How Financial Advisors Can Support Clients Through Market Volatility and Uncertainty

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Global Head of Behavioral Insights

Morningstar

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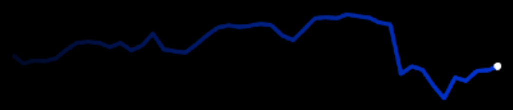
Financial Advisors must face challenging market environments alongside their clients. In fact, helping clients withstand uncertain markets is one of the most valuable services an advisor provides.

In our research, we develop a grounded approach for guiding clients through rocky markets. We captured the experiences of top advisors who have guided clients through uncertainty. By collecting their experiences and lessons we have extracted insights you can use with your own clients.

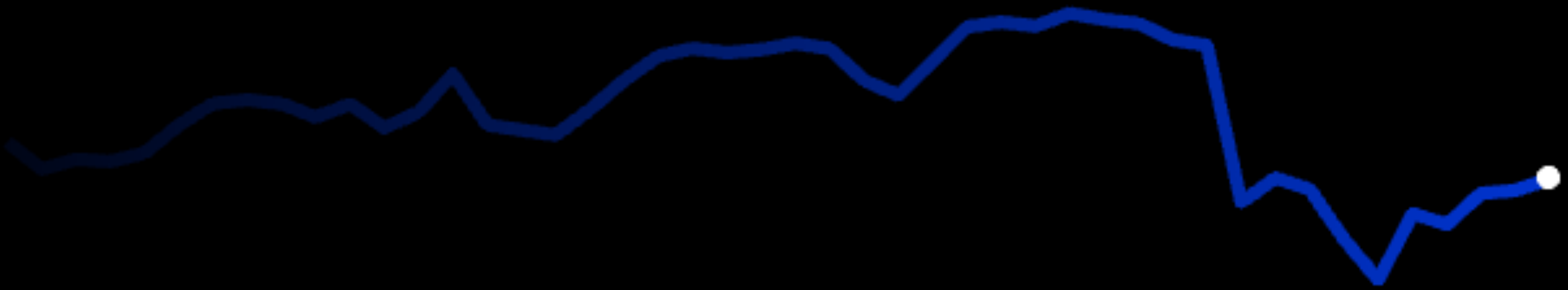


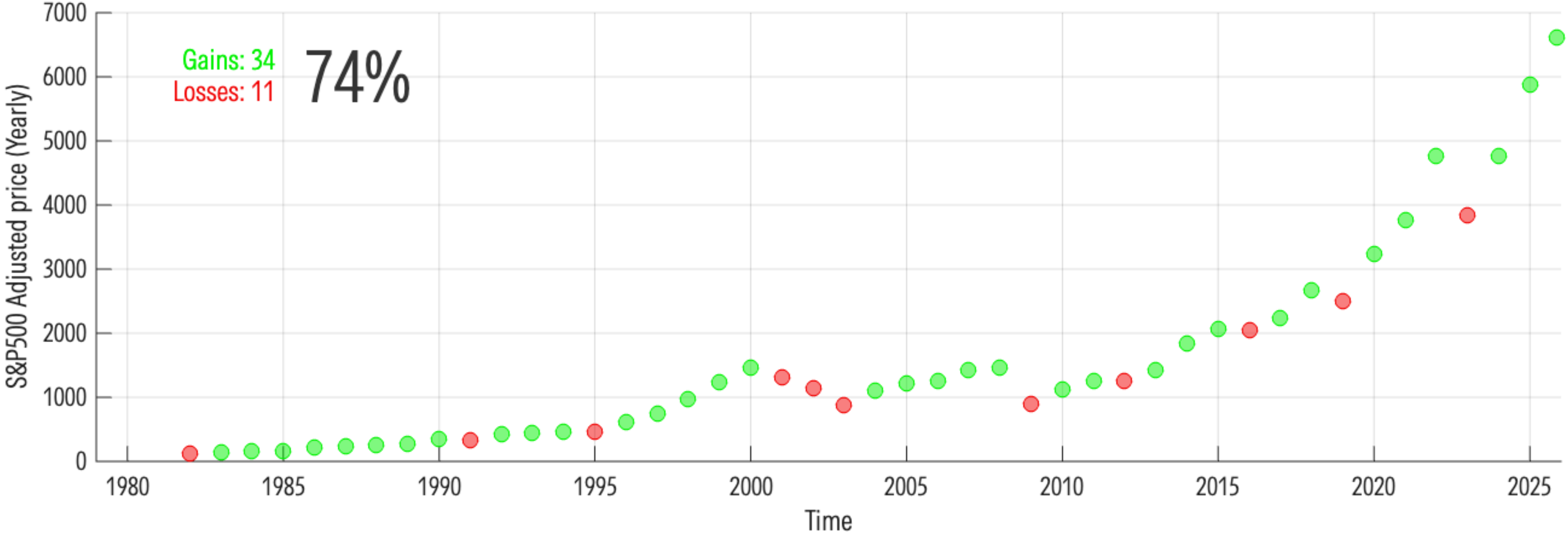
But there are some problems…

Distractions are abundant

Your brain is a pattern recognition system (in overdrive)

Feelings are associated with ups and downs (loss aversion)




Gains: 34
Losses: 11
74%
S&P500 Adjusted price (Yearly)
0
1000
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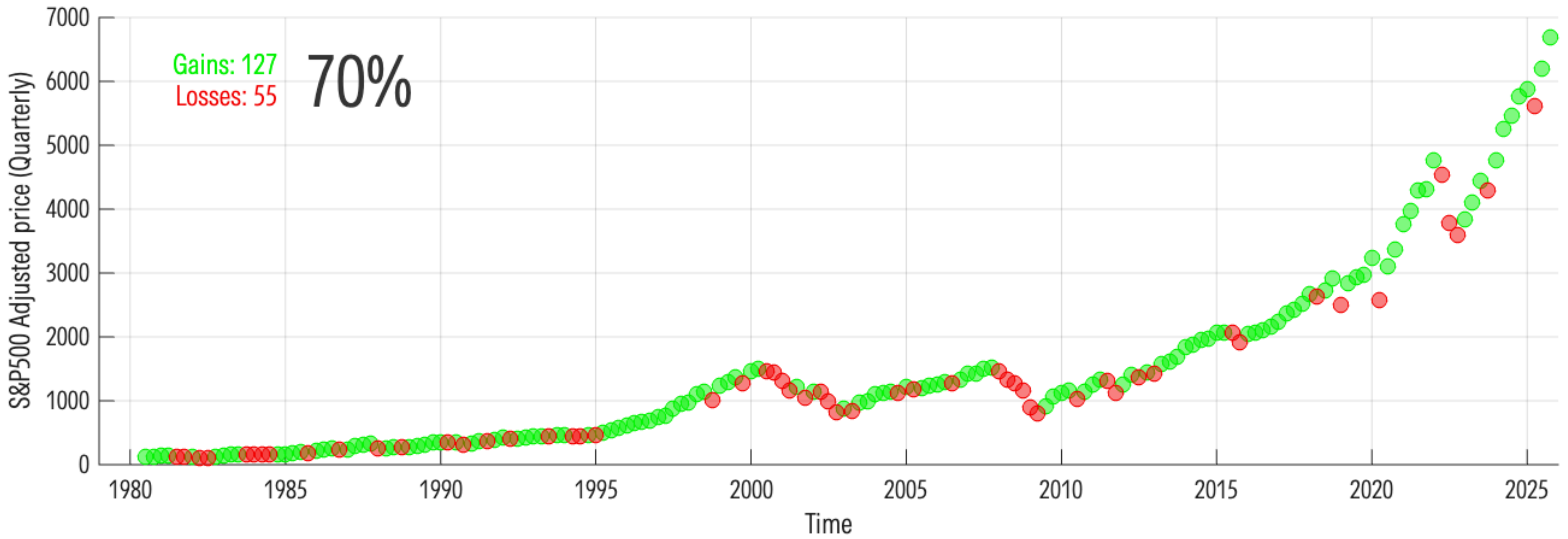
Time


Gains: 127
Losses: 55
70%
S&P500 Adjusted price (Quarterly)
Time
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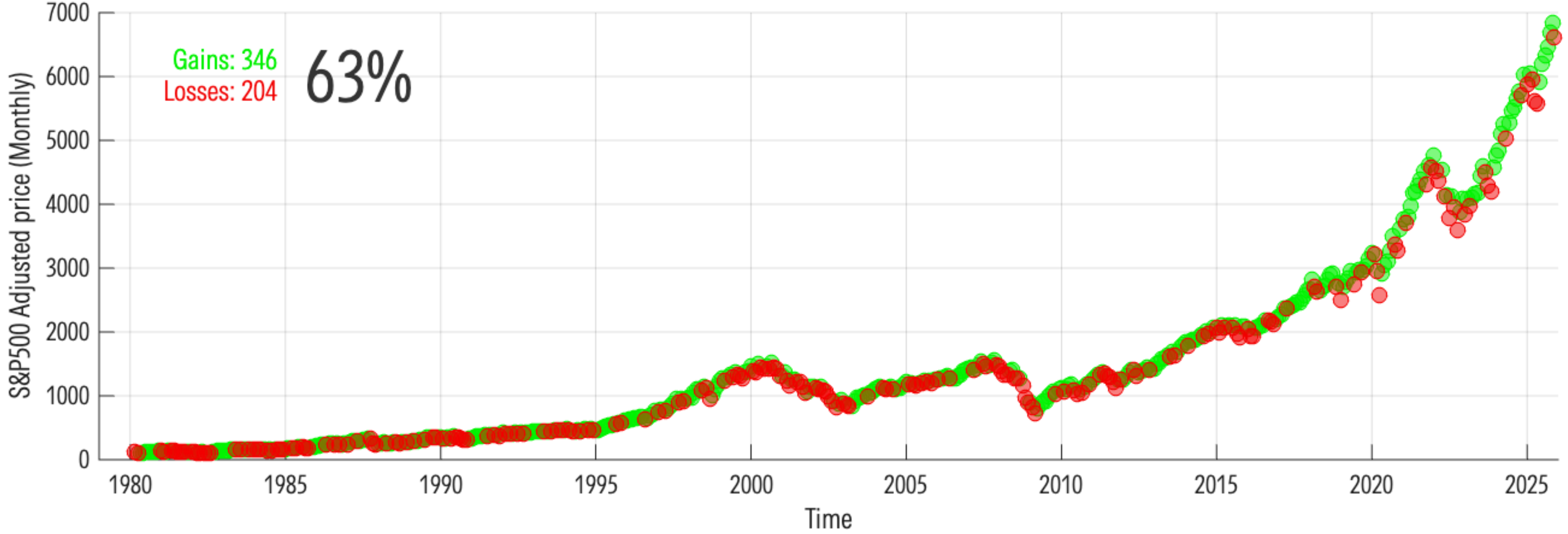

Gains: 346
Losses: 204
63%
S&P500 Adjusted price (Monthly)
Time
7000
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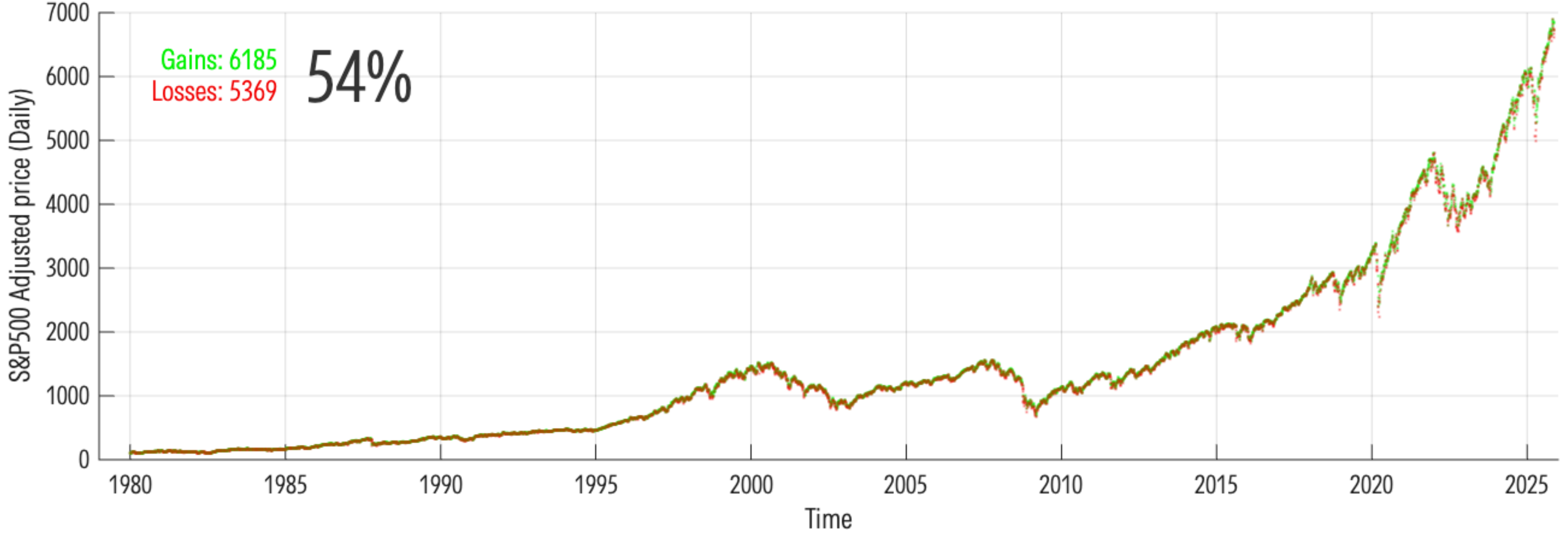

Gains: 6185
Losses: 5369
54%
S&P500 Adjusted price (Daily)
Time
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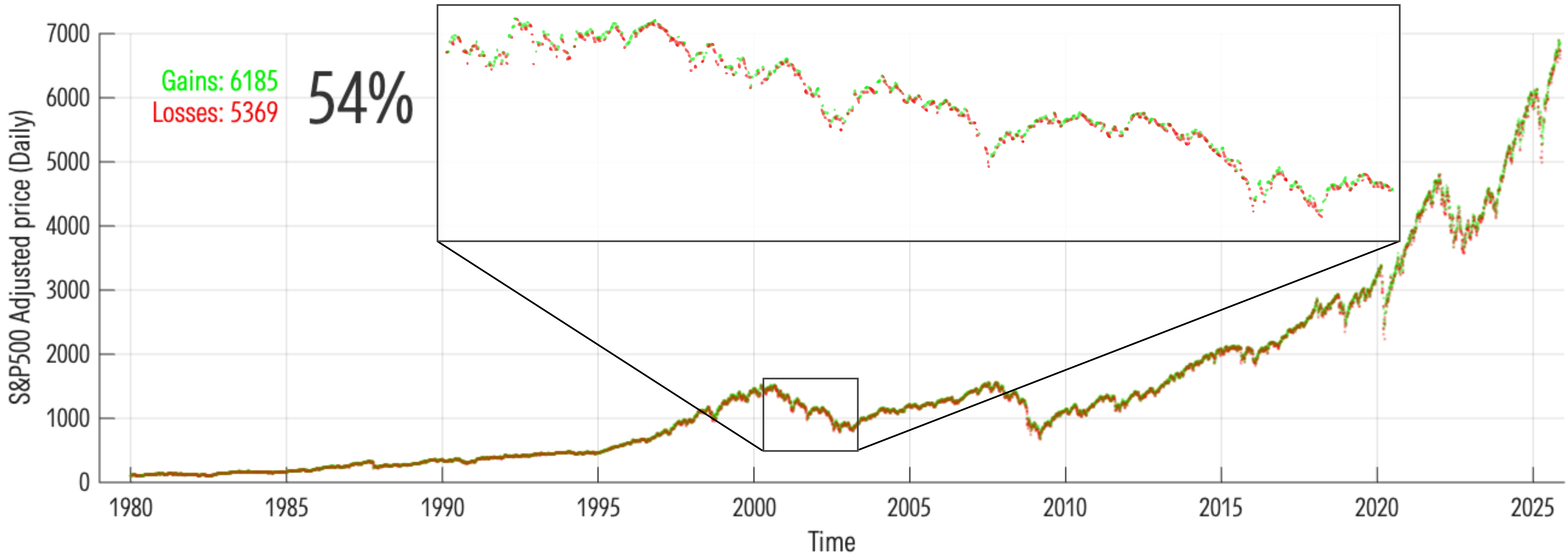

Gains: 6185
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54%
S&P500 Adjusted price (Daily)
7000
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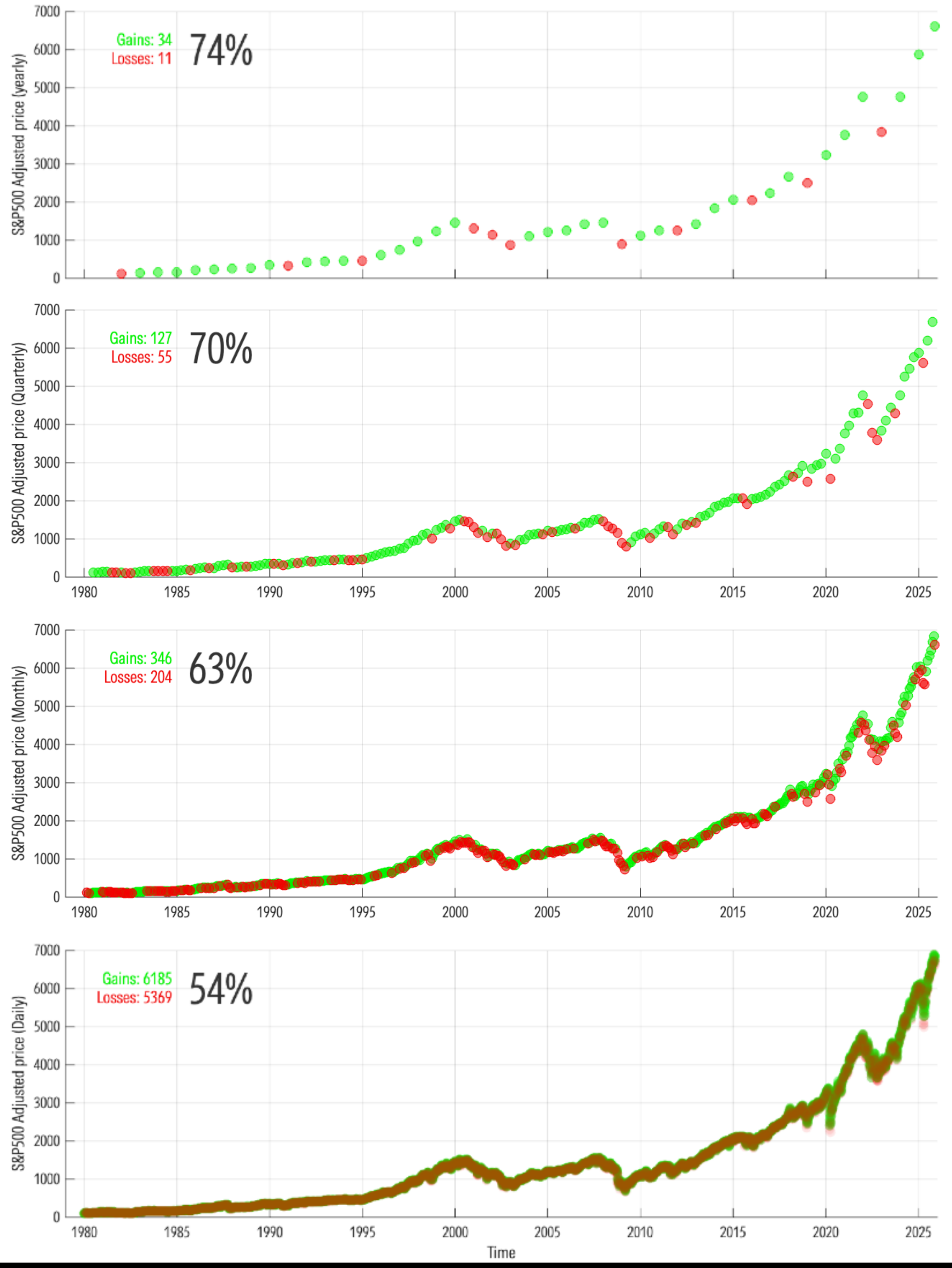
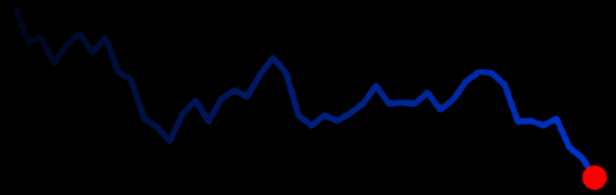


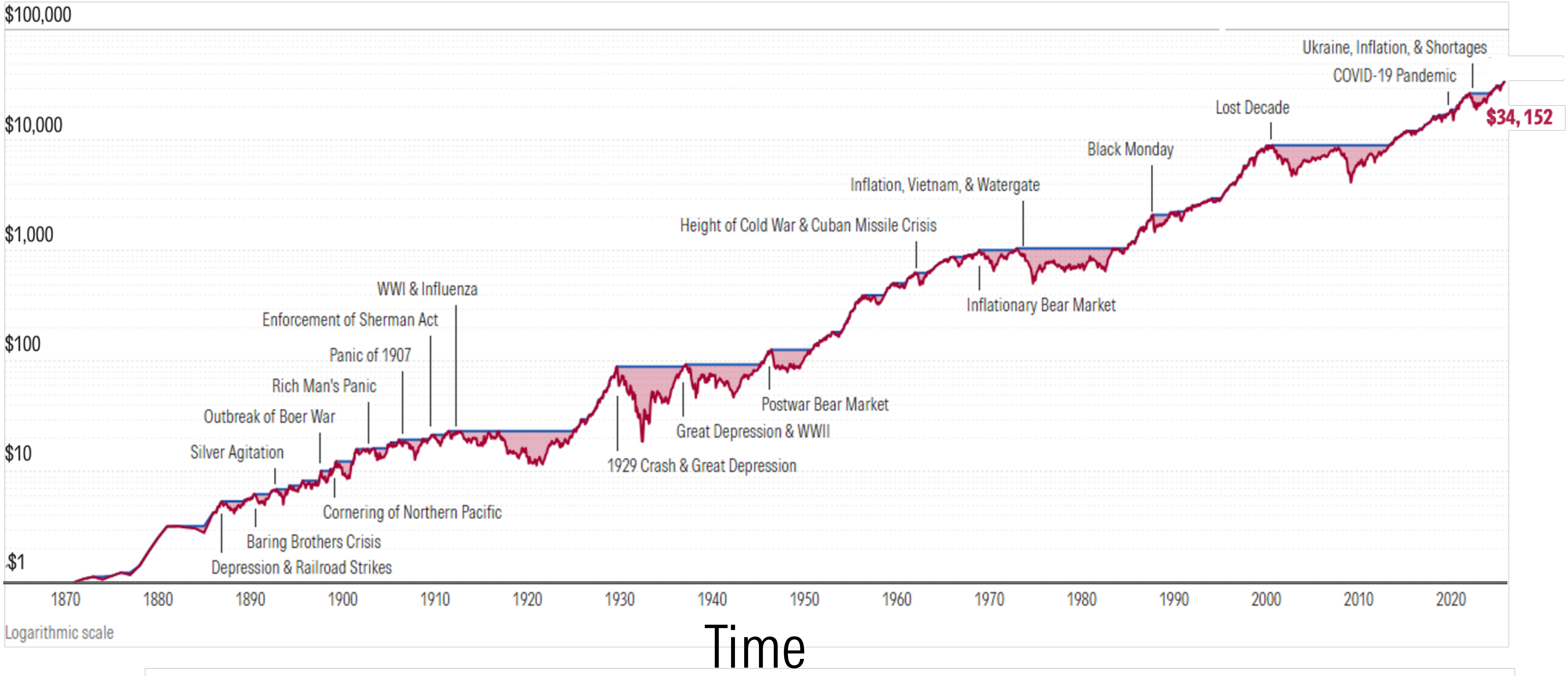
The more often people look

the more volatility people see
(and feel, and maybe act on)

Loss aversion amplifies this



A long view on markets

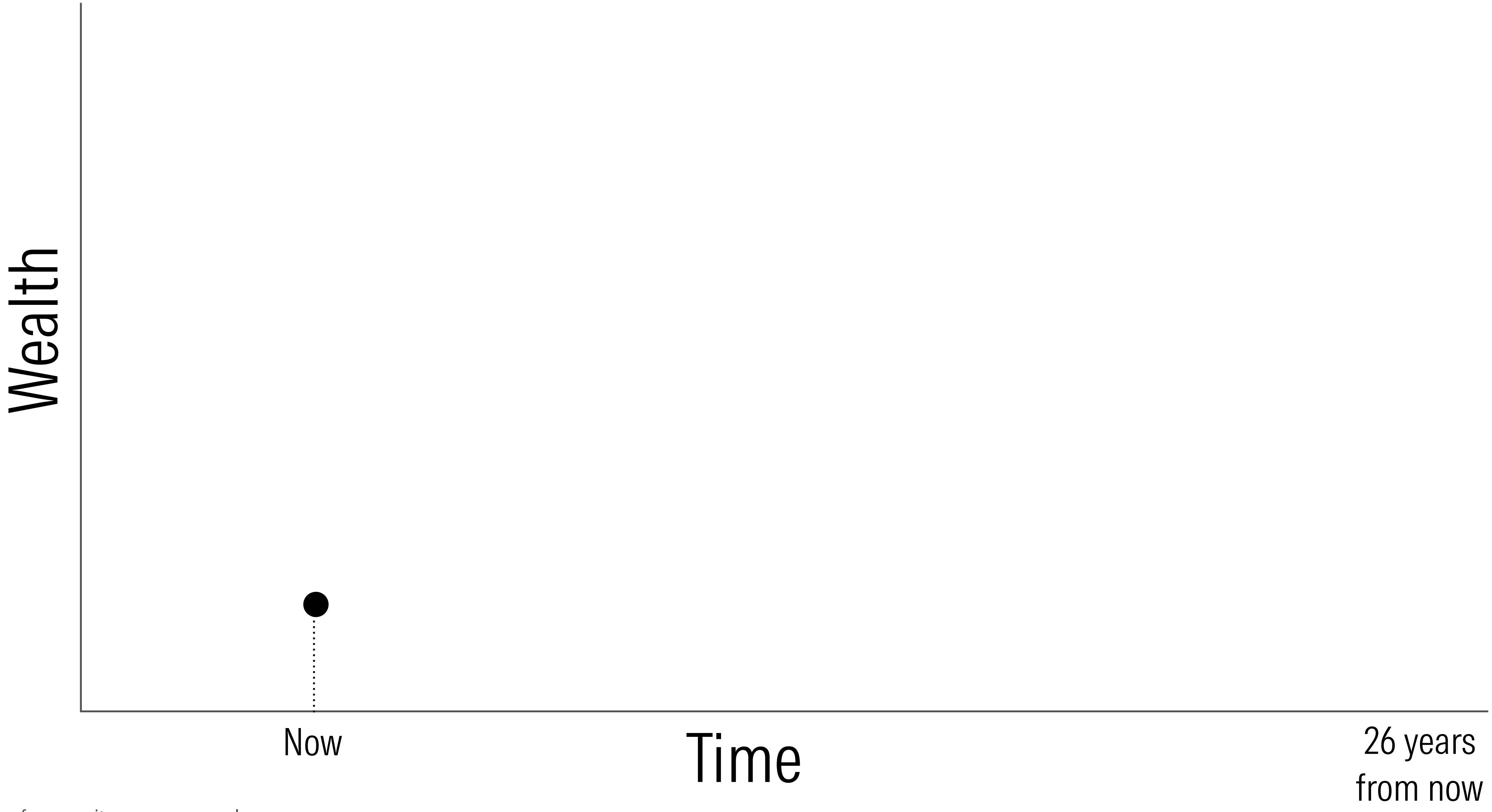


Source: Kaplan et al. (2009); Ibbotson (2023); Morningstar Direct; Goetzmann, Ibbotson, and Peng (2000); Pierce (1982); www.econ.yale.edu/^shiller/data.htm, Ibbotson Associated SBBI US Large-Cap Stock Inflation Adjusted Total Return Extended Index, S&P 500 (2025), Bureau of Labor Statistics, Non-Seasonally Adjusted Consumer Price Index (2025). Data as of Sep. 30, 2025.

What you can do about it (before it happens)

Time

What you can do about it (before it happens)



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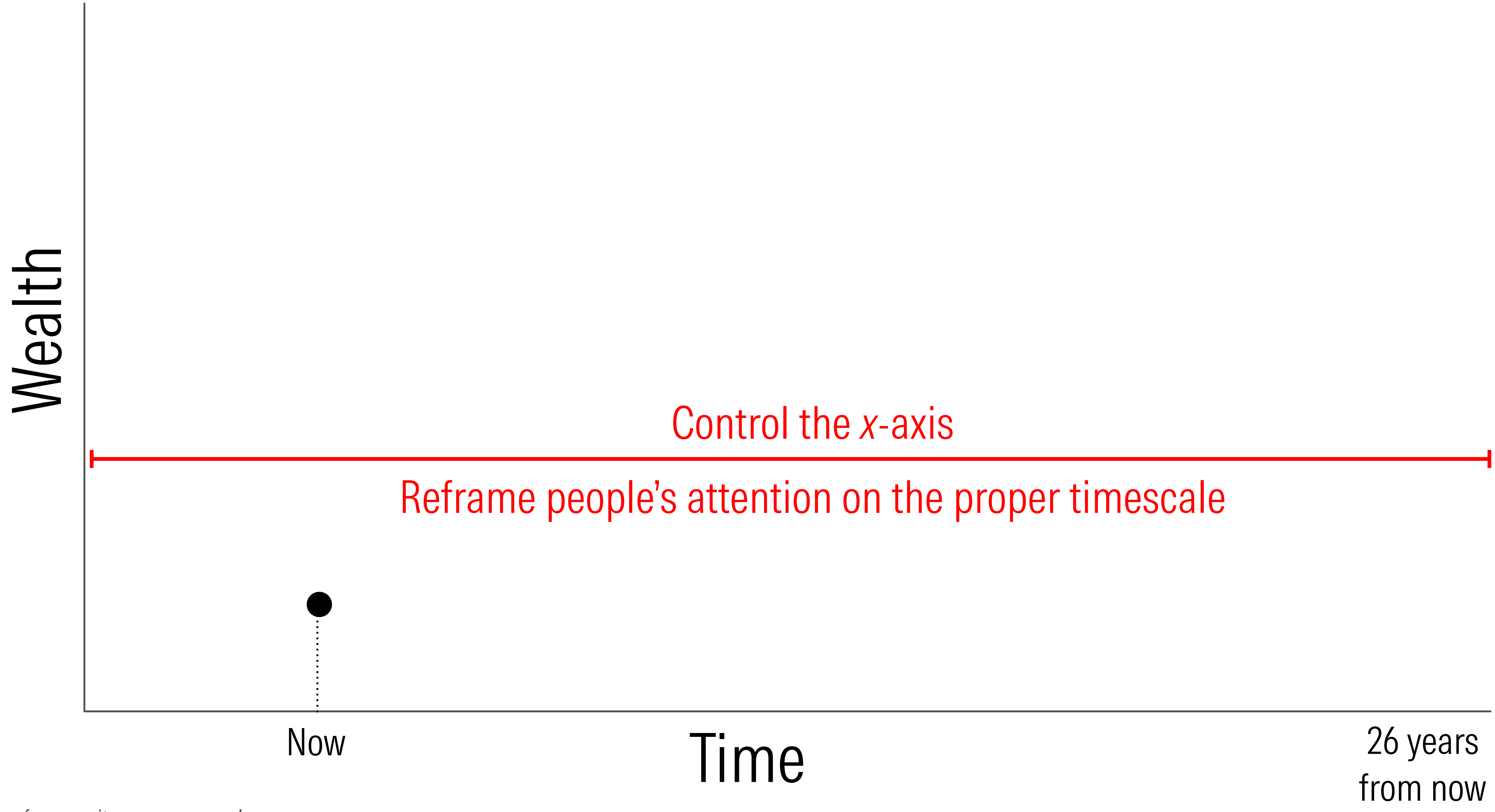
What you can do about it (before it happens)



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TECHNOLOGY
SOFTWARE - APPLICATION
IDCC -1.63%
CWAN -0.81%
CVLT -0.64%
YOU +0.90%
WK -4.50%
SOUN -5.49%
LIF -4.41%
QTWO -5.41%
BULL -4.73%
BL -6.28%
AGYS -6.44%
VERX -5.50%
NATL -0.79%
BRZE -7.06%
SOFTWARE - INFRASTRUCTURE
CORZ -3.65%
ZETA -8.18%
QLYS -4.39%
DOCN +0.08%
ACIW -3.92
BOX -3.04%
STNE -5.35
VRNS -7.63
CALX -2.31
SEMICONDUCTORS
CRDO -2.35%
RMBS -3.56%
SITM -2.14%
SMTC -1.34%
PI +4.92
SYNA +0.24%
DIOD -7.34
VSH -4.66
SLAB -0.27
LASR
ELECTRONIC COMPON
FN +1.16%
TTMI -0.87%
SANM -2.79%
OSIS -0.26%
PLXS -1.71%
VICR +3.95%
COMPUTER HARDW
IONQ -5.69%
QBTS -3.51%
RGTI -7.42%
SEMICONDUCT
FORM
INFORMATION
APLD -3.19%
COMMUNICATION E
VSAT +0.51%
VIAV +0.25%
VISN -1.96%
BDC +7.25%
SOLAR
NXT -3.55%
RUN -4.64%
SCIENTIFIC
ESE -3.52%
ITRI -4.57%
CONSUMER CYCLICAL
RESIDENTIAL CONSTR
IBP +0.82%
TMHC +0.61%
MTH -0.29%
KBH +0.43%
MHO +0.74%
SKY -0.10%
GRBK
TPH
AUTO PARTS
MOD -0.83%
GTX -0.50%
DAN -1.83%
AAP
APPAREL RETAIL
URBN -3.38%
VSCO -0.33%
ANF +0.78%
BOOT -0.52%
AUTO & TRUCK DE
GPI -0.83%
RUSHA -1.31%
ABG -0.49%
LEISURE
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RESTAURANTS
EAT -0.82
FURNISHINGS
ALH -2.67%
HNI -3.66%
RECREATION
PATK
PII
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SGHC
RSI
SPECIALTY RET
ASO -2.22
EYE
RESORTS & CA
RRR -3.88%
HGV -2.57
VAC
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SIG -4.05
APPARE
FOOT
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KSS
FTDR
AIN
CONSUMER DEFENSIVE
EDUCATION
LAUR -0.84%
GHC -2.69%
ATGE -2.72%
PACKAGED
MZTI
FOOD
HOUSE
BEVER
DISCO
TOBA
FARM PRO
GROCE
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COMMUNICATION SERVICES
TELECOM SERVICES
SATS -0.04%
TDS
LUMN -0.89%
GSAT -2.61%
INTERNET CONTEN
ENTERTAIN
TGNA
ADVERTISI
HEALTHCARE
BIOTECHNOLOGY
BBIO +5.62%
PRAX +2.92%
PCVX +0.47%
KRYS +0.37%
MDGL -0.85%
NUVL -1.08%
RNA +0.06%
CYTK -1.82%
AXSM -1.21%
RYTM +0.14%
ARWR +1.61%
IBRX +2.68%
COGT -1.73%
PTCT -0.25%
CRNX -5.09%
APGE +4.77%
KYMR +2.94%
PTGX -0.62%
MEDICAL DEVICES
GKOS -1.72%
IRTC +1.25%
TMDX -3.85%
DRUG MANUFACTURERS -
HIMS -4.19%
ALKS -4.73%
LNTH -0.45%
HEALTH INFORMATI
HQY -3.35%
WAY -8.72%
BTSG -5.13%
MEDICAL CARE FACILITIES
ENSG +0.62%
OPCH -1.16%
DIAGNOSTICS & RESEARC
GH -4.31%
MEDICAL INS
INDUSTRIALS
AEROSPACE & DEFENSE
KTOS -0.11%
MOG-A +0.67%
PL -5.63%
AVAV -2.56%
ENGINEERING & CONSTRUCTION
STRL +0.51%
DY -1.58%
IESC -3.16%
SPECIALTY INDUSTRIAL MA
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ENS +1.44%
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ONB -2.43%
CADE
VLY -1.30%
GBCI -1.35%
UBSI -0.94%
AX -0.97%
UCB -1.59%
CAPITAL MARKETS
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SNEX -2.14%
WULF -0.09%
CIFR -2.07%
RIOT -4.32%
MC -6.36%
ASSET MANAGEMEN
STEP -5.43%
INSURANCE - PROP
LMND -10.64%
CREDIT SERVICES
FCFS +0.31%
INSURANCE - LIFE
JXN -2.59%
MORTGA
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REAL ESTATE
REIT - RETAIL
REIT - HEALTHCAR
AHR +0.47%
CTRE +1.83%
REIT - MORTGA
REIT - HOTEL
REIT - OFFICE
REAL ESTATE SE
REIT - INDUST
REIT - DIVERS
ENERGY
OIL & GAS EQUIPME
OIL & GAS E&P
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UTILITIES
UTILITIES - REGULATE
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OKLO -0.54%
UTILITIES - R
BASIC MATERIALS
SPECIALTY CHEMICALS
GOLD
CDE -5.74%
OTHER PREC
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STEEL
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+3%

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Prospect Theory Reflects Selective Allocation of Attention

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There is a disconnect in the literature between analyses of risky choice based on cumulative prospect theory (CPT) and work on predecisional information processing. One likely reason is that for expectation models (e.g., CPT), it is often assumed that people behaved only *as if* they conducted the computations leading to the predicted choice and that the models are thus mute regarding information processing. We suggest that key psychological constructs in CPT, such as loss aversion and outcome and probability sensitivity, can be interpreted in terms of attention allocation. In two experiments, we tested hypotheses about specific links between CPT parameters and attentional regularities. Experiment 1 used process tracing to monitor participants' predecisional attention allocation to outcome and probability information. As hypothesized, individual differences in CPT's loss-aversion, outcome-sensitivity, and probability-sensitivity parameters (estimated from participants' choices) were systematically associated with individual differences in attention allocation to outcome and probability information. For instance, loss aversion was associated with the relative attention allocated to loss and gain outcomes, and a more strongly curved weighting function was associated with less attention allocated to probabilities. Experiment 2 manipulated participants' attention to losses or gains, causing systematic differences in CPT's loss-aversion parameter. This result indicates that attention allocation can to some extent cause choice regularities that are captured by CPT. Our findings demonstrate an *as-if* model's capacity to reflect characteristics of information processing. We suggest that the observed CPT–attention links can be harnessed to inform the development of process models of risky choice.

Keywords: process tracing, cumulative prospect theory, risky choice, individual differences, attention

Supplemental materials: http://dx.doi.org/10.1037/xge0000406.supp

In 1654, an exchange of letters on gambling problems between French mathematicians Blaise Pascal and Pierre Fermat gave rise to the concept of *mathematical expectation* (Hacking, 1984). A decision under risk was thought to be rational if it maximized the decision maker's expected value (EV). In modern notation, *EV* is defined as

$$EV = \sum_{i=1}^{n} p_i x_i, \tag{1}$$

where p_i and x_i are the probability and the amount of money, respectively, associated with each possible outcome ($i = 1 \ldots, n$) of that option.

It soon became clear that people's actual decisions violate the predictions of EV theory (e.g., the St. Petersburg paradox). Modifications of EV theory were proposed to account for these violations. For instance, objective amounts of money were replaced by subjective utilities (expected utility [EU] theory; Bernoulli, 1738/1954) or objective probabilities by subjective ones (Savage, 1954). Formally, these modifications were implemented by introducing functions with adjustable parameters that denote by how much the objective magnitudes are distorted when transformed into their subjective counterparts. For instance, in EU theory, the subjective value of an option can be defined as

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Author contributions were as follows: Conceptualization: Thorsten Pachur, Michael Schulte-Mecklenbeck, Ryan O. Murphy, and Ralph Hertwig; methodology: Thorsten Pachur and Michael Schulte-Mecklenbeck; software: Michael Schulte-Mecklenbeck; analysis–descriptives: Thorsten Pachur and Michael Schulte-Mecklenbeck; analysis–modeling: Thorsten Pachur; writing of the original draft: Thorsten Pachur and Michael Schulte-Mecklenbeck; reviewing and editing the manuscript: Thorsten Pachur, Michael Schulte-Mecklenbeck, and Ralph Hertwig.

Results reported in this article were presented at the 55th Annual Meeting of the Psychonomics Society, Long Beach, CA, and at the 33rd Annual Meeting of the Society for Judgment and Decision Making, Minneapolis, MN. The data presented herein have not been published previously via written manuscripts, e-mail listservs, or conference proceedings. We thank Susannah Goss for editing the article. The raw data of the experiments reported, as well as further analyses, are available in the supplementary materials for this article.

Correspondence concerning this article should be addressed to Thorsten Pachur, Center for Adaptive Rationality, Max Planck Institute for Human Development, Lentzeallee 94, 14195 Berlin, Germany. E-mail: pachur@mpib-berlin.mpg.de

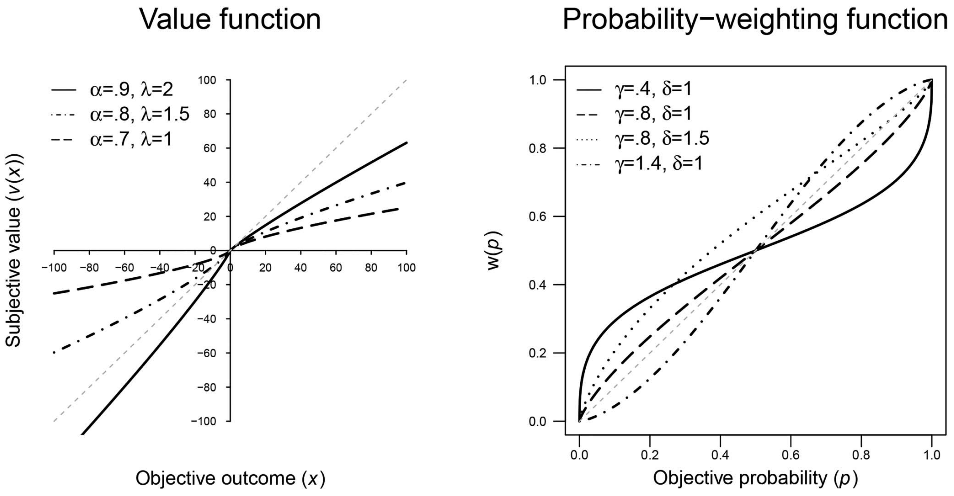


Figure 2. Cumulative prospect theory's value function for different values of the outcome-sensitivity (α) and loss-aversion (λ) parameters (left) and the probability-weighting function for different values of the probability-sensitivity (γ) and elevation (δ) parameters (right).

space. It separates the curvature of the probability weighting function from its elevation (e.g., Gonzalez & Wu, 1999) and is defined as follows:

$$w^+ = \frac{\delta^+ p^{\gamma^+}}{\delta^+ p^{\gamma^+} + (1-p)^{\gamma^+}} \quad \textit{for} \;\; x$$
$$w^- = \frac{\delta^- q^{\gamma^-}}{\delta^- q^{\gamma^-} + (1-q)^{\gamma^-}} \quad \textit{for} \;\; y, \tag{6}$$

with γ^+ and γ^- (both ≥ 0) governing the curvature of the weighting function in the gain and loss domains, respectively. Lower values on γ^+ and γ^- indicate greater curvature and thus lower sensitivity to probabilities. The parameters δ^+ and δ^- (both ≥ 0) govern the elevation of the weighting function for gains and losses, respectively, and are often interpreted as indicating the degree of optimism or pessimism (e.g., Gonzalez & Wu, 1999). We estimated a single γ parameter across gains and losses (i.e., $\gamma^+ = \gamma^-$) because probability sensitivity is typically found to be very similar across domains (Fox & Poldrack, 2014; Glöckner & Pachur, 2012; Tversky & Kahneman, 1992). In contrast, because, for instance, a high value on the elevation parameter implies opposite risk attitudes in the gain and loss domains (optimism vs. pessimism), we estimated this parameter separately for gains and losses. In a model comparison, this partly constrained implementation of CPT has been shown to outperform the unconstrained one (Pachur & Kellen, 2013). The right panel of Figure 2 depicts probability-weighting functions for different values of the γ and δ parameters.

To derive predicted choice probabilities from CPT, we used an exponential version of Luce's choice rule (also known as softmax or logit function), which defines the probability that a gamble *A* is chosen over a gamble *B* as

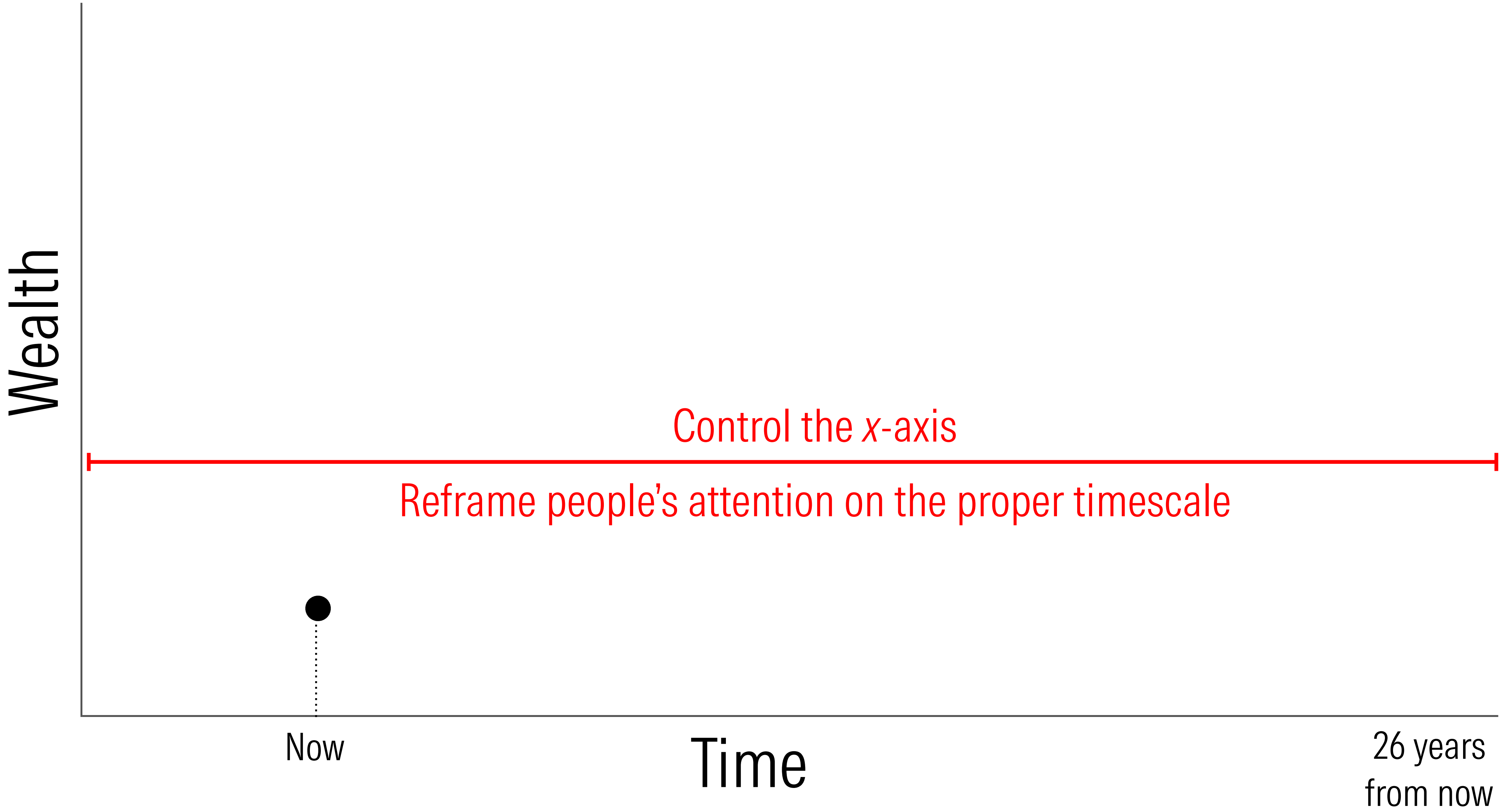
$$p(A, B) = \frac{1}{1 + e^{-\theta[V(A) - V(B)]}}, \tag{7}$$

where θ (≥ 0) is a scaling (or choice-sensitivity) parameter. With a higher θ, the probability of choosing the gamble with the higher *V* approaches 1; with $\theta = 0$, choices are random.

In this implementation, CPT has six adjustable parameters (see Equations 3–7): outcome sensitivity (α), loss aversion (λ), probability sensitivity (γ), separate elevations for gains (δ^+) and losses (δ^-), and scaling (θ). The parameters were estimated for each participant, separately for the two sessions, using a hierarchical Bayesian approach (Nilsson et al., 2011; Scheibehenne & Pachur, 2015). In Bayesian parameter estimation, parameter estimates are initially represented in terms of prior distributions and then updated into posterior distributions based on the observed data. The advantage of a hierarchical approach is that individual parameters are partially pooled through group-level distributions, thus yielding more reliable estimates than does the traditional, nonhierarchical approach. The priors for the parameters on the individual level were set to distributions spanning a reasonable range that excluded theoretically impossible values but included parameter values found in previous research. Specifically, the ranges were 0–5 for θ, λ, δ^+, and δ^- and 0–2 for α and γ. The group-level parameters were linked with the individual level (assuming normal distributions on both levels) through probit transformations (see Rouder & Lu, 2005; Scheibehenne & Pachur, 2015). This transformation yields a range from 0 to 1 on the individual level. To extend the range of these distributions from 0 to 5 for θ, λ, δ^+, and δ^- and from 0 to 2 for α and γ, we interposed an additional linear linkage function. All hierarchical group-level means were assumed to be normally distributed with a mean of 0 and a variance of 1. The

You can help overcome people's loss aversion by changing what they pay attention to.

What you can do about it (before it happens)



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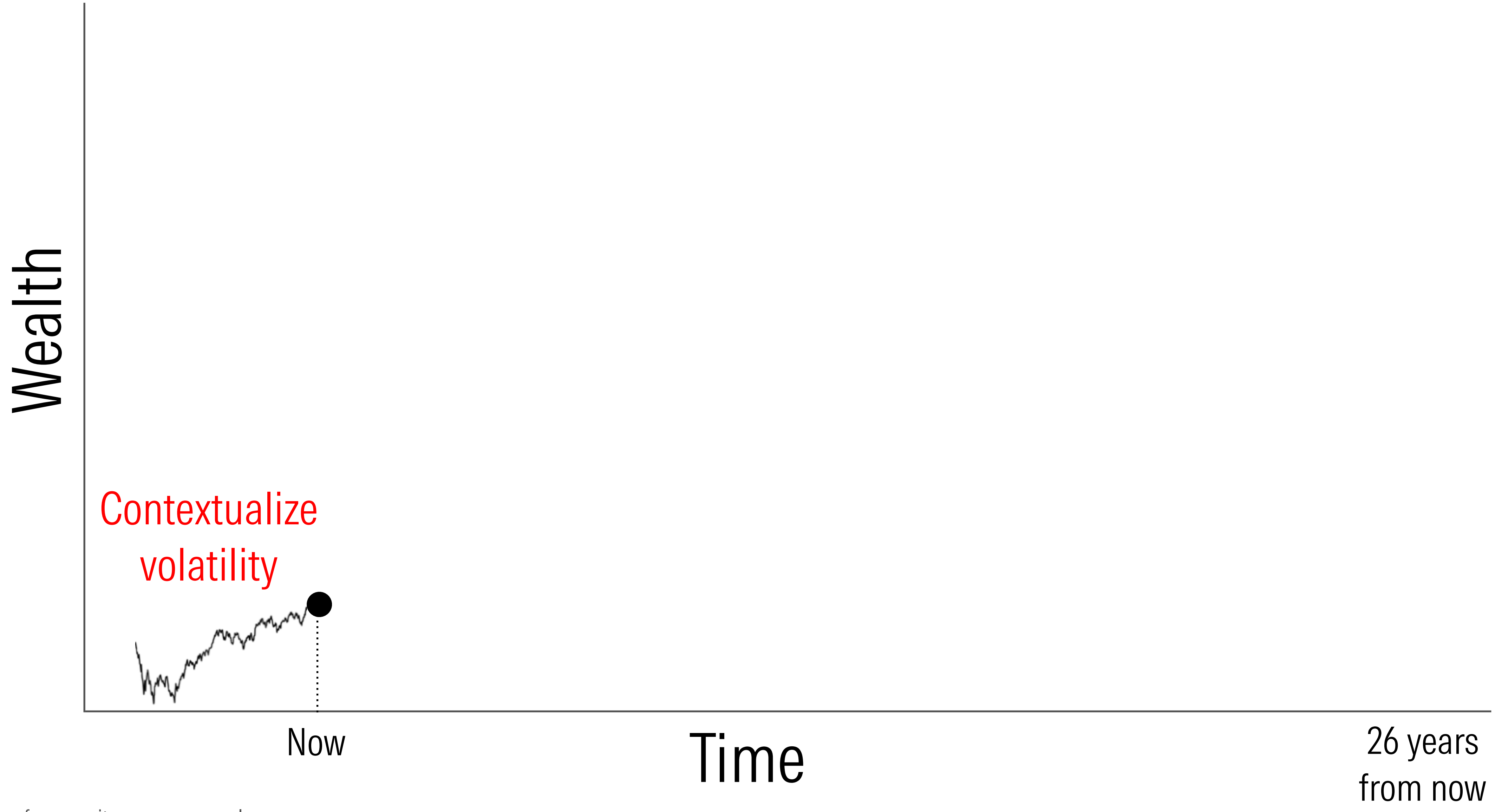

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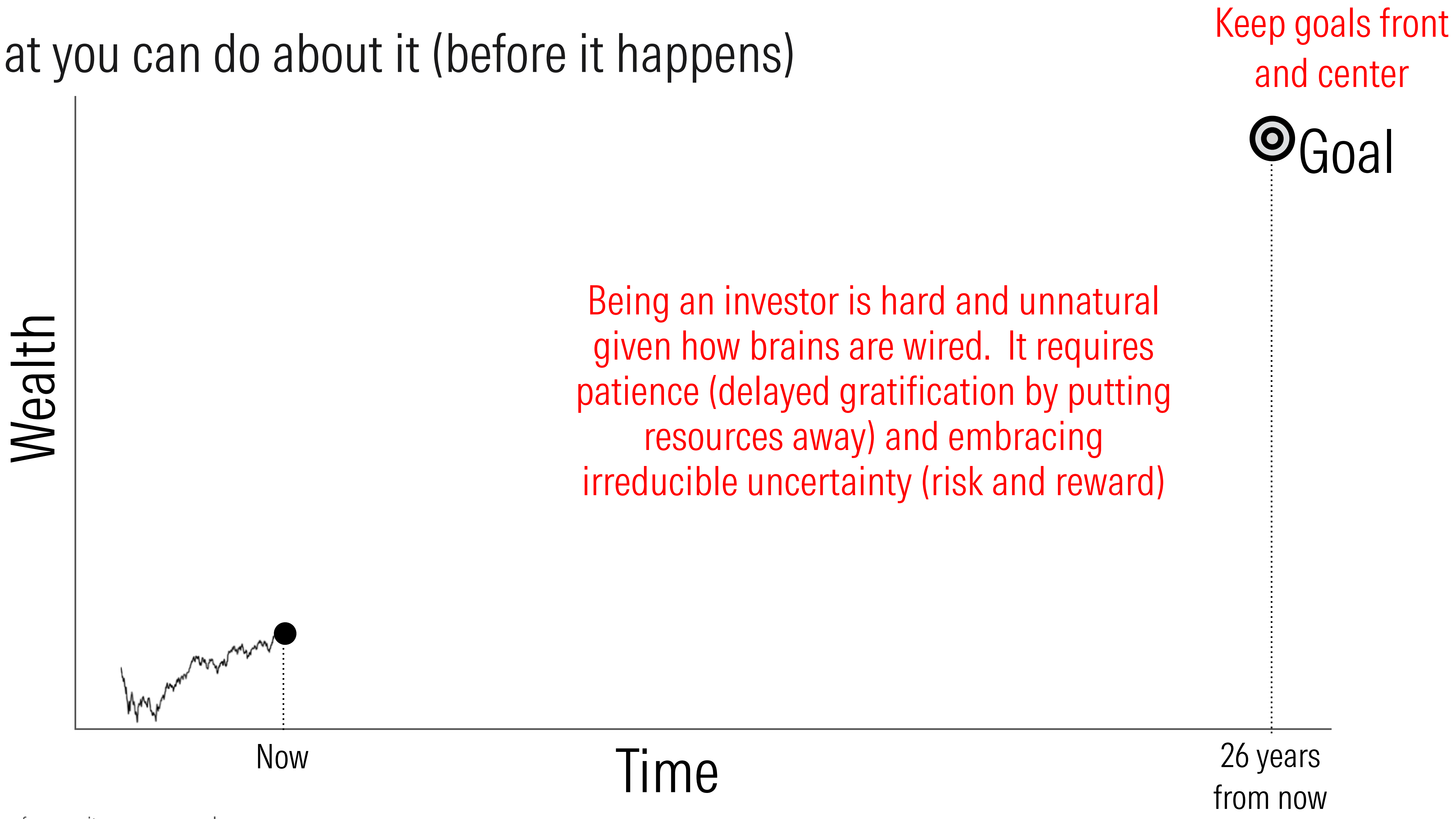
What you can do about it (before it happens)



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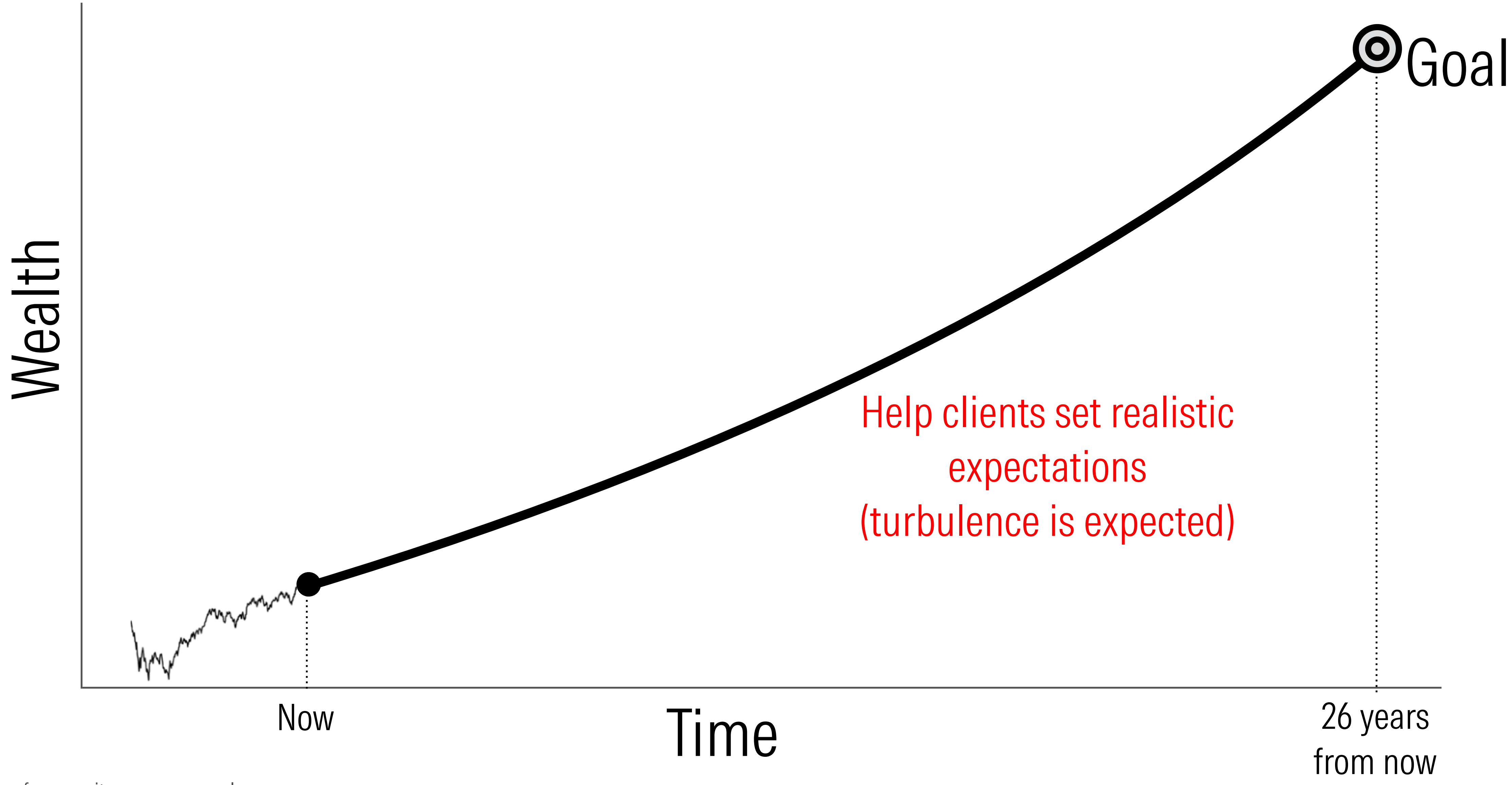

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What you can do about it (before it happens)

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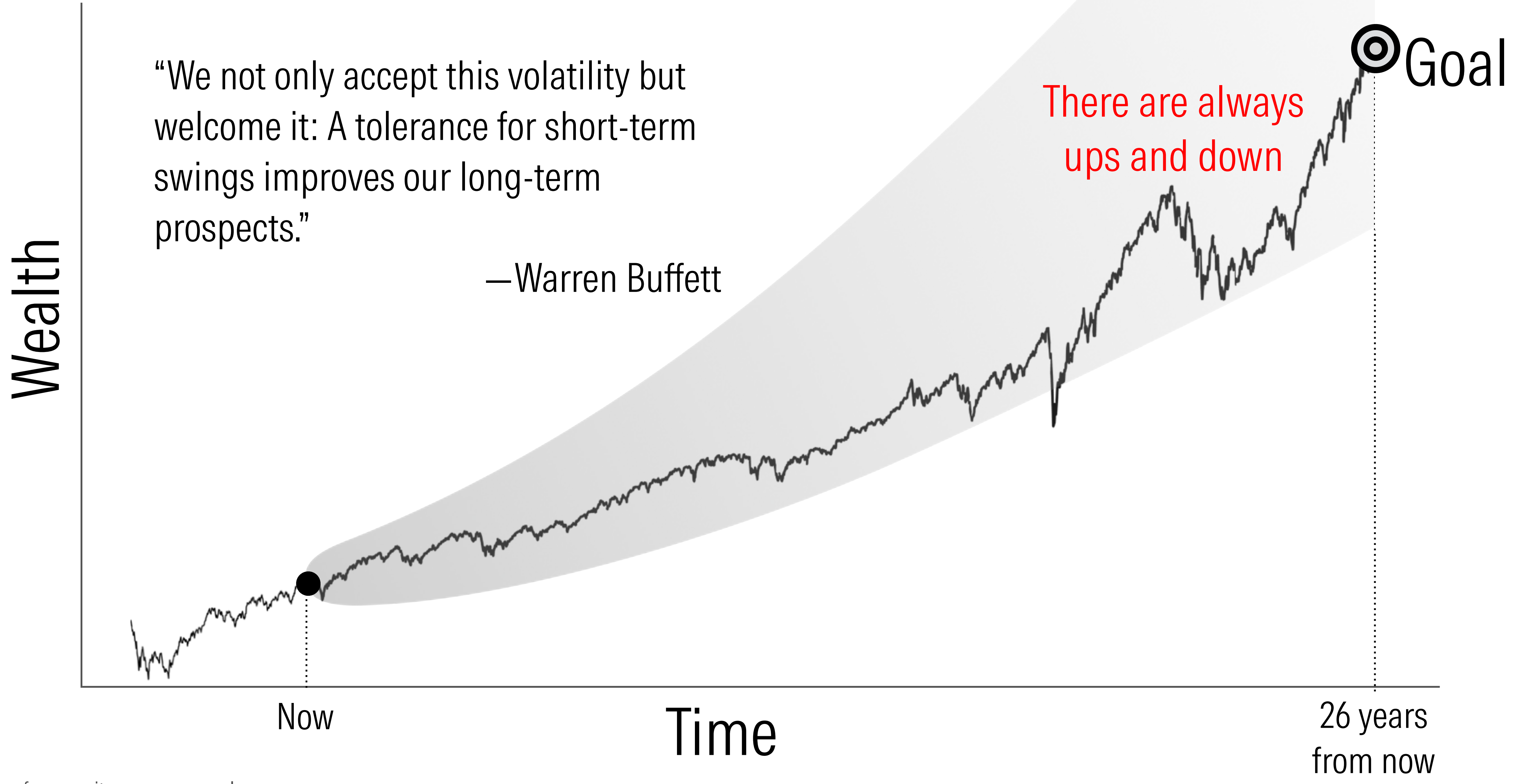

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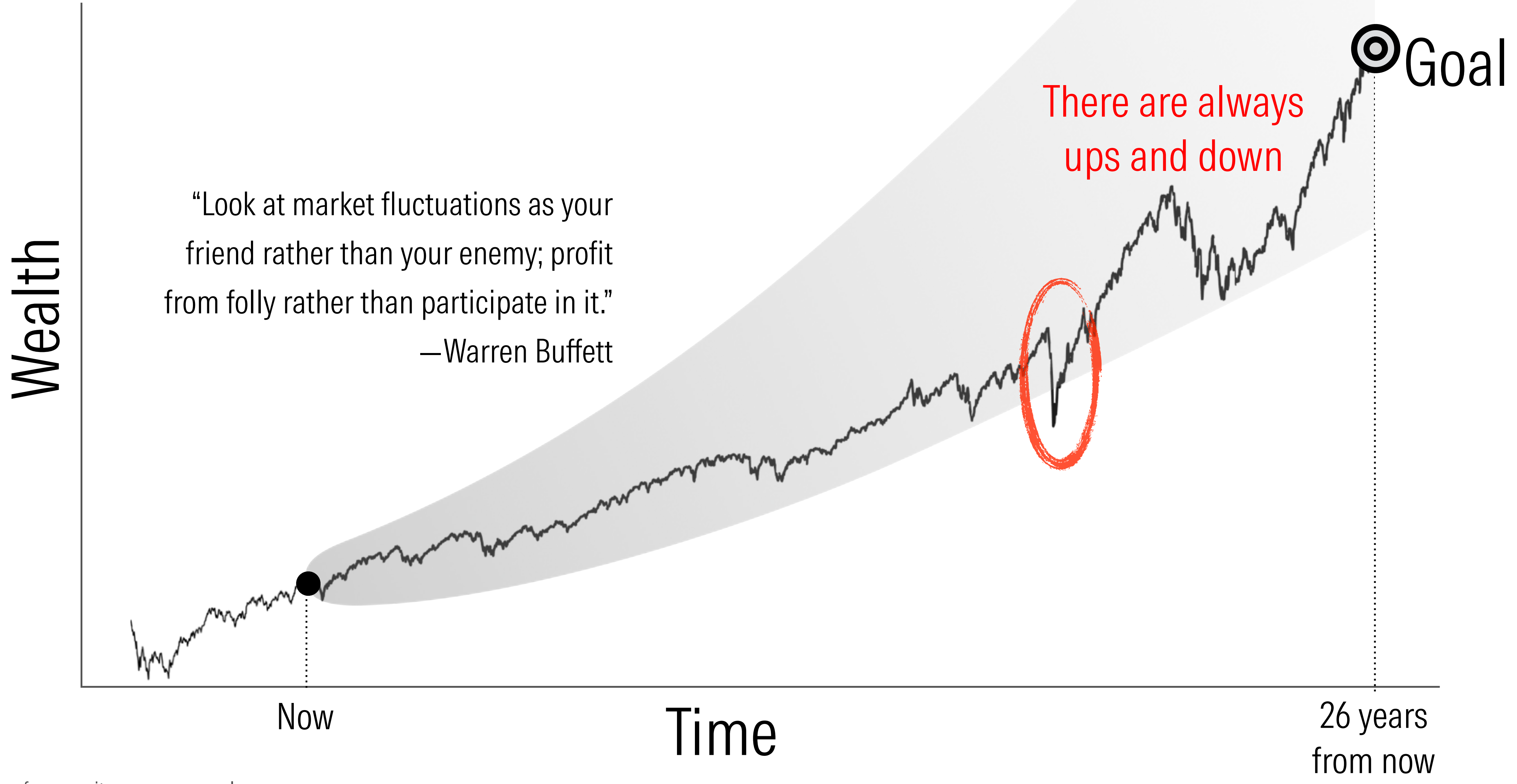

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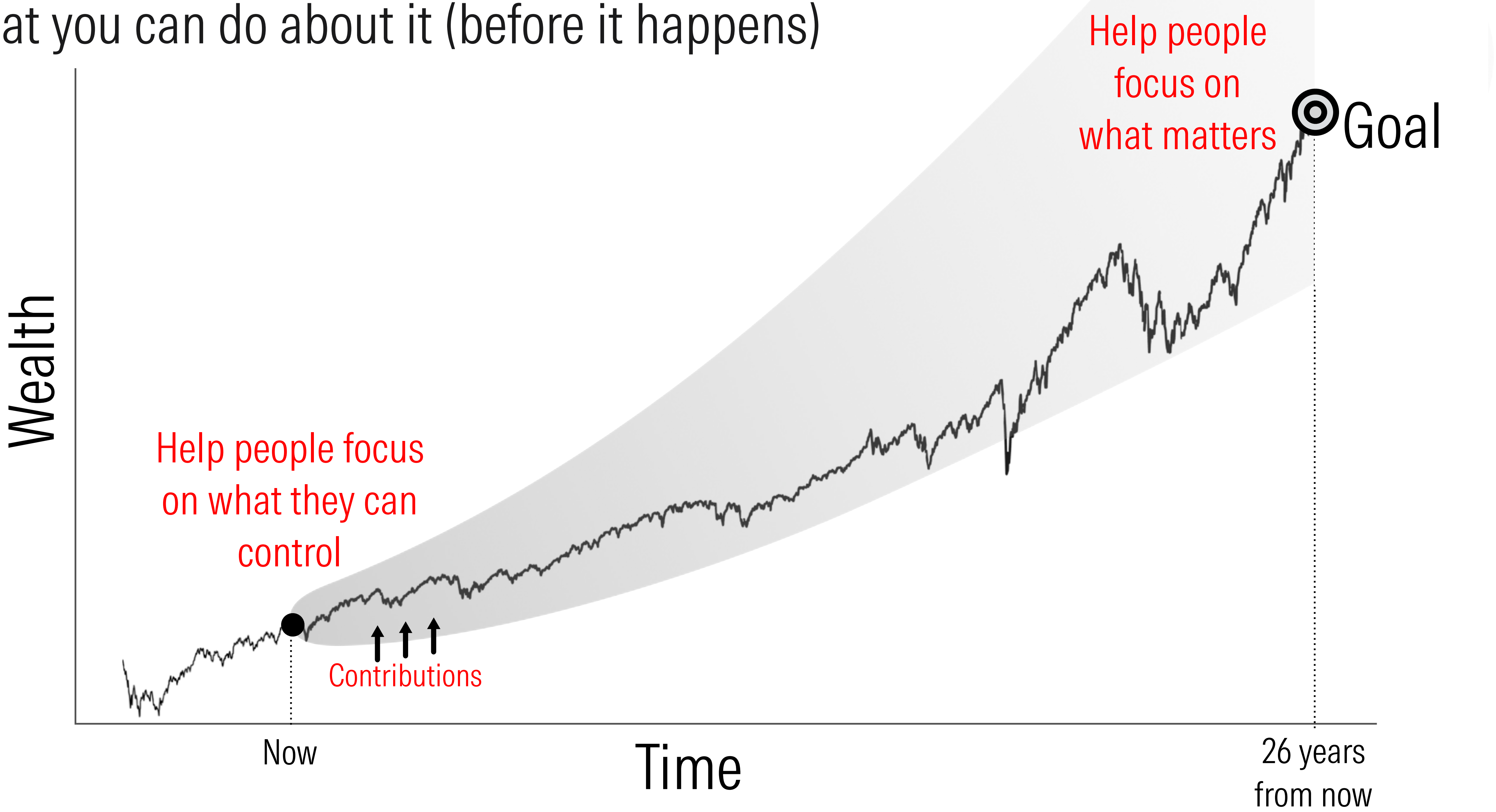
What you can do about it (before it happens)



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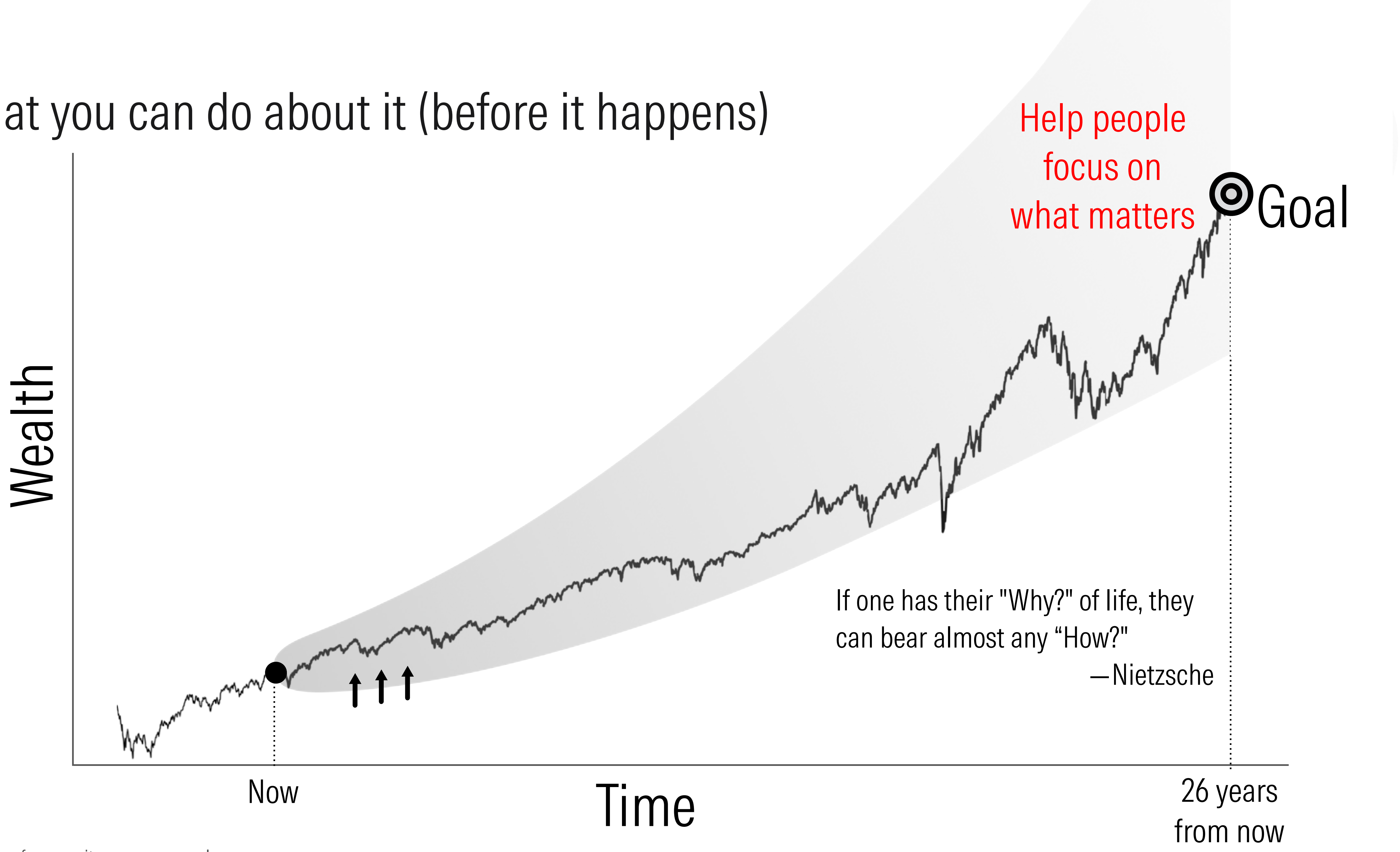
What you can do about it (before it happens)



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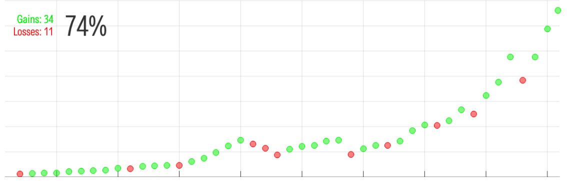
Big points so far

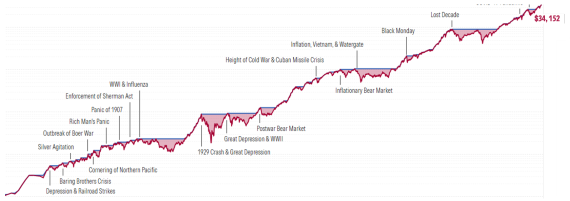
Distractions are abundant and we are wired for being distracted

Thin slicing leads to greater perceived volatility (fewer ups, more downs)

L o s s   A v e r s i o n



In markets, risk is generally rewarded (but it can take a long time to play out and markets don't evolve in a straight line)



Reframe investing as goal-seeking activity over the long-term

Study details

Morningstar Advisor Panel

Asked about their experiences with clients regarding volatility

47 established financial advisors (US, CA, UK, AUS, SA)

Mean age of 50, average of 19 years of experience

Average of about $250M-$500M AUM

Before- Education and inoculation

Not **if** there will be a recession/downturn…
…but how many.

Pre-commit- when there is a downturn, what are we going to do?

Basic expectation management (good portfolios, over the long run, lose money about 4-5 months every year). That's normal.

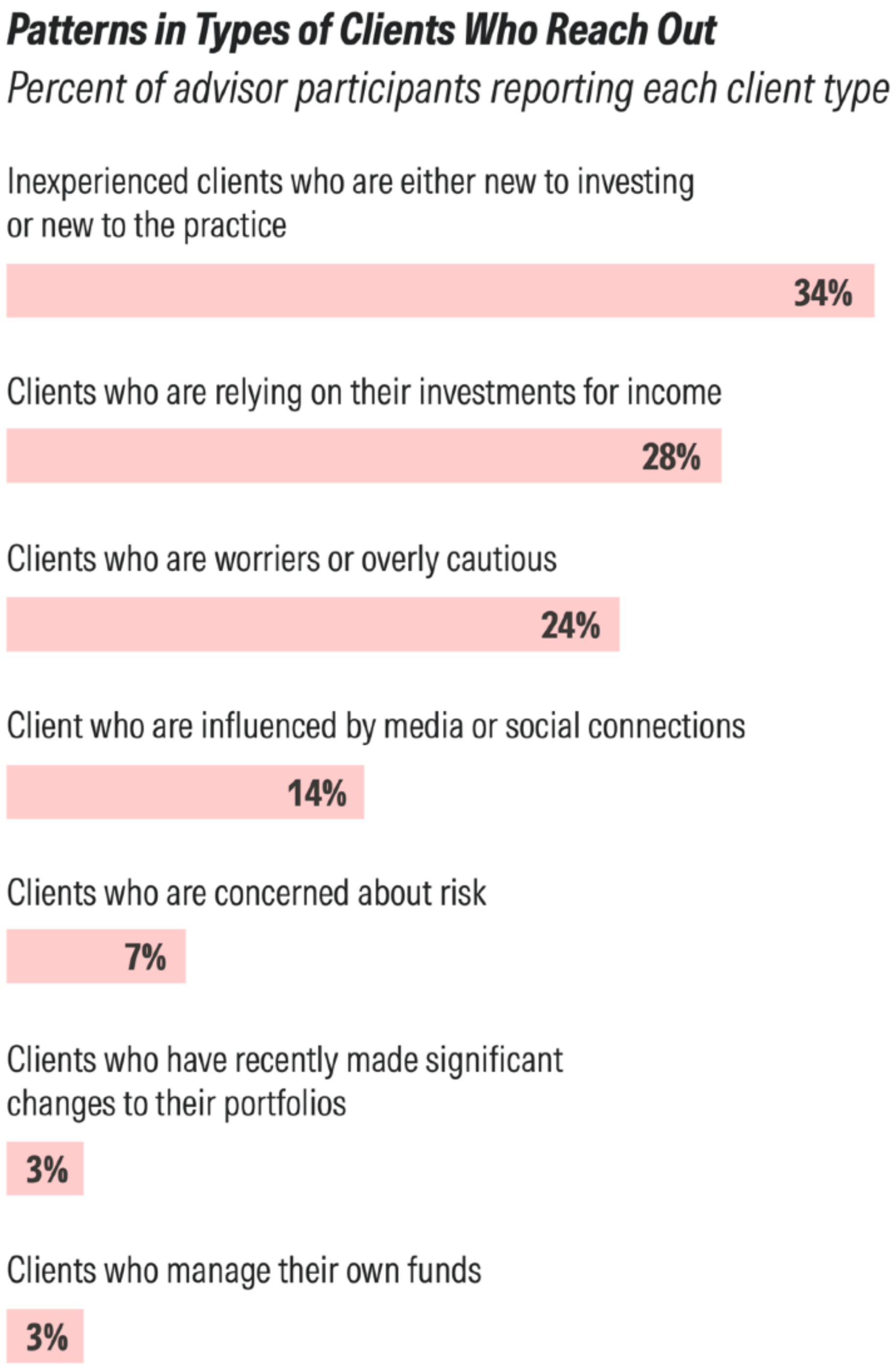
Help people understand what their anticipated volatile will looked like and remind them this is normal.

Volatility is the ticket to ride and there is an opportunity to foster a contrarian mindset

"Be fearful when others are greedy, and greedy when others are fearful."
-Warren Buffett

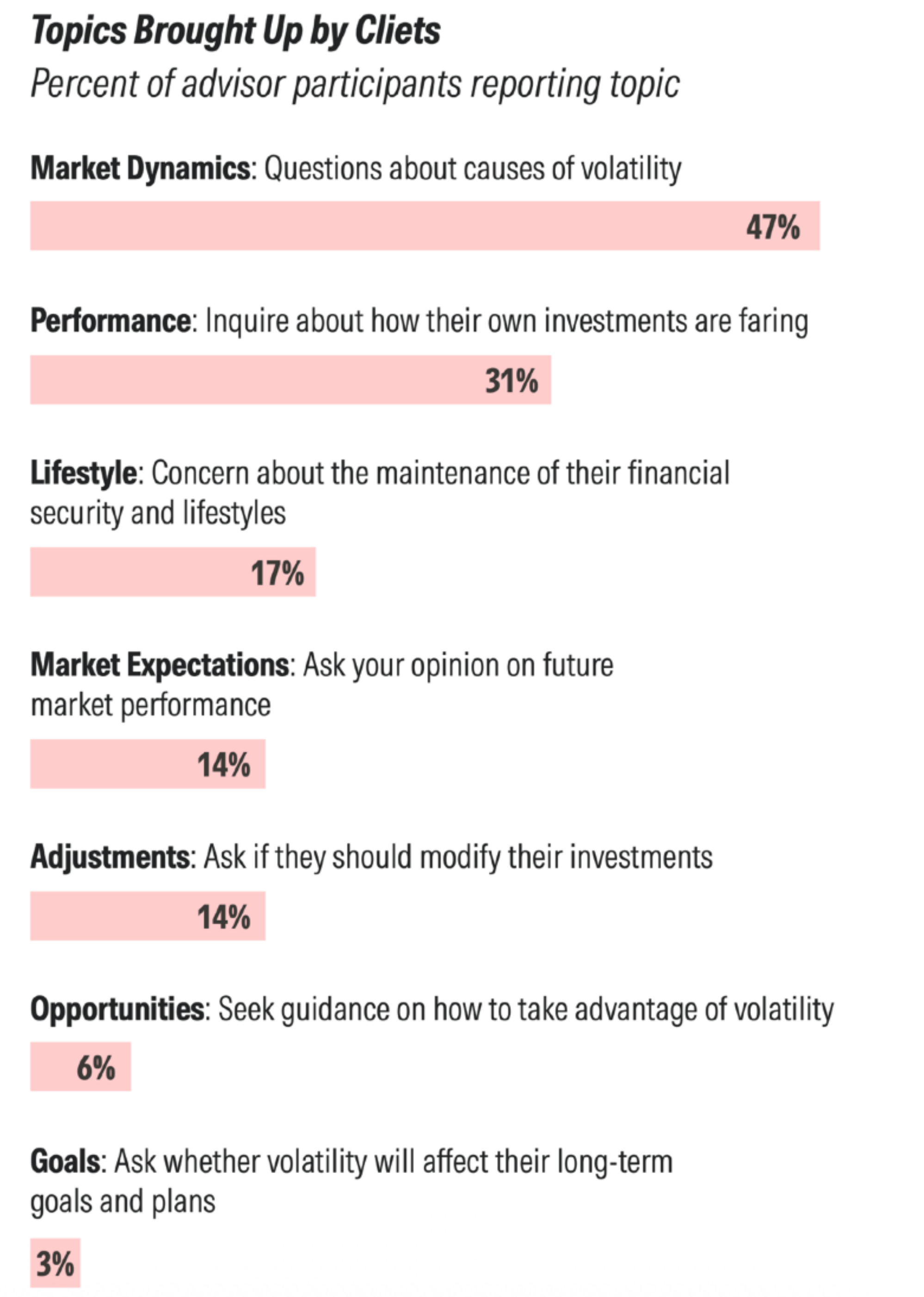
During volatility

Who reaches out



During volatility

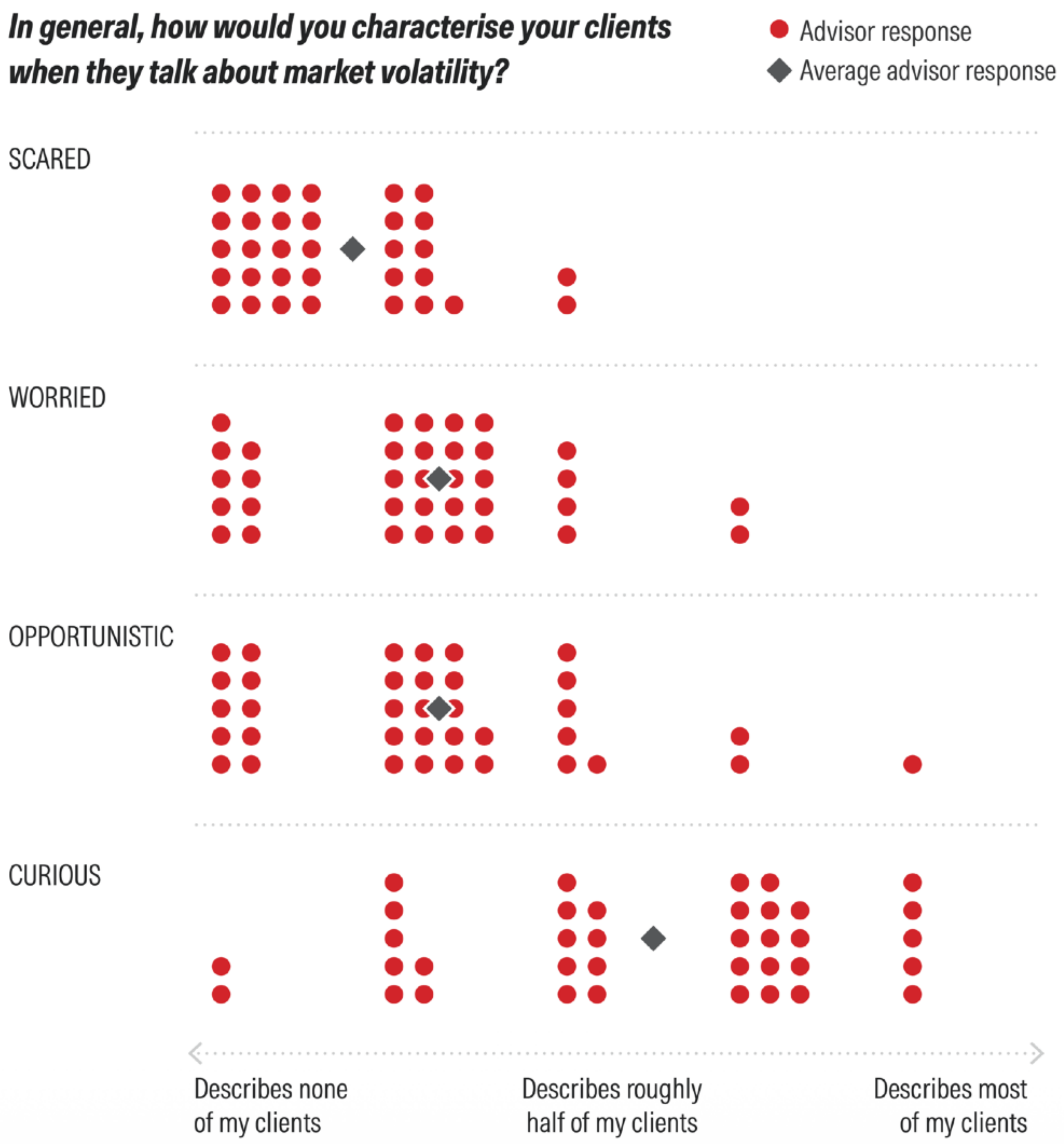
What do they talk about



MORNINGSTAR

During volatility

What do they feel



MORNINGSTAR

During volatility

What advisors can do

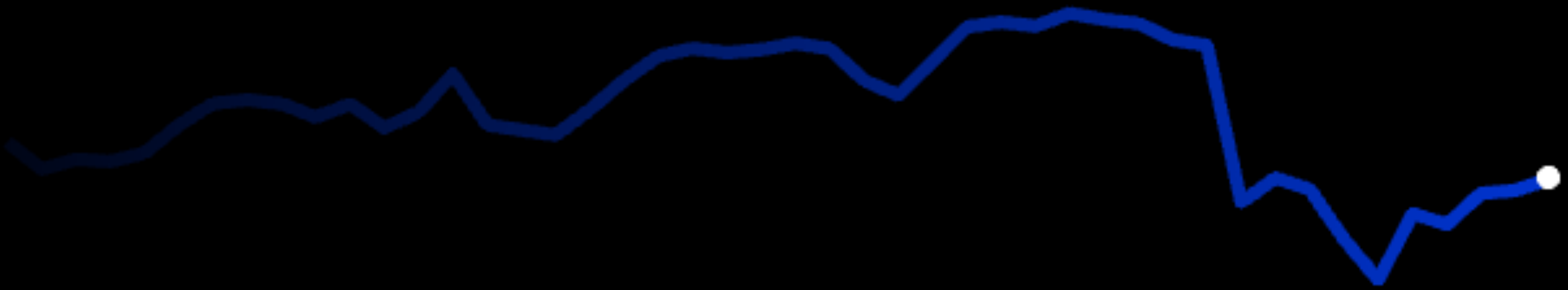
TACTIC	DESCRIPTION
Proactive Education About Volatility	Educates clients about potential market fluctuations and discusses strategies before volatility occurs.
Education During Volatility	Educates clients about market volatility and historical performance during volatility. It can be in the form of providing clients with educational resources such as market commentary presentations, newsletters, and articles.
Encourage Long-Term Investing	Emphasizes the importance of maintaining a long-term perspective when it comes to investing.
Let Client Lead	Focus on listening or allowing clients to lead discussions about their concerns.
Strategic Review/Adaptation of Client Financial Situation	Work with a client to review the plan and adjust where necessary based on current market conditions (for example, considering clients' asset allocation, income needs, life stage, and time horizon).
Reframe Volatility as an Opportunity	Encourage clients to view market volatility as an investing opportunity.
Decision-Making Support	Help clients make decisions by managing factors that might affect their decisions, such as their emotions, behaviors, values, personality, and temperament.

After volatility

What advisors have learned to do differently given their experiences

CHANGES	DESCRIPTION
Shifted From Investment Focus to Advisory Role	Shifted conversations to focus less on investments and more on as advisor's role as a financial guide/coach
Increased Confidence in Managing Conversations	Improved their ability and confidence when anticipating and managing client needs and concerns during periods of market volatility
Enhanced Reassurance Tactics	Refined their methods of reassuring clients during volatility (for example, leveraging personalized data and conducting proactive outreach)
Improved Communication Skills	Improved their communication techniques (for example, prioritizing empathy, active listening, using less jargon, and tailoring conversations to the client's understanding)
Focused on Education and Preparation	Prioritized educating and preparing clients for market volatility
Increased Confidence in Investing Expertise	Improved their own understanding of market volatility and investing strategies, allowing them to be more confident in their own investing approach

Volatility and uncertainty are inherent parts of investing



Inoculate, Reframe, Refocus, Assuage, and Adapt

Support Clients Through Market Volatility and Uncertainty

Advisors (not clients) initiate most volatility conversations, highlighting the value of proactive interventions

Clients focus on market mechanics and portfolio impact—but rarely on opportunities or long-term goals, revealing a need for advisors to foster contrarian thinking and goal-based framing during volatility

Advisors who rely on decision-making support and market education, and those incorporating behavioral coaching, see more opportunistic (and less reactive) clients

Experienced advisors shift from investment management toward communication, reassurance, and coaching

Developing a repeatable process for volatility conversations strengthens client outcomes and practice consistency, helping advisors scale their major value effectively

How Financial Advisors Can Support Clients Through Market Volatility and Uncertainty

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Morningstar

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