

ACTING RATIONALLY



IN AN IRRATIONAL MARKET

RISK AWARENESS WEEK 2022



Risk Awareness Week - 2022
17 – 21 October 2022



Workshop By:
SAJID IQBAL
Deputy CRO
Habib Bank AG Zurich





ABOUT ME.

INTRODUCTION

Sajid Iqbal is a seasonal Banker, Market & Investment Risk expert with unique expertise in Digital Banking. He has been in the banking industry for over 16 years and worked for leading banks across multiple regions.

Sajid has extensive banking and risk experience and has worked in key positions for UBL, Barclays and RBS and currently serving as a Deputy CRO in a Swiss bank Habib Bank AG Zurich.

Sajid has specialized in Investment Risk and attained multiple regulatory and professional certifications.

In his current role of Deputy CRO at Habib Bank AG Zurich, he is actively involved in building and maintaining a robust enterprise-wide risk management framework with combined risks arising out of credit, market & operations. As a specialist, he is responsible for managing and maintaining the Market & Liquidity risks framework for the organization along with Model risk governance and Wealth Management associated risks. He is the lead member of governance committee for LIBOR Transition and key member of IRRBB management team in Habib Bank AG Zurich..



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Join The Global Initiative To Promote Risk Based Decision Making





DISCLAIMER!

Information & Opinions.

All my opinions and Information are based on my research and study from various credible resources available through official publications, articles and blogs from the various credible market intelligence & research providers.

This workshop is for information purposes only and should not be construed as investment advice. I do not make any representations or warranties regarding, or assumes any responsibility for the accuracy, reliability, completeness or applicability of, any information, calculations contained herein or of any assumptions underlying any information, calculations, estimates or projections contained or reflected herein.



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About this workshop.

In this workshop, we will discuss traditional investment strategies against the backdrop of the Efficient Market Hypothesis. I will explain the risks and pitfalls of traditional investment models by briefing you on their inherent and residual risks.

We will then learn the differences and associated risks of rational vs irrational investment behaviors. We will also learn how we can train our minds for the right risk-taking approach by understanding long-term vs short-term market views.

In the end, we will conclude on key takeaways from Broken investment models and sustainable investment strategies. How we can apply our new investment understanding to the current economic environment with high inflation risks, recession risks, commodities, and credit crises.



Topics to discuss.

- 01. TRADITIONAL INVESTMENTS & STRATEGIES**
- 02. RATIONAL INVESTING – EFFICIENT MARKET HYPOTHESIS**
- 03. WHAT'S BROKEN IN RATIONAL INVESTING ? (CASE STUDIES)**
- 04. NON-RATIONAL / BEHAVIORAL INVESTING**
- 05. HOW TO ACT RATIONALLY IN AN IRRATIONAL MARKET?**





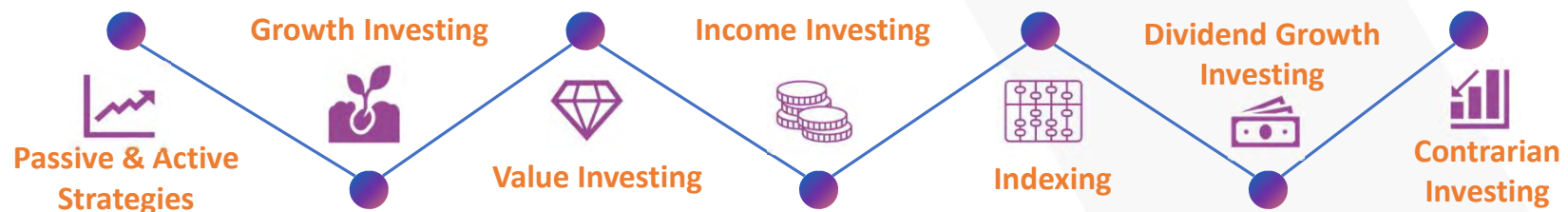
1. TRADITIONAL INVESTMENTS & STRATEGIES



TRADITIONAL TYPES OF INVESTMENTS AND STRATEGIES



INVESTMENT STRATEGIES



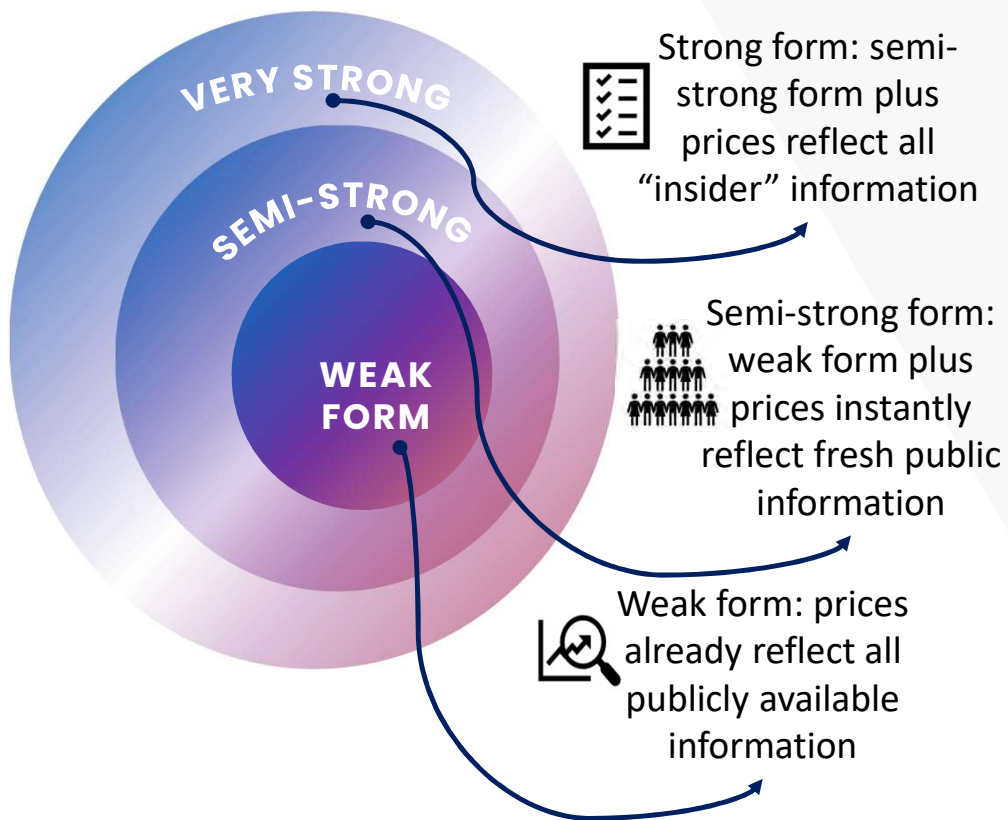


2. RATIONAL INVESTING – EFFICIENT MARKET HYPOTHESIS



EFFICIENT MARKET HYPOTHESIS

THREE FORMS OF EFFICIENCY



- All investors act rationally all the time, maximizing return for minimal risk
- All new information immediately discounted in market prices
- All securities trade at fair value, assuming similar pricing models
- Impossible to create excess returns above risk adjusted average



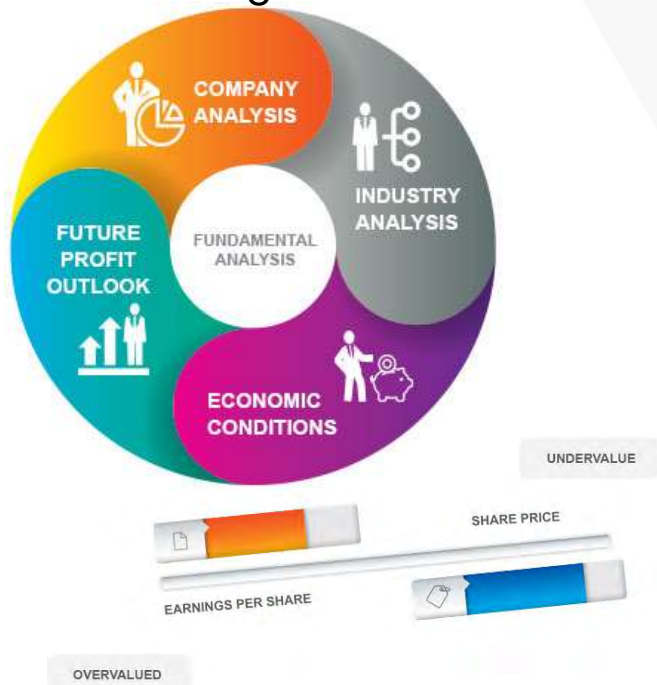
Key proponent
Eugene Fama
(Nobel Prize for Economic Sciences, 2013)

INVESTMENT ANALYSIS & VALUATION MODELS



Value Investing

The basic belief is that as the company grows so will the value of the share increase. This in turn will benefit the investor in the long run



Contrarian Investing

buying umbrellas in the winter at a cheap rate and selling them during rainy days.

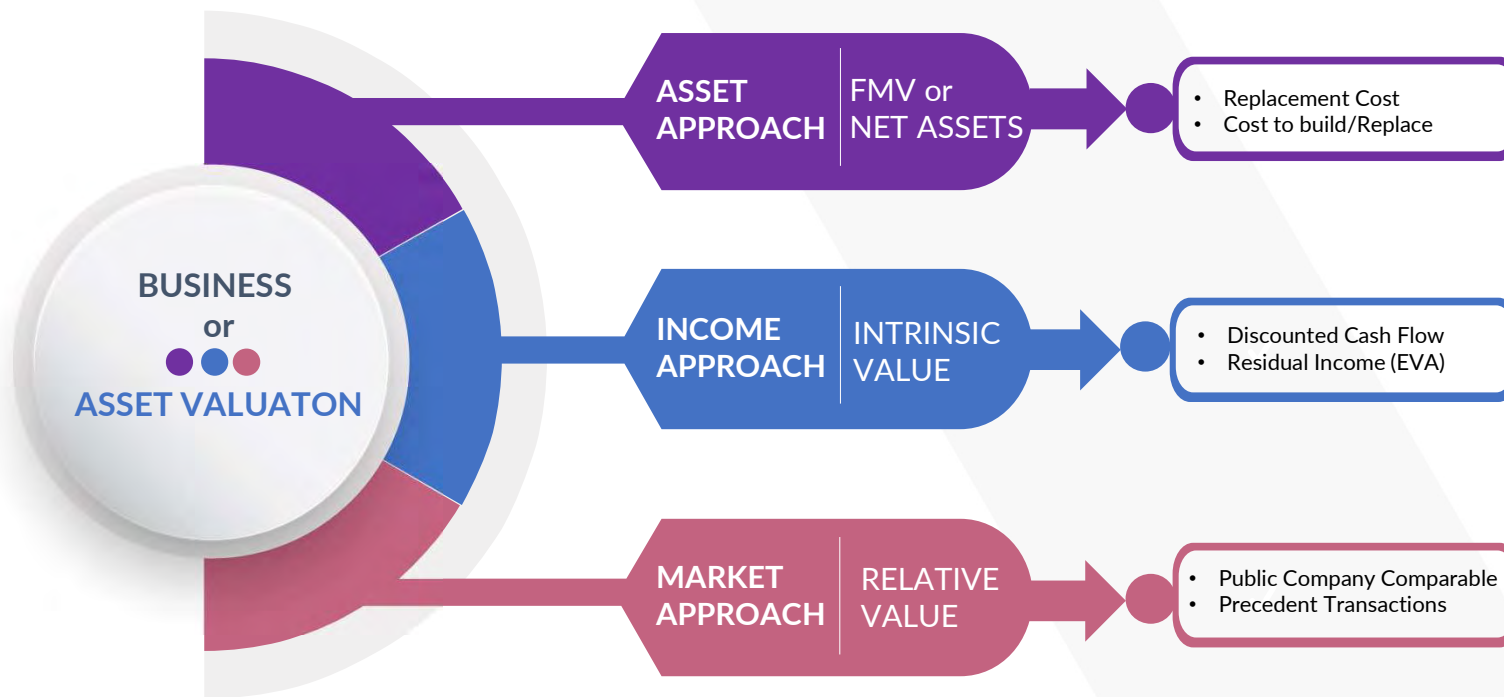


INVESTMENT ANALYSIS & VALUATION MODELS



Investment hypothesis: The current market price of the security is not reflective of its intrinsic value. A valuation is necessary in determining that intrinsic value.

MAIN VALUATION METHODS



MODERN PORTFOLIO THEORY & CAPITAL ASSET PRICING MODEL

Modern Portfolio Theory

- Portfolio construction to maximize return for minimal risk
- Each security selected for impact on overall portfolio risk and return
- Requires known investor risk-tolerance and behavior
- Assumes reliable forecasts of returns of individual assets and reliable variance and correlation between all the assets in the portfolio

Key proponent

Harry Markowitz (Nobel Prize for Economic Sciences, 1990)

Capital Asset Pricing Model

- Relationship between expected return of an asset and its risk
- Expected return = risk-free rate + (risk premium of the asset x beta)
- Requires forecast of beta (volatility of returns relative to overall market)

Key proponents

William Sharpe (Nobel Prize for Economic Sciences, 1990) Jack Treynor, John Lintner, Jan Mossin





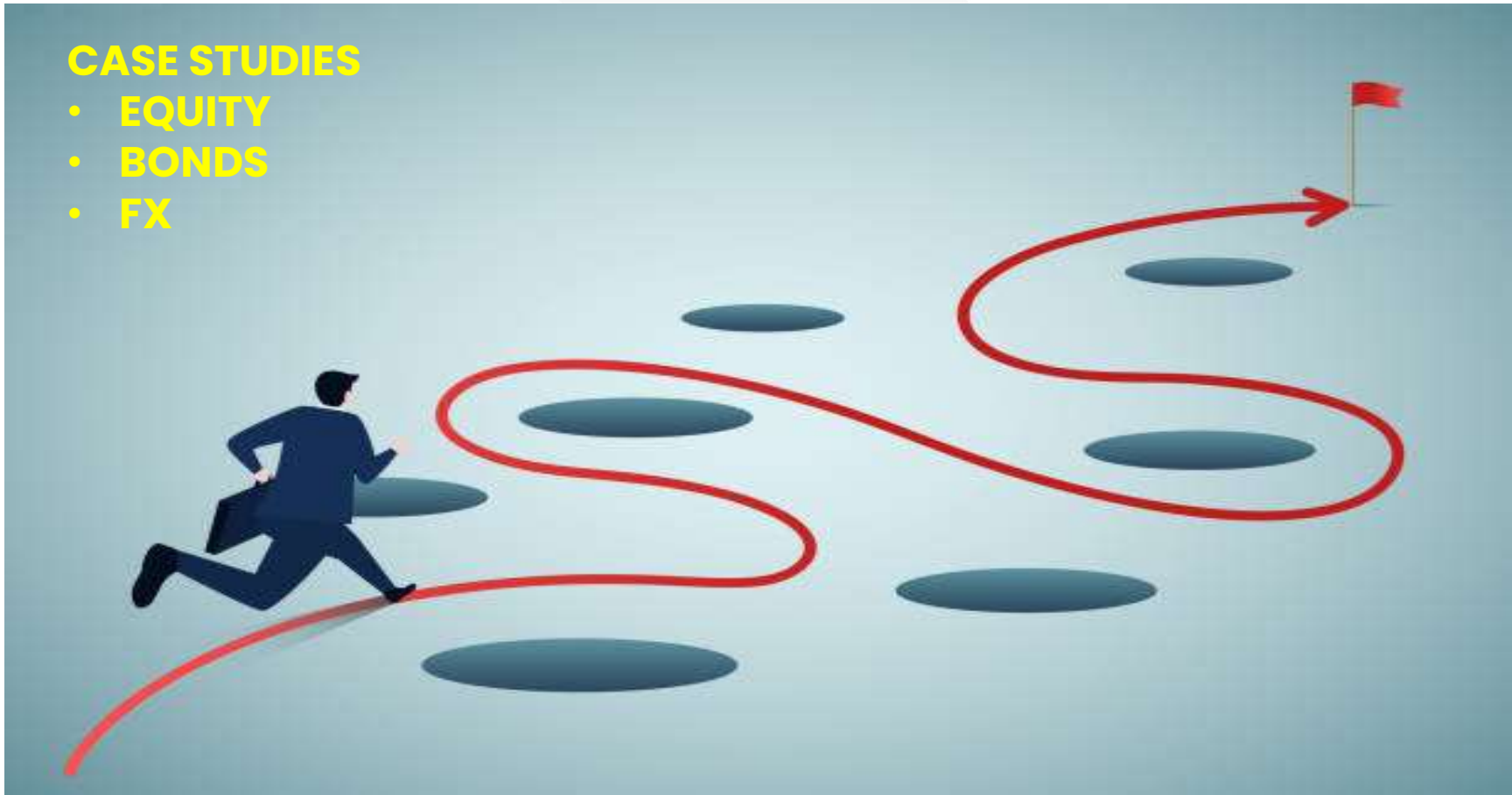
3. WHAT'S **BROKEN** IN RATIONAL INVESTING ? (CASE STUDIES)



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

CASE STUDIES

- EQUITY
- BONDS
- FX



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

TESLA US Equity

- Fair value adjusted instantly as new information released
- Fair value adjustments in random walk (non trending)
- Market price should adjust in line with new fair value
- Market price changes before, not after, fair value changes
- Market price trends up & down



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

TESLA US Equity

Dividend Discount Model

- Theoretical Price: \$ 26.12
- Market Price: \$282.94

Model Assumptions		Risk Premium Country/Region	United States
Earnings Per Share FY1	4.360	Bond Rate	3.982 %
Earnings Per Share FY2	5.838	Country/Region Premium	5.326 %
Earnings Per Share FY3	6.932	Beta	1.669
Dividends Per Share FY1	0.000	1) Risk Premium	8.891 %
Growth Years	9	Payout during Growth yrs	0.000 %
Transitional Years	8	Payout at Maturity	45.000 %
Long Term Growth Rate	8.850 %	Growth Rate at Maturity	7.080 %
Closing Price	282.940	Currency	USD
Computed Values			
Theoretical Price	26.122		
Percentage Change from Cl...	-90.768 %		
Internal Rate of Return	8.096 %		
Expected Return	-76.197 %		
Implied Growth Rate	32.666 %		



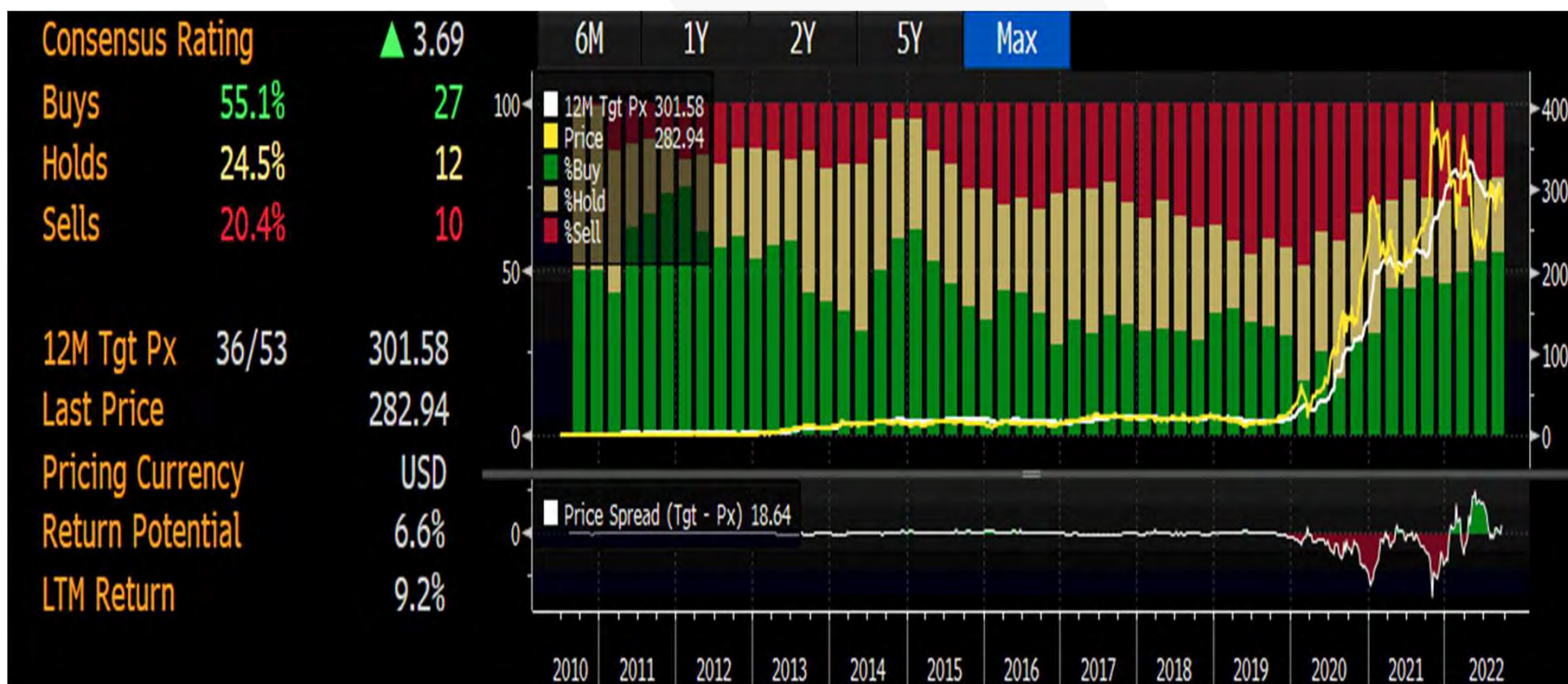
EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

TESLA US Equity

Analyst Recommendations 2012 2022

12-month Target Price: \$301.58

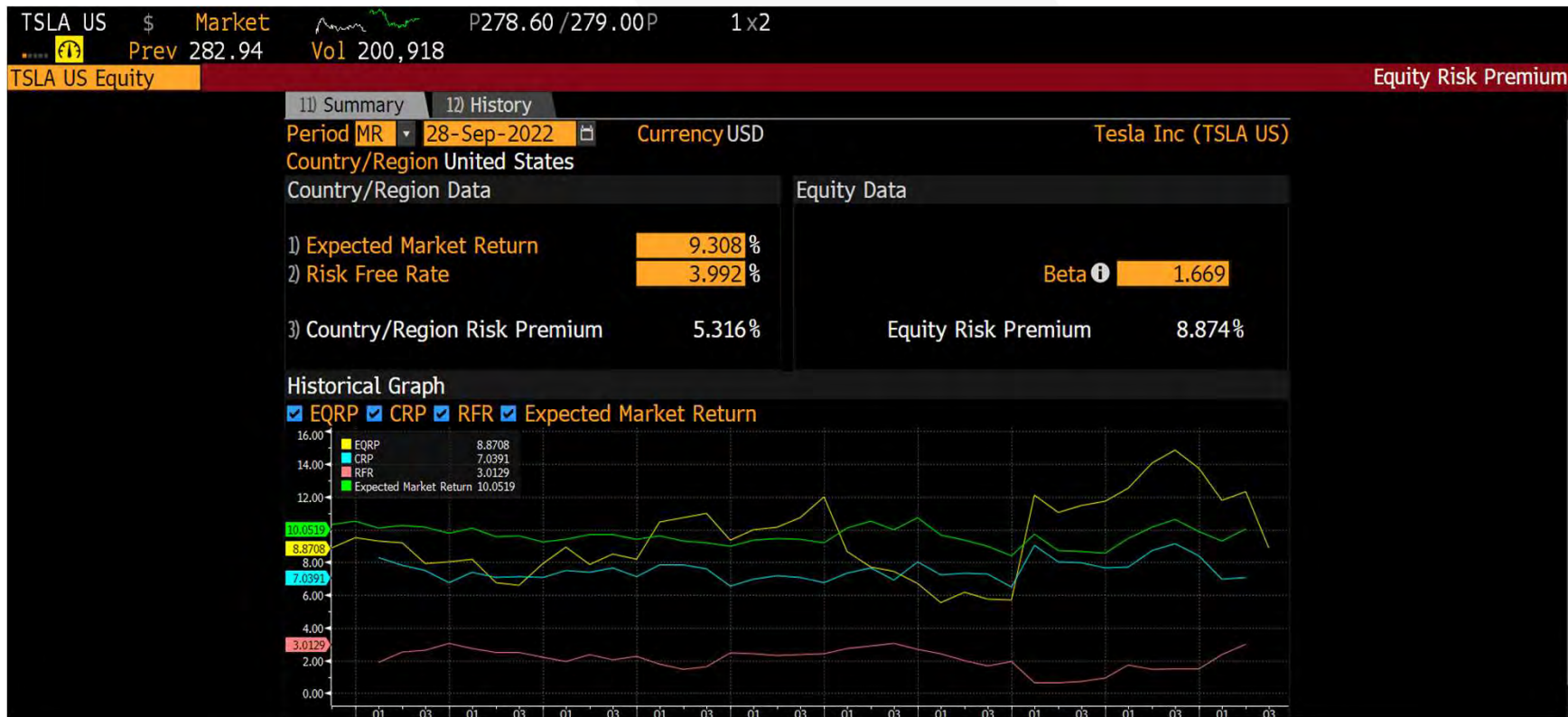
Market Price: \$282.94



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

TESLA US Equity

Capital Asset Pricing Model



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

TESLA US Bond

Cash Flow Analysis

Present Value: \$973,045.76

Market Price: \$1,367.58

TSLA 2 05/15/24 \$↑1366.54 -0.028 1365.52 / 1367.56 -110.06 / -110.10
 At 12:00 -- x -- Source BVAL

TSLA 2 05/15/24 Corp 1) Export 97) Settings Cash Flow Analysis
 1365.520/1367.558 -110.062/-110.1... BVAL @ 12:00 95) Buy 96) Sell
 BBID ZS4501020

2) Cash Flows 3) Present Values 4) Distressed Analysis

Price 1,367.558000 Settlement 09/30/22 Issue 05/07/2019 Maturity 05/15/2024
 Real Yld -110.103420 to Worst 05/15/24 @ 100.000000 Face Amt 1000 M
 Pres Val 973,045.76 Discount Type Constant Curve 1) Config Curve/Sprd
 Spread 0.000 bp Curve YCGT0025 US Treasury Actives

Payment Date	Interest	Principal	Spot Rates	Present Value
11/15/2022	10,000.00	0.00	2.904523	9,963.02
05/15/2023	10,000.00	0.00	3.954563	9,756.71
11/15/2023	10,000.00	0.00	4.156391	9,546.98
05/15/2024	10,000.00	1,000,000.00	4.25964	943,779.05

Accrued 7,500.00 Prev Cpn Dt 05/15/2022 Total 1,040,000.00



EVALUATING RATIONAL INVESTING & EFFICIENT MARKET HYPOTHESIS

FX Market

203) Single Ranking		204) Historical Ranking		205) Multiple Ranking	
210) Returns		Values as of 09/28/22		Basket G10	
220) Interest Rates				Base USD	
240) Volatility					
250) Carry Trade					
260) CDS					
270) Purch. Power					
271) PPP (Consumer)					
272) PPP (Producer)					
273) PPP (BigMac)					
274) PPP (OECD)					
280) Eff. Exchange Rate					
290) Economics					
		% Over/Under	Estimated PPP	Spot Rate	
1) EUR	-48.10	-48.099853515625	1.42	0.96	
2) JPY	-44.20	-44.203399658203125	100.41	144.80	
3) GBP	-34.49	-34.487987518310547	1.44	1.07	
4) SEK	-30.47	-30.469879150390625	8.71	11.36	
5) NZD	-19.31	-19.311786651611328	0.67	0.56	
6) DKK	-17.56	-17.563377380371094	6.59	7.75	
7) NOK	-11.84	-11.842132568359375	9.67	10.82	
8) CAD	-9.52	-9.522562980651855	1.25	1.37	
9) AUD	-8.00	-7.997540473937988	0.69	0.64	
10) CHF	10.22	10.218140602111816	1.10	0.99	





4. NON-RATIONAL / BEHAVIORAL INVESTING



BEHAVIORAL INVESTMENT (NON-RATIONAL)

All investment decisions derive from human decision-making processes

Influence of psychology on investor behavior

Any patterns in human decision making reflected in investment price patterns

Sentiment ("Technical") Analysis
Ongoing Risk Management



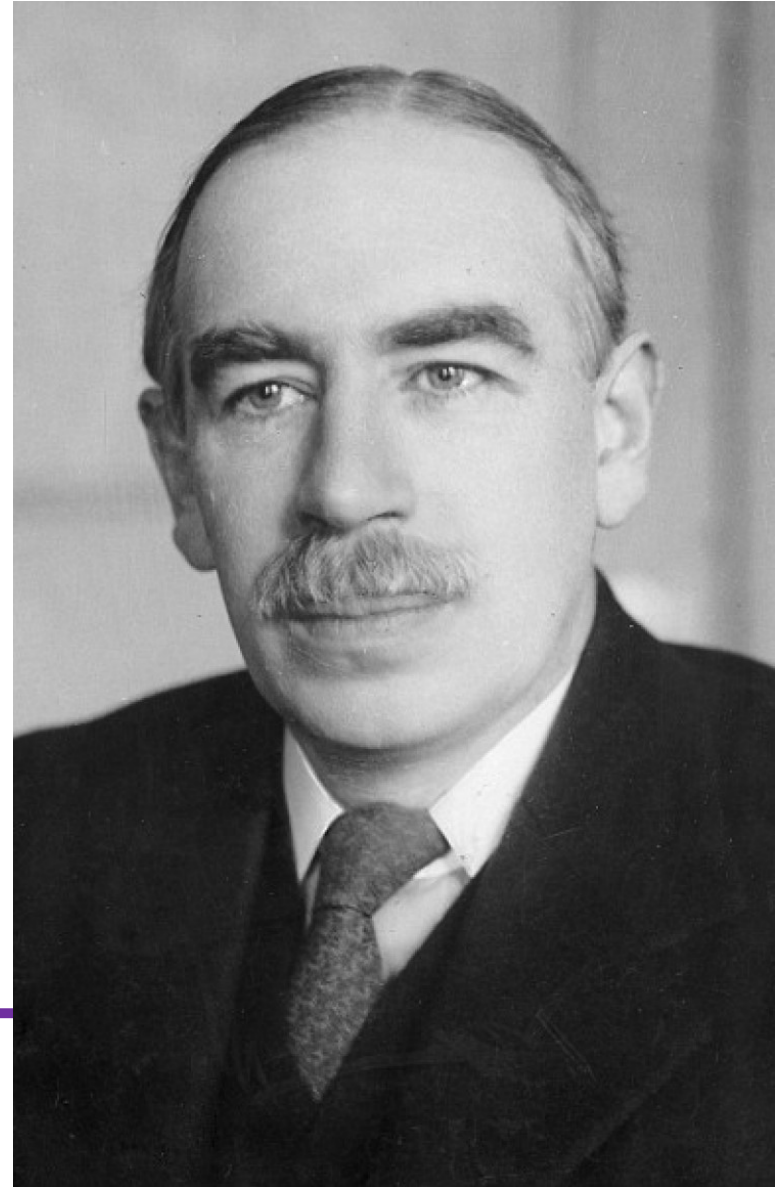


5. HOW TO ACT RATIONALLY IN AN IRRATIONAL MARKET



CONTINUOUS WEALTH CREATION WITHOUT SETBACKS IS NOT POSSIBLE

John Maynard Keynes was well known as a successful investor, but in 1920 he lost his fortune and had to start from scratch. “Keynes learned a valuable but painful lesson – markets can act perversely in the short-term. Of this, he later famously commented: **‘The market can stay irrational longer than you can stay solvent’**”



WEALTH CREATION OR CAPITAL PRESERVATION ?



If financial instability, inflation, and higher taxes continue to mark the economic outlook, traditional approaches may fail to even preserve capital.

Diversified investments in assets such as stocks and bonds (as well as products derived from these instruments). may help to preserve capital, but it is certainly not suitable for investors whose mission is to create substantial wealth.

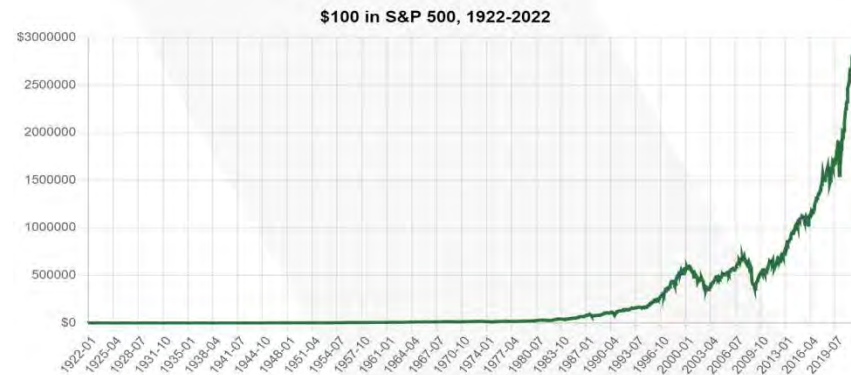
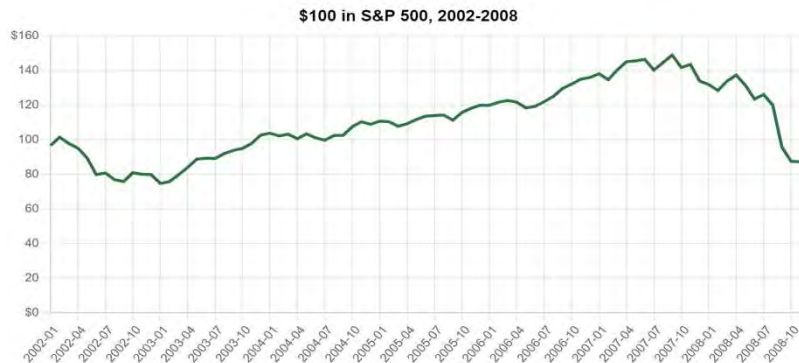


THE TRUTH ABOUT RETURNS ON STOCKS AND BONDS

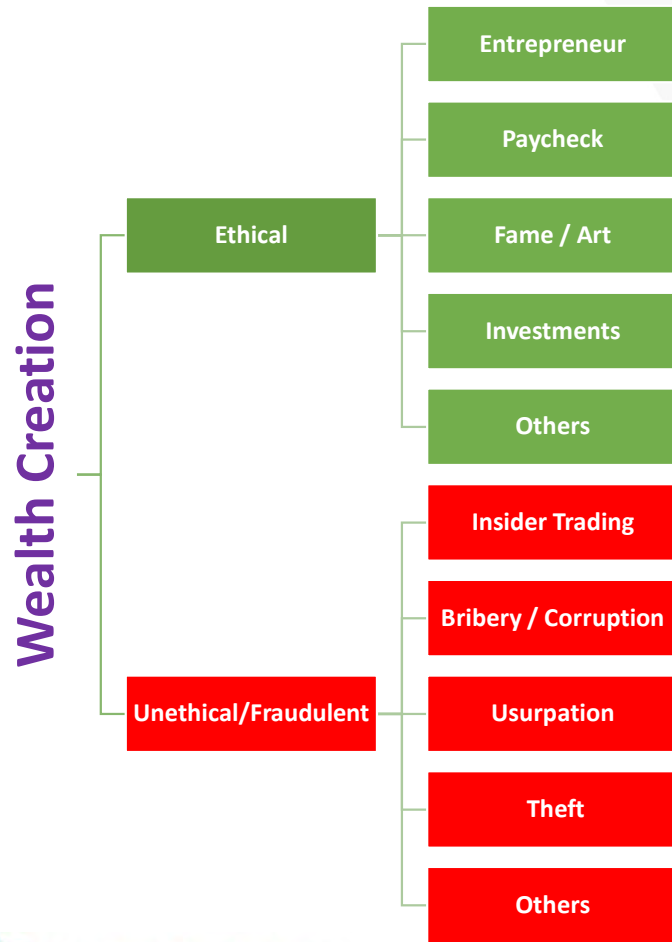
To create wealth, an investor would have to apply a very difficult market timing. He would have had to invest massively in 2002, stay invested until 2007, sell all stocks in 2007, and again invest heavily in 2008 after the crash. Unfortunately, however, there is a fundamental difficulty in understanding market movements, even in retrospect .

S&P 500 from 2002 to 2008	
Start Value	\$1,140.21
Average monthly close	
End Value	\$1,378.76
Average monthly close	
Change in price	20.92% 3.22% / yr
Change incl. dividends	-13.74% -2.09% / yr
Change incl. dividends, inflation-adjusted	-27.93% -4.57% / yr
Final amount, nominal (\$100 base)	\$86.26
Final amount, inflation-adjusted (\$100 base)	\$72.07

S&P 500 from 1922 to 2022	
Start Value	\$7.30
Average monthly close	
End Value	\$3,831.39
Average monthly close	
Change in price	+52,384.79% +6.46% / yr
Change incl. dividends	+2,321,754.08% +10.52% / yr
Change incl. dividends, inflation-adjusted	+131,604.82% +7.41% / yr
Final amount, nominal (\$100 base)	\$2,321,854.08
Final amount, inflation-adjusted (\$100 base)	\$131,704.82



WAYS TO CREATE WEALTH



WHY TRADITIONAL INVESTMENT MODELS DON'T WORK?



TAXES, FEES, AND OTHER COSTS



THE TEMPTATION TO FOLLOW SIMPLE GRAPHS AND THE CATASTROPHIC EFFECTS OF POWER LAWS



IS INVESTING A BELL CURVE GAME?



THE TREMENDOUS IMPACT OF POWER LAW EVENTS



WHY IS THE FINANCIAL SERVICES INDUSTRY (STILL) PROMOTING STOCKS AND BONDS?



CHALLENGES FACING NEAR-TERM PERFORMANCE



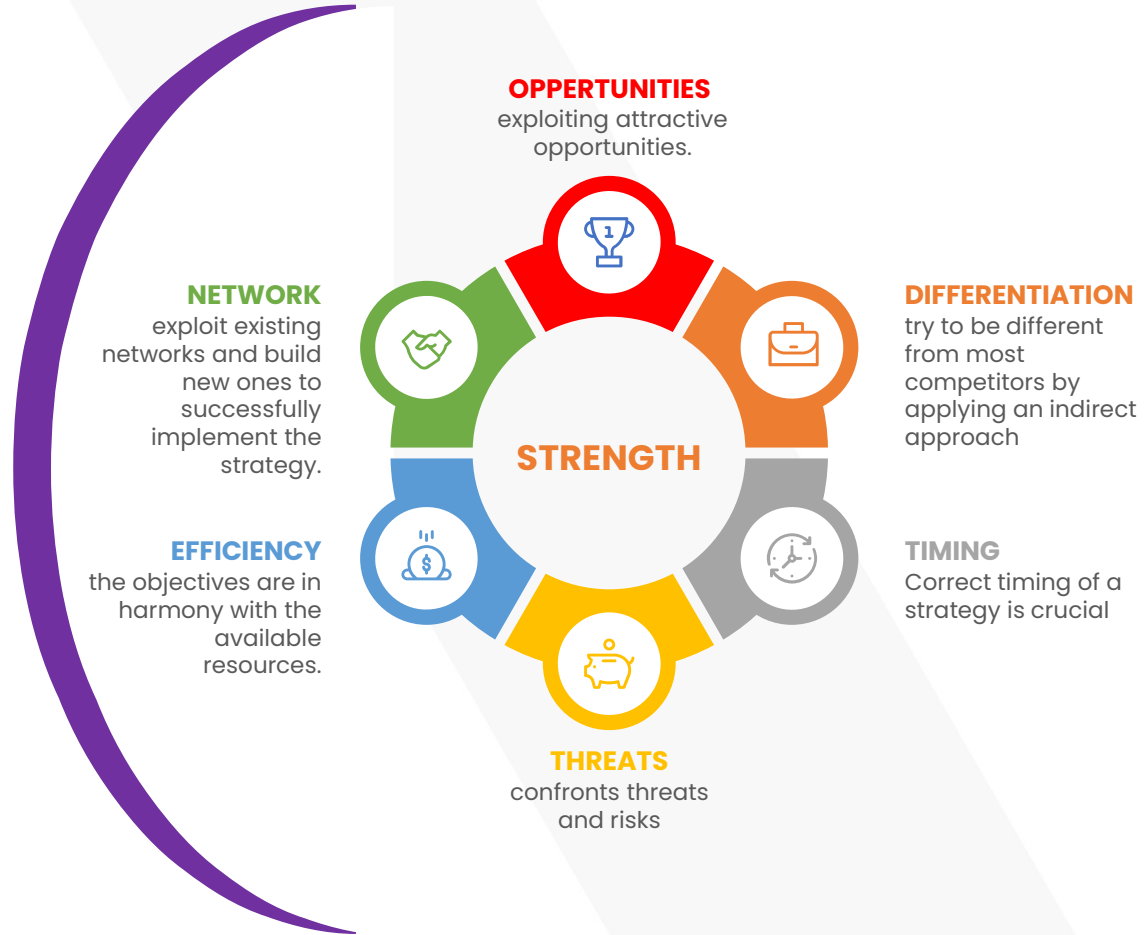
WHAT TO EXPECT FROM TRADITIONAL INVESTMENT CONCEPTS



A FRAMEWORK FOR STRATEGIC WEALTH CREATION



STRATEGIC INVESTING



QTHANKS

THANKS FOR LISTENING ME

FINISH



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