



Fundstrat Global Advisors
150 East 52nd St, 3rd floor
New York, NY 10022

Research Capabilities

Evidence-based research

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Fundstrat at a glance

Clients ----- **200**

Countries ----- **25**

Webinars ----- **78**

Network TV appearances ----- **94**
(Lee, past year, CNBC, Bloomberg, Fox)

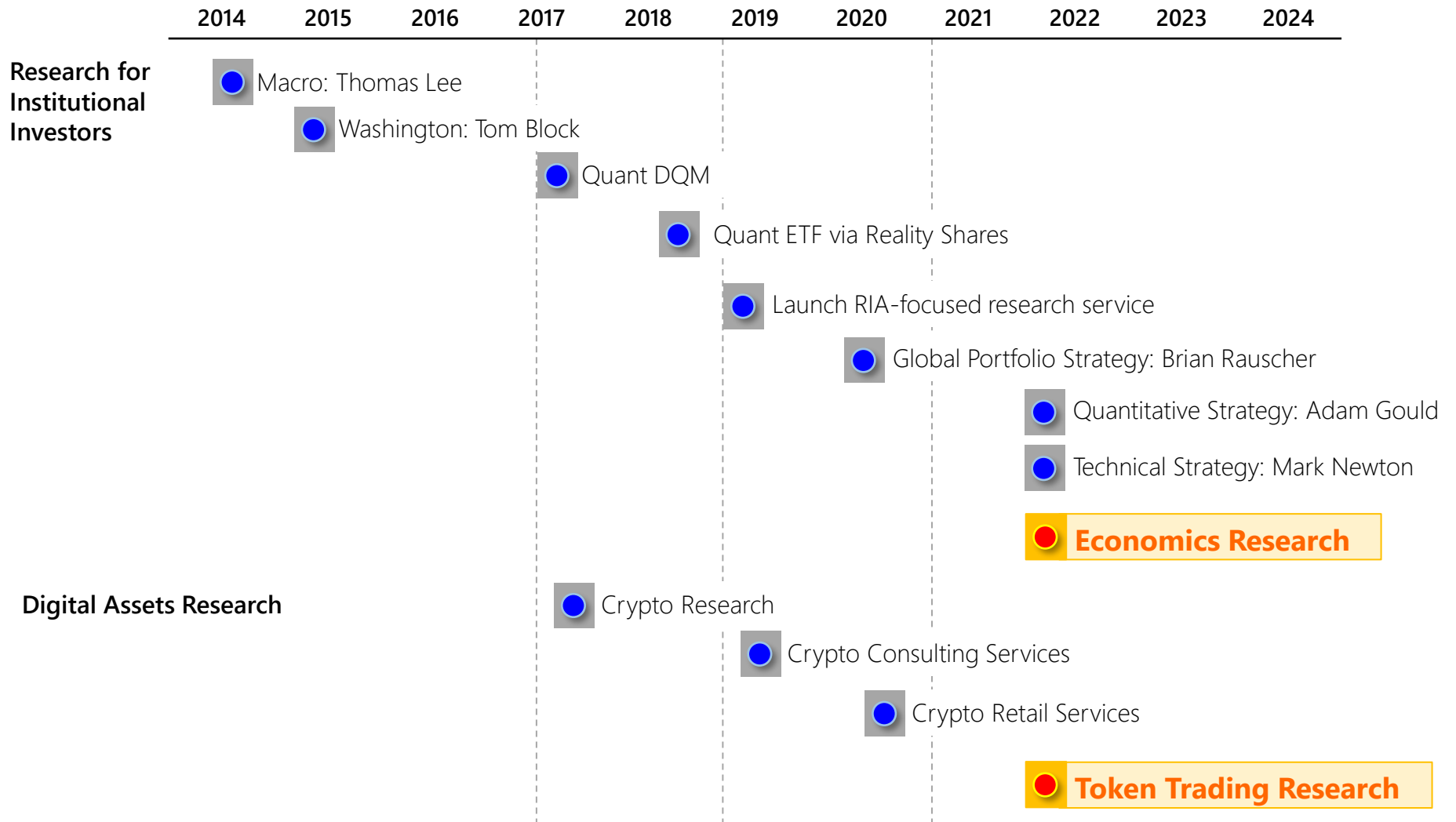
Mainstreet Media Mentions ----- **7,500**
(Last 12 months, per Google)

Twitter Followers ----- **170,000**
(Lee only)

Twitter Impressions ----- **120 million**
(Lee only, Last 12 months)

Employees ----- **26**

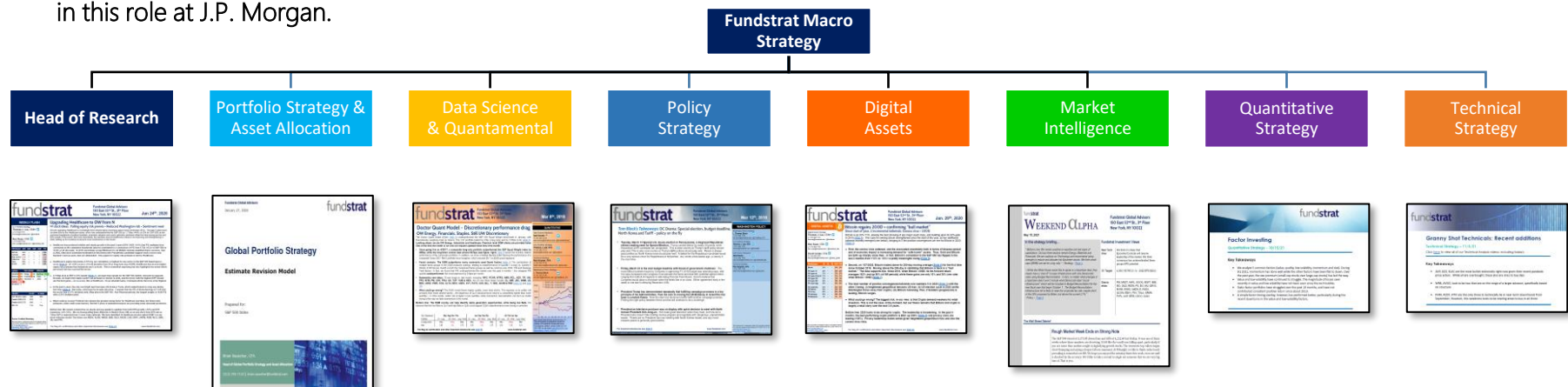
Roadmap of Services



Source: Fundstrat, Bloomberg

Fundstrat—a contrarian approach to strategy

- Fundstrat is an independent research firm established in 2014, with clients in over 16 countries and count as current institutional clients the top asset managers, hedge funds and private banks, representing ~70% of globally managed equity assets.
- Our macro strategy team produces primary research along seven product verticals: (i) Portfolio Strategy, (ii) Digital Assets; (iii) Quantitative Strategy; (iv) Global Portfolio and Asset Allocation Strategy, (v) Technical Strategy, (vi) Quantamental, (vii) Washington Policy, and (viii) Market Intelligence.
- Our Quantitative and Crypto Indices (managed by Ken Xuan) are widely followed by Fundstrat clients.
- The research team has over 100 combined years of institutional sell-side research experience and three of the four sector heads were formerly in this role at J.P. Morgan.



Thomas J. Lee, CFA
Managing Partner
In research: 25 years

Prior to founding Fundstrat, Mr. Lee was at J.P. Morgan from 1999 to 2014 and served as Chief Equity Strategist from 2007 to 2014. He was top-ranked by Institutional Investor every year since 1998. Previously served as Managing Director at Salomon Smith Barney.

Brian Rauscher, CFA
Head of Global Portfolio Strategy & Asset Allocation
In research: 25 years

A 25-year industry veteran, Rauscher's work experience includes Morgan Stanley, Brown Brothers Harriman, Fortress Investment Group, and Wedge Partners. He most recently served as Chief Portfolio Strategist at Robert W. Baird & Co.

Ken Xuan, CFA, FRM
Head of Data Science
In research: 5 years

Data scientist with expertise in applied mathematics and statistical analysis. Ken received a B.S. in Management, Economics from Purdue University and an M.S. in Operations Research from Columbia University.

L. Thomas Block
Washington Policy
In research: 10 years

Head of JPM policy: 21 years

President of Tom Block Consults, a public policy consulting firm. Prior to that, Tom had a 21-year career at J.P. Morgan, serving as Global Head of Government Relations.

Overall Strategy:
Sean Farrell
Thomas J. Lee, CFA
Armando Aguilar
Will McEvoy
Walter Teng
Jack Runge

Crypto Consulting:
Sean Farrell
Armando Aguilar
Will McEvoy
Walter Teng
Jack Runge

Chris Robb
Vice President
In research: 10 years

Chris was Senior Research Analyst at Dentons. Previously he was a Policy & Supervision Analyst at the Conference of State Bank Supervisors. He worked in both the legislative and executive branch in Washington DC.

Adam Gould
Head of Quantitative Strategy
In research: 20 years

Quantitative strategist and researcher with previous experience at S&P Dow Jones, Nomura/Instinet, Morgan Stanley, and Empirical Research Partners. He holds a B.S. and M.S. in Electrical Engineering and Computer Science from MIT.

Mark L. Newton, CMT
Head of Technical Strategy
In research: 25 years

Former experience as the managing member/Owner of Newton Advisors LLC, and with Diamondback Capital Management, Morgan Stanley, and CBOE. Mark is a member of the Market Technicians Association and a former member of the CBOE, CBOT, and PHLX.

Fundstrat leverages global partnerships



We have partnered with MOGO to distribute our crypto product throughout Canada.



We are the “white label” research provider of US research for SMBC Nikko, which has over 2 million brokerage accounts.



We have partnered with MaiCoin to translate our crypto product to Chinese and distribute it throughout Taiwan.



We have partnered with Squarepoint Capital to sell our US institutional research to European asset managers.



The partnership allows Voyager to deliver Fundstrat’s crypto market intelligence to Voyager’s customers.



We have partnered with Eminence Investment to sell our US institutional research to asset managers in Saudi Arabia.



Exploring JV with Taiwan investment bank to translate our macro research and crypto product into Chinese to sell to Chinese institutions and retail



Partnering with XP Securities to sell our institutional research in LatAm. And we are finalizing JV to jointly sell crypto/blockchain to retail



We have partnered with MST Financial to distribute the market research by both Fundstrat and FSInsight to clients and subscribers in Australia and New Zealand.

Clients should "concentrate" relationships

From Byron Wien
Vice Chairman Blackstone

"My performance improved once I began to use fewer research providers and use them more intensely."

More clients seeking Portfolio Strategy

From Third Point's 3Q16 Quarterly Letter
Author: Daniel Loeb.

Nearly one year into this market cycle, a few truths of hedge fund investing are evident: 1) portfolio positioning matters as much as stock picking skill; 2) factor risk, not beta, has driven hedge fund underperformance in an up market; 3) crowded trades are a symptom of the prevalence of copycat investment frameworks practiced by hundreds of funds formed over the past decade to mimic the success of many of their investing legend mentors and therefore naturally share the same outlooks and biases; and 4) putting money to work in equities and credit today requires a thoughtful perspective on global events. Macro analysis is no longer just for macro traders.

Be "non-consensus"

General Principles

An integrated research process with a proven track record...

- 1. Credit lead equities** Stocks “junior” piece of capital structure
- 2. Regimes supercede business cycles** Regimes drive multi-year, multi-decade cycles which need to be overlayed to biz cycle dynamics
- 3. Investors too reliant on “last cycle” factors** Today’s Portfolio Manager has a median tenure of 7 years—meaning he has only seen one cycle.
- 4. Consensus lags (not leads)** Consensus tools and indicators are already discounted by markets and computers.
- 5. “Signal” from Noise** We look for 1, 2, 3-sigma signals to identify quantifiable investment opportunities.

What most sell-side gets wrong

An integrated research process with a proven track record...

Street Research

"Short term"-ism

REACTIVE not predictive

Too many OPINIONS
(not conclusions)

Consensus indicators

fundstrat Differentiation

Regime and cycle analysis.

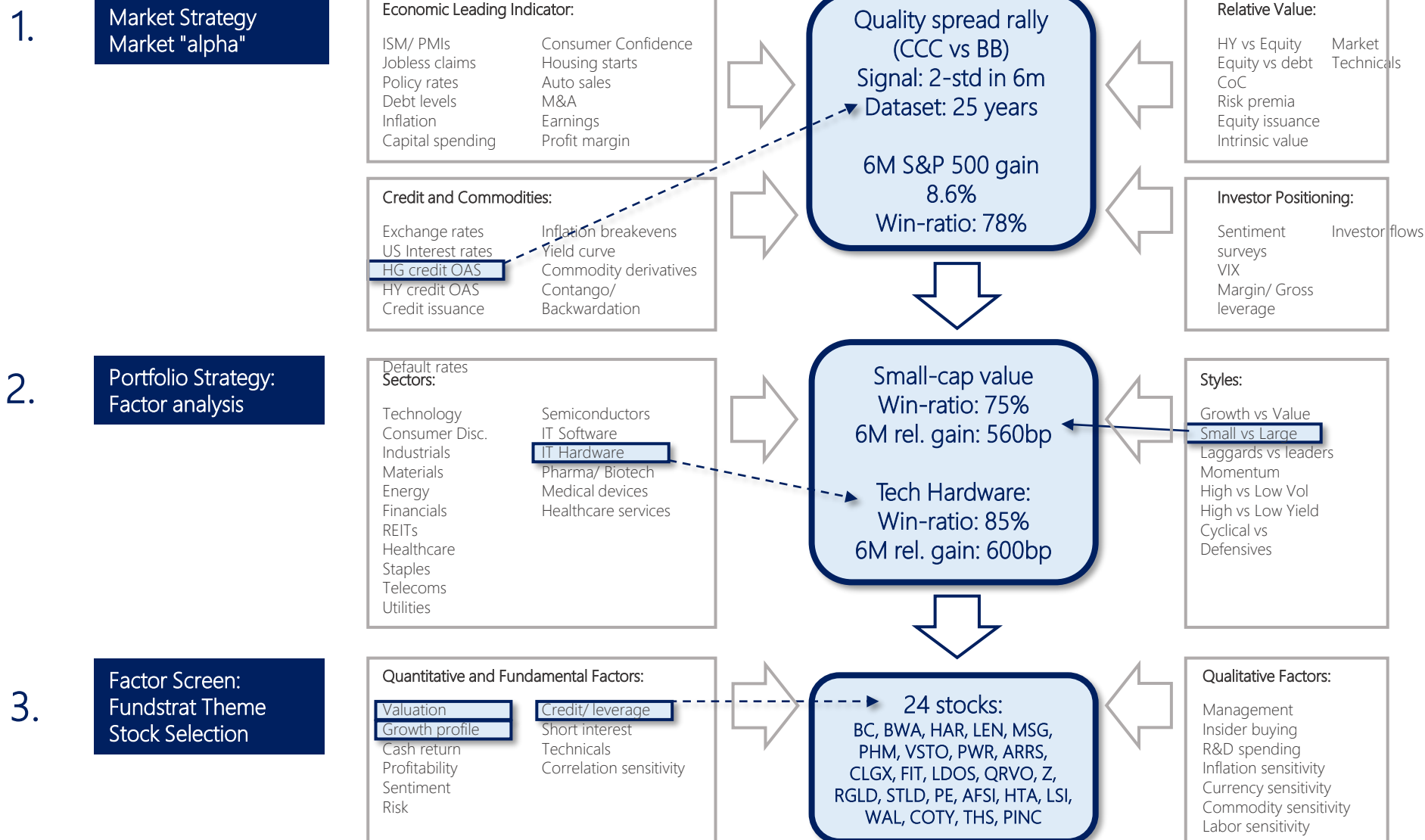
Fundamental based indicators with
quantifiable reliability

"Signal" from noise.
Systematic models drive conclusions with a high-probability of success.

Proprietary databases identifying important
leading and lagging indicators.

The process of a strategy call...

From "US Flash" dated August 26, 2016



2022 “granny shots”

Stocks recommended at least in 2 of our 2022 strategies

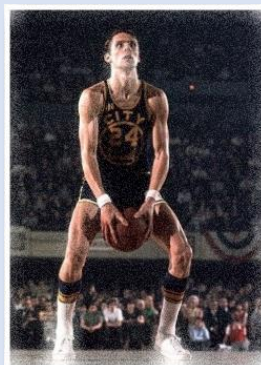
Tactical (6M-12M)

	# stocks
Style tilt	30
Seasonality	23
PMI Recovery	24

Thematic (3Y-5Y)

	# stocks
Millennials	31
Automation/ AI	49
Asset intensity	26

Granny Shots



Rick Barry career free throw percentage was eye-popping 90%, incredible considering Shaquille O’Neal’s only 52%.

His secret? The unorthodox style of underhanded throws, which is considered “not macho” enough for most players.

# overlaps “layups”	Tickers
4	AAPL, CSCO
3	CMI, GOOGL, GRMN MPC, MSFT, PM PSX
2	AAP, AMZN, ATVI AXP, BF/B, CB CF, CVX, DVN GL, KLAC, MNST NVDA, ORLY, PCAR PG, PYPL, QRVO TSLA, USB, VRSN WRB, XLNX, XOM

Fundstrat ETF Driven Strategy by Brian Rauscher

- This strategy seeks to increase alpha and lower risk by investing in those sectors of the S&P 500 that should Outperform, while cutting exposure to the sectors that should Underperform. This balancing should help deliver more profits in a bull market and reduce losses in a bear market.
- This strategy is based on 1) Sector Macro/8-panel analysis; 2) Intra-Sector Macro/8-panel analysis; 3) Deep dive into the largest individual stocks within the Sector using our proprietary single stock ERM model (Earnings Revision Model).

January ETF Sector Allocation

Outperform	Neutral	Underperform
Consumer Discretionary ETF: XLY [11.1%] FSI Weight: 18.8%	Financials ETF: XLF [13.5%] FSI Weight: 13.4%	Health Care ETF: XLV [13.8%] FSI Weight: 0%
Materials ETF: XLB [2.3%] FSI Weight: 4.0%		Energy ETF: XLE [2.3%] FSI Weight: 0%
Industrials ETF: XLI [9.1%] FSI Weight: 15.6%		Utilities ETF: XLU [2.9%] FSI Weight: 0%
Information Technology ETF: XLK [24.2%] FSI Weight: 33.1%		Consumer Staples ETF: XLP [7.3%] FSI Weight: 0%
Communication Services ETF: XLC [11.0%] FSI Weight: 15.1%		Real Estate ETF: XLRE [2.5%] FSI Weight: 0%

Note: ETF: XXX [S&P Index Weight] as of December 30th of 2020.

Fundstrat Blockchain Research Capabilities

- Fundstrat is widely recognized as the only institutional research firm providing comprehensive market analysis and price analytics for crypto-currencies and blockchain technology.
- We have already established leadership in this space—in just the past year (since launching crypto-currency research), **we count >10% of all crypto-funds, representing ~33% of crypto AUM as our paying clients. We are effectively the only paid research subscription service in crypto with widespread adoption.**
- Thomas J Lee, head of overall strategy for crypto-currencies, is widely followed by both institutional investors, individual investors and the media. Our work is often widely quoted and cited in social media, traditional media channels and on television/cable networks.

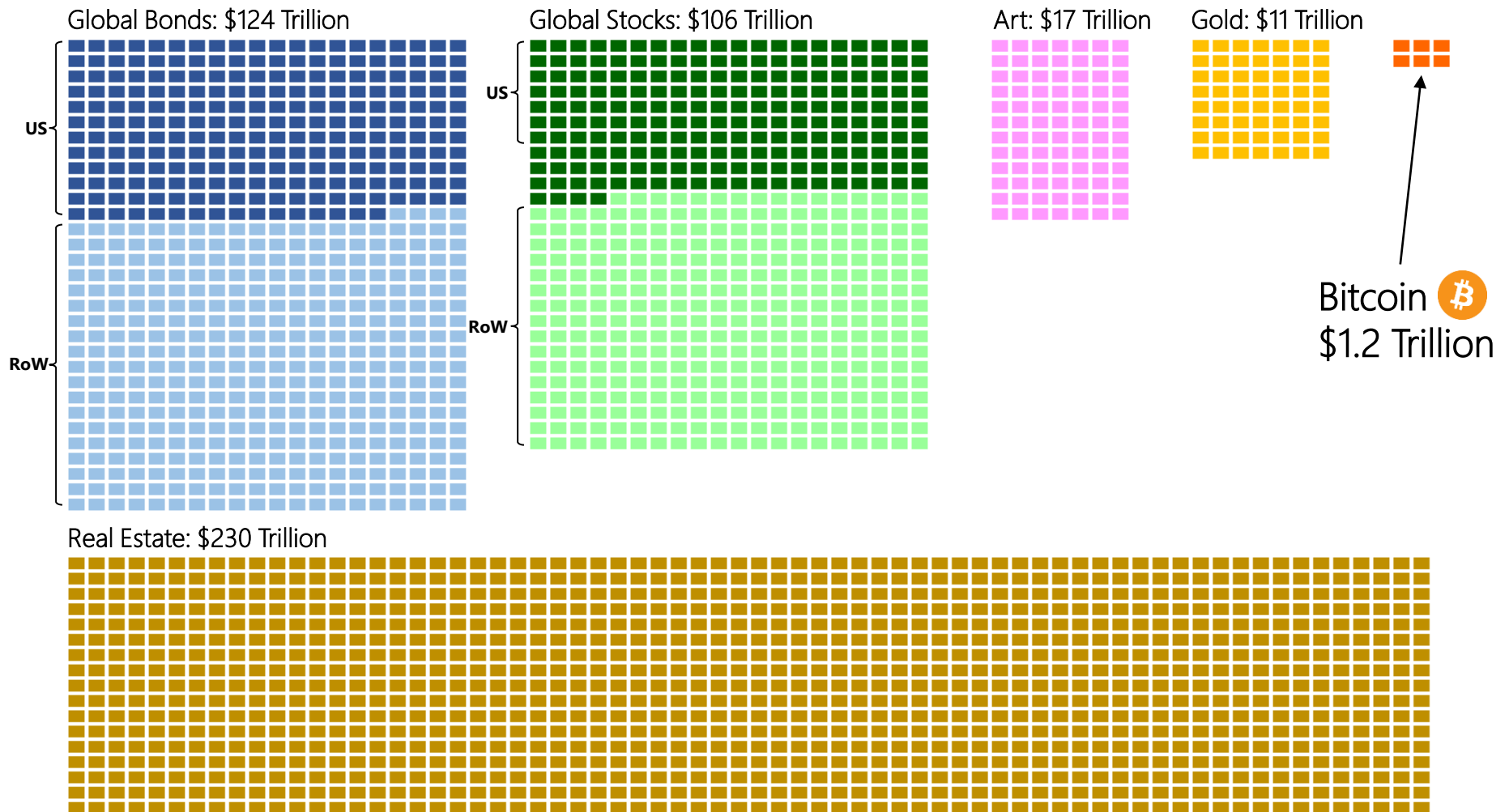
Our crypto-currency research products include the following:

- A proprietary valuation framework for the valuation of Bitcoin and major crypto-currencies.
- Fundstrat launched 5 crypto-currency indices last year. New products include:
 - ✓ Volatility-adjusted crypto-indices (beyond cap-weighting)
 - ✓ Launch of qualitative indices including: privacy tokens; general platform tokens; exchange tokens and digital currencies.
- A proprietary Bitcoin Misery Index to measure the Bitcoin holder's satisfaction with investing.
- Crypto-currency and Bitcoin mining and security model;
- Additionally, we provide bespoke quantitative research analytics for our crypto-currency clients, including portfolio optimization and risk-weighting.

Bitcoin earliest stages – 0.1% size of overall addressable investment

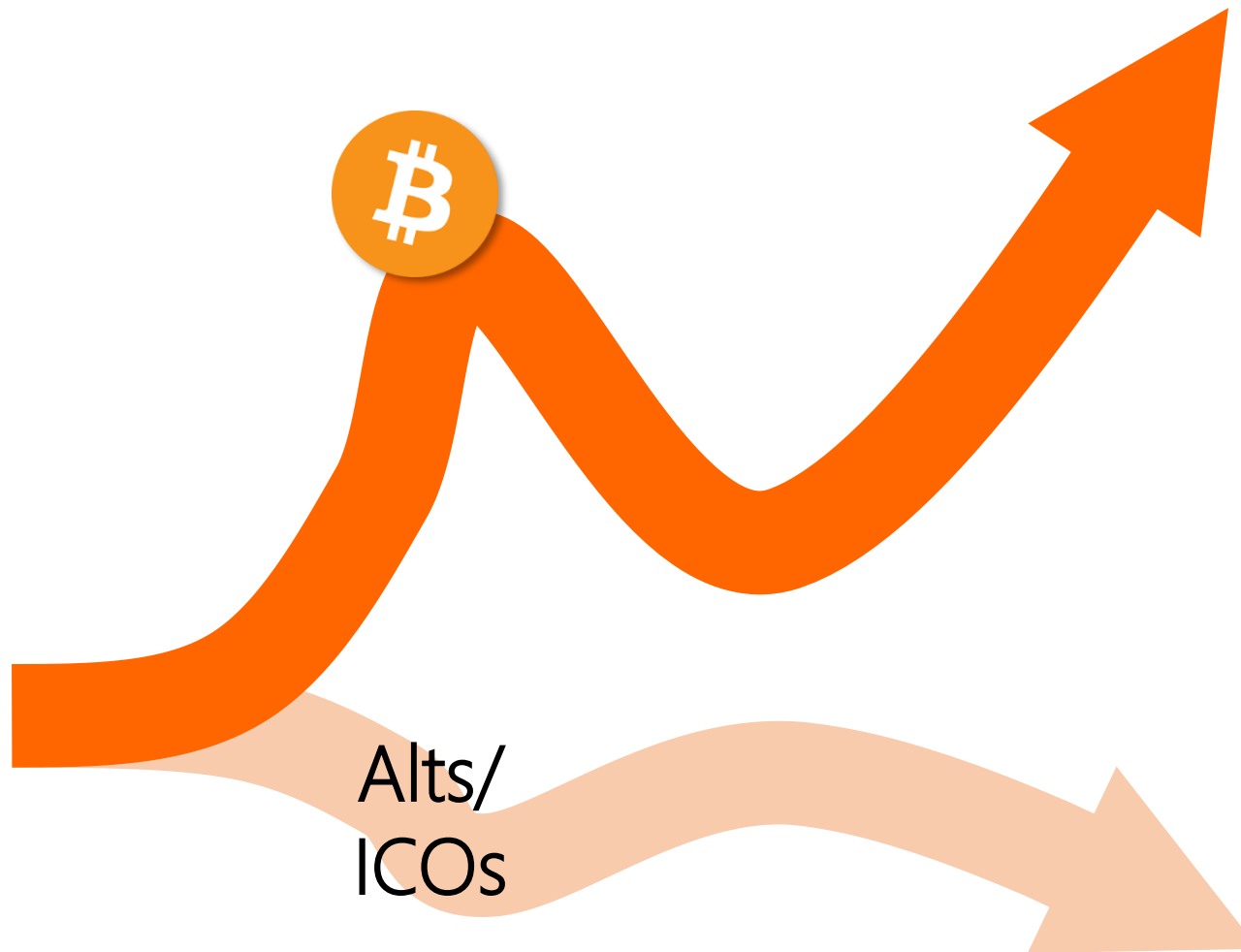
- Bitcoin's network valuation is \$1.2 trillion which ranks it as tiny versus other liquid market.

Figure: Size of various markets
Each square = \$200 billion



Source: Fundstrat, Twitter

Eco-system revolving around Bitcoin...



Value capture

Trading and research
Custody
On-ramps
Insurance
Investor education

Businesses:

Payment processing
UX/ UI businesses

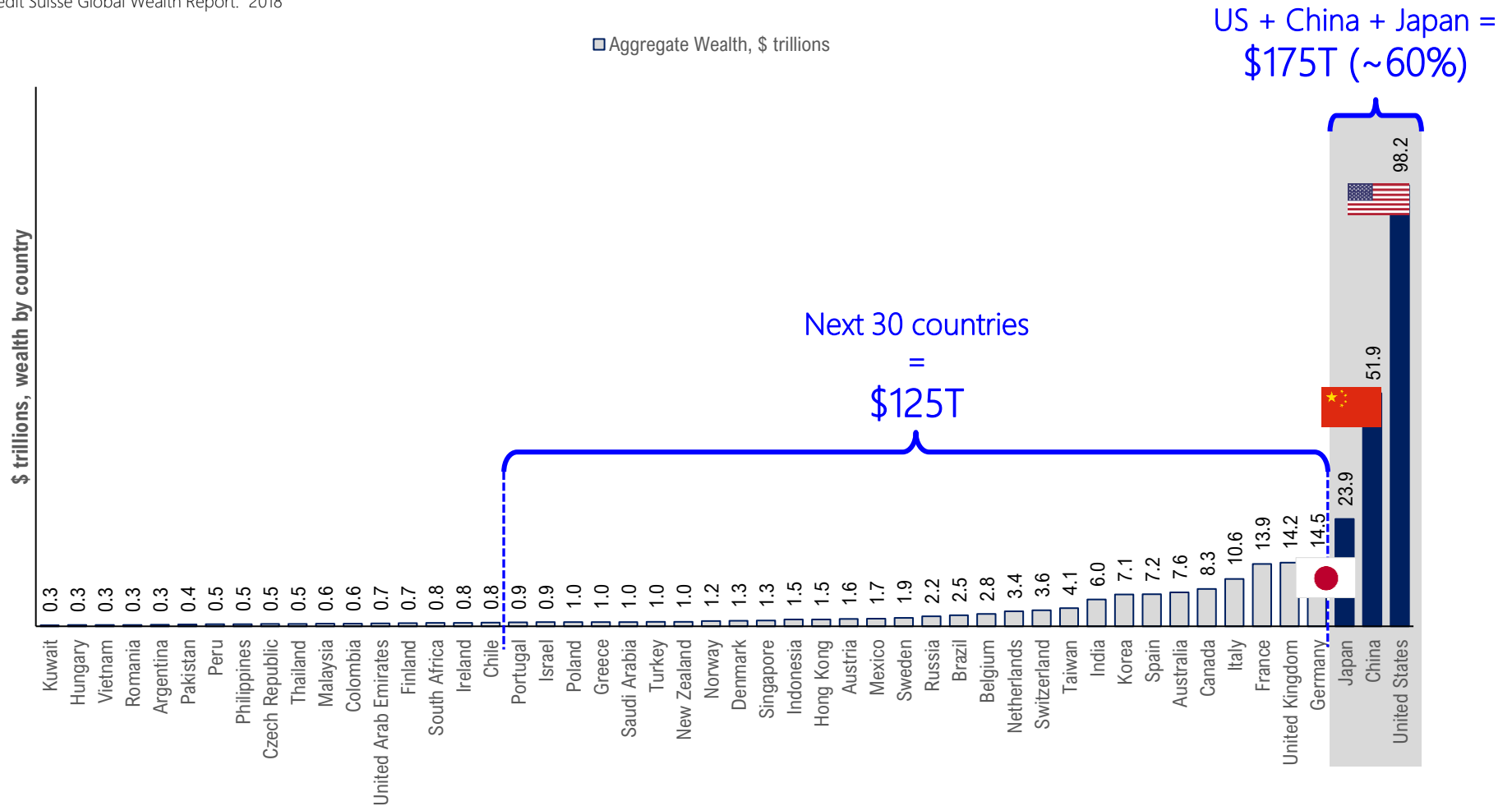
Alts/ ICOs

Investment banks
Influencers
Early stage investors

Source: Fundstrat,

US + China + Japan = 60% Global Wealth

Figure: Aggregate wealth by country
Credit Suisse Global Wealth Report. 2018



Source: Fundstrat, Bloomberg, Credit Suisse.

US most important economy for digital assets

Figure: Garrick Hileman's Bitcoin Market Potential Index (BMPI)






















Sorted by High (greatest potential to Low (least potential))

Rank	Country	Rank	Country	Rank	Country	Rank	Country
1	Argentina	51	Morocco	101	Guatemala	151	Spain
2	Venezuela	52	Thailand	102	Germany	152	Indonesia
3	Zimbabwe	53	Tajikistan	103	Honduras	153	Maldives
4	Malawi	54	Philippines	104	Pakistan	154	Chile
5	United States	55	Namibia	105	Fiji	155	Qatar
6	Belarus	56	Burundi	106	Samoa	156	Mongolia
7	Nigeria	57	Dominica	107	Armenia	157	Czech Republic
8	Congo, Dem. Rep.	58	Mali	108	Dominican Republic	158	Kenya
9	Iceland	59	Sao Tome and Princip	109	United Kingdom	159	New Zealand
10	Iran	60	Comoros	110	Norway	160	Austria
11	Russia	61	Madagascar	111	Slovenia	161	United Arab Emirates
12	Guinea-Bissau	62	Croatia	112	Trinidad and Tobago	162	Papua New Guinea
13	Sudan	63	Aruba	113	Iraq	163	Djibouti
14	Angola	64	St. Kitts and Nevis	114	Albania	164	Japan
15	Syria	65	Panama	115	Cyprus	165	Liberia
16	Uruguay	66	Mexico	116	Tonga	166	Brunei Darussalam
17	Brazil	67	Haiti	117	Ecuador	167	Afghanistan
18	Serbia	68	Macedonia	118	Kyrgyz Republic	168	Rwanda
19	Mozambique	69	Azerbaijan	119	St. Lucia	169	Ireland
20	Ukraine	70	Costa Rica	120	Malaysia	170	Bahrain
21	Benin	71	Seychelles	121	Finland	171	Timor-Leste
22	India	72	Bangladesh	122	Curacao	172	Kuwait
23	Moldova	73	Estonia	123	Portugal	173	Saudi Arabia
24	Tanzania	74	Belize	124	Antigua and Barbuda	174	Slovakia
25	Congo, Rep.	75	Uzbekistan	125	Bahamas	175	Yemen, Rep.
26	Tunisia	76	Lebanon	126	Cambodia	176	Oman
27	China	77	Romania	127	Montenegro	177	Vanuatu
28	Equatorial Guinea	78	Zambia	128	Malta	178	Jordan
29	Nicaragua	79	Mauritania	129	Guyana		
30	Gabon	80	Netherlands	130	Italy		
31	Bolivia	81	Lithuania	131	El Salvador		
32	Bulgaria	82	Sweden	132	Laos		
33	Ghana	83	Israel	133	Denmark		
34	Barbados	84	Colombia	134	Canada		
35	Turkey	85	Libya	135	Paraguay		
36	Cote d'Ivoire	86	Korea	136	Maldives		
37	Sri Lanka	87	St. Vincent and the	137	Hungary		
38	Chad	88	Hong Kong	138	Bosnia and Herzegovina		
39	Swaziland	89	Solomon Islands	139	San Marino		
40	Suriname	90	Togo	140	Gambia, The		
41	Burkina Faso	91	Grenada	141	Australia		
42	Senegal	92	Botswana	142	Latvia		
43	Jamaica	93	Kazakhstan	143	Belgium		
44	Poland	94	Sierra Leone	144	Vietnam		
45	South Africa	95	Egypt	145	Singapore		
46	Lesotho	96	Myanmar	146	Luxembourg		
47	Algeria	97	Bhutan	147	Greece		
48	Nepal	98	Cameroon	148	Switzerland		
49	Niger	99	Ethiopia	149	France		
50	Peru	100	Georgia	150	Uganda		

Rank	Country
1	Argentina
2	Venezuela
3	Zimbabwe
4	Malawi
5	United States
6	Belarus
7	Nigeria
8	Congo, Dem. Rep.
9	Iceland
10	Iran
11	Russia
12	Guinea-Bissau
13	Sudan
14	Angola
15	Syria
16	Uruguay
17	Brazil
18	Serbia
19	Mozambique
20	Ukraine
21	Benin
22	India
23	Moldova
24	Tanzania
25	Congo, Rep.
26	Tunisia
27	China

Source: Fundstrat, Garrick Hileman (link: https://fc15.ifca.ai/preproceedings/bitcoin/paper_14.pdf)

Research Publications

	Report Name	Frequency	Monday	Tuesday	Wednesday	Thursday	Friday
Macro Research							
Portfolio Strategy: Lee	Weekly Strategy	Weekly					
COVID Daily Update: Lee	FLASH: COVID update	4 Days (Sunday)					
Global Portfolio Strategy: Rauscher	Estimate Revision Model Monthly Update	Monthly					
Global Portfolio Strategy: Rauscher	Whispers of Wall Street	Weekly					
Quantitative Strategy: Gould	Quant Strategy	Weekly					
Technical Strategy: Newton	Technical Strategy	Daily					
Market Intelligence: Robb	Weekend Alpha	Weekly					
Market Intelligence: Robb	Signal from Noise	Weekly					
Quantamental: Xuan	Fundstrat Quant Model	Monthly Rebalance					
Washington: Block	Tom Block's Takeaways	Weekly					
Daily	Daily Markets Update & Earnings Report	Daily					

Research Publications

	Report Name	Frequency	Monday	Tuesday	Wednesday	Thursday	Friday
Crypto Research							
	Crypto Strategy: Lee	Crypto Strategy					
	Crypto Strategy: Crypto Team	Crypto Daily	Weekly				
	Crypto Strategy: Farrell	Crypto Weekly	Weekly				
	Crypto Strategy: Crypto Team	Crypto Funding Fridays	Weekly				
	Crypto Strategy: Teng	DeFi Digest	Weekly				
	Crypto Project Strategy	Crypto Special Report					



Research Services

		Institutional			
		Read-only	Low-touch Client	Full-service	Partnership
Macro Research					
Read-only	Fundstrat publications	●	●	●	●
	Conference calls / Webinar	●	●	●	●
Interaction	Periodic Phone calls/ emails		●	●	●
	One-on-one meetings			●	●
	Idea dinners			●	●
Custom work	Bespoke projects			●	●
Model sharing	Custom indices/ DQM analysis				●
	Sharing research models				●

Crypto Research					
Read-only	Fundstrat publications	●	●	●	●
	Conference calls / Webinar	●	●	●	●
Interaction	Periodic Phone calls/ emails		●	●	●
	One-on-one meetings			●	●
	Idea dinners			●	●
Custom work	Bespoke projects			●	●
Model Sharing	Create custom sector indices				●
	Sharing research models				●

Management



Thomas J. Lee, CFA
Co-Founder, Head of Research
In research: 26 years

Prior to founding Fundstrat, Mr. Lee was at J.P. Morgan from 1999 to 2014 and served as Chief Equity Strategist from 2007 to 2014. He was top-ranked by Institutional Investor every year since 1998. Previously served as Managing Director at Salomon Smith Barney. Mr. Lee graduated from the undergraduate program at the Wharton School, University of Pennsylvania.



John Bai
Co-Founder, Head of Sales
In sales: 25 years

Fundstrat sales is led by John Bai, who has 25 years of experience in finance. Former head of Asia and US equity sales at Mizuho Securities. Former head of hedge funds sales at CLSA (Calyon Securities). Former head of Asia equity sales at ING Barings.

Extensive knowledge of all major hedge funds in USA and Asia. Was ranked top Asia equity sales in 2004. Biggest producer of commissions at CLSA and Mizuho Securities since 2003. BA in electrical engineering Columbia University. MBA in finance and accounting University of Chicago.



Adam Klein, CPA
Partner, Chief Financial Officer
In financial services: 15 years

Most recently, Adam spent 3 years as the Senior Controller at Jafra Capital Management LP, a long/short macro hedge fund. Adam joined Jafra pre-launch where he headed up their financial reporting and trading operations. Prior to Jafra, Adam spent nine years with Omega Advisors, Inc., as an assistant controller for several flagship Omega funds. Adam began his career in 2004 at Ernst & Young LLP in the asset management office and earned his BA from the University of Oregon and his MBA from Baruch College's Zicklin School of Business.

Source: Fundstrat

Research Team



L. Thomas Block
Washington and
Policy Strategist

Tom had a 21-year career at J.P. Morgan, as Global Head of Government Relations. Prior to that, he served as Legislative Assistant and Chief of Staff in the House, and Legislative Staff Director in the Senate.



Sean Farrell
Head of Digital Asset
Research
In research: 6 years

Sean Farrell is a Vice President of Digital Asset Strategy at Fundstrat Global Advisors. Prior to joining Fundstrat, Sean was a manager in the Transaction Opinions group at Alvarez & Marsal, and previously worked as an associate with Anvil Advisors.



Adam Gould, CFA
Head of Quantitative
Research
In research: 20 years

Quantitative strategist and researcher with previous experience at S&P Dow Jones, Nomura/Instinet, Morgan Stanley, and Empirical Research Partners. He holds a B.S. and M.S. in Electrical Engineering and Computer Science from MIT.



Mark L. Newton, CMT
Head of Technical
Strategy
In research: 25 years

Former experience as the managing member/Owner of Newton Advisors LLC, and with Diamondback Capital Management, Morgan Stanley, and CBOE. Mark is a member of the Market Technicians Association and a former member of the CBOE, CBOT, and PHLX.



Brian Rauscher, CFA
Head of Global
Portfolio Strategy
& Asset Allocation
In research: 25 years

Rauscher's work experience includes Morgan Stanley, Brown Brothers Harriman, Fortress Investment Group, and Wedge Partners. He most recently served as Chief Portfolio Strategist at Robert W. Baird & Co..



Ken Xuan, CFA, FRM
Partner, Head of Data
Science Research
In research: 7 years

Data scientist with expertise in applied mathematics and statistical analysis. Ken was an operations strategy consultant at West Monroe Partners. Ken received a B.S. in Economics from Purdue University and an M.S. in Operations Research from Columbia University.

Source: Fundstrat

Research Team



Jonathan Lesser
Vice President
In research: 25 years

More than 25 years experience in investment strategy and research, most recently with RW Baird & Co., where he was responsible for developing and maintaining the Global Portfolio Strategy data platform. Prior to Baird, Jonathan worked at Fortress Investment Group as well as at Brown Brothers Harriman.



Chris Robb
Vice President
In research: 10 years

Prior to joining Fundstrat, Chris was Senior Research Analyst at Dentons. Previously he was a Policy & Supervision Analyst at the Conference of State Bank Supervisors. He worked in both the legislative and executive branch in Washington DC. Chris also founded a FinTech company in 2015.



Will McEvoy
Research Associate
In research: 3 years

Will brings three years of experience in strategic finance, data analysis, and digital asset investing. Prior to joining Fundstrat, he was Assistant Vice President at Dynasty Financial Partners, where he built the firm's Strategic Finance & Analysis product.



John Bush
Research Associate
In research: 1 year

Previously an intern at Chimera Investment Corporation, a mortgage REIT. He holds a B.S. in Operations Research and Information Engineering from Cornell University.



Walter Teng
Research Associate
In research: 3 years

Walter has previously held roles at Amazon and other PropTech startups. He holds a BA in Economics from University of Michigan, MSc in Financial Analysis from London Business School, and has passed 3 levels of the CFA Examinations.



Jack Runge
Research Associate
In research: 1 year

Jack was previously at Capital One's Auto Finance division where he helped revamp their pricing structure and modeled around loan-level cash flow and dealer financial health predictions. Jack holds a B.S. in Nuclear Engineering from Texas A&M



Alexa Sinsheimer
Research Associate
In research: 1 year

Alexa most recently worked at a sustainable e-commerce start-up, where she managed strategy and operations. She holds a B.A. in Political Science from the University of Pennsylvania.

Source: Fundstrat

Research Team



Carrie Presley
Vice President and Head of
Video Production

Carrie has over 10 years of corporate accounting experience and is a nationally recognized educator for her innovations in technology. Most recently, Carrie founded a blockchain software engineering and education company, developing programs for decentralized applications. Carrie received her BBA from the University of Oklahoma in Accounting.



Lazlo Vekony
Senior Web Development
and UX/UI Consultant

Lazlo Vekony is a senior full-stack web developer at FSInsight. He has received a Master of Arts degree in Law. With close to a decade of web development experience he develops and maintains the FSInsight website.



Diego Czul
Web Developer
In research: 6 years

Mr. Czul's experience in technology covers Bioinformatics, Aerospace Engineering, and Algorithmic Trading in financial markets. He has developed extensive information systems involving real-time data in fixed income, forex, commodity and cryptocurrencies powered by AI and NLP. Cryptocurrency enthusiast since 2014, his expertise covers AI, technology, data-mining, blockchain, cryptocurrency and macroeconomic trading.

Source: Fundstrat

Sales Team



Bill Vasilakos
Partner, Managing Director
In sales: 20 years

Former Senior Institutional Equity Salesperson at Empirical Research. He has over 20 years of experience in both research and sales.



Jay Kreske
Managing Director
In sales: 25 years

Jay has over 25 years of experience serving institutional clients at major Wall Street firms including JP Morgan, Deutsche Bank and Mizuho Securities.

Jay graduated with degrees in Finance and Marketing from the University of Wisconsin – Milwaukee and holds an MBA from The Booth School of Business at the University of Chicago

How to find us

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Facebook facebook.com/fundstratglobal



Linkedin linkedin.com/company/fundstrat-global-advisors

Disclosures

This research is for the clients of Fundstrat Global Advisors only. For important disclosures and rating histories regarding sectors or companies that are the subject of this report, please contact your sales representative or Fundstrat Global Advisors at 150 East 52nd Street, New York, NY, 10022 USA.

Analyst Certification (Reg AC)

Thomas J. Lee, the research analyst denoted by an “AC” on the cover of this report, hereby certifies that all of the views expressed in this report accurately reflect his personal views, which have not been influenced by considerations of the firm’s business or client relationships.

Neither I, nor a member of my household is an officer, director, or advisory board member of the issuer(s) or has another significant affiliation with the issuer(s) that is/are the subject of this research report. There is a possibility that we will from time to time have long or short positions in, and buy or sell, the securities or derivatives, if any, referred to in this research

Conflicts of Interest

This research contains the views, opinions and recommendations of Fundstrat. As of the time of writing and publication of this presentation, Fundstrat does not know of, or have reason to know of any material conflicts of interest at the time of the publication of this presentation. The Company has no contractual relationship, nor have we received any compensation from any of the companies listed in this research report.

Analyst Industry/Sector Views

Positive (+): The analyst expects the performance of his industry/sector coverage universe over the next 6-18 months to be attractive vs. the relevant broad market benchmark, being the S&P 500 for North America.

Neutral (N): The analyst expects the performance of his or her industry/sector coverage universe over the next 6-18 months to be in line with the relevant broad market benchmark, being the S&P 500 for North America.

Negative (-): The analyst expects his or her industry coverage universe over the next 6-18 months to underperform vs. the relevant broad market benchmark, being the S&P 500 for North America.

General Disclosures

Fundstrat Global Advisors is an independent research company and is not a registered investment advisor and is not acting as a broker dealer under any federal or state securities laws. Fundstrat Global Advisors is a member of IRC Securities’ Research Prime Services Platform. IRC Securities is a FINRA registered broker-dealer that is focused on supporting the independent research industry. Certain personnel of Fundstrat (i.e. Research Analysts) are registered representatives of IRC Securities, a FINRA member firm registered as a broker-dealer with the Securities and Exchange Commission and certain state securities regulators. As registered representatives and independent contractors of IRC Securities, such personnel may receive commissions paid to or shared with IRC Securities for transactions placed by Fundstrat clients directly with IRC Securities or with securities firms that may share commissions with IRC Securities in accordance with applicable SEC and FINRA requirements. IRC Securities does not distribute the research of Fundstrat, which is available to select institutional clients that have engaged Fundstrat.

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