.64
JPMORGAN CHASE & CO	JPM ...	461.01B	5.17%	4.62%	4.22%	979.34B	6.00%	2.72T	10.12	--
MORGAN STANLEY	MS US	181.96B	2.56%	2.09%	1.99%	512.48B	4.59%	781.00B	13.10	13.84
ROYAL BANK OF CANADA	RY CN	145.09B	4.21%	4.34%	4.75%	302.28B	7.60%	632.43B	13.23	--
BLACKROCK INC	BLK US	138.43B	11.17%	10.65%	10.52%	49.35B	10.97%	8.68T	24.93	16.78
GOLDMAN SACHS GROUP	GS US	138.42B	2.57%	1.75%	2.04%	635.41B	3.19%	2.14T	7.03	14.61
SCHWAB (CHARLES) CORP	SCHW...	134.16B	7.21%	12.91%	10.46%	74.04B	8.27%	--	25.89	10.62
BLACKSTONE INC	BX US	132.68B	11.32%	15.20%	12.69%	19.74B	11.46%	618.56B	16.54	28.59
BROOKFIELD ASSET MGMT	BAM/...	85.80B	2.26%	3.67%	4.04%	295.54B	5.67%	601.98B	139.50	32.05
FIDELITY NATIONAL INVEST	FIS US	79.60B	1.73%	1.52%	5.61%	74.17B	8.92%	--	57.70	73.18
T ROWE PRICE GROUP	TROW...	48.22B	24.04%	24.24%	25.71%	9.45B	10.59%	1.47T	16.76	12.39
SS&C TECHNOLOGIES INC	SSNC ...	19.15B	6.77%	5.64%	3.71%	12.57B	9.65%	--	26.48	23.21
RAYMOND JAMES FINANCIAL	RJF US	18.27B	10.57%	10.67%	8.96%	11.05B	9.36%	153.10B	14.21	7.12
SEI INVESTMENTS COMPANY	SEIC ...	8.54B	19.09%	20.95%	22.73%	1.84B	12.33%	368.66B	17.71	16.69
APPFOLIO INC - A	APPF ...	4.30B	2.84%	20.97%	16.98%	338.43M	12.15%	--	--	539.46
ASSETMARK FINANCIAL	AMK ...	1.95B	-0.68%	-0.04%	3.48%	1.16B	12.34%	74.52B	108.97	104.58
TD AMERITRADE HOLDINGS	AMTD...	--	19.06%	14.99%	10.64%	12.52B	7.68%	--	--	8.89

### Exhibit VII

Positive spreads are indicative of competitive advantages in sales/project execution and capital cost. In acknowledgement of ENV's negative spread of -6.31% to become more efficient with investments the firm can either focus on cutting low-ROIC projects or identifying higher-ROIC opportunities such as evaluating the revenue potential for adding crypto to its product line (discussed in the next sections).

The two major drivers of ROIC are Operating Margin (profitability) and Invested Capital relative to Sales (efficiency). Increased expenditure in working capital (operational investment) makes financial sense for a company with a positive spread. Thus, ideally ENV needs to see an increase in ROIC or a decrease in WACC to consider an investment in a new platform asset class – such as cryptocurrency. Fortunately, many investors categorize ENV in the growth stage with a future expected positive spread.

While a negative spread and current reported net losses (GAAP) might prompt ENV to decrease investments and focus on cutting negative-ROIC projects; we view ENV as a growth stage company which makes strategic investments and product development necessary. This is supported when looking at ENV's 'Price to Earnings' ratio (P/E) of 82.87 (Bloomberg, 2021d). P/E is a commonly utilized ratio by analysts and is a calculation of ENV's stock price relative to its 'Earning per Share' (EPS). P/E can be used as an indicator of how much investors are willing to pay for a share of the company based on predicted future earnings. ENV's P/E ratio of 82.87 is high relative to its publicly traded peers (Appendix

8) and is a signal that investors are willing to pay a higher price today because of expected growth. This claim supports the narrative that ENV’s current negative spread (ROIC-WACC) is expected to turn positive if the correct actions are taken to increase AUM revenues.

## Capital Structure | ROIC Tree

Details on ENV’s ROIC from 2016 to 2020 are explained further through capital structures using comprehensive quantitative analysis and comparisons to continue building on value fundamentals.

A Return on Invested Capital (ROIC) Tree is a tool used to break down key components of a company’s free cash flow, based on invested capital into the business (Exhibit VIII). A ROIC Tree was constructed based on ENV’s financial statements from the 2020 financial statement (Bloomberg, 2021c). The major drivers of ‘End-of-Year ROIC’ are ‘Operating margin’, ‘Invested Capital’, and ‘Tax Rate’. The relatively large ‘Invested Capital / Sales’ confirms ENV’s initiative to grow, regardless of current profitability. The historic negative ‘Operating Margin’ is concerning at first, noting the End-of-Year ROIC & Operating Margin, thus negative spread for 2015 acquisition of Yodlee - a deviation that isn’t expected to persist in future years. The tax rate does not play a key role in this analysis given the net losses in prior years. It can be inferred that ENV should focus primarily on increasing its ‘Operating Margin’ through the introduction of positive-ROIC investments and higher margin products.

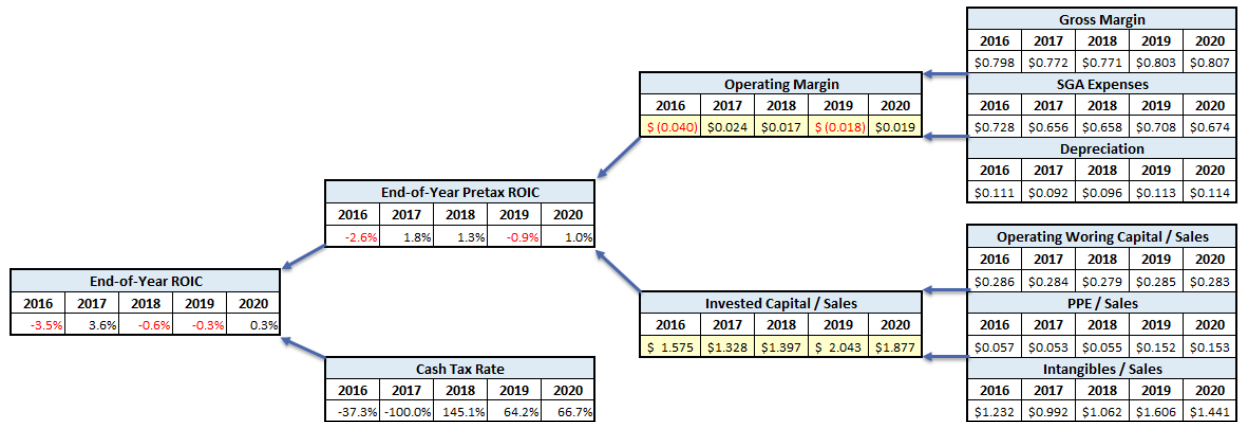


Exhibit VIII

Similarly, a common ‘Enterprise Value’ analytical tool used to value a company is a Discounted Cash Flow (DCF) model, which values the worth of the sum of future cash flows, discounted based on risk. This model is helpful to quantify the volatility risk of free cash flow and helps investors price out the stock price based on market value. Refer to Appendix 6 for the ‘As-is’ model that replicates ENV’s current valuation in the market today – resulting in a stock price of \$74.94. It is worth noting that this model assumes positive Free-Cash Flows for the foreseeable future. This model will be used next to quantify the volatility risk of potential investments such as cryptocurrency.

## Scenario Modeling | Market Response to Crypto

Predictive valuation relative to crypto-products is based on future cash flows which are heavily influenced by risk and volatility. A key metric of a public company's volatility is its market 'Beta'. A beta reflects a company's systematic risk relative to the overall market – in this case, we will use the S&P 500 index (SPX). A company's beta is a factor to better understand if a company's return is correlated with the market and to what degree. ENV's beta as of August 2021 was 1.17 which means ENV is slightly riskier than the overall market, but in general, will parallel SPX returns. See Appendix 7 for a Bloomberg screenshot of ENV's returns in relation to SPX's for the past 2 years. This risk measure provides comfort that ENV will not undergo dramatic swings in stock price outside of the market norm.

Given the current volatility of most cryptocurrencies, it is essential to predict the impact of the introduction of crypto as an asset class. The DCF model is a quantitative predictor of profitability and growth and can easily be replicated for specific scenarios. Annual AUM revenue is a substantial factor of ENV's overall Enterprise Value, which is transformed into share price by dividing it by shares outstanding. This is critical for revenue growth as AUM revenue can be increased through:

1. Increasing AUM through the acquisition of new clients or more investments per client
2. Increasing the annual Asset Management Fees charged on AUM, articulated in basis points (.01%)

Through the replication of 12 market based volatility scenarios, we can quantify the impact to stock price based on the compounding effect of market value rise/drop of AUM using the DCF model. It is important to understand these isolated DCF models only factor in the increase/decrease of the market value of AUM based on cryptocurrency volatility and do not reflect actual investor thoughts. ENV's revenues do not fluctuate based on the underlying assets' price; rather, it is based on commission on the overall AUMs.

The 12 models range from AUM's underlying asset allocation of cryptocurrency from 0% to 10% - as RIAs advise against clients investing more than 10% of their overall portfolio in this volatile asset class. The cryptocurrency price movement fluctuates from -40% to 40% which is reasonable given current market conditions.

The most disastrous scenario, Model #10, shows an isolated scenario where 10% of

ENV's client's portfolios are invested in cryptocurrency – which drops 40% in the upcoming year. This

DCF Model	% of AUM in Crypto	Crypto Movement	ENV Market Cap	ENV Stock Price	Change in Price
1	0%	0%	4,078,350,671	\$ 74.94	\$ -
2	1%	-40%	4,074,903,709	\$ 74.88	\$ (0.06)
3	1%	-20%	4,076,628,788	\$ 74.91	\$ (0.03)
4	1%	20%	4,080,069,367	\$ 74.97	\$ 0.03
5	1%	40%	4,081,784,886	\$ 75.01	\$ 0.06
6	5%	-40%	4,060,986,793	\$ 74.62	\$ (0.32)
7	5%	-20%	4,069,709,192	\$ 74.78	\$ (0.16)
8	5%	20%	4,086,912,482	\$ 75.10	\$ 0.16
9	5%	40%	4,095,395,850	\$ 75.26	\$ 0.31
10	10%	-40%	4,043,294,082	\$ 74.30	\$ (0.64)
11	10%	-20%	4,060,986,793	\$ 74.62	\$ (0.32)
12	10%	20%	4,095,395,850	\$ 75.26	\$ 0.31
13	10%	40%	4,112,132,033	\$ 75.56	\$ 0.62

Exhibit IX

causes the AUM to drop from \$263M to \$252.48M which has a compounding effect on future free cash flows. This results in a decrease in Enterprise Value of \$35.1M and a decrease in the share price of \$0.64.

While this valuation impact is undesirable, it is not catastrophic - given a business model based on commissions. It's critical to understand that the decrease in market value of clients' AUMs have a minimal impact on the overall revenue mechanics. Relative to other business decisions, the risk of the introduction of cryptocurrency is minimal given the potential opportunity cost of forgone AUMs.

Alternatively, we can scenario model the potential beneficial side of introducing cryptocurrency as a premium asset investment for RIAs - this is also an opportunity cost if ENV decides to forgo this initiative. Cryptocurrency can be offered through partnership structures where the commission fee (in basis points) can be shared with the client (RIA, broker dealer, etc.). We propose a 5-10 basis point increase in asset management fee for adding additional servicing fees to allow RIAs to incorporate crypto into their clients' assets class.

We can amend our DCF model scenarios to account for the potential increase in AUM (a new market of crypto investors) and/or the increase in the asset management commission fee. This change will have a substantial impact on the share price as these inputs directly factor in the AUM revenue structure.

For the new set of isolated scenarios, ENV enjoys more material and a beneficial impact, profitability effects on the stock price. For example, scenario #4 explains a realistic scenario where AUMs increase from \$263B to \$300B due to new crypto investors seeking ENV's services. The annual blended asset management fee increases 4.43bps (0.0443%) as ENV can charge a higher rate through the introduction of a new asset class. This scenario of increased AUM revenues will compound over the years, leading to an increase in the stock price of \$2.09.

DCF Model	AUM (in \$M)	AUM fee (bps)	ENV Market Cap	ENV Stock Price	Change in Price
1	263,043	20.56	4,078,350,671	\$ 74.94	\$ -
2	263,043	25.00	4,247,025,413	\$ 78.04	\$ 3.10
3	263,043	30.00	4,404,925,762	\$ 80.94	\$ 6.00
4	300,000	20.56	4,191,719,373	\$ 77.03	\$ 2.09
5	300,000	25.00	4,360,956,201	\$ 80.14	\$ 5.20
6	300,000	30.00	4,517,978,481	\$ 83.02	\$ 8.08
7	400,000	20.56	4,440,756,746	\$ 81.60	\$ 6.66
8	400,000	25.00	4,607,640,907	\$ 84.67	\$ 9.73
9	400,000	30.00	4,759,949,266	\$ 87.47	\$ 12.53

Exhibit X

Some may challenge that these types of scenarios do not occur in isolation - rightly so. There are other risks, costs, and challenges associated with a decision this complex. The takeaway, however, is that cryptocurrency volatility plays a minimal impact on ENV's enterprise value relative to the opportunity cost of introducing cryptocurrency as an assist class for RIAs allowing the company to grow.

## Pricing Economics | Service Cost Ratio

In this analysis we wish to compare a Service to Cost Ratio, which demonstrates pricing economics compared to scale (measured in AUM). While not all competing firms are of the same size,

this ratio allows us to select firms for comparison that provide asset management services for RIAs, HNW, Family Offices, Hedge Funds, etc.

The below analyses provide a deeper insight into how RIA servicers perform amongst peers of varying sizes (by AUM) and whether that may carry over into advantages such as capability, pricing, and/or influence. It encompasses data on similar firms both publicly traded and privately owned.

The 'Service Cost Ratio' is a simple blended rate of the total 'Asset Management Fee' divided by 'Assets Under Management' - both pulled from each company's 10K financial statements and validated via Bloomberg or a 3rd party source (Bloomberg, 2021c). While this ratio may not be entirely consistent across competitors, it is a good representation of business model efficiency - in that, how much revenue can the firm generate via its AUM. Refer to Appendix 9 for a more in-depth analysis of industry peers and their financial characteristics. The below numbers are the blended commission in basis points (bps), i.e. 47 represents the firm generates, on average, 0.47% of its AUM in annual Asset Management Fees.

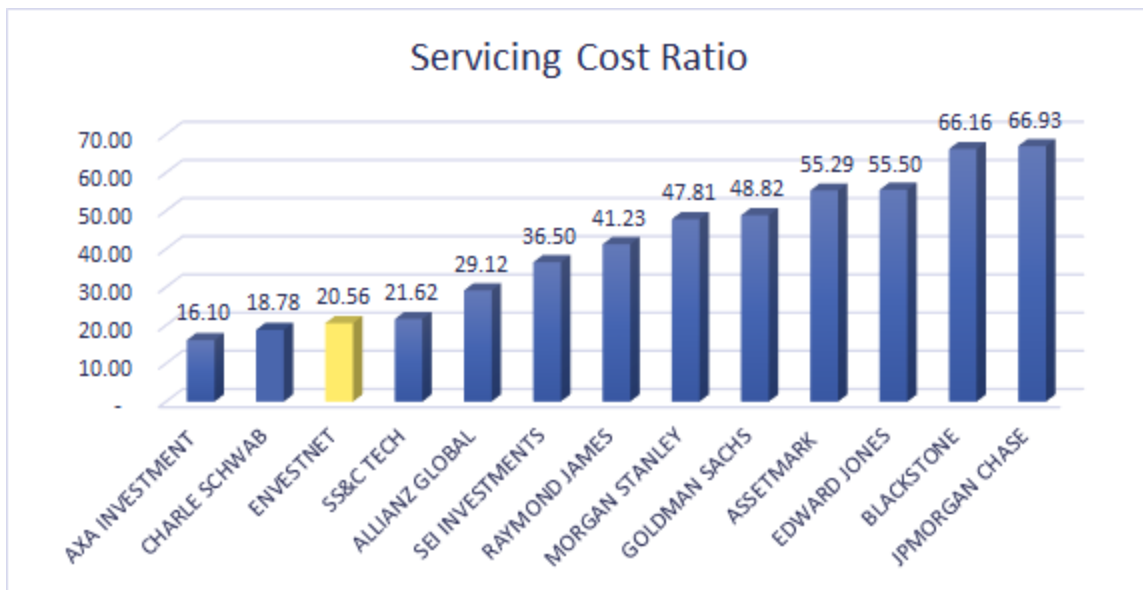


Exhibit XI

After graphing relevant competitors with accessible ratios, it can be quickly inferred that ENV and other fintech servicers are on the left side of Exhibit XI - portraying a lower average commission fee relative to industry peers. These fintech servicers demonstrate signs of an economies of scale, in that, they have less overhead than many of the larger wirehouses (JP Morgan Chase, Blackstone, Goldman Sachs, etc.). Fintechs have the ability to provide lower cost services when compared to other market participants which is attractive for RIAs and investors alike.

There are two opportunities for ENV to leverage this below-average service cost ratio to potentially increase AUM revenues. Primarily, ENV can potentially increase its commission fee for certain clients through the introduction of new, premium investment opportunities - such as

cryptocurrency. While not all RIAs are currently interested in this asset class, ENV will inevitably introduce other enhancements that warrant an increased servicing cost to RIAs.

Secondly, ENV can utilize this below-average servicing cost to attract RIA clients from competitors. The previously explored market structure informs us that ENV should focus on increasing the size of the pie, rather than increasing its slice of that pie. Through these two recommendations, ENV can potentially increase its return on investment capital, resulting in an increased bottom-line.

## Key Findings & Recommendations

In conclusion, for ENV to improve its financial performance, it could focus on increasing AUM revenue, as it accounts for 55% of the top line. ENV can increase its enterprise value through the continued investment of positive-ROIC projects and initiatives. Investors are expecting growth through continued or increased operating working capital long-term. Cutting non-ROIC projects can be beneficial as well.

One potential means of accomplishing positive-ROIC projects would be the incorporation of crypto assets. Cryptocurrency volatility plays a minimal role in stock valuation & has an opportunity cost if it becomes a medium of exchange (digital fiat), store of value, and unit of account. Another alternative would be to focus on enlarging Envestnet's AUM, by expanding the overall RIA market and being attractive as an early technology enabler. Similarly, given Envestnet's economies of scale & servicing cost ratio relative to competitors, Envestnet can increase the commission rate charged for certain clients and have better margins.

# Crypto & Wealth Management Ecosystem

## Overview of Crypto & Wealth Management Ecosystem

To conclude our research we build upon the prior segments to introduce the Crypto & Wealth Management Ecosystem as Part III of III. This section is applicable to Wealth Managers and Registered Investment Advisors (RIAs) that are seeking to build a better fundamental understanding of the digital asset industry. By focusing our research on the needs and questions posed by wealth advisors, our analysis provides a ground up framework specifically built to assist wealth advisors as they navigate the nuances of cryptocurrencies and their effects on the existing financial ecosystem.

The traditional financial ecosystem is based upon a co-dependency between a currency/asset and the payment system which comes in the form of a government or financial institution that serves as a trusted mediator of custody/value. With the incorporation of Bitcoin and other cryptocurrencies we explore digital assets from the context of a Wealth Manager to build on the exigency presented by Digital Transformation and the implications of Digital Assets as it pertains to the wealth ecosystem.

Bitcoin was initially known as a peer-to-peer payment system operated on blockchain technology cited by Satoshi Nakamoto in a 2008 proposal as “... an electronic payment system based on cryptographic proof instead of trust.” Since then, cryptocurrencies have materialized in various forms which we review further to provide practical references for advisors.

In the analysis we will begin with the Role of Digital Transformation to lightly build context for the role of crypto / blockchain within the Wealth Management, Payments and Banking industry. Asking critical questions that are then relayed under a framework for Digital Currency characteristics and subsequent use cases / industry examples. Given the variety of these examples, wealth management executives & financial advisors may need to return to reference the framework analogously. In the final section we have included an executive guideline that summarizes the team's views on digital asset concepts today, tomorrow and in the future.

## The Role of Digital Transformation

Traditional financial institutions are having to adapt strategically and fundamentally (in some cases) in order to maintain market share as the ease of technology allows incumbents to scale quickly and efficiently. John Marcante, Chief Investment Officer of Vanguard states that “In today’s digital era, investors judge investment providers not just against their financial peers, but against technology leaders like Google, Apple, and Amazon.” Marcante’s assertion reiterates how digitization is not only disrupting the wealth and asset management industry but it is altering how investors view the growth prospects of companies beyond finance and banking.





Given the speed at which technology adoption has occurred for the Wealth Management industry it is fairly well acknowledged that the financial transactions that occur within the crypto-space represent an unrealized value for Wealth Managers. When assessing the value chain within the scope of the RIA these interactions would occur over three key actors; end consumers, registered investment advisors (RIAs), and financial & technology institutions who service these RIAs (Exhibit XII).

Within the current model of Wealth Management, end-users' needs are tied to institutions which have provided the opportunity for FinTechs/WealthTechs to drive digitization and innovation. This disintermediation of financial institutions has caused a shift in focus towards consumer-centric products and increasing accessibility through digital solutions. Dean Butler, Head of Retail Wealth of HSBC UK opines that "The digitization of the investment industry is happening. If you are not yet on board, you can expect to start losing business as you're unable to meet customers' ever-changing needs" (Cisco, 2017).

As the digitization of products, services and experiences becomes more common-place; this has opened a new door for investments that are fundamentally not tied to institutions. Wealth Managers have the difficult task of advising on new innovations such as digital assets. When reviewing feedback of primary interviews during the personification segment we discovered Wealth Managers believe this was due impart to (1) the complexity of the topic e.g, cryptocurrencies and digital assets, (2) the nature of non-intermediary finance which is distinctly different from dis-intermediary services which only serve as an enhancement to an existing service and (3) the popularity / cult-like following that are driven by consumer curiosity.

Cryptocurrencies present opportunities both directly and indirectly across the value chain. However, how RIAs and wealth managers capture that value remains unknown given the nature of work has a natural inclination towards institutions and regulatory guidance; thus the opportunity to capture value from crypto's emergence hinges on individual investors who are already circumventing their advisors in order to participate. Throughout this report we have encapsulated the shift from 'disintermediation' towards 'non-intermediary forms of finance' in order to help advisors deconstruct the most frequent questions we experienced from Wealth Managers which are listed below:

- What are cryptocurrencies and how are they relevant?
- Are there specific mechanisms or utilities that affect us?
- Should the focus be on the utility / technological innovation or the actual asset itself?
- What macro-signals should we be looking for that exhibit sustainability?
- How should RIAs begin preparing?
- What educational resources should I rely upon?

## Characteristics of a Digital Currency / Asset

When viewing the potential consequences cryptocurrencies could bring to the existing wealth management industry, it is imperative to see the parallel effects that have already been caused on a macro level through digitization and consumerization. *As technology adoption is slower than other industries thus wealth managers are missing out on potential opportunities across the value chain.*

### Increasing Value / Asset Differentiation

Crypto offers wealth managers a new alternative investment that can complement existing product offerings while potentially adding higher margin to their portfolio

### Reducing Costs & Improving Efficiency

Blockchain Technology & Infrastructure has the potential to reduce transaction costs and increase administrative efficiency through the use of smart contracts/data

### Preparing For The Future

The integration of crypto will present future challenges/opportunities related to new markets, tokenization, government regulation|digital fiats and other areas



Approaching cryptocurrencies under the same lens as traditional assets which RIAs interact with in today's marketplace allows wealth advisors to see parallels as they associate with the characteristics of cryptocurrencies while also allowing differentiating factors to easily stand out. While there are many scholarly articles / publications explaining the explicit benefits the team takes a different approach, building the necessary context to provide exigency for financial advisors and wealth management executives.

To better understand these characteristics, cryptocurrencies should be broken down into easily identifiable mechanisms upon which wealth advisors can explore and apply into their existing business frameworks. A mechanism style breakdown provides an unbiased dissection of cryptocurrencies through siloed analysis and allows for wealth advisors to transition from a stepped learning process to a cohesive understanding of cryptocurrencies' role in their offerings.

We introduce these characteristics by way of the Crypto Six Model (C6M) (Exhibit XV) which intentionally builds upon foundational methods of both traditional finance and insights driving digital innovation most relevant to Wealth Managers which are abstracted as (1) Economics (2) Asset Class (3) Regulation | Government (4) Blockchain (5) Tokenization and (6) Retail Investing.



*Exhibit XV: The Crypto Six Model (C6M)*

Using the C6M we define the six most relevant cryptocurrency mechanisms that are drivers of value and risk in the wealth management industry. Through curated use case analysis we further isolate which mechanisms are most relevant to wealth managers today based on personification research; which indicates there are more immediate benefits to understanding right side mechanisms e.g, Economics, Asset Class and Regulation | Governance. However, as Wealth Management leaders delve deeper they will need to explore the other mechanisms as well.

## Economics

Cryptocurrency has many fundamental characteristics of economics as it is considered in the wealth ecosystem. We encourage advisors to consider which characteristics are of most value when

considering investment solutions for cryptocurrencies. The economic definitions this research paper uses includes the Store of Value, Medium of Exchange, Network Effects, Switching Costs, and Unit of Account.

- **Store of Value** Cryptocurrencies have proven over its short history that they provide a reliable safe haven for storing value, despite the inherent volatility. However, the consensus of what drives that value differentiates itself among individual cryptocurrencies and is still widely debated.
- **Medium of Exchange** In order for the exchange of cryptocurrencies to function as a part of the financial system it must represent (1) some standard of value and (2) parties involved must be able to accept that standard. In modern economies, the medium of exchange is currency whereas blockchain technology enables both digital transference of currency which incorporates both acceptance and value standards (via blockchain / token) which comes as a digital-first benefit that is built into the utility.
- **Network Effects** Cryptocurrencies have advanced the technical means as to which institutions and individuals are able to transact. Much like digitization has transformed the peer to peer payment system, the blockchain technology behind cryptocurrency has taken this advancement one step further. The adoption of cryptocurrencies in retail markets has fueled the value derived from network effects. However, cryptocurrency is still in the adoption phase of the product life cycle and the traditional financial ecosystem is much further behind [retail investors]. (Hairudin et al., 2020)
- **Switching Costs** The costs of a society switching to a digital currency specifically crypto is inherently tied to a technology that is still in the infancy stage. This is the distinguishing factor that prompts high skepticism in the short term that Crypto is anything more than a complimentary asset rather than a substitute currency. (Bouoiyour et al., 2019; Carrick, 2016).
- **Unit of Account** - Cryptocurrencies have proven that they can sustain investable value despite voltage fluctuations in price. However, these frequent volatile episodes on the market present significant challenges towards cryptocurrencies being seen as a strong unit of account for currency purposes. Proof of this concept is derived from the creation of “stablecoins” or cryptocurrencies specifically pegged to government backed fiats.

## Asset Class

Cryptocurrencies have presented the wealth management industry and overall larger financial ecosystem with arguably the first investable instrument to be in an asset class of its own in the modern era. There are many facets that go into the sustainability of an emergent asset class. It is imperative to examine the core fundamentals of an asset class and distinguish significant differences that cryptocurrencies have already exhibited in its infancy of a life cycle.

## Income Attributes

Income facility or income attributes portrays the first differing characteristic for cryptocurrencies as opposed to traditional assets. Despite the emergence in recent months of selective cryptocurrencies earning interest akin to consumer checking accounts on certain centralized exchanges, cryptocurrencies do not possess a value driver or liquid cash flow that other monetary assets possess - i.e. stocks and dividends, bonds and coupons, cash and interest (Glaser et al., 2014). In addition, unlike traditional assets, cryptocurrencies have proven extremely difficult for institutional and retail investors to financially evaluate due to its lack of an anchor or application-based value – i.e. gold/metals and jewelry, oil/commodities and utility/usage (Schwartz et al., 2021).

## Inflation Hedge

The above analysis exhibits how cryptocurrencies differ from existing asset classes, but it is also important to analyze the utility it can provide to a portfolio when introducing external market factors. Exhibit XIV sourced from Bloomberg depicts the price of Bitcoin to that of the US 10-year bond yield. Bitcoin specifically has shown definitive signs that it is tightly correlated with “reflation” (anticipation of future inflation). The market’s bond yield reflects a parallel reaction shape to Bitcoin’s price. Charlie



Morris, CIO of ByteTree Asset Management, iterates, “Unlike defensive stocks and bonds, Bitcoin and gold are both inflation-sensitive, but gold is happiest when the world faces a downward spiral. In contrast, Bitcoin prefers a stronger economy, when the yield is rising. This is where we are today.” The baseline difference between

value generation is that Bitcoin’s value is driven by future exchange only, whereas gold’s value is also driven by its intrinsic value (Ciaian et al., 2016).

## Government | Regulation

The role of government represents another external factor to this analysis – the impending regulation and/or engagement from municipalities ensure one of two things. Future regulation will likely provide guidance and standards improving crypto-currency as an asset / utility. Or alternatively, future regulation will be seen as a detriment to publicly viewable blockchains.

As governments take steps to provide regulatory guidelines/framework on cryptocurrencies, financial institutions, exchanges, and consumers need to remain vigilant on the potential impacts it could impose. Our research indicates a few areas of which should be focus points for wealth advisors.

- **Borderless Transactions** Crypto bypasses national borders which poses a huge problem for governments’ revenue generation, fiscal and monetary policy, and government expenditures. Governments are trying to determine and anticipate the effect cryptocurrencies may have on seigniorage revenue, tax revenue, and other policy actions (Hairudin et al., 2020)
- **Capital Gains/Taxation** Crypto is currently treated as property in the eyes of the U.S. government and is thus taxed as such (exposure to short- and long-term capital gains tax). The

Securities and Exchange Commission would be the authoritative body that could recategorize crypto to be regulated as a security as opposed to property.

- **Central Bank Digital Currency** A decentralized currency would pose significant challenges to central banks' operations globally. One possible alternative to crypto as a currency would be the creation of a central bank backed digital currency, such as a digital U.S. dollar or digital Euro.

## Blockchain

Blockchain or Distributed Ledger Technology is the underlying technological innovation upon which crypto currencies are built on. The blockchain is a secure transaction ledger database that is shared by all parties participating in an established, distributed network of computers. It records and stores every transaction that occurs in the nodes, substantially eliminating the need for "trusted" intermediaries (Arora & Ramrakhani, n.d.). Blockchain technology improves upon the existing system by offering decentralization, consensus monitoring, immutability, and transaction efficiency.

Over the last two decades the wealth management industry and RIAs have seen growth in high net worth individuals and thus an increase in overall assets under management as outlined in Part II of this report. However, overall advisors' profit margins have decreased during this same period. The driving factor causing this is the increased demand for higher customer engagement fueled by an emergent Fintech industry that has reduced margins on fees.

In order for wealth advisors to reverse the trend on diminishing returns, they should be looking to the emerging blockchain technology for increased operational efficiency led by a reduction in transaction costs. Blockchain technology provides a solution through innovation for wealth advisors through increased value from the expansion of investment vehicles and a path forward towards more efficient customer interactions and retention.

## Tokenization

In the blockchain ecosystem, tokens are assets that allow information and value to be transferred, stored, and verified in an efficient and secure manner. Tokenization is the process of converting something of value into a digital token that's usable on a blockchain application (Cryptopedia Staff, 2021).

Tokenization will expand the pool of tradable assets by digitizing previously illiquid or unattainable assets for the average investor. Accessibility of these new assets democratizes the investment space that has been dominated by HNWI's. Tokenization allows for fractional ownership of new non-equities and greater efficiency to traditional markets such as real estate investment.

Wealth advisors should make note of the relevancy by considering tokenization as a key unlocking higher margin trading and assets in the future which could include collectibles, digital art (NFTs), and intellectual property rights.

## Retail Investing

A driving factor leading to the investigation of cryptocurrencies by wealth advisors is the curiosity of retail investors. Individual retail investors have taken akin to the idea of cryptocurrencies for a

plethora of reasons, but wealth advisors should serve as an educator / line of defense for appropriate risk management and investment advice.

Wealth advisors' efficiency to which they are able to understand and advise on cryptocurrencies could directly impact their future revenue and capturing of market share. (Refer to Advanced Topics for further analysis)

## Use Cases & Industry Signals

The above analysis and convergence into the C6M prompts wealth managers to think critically about the infusion between the crypto and wealth ecosystem. By reinforcing these mechanisms with applicable use cases, wealth managers should not only be able to identify and define the influencing factors of cryptocurrencies but be able to identify and understand key signals, market movements and actionable examples that illustrate the current state of the merging ecosystems.

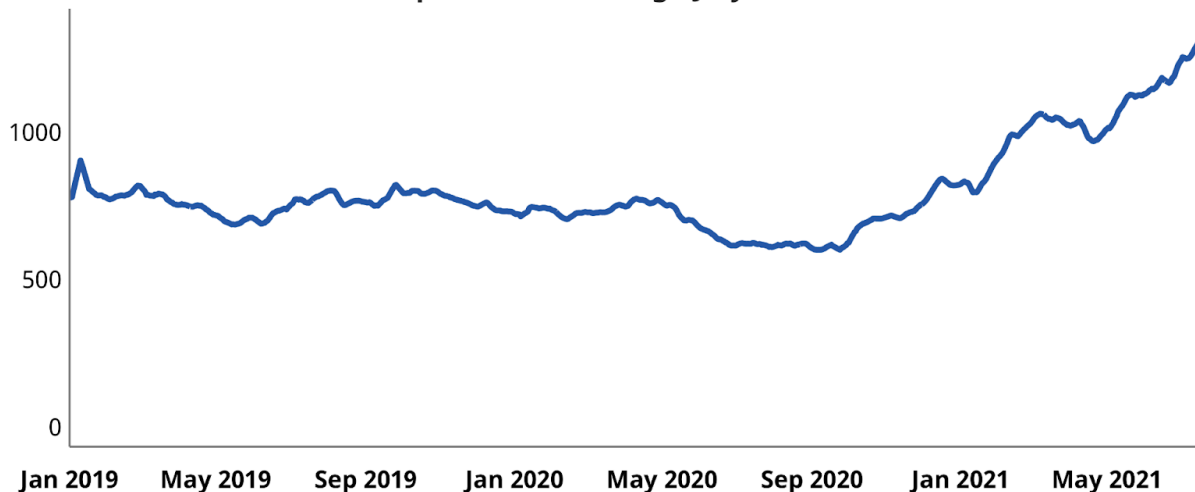
## Blockchain

### Fortune 500 Companies Seeking Blockchain Experts

Over the last year, many Fortune 500 companies (including Paypal, JPMorgan Chase, Apple, Walmart and others) have rapidly increased their search for high end experts in blockchain technology, the crypto ecosystem, and digital product management as they prepare for a future driven by blockchain technology. A report from Indeed Hiring Lab indicates that crypto and blockchain related job postings increased 115% as of Jul 16, 2021 compared to 2020's low (Konkel, 2021).

## Crypto and blockchain job postings on the rise

Share of crypto and blockchain job postings per million through July 16, 2021



Source: Indeed. Data is 7 day moving avg.



Exhibit XVI

## Tokenization

### **International Stock Exchange (SIX/SDX)**

“Switzerland’s stock exchange – owned and managed by SIX – has announced that it is building a fully integrated trading, settlement and custody infrastructure for digital assets. SIX is regulated as an operator of Financial Market Infrastructure (FMI) by Swiss Authorities, FINMA and the Swiss National Bank, and intends that the planned ‘digital asset ecosystem’ – SIX Digital Exchange (“SDX”) – will enjoy the same standard of oversight and regulation” (*SIX to Launch Full End-to-End and Fully Integrated Digital Asset Trading, Settlement and Custody Service*, 2018). SIX CEO Jos Dijsselhof commented: “This is the beginning of a new era for capital markets infrastructures. For us it is abundantly clear that much of what is going on in the digital space is here to stay and will define the future of our industry. The financial industry now needs to bridge the gap between traditional financial services and digital communities” (*SIX to Launch Full End-to-End and Fully Integrated Digital Asset Trading, Settlement and Custody Service*, 2018).

## Retail Investing

### **Emergence of Decentralized Exchanges and Retail Platforms**

2021 saw the Initial Public Offerings of Robinhood - a retail investing platform, which has climbed to a market capitalization of around \$40 billion; and Coinbase - a decentralized crypto exchange, which has a market capitalization of around \$67 billion (*Yahoo Finance*, n.d.).

The introduction of decentralized exchanges such as Coinbase currently offer retail investors with the ability to invest in crypto on their own. According to Coinbase’s Q2 2021 company filings, they have 68 million verified users and \$145 bn in trading volume from retail investors alone (*Spot*, 2021)

## Economics

### **Crypto on Balance Sheet (Store of Value)**

This year has seen the emergence of corporate utilization of cryptocurrencies for investment and operations. From Tesla to Square, Fortune 500 companies have opened the door to adding certain cryptocurrencies to their balance sheet. “Global macroeconomic, monetary, and digital evolutions have converged, requiring all forward-thinking corporations to consider alternative assets on their balance sheet,” said MicroStrategy President and CFO Phong Le. “The ecosystem and the regulatory environment for digital assets, especially bitcoin, have matured to the point that this strategy is becoming approachable and mainstream” (Deloitte, 2021a).

Companies are beginning to understand the benefits of adding an alternative asset to their financial structure and are exploring ways to manage the risk involved. Among the benefits companies are seeking to obtain are, access to new capital pools, exposure to technology that could fuel transactions in the future, expansion of client/vendor relationships, and the potential of higher margins (Deloitte, 2021b).

### **FIS' Partnership with NYDIG & CEX.IO (Network Effects)**

Fidelity National Information Services (FIS) has recently partnered with NYDIG in the United States, enabling their banking clients access to Bitcoin services to offer to their retail clients. FIS furthered their expansion by growing their relationship with UK-based crypto exchange firm, CEX.IO; and will begin to incorporate debit card payments into the fold (Marek, 2021).

Institutional partnerships that reach multiple layers within the wealth management ecosystem can significantly influence and increase the value of crypto through direct network effects across the various digital platforms.

## Regulation | Governance

### **U.S. FRB and Congress Indicate Future Action**

U.S. Federal Reserve Chairman Jerome Powell has asserted bearish claims about cryptocurrencies when it comes to a private vs public debate on digital currencies. Powell stated in July 2021, "One of the arguments that are offered in favor of a digital currency in particular, you wouldn't need stablecoins [crypto pegged to a real asset like the USD] you wouldn't need cryptocurrencies if you had a digital US currency." Powell's claims reiterate that the future outlook on cryptocurrencies as a substitute medium of exchange are extremely low, however the proposition that cryptocurrencies would remain as an investable asset class gain steam. Even in this scenario the existing financial ecosystem must be prepared to operate and incorporate future central bank digital currencies (Tellez, 2021).

In addition, tax guidance and regulations on capital gains, broker designations, and other taxable transactions are prime targets of federal regulators and congressional intervention which poses a significant hurdle for quick understanding and adoption among wealth management entities. An excerpt of a recently proposed bill in the United States Congress obtained by The Block, states, "The bipartisan infrastructure framework applies information reporting requirements to digital assets (including cryptocurrency) to ensure they are properly reported to the IRS. The provision includes updating the definition of broker to reflect the realities of how digital assets are acquired and traded. The provision further makes clear that broker-to-broker reporting applies to all transfers of covered securities within the meaning of section 6045(g)(3), including digital assets..." (McSweeney & Chaparro, 2021). However, RIA's should not necessarily see government regulation as an immediate negative. If you reframe government regulation to 'government recognition' the lens of sustainability for crypto in our existing financial ecosystem becomes a lot clearer.

*The US Federal Reserve is anticipated to publish a report on cryptocurrencies in Q4 2021.*

## Asset Class

### **Goldman Sachs files with SEC to create ETF**

Goldman Sachs has officially filed the Securities and Exchange Commission their intent on creating an exchange-traded fund that will be tied to blockchain technology, decentralized finance, and digitization. Goldman Sachs' intention is for this EFT to be available to consumers across the wealth

industry. “The Index is designed to deliver exposure to companies that are aligned with two key themes, the implementation of Blockchain Technology and the Digitalization of Finance (the “Themes”),” per the filing (McSweeney, 2021).

## Crypto’s Diversification of a Portfolio

The question serves to be answered; is crypto divergent enough from existing asset classes to be considered as a new asset class and potential portfolio diversifier? Does the value of possible utilities provide enough value to financial institutions and their clients to be considered in any capacities? Exhibit XVII below illustrates a sampling of various allocations of Bitcoin to a traditional 60/40 portfolio (Nathan et al., 2021).

A small allocation to bitcoin has enhanced a 60/40 portfolio in recent years

	S&P 500	US 10y bond	Bitcoin	60/40 portfolio	Allocation to bitcoin			
					+2.5%	+5%	+10%	+20%
<b>Since 2014</b>								
Return p.a.	14%	4%	79%	10%	12%	14%	19%	27%
Volatility (daily)	18%	6%	73%	10%	10%	10%	12%	18%
Volatility (monthly)	15%	6%	87%	8%	9%	10%	13%	20%
Return/volatility	0.77	0.60	1.08	1.03	1.24	1.39	1.53	1.53
5% CVaR	-10%	-3%	-35%	-5%	-6%	-6%	-7%	-10%
Max drawdown	-34%	-11%	-83%	-18%	-19%	-19%	-20%	-29%
<b>2014-2019</b>								
Return p.a.	12%	4%	46%	9%	11%	12%	15%	21%
Volatility (daily)	13%	6%	74%	7%	7%	8%	10%	16%
Volatility (monthly)	11%	6%	87%	6%	7%	8%	11%	19%
Return/volatility	0.92	0.66	0.62	1.26	1.46	1.56	1.53	1.31
5% CVaR	-7%	-3%	-35%	-4%	-4%	-4%	-5%	-8%
Max drawdown	-19%	-11%	-83%	-11%	-11%	-12%	-18%	-29%

Source: Bloomberg. Goldman Sachs GIR.

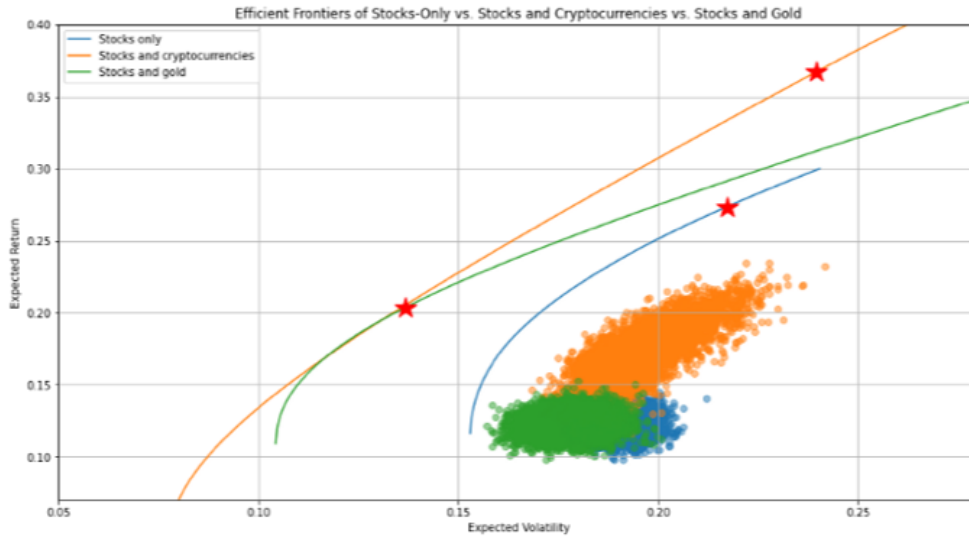
Exhibit XVII

## Advanced Topics

### Modern Portfolio Theory and Efficient Frontier Analysis



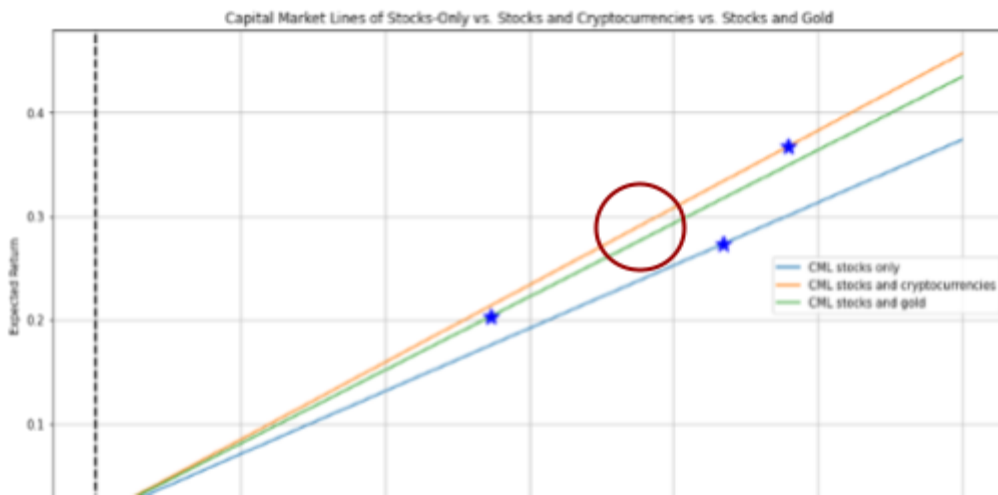
When presenting the unique characteristics of a potentially new asset class to a diversified portfolio, there is the expectation that it should alter the return-to-volatility curve of any single basket of



*Exhibit XVIII*

holdings. This is a concept derived from Modern Portfolio Theory which suggests that a tweaking or addition of weighted asset classes should result in an optimal return for any given risk level. An efficient frontier analysis is one possible calculation that can be performed in order to determine the level and confidence of differentiation of cryptocurrencies in a portfolio. Exhibit XVIII is a detailed analysis performed by Jonas Benner, a quantitative financial consultant from Bocconi University. The graph illustrates the relationship that gold has to a traditional stock portfolio and compares it to those of cryptocurrencies. As seen in the green cluster, gold’s traditionally negative correlation with stocks reduces the risk of a portfolio with very little movement to expected return. However, the orange cluster portrays a sizable increase in expected return but with a near parallel increase to volatility/risk. While gold generally has a negative correlation to stocks, cryptocurrencies tend to have a positive correlation (Benner, 2020). This poses an interesting question to wealth managers; if you were to be able to appropriately weight cryptocurrencies into a diversified portfolio, could it increase the expected return to volatility ratio at a rate greater than 1:1?

Exhibit XIX (from Benner) explores the most optimal portfolios in these categories (denoted by blue stars) along Capital Market Lines. If you were to take a portfolio of stocks, gold, and cryptocurrencies weighted appropriately, end consumers could realize the “goldilocks zone” for return-to-volatility of a diversified portfolio that we have yet to see in the modern investing era. (This zone is denoted by an annotated red circle on the original graph).



### Crypto's Product Adoption Curve (Retail v Institution)

As discussed earlier, retail investors have been actively investing into the cryptocurrency space independently through exchanges such as Coinbase, Binance, Robinhood, etc. The emergence of these new digital platforms is the direct result of the significantly high demand of retail investors and subsequent lack of (crypto trading) supply offered by traditional financial institutions within the existing financial ecosystem.

Depicted below in Exhibit XX is an illustration of the perceived “value-gap” that is currently happening within the wealth management industry. Wealth managers are currently losing out on significant revenue/clients because of the technological adoption gap of cryptocurrencies/blockchain by these traditional financial institutions.



Exhibit XX

Picture Name: Crypto Adoption Curve

Picture Description: Blue line indicates where the traditional financial institutions are today on the curve in regards to platform (supply). Red line indicates where the retail investors are today on the curve in regards to consumer (demand). Black dotted line indicates the perceived value gap that wealth managers are losing because consumer assets under management are being held elsewhere.

### Inflation Hedge +

Many analysts would assert that cryptocurrencies have yet to be tested by a fully organic economic cycle and that any opinions of utility for cryptocurrencies in a portfolio are merely anecdotal evidence that is not mature enough to be widely accepted. However, when looking at Exhibit XXI you will see how the average price of Bitcoin, Litecoin, and Ethereum maintain a strong correlation to the 10 and 2-Year Treasury Yield. This shows us evidence that it is not just Bitcoin that has data points for being an inflation hedge, but rather cryptocurrencies as a whole (asset class).

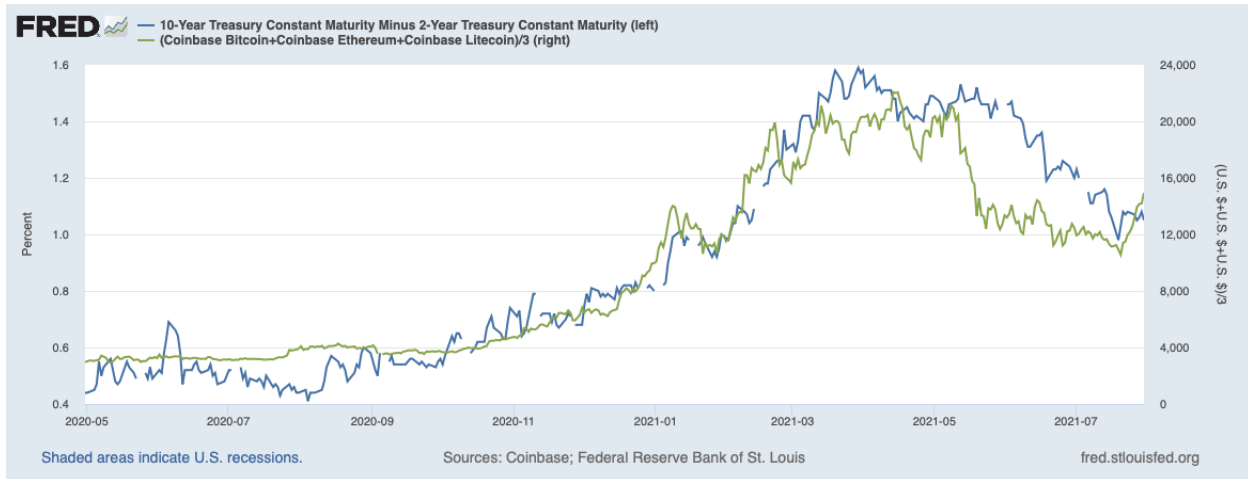


Exhibit XXI

## Conclusion | Executive Guidance

The digitization of the wealth management industry has fueled interconnectivity and technological advancements that are revolutionizing the fundamental behaviors and interactions of consumers, RIAs, and Fintechs/Wealthtechs. Executives need to consider where they are positioned now and where they want to be positioned in the future. Cryptocurrency and blockchain technology provide asset and utility innovation that will present wealth managers with a quandary on how to incorporate best practices for themselves and their clients. Regardless of how cryptocurrency evolves, wealth managers can achieve value creation for clients inherently upon the basis of being educated on the topic.

The adoption and implementation of cryptocurrency into the existing financial ecosystem is no longer a question of “if” but rather “when” and “how”. As executives seek guidance on their approach, they should begin with the six crypto mechanisms as building blocks of the executive guidance outlined below. The three fundamental guiding principles that will allow executives to formulate future success are; Aggregate Economics, Industry-Led Innovation, and Governance Trends.

1. **Aggregate Economics** - As the digital economy expands, executives who are prepared to evaluate the economic impacts will be better positioned to adapt to the nascent features changing the existing financial ecosystem. As prescribed in the numerous methods introduced in this section. Over time many of these theories may lead to new insights which are brought about by participants in the field which leads us into the second guiding principle.
2. **Industry-Led Innovation** - When opting for potential solutions or desk research, forming partnerships and outsourcing account management with tech-adept servicers is seen as favorable given they are better equipped to tackle the ambiguities and risk that remain within the crypto adoption lifecycle. The ability for technology to facilitate transactions in volumes should allow for individual wealth managers and their technology providers the ability to retain confidentiality

of their clients while allowing outsources to share strategies that are suited to the clients parameters.

3. **Governance Trends** - Lastly, wealth executives should closely follow government regulation to understand the impacts that will arrive, but should not wait for an explicit “go-no go” signal from regulatory bodies to begin their education on cryptocurrency. Cryptocurrency and digital assets at the bare minimum present an opportunity for value capture that the wealth industry has not seen at this magnitude in a generation and as governance/policy shapes the future of payment utilities it's likely that it will also require the adoption of technologies to enforce those new policies.

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# Appendix

## 1. Envestnet's Simplified Balance Sheet

Income Statement (Simplified)												
	<==History						Forecast ==>					
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenue	\$ 421	\$ 578	\$ 684	\$ 812	\$ 900	\$ 998	\$ 1,151	\$ 1,246	\$ 1,426	\$ 1,578	\$ 1,770	\$ 1,986
- Cost of Revenue (Excl. Depr)	\$ 133	\$ 117	\$ 156	\$ 186	\$ 178	\$ 192	\$ 216	\$ 242	\$ 271	\$ 304	\$ 341	\$ 383
Gross Profit	\$ 288	\$ 462	\$ 528	\$ 627	\$ 723	\$ 806	\$ 935	\$ 1,004	\$ 1,155	\$ 1,274	\$ 1,429	\$ 1,603
- Operating Expenses	\$ 241	\$ 421	\$ 448	\$ 535	\$ 637	\$ 673	\$ 755	\$ 847	\$ 950	\$ 1,065	\$ 1,195	\$ 1,340
EBITDA	\$ 47	\$ 41	\$ 79	\$ 92	\$ 85	\$ 133	\$ 241	\$ 264	\$ 332	\$ 363	\$ 407	\$ 456
- Deprec and Amortiz	\$ 28	\$ 64	\$ 63	\$ 78	\$ 101	\$ 114	\$ 131	\$ 142	\$ 162	\$ 180	\$ 202	\$ 226
Operating Income	\$ 19	\$ (23)	\$ 17	\$ 14	\$ (16)	\$ 19	\$ 110	\$ 122	\$ 169	\$ 183	\$ 205	\$ 230
- Interest Expense	\$ 10	\$ 17	\$ 16	\$ 25	\$ 33	\$ 32	\$ 32	\$ 32	\$ 32	\$ 32	\$ 32	\$ 32
Pretax Income	\$ 9	\$ (41)	\$ (2)	\$ (9)	\$ (48)	\$ (8)	\$ 76	\$ 88	\$ 135	\$ 147	\$ 169	\$ 193
- Income Tax Expense	\$ 5	\$ 15	\$ 2	\$ (13)	\$ (31)	\$ (5)	\$ 17	\$ 19	\$ 30	\$ 32	\$ 37	\$ 43
Net Income	\$ 4	\$ (56)	\$ (3)	\$ 6	\$ (17)	\$ (3)	\$ 59	\$ 68	\$ 104	\$ 115	\$ 131	\$ 150

## 2. Envestnet's Balance Sheet - Increase in Operating Working Capital

Total Funds Invested (TFI)												
	<==History						Forecast ==>					
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Invested Capital	\$ 113	\$ 165	\$ 194	\$ 227	\$ 257	\$ 282	\$ 333	\$ 360	\$ 412	\$ 456	\$ 512	\$ 574
Operating Working Capital	\$ 29	\$ 33	\$ 36	\$ 45	\$ 137	\$ 153	\$ 181	\$ 195	\$ 224	\$ 248	\$ 278	\$ 311
Net Property Plant and Equipment	\$ 141	\$ 198	\$ 230	\$ 272	\$ 393	\$ 436	\$ 513	\$ 555	\$ 636	\$ 704	\$ 789	\$ 886
Goodwill & Intangibles	\$ 724	\$ 712	\$ 678	\$ 863	\$ 1,446	\$ 1,438	\$ 1,438	\$ 1,438	\$ 1,438	\$ 1,438	\$ 1,438	\$ 1,438
Op. Invested Capital (incl. Goodwill)	\$ 865	\$ 911	\$ 908	\$ 1,135	\$ 1,839	\$ 1,874	\$ 1,952	\$ 1,994	\$ 2,074	\$ 2,142	\$ 2,228	\$ 2,324

## 3. Envestnet's 2020 10K - Assets Under Management (AUM) & Assets Under Administration (AUA)

### Key Metrics

#### Envestnet Wealth Solutions Segment

The following table provides information regarding the amount of assets utilizing our platforms, financial advisors and investor accounts in the periods indicated:

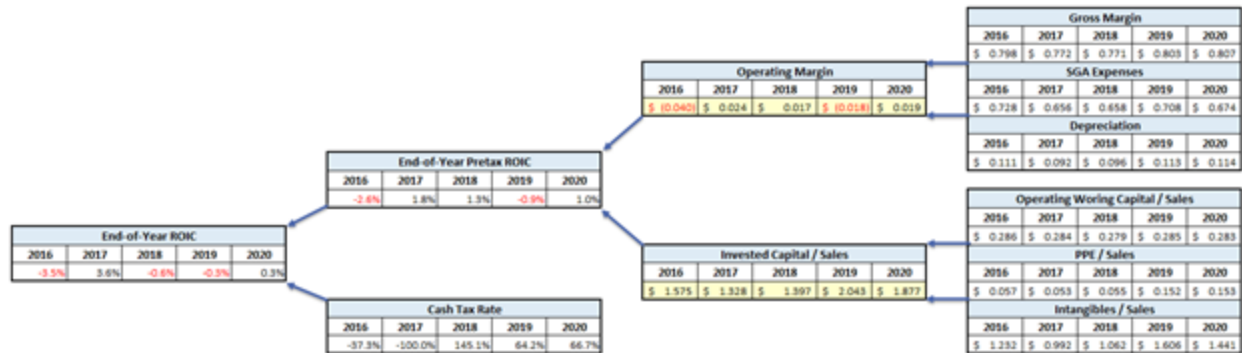
	As of December 31,		
	2020	2019	2018
(in millions, except accounts and advisors data)			
<b>Platform Assets</b>			
AUM	\$ 263,043	\$ 207,083	\$ 150,591
AUA	405,365	343,505	291,934
Total AUM/A	668,408	550,588	442,525
Subscription	3,892,814	3,205,281	2,314,253
Total Platform Assets	\$ 4,561,222	\$ 3,755,869	\$ 2,756,778
<b>Platform Accounts</b>			
AUM	1,073,122	935,039	816,354
AUA	1,276,975	1,193,882	1,182,764
Total AUM/A	2,350,097	2,128,921	1,999,118
Subscription	11,079,048	9,793,175	8,865,435
Total Platform Accounts	13,429,145	11,922,096	10,864,553
<b>Advisors</b>			
AUM/A	41,206	40,563	40,103
Subscription	65,104	61,180	56,237
Total Advisors	106,310	101,743	96,340

## 4. Bloomberg Screenshot of Expert Analysts' Prediction of Envestnet's AUM



	FY 2020 Act	FY 2021 Est		FY 2022 Est		FY 2023 Est		FY 2024 Est
12 Months Ending	12/31/2020	12/31/2021	#	12/31/2022	#	12/31/2023	#	12/31/2024
1) Net Revenue		1.142B	8	1.255B	8	1.412B	2	1.164B
12) Non Int Inc		479.000M	1	520.000M	1			
13) Asset MGMT Fees		546.896M	6	604.504M	6	375.800M	2	10.400M
14) Non Int Exp		887.563M	7	956.660M	7	1.177B	1	
15) Compensation		419.845M	8	453.521M	8	479.600M	1	
16) AUM	263.043B	368.214B	2	412.251B	2	923.000B	1	1.034T
17) Net Flows		54.437B	1	64.187B	1			

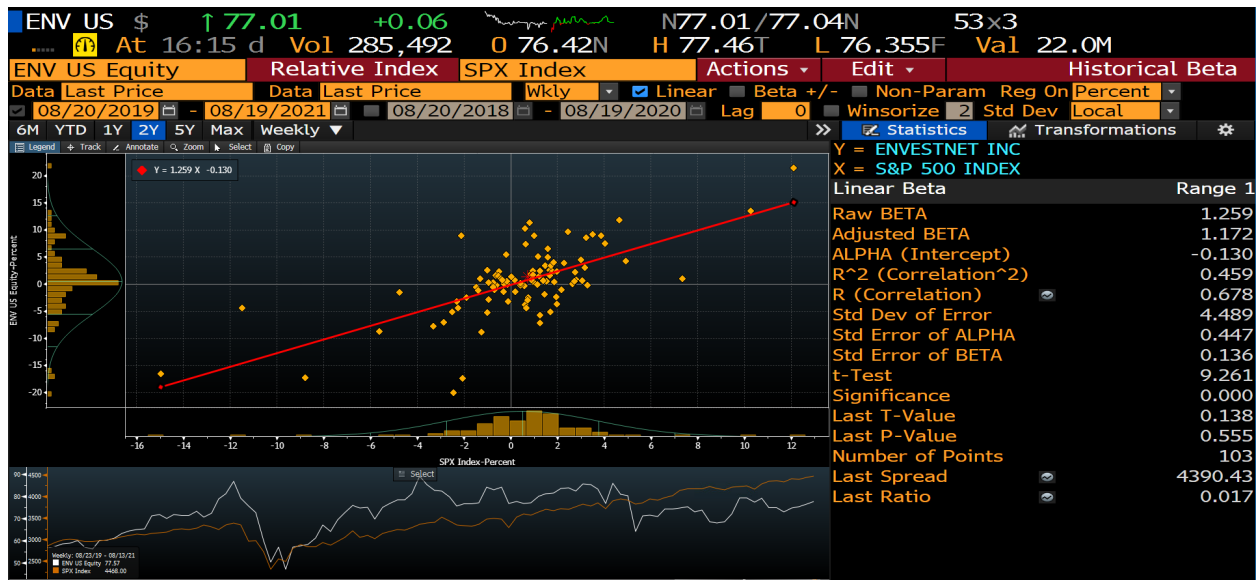
5. Investnet's Return on Invested Capital (ROIC) Tree Expanded



6. Investnet's Discounted Cash Flow Model (As-is Model)

	FCF	Discount Factor	Discount FCF
2021	\$ 10	0.91	\$ 9
2022	\$ 55	0.83	\$ 46
2023	\$ 55	0.76	\$ 42
2024	\$ 78	0.69	\$ 54
2025	\$ 78	0.63	\$ 49
Operating Value in Yr 1-5			\$ 200
CV	\$ 7,546	0.63	\$ 4,776
<b>Operative Value</b>			<b>\$ 4,976</b>
- Non-op Assets Less Non-op Liab			(16)
<b>Enterprise Value</b>			<b>\$ 4,960</b>
- Interest Bearing Debt			\$ 882
<b>Common Equity Value</b>			<b>\$ 4,078</b>
Shares Outstanding			54.4
<b>Common Share Price</b>			<b>\$ 74.94</b>

### 7. Investnet's Historical Beta for the Past 2 Years – Relative to SPX



### 8. Investnet's P/E Ratio Relative to Competitors

Name	Ticker	Mkt Cap	ROIC	ROIC:Y-1	ROIC:Y-2	Tot Inv Cap	WACC	AUM	P/E	EV / EBIT
Market Cap Weighted		222.83B	6.11%	6.70%	6.45%	454.23B	7.22%	2.33T	23.84	24.97
101) ENVTNET INC	ENV US	4.20B	3.46%	0.61%	2.53%	1.89B	9.77%	263.04B	82.87	56.64
102) JPMORGAN CHASE & CO	JPM	461.01B	5.17%	4.62%	4.22%	979.34B	6.00%	2.72T	10.12	--
103) MORGAN STANLEY	MS US	181.96B	2.56%	2.09%	1.99%	512.48B	4.59%	781.00B	13.10	13.84
104) ROYAL BANK OF CANADA	RY CN	145.09B	4.21%	4.34%	4.75%	302.28B	7.60%	632.43B	13.23	--
105) BLACKROCK INC	BLK US	138.43B	11.17%	10.65%	10.52%	49.35B	10.97%	8.68T	24.93	16.78
106) GOLDMAN SACHS GROUP	GS US	138.42B	2.57%	2.04%	2.04%	635.41B	3.19%	2.14T	7.03	14.61
107) SCHWAB (CHARLES) & CO	SCHW	134.16B	7.21%	12.91%	10.46%	74.04B	8.27%	--	25.89	10.62
108) BLACKSTONE INC	BX US	132.68B	11.32%	15.20%	12.69%	19.74B	11.46%	618.56B	16.54	28.59
109) BROOKFIELD ASSET MANAGEMENT	BAM	85.80B	2.26%	3.67%	4.04%	295.54B	5.67%	601.98B	139.50	32.05
110) FIDELITY NATIONAL INVESTMENTS	FIS US	79.60B	1.73%	1.52%	5.61%	74.17B	8.92%	--	57.70	73.18
111) T ROWE PRICE GROUP	TROW	48.22B	24.04%	24.24%	25.71%	9.45B	10.59%	1.47T	16.76	12.39
112) SS&C TECHNOLOGIES	SSNC	19.15B	6.77%	5.64%	3.71%	12.57B	9.65%	--	26.48	23.21
113) RAYMOND JAMES FINANCIAL	RJF US	18.27B	10.57%	10.67%	8.96%	11.05B	9.36%	153.10B	14.21	7.12
114) SEI INVESTMENTS COMPANY	SEIC	8.54B	19.09%	20.95%	22.73%	1.84B	12.33%	368.66B	17.71	16.69
115) APPFOLIO INC - A	APPF	4.30B	2.84%	20.97%	16.98%	338.43M	12.15%	--	--	539.46
116) ASSETMARK FINANCIAL	AMK	1.95B	-0.68%	-0.04%	3.48%	1.16B	12.34%	74.52B	108.97	104.58
117) TD AMERITRADE HOLDINGS	AMTD	--	19.06%	14.99%	10.64%	12.52B	7.68%	--	--	8.89

### 9. Relative Valuation of Investnet's Competitors

Company Name	Mkt Cap (USD)	ROIC	ROIC (Y-1)	ROIC (Y-2)	Tot Invest Capital	WACC	P/E	EV / EBIT	AUM	Asst Mgt Fee	Asst Mgt Fee (bps)
AXA Investment Managers					Private				665,000,000,000	1,070,650,000	16.10
CHARLES SCHWAB CORP	134,161,000,000	7.21	12.91	10.46	74,035,003,392	8.27	25.89	10.62	1,850,000,000,000	3,475,000,000	18.78
ENVTNET INC	4,198,223,792	3.46	0.61	2.53	1,892,892,032	9.77	82.87	56.64	263,043,006,464	540,947,000	20.56
SS&C TECHNOLOGIES	19,154,481,828	6.77	5.64	3.71	12,572,000,256	9.65	26.48	23.21	1,800,000,000,000	3,891,300,000	21.62
Allianz Global Investors					Private				2,389,000,000,000	6,956,000,000	29.12
SEI INVESTMENTS	8,537,957,527	19.09	20.95	22.73	1,835,831,040	12.33	17.71	16.69	368,659,988,480	1,345,649,000	36.50
RAYMOND JAMES FINANCIAL	18,268,502,832	10.57	10.67	8.96	11,047,999,488	9.36	14.21	7.12	930,000,000,000	3,834,000,000	41.23
MORGAN STANLEY	181,963,000,000	2.56	2.09	1.99	512,477,000,000	4.59	13.1	13.84	780,999,983,104	3,734,000,000	47.81
GOLDMAN SACHS GROUP	138,418,000,000	2.57	1.75	2.04	635,413,000,000	3.19	7.03	14.61	2,144,999,964,672	10,471,000,000	48.82
ASSETMARK FINANCIAL	1,952,647,893	-0.68	-0.04	3.48	1,161,393,024	12.34	108.97	104.58	74,520,002,560	412,023,000	55.29
Edward Jones					Private				1,354,000,000,000	7,515,000,000	55.50
BLACKSTONE GROUP	132,675,000,000	11.32	15.2	12.69	19,741,270,016	11.46	16.54	28.59	618,556,948,480	4,092,549,000	66.16
JPMORGAN CHASE & CO	461,013,000,000	5.17	4.62	4.22	979,338,000,000	6.00	10.12	N.A.	2,716,000,059,392	18,177,000,000	66.93