

# Capital Allocation @Hedgeye

An Interactive Update

HEDGEYE **LIVE** 2024

4 May 2024

# Chief topics for today

- [ 1 ] Noteworthy investment opportunities and perils**
- [ 2 ] Enhancements to CA deliverables**
- [ 3 ] Q&A with emphasis on feedback from CA patrons**

# Noteworthy Investment Opportunities & Perils

- 1 Private equity aches and pains
- 2 De-linking of China from G-7+ countries
- 3 Supply-constrained industries and their dependents
- 4 Fiscal ~~dominance~~ incontinence and its knock-on effects
- 5 Digital Assets

# Private equity aches and pains

- [ 1 ]** Stealth reliance on multiple expansion & growth at any (?) price
- [ 2 ]** Negative net cash flows for institutional LPs as a group
- [ 3 ]** Decreasing alignment of LP and GP incentives



# Investment Planning in Three ~~Easy~~ Simple Steps

## Optional Step 4 = Codify Anticipated *Zeitgeist* \*

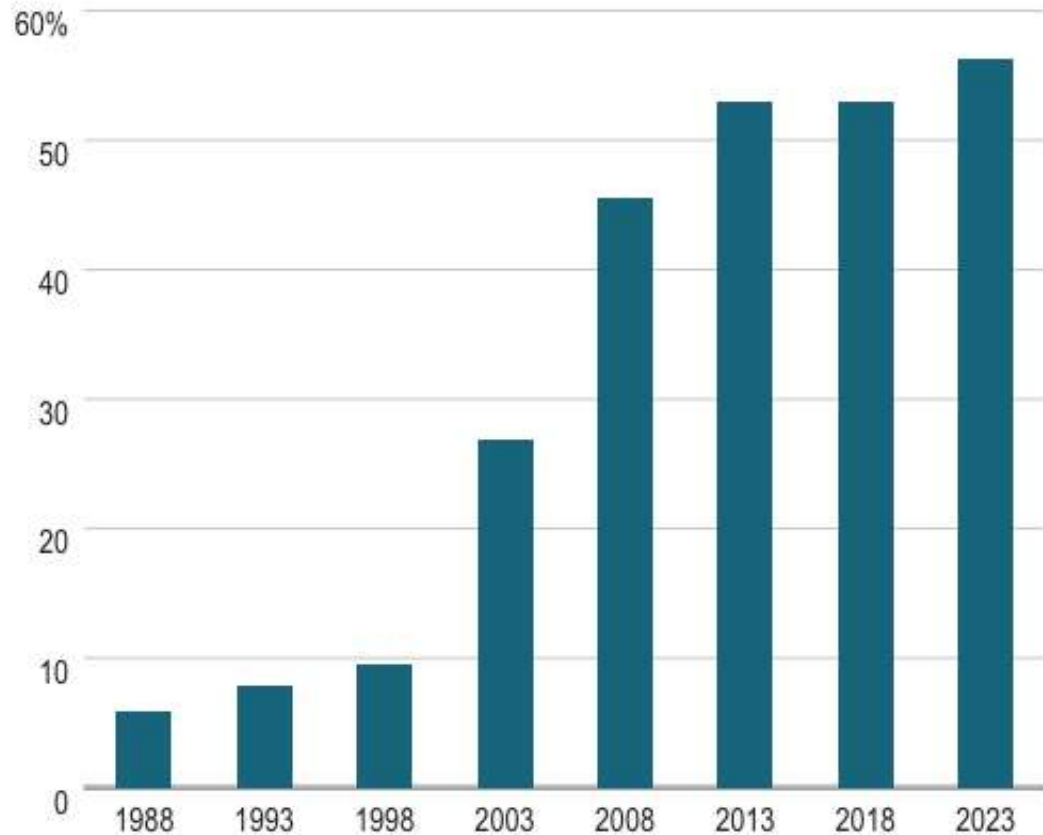
### Premises of Investment Plan Published in 2019 \*\*

- Deflationary expectations, now 40+ years old, are becoming **inflationary** expectations.
- Modern capital markets, now 150+ years old, are becoming **political utilities**.
- **Capitalist productivity, now 200+ years old, is becoming capitalist financialization.**
- Cooperative, multi-play games in both international politics and domestic politics, now 70+ years old, are becoming **competitive, single-play** games.

\* Concept credit to Ben Hunt.

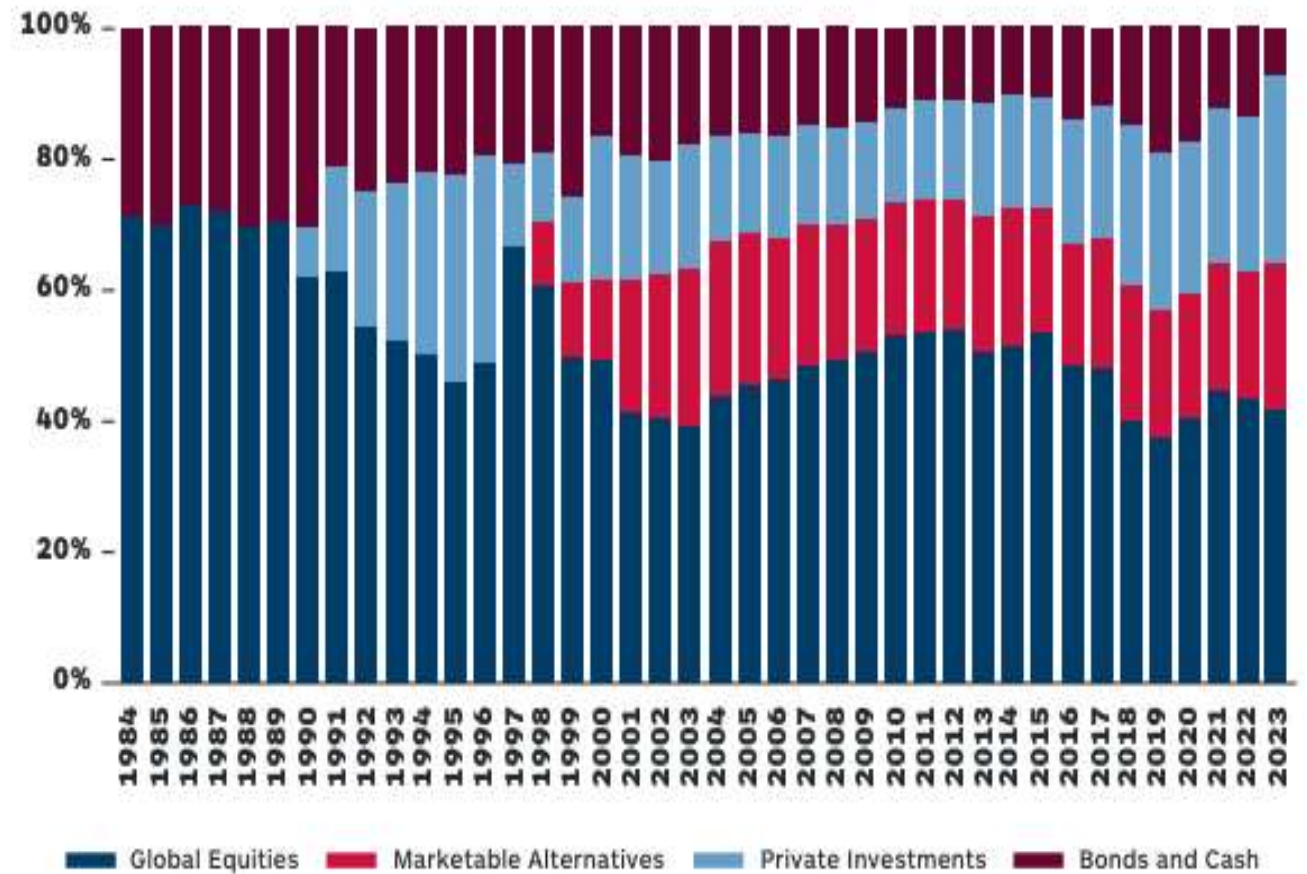
\*\* Excerpted from *Notes from the Diamond #7: Hittin 'Em Where They Ain't*, by David Salem for **Epsilon Theory (ET)**, with full credit and profuse thanks to ET founder Ben Hunt for the ideas and original wording (modified modestly by David) of the premises outlined above. *NftD #7* is available for free at <https://www.epsilontheory.com/notes-from-the-diamond-7-hitten-em-where-they-aint-part-2/>

### Endowment Allocations to “Alternatives”



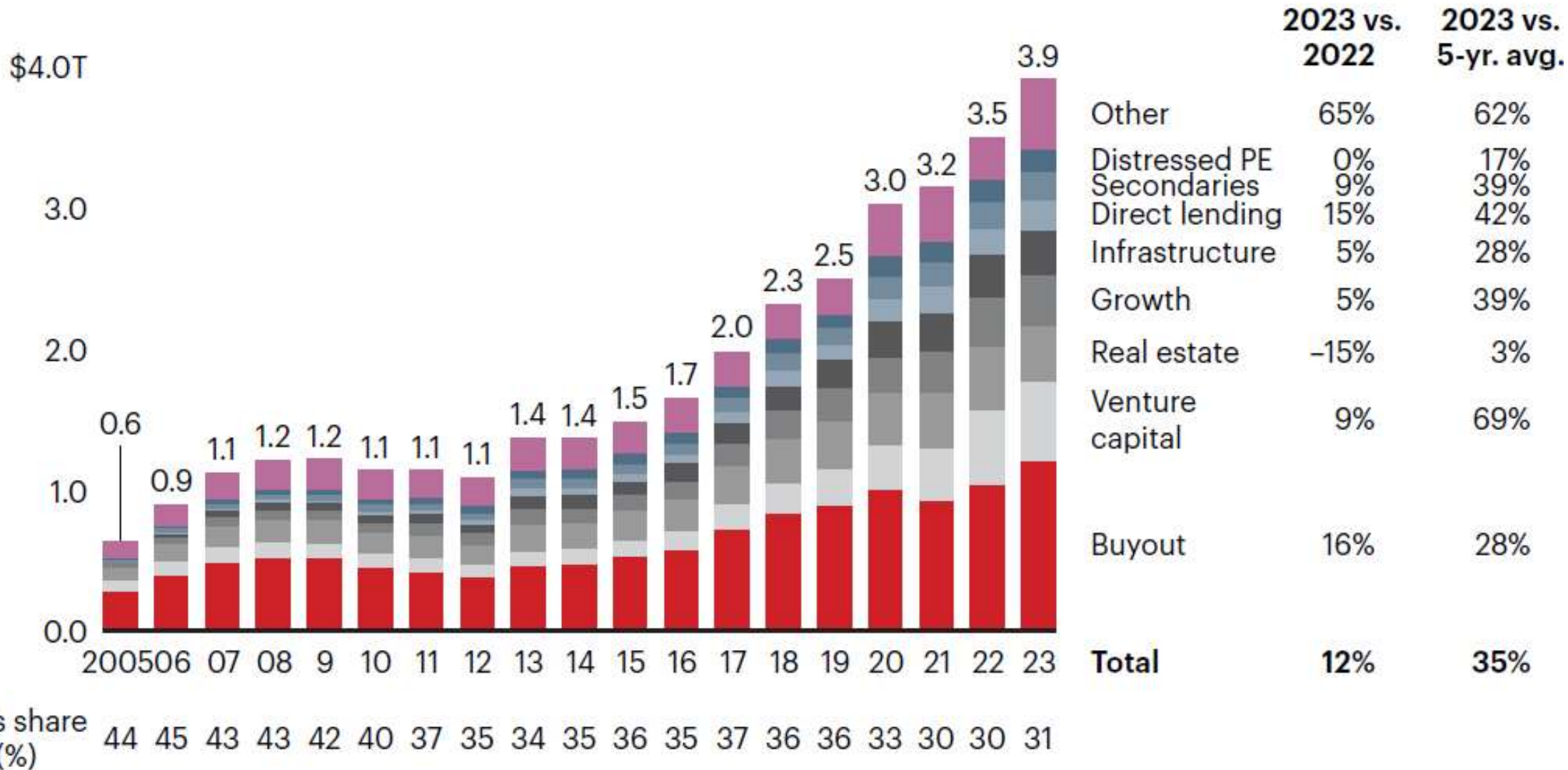
Measured at five-year intervals spanning fiscal years 1988 – 2023, institutions’ allocations to alternative investment strategies have risen dramatically, especially during the period from FY98 to FY13.

### Representative Asset Mix 1984 – 2023 \*



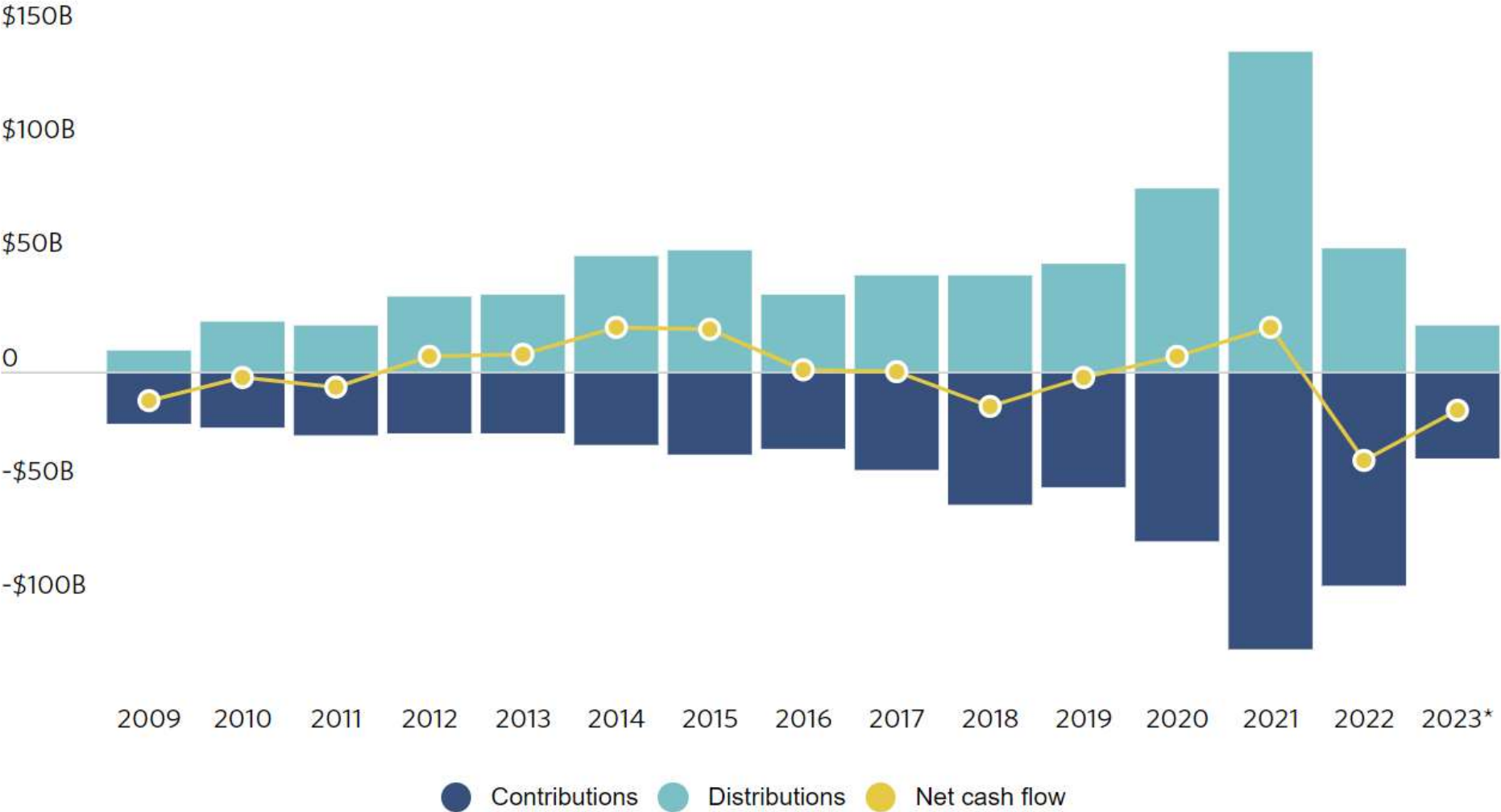
\* Mount Holyoke College, Hadley, MA.

### Global private capital dry powder, by fund type



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; other category includes fund-of-funds, mezzanine, and hybrid; discrepancies in bar heights displaying the same value are due to rounding differences

# US VC cash flows remain negative as fund contributions exceed distributions



Source: Q4 2023 PitchBook-NVCA Venture Monitor

\*As of Dec. 31, 2023



# Noteworthy Investment Opportunities & Perils

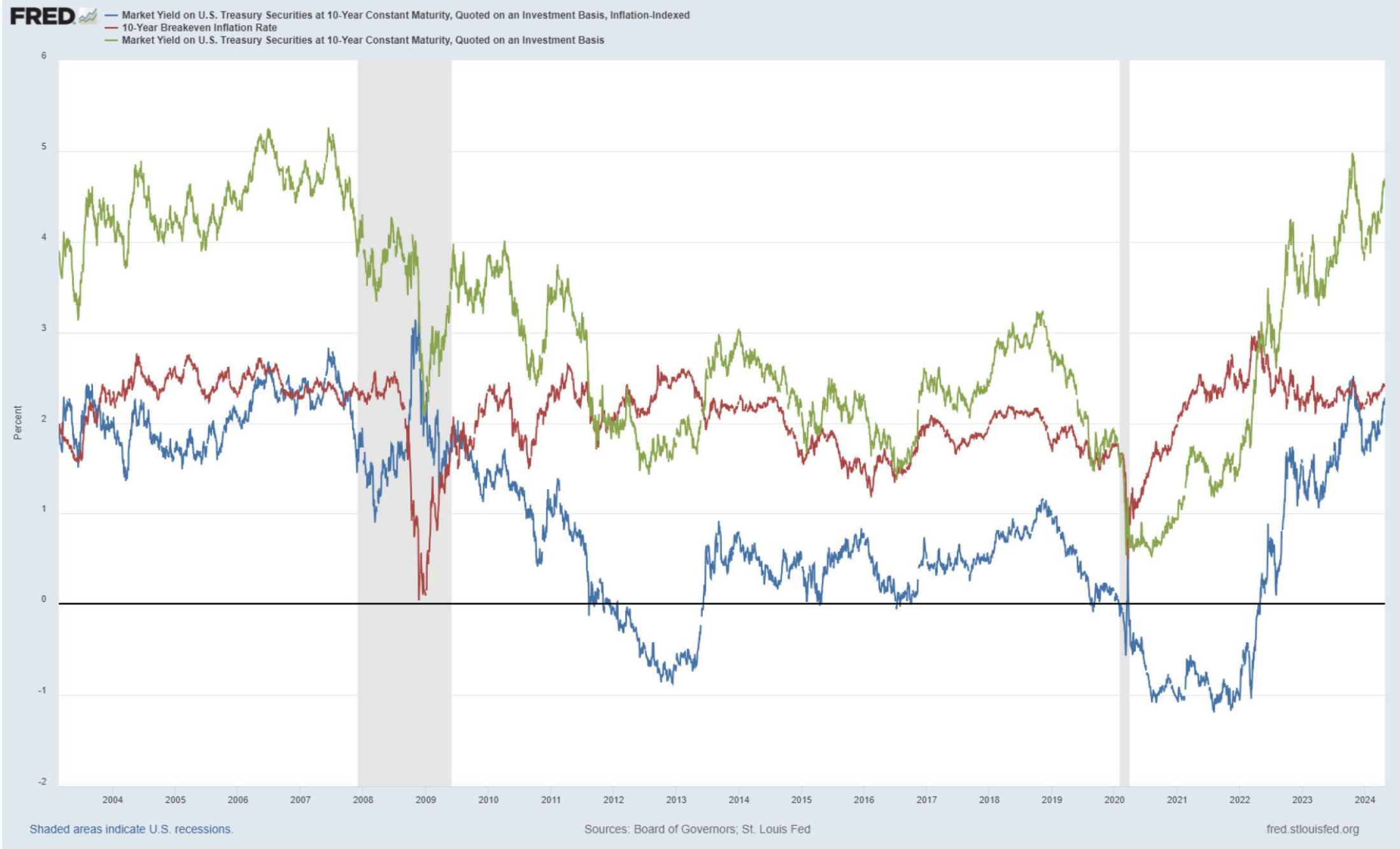
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- 5 Digital Assets



## Deceptively Seismic Shifts In Investment Landscape 1980s – Present (plus Potential Shifts)

- Plan Asset Regulations enable pensions funds to pile into VC & realty 1986
- Regulation FD outlaws selective disclosures by public companies 2000
- Pension Protection Act & related regs turbocharge indexed and age-based strategies 2007 \*
- FASB relaxation of fair-value rules reverses death spiral of loss-plagued banks 2009
- Fed lifts ceiling on government insurance of bank deposits via creation of BTFP 2023
- Fidelity launches Digital Asset Accounts to facilitate 401(k) investments in crypto 2024
- DoL adoption of “Fiduciary Rule” cements dominance of “passive” over active 2024?
- U.S. government restricts (bans?) Americans’ investment in Chinese companies 2024?
- Basel III Endgame capital requirements turbocharge banks’ absorption of USTs 2025?

\* PPA enactment in 2006 followed by “Final Regulations” issued in 2007, Department of Labor (DoL) “Tips” in 2013 and subsequent DoL pronouncements.



# Enhancements to CA deliverables

- 1 Model Portfolios
- 2 Performance Metrics: Since Inception, Cycle-to-Date, Calendar-Based (?)
- 3 Crown Jewels = Sector heads' long-term stock picks
- 4 Continuously Updated Dashboard with Potential Tier 1 Alpha Integration
- 5 CA Patrons' wish list?

## Capital Allocation@Hedgeye --- Dual-Constraint Model Portfolios

Constraints = <5% Probabilities of (a) Drawdown Exceeding Specified % or (b) Turnover >40% in Any Rolling 18-Month Interval

	Ticker	-15% Drawdown	-25% Drawdown	-35% Drawdown	Refreshed Long-Term Return Prospect (Now through 3/31/25)	Closing Price on 4/30/24	Price v Trend			Price v Tail		
								Trend			Tail	
<b>Currencies</b>												
Invesco DB US Dollar Index Bullish Fund	UUP				Positive	\$ 28.98	3.09%	28.11	Above	4.70%	27.68	Above
Invesco CurrencyShares Euro Trust	FXE				Indeterminate	\$ 98.64	-0.77%	99.41	Below	-0.27%	98.91	Below
Invesco CurrencyShares Japanese Yen Trust	FXJ				Indeterminate	\$ 58.70	-5.29%	61.98	Below	-7.95%	63.77	Below
Invesco CurrencyShares Swiss Franc Trust	FXF				Indeterminate	\$ 96.78	-2.99%	99.76	Below	-3.01%	99.78	Below
Invesco CurrencyShares British Pound Sterling Trust	FXB				Positive	\$ 120.38	-0.51%	121.00	Below	0.32%	120.00	Above
SPDR Gold Shares	GLD				Positive	\$ 211.87	6.47%	199.00	Above	10.35%	192.00	Above
<b>Commodities</b>												
iShares S&P GSCI Commodity Indexed Trust	GSG				Positive	\$ 22.27	3.49%	21.52	Above	5.40%	21.13	Above
United States Oil Fund LP	USO				Indeterminate	\$ 78.38	3.57%	75.68	Above	7.43%	72.96	Above
United States Natural Gas Fund LP	UNG				Indeterminate	\$ 14.44	-15.80%	17.15	Below	-43.97%	25.77	Below
Invesco DB Agriculture Fund	DBA				Positive	\$ 24.64	3.97%	23.70	Above	12.41%	21.92	Above
Invesco DB Base Metals Fund	DBB				Positive	\$ 20.31	10.20%	18.43	Above	13.02%	17.97	Above
iShares Silver Trust	SLV				Indeterminate	\$ 24.05	4.57%	23.00	Above	10.12%	21.84	Above
Global X Uranium ETF	URA				Positive	\$ 28.77	1.02%	28.48	Above	11.04%	25.91	Above
VanEck Rare Earth/Strategic Metals ETF	REMX				Indeterminate	\$ 50.97	-3.37%	52.75	Below	-17.68%	61.92	Below
ProShares Bitcoin Strategy ETF	BITO				Indeterminate	\$ 25.61	0.47%	25.49	Above	26.59%	20.23	Above
Grayscale Ethereum Trust (ETH)	ETHE				Indeterminate	\$ 20.63	-14.15%	24.03	Below	11.69%	18.47	Above
<b>Bonds</b>												
iShares Core U.S. Aggregate Bond ETF	AGG				Indeterminate	\$ 95.23	-1.30%	96.48	Below	-0.68%	95.88	Below
iShares 1-3 Year Treasury Bond ETF	SHY				Positive	\$ 81.15	-0.06%	81.20	Below	0.86%	80.46	Above
iShares 7-10 Year Treasury Bond ETF	IEF				Indeterminate	\$ 91.43	-2.12%	93.41	Below	-1.84%	93.14	Below
iShares 20+ Year Treasury Bond ETF	TLT				Indeterminate	\$ 88.22	-6.15%	94.00	Below	-4.09%	91.98	Below
iShares iBoxx \$ High Yield Corporate Bond ETF	HYG				Indeterminate	\$ 76.29	-0.31%	76.53	Below	2.91%	74.13	Above
iShares Preferred & Income Securities ETF	PFF				Indeterminate	\$ 30.96	-1.50%	31.43	Below	1.54%	30.49	Above
iShares TIPS Bond ETF	TIP				Positive	\$ 105.53	-0.44%	106.00	Below	-0.44%	106.00	Below
Vanguard Total International Bond ETF	BNDX				Positive	\$ 48.41	-0.53%	48.67	Below	1.06%	47.90	Above
SPDR FTSE International Government Inflation-Protec	WIP				Positive	\$ 38.74	-1.97%	39.52	Below	-1.85%	39.47	Below
iShares JP Morgan USD Emerging Markets Bond ETF	EMB				Positive	\$ 87.15	-1.00%	88.03	Below	2.54%	84.99	Above



# Investment Planning in Three ~~Easy~~ Simple Steps

- 1 - Segregate investable wealth to the maximum *feasible* extent to align funds being deployed with risk parameters applied to them, including ideally a sub-portfolio comprising low volatility marketable securities equaling the present value of **Essential Goals**. \*
- 2 - Codify limit(s) on the type(s) and degree(s) of risk that **must** be incurred to achieve minimally satisfactory results.
- 3 - Codify performance evaluation metric(s) and associated time horizons

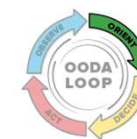
## Optional:

- 4 - Codify anticipated secular trends (“Zeitgeist”\*\*) not fully reflected in asset prices
- 5 - Codify permissible investments with maximum *feasible* specificity

\* Concept credit to Ashvin Chhabra.

\*\* Concept credit to Ben Hunt.

# Identifying Investment-Related Ends & Means



## For Individuals & Families

### Aspirational Goals

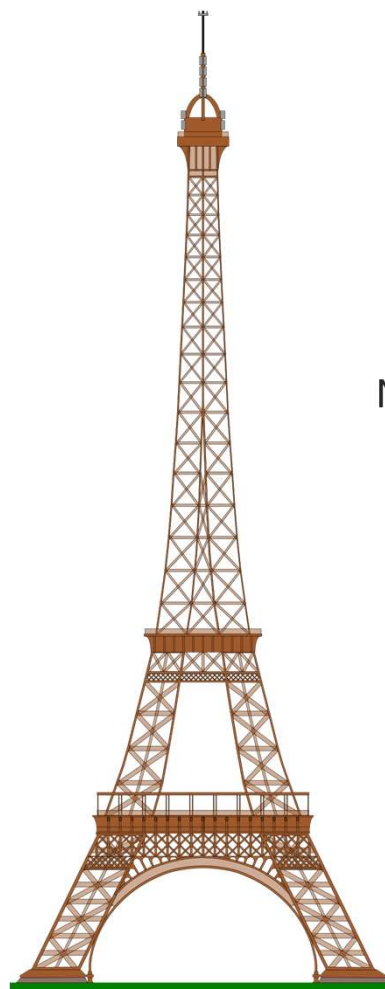
Concentrated Equities inc. Options  
Non-Core Investment Realty  
Human Capital  
Cash Reserves

### Important Goals

Core Equities inc. Private  
Core Investment Realty  
Core Fixed Income  
Active Strategies  
Cash Reserves

### Essential Goals

Base Salary and Benefits  
Pension Income & Assets  
Life and Disability Insurance  
Owner-Occupied Realty  
Cash Reserves



## For Endowed Charities

### Build and Nurture New Programs

Aggressive Active Strategies  
Seed & Early-Stage VC  
Cash Reserves

### Enhance Existing Programs

Non-Core Marketable Stocks & Bonds  
Private Equity inc. Late-Stage VC  
Non-Core Realty  
Cash Reserves

### Maintain Existing Programs

Core Marketable Stocks & Bonds  
Commodities and Currencies  
Core Realty  
Cash Reserves

## Comments

The framework at far left has been adapted from -Ashvin Chhabra's seminal treatise on investment policy: *The Aspirational Investor: Taming the Markets to Achieve Your Life's Goals* (2015). Typically applied by and on behalf of individuals and families, this framework has been adapted for potential institutional use via the variant at the immediate left.

All credit to Ashvin for his creativity—and his dogged determination in lobbying asset owners of all types and stripes to devote due and hence substantial time and attention to investment policy-making in general and goal setting in particular.

# Underpinnings of CA Return Prospects

## Primary Variables

- Quads
  - Past, Current & Projected Quads
  - Conditional Probabilities of Accels or Decels
  - Absolute Levels of Projected GDP and Quads
- Signals
  - Trends & Tails
    - Current Prices vs. Levels
    - Evolving Character of Divergences from Levels
    - Evolving Levels
      - Absolute
      - Relative to each other

## Other Variables

- Consensus Positioning (via CFTC data)
- Implied Volatilities (Absolute and Relative to History)
- Trade Ranges
  - Recent Material Shifts (if any)
  - Relative to Trend and Tail Levels
- Status vis ETF Pro and Portfolio Solutions
- Read-Throughs from Hedgeye Sector Specialists
- Insights from Hedgeye Policy Analysts
- Perceived Zeitgeist





# HEDGEYE CAPITAL ALLOCATION

## Dashboard


As of 2 May 2024


	Page	As of *
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Return Prospects .....	3	05/02/24
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### User Guide to Return Prospects

**Yield** = Current income yield on instrument as reported by Factset: an important variable in the total return projections discussed below.

**Drawdown Check** = In the CA team's opinion, there's a less than 25% probability the specified exposure will undergo a drawdown exceeding the "Check" over the interval specified in **Longer-Term Return Prospects**.

 = **Positive** = instrument is 75+% likely in the CA team's opinion to produce a positive total return during specified interval.

 = **Indeterminate** = conflicting inputs render a directional appraisal of the instrument infeasible.

 = **Negative** = instrument is 75+% likely in the CA team's opinion to produce a negative total return during specified interval.

\* **Green** dates indicate **Elements** refreshed since prior edition of **Dashboard**.

Signals / Quads / L-T Return Prospects as of 2 May 2024				Signals										Quads								Longer-Term Return Prospects					
				Above = Last Price Exceeds Level										Below = Level Exceeds Last Price													
	Ticker	Price *	Δ in Price vs Appraisal Date	Trend Level	Δ in Level vs Prior	Price vs. Trend	Current Status	Change vs. Prior	Tail Level	Δ in Level vs Prior	Price vs. Tail	Current Status	Change vs. Prior	Country Defining Quad	2Q24E	Probability of Quad	3Q24E	Probability of Quad	4Q24E	Probability of Quad	1Q25E	Probability of Quad	Refreshed Long-Term Return Prospect (Now through 3/31/25)	Change vs. Prior Prospect	Prior Prospect (April 2024)		
<b>Currencies</b>																											
	iShares DB US Dollar Index Bullish Fund	UUP	\$ 28.98	0.31%	28.11	1.63%	3.08%	Above	▲	27.68	1.76%	4.70%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Indeterminate	
	Invesco CurrencyShares Euro Trust	FXE	\$ 98.64	-0.26%	99.41	-0.79%	-0.77%	Below	▼	98.91	-0.08%	-0.27%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Positive	
	Invesco CurrencyShares Japanese Yen Trust	FXJ	\$ 58.70	0.09%	61.98	-1.07%	-5.29%	Below	▼	63.77	-0.93%	-7.95%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Invesco CurrencyShares Swiss Franc Trust	FXF	\$ 96.78	-0.58%	99.76	-1.43%	-2.99%	Below	▼	98.78	-0.35%	-3.01%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Invesco CurrencyShares British Pound Sterling Trust	FXB	\$ 120.38	0.06%	121.00	-0.80%	-0.51%	Below	▼	120.00	0.55%	0.32%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
	SPDR Gold Shares	GLD	\$ 211.87	-2.19%	199.00	6.42%	6.47%	Above	▲	192.00	4.35%	10.35%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
<b>Commodities</b>																											
	iShares S&P GSCI Commodity Indexed Trust	CSG	\$ 22.27	-1.76%	21.52	2.18%	3.49%	Above	▲	21.13	1.25%	5.40%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
	United States Oil Fund LP	USO	\$ 78.38	-2.50%	75.68	3.67%	3.57%	Above	▲	72.96	2.37%	7.43%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	United States Natural Gas Fund LP	UNG	\$ 14.44	2.70%	17.15	-9.16%	-15.80%	Below	▼	25.77	-6.77%	-43.97%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Invesco DB Agriculture Fund	DBA	\$ 24.64	-3.38%	23.70	5.80%	3.97%	Above	▲	21.92	4.18%	12.41%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
	Invesco DB Base Metals Fund	DBB	\$ 20.31	0.95%	18.43	6.29%	10.20%	Above	▲	17.97	2.92%	13.02%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Indeterminate	
	iShares Silver Trust	SLV	\$ 24.05	-3.37%	23.00	7.38%	4.57%	Above	▲	21.84	2.30%	10.12%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Global X Uranium ETF	URA	\$ 28.77	-2.47%	28.48	0.89%	1.02%	Above	▲	25.91	2.94%	11.04%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
	VanEck Rare Earth/Strategic Metals ETF	REMXX	\$ 50.97	1.23%	52.75	-1.29%	-3.37%	Below	▼	61.92	-2.29%	-17.68%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	ProShares Bitcoin Strategy ETF	BITO	\$ 25.61	-7.55%	25.49	4.04%	0.47%	Above	▲	20.23	5.04%	26.59%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Grayscale Ethereum Trust (ETH)	ETHE	\$ 20.63	-8.19%	24.03	3.85%	-14.15%	Below	▼	18.47	4.71%	11.69%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
<b>Bonds</b>																											
	iShares Core US Aggregate Bond ETF	AGG	\$ 95.23	-0.10%	96.48	-0.42%	-1.30%	Below	▼	95.88	-0.13%	-0.68%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Positive	
	iShares 1-3 Year Treasury Bond ETF	SHY	\$ 81.15	-0.07%	81.20	-0.21%	-0.06%	Below	▼	80.46	-0.14%	0.66%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Positive	
	iShares 7-10 Year Treasury Bond ETF	IEF	\$ 91.43	-0.07%	93.41	-0.95%	-2.12%	Below	▼	93.14	-0.76%	-1.84%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares 20 Year Treasury Bond ETF	TLT	\$ 88.22	-0.02%	94.00	0.05%	-6.15%	Below	▼	91.98	-3.37%	-4.09%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares iBoxx \$ High Yield Corporate Bond ETF	HYG	\$ 76.29	-0.43%	76.53	0.21%	-0.31%	Below	▼	74.13	0.30%	2.91%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares Preferred & Income Securities ETF	PII	\$ 30.96	-0.55%	31.43	-0.16%	-1.50%	Below	▼	30.49	0.13%	1.54%	Above	▲	USA	2	52%	3	51%	3	30%	2	34%	Indeterminate	▼	Positive	
	iShares TIPS Bond ETF	TIP	\$ 105.53	-0.24%	106.00	-0.59%	-0.44%	Below	▼	106.00	0.01%	-0.44%	Below	▼	USA	2	66%	3	51%	3	31%	2	35%	Positive	▲	Positive	
	Vanguard Total International Bond ETF	BNDX	\$ 48.41	-0.06%	48.67	-0.12%	-0.53%	Below	▼	47.90	-0.04%	1.06%	Above	▲	World Median	3	33%	4	35%	2	32%	3	40%	Positive	▲	Positive	
	SPDR FTSE International Government Inflation-Protect	WIP	\$ 38.74	-0.28%	39.52	-1.08%	-1.97%	Below	▼	39.47	-0.58%	-1.85%	Below	▼	World Median	3	47%	4	38%	2	35%	3	35%	Positive	▲	Positive	
	SPDR JPMorgan USD Emerging Markets Bond ETF	EMB	\$ 87.15	-0.53%	88.03	0.85%	-1.00%	Below	▼	84.99	0.06%	2.54%	Above	▲	EM Median	3	47%	4	38%	2	35%	3	35%	Positive	▲	Positive	
<b>Global &amp; Non-US Stocks</b>																											
***	iShares MSCI Emerging Markets ex China ETF	EMXC	\$ 56.42	-0.16%	55.75	1.27%	1.20%	Above	▲	53.35	1.00%	5.75%	Above	▲	EM Median	3	47%	4	38%	2	35%	3	35%	Positive	▲	Positive	
	iShares MSCI Japan ETF	EWJ	\$ 67.27	0.21%	68.50	1.84%	-1.80%	Below	▼	63.88	1.54%	5.31%	Above	▲	Japan	4	34%	1	56%	1	52%	4	31%	Positive	▲	Positive	
	iShares JPMorgan 400 ETF	JPXN	\$ 71.24	0.37%	71.44	1.45%	-0.29%	Below	▼	67.20	1.36%	6.01%	Above	▲	Japan	4	34%	1	56%	1	52%	4	31%	Positive	▲	Positive	
	iShares MSCI Japan Small-Cap ETF	SCJ	\$ 71.66	-0.21%	72.65	0.89%	-1.36%	Below	▼	70.00	0.70%	2.37%	Above	▲	Japan	4	34%	1	56%	1	52%	4	31%	Positive	▲	Positive	
	iShares China Large-Cap ETF	FXI	\$ 25.49	-1.47%	25.04	6.64%	1.80%	Above	▲	25.06	-0.71%	1.72%	Above	▲	China	3	56%	4	42%	2	47%	4	34%	Indeterminate	▼	Indeterminate	
	KraneShares CSI China Internet ETF	KWEB	\$ 27.87	-3.23%	26.86	5.00%	3.76%	Above	▲	26.81	-0.63%	3.95%	Above	▲	China	3	56%	4	42%	2	47%	4	34%	Indeterminate	▼	Indeterminate	
	iShares MSCI Hong Kong ETF	EWH	\$ 16.04	0.38%	15.99	-2.74%	0.31%	Above	▲	17.11	-1.10%	-6.25%	Below	▼	Hong Kong	2	52%	1	51%	3	30%	3	34%	Indeterminate	▼	Indeterminate	
	iShares MSCI India ETF	INDA	\$ 52.35	0.06%	50.16	2.03%	4.37%	Above	▲	47.50	1.50%	10.21%	Above	▲	India	3	32%	1	53%	2	53%	3	31%	Positive	▲	Positive	
	iShares MSCI South Korea ETF	EWY	\$ 63.05	-0.46%	63.91	0.79%	-1.35%	Below	▼	62.22	1.34%	1.33%	Above	▲	S. Korea	4	66%	4	51%	2	31%	3	35%	Indeterminate	▼	Positive	
	Vanguard FTSE Europe ETF	VGK	\$ 65.62	-1.16%	64.86	1.34%	1.17%	Above	▲	61.98	1.59%	5.87%	Above	▲	Eurozone	1	33%	1	35%	2	32%	2	40%	Positive	▲	Positive	
	iShares MSCI United Kingdom ETF	EWU	\$ 34.70	-0.37%	33.21	0.88%	4.49%	Above	▲	32.21	0.75%	7.73%	Above	▲	UK	1	51%	2	34%	2	36%	2	35%	Positive	▲	Positive	
	iShares MSCI Germany ETF	EWG	\$ 30.46	-1.61%	30.09	1.28%	1.23%	Above	▲	28.92	1.33%	5.33%	Above	▲	Germany	1	37%	1	30%	2	62%	3	28%	Positive	▲	Positive	
	iShares MSCI France ETF	EWQ	\$ 40.04	-1.55%	39.59	0.46%	1.14%	Above	▲	37.99	0.45%	5.40%	Above	▲	France	1	50%	1	28%	2	53%	3	31%	Positive	▲	Positive	
	iShares MSCI Canada ETF	EWG	\$ 36.92	-1.89%	36.99	1.20%	-0.19%	Below	▼	35.73	1.39%	3.33%	Above	▲	Canada	4	52%	2	37%	2	41%	2	33%	Positive	▲	Positive	
	iShares MSCI Australia ETF	EWA	\$ 23.34	-1.60%	23.91	1.74%	-2.38%	Below	▼	22.98	0.92%	1.57%	Above	▲	Australia	4	51%	1	45%	2	42%	2	37%	Positive	▲	Positive	
	VanEck Gold Miners ETF	GDX	\$ 33.13	-4.19%	30.43	5.04%	8.87%	Above	▲	29.86	3.68%	10.95%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Positive	▲	Indeterminate	
***	VanEck Agribusiness ETF	MOO	\$ 71.47	-0.43%	73.28	-3.91%	-2.47%	Below	▼	75.45	-3.28%	-5.28%	Below	▼	World Median	3	49%	4	48%	2	57%	3	68%	Negative	▼	Indeterminate	
	iShares MSCI Malaysia ETF	EWM	\$ 22.10	-0.81%	21.59	1.79%	2.36%	Above	▲	21.26	1.09%	3.95%	Above	▲	Malaysia	3	47%	4	29%	2	43%	1	53%	Positive	▲	Positive	
	iShares MSCI Brazil ETF	EWZ	\$ 31.03	-1.62%	32.34	-0.89%	-4.05%	Below	▼	31.37	0.42%	-1.08%	Below	▼	Brazil	4	45%	2	38%	2	40%	2	29%	Indeterminate	▼	Positive	
	iShares MSCI South Africa ETF	EZA	\$ 40.12	0.20%	39.32	1.21%	2.03%	Above	▲	38.99	-1.34%	2.90%	Above	▲	South Africa	1	31%	3	30%	1	71%	2	53%	Indeterminate	▼	Indeterminate	
<b>US Stocks</b>																											
	SPDR S&P 500 ETF Trust	SPY	\$ 501.98	-1.24%	499.00	1.42%	0.60%	Above	▲	468.00	0.43%	7.26%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	Invesco QQQ Trust Series 1	QQQ	\$ 424.59	-1.49%	432.00	2.13%	-1.72%	Below	▼	395.00	2.60%	7.49%	Above	▲	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares Russell 2000 ETF	IWM	\$ 195.90	-1.24%	203.00	-0.49%	-3.50%	Below	▼	204.00	3.55%	-3.97%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares Russell 2000 Growth ETF	IWO	\$ 250.32	-1.09%	255.00	1.59%	-1.84%	Below	▼	254.00	4.96%	-1.45%	Below	▼	USA	2	45%	3	43%	3	42%	2	36%	Indeterminate	▼	Indeterminate	
	iShares Russell 2000 Value ETF	IWN	\$ 149.04	-1.39%	151.00	0.67%	-1.30%	Below																			

### Return Prospects as of 2 May 2024

	Ticker	Yield	Drawdown Check	Remainder of 2Q24	3Q24	4Q24	1Q25	Refreshed Long-Term Return Prospect (Now through 3/31/25)	Change vs. Prior Prospect	Prior Long-Term Return Prospect
<b>Currencies</b>										
Invesco DB US Dollar Index Bullish Fund	UUP	6.0%	10%		Upgraded			Positive	▲	Indeterminate
Invesco CurrencyShares Euro Trust	FXE	2.1%	10%		Downgraded	Downgraded		Indeterminate	▼	Positive
Invesco CurrencyShares Japanese Yen Trust	FXJ	0.0%	15%			Downgraded		Indeterminate	▬	Indeterminate
Invesco CurrencyShares Swiss Franc Trust	FXF	0.1%	10%			Downgraded		Indeterminate	▬	Indeterminate
Invesco CurrencyShares British Pound Sterling Trust	FXB	3.1%	10%					Positive	▬	Positive
SPDR Gold Shares	GLD	0.0%	15%		Upgraded			Positive	▬	Positive
<b>Commodities</b>										
iShares S&P GSCI Commodity Indexed Trust	GSG	0.0%	20%					Positive	▬	Positive
United States Oil Fund LP	USO	0.0%	20%					Indeterminate	▬	Indeterminate
United States Natural Gas Fund LP	UNG	0.0%	25%					Indeterminate	▬	Indeterminate
Invesco DB Agriculture Fund	DBA	3.7%	20%					Positive	▬	Positive
Invesco DB Base Metals Fund	DBB	6.5%	20%		Upgraded			Positive	▲	Indeterminate
iShares Silver Trust	SLV	0.0%	25%					Indeterminate	▬	Indeterminate
Global X Uranium ETF	URA	5.7%	25%					Positive	▬	Positive
VanEck Rare Earth/Strategic Metals ETF	REMX	0.0%	25%					Indeterminate	▬	Indeterminate
ProShares Bitcoin Strategy ETF	BITO	16.7%	25%					Indeterminate	▬	Indeterminate
Grayscale Ethereum Trust (ETH)	ETHE	0.0%	25%					Indeterminate	▬	Indeterminate
<b>Bonds</b>										
iShares Core U.S. Aggregate Bond ETF	AGG	3.4%	10%		Downgraded	Downgraded		Indeterminate	▼	Positive
iShares 1-3 Year Treasury Bond ETF	SHY	3.3%	5%		Downgraded			Positive	▬	Positive
iShares 7-10 Year Treasury Bond ETF	IEF	3.2%	10%					Indeterminate	▬	Indeterminate
iShares 20+ Year Treasury Bond ETF	TLT	3.8%	15%					Indeterminate	▬	Indeterminate
iShares iBoxx \$ High Yield Corporate Bond ETF	HYG	5.9%	20%					Indeterminate	▬	Indeterminate
iShares Preferred & Income Securities ETF	PFF	6.5%	20%	Downgraded	Downgraded			Indeterminate	▼	Positive
iShares TIPS Bond ETF	TIP	2.7%	10%	Downgraded		Upgraded		Positive	▬	Positive
SPDR FTSE International Government Inflation-Protected B	WIP	6.6%	10%		Downgraded			Positive	▬	Positive
Vanguard Total International Bond ETF	BNDX	4.6%	10%	Downgraded				Positive	▬	Positive
iShares JP Morgan USD Emerging Markets Bond ETF	EMB	4.9%	15%	Downgraded				Positive	▬	Positive
<b>Global &amp; Non-US Stocks</b>										
iShares MSCI Emerging Markets ex China ETF	EMXC	2.2%	20%					Positive	▬	Positive
iShares MSCI Japan ETF	EWJ	1.9%	15%					Positive	▬	Positive
iShares JPX-Nikkei 400 ETF	JPNX	2.5%	15%					Positive	▬	Positive
iShares MSCI Japan Small-Cap ETF	SCJ	2.0%	20%					Positive	▬	Positive
iShares China Large-Cap ETF	FXI	2.4%	20%					Indeterminate	▬	Indeterminate
KraneShares CSI China Internet ETF	KWEB	1.6%	25%					Indeterminate	▬	Indeterminate
iShares MSCI Hong Kong ETF	EWH	4.6%	25%					Indeterminate	▬	Indeterminate
iShares MSCI India ETF	INDA	0.2%	25%					Positive	▬	Positive
iShares MSCI South Korea ETF	EWY	2.6%	25%					Indeterminate	▼	Positive
Vanguard FTSE Europe ETF	VGK	3.3%	15%					Positive	▬	Positive
iShares MSCI United Kingdom ETF	EWU	3.9%	15%					Positive	▬	Positive
iShares MSCI Germany ETF	EWG	2.5%	15%					Positive	▬	Positive
iShares MSCI France ETF	EWQ	2.6%	20%					Positive	▬	Positive
iShares MSCI Canada ETF	EWZ	2.2%	15%					Positive	▬	Positive
iShares MSCI Australia ETF	EWA	3.8%	15%			Upgraded		Positive	▬	Positive
VanEck Gold Miners ETF	GDX	1.4%	25%		Upgraded			Positive	▲	Indeterminate
VanEck Agribusiness ETF	MOO	3.1%	25%	Downgraded	Downgraded			Negative	▼	Indeterminate
iShares MSCI Malaysia ETF	EWM	3.3%	25%					Positive	▬	Positive
iShares MSCI Brazil ETF	EWZ	6.3%	25%		Downgraded	Downgraded		Indeterminate	▼	Positive
iShares MSCI South Africa ETF	EZA	3.0%	20%	Upgraded		Downgraded		Indeterminate	▬	Indeterminate
<b>US Stocks</b>										
SPDR S&P 500 ETF Trust	SPY	1.3%	25%					Indeterminate	▬	Indeterminate
Invesco QQQ Trust Series I	QQQ	0.6%	25%					Indeterminate	▬	Indeterminate
iShares Russell 2000 ETF	IWM	1.3%	25%	Downgraded				Indeterminate	▬	Indeterminate
iShares Russell 2000 Growth ETF	IWO	0.7%	25%	Downgraded				Indeterminate	▬	Indeterminate
iShares Russell 2000 Value ETF	IWN	2.0%	20%					Indeterminate	▬	Indeterminate
iShares Russell 1000 Growth ETF	IWF	0.5%	25%					Indeterminate	▬	Indeterminate
iShares Russell 1000 Value ETF	IWD	1.9%	20%					Indeterminate	▬	Indeterminate
Technology Select Sector SPDR Fund	XLK	0.7%	20%					Indeterminate	▬	Indeterminate
Financial Select Sector SPDR Fund	XLF	1.6%	20%					Indeterminate	▬	Indeterminate
Industrial Select Sector SPDR Fund	XLI	1.5%	20%					Indeterminate	▬	Indeterminate
Utilities Select Sector SPDR Fund	XLU	3.3%	15%		Upgraded	Upgraded		Positive	▲	Indeterminate
Energy Select Sector SPDR Fund	XLE	3.0%	20%		Upgraded	Upgraded		Positive	▲	Indeterminate
SPDR S&P Oil & Gas Exploration & Production ETF	XOP	2.2%	25%		Upgraded	Upgraded		Positive	▲	Indeterminate
SPDR S&P Retail ETF	XRT	1.3%	25%					Indeterminate	▬	Indeterminate
iShares U.S. Consumer Discretionary ETF	IYC	0.6%	25%					Indeterminate	▬	Indeterminate
Communication Services Select Sector SPDR Fund	XLC	0.8%	25%					Indeterminate	▬	Indeterminate
Real Estate Select Sector SPDR Fund	XLRE	3.7%	25%	Downgraded				Indeterminate	▬	Indeterminate
iShares U.S. Home Construction ETF	ITB	0.5%	25%	Downgraded	Downgraded			Indeterminate	▼	Positive
iShares U.S. Aerospace & Defense ETF	ITA	0.9%	20%					Positive	▬	Positive
Consumer Staples Select Sector SPDR Fund	XLP	2.8%	15%		Upgraded	Upgraded		Positive	▬	Positive
Health Care Select Sector SPDR Fund	XLV	1.6%	20%		Downgraded	Downgraded		Indeterminate	▼	Positive
iShares Biotechnology ETF	IBB	0.3%	25%					Indeterminate	▬	Indeterminate

4/29/2024	Hedgeye Macro GIP Model Signals													GROWTH					Strength Of Signal				INFLATION					Strength Of Signal																								
	Actuals										Estimates			Real GDP YoY					NTM Δ				Headline CPI YoY					NTM Δ																								
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	COUNTRY	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	1Q25E Less 2Q24E	2Q24E	3Q24E	4Q24E	1Q25E	COUNTRY	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	1Q25E Less 2Q24E	2Q24E	3Q24E	4Q24E	1Q25E																	
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	ARGENTINA	AUSTRALIA	BRAZIL	CANADA	CHINA	EUROZONE	FRANCE	GERMANY	INDIA	INDONESIA	ITALY	JAPAN	MEXICO	RUSSIA	SOUTH AFRICA	SOUTH KOREA	SPAIN	TURKEY	UNITED KINGDOM	UNITED STATES	ARGENTINA	AUSTRALIA	BRAZIL	CANADA	CHINA	EUROZONE	FRANCE	GERMANY	INDIA	INDONESIA	ITALY	JAPAN	MEXICO	RUSSIA	SOUTH AFRICA	SOUTH KOREA	SPAIN	TURKEY	UNITED KINGDOM
	3	2	3	3	3	3	2	3	3	2	4	1	1	Argentina	-4.51	-1.61	-3.08	-1.60	2.85	446bps	94	72	72	98	Argentina	272.77	####	####	224.13	133.51	-17143bps	98	98	98	98																	
	3	3	2	3	2	4	1	4	4	4	1	2	2	Australia	1.33	1.28	1.33	1.68	1.80	52bps	52	52	65	55	Australia	4.13	3.55	3.23	3.37	3.52	-3bps	98	86	65	67																	
	2	2	1	4	1	4	3	2	4	4	2	2	2	Brazil	1.48	1.01	1.49	2.03	2.13	111bps	63	64	65	53	Brazil	4.31	3.86	4.07	4.32	4.44	58bps	72	60	62	56																	
	3	2	4	4	4	4	3	1	1	4	2	2	2	Canada	1.61	0.73	1.21	1.71	1.83	109bps	74	63	64	53	Canada	2.85	2.60	2.72	2.90	3.04	44bps	70	60	65	62																	
	1	3	2	4	1	1	4	1	2	3	4	2	4	China	6.00	5.00	3.90	4.20	3.55	-145bps	70	72	56	63	China	0.00	0.48	0.35	0.90	0.85	36bps	79	58	83	53																	
	2	3	3	3	4	4	4	1	1	1	1	2	2	Eurozone	0.20	0.40	0.60	0.87	1.32	92bps	55	55	56	61	Eurozone	2.60	2.43	2.20	2.31	2.56	13bps	60	65	57	66																	
	3	3	3	3	2	1	4	1	1	1	1	2	3	France	0.75	0.81	0.92	1.22	1.06	25bps	52	53	59	55	France	3.00	2.30	2.27	2.72	2.80	50bps	98	53	89	57																	
	2	3	3	3	1	4	4	1	4	1	1	2	3	Germany	-0.44	-0.19	0.11	0.89	0.81	100bps	56	57	69	52	Germany	2.70	2.43	2.40	3.07	3.12	69bps	66	52	90	53																	
	3	2	4	4	2	1	3	1	4	3	1	2	3	India	6.63	6.59	6.88	7.14	7.12	53bps	51	55	54	50	India	5.01	5.25	4.02	5.01	5.21	-4bps	63	98	98	61																	
	3	2	2	3	1	1	4	1	2	3	4	1	3	Indonesia	5.12	4.83	4.64	5.10	4.95	12bps	69	61	79	60	Indonesia	2.79	3.01	2.84	2.73	2.85	-15bps	64	61	57	58																	
	3	3	3	3	1	4	4	1	4	2	2	2	2	Italy	0.11	0.53	0.74	0.99	1.24	72bps	61	56	57	57	Italy	0.97	1.33	1.52	2.17	2.29	95bps	72	61	88	57																	
	3	2	3	3	1	4	4	4	4	4	1	1	4	Japan	0.40	-0.11	0.93	1.38	1.28	139bps	67	85	65	53	Japan	2.57	2.55	2.34	1.94	1.82	-74bps	51	66	80	59																	
	2	2	2	4	4	4	1	4	3	3	3	2	2	Mexico	2.34	2.13	1.66	2.02	2.40	27bps	54	59	57	57	Mexico	4.57	4.74	4.82	4.85	4.89	15bps	64	56	53	53																	
	3	3	1	1	1	1	2	3	2	1	3	3	3	Russia	5.01	5.16	2.51	2.02	1.76	-341bps	54	98	62	56	Russia	7.62	7.45	7.51	7.57	7.58	13bps	54	52	52	50																	
	2	3	2	4	4	1	4	2	4	1	3	1	2	South Africa	0.63	0.73	0.58	1.55	2.08	135bps	52	54	73	63	South Africa	5.40	5.28	5.37	4.52	4.95	-34bps	59	57	98	84																	
	3	3	2	4	4	1	1	2	1	4	4	2	3	South Korea	3.40	2.76	2.16	2.26	2.01	-75bps	79	77	55	61	South Korea	3.00	2.63	2.45	2.53	2.60	-3bps	83	67	58	56																	
	3	2	3	4	1	4	4	2	4	2	1	2	2	Spain	1.61	1.71	1.81	1.86	1.94	23bps	52	52	51	52	Spain	3.23	3.48	2.50	2.90	3.06	-42bps	64	98	73	59																	
	3	3	3	4	1	4	2	3	2	3	1	1	3	Turkey	4.39	2.70	2.92	3.21	2.10	-60bps	84	54	56	72	Turkey	66.81	71.52	51.68	39.45	41.20	-3032bps	96	98	98	67																	
	2	3	3	3	4	4	4	4	1	1	2	2	2	United Kingdom	-0.11	0.04	0.50	0.94	1.28	123bps	52	57	57	55	United Kingdom	3.53	1.90	2.05	2.27	2.49	59bps	98	59	63	64																	
	3	3	4	4	1	1	1	1	4	2	3	3	2	United States	2.97	3.08	2.57	2.39	2.44	-65bps	55	72	58	52	United States	3.24	3.65	3.78	4.07	4.32	67bps	81	60	72	70																	
	3	3	3	4	1	4	4	1	4	1	1	2	2	MODE/MEDIAN	1.55	1.15	1.41	1.78	1.97	83bps	55	58	58	56	MODE/MEDIAN	3.24	3.24	2.78	2.98	3.09	-15bps	71	61	72	59																	

Data Source: Bloomberg, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management.  
 LIGHT BLUE header = Hedgeye Nowcast Model estimates. DARK BLUE header = Hedgeye Comparative Base Effects Model estimates.  
 GREEN/RED shading in GDP and CPI projections denotes sequential acceleration/deceleration.

Conditional probabilities of forecasted deltas are proportional to the prior base rate's percentile score within a 95% confidence interval band around the projected GROWTH or INFLATION rate in a given quarter.

4/29/2024	Hedgeye Macro GIP Model Signals													GROWTH					Strength Of Signal				INFLATION					Strength Of Signal							
	Actuals										Estimates			Real GDP YoY					NTM Δ	Conditional Probability Of Est. Δ				Headline CPI YoY					NTM Δ	Conditional Probability Of Est. Δ					
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	COUNTRY	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	1Q25E Less 2Q24E	2Q24E	3Q24E	4Q24E	1Q25E	COUNTRY	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	1Q25E Less 2Q24E	2Q24E	3Q24E	4Q24E	1Q25E
Argentina	3	2	3	3	3	3	2	3	3	2	4	1	1	Argentina	-4.51	-1.61	-3.08	-1.60	2.85	446bps	94	72	72	98	Argentina	####	####	####	224.13	133.51	-17143bps	98	98	98	98
Brazil	2	2	1	4	1	4	3	2	4	4	2	2	2	Brazil	1.48	1.01	1.49	2.03	2.13	111bps	63	64	65	53	Brazil	4.31	3.86	4.07	4.32	4.44	58bps	72	60	62	56
Chile	3	3	3	4	1	4	1	4	1	2	3	2	4	Chile	1.58	2.48	1.77	3.02	1.86	-62bps	68	64	75	73	Chile	3.38	3.79	3.90	4.06	3.00	-79bps	71	56	58	98
China	1	3	2	4	1	1	4	1	2	3	4	2	4	China	6.00	5.00	3.90	4.20	3.55	-145bps	70	72	56	63	China	0.00	0.48	0.35	0.90	0.85	36bps	79	58	83	53
Colombia	3	2	3	3	2	4	4	1	4	4	1	1	2	Colombia	0.24	0.19	2.09	2.54	2.62	243bps	51	82	57	52	Colombia	7.82	7.18	6.10	5.12	5.27	-191bps	83	98	98	57
Czech Republic	2	3	3	4	2	4	4	1	4	2	2	2	2	Czech Republic	0.02	0.67	2.02	2.62	2.87	220bps	67	86	66	57	Czech Republic	2.10	2.42	2.66	2.79	2.97	55bps	63	60	55	57
Greece	3	3	3	4	4	1	4	3	1	1	1	2	2	Greece	1.89	2.09	2.54	2.64	2.70	61bps	53	57	52	51	Greece	3.23	3.00	2.00	2.23	2.47	-53bps	61	98	61	62
Hong Kong	4	1	3	1	2	3	1	2	4	2	1	3	3	Hong Kong	1.67	3.02	3.42	3.27	3.14	11bps	95	63	55	55	Hong Kong	1.93	2.03	1.45	1.53	1.77	-27bps	55	81	55	63
India	3	2	4	4	2	1	3	1	4	3	1	2	3	India	6.63	6.59	6.88	7.14	7.12	53bps	51	55	54	50	India	5.01	5.25	4.02	5.01	5.21	-4bps	63	98	98	61
Indonesia	3	2	2	3	1	1	4	1	2	3	4	1	3	Indonesia	5.12	4.83	4.64	5.10	4.95	12bps	69	61	79	60	Indonesia	2.79	3.01	2.84	2.73	2.85	-15bps	64	61	57	58
Israel	3	3	3	3	1	4	4	4	1	1	2	1	3	Israel	-0.23	0.07	0.56	5.07	4.22	416bps	58	63	98	73	Israel	2.60	2.45	2.58	2.57	3.05	60bps	61	60	51	86
Malaysia	1	2	2	4	4	4	1	4	2	3	4	2	1	Malaysia	3.90	3.85	3.70	4.05	4.30	45bps	51	52	56	54	Malaysia	1.68	2.46	2.35	2.83	1.95	-51bps	93	56	76	98
Mexico	2	2	2	4	4	4	1	4	3	3	3	2	2	Mexico	2.34	2.13	1.66	2.02	2.40	27bps	54	59	57	57	Mexico	4.57	4.74	4.82	4.85	4.89	15bps	64	56	53	53
Peru	2	3	3	4	3	4	4	1	1	1	2	3	3	Peru	1.83	2.49	2.65	2.37	2.26	-23bps	57	52	53	51	Peru	3.12	2.80	3.08	3.54	3.59	80bps	72	70	81	54
Philippines	1	3	2	3	3	4	1	4	1	2	4	1	2	Philippines	5.61	5.91	4.94	5.18	5.91	-1bps	55	67	54	63	Philippines	3.30	3.75	3.55	3.38	3.70	-5bps	75	61	59	67
Poland	2	3	3	3	4	4	1	1	1	1	2	2	2	Poland	2.11	2.81	3.22	3.61	4.09	127bps	74	64	63	66	Poland	2.83	2.78	4.58	4.88	5.39	261bps	52	98	60	68
Russia	3	3	1	1	1	1	2	3	2	1	3	3	3	Russia	5.01	5.16	2.51	2.02	1.76	-341bps	54	98	62	56	Russia	7.62	7.45	7.51	7.57	7.58	13bps	54	52	52	50
Saudi Arabia	3	2	3	3	4	4	4	4	2	1	2	2	4	Saudi Arabia	-1.69	-0.55	4.42	4.78	4.66	-	66	98	55	52	Saudi Arabia	1.67	1.59	1.65	1.76	1.70	11bps	54	53	55	53
South Africa	2	3	2	4	4	1	4	2	4	1	3	1	2	South Africa	0.63	0.73	0.58	1.55	2.08	135bps	52	54	73	63	South Africa	5.40	5.28	5.37	4.52	4.95	-34bps	59	57	98	84
South Korea	3	3	2	4	4	1	1	2	1	4	4	2	3	South Korea	3.40	2.76	2.16	2.26	2.01	-75bps	79	77	55	61	South Korea	3.00	2.63	2.45	2.53	2.60	-3bps	83	67	58	56
Taiwan	3	3	1	4	3	1	2	2	1	3	3	1	1	Taiwan	5.04	3.75	2.23	2.47	2.52	-123bps	98	98	61	53	Taiwan	2.34	2.71	2.77	2.72	2.15	-56bps	86	56	55	98
Thailand	2	2	2	4	1	4	4	1	4	2	4	2	3	Thailand	1.60	2.50	2.40	3.81	3.39	89bps	68	52	78	58	Thailand	-0.78	0.71	0.61	1.88	2.26	155bps	98	55	98	70
Turkey	3	3	3	4	1	4	2	3	2	3	1	1	3	Turkey	4.39	2.70	2.92	3.21	2.10	-60bps	84	54	56	72	Turkey	66.81	71.52	51.68	39.45	41.20	-3032bps	96	98	98	67
MODE/MEDIAN	3	3	3	4	1	4	4	1	1	3	4	2	3	MODE/MEDIAN	1.89	2.50	2.51	3.02	2.85	35bps	66	64	57	57	MODE/MEDIAN	3.12	3.00	3.08	3.38	3.05	5bps	71	60	60	62

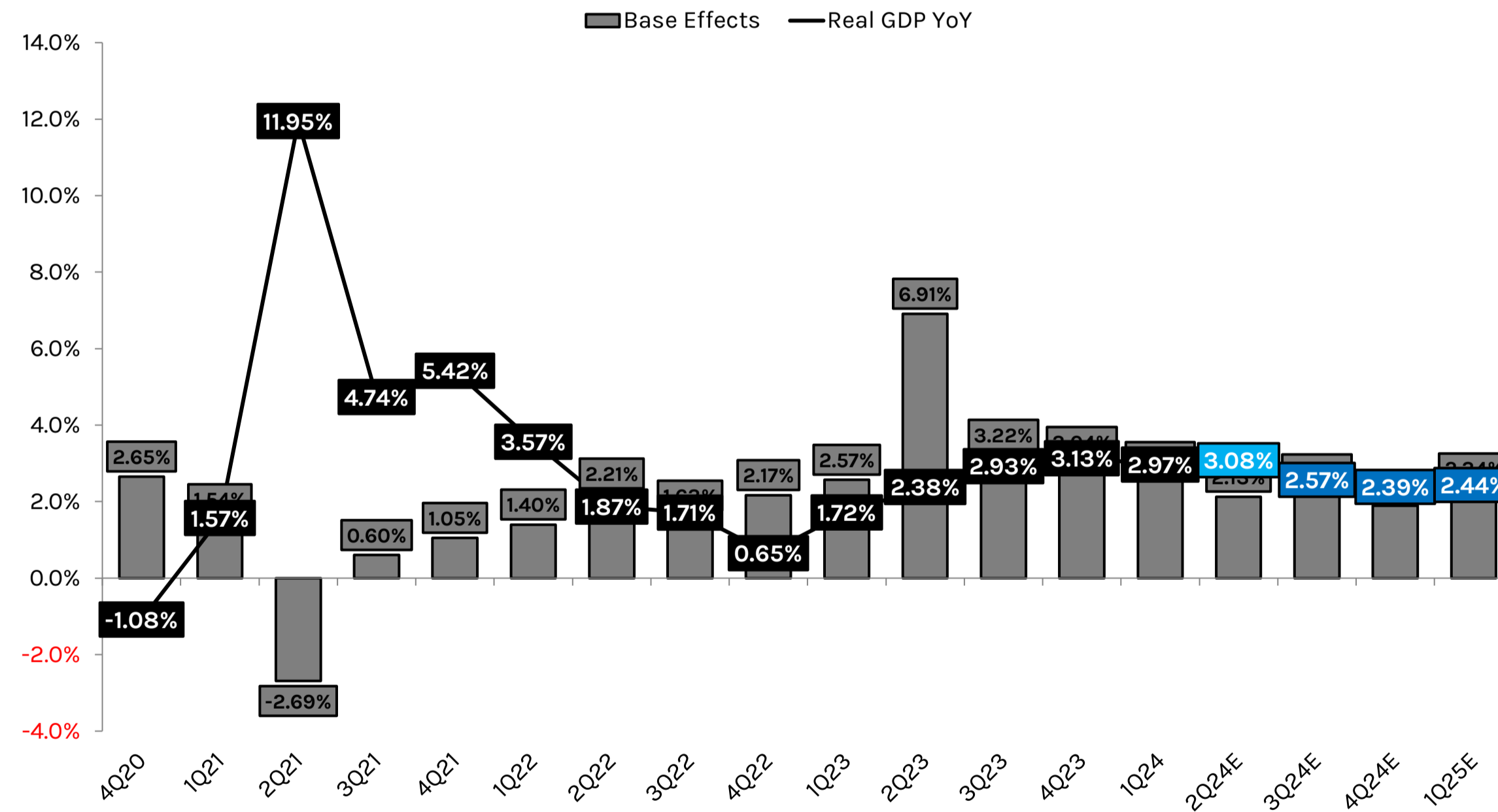
Data Source: Governemnt Statistics Agencies, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management.  
 LIGHT BLUE header = Hedgeye Nowcast Model estimates. DARK BLUE header = Hedgeye Comparative Base Effects Model estimates.  
 GREEN/RED shading in GDP and CPI projections denotes sequential acceleration/deceleration.

Conditional probabilities of forecasted deltas are proportional to the prior base rate's percentile score within a 95% confidence interval band around the projected GROWTH or INFLATION rate in a given quarter.

GROWTH	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E
Base Effects	2.65%	1.54%	-2.69%	0.60%	1.05%	1.40%	2.21%	1.63%	2.17%	2.57%	3.91%	3.22%	3.04%	2.64%	3.13%	2.32%	1.89%	2.34%
Real GDP YoY	-1.08%	1.57%	11.95%	4.74%	5.42%	3.57%	1.87%	1.71%	0.65%	1.72%	2.38%	2.93%	3.13%	2.97%	3.08%	2.57%	2.39%	2.44%
GIP Model Quad	2	2	2	3	2	3	3	4	4	1	1	1	1	4	2	3	3	2
Unconditional Probability Of Forecasted Delta															75%	80%	80%	80%
Conditional Probability Of Forecasted Delta															55%	72%	58%	52%
Conditional Probability Of Quad 1															10.2%	11.2%	11.8%	15.8%
Conditional Probability Of Quad 2															44.7%	16.7%	30.4%	36.4%
Conditional Probability Of Quad 3															36.7%	43.0%	41.7%	33.3%
Conditional Probability Of Quad 4															8.4%	29.1%	16.1%	14.5%

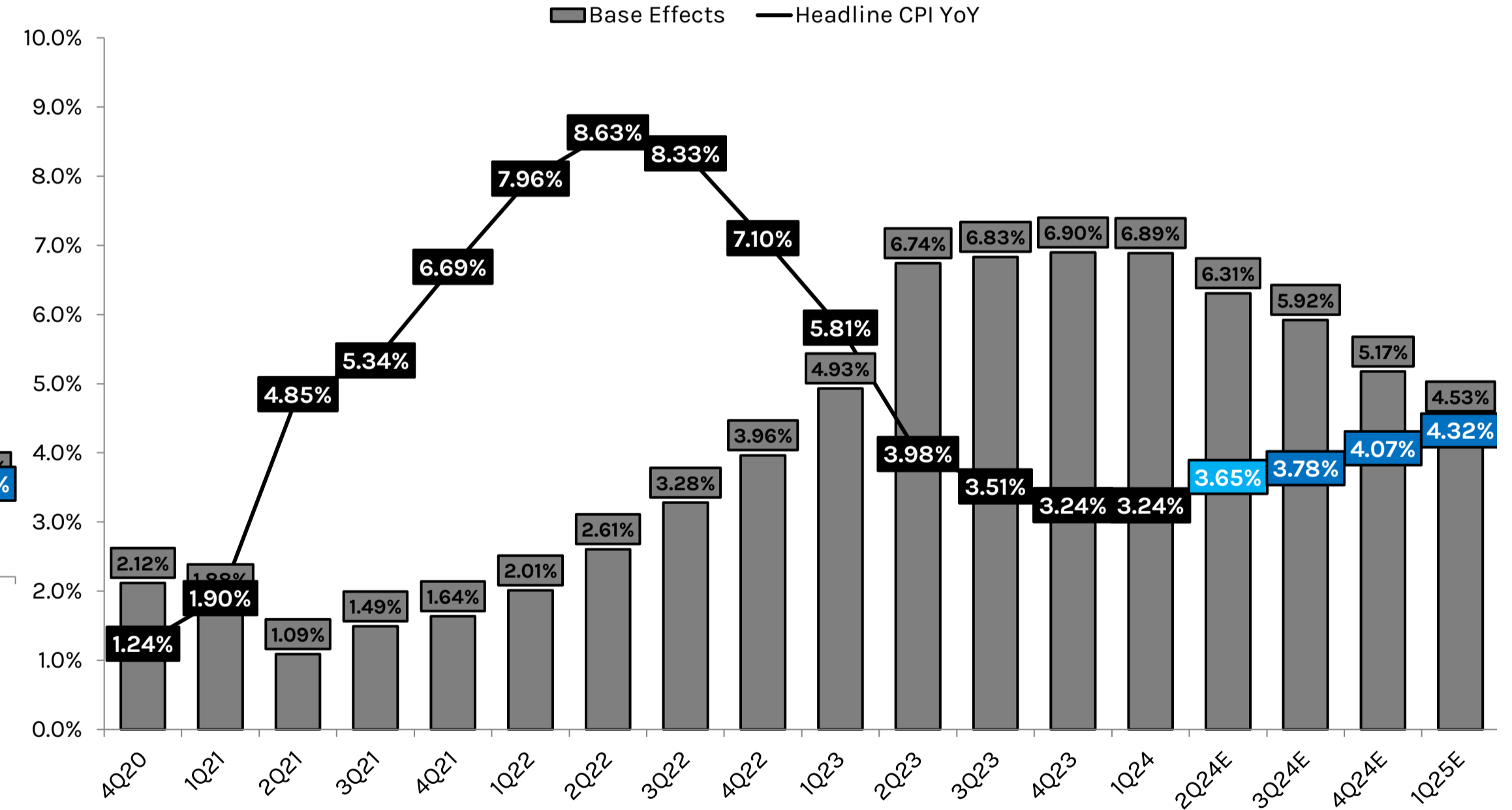
INFLATION	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E
Base Effects	2.12%	1.88%	1.09%	1.49%	1.64%	2.01%	2.61%	3.28%	3.96%	4.93%	6.74%	6.83%	6.90%	6.89%	6.31%	5.92%	5.17%	4.53%
Headline CPI YoY	1.24%	1.90%	4.85%	5.34%	6.69%	7.96%	8.63%	8.33%	7.10%	5.81%	3.98%	3.51%	3.24%	3.24%	3.65%	3.78%	4.07%	4.32%
GIP Model Quad	2	2	2	3	2	3	3	4	4	1	1	1	1	4	2	3	3	2
Unconditional Probability Of Forecasted Delta															63%	68%	68%	68%
Conditional Probability Of Forecasted Delta															81%	60%	72%	70%
Conditional Probability Of Quad 1															10.2%	11.2%	11.8%	15.8%
Conditional Probability Of Quad 2															44.7%	16.7%	30.4%	36.4%
Conditional Probability Of Quad 3															36.7%	43.0%	41.7%	33.3%
Conditional Probability Of Quad 4															8.4%	29.1%	16.1%	14.5%

United States



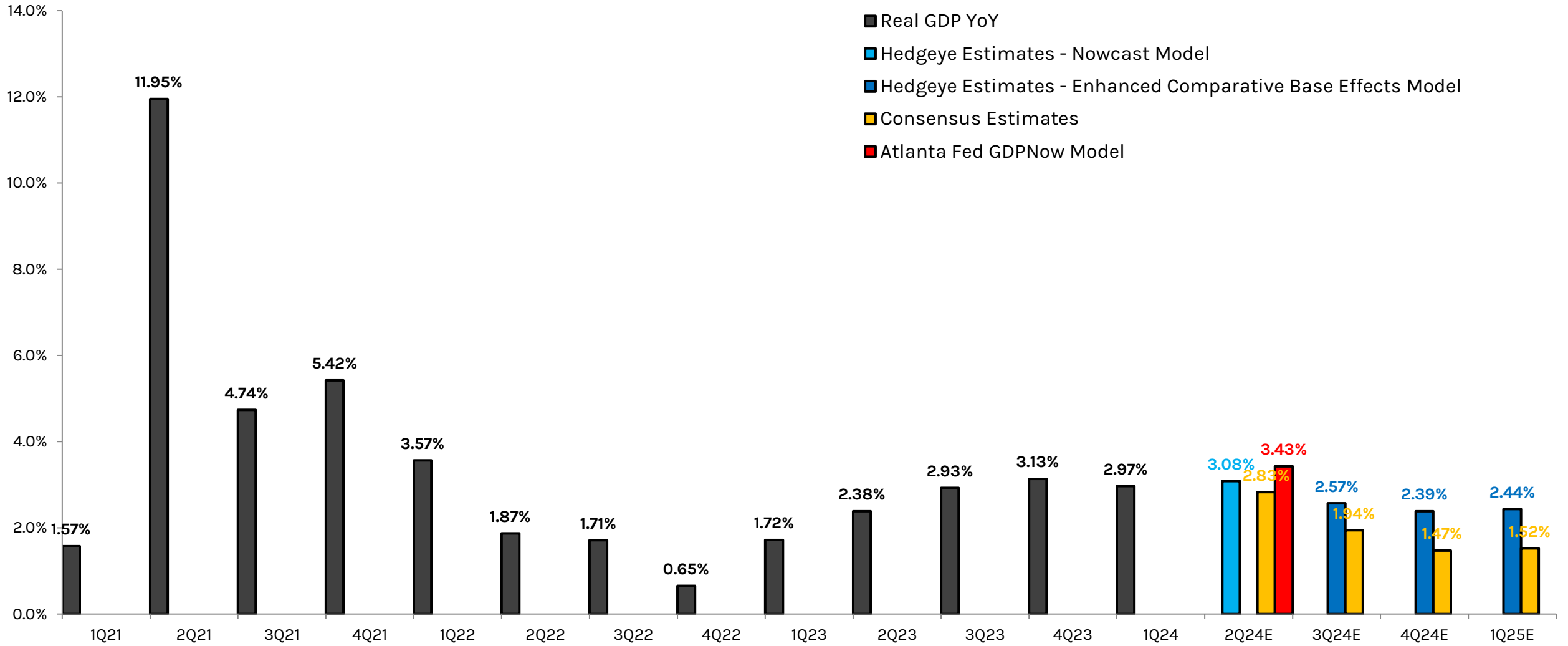
Data Source: BEA, BLS . Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.

United States



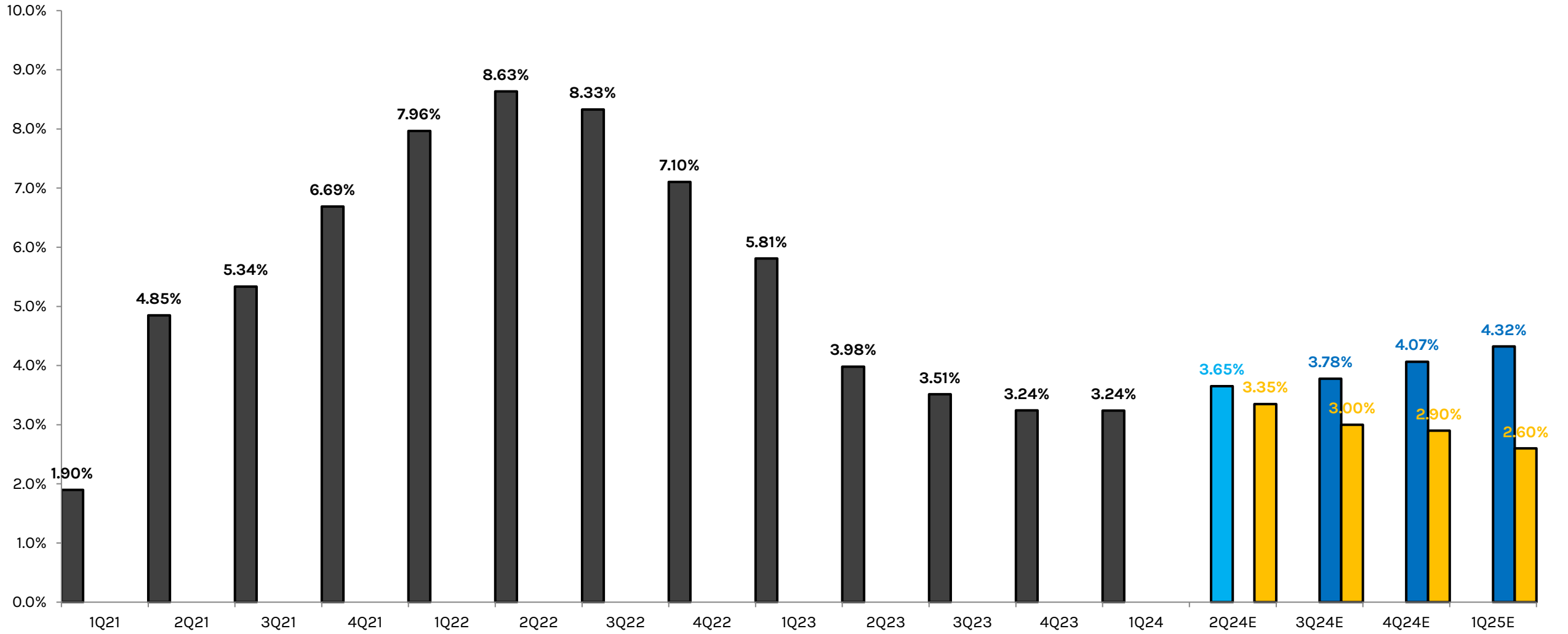
Data Source: BEA, BLS . Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.

# United States



## United States

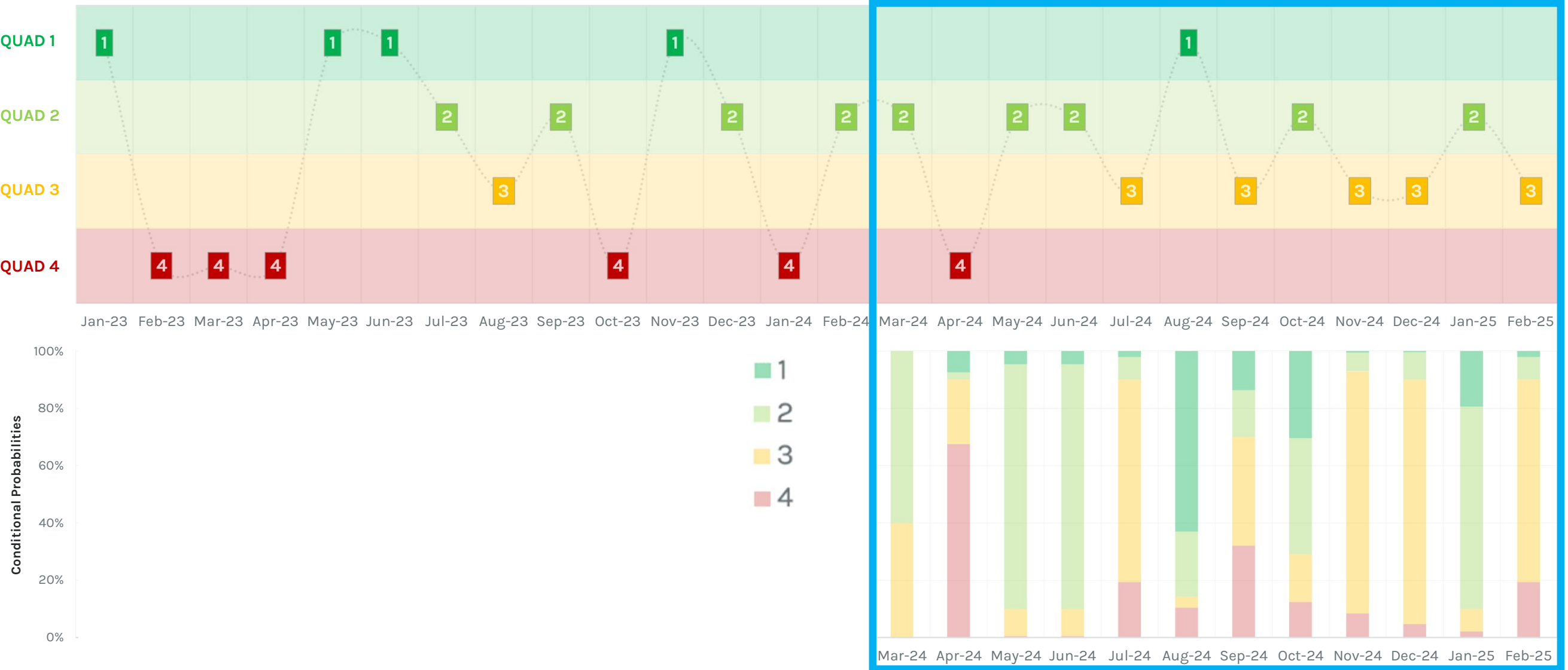
■ Headline CPI YoY   ■ Hedgeye Estimates - Nowcast Model   ■ Hedgeye Estimates - Comparative Base Effects Model   ■ Consensus Estimates





# Monthly Quads: NTM

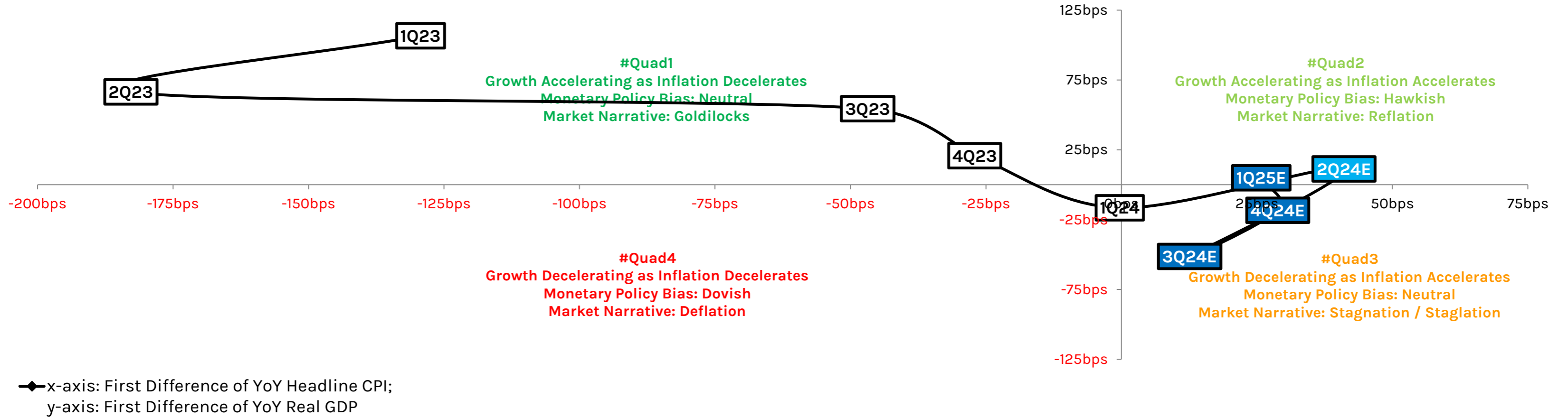
We Utilize Real PCE as a Monthly Proxy for Real GDP. We have developed a proprietary, dynamic monthly system with a long-term directional accuracy of 75% that has accurately predicted 9 of the last 12 months on an out-of-sample basis.



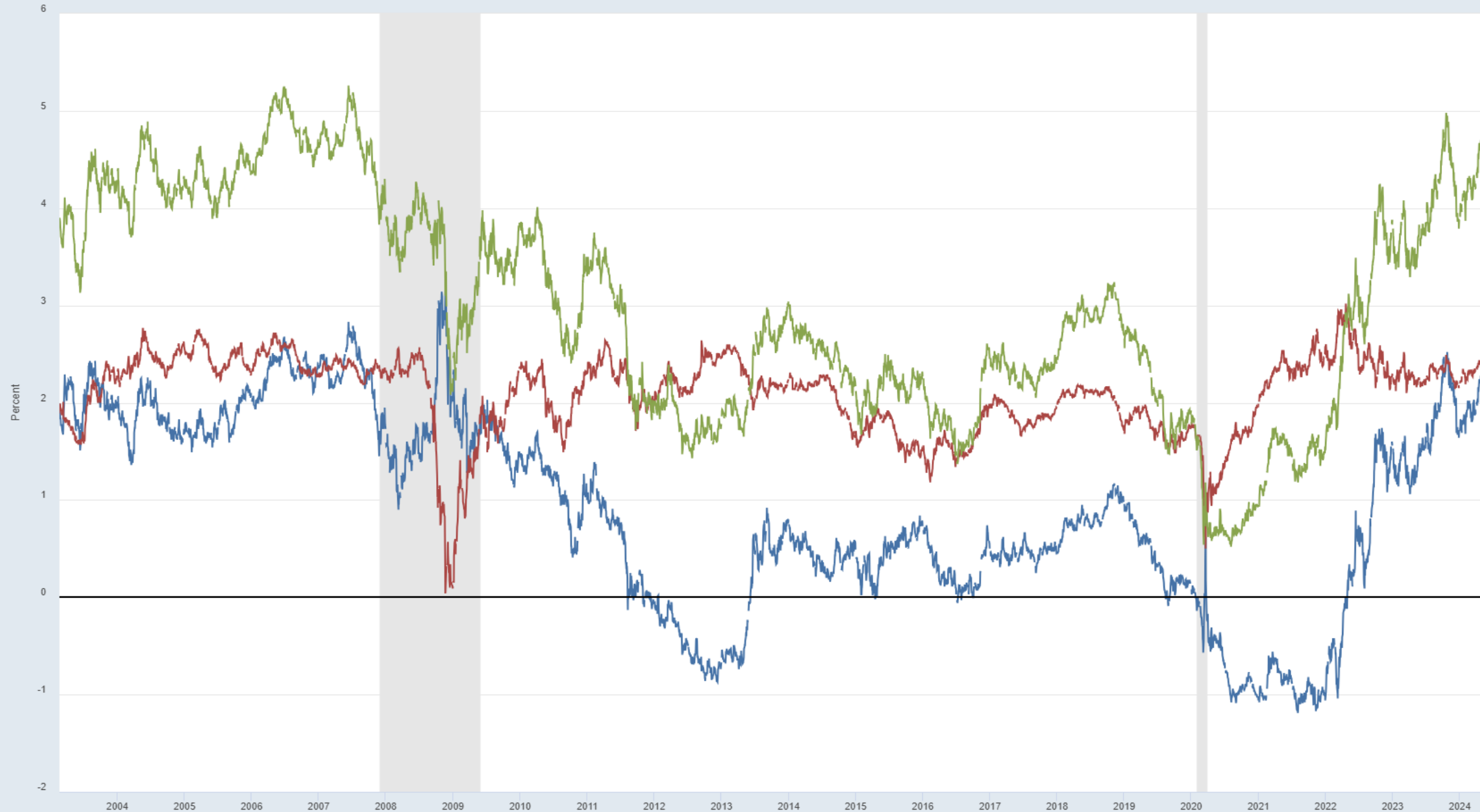
Data Sources: Factset, CFTC. Data through 04/05 close

United States	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	← Actuals   Estimates →	2Q24E	3Q24E	4Q24E	1Q25E
Real GDP QoQ SAAR	6.20%	3.30%	7.00%	-2.00%	-0.60%	2.70%	2.60%	2.20%	2.10%	4.90%	3.40%	1.60%	Real GDP QoQ SAAR	2.51%	2.79%	2.66%	1.79%
Real GDP YoY	11.95%	4.74%	5.42%	3.57%	1.87%	1.71%	0.65%	1.72%	2.38%	2.93%	3.13%	2.97%	Real GDP YoY	3.08%	2.57%	2.39%	2.44%
2yr Comparative Base Effects	-2.69%	0.60%	1.05%	1.40%	2.21%	1.63%	2.17%	2.57%	5.91%	3.22%	3.04%	2.64%	2yr Comparative Base Effects	2.13%	2.32%	1.89%	2.34%
Headline CPI YoY	4.85%	5.34%	6.69%	7.96%	8.63%	8.33%	7.10%	5.81%	3.98%	3.51%	3.24%	3.24%	Headline CPI YoY	3.65%	3.78%	4.07%	4.32%
2yr Comparative Base Effects	1.09%	1.49%	1.64%	2.01%	2.61%	3.28%	3.96%	4.93%	6.74%	6.83%	6.90%	6.89%	2yr Comparative Base Effects	6.31%	5.92%	5.17%	4.53%

### United States



Data Source: BEA, BLS Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.



Shaded areas indicate U.S. recessions.

Sources: Board of Governors; St. Louis Fed

fred.stlouisfed.org

## Appraised Exposures' Return Tendencies By Quad

Ticker	Average Quarterly Performance				Median Quarterly Performance				Max Quarterly Performance				Min Quarterly Performance				Batting Average (Positive Performance)			
	Quad				Quad				Quad				Quad				Quad			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
AGG	0.40%	-0.70%	-0.66%	1.01%	0.13%	-0.24%	-0.51%	1.32%	5.54%	1.38%	3.22%	5.69%	-3.99%	-3.88%	-6.12%	-5.25%	52.17%	29.41%	41.67%	76.47%
SHY	0.13%	-0.25%	-0.05%	0.17%	0.01%	-0.19%	0.04%	0.06%	1.37%	0.49%	2.49%	2.41%	-1.31%	-1.25%	-2.56%	-1.91%	50.00%	22.22%	50.00%	52.94%
IEF	0.50%	-1.37%	-0.09%	1.77%	0.48%	-0.92%	-0.55%	2.37%	6.89%	2.27%	9.61%	10.76%	-5.19%	-6.31%	-6.55%	-6.17%	58.33%	16.67%	46.15%	64.71%
TLT	0.98%	-2.67%	-0.12%	3.59%	1.65%	-2.19%	-0.10%	4.06%	13.69%	6.57%	28.37%	25.79%	-13.84%	-14.13%	-13.03%	-11.43%	58.33%	22.22%	46.15%	58.82%
HYG	1.39%	0.65%	-2.73%	-0.24%	1.12%	0.69%	-2.00%	0.63%	8.33%	4.05%	1.85%	17.57%	-3.93%	-1.86%	-12.77%	-12.36%	66.67%	62.50%	36.84%	53.85%
USO	-1.09%	9.11%	1.39%	-14.34%	-4.35%	8.54%	3.49%	-17.63%	27.24%	23.07%	39.70%	30.57%	-17.57%	-5.53%	-27.85%	-67.14%	36.84%	88.24%	55.00%	35.71%
BITO	23.65%	NA	-30.26%	-4.87%	22.64%	NA	-30.26%	-4.87%	67.98%	0.00%	-1.18%	3.27%	-18.67%	0.00%	-59.35%	-13.01%	50.00%	NA	0.00%	50.00%
GSG	-0.74%	5.77%	1.50%	-8.70%	-3.13%	5.74%	2.20%	-10.91%	15.50%	15.18%	32.38%	19.34%	-12.77%	-4.51%	-28.18%	-46.82%	36.84%	88.24%	55.00%	46.15%
UUP	0.03%	-0.07%	0.14%	0.96%	0.04%	-0.64%	-0.28%	1.28%	8.05%	7.21%	8.67%	7.83%	-8.88%	-4.38%	-5.49%	-7.76%	50.00%	41.18%	42.11%	76.92%
FXE	0.29%	-0.12%	0.19%	-1.10%	1.44%	1.09%	1.12%	-1.70%	11.44%	4.13%	8.12%	9.24%	-11.27%	-6.48%	-10.70%	-6.68%	65.00%	58.82%	61.90%	21.43%
GLD	1.92%	0.77%	3.45%	2.40%	4.26%	1.73%	4.89%	1.58%	14.38%	8.56%	15.95%	13.05%	-22.89%	-12.76%	-6.93%	-8.19%	57.14%	70.59%	68.18%	68.75%
FXF	1.31%	-0.06%	0.72%	-0.45%	1.27%	-0.06%	1.11%	-1.01%	9.54%	4.35%	14.22%	6.69%	-7.24%	-6.65%	-9.01%	-6.72%	68.42%	47.06%	60.00%	42.86%
FKY	-0.87%	-1.38%	0.28%	1.44%	-0.79%	-0.50%	1.87%	0.87%	7.18%	5.84%	11.88%	17.26%	-7.98%	-13.33%	-10.35%	-8.69%	38.89%	35.29%	52.63%	53.85%
FXI	4.73%	4.55%	-4.50%	0.44%	3.35%	3.52%	-3.85%	0.50%	39.70%	25.79%	16.91%	34.49%	-11.94%	-9.04%	-28.22%	-23.74%	61.90%	70.59%	36.36%	50.00%
EMXC	2.41%	4.86%	-5.60%	-1.32%	3.92%	4.91%	-3.42%	2.26%	11.20%	22.89%	2.35%	20.80%	-4.32%	-11.43%	-17.91%	-30.78%	60.00%	77.78%	25.00%	57.14%
EWQ	6.13%	3.79%	-0.79%	-2.90%	5.62%	3.58%	0.52%	-1.03%	26.87%	19.78%	12.96%	23.58%	-21.95%	-28.09%	-31.08%	-28.34%	75.00%	77.27%	53.13%	36.36%
EWG	7.38%	2.18%	-1.56%	-2.54%	7.08%	1.98%	0.35%	-1.46%	40.39%	27.46%	18.14%	26.21%	-18.02%	-37.00%	-32.06%	-26.94%	71.43%	63.64%	50.00%	36.36%
EWH	4.40%	3.00%	-1.97%	-0.32%	4.07%	3.49%	-1.45%	-1.56%	33.93%	25.27%	32.05%	35.10%	-12.29%	-19.80%	-29.94%	-21.50%	67.86%	68.18%	43.75%	40.91%
NDA	3.00%	3.74%	0.60%	-0.65%	1.89%	4.79%	-1.38%	2.52%	13.14%	-1.38%	17.78%	20.36%	-6.60%	-8.84%	-11.67%	-31.41%	66.67%	64.29%	45.45%	60.00%
EWJ	4.10%	3.70%	-0.81%	-3.50%	5.18%	4.12%	-0.76%	-5.97%	28.13%	20.50%	20.22%	19.37%	-18.47%	-13.05%	-14.51%	-17.89%	71.43%	63.64%	46.88%	31.82%
JPXN	4.10%	3.12%	-1.25%	-1.70%	5.15%	3.61%	-3.28%	-3.54%	13.18%	20.17%	21.16%	18.95%	-12.80%	-13.17%	-14.54%	-17.72%	72.00%	68.42%	44.44%	41.18%
SCI	2.69%	3.00%	-1.49%	-0.78%	3.96%	4.84%	-1.93%	0.01%	15.40%	11.22%	9.74%	22.95%	-5.46%	-8.45%	-16.06%	-20.54%	58.82%	68.75%	38.89%	53.85%
EWY	8.37%	5.15%	-3.64%	0.61%	8.39%	4.95%	-4.17%	0.71%	36.19%	31.70%	23.28%	60.85%	-10.58%	-20.01%	-28.35%	-29.60%	76.00%	78.95%	39.29%	54.55%
EWU	4.39%	2.01%	-1.86%	-3.03%	3.43%	2.77%	-1.38%	-1.94%	21.73%	14.91%	10.78%	26.05%	-17.39%	-15.90%	-19.64%	-29.97%	71.43%	72.73%	43.75%	36.36%
QQQ	6.63%	7.47%	0.13%	-1.50%	6.17%	7.72%	0.93%	0.10%	20.99%	51.82%	19.84%	34.27%	-11.32%	-20.61%	-27.62%	-36.59%	80.00%	86.36%	53.33%	50.00%
SPY	5.53%	3.97%	-0.65%	-1.05%	5.90%	4.86%	0.26%	1.11%	21.19%	14.08%	10.18%	19.64%	-11.78%	-17.35%	-16.47%	-22.20%	85.71%	81.82%	53.13%	54.55%
IWM	5.80%	5.89%	-1.60%	-0.78%	4.97%	5.15%	0.29%	0.44%	23.47%	30.89%	15.91%	25.09%	-9.86%	-21.07%	-22.34%	-30.91%	76.00%	89.47%	53.57%	54.55%
XLV	4.01%	2.97%	0.05%	1.15%	5.57%	3.28%	0.64%	2.55%	15.37%	15.21%	8.76%	14.68%	-12.23%	-8.63%	-11.72%	-20.47%	76.00%	72.73%	54.84%	59.09%
XLP	3.46%	1.56%	-0.27%	0.28%	3.03%	1.39%	0.19%	1.69%	13.95%	18.92%	6.99%	14.32%	-8.70%	-11.11%	-14.75%	-13.51%	80.00%	68.18%	51.61%	59.09%
XLF	5.21%	3.86%	-1.39%	-1.55%	4.51%	4.01%	0.17%	2.72%	25.02%	22.48%	22.11%	35.64%	-13.42%	-17.78%	-23.06%	-37.05%	76.00%	72.73%	51.61%	59.09%
XLE	4.52%	4.55%	2.15%	-2.60%	7.75%	5.50%	2.60%	-0.70%	18.15%	29.45%	37.73%	30.25%	-13.63%	-20.87%	-28.46%	-51.60%	64.00%	72.73%	54.84%	45.45%
XOP	2.48%	10.76%	-0.51%	-5.47%	4.07%	9.06%	-1.43%	-4.17%	22.94%	39.05%	40.35%	58.60%	-17.94%	-19.38%	-36.21%	-65.30%	63.16%	82.35%	50.00%	50.00%
XLRE	3.15%	2.78%	-2.42%	-0.10%	1.56%	1.75%	0.89%	1.12%	17.58%	16.56%	3.13%	16.84%	-9.60%	-6.16%	-15.44%	-19.83%	83.33%	66.67%	66.67%	50.00%
XLI	5.48%	4.25%	-0.15%	-0.89%	5.01%	4.59%	0.13%	0.00%	19.95%	15.03%	19.55%	19.15%	-12.20%	-18.16%	-21.54%	-27.57%	72.00%	77.27%	54.84%	50.00%
ITB	8.48%	5.66%	-3.01%	0.69%	12.90%	2.00%	-2.59%	0.61%	32.74%	28.31%	25.63%	52.61%	-36.54%	-9.68%	-29.53%	-45.38%	73.68%	52.94%	40.00%	50.00%
XLU	2.25%	-0.32%	1.49%	0.32%	1.27%	-0.50%	2.51%	1.58%	20.22%	12.05%	18.46%	12.19%	-9.95%	-23.01%	-18.35%	-14.25%	60.00%	40.91%	61.29%	59.09%
ITA	6.47%	6.12%	-0.59%	-0.15%	8.41%	5.66%	0.54%	5.05%	19.47%	19.59%	9.22%	22.67%	-14.07%	-3.83%	-16.97%	-35.23%	84.21%	70.59%	50.00%	57.14%
IBB	5.12%	4.58%	-1.86%	3.43%	6.65%	3.09%	-1.20%	3.44%	30.84%	21.12%	13.40%	30.63%	-15.72%	-9.31%	-33.85%	-25.50%	72.00%	63.16%	48.15%	60.00%
XLK	6.20%	6.24%	-0.27%	-1.18%	5.73%	7.55%	1.12%	0.68%	21.35%	30.61%	25.11%	30.01%	-11.69%	-25.22%	-27.00%	-32.48%	80.00%	90.91%	54.84%	50.00%
ICY	6.25%	4.56%	-1.62%	0.36%	6.54%	4.99%	-1.15%	0.28%	18.22%	14.15%	12.79%	23.63%	-12.05%	-17.51%	-24.39%	-22.85%	80.00%	89.47%	39.29%	54.55%
XRT	5.56%	9.16%	-3.66%	0.84%	5.24%	7.06%	-4.26%	4.75%	23.17%	38.70%	15.64%	43.99%	-13.68%	-1.95%	-23.01%	-35.27%	73.68%	88.24%	30.00%	57.14%
CYB	11.23%	0.18%	1.99%	-1.69%	0.67%	0.60%	0.10%	-0.99%	158.20%	5.98%	19.25%	3.66%	-6.15%	-7.14%	-4.65%	-20.10%	61.90%	58.82%	50.00%	29.41%
EWG	3.71%	5.21%	0.25%	-2.54%	4.25%	5.89%	0.92%	1.00%	20.90%	22.79%	18.84%	30.13%	-28.94%	-19.02%	-20.57%	-33.83%	75.00%	86.36%	53.13%	54.55%
XLC	9.05%	7.98%	-7.09%	-1.49%	10.81%	9.29%	-6.26%	-1.07%	20.80%	13.60%	5.24%	22.15%	0.61%	-3.03%	-21.10%	-17.51%	100.00%	83.33%	25.00%	42.86%
UNG	-10.33%	-4.59%	0.12%	-9.01%	-10.40%	-3.27%	-4.17%	-8.75%	15.77%	36.53%	57.89%	29.73%	-50.78%	-38.05%	-47.09%	-39.69%	33.33%	37.50%	31.58%	30.77%
ETHE	20.23%	46.11%	-21.17%	51.20%	15.99%	17.01%	-16.72%	28.15%	80.04%	264.23%	27.00%	196.31%	-81.91%	-60.52%	-73.80%	-47.81%	80.00%	83.33%	33.33%	75.00%
EWA	4.78%	3.31%	-0.77%	-0.58%	5.87%	3.38%	3.20%	-1.08%	34.52%	21.45%	15.01%	25.47%	-20.95%	-13.60%	-22.99%	-31.79%	67.86%	81.82%	59.38%	45.45%
KWEB	0.53%	3.21%	-0.22%	0.02%	1.63%	2.97%	0.66%	-6.05%	13.13%	22.77%	28.02%	36.82%	-13.66%	-22.89%	-32.19%	-24.79%	55.56%	61.54%	50.00%	33.33%
IWO	5.94%	5.82%	-2.03%	-0.93%	6.44%	6.04%	-0.31%	0.69%	23.53%	29.42%	16.97%	30.79%	-9.11%	-21.70%	-22.54%	-28.65%	72.00%	89.47%	44.44%	54.55%
IWN	5.63%	5.95%	-1.28%	-0.69%	6.70%	4.42%	-0.66%	1.36%	21.32%	32.64%	14.68%	18.81%	-10.65%	-21.34%	-22.31%	-36.20%	72.00%	89.47%	48.15%	59.09%
IWF	5.69%	5.38%	-1.54%	-1.32%	5.49%	5.67%	0.49%	1.20%	14.50%	12.99%	11.47%	27.41%	-11.78%	-14.73%	-21.23%	-23.67%	84.00%	94.74%	57.14%	54.55%
IWD	4.95%	3.54%	-0.97%	-0.82%	4.28%	4.67%	0.16%	2.34%	16.60%	15.75%	9.97%	16.79%	-11.23%	-18.93%	-17.12%	-27.33%	76.00%	89.47%	57.14%	63.64%
GDX	0.42%	-0.25%	-0.28%	4.78%	-0.76%	1.50%	0.46%	1.40%	19.92%	12.05%	45.55%	59.20%	-35.30%	-20.85%	-30.46%	-21.31%	47.37%	58.82%	50.00%	57.14%
EMB	1.37%	-0.20%	-1.71%	0.50%	0.58%	0.40%	-1.27%	1.78%	9.50%	4.53%	4.32%	12.97%	-6.89%	-6.07%	-12.73%	-15.61%	64.71%	50.00%	33.33%	61.54%
EWM	6.28%	0.43%	-0.16%	-0.77%	3.95%	1.63%	-0.93%	-2.92%	71.88%	44.87%	134.04%	27.32%	-41.82%	-29.09%	-45.54%	-18.63%	67.86%	54.55%	37.50%	45.45%
EWZ	6.07%	4.32%	0.50%	0.12%	4.17%	9.23%	0.79%	2.70%	33.96%	34.02%	37.82%	40.50%	-19.49%	-40.31%	-36.94%	-50.35%	56.00%	57.89%	59.26%	54.55%
EZA	4.43%	4.52%	-0.64%	-1.02%	3.93%	3.68%	-2.21%	-0.97%	27.67%	19.13%	26.91%	27.07%	-13.21%	-16.22%	-23.48%	-42.14%	62.50%	72.22%	45.83%	41.18%
FXB	0.23%	1.07%	-1.50%	-1.80%	1.90%	1.01%	-1.43%	-1.88%	5.07%	7.70%	5.80%	14.53%	-6.56%	-6.09%	-10.65%	-18.34%	57.89%	76.47%	35.00%	28.57%
PFJ	1.38%	0.52%	-3.47%	0.58%	1.46%	0.16%	-1.33%	-0.20%	12.85%	5.65%	5.97%	41.03%	-5.06%	-5.80%	-29.19%	-21.98%	61.11%	52.94%	42.11%	38.46%
TIP	0.15%	0.26%	-0.23%	0.38%	0.76%	0.24%	-0.27%	1.47%	5.11%	2.										

# ETF Pro Positions With Trend+ (>63 Day) Holds

Last updated: 4/30/24

Short \_\_\_\_\_ Long \_\_\_\_\_

## Bonds

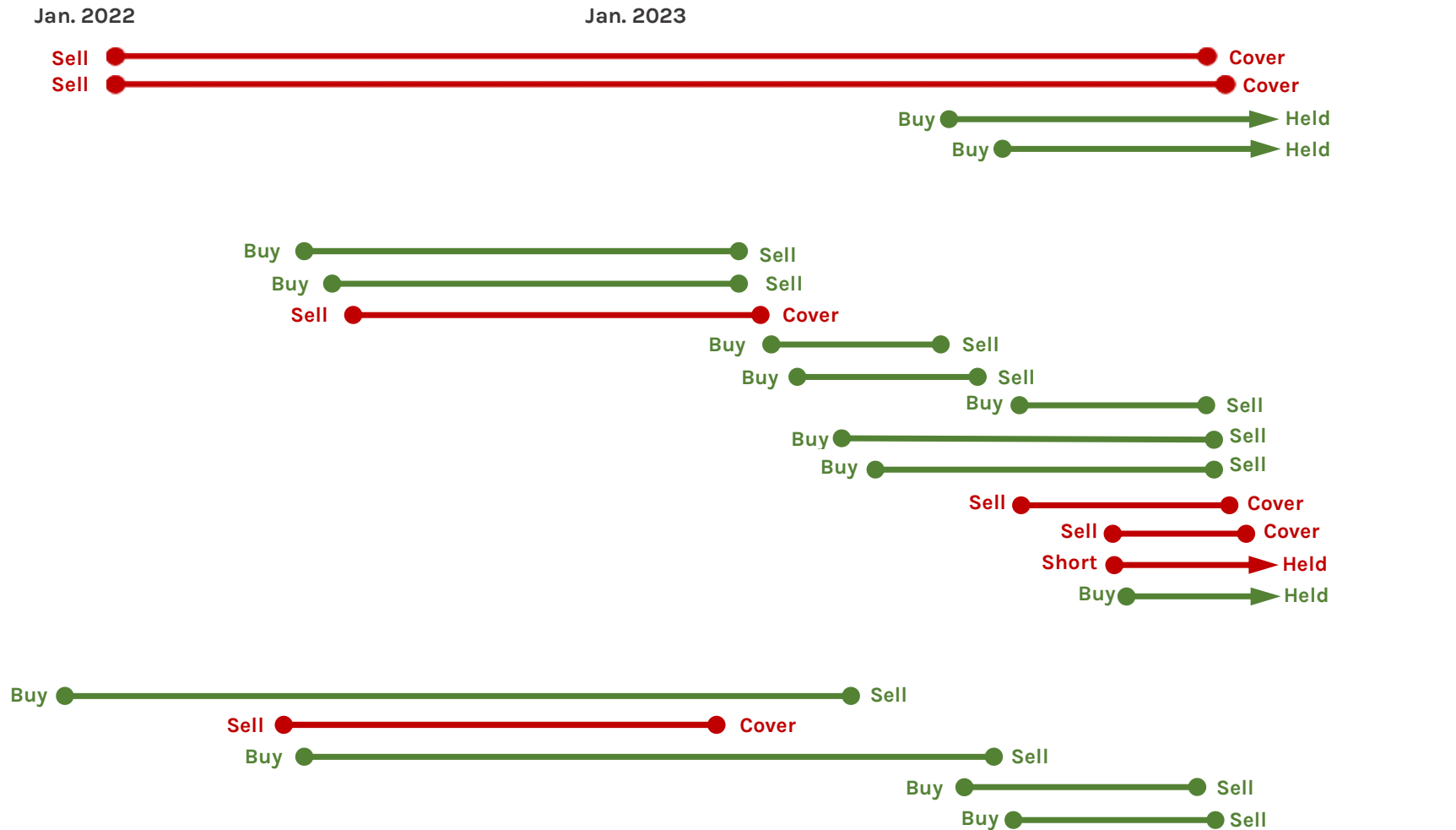
iShares:iBoxx \$HY Corp (2/28/22-2/5/24)	HYG
SPDR Bbg High Yield Bd (2/28/22-2/29/24)	JNK
US Treas 3 Month BI (8/28/23)	TBIL
iShares:Tr FI Rate Bond (9/15/23)	TFLO

## Commodities

VanEck:Gold Miners (11/18/22-3/10/23)	GDX
IShares:Silver Trust (11/28/22-3/10/23)	SLV
ProShares:Bitcoin Strat (12/5/22-3/20/23)	BITO
VanEck:Gold Miners (3/21/23-7/10/23)	GDX
IShares:Silver Trust (4/17/23-8/14/23)	SLV
Goldman Sachs Phys Gold (11/6/24-2/16/24)	AAAU
Gbl X Uranium ETF (6/23/23-2/26/24)	URA
VanEck:Urnium+Nuclr En (7/20/23-2/26/24)	NLR
Teucrium:Corn (11/22/23-3/28/24)	CORN
Teucrium:Wheat (1/2/24-4/23/24)	WEAT
Gbl X Hydrogen ETF (1/2/24)	HYDR
Amplify Cmmdty:Brkwv DB (2/1/24)	BDRY

## Currencies

Invesco DB USD Idx BI (1/3/22-5/2/23)	UUP
Invesco:Euro (11/1/22-2/8/23)	FXE
SPDR Gold (11/18/22-10/5/23)	GLD
Invesco DB USD Idx BI (8/30/23-12/18/23)	UUP
SPDR Gold (11/6/23-2/16/24)	GLD

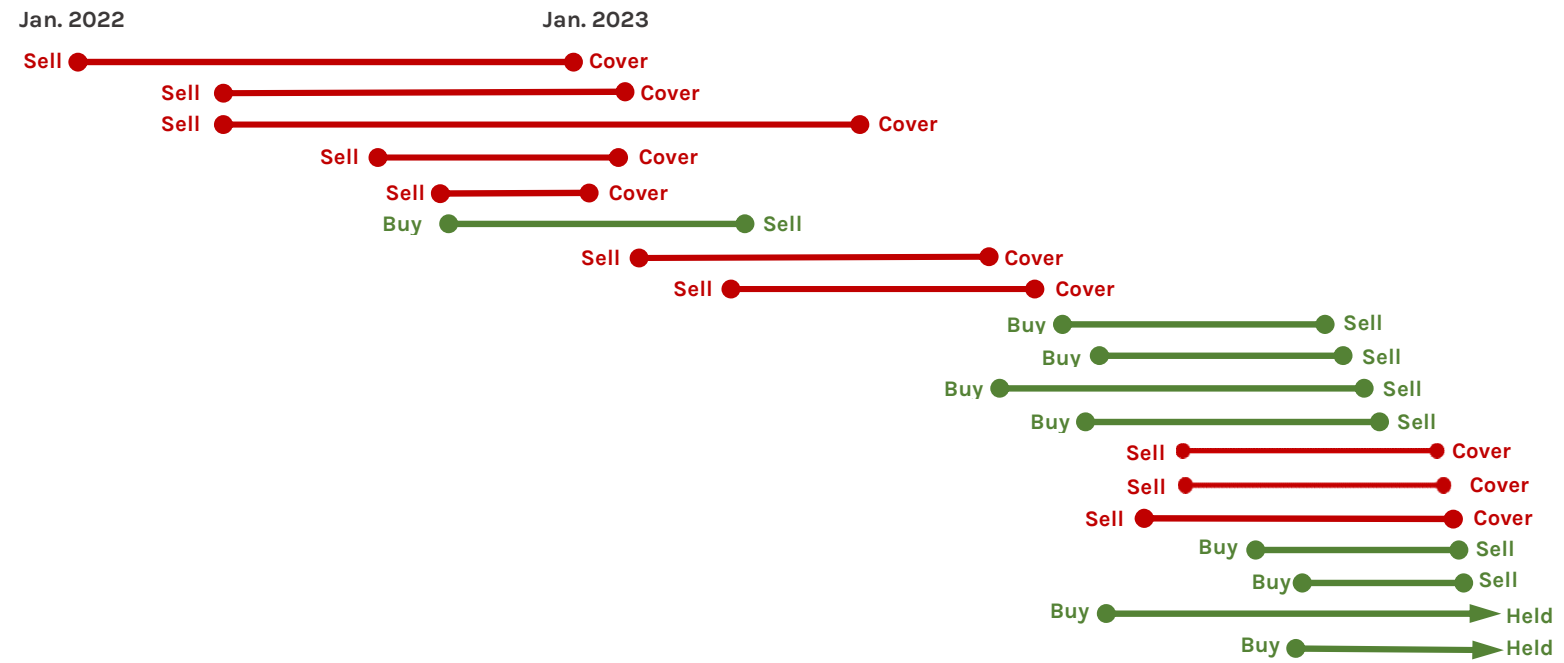


# ETF Pro Positions With Trend+ (>63 Day) Holds

Last updated: 4/30/24

Short \_\_\_\_\_ Long \_\_\_\_\_

Non-US Stocks	
iShares:MSCI S Korea (9/28/21-11/18/22)	EWY
iShares:MSCI Poland (4/4/22-12/19/22)	EPOL
iShares:MSCI Italy (4/4/22-2/8/23)	EWI
Glbl X DAX Germany (5/2/22-12/8/22)	DAX
iShares:MSCI Taiwan (8/15/22-11/18/22)	EWT
iShares:MSCI Turkey (8/24/22-1/17/23)	TUR
iShares:MSCI UAE (12/19/22-4/26/23)	UAE
Glbl X MSCI Pakistan ETF (1/3/23-5/4/23)	PAK
iShares:MSCI Japan SC (5/18/23-10/3/23)	SCJ
iShares:JPX-Nikkei 400 (6/23/23-10/5/23)	JPXN
iShares:MSCI Japan SC (4/26/23-10/23/23)	EWJ
iShares:MSCI Japan Value (5/30/23-10/30/23)	EWJV
iShares: MSCI France (8/1/23-12/20/23)	EWQ
iShares:MSCI Germany (8/1/23-12/26/23)	EWG
iShares:MSCI Hong Kong (7/6/23-2/22/24)	EWH
iShares:MSCI Ind Sm-Cap (10/5/23-3/12/24)	SMIN
iShares:MSCI EM xChn (1/10/24-4/16/24)	EMXC
iShares:MSCI India (6/12/23)	INDA
iShares:MSCI Netherlands (1/5/24)	EWN



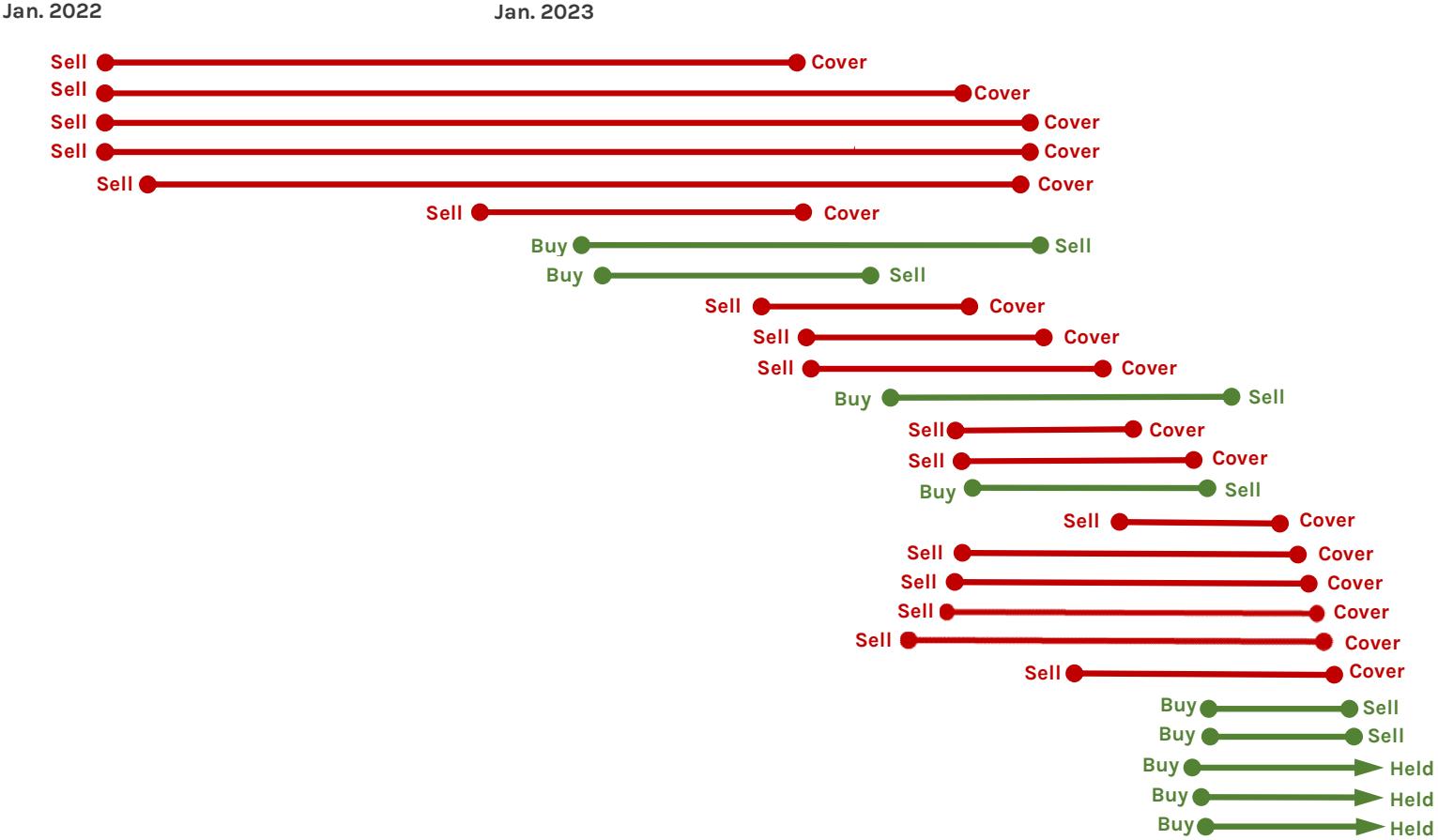
# ETF Pro Positions With Trend+ (>63 Day) Holds

Last updated: 4/30/24

Short \_\_\_\_\_ Long \_\_\_\_\_

## US Stocks

SPDR S&P Retail (2/1/22-2/13/23)	XRT
Sel Sector:Tech SPDR (2/1/22-5/30/23)	XLK
Sel Sector:C Dsc SPDR (2/1/22-6/26/23)	XLY
AdvsrShs Gerber Kawasaki (2/1/22-6/26/23)	GK
Invesco QQQ Trust 1 (3/21/22-6/20/23)	QQQ
Goldman:Hdg Indus VIP (9/1/22-2/13/23)	GVIP
AGF:AGF US Mk Neu A-Bt (11/1/22-6/26/23)	BTAL
iShares:US Aer&Def ETF (11/18/22-3/20/23)	ITA
Meet Kevin Pricing Pwr (1/27/23-5/30/23)	PP
Invesco GI Lst Pr Eq (2/3/23-6/26/23)	PSP
SPDR S&P Oil&Gas Exp (2/8/23-7/10/23)	XOP
Goldman Sachs Phys Gold (3/21/23-10/5/23)	AAAU
OXFORD LANE CAPITAL CORP. (4/20/23-8/14/23)	OXLC
Sel Sector:Finl S SPDR (4/20/23-9/5/23)	XLF
Simplify:Health Care (4/26/23-9/18/23)	PINK
SPDR S&P 500 ETF (8/1/23-12/18/23)	SPY
Sel Sector:RI Est SPDR (4/20/23-1/10/24)	XLRE
Sel Sector:Indust SPDR (4/17/23-1/16/24)	XLI
SPDR S&P Retail (4/4/23-2/5/24)	XRT
iShares:Russ 2000 ETF (3/21/23-2/16/24)	IWM
SPDR S&P Reg Banking ETF (6/12/23-3/7/24)	KRE
Invesco S&P 500 Top50 (11/30/23-4/22/24)	XLG
Invesco S&P 500 Momnt (11/30/23-4/25/24)	SPMO
iShares:US Ins ETF (9/27/23)	IAK
Invesco KBW P&C Insr (10/20/23)	KBWP
Strive En Inc Shrt Matr (10/25/23)	BUXX



# Legal

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# HEDGEYE OVERVIEW

We are focused on generating and delivering real-time investment ideas. We're composed of 40+ analysts, featuring some of the world's most regarded researchers. We combine quantitative, fundamental, and macro analysis with an emphasis on duration.



## MACRO STRATEGY



GAMING, LODGING & LEISURE



INDUSTRIALS MATERIALS



HEALTH CARE



MACRO POLICY



RETAIL



RESTAURANTS CANNABIS



COMMUNICATIONS, SOFTWARE



FINANCIALS HOUSING



CAPITAL ALLOCATION



REITS



CONSUMER STAPLES



TELECOM & MEDIA POLICY



MACRO CRYPTO HOUSING



GLOBAL TECHNOLOGY, SOFTWARE



DEMOGRAPHY



HEALTH POLICY



ENERGY

## DIFFERENTIATED PROCESS

### MULTI-FACTOR APPROACH

The marriage of proven research expertise with a quantitative/factor overlay to manage risk.

### REAL-TIME RESEARCH

Opportunistic idea generation and real-time research calls only = no maintenance research.

### BUY-SIDE PERSPECTIVE

Think and run business like the buy-side because we've been there.

## DISTINCTIVE CONTENT

### EMPHASIS ON DURATION

Calls across near-term (TRADE), intermediate-term (TREND), and longer-term (TAIL) durations.

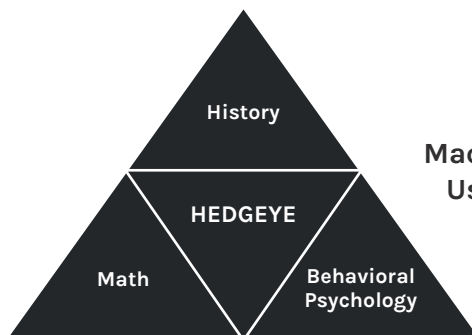
### DETAILED REPORTS

Thematic industry pieces and company specific deepdive Black Books incorporating macro analysis.

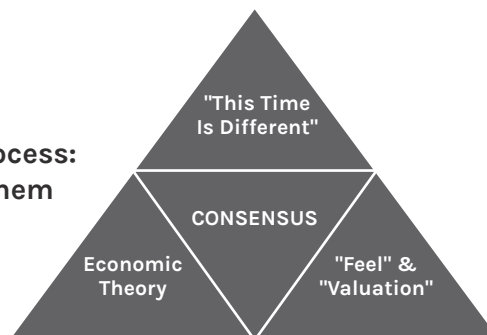
### NO RATINGS OR PRICE TARGETS

Allowing us to present data/information objectively and fluidly.

## MACRO OVERLAY



Macro Process:  
Us vs. Them



### DIFFERENTIATED FROM THE HERD

Macroeconomics and Global Macro Risk Management are two very different fields. We specialize in the latter.

### WE FOCUS ON THE SLOPES

Everything that matters in Global Macro occurs on the margin.

### OUR FUNDAMENTAL PROCESS

If you get the slopes of both growth and inflation right, you'll tend to get a lot of other things right—particularly in your P&L.

### HISTORY MATTERS → BACKTEST

Analyzing intermediate-term trends within the context of long-term economic and political cycles helps us consistently front-run major asset class turns.

# HEDGEYE OVERVIEW

Our investment research team is made of managing directors with both buy-side and sell-side experience, while our Washington D.C. policy team has worked on the inside in a variety of positions with a deep understanding of how policy affects the markets and the economy. Our goal is simple: to build the most thoughtful and thorough team on Wall Street, and leveraging our uniquely combined knowledge into investment opportunities for our clients. Our combined investment experience includes time at Carlyle Blue-Wave, Ardsley Partners, Buckingham Research, Morgan Stanley, Dawson-Herman Capital, Wells Fargo Securities, to name a few, while our combined policy experience includes time at the U.S. Court of Appeals, U.S. Energy Department, U.S. Office of Defense, U.S. Federal Reserve, U.S. Chamber of Commerce, and more.



## **RISK MANAGEMENT | KEITH MCCULLOUGH** CEO & FOUNDER [@KEITHMCCULLOUGH](#)

PM at Carlyle-Blue Wave Partners, Magnetar Capital, Falconhenge Partners, and Dawson-Herman Capital Management.



## **MACRO | DARYL JONES** DIRECTOR OF RESEARCH [@HEDGEYEDJ](#)

Sector Head for Basic Materials at HIG Capital's hedge fund, Brightpoint Capital.



## **GAMING, LODGING AND LEISURE | SEAN JENKINS** [@HEDGEYEGLL](#)

Industry veteran with nearly a decade of experience covering Gaming, Lodging, Leisure. Head of GLL Research at Hedgeye. Former Senior Analyst at Hedgeye specializing in Lodging & Leisure services.



## **RETAIL | BRIAN MCGOUGH** [@HEDGEYERETAIL](#)

Co-founder of Hedgeye with 30 years of experience covering retail. He was Executive Director at Morgan Stanley, ran the consumer franchise at Copper Arch Capital, and was Director of Investor Relations at Nike.



## **RESTAURANTS, CANNABIS | HOWARD PENNEY** [@HOWARDWPENNEY](#)



20+ years experience. While at Morgan Stanley he was ranked #1 by Institutional Investor (Restaurants). Howard has covered Tobacco, Alcohol, Food, and Beverage companies for nearly two decades.



## **CONSUMER STAPLES | DANIEL BIOLSI** [@HEDGEYE\\_STAPLES](#)

Daniel has two decades of experience on the buy side and sell side primarily covering Consumer at Glenhill Capital, Stelliam, North Sound, Weiss, Peck & Greer, and Lehman Brothers.



## **HEALTH CARE | TOM TOBIN** [@HEDGEYEHC](#)

Head of Healthcare Investments at Dawson-Herman Capital Management, joined after working as an analyst at W.P.Stewart.



## **MACRO, FINANCIALS, HOUSING, PAYMENTS, CRYPTO | JOSH STEINER** [@HEDGEYEFIG](#)

Two decades on the sell side and buy side. #1 Ranked Institutional Investors Mortgage & Specialty Finance Team at Lehman Brothers. Financials Long/Short Equity Analyst at Millennium Partners and Amaranth Advisors.



## **INDUSTRIALS, MATERIALS | JAY VAN SCIVER** [@HEDGEYEINDSTRLS](#)

Jay has over two decades of experience covering cyclicals, and was the Industrials & Materials analyst at Brown Brothers Harriman, a cyclicals analyst/desk head at Labranche, and partner at L/S fund Bishop & Carroll Capital Partners.



## **COMMUNICATIONS | ANDREW FREEDMAN** [@HEDGEYECOMM](#)

10+ years experience covering TMT. Head of Communication Services at Hedgeye. Former Senior Analyst covering Healthcare IT.



## **SOFTWARE | ANDREW FREEDMAN, FELIX WANG** [@HEDGEYESOFTWARE](#)

Andrew & Felix, analysts with over a decade of experience each, have teamed up with software analyst Nick Balch to provide differentiated & data-oriented Technology sector idea generation.



## **GLOBAL TECHNOLOGY | FELIX WANG** [@HEDGEYETECH](#)

15 years of experience covering TMT/consumer. Coverage includes consumer tech/China, semis, hardware & AI. Featured on Bloomberg, Sina Finance, Sohu, Barron's and Fast Money



## **MACRO, CRYPTO, HOUSING | CHRISTIAN DRAKE** [@HEDGEYEUSA](#)

Covers U.S. Macro, Crypto & Housing, Owned Integrated Performance, LLC, A Human Performance Consultation Company



## **ENERGY | FERNANDO VALLE** [@HEDGEYEENERGY](#)

Over 14 years of Energy investment research experience at Citi and Bloomberg. Employing a well-to-wheel framework to capture movements in the Energy cycle.



## **DEMOGRAPHY | NEIL HOWE** [@HOWEGENERATION](#)

Renowned authority on generations and social change in America. Neil is an acclaimed bestselling author and speaker.



## **MACRO POLICY | JT TAYLOR** [@HEDGEYEDC](#)

Former Managing Partner of Kemp Partners in Washington, DC and led the policy research team at Pelorus Research in London.



## **REITS | ROB SIMONE** [@HEDGEYEREITS](#)

Ranked II REIT team at Evercore ISI, most recently Dir. of Bus. Development at Paramount Group (NYSE: PGRE) a New York-based office REIT



## **TELECOM & MEDIA POLICY | PAUL GLENCHUR** [@HEDGEYETECHLAW](#)

Leading telecommunications policy specialist with a combined legal and industry background. Former attorney for the FCC. Member of the American Bar Association Section on Antitrust Law.



## **HEALTH POLICY | EMILY EVANS** [@HEDGEYEEEVANS](#)

Worked at JC Bradford helping to bring securities to market for healthcare related projects.



## **CAPITAL ALLOCATION | DAVID SALEM** [@DSALEMINVESTOR](#)

Founding CEO & CIO of The Investment Fund for Foundations (TIFF) and Partner at GMO. Harvard JD/MBA.