HEDGEYE

Q1 2021
Macro Themes

New Year; Same Process

January 7th, 2021

MACRO

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Data Source: Bloomberg

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Please submit questions* to

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*Answered at the end of the call

The Investment Landscape Has Evolved Tremendously

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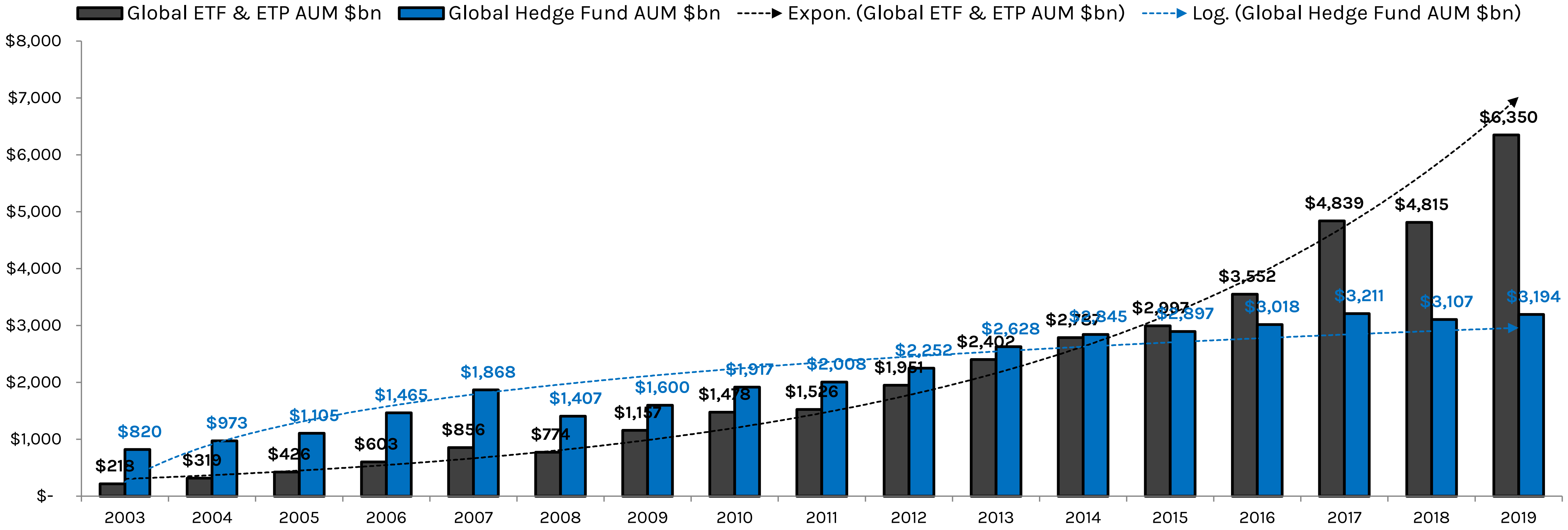
Stock-picking has given way to factor-picking and it's our job as investors to embrace this sea change, rather than fight it.



Skate To Where The Puck Is Going Within Asset Management

AUM in listed ETFs and ETPs surpassed $6 trillion globally as of YE 2019, topping global hedge fund assets by over $3 trillion. Moreover, BlackRock anticipates ETF/ETP AUM to double to $12 trillion over the next 5 years. Regardless of whether you agree with this projection, you must agree that **the proliferation of factor-based index investing and the concentration of hedge fund AUM at market-neutral platforms has made financial markets more sensitive to Macro risks than ever before.** For example, JPM estimates systematic trading accounts for over 90% of US equity trading volume. **Are your research and risk management processes equipped to compete for alpha in this new regime?**

Data Sources: ETFGI, BarclayHedge, Blackrock, JPMorgan

… So We Evolved Alongside It

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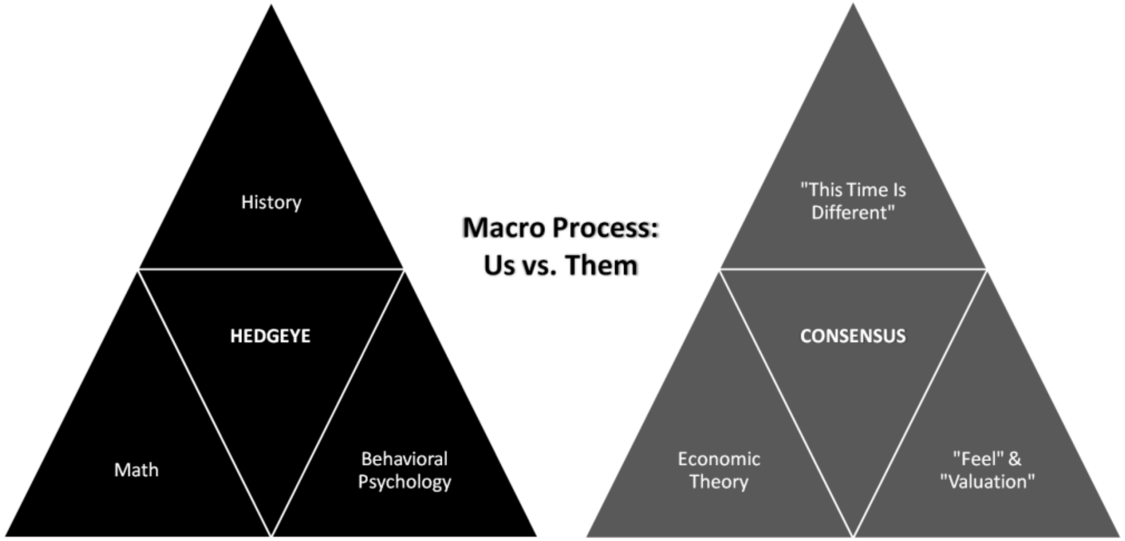
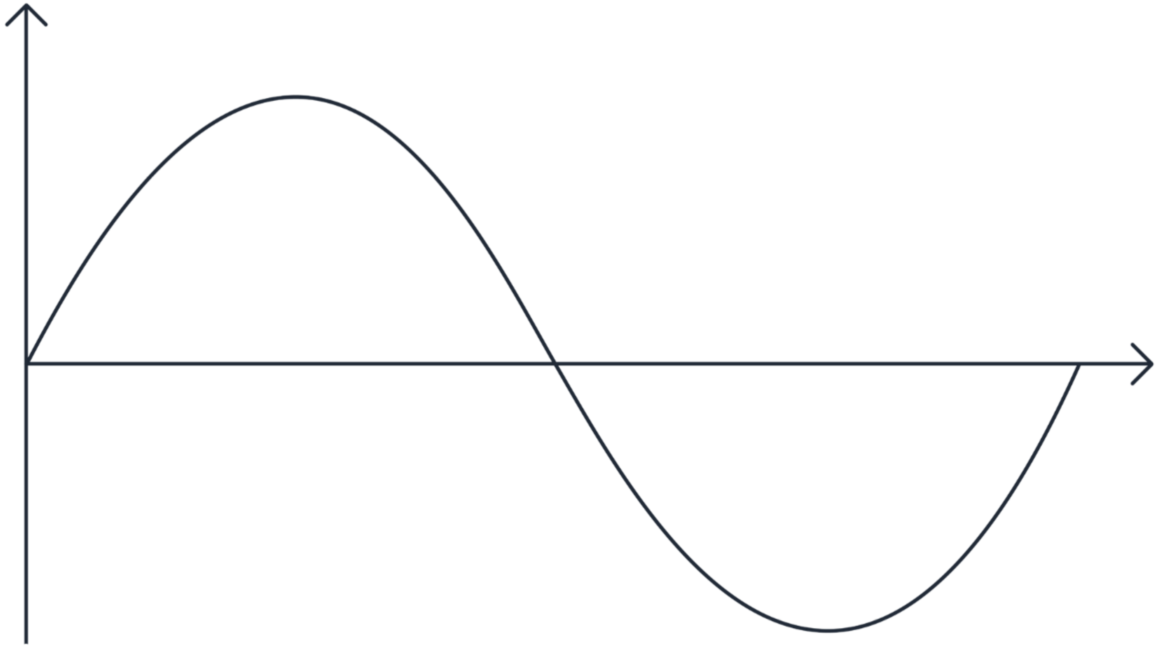




WE ARE DIFFERENTIATED FROM THE HERD

Macroeconomic Research and Global Macro Risk Management are two very different fields. We specialize in the latter, incorporating key lessons from behavioral finance such as Prospect Theory and Bayesian Inference into our analysis. **We don't "feel" anything with regards to the markets or the economy; if we can't contextualize it with math, we don't have a view on it.**

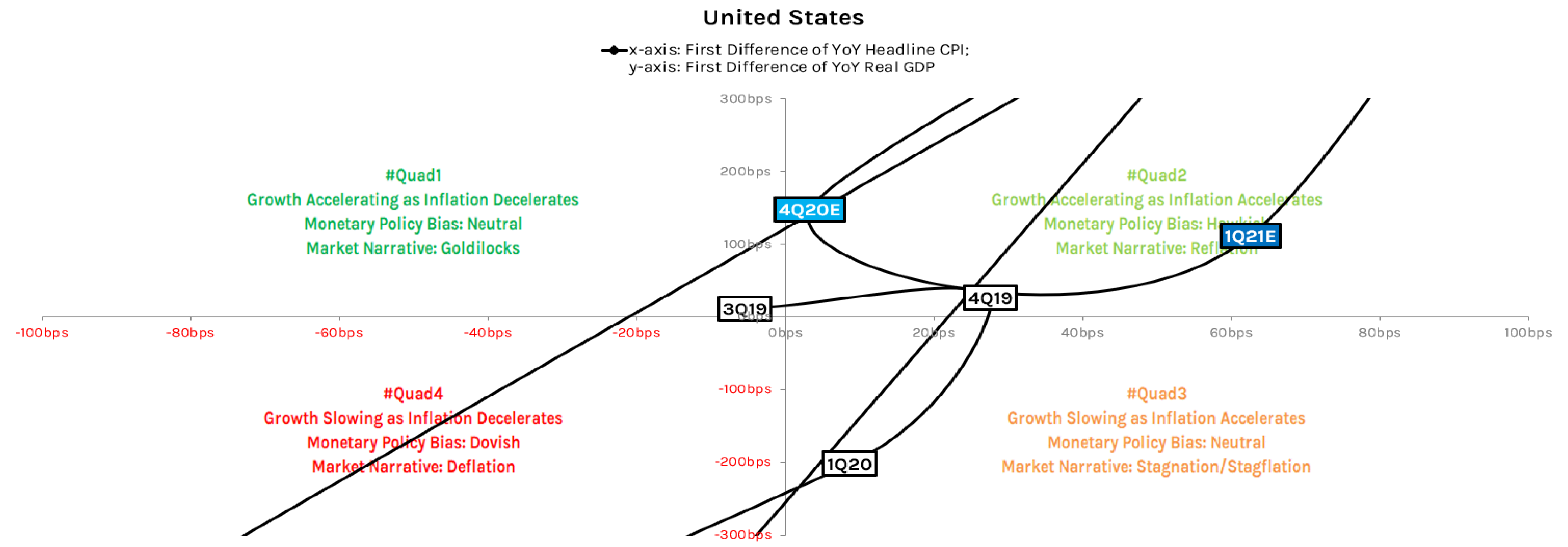
…BECAUSE WE FOCUS ON THE FACTS

Rate of change accelerations and decelerations are facts, not opinions, and our process is focused on contextualizing these facts, rather opining on the validity of absolute levels of growth, inflation, and/or policy. **This focus helps us consistently spot inflections in the performance of key factor exposures, across asset classes, 3-6 months ahead of investor consensus.**

What Are The Quads?

Our GIP Model is a quantitatively oriented, regime-based framework that helps investors proactively prepare for volatility phase transitions within and across asset classes by triangulating the three factors that matter most to Macro Risk Management – i.e. GROWTH, INFLATION, and POLICY.

United States	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	← Actuals | Estimates →	4Q20E	1Q21E	2Q21E	3Q21E
Real GDP QoQ SAAR	3.90%	3.80%	2.70%	2.10%	1.30%	2.90%	1.50%	2.60%	2.40%	-5.00%	-31.40%	33.40%	Real GDP QoQ SAAR	8.48%	-0.59%	4.27%	2.02%
Real GDP YoY	2.70%	3.08%	3.33%	3.12%	2.48%	2.27%	1.96%	2.08%	2.34%	0.32%	-9.03%	-2.85%	Real GDP YoY	-1.37%	-0.25%	10.77%	3.58%
2yr Comparative Base Effects	2.12%	1.92%	1.80%	1.98%	2.39%	2.57%	2.75%	2.74%	2.59%	2.67%	2.64%	2.60%	2yr Comparative Base Effects	2.41%	1.29%	-3.53%	-0.39%
Headline CPI YoY	2.12%	2.21%	2.71%	2.64%	2.20%	1.64%	1.81%	1.76%	2.03%	2.12%	0.36%	1.22%	Headline CPI YoY	1.26%	1.88%	3.08%	2.68%
2yr Comparative Base Effects	1.13%	1.81%	1.48%	1.54%	1.96%	2.38%	2.31%	2.30%	2.16%	1.93%	2.26%	2.20%	2yr Comparative Base Effects	2.12%	1.88%	1.09%	1.49%



Data Source: Bloomberg. Light Blue box= Hedgeye Predictive Tracking Algorithm nowcast. Dark Blue boxes = Hedgeye β-Adjusted Comparative Base Effects Model estimates.

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Data Source: Bloomberg

Quarterly Expected Values By GIP Model Quad Regime

Hedgeye Macro US GIP Model Backtest	EV by Quadrant				Shallow GDP Δ				Deep GDP Δ				Fed Easing			
Exposure	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
S&P 500 INDEX (SPY)	6.8%	2.4%	1.0%	-1.4%	2.8%	0.7%	4.3%	6.9%	5.9%	1.2%	-2.3%	-10.9%	9.1%	6.2%	1.2%	-3.8%
Communication Services (XLC)	7.0%	-2.2%	0.7%	0.1%	4.9%	-4.0%	6.1%	7.7%	2.9%	-4.8%	-5.1%	-9.8%	10.0%	2.3%	2.6%	-2.6%
Consumer Cyclical (XLY)	8.4%	2.9%	1.1%	-0.3%	2.4%	0.4%	3.7%	7.4%	9.9%	2.1%	-1.6%	-9.1%	10.8%	7.1%	-0.2%	-1.5%
Consumer Non-Cyclical (XLP)	4.9%	1.0%	0.8%	1.8%	-0.2%	-2.9%	1.2%	9.6%	3.9%	4.3%	1.3%	-1.5%	6.2%	4.0%	1.1%	-0.3%
Energy (XLE)	6.3%	1.7%	1.8%	-3.8%	2.2%	0.8%	6.9%	6.4%	7.2%	-2.5%	-5.5%	-16.7%	7.1%	5.8%	5.9%	-9.8%
Financials (XLF)	6.2%	1.9%	0.1%	-1.4%	0.2%	-0.8%	0.5%	6.7%	5.7%	-0.2%	3.9%	-14.7%	8.3%	4.7%	-2.4%	-6.2%
Health Care (XLV)	6.3%	2.1%	0.8%	0.6%	5.8%	-4.0%	3.0%	4.9%	4.2%	4.9%	-0.6%	-3.6%	7.8%	7.6%	1.7%	-1.7%
Industrials (XLI)	7.2%	2.7%	1.1%	-1.8%	2.0%	-0.3%	4.1%	7.0%	4.8%	2.9%	-0.3%	-10.1%	9.6%	7.4%	1.2%	-3.8%
Information Technology (XLK)	9.0%	5.0%	2.5%	-2.6%	5.1%	7.3%	9.1%	6.3%	7.6%	1.1%	-5.7%	-14.7%	13.6%	8.0%	2.1%	-4.1%
Materials (XLB)	7.3%	2.2%	0.6%	-0.5%	1.0%	2.2%	6.3%	3.3%	9.5%	-0.3%	-5.4%	-5.9%	7.9%	6.5%	4.7%	-5.4%
REITS (XLRE)	4.0%	-0.1%	0.2%	0.9%	-0.7%	-2.7%	0.7%	10.0%	5.8%	4.3%	4.1%	-13.4%	4.6%	3.9%	0.3%	-3.8%
Utilities (XLU)	3.5%	-1.5%	4.0%	1.3%	3.6%	-6.0%	5.0%	9.6%	0.6%	0.1%	6.1%	-6.5%	4.4%	2.5%	3.1%	-2.5%
Growth (IWF)	7.4%	3.8%	1.2%	-2.2%	3.4%	2.7%	4.8%	7.0%	7.1%	2.4%	-3.7%	-12.5%	10.3%	7.3%	1.8%	-4.2%
Value (IWD)	6.4%	1.1%	1.0%	-0.7%	2.0%	-1.3%	3.8%	7.2%	5.3%	0.0%	-0.1%	-10.1%	8.1%	5.5%	1.2%	-3.9%
Cyclicals (RSP)	8.0%	3.1%	1.2%	-2.8%	2.1%	2.1%	5.6%	6.7%	8.1%	0.7%	-2.9%	-15.9%	11.0%	7.8%	2.3%	-6.0%
Defensives (DEF)	6.0%	2.0%	1.0%	-0.1%	3.2%	-0.3%	3.1%	7.5%	4.7%	1.9%	-1.1%	-7.2%	7.7%	5.0%	0.7%	-2.0%
High Beta (SPHB)	9.6%	3.3%	1.2%	-4.0%	1.3%	1.9%	7.7%	6.5%	8.5%	0.2%	-2.9%	-20.2%	15.8%	9.0%	2.7%	-7.6%
Low Beta (SPLV)	4.5%	0.9%	1.6%	2.2%	2.3%	-2.8%	2.9%	9.4%	4.0%	3.0%	2.9%	-3.7%	4.8%	4.0%	0.7%	0.0%
Momentum (MTUM)	8.1%	4.0%	1.7%	-3.0%	3.9%	5.7%	5.5%	8.1%	7.9%	2.4%	-3.8%	-13.8%	9.7%	5.9%	1.5%	-5.1%
Quality (QUAL)	7.3%	2.9%	1.4%	0.0%	4.2%	-0.3%	4.6%	8.0%	6.5%	3.4%	-1.9%	-6.5%	9.3%	6.5%	2.0%	-2.0%
Dividend Yield (SDY)	6.8%	1.3%	0.8%	1.7%	2.2%	-1.9%	2.5%	8.0%	6.2%	1.6%	1.1%	-4.2%	8.2%	5.8%	0.5%	-0.4%
Size (OEF)	6.9%	2.7%	1.1%	-1.7%	3.0%	1.5%	4.3%	6.2%	5.3%	1.2%	-2.9%	-9.9%	9.4%	6.0%	0.7%	-3.8%
Secular Growth (QQQ)	7.8%	5.6%	2.6%	-2.7%	6.6%	9.6%	8.7%	5.6%	8.0%	1.0%	-4.3%	-13.1%	12.6%	9.0%	2.2%	-4.4%
Mid-Caps (MDY)	7.5%	2.9%	1.7%	-0.9%	0.8%	1.4%	4.5%	8.2%	8.9%	1.5%	0.9%	-11.5%	9.3%	6.7%	3.2%	-3.5%
Small-Caps (IWM)	6.8%	3.5%	0.5%	-1.2%	0.0%	3.7%	4.1%	7.7%	8.5%	0.5%	-1.2%	-12.3%	8.1%	7.0%	2.0%	-3.2%
BARCLAYS AGG (AGG)	1.2%	0.7%	0.9%	2.3%	1.7%	1.1%	0.0%	1.9%	1.5%	1.5%	1.2%	3.1%	1.5%	1.0%	1.0%	2.2%
Leveraged Loans (BKLN)	2.3%	1.7%	0.6%	0.6%	1.6%	1.2%	1.6%	2.1%	3.0%	2.3%	-0.4%	-8.5%	2.8%	2.6%	1.0%	-3.2%
BDCs (BIZD)	6.3%	4.8%	-1.3%	-0.3%	5.6%	3.8%	-3.4%	8.7%	10.8%	10.6%	-0.2%	-42.2%	8.1%	9.3%	-3.0%	-15.4%
Preferreds (PFF)	1.9%	2.2%	-0.3%	-0.5%	1.6%	3.2%	1.3%	1.8%	3.0%	3.6%	-2.2%	-17.1%	3.1%	1.4%	0.7%	-6.1%
IG Credit (LQD)	2.0%	0.8%	0.7%	2.5%	2.3%	1.2%	0.1%	2.7%	2.7%	1.9%	0.4%	1.3%	2.6%	1.6%	1.1%	1.7%
HY Credit (HYG)	3.4%	1.5%	0.8%	1.3%	1.7%	0.3%	2.1%	3.5%	4.3%	2.7%	-0.7%	-9.5%	3.9%	3.6%	2.1%	-2.4%
Convertibles (CWB)	5.6%	5.2%	0.0%	0.4%	4.1%	5.8%	3.0%	5.7%	8.2%	6.7%	-2.5%	-16.4%	7.9%	6.3%	1.7%	-5.0%
EM USD Debt (EMB)	3.2%	1.2%	1.9%	1.8%	-1.3%	2.4%	3.7%	2.1%	4.9%	2.2%	0.7%	-3.3%	2.5%	3.0%	2.8%	-2.1%
EM Local Currency Debt (EMLC)	1.6%	1.4%	0.7%	-0.5%	2.2%	3.0%	5.6%	0.7%	1.2%	3.8%	-2.4%	-6.6%	0.5%	3.9%	2.7%	-3.5%
1-3yr Treasurys (SHY)	0.6%	0.6%	0.7%	1.2%	0.9%	0.9%	0.1%	0.7%	0.3%	0.8%	1.0%	2.3%	0.8%	0.4%	0.7%	1.6%
5-10yr Treasurys (IEF)	1.1%	0.5%	1.1%	2.9%	2.0%	1.0%	-0.8%	2.1%	1.1%	1.7%	1.9%	6.1%	1.4%	0.3%	1.1%	3.5%
10-20yr Treasurys (TLT)	1.3%	0.1%	1.4%	4.1%	1.8%	0.9%	-1.0%	3.3%	1.3%	1.6%	2.4%	8.9%	1.7%	-0.5%	0.9%	4.9%
25+ Year Treasurys (EDV)	1.4%	-0.6%	1.8%	5.6%	2.1%	0.6%	-1.6%	4.1%	1.4%	1.2%	3.3%	15.0%	2.0%	-2.0%	0.8%	8.2%
0-5yr TIPS (STIP)	0.5%	0.8%	1.1%	0.6%	0.1%	0.4%	0.7%	1.4%	1.0%	1.4%	0.1%	-3.0%	0.8%	1.2%	1.6%	-1.3%
5-10yr TIPS (TIP)	0.8%	1.5%	1.5%	1.7%	0.0%	2.1%	0.8%	2.4%	2.4%	3.0%	0.1%	-1.6%	0.6%	1.8%	2.3%	-0.5%
MBS (MBB)	0.9%	0.8%	1.0%	2.0%	1.2%	1.3%	0.5%	1.4%	1.2%	1.4%	1.6%	3.0%	0.8%	1.3%	1.2%	2.0%
Munis (MUB)	1.6%	0.6%	0.7%	1.9%	1.7%	0.6%	0.4%	1.6%	1.6%	1.5%	0.9%	1.3%	1.9%	0.7%	0.6%	0.9%
Taxable Munis (BAB)	2.2%	0.0%	1.9%	2.4%	1.5%	1.3%	1.6%	2.7%	4.0%	1.6%	2.4%	-2.1%	1.7%	0.4%	1.8%	0.8%
CRB Index (DBC)	1.3%	4.4%	1.7%	-4.2%	0.0%	3.7%	4.3%	4.5%	4.1%	5.6%	-4.5%	-17.0%	-0.6%	3.6%	7.3%	-12.4%
CRB Raw Index	1.0%	3.3%	-0.3%	-0.9%	-0.1%	3.3%	-0.7%	1.1%	1.8%	4.4%	-1.9%	-8.0%	-1.1%	3.7%	2.3%	-5.9%
CRB Foodstuffs Index (DBA)	-0.3%	2.4%	1.8%	-1.1%	1.9%	-3.8%	0.1%	2.1%	-1.7%	6.6%	0.1%	-5.2%	-3.9%	4.2%	6.6%	-4.9%
Bloomberg Energy Index (BNO)	6.6%	11.1%	5.1%	-8.8%	4.0%	5.6%	13.6%	5.5%	21.8%	17.2%	-10.5%	-37.0%	6.2%	6.5%	11.4%	-24.7%
Bloomberg Precious Metals Index (DBP)	2.4%	4.8%	1.0%	1.4%	2.3%	5.6%	0.1%	5.9%	3.7%	8.5%	-6.5%	1.1%	-1.2%	8.6%	5.6%	-3.6%
Silver (SLV)	5.0%	2.2%	-0.3%	3.2%	3.5%	1.9%	-0.5%	8.8%	12.6%	6.5%	-8.1%	-8.1%	-1.1%	5.3%	8.4%	-3.2%
Bitcoin (GBTC)	62.2%	41.3%	106.4%	-19.0%	72.7%	66.7%	12.9%	-10.8%	41.1%	17.1%	-	-9.5%	41.1%	-13.1%	-	-21.0%
WTI Crude Oil (USO)	6.7%	9.3%	3.3%	-6.1%	1.8%	9.1%	9.6%	10.2%	19.9%	7.9%	-7.8%	-33.8%	10.1%	8.1%	9.7%	-21.5%
Natural Gas (UNG)	2.2%	5.5%	5.8%	-2.9%	5.2%	-0.6%	16.6%	1.9%	7.4%	14.2%	-2.1%	0.2%	0.1%	-3.9%	12.1%	-17.6%
Base Metals (DBB)	3.7%	4.7%	-0.4%	-0.9%	0.4%	7.0%	2.7%	3.6%	6.0%	5.2%	-5.1%	-18.8%	2.0%	7.6%	1.3%	-10.5%
Copper (CPER)	5.1%	5.5%	0.5%	-0.1%	-2.4%	4.8%	3.4%	7.5%	9.4%	5.6%	-4.7%	-21.9%	4.4%	9.5%	2.3%	-12.5%
US Dollar Index (UUP)	-0.7%	-0.6%	-0.2%	1.7%	-2.8%	-2.9%	-0.5%	2.3%	1.2%	0.3%	2.6%	0.9%	-1.3%	-0.2%	-1.9%	2.7%
Gold (GLD)	2.2%	2.5%	2.3%	1.9%	1.8%	3.3%	2.0%	0.8%	7.9%	5.4%	-1.7%	2.4%	-1.9%	4.9%	5.1%	0.7%
EM FX (CEW)	0.3%	-0.7%	-0.4%	-2.1%	1.0%	-0.6%	2.1%	-0.6%	0.2%	-0.6%	-3.1%	-6.8%	-0.5%	0.8%	1.2%	-5.5%

Hedgeye Macro US GIP Model Backtest	Fed On Hold				Fed Tightening				Quad 1 Prior				Quad 2 Prior			
Exposure	1	2	3	4	1	2	3	4	11	12	13	14	21	22	23	24
S&P 500 INDEX (SPY)	3.7%	-0.4%	-0.8%	-0.2%	6.7%	2.9%	3.8%	0.9%	15.1%	2.3%	1.8%	-1.7%	3.7%	2.3%	4.0%	-19.6%
Communication Services (XLC)	2.0%	-5.2%	-2.2%	3.5%	7.9%	-1.8%	3.2%	1.0%	17.1%	-2.3%	0.5%	1.1%	5.0%	-3.0%	5.4%	-17.0%
Consumer Cyclical (XLY)	5.9%	-0.9%	1.3%	-0.3%	7.3%	4.6%	2.5%	1.2%	20.2%	3.9%	2.6%	-2.0%	2.7%	5.1%	0.4%	-19.3%
Consumer Non-Cyclical (XLP)	3.4%	-1.1%	0.9%	8.0%	4.7%	1.3%	0.2%	0.0%	12.8%	2.2%	0.7%	2.2%	3.5%	-0.5%	-1.9%	-12.7%
Energy (XLE)	2.8%	1.7%	-4.2%	2.0%	9.0%	-1.6%	6.7%	-0.4%	5.9%	-0.9%	3.7%	-6.7%	2.1%	0.3%	2.8%	-50.5%
Financials (XLF)	3.4%	2.7%	0.3%	2.1%	5.8%	-1.5%	3.1%	2.2%	16.2%	1.0%	1.7%	-0.7%	1.9%	4.1%	9.0%	-31.9%
Health Care (XLV)	4.0%	-2.7%	0.6%	5.8%	6.5%	3.8%	0.1%	-0.2%	10.9%	0.7%	2.1%	0.8%	4.6%	-0.4%	3.3%	-12.7%
Industrials (XLI)	3.5%	0.5%	-1.3%	-0.8%	7.4%	1.8%	5.1%	-0.1%	14.6%	3.5%	1.2%	-3.7%	5.2%	1.9%	4.5%	-27.0%
Information Technology (XLK)	3.7%	0.2%	0.6%	-7.4%	7.7%	9.0%	6.3%	2.8%	23.2%	3.8%	1.9%	-3.9%	5.6%	4.8%	8.6%	-11.9%
Materials (XLB)	6.5%	1.2%	-4.4%	3.9%	7.3%	-0.2%	3.9%	2.5%	10.8%	6.9%	3.4%	-5.9%	4.0%	0.1%	-0.3%	-26.1%
REITS (XLRE)	2.9%	-2.1%	-1.0%	6.0%	4.4%	-0.8%	2.1%	3.4%	5.9%	2.5%	-2.2%	6.3%	-0.6%	-1.1%	1.9%	-24.6%
Utilities (XLU)	2.8%	-5.3%	3.1%	5.7%	2.8%	0.4%	6.6%	3.2%	4.4%	-0.2%	1.8%	7.1%	1.2%	-4.3%	12.9%	-13.5%
Growth (IWF)	3.7%	-0.4%	-0.7%	-4.0%	7.0%	6.5%	3.8%	1.8%	18.1%	3.4%	2.1%	-2.4%	4.0%	4.4%	4.5%	-14.1%
Value (IWD)	3.9%	-0.2%	-1.2%	3.0%	6.6%	-0.9%	4.5%	0.7%	12.6%	1.7%	1.5%	-0.8%	3.1%	0.5%	5.2%	-26.7%
Cyclicals (RSP)	3.9%	-0.1%	-1.9%	-3.3%	7.7%	3.4%	5.2%	1.8%	18.8%	2.5%	2.9%	-3.0%	3.3%	4.0%	6.6%	-23.4%
Defensives (DEF)	3.6%	-0.6%	0.0%	2.1%	6.0%	2.9%	3.1%	0.9%	12.6%	2.6%	0.8%	-0.3%	3.7%	1.2%	3.0%	-17.0%
High Beta (SPHB)	2.8%	-1.1%	-3.3%	-6.9%	7.1%	4.3%	6.9%	2.6%	19.8%	-0.6%	2.8%	-5.2%	3.2%	5.2%	12.1%	-36.2%
Low Beta (SPLV)	4.4%	-0.8%	1.1%	6.8%	4.2%	0.6%	3.6%	1.9%	8.0%	3.4%	-0.4%	2.8%	2.7%	-0.8%	3.7%	-19.0%
Momentum (MTUM)	5.3%	0.1%	-0.4%	-3.2%	8.7%	7.6%	5.5%	-0.3%	19.5%	4.2%	3.0%	-1.5%	4.6%	5.9%	3.4%	-13.8%
Quality (QUAL)	4.3%	0.2%	-0.5%	2.2%	7.3%	3.7%	3.6%	1.1%	14.9%	2.6%	1.7%	-1.9%	4.8%	2.0%	4.1%	-17.6%
Dividend Yield (SDY)	4.7%	-0.2%	0.1%	5.9%	6.8%	-0.5%	2.4%	1.3%	13.3%	3.2%	0.1%	0.6%	3.4%	0.4%	1.5%	-23.3%
Size (OEF)	3.3%	-0.3%	-0.2%	-0.2%	6.9%	3.8%	3.8%	0.0%	15.5%	2.0%	2.0%	-2.3%	4.1%	2.8%	3.8%	-17.2%
Secular Growth (QQQ)	1.2%	-0.8%	-0.4%	-7.4%	7.9%	11.3%	7.5%	2.7%	18.2%	3.2%	0.3%	-3.6%	6.0%	8.1%	11.0%	-10.3%
Mid-Caps (MDY)	5.1%	1.0%	-2.1%	-0.2%	7.2%	2.3%	6.4%	1.8%	18.3%	3.1%	1.2%	-1.3%	1.8%	3.8%	8.7%	-29.7%
Small-Caps (IWM)	4.9%	1.3%	-3.5%	0.0%	6.9%	3.5%	5.6%	0.4%	13.3%	4.2%	0.2%	-0.7%	1.1%	3.7%	4.2%	-30.6%
BARCLAYS AGG (AGG)	1.4%	0.8%	1.2%	3.0%	0.5%	0.2%	0.3%	1.9%	1.0%	1.0%	0.6%	2.2%	1.1%	0.3%	1.9%	3.1%
Leveraged Loans (BKLN)	1.3%	1.2%	-0.3%	1.5%	2.6%	1.6%	1.5%	4.8%	2.7%	2.0%	1.3%	-0.2%	0.5%	1.5%	1.2%	-13.0%
BDCs (BIZD)	1.3%	1.7%	-1.0%	5.4%	7.4%	2.4%	2.3%	9.5%	13.9%	3.8%	-0.5%	-0.2%	-2.0%	6.7%	7.1%	-44.8%
Preferreds (PFF)	0.4%	2.0%	-1.2%	2.4%	1.7%	4.0%	-0.3%	1.7%	3.3%	3.3%	-0.1%	-0.6%	0.8%	1.6%	4.6%	-22.8%
IG Credit (LQD)	1.6%	0.9%	0.7%	3.4%	1.5%	0.0%	0.1%	2.9%	2.4%	1.2%	0.5%	2.2%	1.3%	0.3%	2.2%	-3.1%
HY Credit (HYG)	2.8%	0.4%	-0.2%	1.7%	3.4%	1.0%	0.8%	5.7%	4.7%	1.9%	1.6%	0.3%	1.7%	0.8%	1.9%	-12.7%
Convertibles (CWB)	2.9%	3.6%	-3.3%	1.8%	4.9%	6.6%	2.6%	3.4%	10.0%	7.0%	2.2%	-1.5%	1.7%	2.9%	5.8%	-13.4%
EM USD Debt (EMB)	3.5%	-0.2%	1.0%	3.4%	3.8%	1.7%	2.6%	5.6%	8.4%	0.9%	0.8%	1.7%	1.7%	1.2%	7.0%	-9.5%
EM Local Currency Debt (EMLC)	-1.4%	0.1%	-1.0%	0.5%	5.6%	-1.2%	3.4%	2.6%	8.7%	2.5%	1.3%	-0.9%	-2.1%	-1.2%	6.8%	-7.6%
1-3yr Treasurys (SHY)	0.6%	0.7%	0.8%	1.3%	0.2%	0.6%	0.4%	0.7%	0.4%	0.6%	0.7%	0.8%	0.7%	0.4%	1.1%	2.8%
5-10yr Treasurys (IEF)	1.5%	0.9%	1.7%	4.0%	0.1%	0.0%	-0.1%	1.3%	0.8%	0.7%	0.3%	3.5%	1.4%	0.4%	1.8%	8.7%
10-20yr Treasurys (TLT)	2.0%	0.8%	2.5%	5.9%	-0.3%	-0.5%	0.3%	1.9%	0.4%	0.0%	0.1%	5.7%	1.7%	0.2%	2.7%	15.3%
25+ Year Treasurys (EDV)	3.1%	0.5%	3.5%	8.1%	-1.5%	-1.0%	0.3%	0.6%	-1.0%	-1.3%	-0.9%	8.2%	2.7%	-0.2%	3.3%	22.7%
0-5yr TIPS (STIP)	0.1%	0.4%	0.6%	1.3%	0.4%	0.8%	0.8%	1.6%	1.1%	1.1%	1.4%	0.5%	0.3%	0.3%	0.7%	-0.7%
5-10yr TIPS (TIP)	1.2%	1.5%	1.1%	3.3%	0.6%	1.0%	0.7%	2.3%	2.2%	2.1%	1.5%	2.2%	0.5%	1.0%	0.9%	1.4%
MBS (MBB)	1.4%	0.7%	1.3%	2.3%	0.3%	0.5%	0.4%	1.8%	0.7%	1.1%	0.9%	1.8%	1.0%	0.3%	1.6%	2.8%
Munis (MUB)	1.4%	0.7%	1.1%	2.8%	1.3%	0.2%	0.3%	2.6%	1.9%	0.8%	0.4%	1.9%	1.1%	0.3%	1.7%	-0.6%
Taxable Munis (BAB)	2.6%	-0.5%	2.2%	4.7%	2.5%	0.2%	1.6%	2.7%	3.9%	-0.3%	0.3%	3.0%	1.7%	-0.2%	1.7%	1.2%
CRB Index (DBC)	0.2%	3.4%	-3.8%	2.0%	5.8%	6.4%	3.8%	1.8%	-0.4%	5.3%	5.0%	-6.0%	-0.3%	3.1%	4.3%	-34.2%
CRB Raw Index	1.4%	3.4%	-1.6%	-0.3%	4.2%	2.7%	-1.4%	5.0%	3.3%	6.5%	1.6%	-1.9%	0.0%	1.5%	1.1%	-7.0%
CRB Foodstuffs Index (DBA)	1.4%	1.3%	-1.4%	4.4%	3.8%	2.3%	1.2%	-0.2%	4.5%	5.0%	4.5%	-0.5%	-2.6%	1.2%	1.4%	-8.9%
Bloomberg Energy Index (BNO)	2.4%	7.3%	-2.7%	-1.8%	12.1%	20.0%	10.4%	6.8%	-1.7%	8.6%	12.8%	-16.8%	-1.9%	8.4%	-1.9%	-66.0%
Bloomberg Precious Metals Index (DBP)	3.4%	1.3%	-3.2%	3.5%	7.4%	6.2%	2.3%	6.5%	8.2%	6.8%	3.4%	1.3%	0.4%	1.1%	6.7%	0.3%
Silver (SLV)	5.9%	-1.2%	-4.9%	7.5%	14.0%	4.3%	-3.7%	8.4%	8.7%	9.3%	1.9%	3.2%	-0.9%	-3.8%	2.5%	-21.7%
Bitcoin (GBTC)	132.9%	154.9%	12.9%	-	12.6%	-16.3%	199.9%	-16.9%	-	41.9%	-	-44.7%	12.6%	59.0%	12.9%	-9.5%
WTI Crude Oil (USO)	0.0%	7.5%	-2.7%	-1.9%	9.0%	12.7%	5.2%	10.7%	-5.1%	5.3%	12.0%	-17.0%	-0.2%	10.5%	-0.8%	-66.5%
Natural Gas (UNG)	12.2%	3.5%	-4.7%	31.7%	-6.0%	15.9%	15.8%	-8.7%	-21.7%	7.7%	4.8%	-2.4%	10.5%	1.1%	10.9%	-25.1%
Base Metals (DBB)	1.1%	3.5%	-4.2%	1.5%	9.4%	3.9%	4.1%	9.8%	9.2%	8.6%	0.4%	-3.3%	-0.1%	2.1%	3.6%	-19.3%
Copper (CPER)	1.4%	5.2%	-4.9%	2.7%	10.4%	2.6%	7.3%	13.7%	8.9%	9.8%	2.5%	2.5%	1.2%	1.7%	4.4%	-20.3%
US Dollar Index (UUP)	0.7%	-1.3%	1.5%	0.7%	-1.5%	-0.1%	-0.8%	1.0%	-4.0%	-3.5%	-0.4%	3.2%	0.5%	2.4%	0.7%	2.8%
Gold (GLD)	5.4%	0.9%	0.7%	0.4%	4.8%	2.7%	1.5%	4.5%	3.0%	6.8%	3.0%	1.2%	1.7%	-2.0%	2.0%	3.9%
EM FX (CEW)	-0.1%	-0.8%	-2.2%	-0.8%	1.8%	-2.5%	0.4%	1.2%	6.0%	0.1%	-0.2%	-1.9%	-1.6%	-2.6%	1.8%	-12.9%

Hedgeye Macro US GIP Model Backtest	Quad 3 Prior				Quad 4 Prior				Global Quad			
Exposure	31	32	33	34	41	42	43	44	1	2	3	4
S&P 500 INDEX (SPY)	3.6%	0.7%	-2.0%	-1.1%	7.9%	6.5%	4.7%	1.2%	4.6%	2.6%	3.7%	-0.9%
Communication Services (XLC)	4.0%	-2.4%	-1.6%	1.9%	6.8%	1.7%	2.7%	-0.3%	1.7%	2.0%	2.5%	0.2%
Consumer Cyclical (XLY)	2.4%	-2.5%	-1.1%	-1.3%	11.7%	3.7%	4.4%	4.8%	5.8%	2.1%	5.2%	-0.1%
Consumer Non-Cyclical (XLP)	1.2%	2.1%	0.7%	4.3%	5.3%	0.4%	3.8%	0.8%	2.2%	0.5%	4.3%	1.6%
Energy (XLE)	6.4%	7.2%	-2.0%	-0.3%	9.2%	3.9%	6.9%	0.8%	4.7%	3.5%	4.1%	-3.1%
Financials (XLF)	1.1%	-3.4%	-5.7%	-0.3%	8.4%	7.5%	3.6%	1.2%	6.1%	2.1%	1.1%	-1.4%
Health Care (XLV)	5.2%	5.7%	-1.8%	3.1%	6.5%	7.7%	2.7%	-0.6%	1.5%	2.2%	3.2%	2.6%
Industrials (XLI)	4.2%	1.9%	-2.0%	-0.8%	7.7%	4.8%	6.1%	2.0%	4.9%	3.1%	3.8%	-1.5%
Information Technology (XLK)	4.5%	3.2%	-1.0%	-6.8%	9.1%	13.6%	7.1%	4.5%	6.8%	4.6%	5.7%	-1.5%
Materials (XLB)	3.8%	-2.6%	-2.9%	1.8%	10.3%	5.0%	4.8%	4.3%	6.6%	2.7%	3.3%	-1.9%
REITS (XLRE)	1.5%	-1.5%	0.7%	-0.4%	7.9%	-1.6%	2.3%	2.2%	5.2%	-0.1%	1.7%	-0.6%
Utilities (XLU)	8.4%	2.0%	1.9%	3.7%	1.9%	-2.6%	5.4%	-3.4%	1.2%	1.6%	2.2%	2.9%
Growth (IWF)	3.3%	1.4%	-2.0%	-3.9%	8.4%	7.6%	4.9%	1.7%	4.9%	3.1%	4.7%	-1.5%
Value (IWD)	4.0%	-1.1%	-2.3%	1.1%	7.9%	5.4%	4.7%	1.0%	4.3%	2.3%	2.8%	-0.5%
Cyclicals (RSP)	3.9%	-1.1%	-3.5%	-4.1%	9.8%	9.7%	5.2%	1.9%	6.1%	3.4%	3.8%	-2.2%
Defensives (DEF)	3.6%	1.8%	-0.9%	1.1%	6.7%	3.4%	4.5%	1.3%	3.4%	2.1%	3.7%	0.2%
High Beta (SPHB)	6.3%	0.9%	-6.7%	-7.8%	12.3%	12.8%	8.3%	5.7%	8.0%	4.6%	3.2%	-3.3%
Low Beta (SPLV)	3.6%	0.9%	1.5%	4.0%	5.1%	-0.5%	4.2%	2.8%	2.7%	1.6%	3.4%	1.7%
Momentum (MTUM)	5.0%	0.4%	-1.7%	-4.2%	8.4%	3.7%	6.3%	-1.3%	5.2%	3.2%	4.8%	-1.3%
Quality (QUAL)	5.3%	3.7%	-1.3%	0.7%	7.5%	5.7%	5.2%	3.2%	3.6%	3.1%	4.2%	1.1%
Dividend Yield (SDY)	4.0%	-1.0%	0.0%	3.7%	8.4%	3.4%	4.0%	3.7%	4.2%	1.7%	4.2%	1.0%
Size (OEF)	3.4%	1.3%	-1.7%	-1.3%	7.8%	7.0%	3.8%	0.6%	4.7%	2.5%	4.0%	-1.2%
Secular Growth (QQQ)	5.1%	1.8%	-1.0%	-6.3%	7.8%	11.8%	8.0%	3.0%	7.0%	4.7%	5.1%	-2.9%
Mid-Caps (MDY)	3.5%	-0.4%	-1.6%	-1.5%	9.8%	5.6%	5.3%	4.1%	5.4%	3.7%	4.2%	-0.8%
Small-Caps (IWM)	3.2%	-0.9%	-2.2%	-2.6%	10.5%	9.5%	5.3%	4.1%	5.6%	3.3%	3.7%	-1.8%
BARCLAYS AGG (AGG)	1.8%	1.0%	1.0%	2.6%	1.1%	0.3%	0.2%	1.9%	1.3%	0.7%	0.7%	2.1%
Leveraged Loans (BKLN)	1.7%	1.2%	-0.6%	-1.5%	3.7%	2.4%	1.6%	5.5%	3.3%	1.6%	0.3%	0.1%
BDCs (BIZD)	2.1%	0.6%	-4.2%	-2.0%	11.7%	6.1%	4.2%	18.1%	12.2%	4.0%	0.4%	-4.4%
Preferreds (PFF)	2.0%	-0.8%	-1.4%	0.0%	2.5%	4.3%	-0.1%	5.7%	2.8%	0.6%	1.0%	-1.4%
IG Credit (LQD)	2.3%	0.9%	0.4%	2.9%	2.2%	1.1%	0.3%	3.1%	2.3%	0.9%	0.5%	2.0%
HY Credit (HYG)	2.5%	0.6%	-0.6%	-0.5%	4.7%	4.1%	1.8%	6.0%	3.6%	2.2%	0.5%	0.7%
Convertibles (CWB)	3.7%	4.5%	-3.9%	-0.9%	8.9%	7.3%	3.4%	11.0%	5.9%	3.5%	1.3%	0.2%
EM USD Debt (EMB)	-0.8%	1.1%	1.0%	1.7%	4.6%	2.6%	2.0%	3.5%	4.4%	2.4%	1.7%	0.5%
EM Local Currency Debt (EMLC)	1.6%	5.4%	-0.8%	-0.9%	1.8%	3.6%	3.4%	2.7%	3.8%	2.4%	0.2%	-1.4%
1-3yr Treasurys (SHY)	0.8%	1.0%	0.6%	1.3%	0.5%	0.2%	0.1%	1.3%	0.6%	0.6%	0.6%	1.2%
5-10yr Treasurys (IEF)	2.4%	0.9%	2.0%	3.8%	0.3%	-0.6%	-0.4%	0.6%	0.7%	0.4%	0.9%	3.0%
10-20yr Treasurys (TLT)	3.2%	0.7%	2.8%	5.3%	0.2%	-1.8%	-0.3%	0.0%	0.9%	0.3%	1.0%	4.1%
25+ Year Treasurys (EDV)	4.5%	0.6%	4.3%	8.6%	-0.3%	-2.3%	-0.4%	-2.1%	0.9%	-0.2%	1.5%	5.3%
0-5yr TIPS (STIP)	0.4%	1.1%	1.1%	-0.1%	0.5%	0.7%	0.6%	2.7%	0.8%	0.9%	0.8%	0.4%
5-10yr TIPS (TIP)	1.1%	1.7%	2.0%	0.7%	0.5%	0.8%	0.6%	3.3%	1.6%	0.9%	1.3%	1.5%
MBS (MBB)	1.0%	1.3%	1.2%	2.2%	0.8%	0.7%	0.5%	1.9%	1.1%	0.7%	0.9%	1.9%
Munis (MUB)	1.9%	0.8%	0.8%	2.2%	1.5%	0.2%	0.2%	2.0%	1.6%	0.4%	0.7%	1.9%
Taxable Munis (BAB)	1.8%	1.5%	3.0%	2.0%	2.0%	-0.2%	4.5%	2.9%	3.8%	0.5%	1.5%	1.8%
CRB Index (DBC)	2.1%	6.5%	-2.0%	-2.5%	2.5%	2.0%	1.6%	-0.8%	4.7%	3.1%	0.9%	-4.1%
CRB Raw Index	-1.1%	1.9%	-1.5%	-1.6%	2.1%	2.5%	-2.8%	1.4%	3.6%	2.7%	-0.3%	-2.7%
CRB Foodstuffs Index (DBA)	0.2%	2.7%	1.0%	-3.9%	-0.6%	-2.1%	-1.6%	2.8%	1.0%	2.1%	1.2%	-1.5%
Bloomberg Energy Index (BNO)	7.0%	23.4%	0.9%	-6.1%	14.7%	3.1%	6.3%	2.1%	11.4%	8.1%	0.9%	-4.3%
Bloomberg Precious Metals Index (DBP)	-0.8%	7.7%	-2.6%	4.0%	3.7%	5.8%	-0.2%	-1.2%	3.7%	3.2%	1.3%	0.9%
Silver (SLV)	-2.4%	1.6%	-1.4%	6.9%	11.8%	3.7%	-5.2%	2.5%	9.1%	0.8%	1.1%	-0.9%
Bitcoin (GBTC)	132.9%	-	-	-32.5%	41.1%	-13.1%	199.9%	10.8%	87.0%	42.8%	80.6%	-19.0%
WTI Crude Oil (USO)	10.9%	14.7%	-1.7%	-4.1%	13.0%	6.4%	1.4%	8.1%	12.9%	7.3%	1.6%	-5.5%
Natural Gas (UNG)	1.3%	14.1%	-0.4%	14.7%	5.1%	-3.3%	20.1%	-20.1%	6.2%	1.9%	2.1%	0.3%
Base Metals (DBB)	1.1%	4.2%	-2.4%	-2.2%	5.8%	3.3%	-0.4%	4.9%	9.1%	1.8%	1.9%	-4.3%
Copper (CPER)	3.9%	6.3%	-2.1%	-4.6%	7.0%	4.6%	-1.0%	5.9%	9.6%	1.5%	3.9%	-2.6%
US Dollar Index (UUP)	-1.6%	-1.1%	0.3%	1.2%	0.0%	-1.9%	-1.7%	1.0%	-1.0%	-0.7%	-0.7%	1.9%
Gold (GLD)	-1.2%	4.7%	1.4%	2.6%	4.6%	1.3%	3.5%	1.3%	3.2%	2.4%	2.7%	1.0%
EM FX (CEW)	0.2%	0.3%	-1.8%	-1.9%	0.3%	0.9%	1.3%	-1.0%	0.5%	0.7%	-0.9%	-2.7%

Source: Hedgeye GIP Model Market History Backtests. Quarterly expected values since 1Q98. Bloomberg data. Total Return indices. ETF exposures in ().

Highest/Lowest Expected Values By Quad Regime

Quad 1: Goldilocks

Best Asset Classes:

Equities, Credit, Commodities, FX

Worst Asset Classes:

Fixed Income, USD

Best Equity Sectors:

Tech, Consumer Discretionary, Materials, Industrials

Worst Equity Sectors:

Utilities, REITS, Consumer Staples, Financials

Best Equity Style Factors:

High Beta, Momentum, Cyclicals, Secular Growth

Worst Equity Style Factors:

Low Beta, Defensives, Value, Dividend Yield

Best Fixed Income Sectors:

BDCs, Convertibles, HY Credit, EM $ Debt

Worst Fixed Income Sectors:

TIPS, Short Duration Treasurys, MBS, Medium Duration Treasurys

Quad 2: Reflation

Best Asset Classes:

Commodities, Equities, Credit, FX

Worst Asset Classes:

Fixed Income, USD

Best Equity Sectors:

Tech, Consumer Discretionary, Industrials, Materials

Worst Equity Sectors:

Telecom, Utilities, REITS, Consumer Staples

Best Equity Style Factors:

Secular Growth, Momentum, Cyclical Growth, Small Caps

Worst Equity Style Factors:

Low Beta, Value, Dividend Yield, Defensives

Best Fixed Income Sectors:

Convertibles, BDCs, Preferreds, Leveraged Loans

Worst Fixed Income Sectors:

Long Duration Treasurys, Medium Duration Treasurys, Munis, IG Credit

Quad 3: Stagflation

Best Asset Classes:

Gold, Commodities

Worst Asset Classes:

Credit

Best Equity Sectors:

Utilities, Tech, Energy, Industrials

Worst Equity Sectors:

Financials, REITS, Materials, Telecom

Best Equity Style Factors:

Secular Growth, Momentum, Mid Caps, Low Beta

Worst Equity Style Factors:

Small Caps, Dividend Yield, Value, Defensives

Best Fixed Income Sectors:

Munis, EM $ Debt, Long Duration Treasurys, TIPS

Worst Fixed Income Sectors:

BDCs, Preferreds, Convertibles, Leveraged Loans

Quad 4: Deflation

Best Asset Classes:

Fixed Income, Gold, USD

Worst Asset Classes:

Commodities, Equities, Credit, FX

Best Equity Sectors:

Consumer Staples, Utilities, REITS, Health Care

Worst Equity Sectors:

Energy, Tech, Industrials, Financials

Best Equity Style Factors:

Low Beta, Dividend Yield, Quality, Defensives

Worst Equity Style Factors:

High Beta, Momentum, Cyclicals, Secular Growth,

Best Fixed Income Sectors:

Long Duration Treasurys, Medium Duration Treasurys, IG Credit, Munis

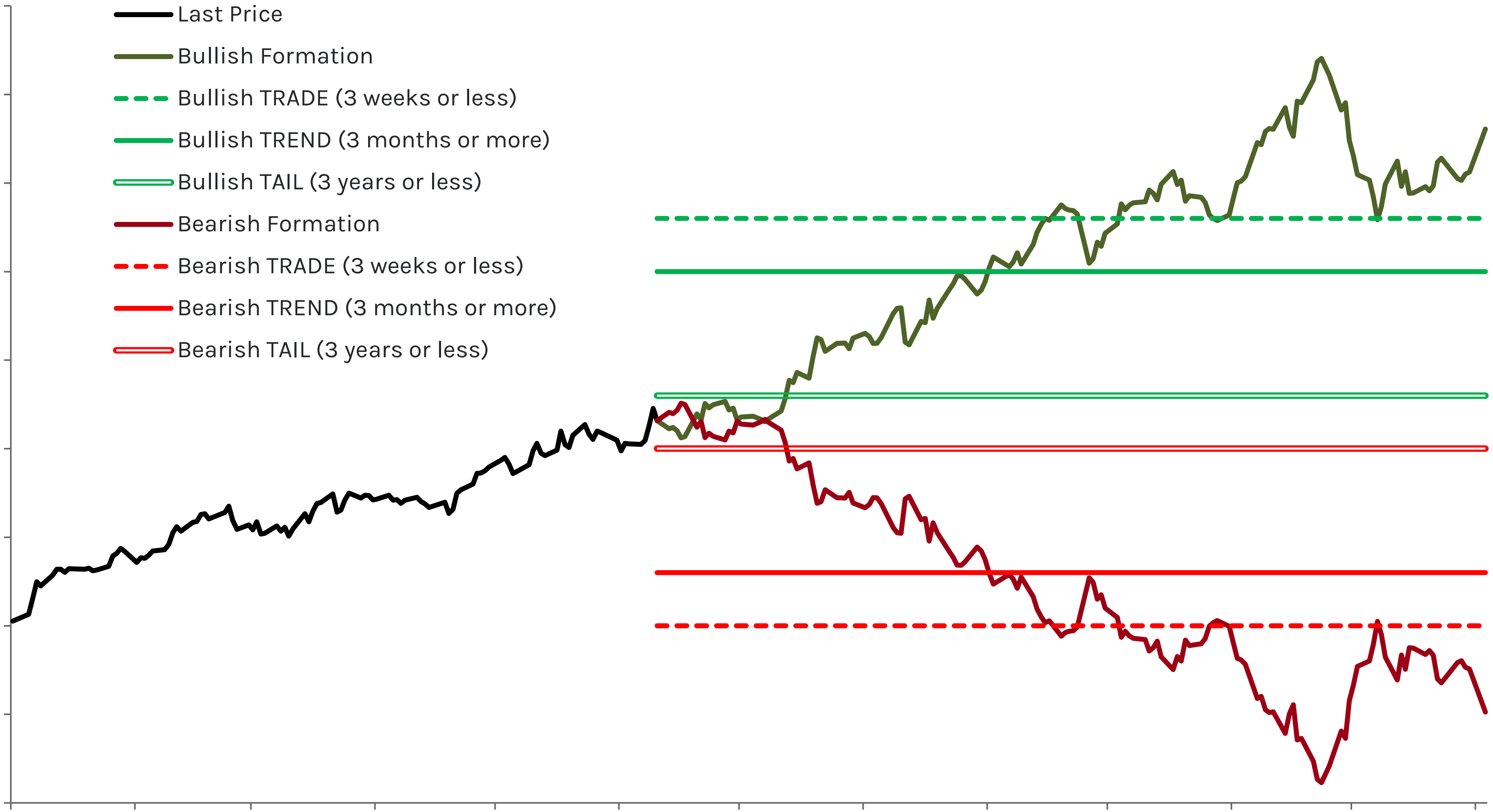
Worst Fixed Income Sectors:

Preferreds, EM Local Currency, BDCs, Leveraged Loans

Source: Hedgeye GIP Model Market History Backtests. Quarterly expected values since 1Q98. Bloomberg data. Total Return indices. ETF exposures in ().

The Quads Provide A Reliable Starting Point For Asset Allocation And Keith's Quantitative Signaling Overlay Confirms Market Direction And Helps Risk Manage Core Exposures

HEDGEYE



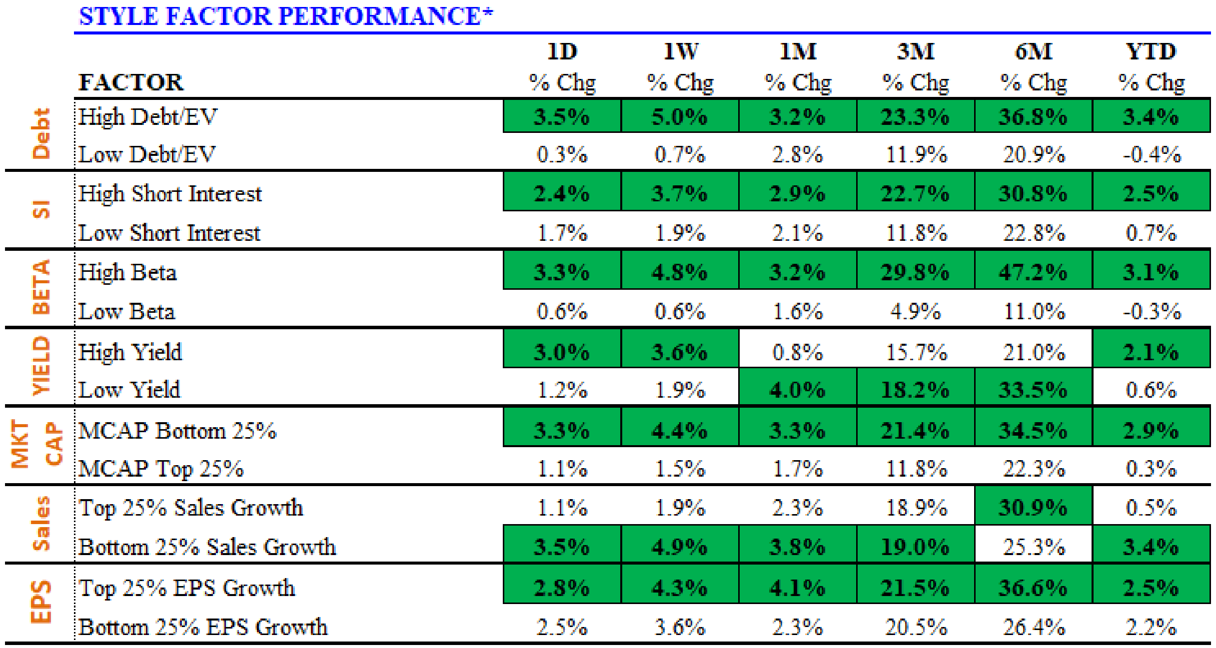
Core to the process of selecting our core exposures is determining whether the ticker screens well from the perspective of Keith's proprietary risk management process, which employs PRICE, VOLUME and VOLATILITY as discrete factors in the calculus of levels that backtest well as critical momentum thresholds.

Assets where last price is greater than all three (in ascending order) are said to be in a "Bullish Formation" and all dips should be bought, insomuch that assets in the converse "Bearish Formation" should be repeatedly shorted on strength.

Data Source: Bloomberg

A | B Testing Process: Quantify Investor Consensus

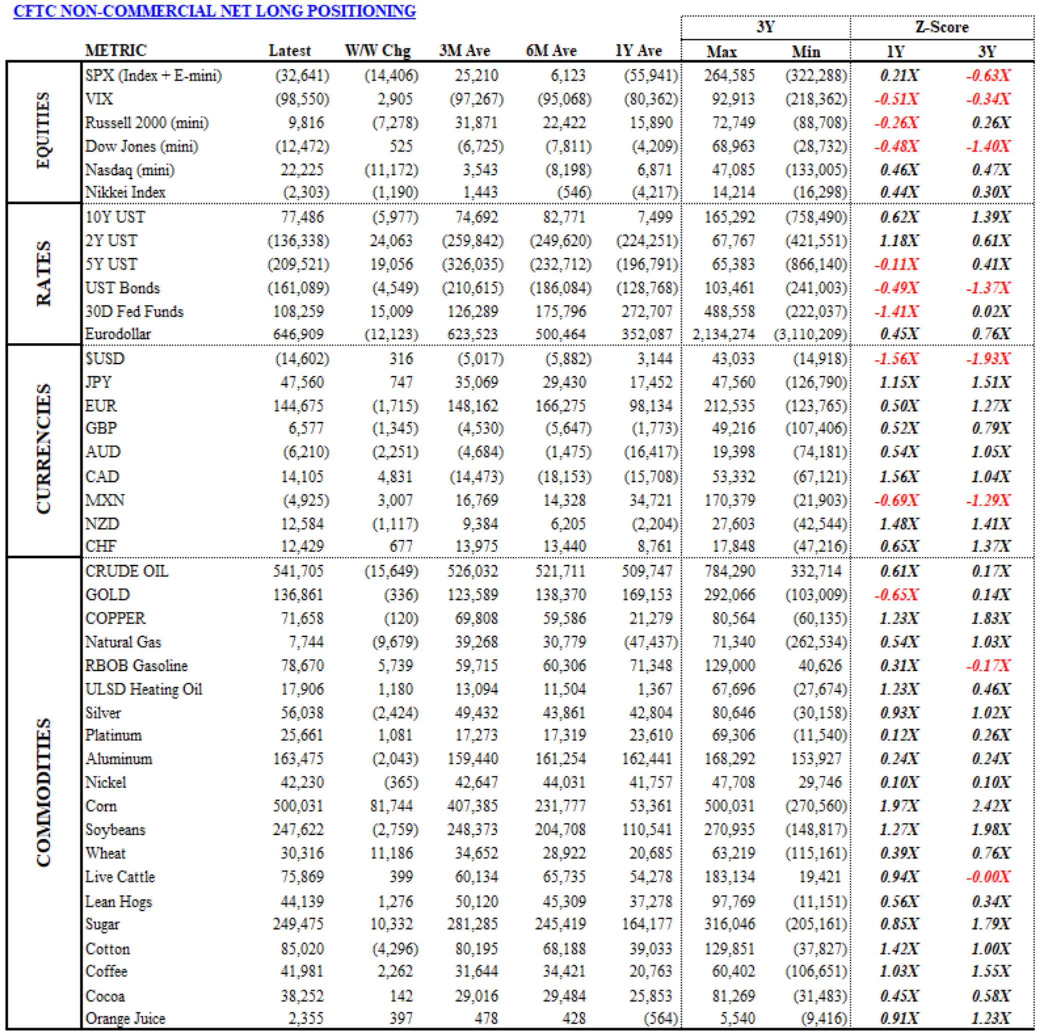
Monitoring Sector and Style factor Performance allows us to quantitatively track the evolution of our Macro Themes. Additionally, MEASURING and MAPPING key data sets within the CFTC COT report removes the qualitative guesswork from the process of tracking and ultimately FADING crowded positioning.



STYLE FACTOR PERFORMANCE*

	FACTOR	1D % Chg	1W % Chg	1M % Chg	3M % Chg	6M % Chg	YTD % Chg
Debt	High Debt/EV	3.5%	5.0%	3.2%	23.3%	36.8%	3.4%
	Low Debt/EV	0.3%	0.7%	2.8%	11.9%	20.9%	-0.4%
SI	High Short Interest	2.4%	3.7%	2.9%	22.7%	30.8%	2.5%
	Low Short Interest	1.7%	1.9%	2.1%	11.8%	22.8%	0.7%
BETA	High Beta	3.3%	4.8%	3.2%	29.8%	47.2%	3.1%
	Low Beta	0.6%	0.6%	1.6%	4.9%	11.0%	-0.3%
YIELD	High Yield	3.0%	3.6%	0.8%	15.7%	21.0%	2.1%
	Low Yield	1.2%	1.9%	4.0%	18.2%	33.5%	0.6%
MKT CAP	MCAP Bottom 25%	3.3%	4.4%	3.3%	21.4%	34.5%	2.9%
	MCAP Top 25%	1.1%	1.5%	1.7%	11.8%	22.3%	0.3%
Sales	Top 25% Sales Growth	1.1%	1.9%	2.3%	18.9%	30.9%	0.5%
	Bottom 25% Sales Growth	3.5%	4.9%	3.8%	19.0%	25.3%	3.4%
EPS	Top 25% EPS Growth	2.8%	4.3%	4.1%	21.5%	36.6%	2.5%
	Bottom 25% EPS Growth	2.5%	3.6%	2.3%	20.5%	26.4%	2.2%

**Mean Performance of Top Quartile vs. Bottom Quartile, S&P500 Companies*



CFTC NON-COMMERCIAL NET LONG POSITIONING

							3Y		Z-Score	
	METRIC	Latest	W/W Chg	3M Ave	6M Ave	1Y Ave	Max	Min	1Y	3Y
EQUITIES	SPX (Index + E-mini)	(32,641)	(14,406)	25,210	6,123	(55,941)	264,585	(322,288)	0.21X	-0.63X
	VIX	(98,550)	2,905	(97,267)	(95,068)	(80,362)	92,913	(218,362)	-0.51X	-0.34X
	Russell 2000 (mini)	9,816	(7,278)	31,871	22,422	15,890	72,749	(88,708)	-0.26X	0.26X
	Dow Jones (mini)	(12,472)	525	(6,725)	(7,811)	(4,209)	68,963	(28,732)	-0.48X	-1.40X
	Nasdaq (mini)	22,225	(11,172)	3,543	(8,198)	6,871	47,085	(133,005)	0.46X	0.47X
	Nikkei Index	(2,303)	(1,190)	1,443	(546)	(4,217)	14,214	(16,298)	0.44X	0.30X
RATES	10Y UST	77,486	(5,977)	74,692	82,771	7,499	165,292	(758,490)	0.62X	1.39X
	2Y UST	(136,338)	24,063	(259,842)	(249,620)	(224,251)	67,767	(421,551)	1.18X	0.61X
	5Y UST	(209,521)	19,056	(326,035)	(232,712)	(196,791)	65,383	(866,140)	-0.11X	0.41X
	UST Bonds	(161,089)	(4,549)	(210,615)	(186,084)	(128,768)	103,461	(241,003)	-0.49X	-1.37X
	30D Fed Funds	108,259	15,009	126,289	175,796	272,707	488,558	(222,037)	-1.41X	0.02X
	Eurodollar	646,909	(12,123)	623,523	500,464	352,087	2,134,274	(3,110,209)	0.45X	0.76X
CURRENCIES	$USD	(14,602)	316	(5,017)	(5,882)	3,144	43,033	(14,918)	-1.56X	-1.93X
	JPY	47,560	747	35,069	29,430	17,452	47,560	(126,790)	1.15X	1.51X
	EUR	144,675	(1,715)	148,162	166,275	98,134	212,535	(123,765)	0.50X	1.27X
	GBP	6,577	(1,345)	(4,530)	(5,647)	(1,773)	49,216	(107,406)	0.52X	0.79X
	AUD	(6,210)	(2,251)	(4,684)	(1,475)	(16,417)	19,398	(74,181)	0.54X	1.05X
	CAD	14,105	4,831	(14,473)	(18,153)	(15,708)	53,332	(67,121)	1.56X	1.04X
	MXN	(4,925)	3,007	16,769	14,328	34,721	170,379	(21,903)	-0.69X	-1.29X
	NZD	12,584	(1,117)	9,384	6,205	(2,204)	27,603	(42,544)	1.48X	1.41X
	CHF	12,429	677	13,975	13,440	8,761	17,848	(47,216)	0.65X	1.37X
COMMODITIES	CRUDE OIL	541,705	(15,649)	526,032	521,711	509,747	784,290	332,714	0.61X	0.17X
	GOLD	136,861	(336)	123,589	138,370	169,153	292,066	(103,009)	-0.65X	0.14X
	COPPER	71,658	(120)	69,808	59,586	21,279	80,564	(60,135)	1.23X	1.83X
	Natural Gas	7,744	(9,679)	39,268	30,779	(47,437)	71,340	(262,534)	0.54X	1.03X
	RBOB Gasoline	78,670	5,739	59,715	60,306	71,348	129,000	40,626	0.31X	-0.17X
	ULSD Heating Oil	17,906	1,180	13,094	11,504	1,367	67,696	(27,674)	1.23X	0.46X
	Silver	56,038	(2,424)	49,432	43,861	42,804	80,646	(30,158)	0.93X	1.02X
	Platinum	25,661	1,081	17,273	17,319	23,610	69,306	(11,540)	0.12X	0.26X
	Aluminum	163,475	(2,043)	159,440	161,254	162,441	168,292	153,927	0.24X	0.24X
	Nickel	42,230	(365)	42,647	44,031	41,757	47,708	29,746	0.10X	0.10X
	Corn	500,031	81,744	407,385	231,777	53,361	500,031	(270,560)	1.97X	2.42X
	Soybeans	247,622	(2,759)	248,373	204,708	110,541	270,935	(148,817)	1.27X	1.98X
	Wheat	30,316	11,186	34,652	28,922	20,685	63,219	(115,161)	0.39X	0.76X
	Live Cattle	75,869	399	60,134	65,735	54,278	183,134	19,421	0.94X	-0.00X
	Lean Hogs	44,139	1,276	50,120	45,309	37,278	97,769	(11,151)	0.56X	0.34X
	Sugar	249,475	10,332	281,285	245,419	164,177	316,046	(205,161)	0.85X	1.79X
	Cotton	85,020	(4,296)	80,195	68,188	39,033	129,851	(37,827)	1.42X	1.00X
	Coffee	41,981	2,262	31,644	34,421	20,763	60,402	(106,651)	1.03X	1.55X
	Cocoa	38,252	142	29,016	29,484	25,853	81,269	(31,483)	0.45X	0.58X
	Orange Juice	2,355	397	478	428	(564)	5,540	(9,416)	0.91X	1.23X

Data Sources: Bloomberg, CFTC. Data though 1/6 close.

A | B Testing Process: Measure & Map The Volatility of Volatility

HEDGEYE

Deliberately studying the VOLATILITY OF VOLATILITY leads to high-probability decision-making opportunities. TIMING matters.

TIME WINDOW SETTING:		TOTAL RETURN	IVOL PREMIUM/DISCOUNT						REALIZED VOLATILITY TRENDS			IMPLIED VOLATILITY TRENDS		
VOLATILITY_30D		PERFORMANCE	IVOL PREM %						RVOL		PERCENTILE	IVOL		PERCENTILE
PUT_IMP_VOL_30D	TICKER	YTD %	IVOL / RVOL	Yesterday	1W Ago	1M Ago	TTM Z-Score	3Yr Z-Score	CURRENT	MM %	10YR	CURRENT	MM %	10YR
US EQUITIES			CURRENT											
Power Shares QQQ Trust ETF	QQQ US EQUITY	48.62%	100%	109%	92%	-16%	2.6	2.9	13.2	-51%	37%	26.3	17%	89%
Technology Sector SPDR ETF	XLK US EQUITY	43.61%	92%	96%	89%	-16%	2.3	2.3	14.3	-47%	47%	27.3	20%	90%
Consumer Discretionary Sector SPDR ETF	XLY US EQUITY	29.63%	147%	123%	101%	1%	2.9	3.8	10.7	-48%	25%	26.4	27%	92%
Communication Services SPDR ETF	XLC US EQUITY	26.91%	91%	90%	79%	-13%	2.2		13.9	-45%	25%	26.5	21%	72%
Materials Sector SPDR ETF	XLB US EQUITY	20.52%	54%	89%	42%	-5%	1.2	1.3	21.0	-26%	74%	32.3	20%	93%
I-Shares Russell 2000 ETF	IWM US EQUITY	20.03%	39%	59%	51%	-4%	0.7	1.1	20.8	-23%	76%	29.0	12%	90%
SPDR S&P 500 ETF Trust	SPY US EQUITY	18.37%	86%	88%	65%	-25%	2.2	2.4	10.6	-47%	39%	19.7	32%	86%
Health Care Sector SPDR ETF	XLV US EQUITY	13.34%	81%	99%	69%	-21%	2.0	2.3	10.8	-48%	31%	19.6	19%	85%
Industrials Sector SPDR ETF	XLI US EQUITY	10.96%	57%	70%	71%	-20%	1.2	1.5	15.8	-42%	59%	24.7	13%	88%
Consumer Staples Sector SPDR ETF	XLP US EQUITY	10.15%	75%	85%	46%	-14%	0.4	0.7	10.1	-38%	40%	17.7	26%	89%
Utilities Sector SPDR ETF	XLU US EQUITY	0.57%	24%	142%	22%	11%	0.7	0.5	17.9	-13%	81%	22.2	-3%	93%
Financials Sector SPDR ETF	XLF US EQUITY	-1.67%	15%	38%	31%	-30%	0.2	0.3	22.0	-36%	77%	25.3	6%	84%
Vanguard Real Estate REIT ETF	VNQ US EQUITY	-4.68%	23%	28%	37%	-17%	1.0	1.2	17.4	-24%	68%	21.3	12%	85%
Energy Sector SPDR ETF	XLE US EQUITY	-32.51%	-4%	-12%	-18%	-40%	0.1	-0.1	42.2	-35%	92%	40.6	6%	94%
INTERNATIONAL EQUITIES														
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	17.03%	22%	17%	12%	3%	0.6	0.7	18.4	-10%	49%	22.4	6%	70%
I-Shares MSCI Japan ETF	EWJ US EQUITY	15.41%	12%	21%	12%	-20%	0.1	0.4	16.1	-22%	59%	18.0	9%	63%
I-Shares China Large-Cap ETF	FXI US EQUITY	8.93%	7%	2%	4%	-15%	0.5	0.4	21.0	-14%	49%	22.5	9%	55%
Euro Stoxx 50 Index	SX5E INDEX	-2.59%	28%	56%	37%	-35%	1.1	1.0	13.8	-47%	31%	17.6	4%	51%
CURRENCIES														
Currency Shares Euro Trust ETF	FXE US EQUITY	7.94%	12%	18%	29%	4%	0.3	0.4	6.1	-11%	22%	6.8	-4%	26%
Currency Shares Japanese Yen ETF	FXY US EQUITY	4.61%	84%	59%	49%	-22%	1.8	2.7	4.0	-50%	1%	7.3	17%	29%
Currency Shares British Pound ETF	FXB US EQUITY	2.87%	-7%	-3%	5%	52%	-0.2	-0.7	9.3	21%	73%	8.6	-26%	53%
PowerShares US Dollar Index ETF	UUP US EQUITY	-6.66%	56%	61%	64%	28%	0.9	0.6	5.2	-14%	21%	8.2	5%	62%
COMMODITIES														
SPDR Gold Shares ETF	GLD US EQUITY	24.81%	23%	22%	14%	-16%	0.4	0.7	16.1	-21%	69%	19.8	16%	85%
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-2.54%	103%	123%	115%	60%	1.0	1.9	9.2	-17%	20%	18.7	6%	84%
United States Natural Gas Fund ETF	UNG US EQUITY	-45.43%	-3%	5%	4%	18%	-0.6	-0.5	59.8	8%	89%	57.9	-11%	89%
United States Oil Fund ETF	USO US EQUITY	-67.79%	27%	34%	51%	-14%	0.5	0.9	25.9	-32%	45%	33.0	0%	62%
FIXED INCOME														
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	18.15%	13%	35%	22%	-17%	0.3	0.6	12.1	-25%	49%	13.7	3%	63%
I-Shares IBOXX IG Corporate Bond ETF	LQD US EQUITY	10.97%	45%	73%	44%	-6%	0.6	1.0	5.2	-29%	60%	7.5	9%	86%
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	10.01%	337%	148%	101%	-17%	3.6	4.3	3.7	-32%	11%	16.1	261%	98%
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	5.42%	79%	109%	92%	-9%	1.3	2.0	4.2	-47%	15%	7.5	5%	56%
I-Shares IBOXX HY Corporate Bond ETF	HYG US EQUITY	4.48%	96%	108%	84%	-5%	1.8	2.2	3.3	-53%	12%	6.5	-4%	45%
MEGA-CAP TECH														
Apple	AAPL US EQUITY	82.31%	42%	39%	39%	-16%	1.3	1.2	29.4	-19%	73%	41.8	36%	95%
Amazon	AMZN US EQUITY	76.26%	82%	92%	82%	-22%	2.1	1.8	22.0	-44%	33%	40.0	31%	83%
Microsoft	MSFT US EQUITY	42.53%	69%	83%	77%	-22%	2.0	2.0	18.7	-42%	37%	31.6	26%	91%
Facebook	FB US EQUITY	33.09%	64%	69%	66%	-29%	2.1	1.9	25.8	-46%	40%	42.3	24%	80%
Alphabet	GOOGL US EQUITY	30.85%	77%	83%	52%	-22%	2.1	2.1	19.0	-45%	37%	33.7	26%	90%

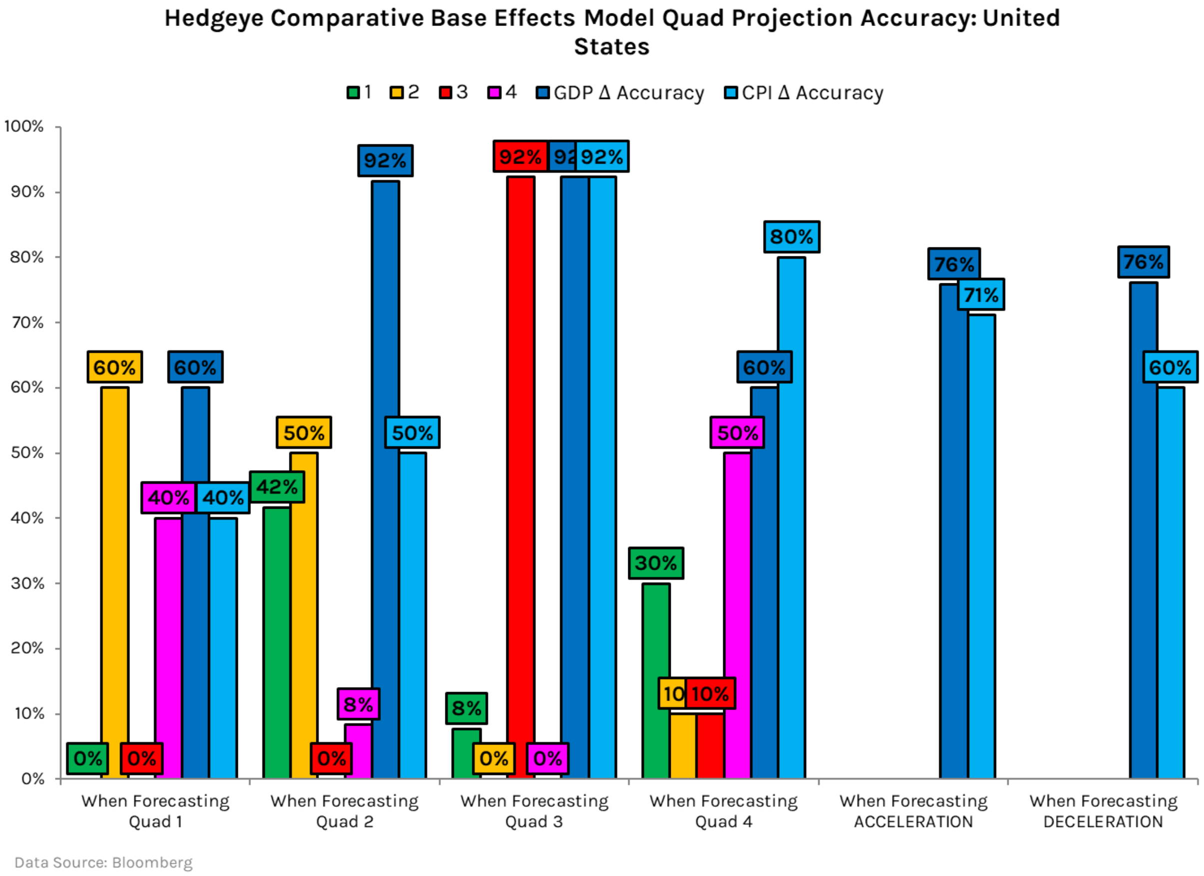
Data Source: CBOE, CME, Bloomberg

Data Source: Bloomberg. Data though 1/6 close.

Measuring And Mapping The Quads With Precision Ex Ante Matters To Driving Ex Post Returns

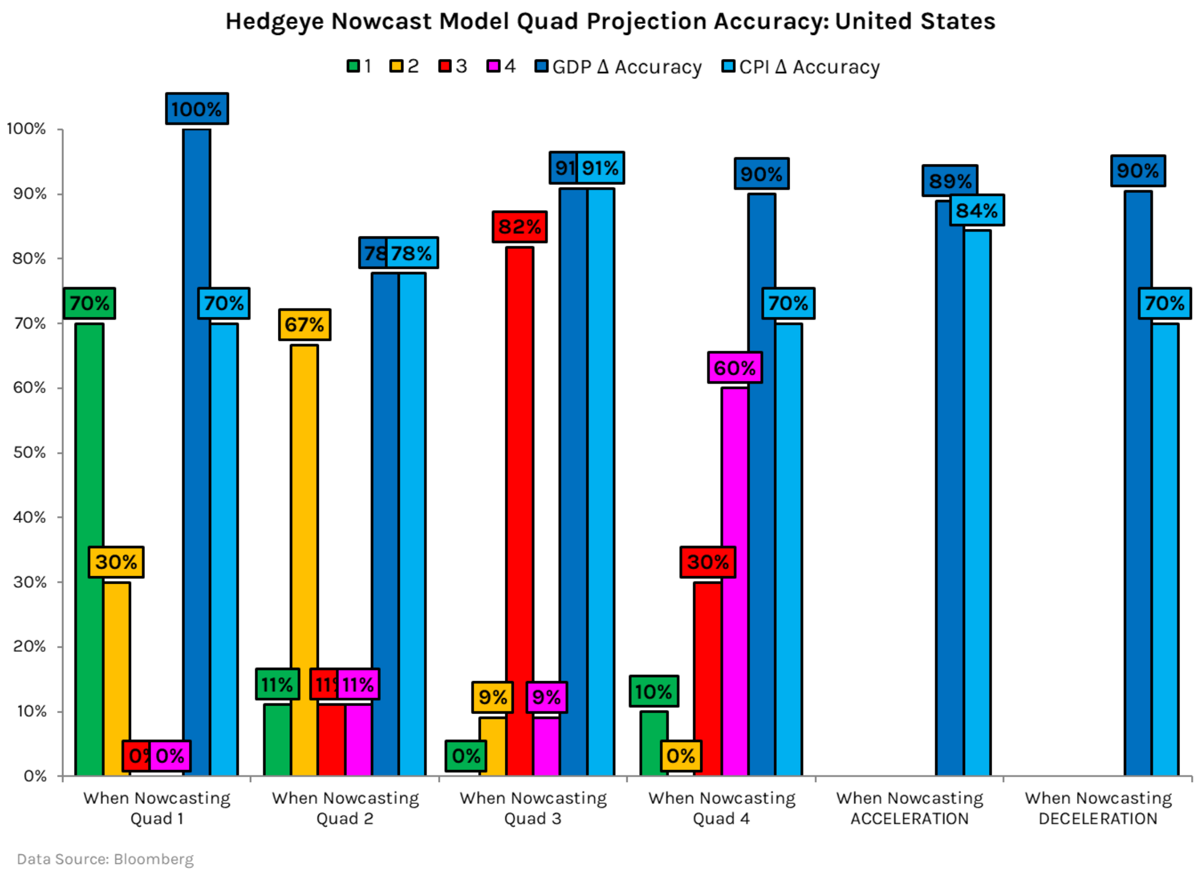
HEDGEYE

US Comparative Base Effects Model Backtest



Data Source: Bloomberg

US Nowcast Model Backtest

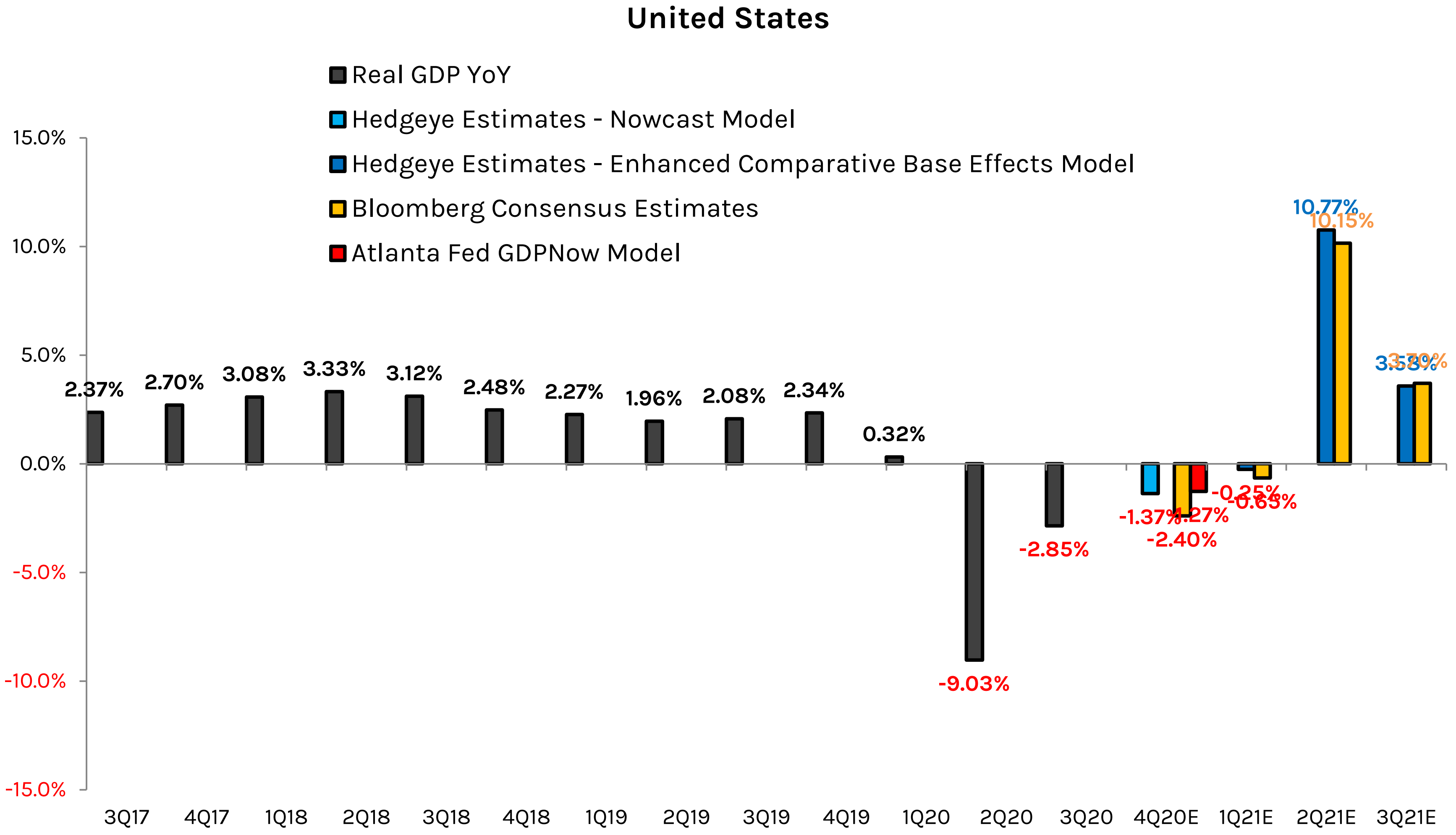


Data Source: Bloomberg

Data Source: Bloomberg. Backtests performed on a trailing 10yr rolling out-of-sample basis.

US Real GDP YoY Projections

HEDGEYE



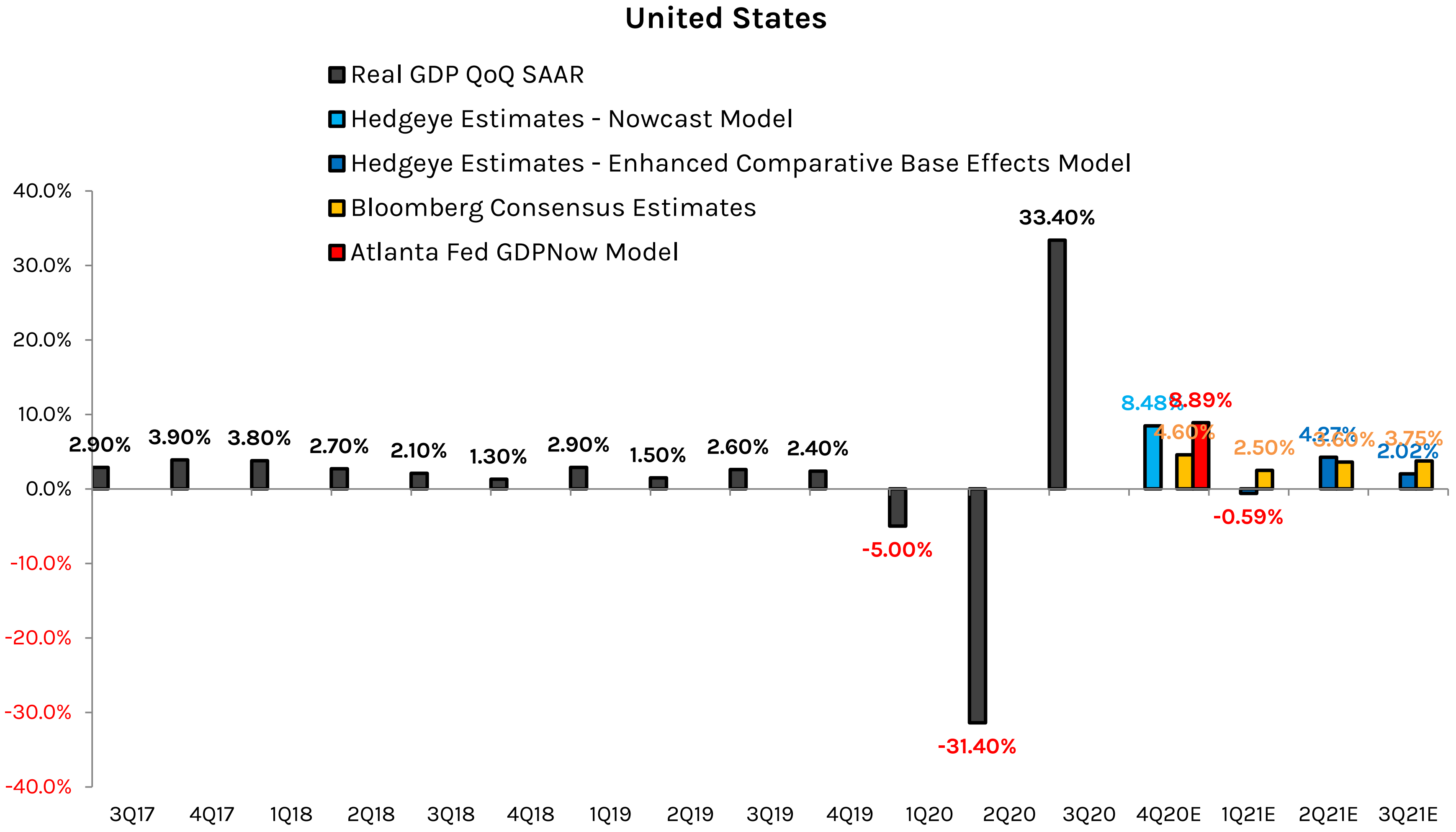
We use two distinct models to forecast the YoY growth rate of Real GDP and the combination of the two allows us to develop both a highly accurate real-time assessment of near-term economic momentum, as well as a high-probability scenario for where growth is likely to trend over the NTM.

Intra-quarter, we employ a stochastic nowcasting framework that anchors on nonlinear interpolation to relay rate of change signals from the individual features of the dynamic factor model to the base rate. In out-quarters where high-frequency data has yet to be reported, we employ a Bayesian Inference process that adjusts each of the preceding forecasted base rates inversely and proportionally to changes in the base effects.

All told, our US GDP nowcast model has an average absolute forecast error of 25bps and an 90% success rate in terms of accurately projecting the rate of change of GROWTH.

Data Source: Bloomberg

US Real GDP QoQ SAAR Projections



One differentiating factor of our forecasting process is that we aim to solve for where the economy is trending on a ***Full Investing Cycle*** basis, rather than trying to identify super short-term economic momentum.

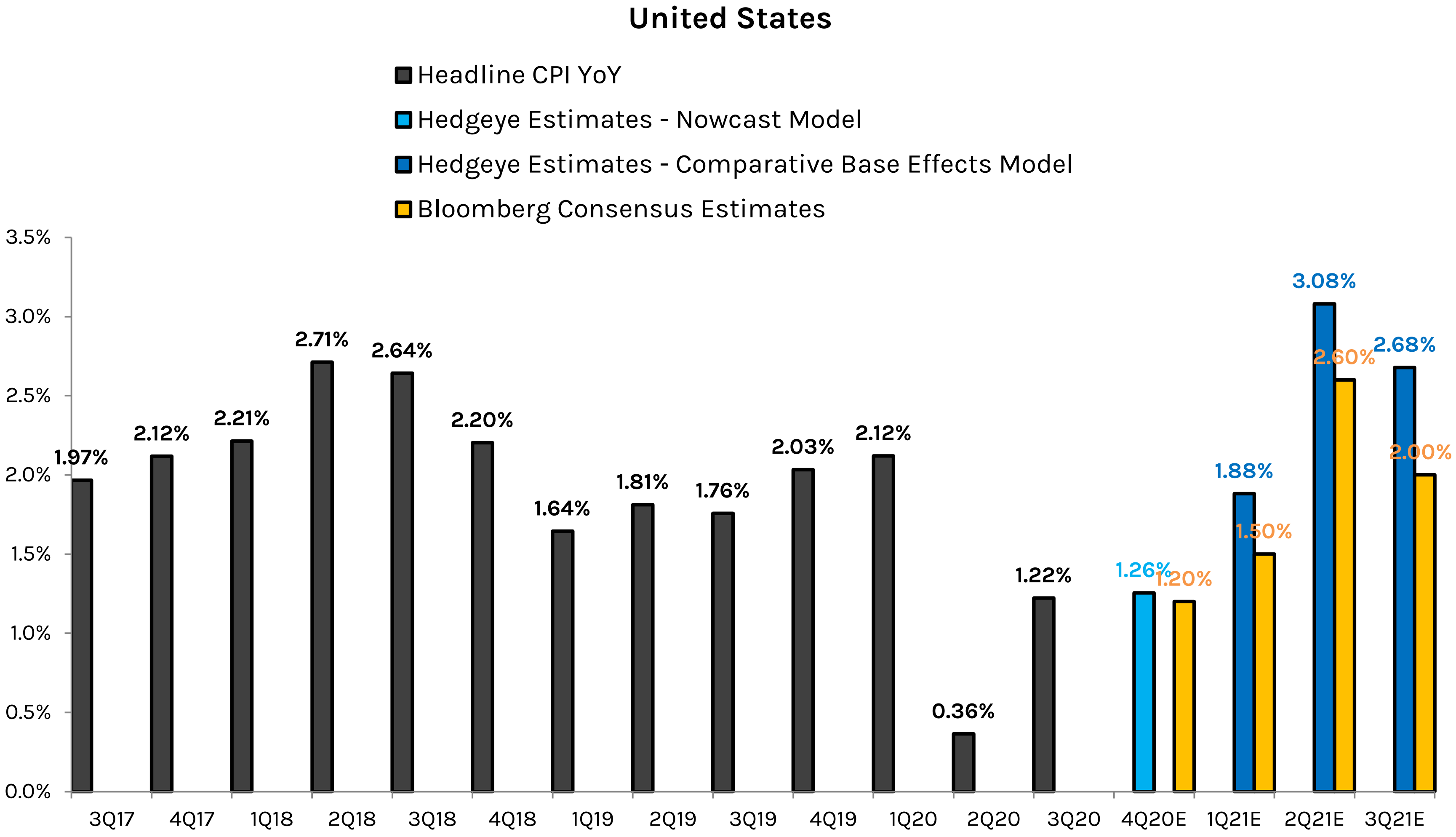
Our rigorous study of financial market history suggests the latter to be little more than noise in the context of making accurate intermediate-to-long-term investment decisions.

As such, we are comfortable departing from the [perceived] "best" practices of economist consensus by interpolating our QoQ SAAR forecasts from our forecasted YoY growth rates. Macroeconomic Theory ≠ Macro Risk Management.

Data Source: Bloomberg

US Headline CPI YoY Projections

HEDGEYE



We use two distinct models to forecast the YoY growth rate of Headline CPI and the combination of the two allows us to develop both a highly accurate real-time assessment of near-term inflation momentum, as well as a high-probability scenario for where inflation is likely to trend over the NTM.

Intra-quarter, we employ a stochastic nowcasting framework that anchors on nonlinear interpolation to relay rate of change signals from the individual features of the dynamic factor model to the base rate. In out-quarters where high-frequency data has yet to be reported, we employ a Bayesian Inference process that adjusts each of the preceding forecasted base rates inversely and proportionally to changes in the base effects.

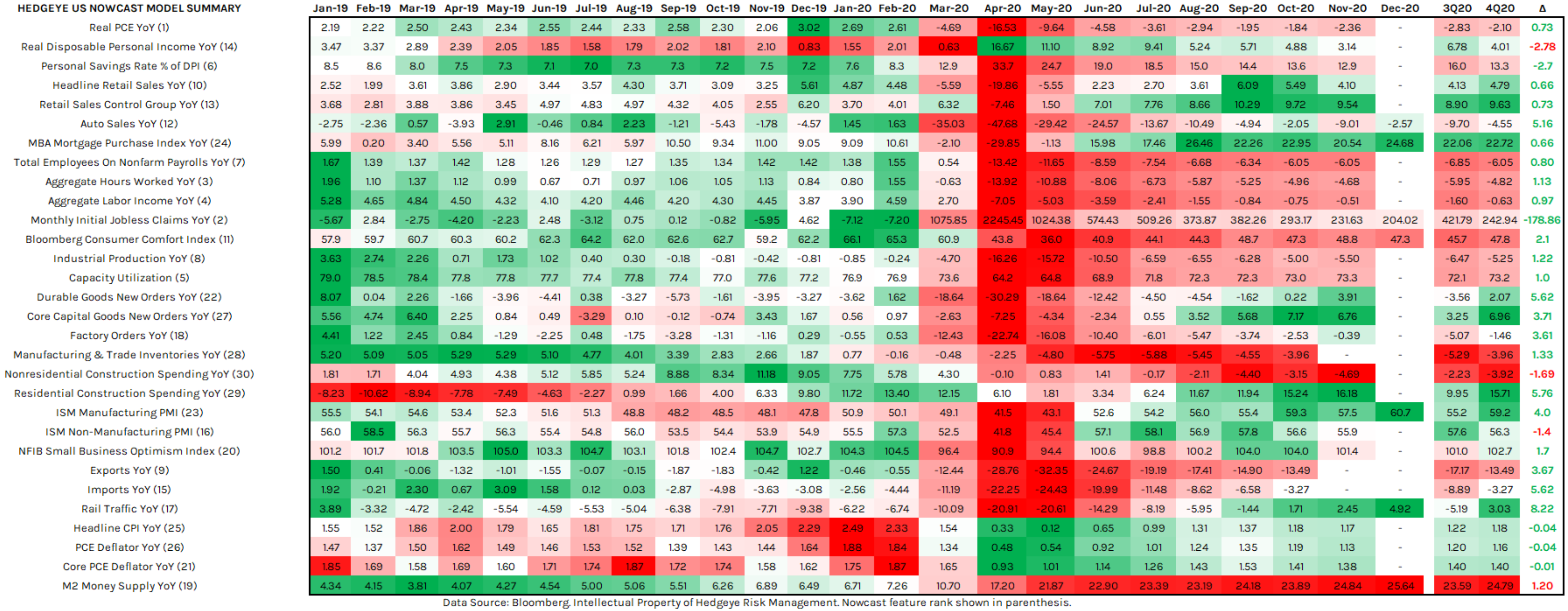
All told, our US CPI nowcast model has an average absolute forecast error of 22bps and an 78% success rate in terms of accurately projecting the rate of change of INFLATION.

Data Source: Bloomberg

US Real GDP Nowcast Model

HEDGEYE

Each of the following 30 features backtests as statistically significant with respect to predicting the rate of change of Real GDP growth and each feature's contribution to the overall signal is dynamically re-trained each quarter according to the relative strength of its first difference regression with the dependent variable.



HEDGEYE US NOWCAST MODEL SUMMARY	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	3Q20	4Q20	Δ
Real PCE YoY (1)	2.19	2.22	2.50	2.43	2.34	2.55	2.44	2.33	2.58	2.30	2.06	3.02	2.69	2.61	-4.69	-16.53	-9.64	-4.58	-3.61	-2.94	-1.95	-1.84	-2.36	-	-2.83	-2.10	0.73
Real Disposable Personal Income YoY (14)	3.47	3.37	2.89	2.39	2.05	1.85	1.58	1.79	2.02	1.81	2.10	0.83	1.55	2.01	0.63	16.67	11.10	8.92	9.41	5.24	5.71	4.88	3.14	-	6.78	4.01	-2.78
Personal Savings Rate % of DPI (6)	8.5	8.6	8.0	7.5	7.3	7.1	7.0	7.3	7.3	7.2	7.5	7.2	7.6	8.3	12.9	33.7	24.7	19.0	18.5	15.0	14.4	13.6	12.9	-	16.0	13.3	-2.7
Headline Retail Sales YoY (10)	2.52	1.99	3.61	3.86	2.90	3.44	3.57	4.30	3.71	3.09	3.25	5.61	4.87	4.48	-5.59	-19.86	-5.55	2.23	2.70	3.61	6.09	5.49	4.10	-	4.13	4.79	0.66
Retail Sales Control Group YoY (13)	3.68	2.81	3.88	3.86	3.45	4.97	4.83	4.97	4.32	4.05	2.55	6.20	3.70	4.01	6.32	-7.46	1.50	7.01	7.76	8.66	10.29	9.72	9.54	-	8.90	9.63	0.73
Auto Sales YoY (12)	-2.75	-2.36	0.57	-3.93	2.91	-0.46	0.84	2.23	-1.21	-5.43	-1.78	-4.57	1.45	1.63	-35.03	-47.68	-29.42	-24.57	-13.67	-10.49	-4.94	-2.05	-9.01	-2.57	-9.70	-4.55	5.16
MBA Mortgage Purchase Index YoY (24)	5.99	0.20	3.40	5.56	5.11	8.16	6.21	5.97	10.50	9.34	11.00	9.05	9.09	10.61	-2.10	-29.85	-1.13	15.98	17.46	26.46	22.26	22.95	20.54	24.68	22.06	22.72	0.66
Total Employees On Nonfarm Payrolls YoY (7)	1.67	1.39	1.37	1.42	1.28	1.26	1.29	1.27	1.35	1.34	1.42	1.42	1.38	1.55	0.54	-13.42	-11.65	-8.59	-7.54	-6.68	-6.34	-6.05	-6.05	-	-6.85	-6.05	0.80
Aggregate Hours Worked YoY (3)	1.96	1.10	1.37	1.12	0.99	0.67	0.71	0.97	1.06	1.05	1.13	0.84	0.80	1.55	-0.63	-13.92	-10.88	-8.06	-6.73	-5.87	-5.25	-4.96	-4.68	-	-5.95	-4.82	1.13
Aggregate Labor Income YoY (4)	5.28	4.65	4.84	4.50	4.32	4.10	4.20	4.46	4.20	4.30	4.45	3.87	3.90	4.59	2.70	-7.05	-5.03	-3.59	-2.41	-1.55	-0.84	-0.75	-0.51	-	-1.60	-0.63	0.97
Monthly Initial Jobless Claims YoY (2)	-5.67	2.84	-2.75	-4.20	-2.23	2.48	-3.12	0.75	0.12	-0.82	-5.95	4.62	-7.12	-7.20	1075.85	2245.45	1024.38	574.43	509.26	373.87	382.26	293.17	231.63	204.02	421.79	242.94	-178.86
Bloomberg Consumer Comfort Index (11)	57.9	59.7	60.7	60.3	60.2	62.3	64.2	62.0	62.6	62.7	59.2	62.2	66.1	65.3	60.9	43.8	36.0	40.9	44.1	44.3	48.7	47.3	48.8	47.3	45.7	47.8	2.1
Industrial Production YoY (8)	3.63	2.74	2.26	0.71	1.73	1.02	0.40	0.30	-0.18	-0.81	-0.42	-0.81	-0.85	-0.24	-4.70	-16.26	-15.72	-10.50	-6.59	-6.55	-6.28	-5.00	-5.50	-	-6.47	-5.25	1.22
Capacity Utilization (5)	79.0	78.5	78.4	77.8	77.8	77.7	77.4	77.8	77.4	77.0	77.6	77.2	76.9	76.9	73.6	64.2	64.8	68.9	71.8	72.3	72.3	73.0	73.3	-	72.1	73.2	1.0
Durable Goods New Orders YoY (22)	8.07	0.04	2.26	-1.66	-3.96	-4.41	0.38	-3.27	-5.73	-1.61	-3.95	-3.27	-3.62	1.62	-18.64	-30.29	-18.64	-12.42	-4.50	-4.54	-1.62	0.22	3.91	-	-3.56	2.07	5.62
Core Capital Goods New Orders YoY (27)	5.56	4.74	6.40	2.25	0.84	0.49	-3.29	0.10	-0.12	-0.74	3.43	1.67	0.56	0.97	-2.63	-7.25	-4.34	-2.34	0.55	3.52	5.68	7.17	6.76	-	3.25	6.96	3.71
Factory Orders YoY (18)	4.41	1.22	2.45	0.84	-1.29	-2.25	0.48	-1.75	-3.28	-1.31	-1.16	0.29	-0.55	0.53	-12.43	-22.74	-16.08	-10.40	-6.01	-5.47	-3.74	-2.53	-0.39	-	-5.07	-1.46	3.61
Manufacturing & Trade Inventories YoY (28)	5.20	5.09	5.05	5.29	5.29	5.10	4.77	4.01	3.39	2.83	2.66	1.87	0.77	-0.16	-0.48	-2.25	-4.80	-5.75	-5.88	-5.45	-4.55	-3.96	-	-	-5.29	-3.96	1.33
Nonresidential Construction Spending YoY (30)	1.81	1.71	4.04	4.93	4.38	5.12	5.85	5.24	8.88	8.34	11.18	9.05	7.75	5.78	4.30	-0.10	0.83	1.41	-0.17	-2.11	-4.40	-3.15	-4.69	-	-2.23	-3.92	-1.69
Residential Construction Spending YoY (29)	-8.23	-10.62	-8.94	-7.78	-7.49	-4.63	-2.27	0.99	1.66	4.00	6.33	9.80	11.72	13.40	12.15	6.10	1.81	3.34	6.24	11.67	11.94	15.24	16.18	-	9.95	15.71	5.76
ISM Manufacturing PMI (23)	55.5	54.1	54.6	53.4	52.3	51.6	51.3	48.8	48.2	48.5	48.1	47.8	50.9	50.1	49.1	41.5	43.1	52.6	54.2	56.0	55.4	59.3	57.5	60.7	55.2	59.2	4.0
ISM Non-Manufacturing PMI (16)	56.0	58.5	56.3	55.7	56.3	55.4	54.8	56.0	53.5	54.4	53.9	54.9	55.5	57.3	52.5	41.8	45.4	57.1	58.1	56.9	57.8	56.6	55.9	-	57.6	56.3	-1.4
NFIB Small Business Optimism Index (20)	101.2	101.7	101.8	103.5	105.0	103.3	104.7	103.1	101.8	102.4	104.7	102.7	104.3	104.5	96.4	90.9	94.4	100.6	98.8	100.2	104.0	104.0	101.4	-	101.0	102.7	1.7
Exports YoY (9)	1.50	0.41	-0.06	-1.32	-1.01	-1.55	-0.07	-0.15	-1.87	-1.83	-0.42	1.22	-0.46	-0.55	-12.44	-28.76	-32.35	-24.67	-19.19	-17.41	-14.90	-13.49	-	-	-17.17	-13.49	3.67
Imports YoY (15)	1.92	-0.21	2.30	0.67	3.09	1.58	0.12	0.03	-2.87	-4.98	-3.63	-3.08	-2.56	-4.44	-11.19	-22.25	-24.43	-19.99	-11.48	-8.62	-6.58	-3.27	-	-	-8.89	-3.27	5.62
Rail Traffic YoY (17)	3.89	-3.32	-4.72	-2.42	-5.54	-4.59	-5.53	-5.04	-6.38	-7.91	-7.71	-9.38	-6.22	-6.74	-10.09	-20.91	-20.61	-14.29	-8.19	-5.95	-1.44	1.71	2.45	4.92	-5.19	3.03	8.22
Headline CPI YoY (25)	1.55	1.52	1.86	2.00	1.79	1.65	1.81	1.75	1.71	1.76	2.05	2.29	2.49	2.33	1.54	0.33	0.12	0.65	0.99	1.31	1.37	1.18	1.17	-	1.22	1.18	-0.04
PCE Deflator YoY (26)	1.47	1.37	1.50	1.62	1.49	1.46	1.53	1.52	1.39	1.43	1.44	1.64	1.88	1.84	1.34	0.48	0.54	0.92	1.01	1.24	1.35	1.19	1.13	-	1.20	1.16	-0.04
Core PCE Deflator YoY (21)	1.85	1.69	1.58	1.69	1.60	1.71	1.74	1.87	1.72	1.74	1.58	1.62	1.75	1.87	1.65	0.93	1.01	1.14	1.26	1.43	1.53	1.41	1.38	-	1.40	1.40	-0.01
M2 Money Supply YoY (19)	4.34	4.15	3.81	4.07	4.27	4.54	5.00	5.06	5.51	6.26	6.89	6.49	6.71	7.26	10.70	17.20	21.87	22.90	23.39	23.19	24.18	23.89	24.84	25.64	23.59	24.79	1.20

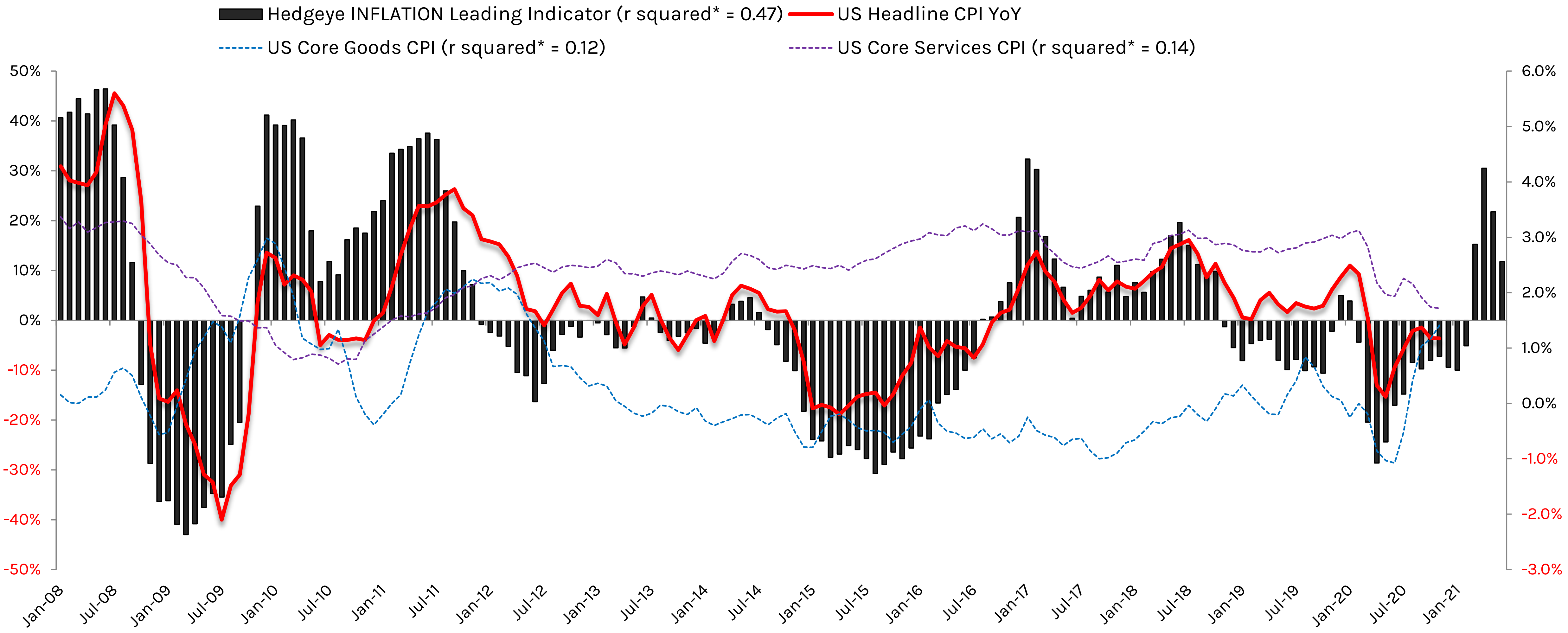
Data Source: Bloomberg. Intellectual Property of Hedgeye Risk Management. Nowcast feature rank shown in parenthesis.

Data Sources: Bloomberg, BEA, Census Bureau, MBA, BLS, Department of Labor, Federal Reserve, Institute for Supply Management, NFIB, AAR

US Headline CPI Nowcast Model

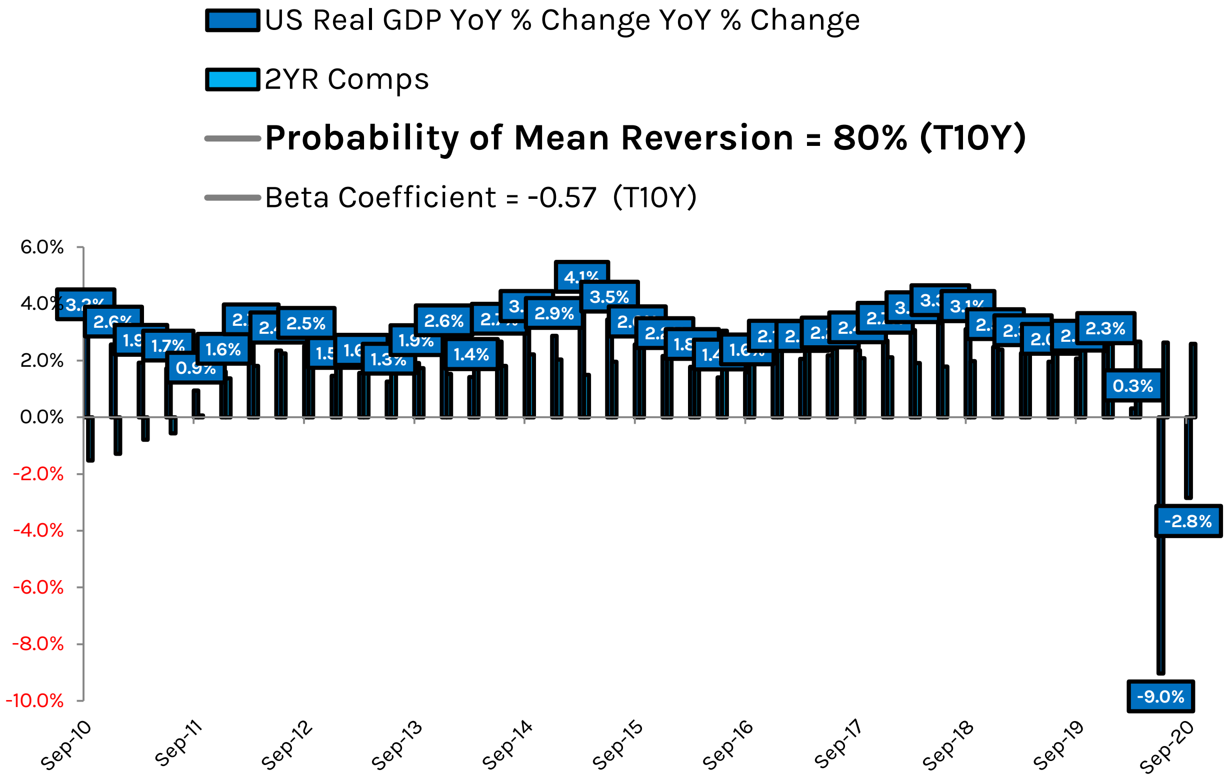
HEDGEYE

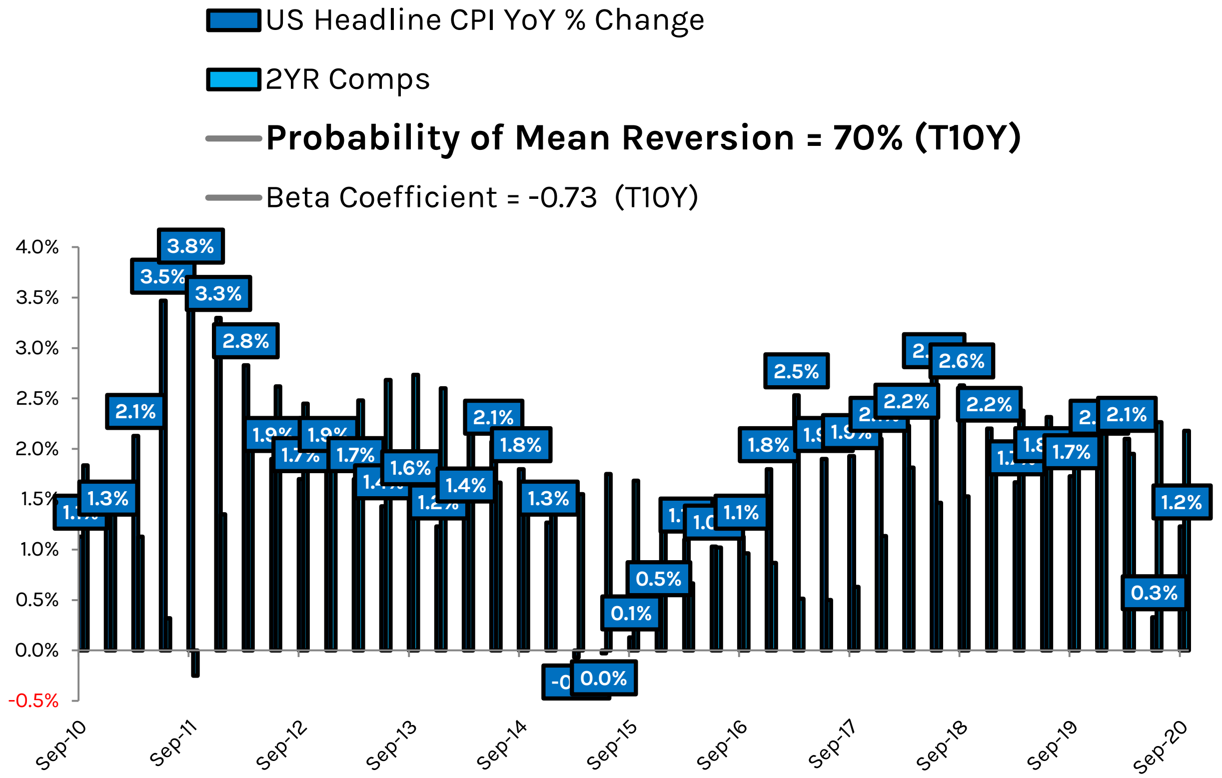
Structural shifts in the economy have increasingly mitigated the risk of a wage/price spiral, leading to an increased sensitivity of Headline CPI to annual fluctuations in tradeable goods prices – a dynamic our model has astutely capitalized on.



Data Source: Bloomberg. Asterisk denotes first difference regressions with the YoY % change of Headline CPI since the start of 2008.

Base Effects Matter Because GDP and CPI Are More Or Less Stationary Processes When Analyzed On A YoY Rate Of Change Basis





Using the US economy as an example, **the sign of the first difference of 2yr base effects explains INFLECTIONS in GROWTH and INFLATION 80% and 70% of the time, respectively**. Moreover, **easing or steepening base effects perpetuate MOMENTUM in GROWTH and INFLATION 80% and 76% of the time, respectively**. These figures are near the modal outcomes of the GROWTH and INFLATION backtests across the near-50 economies we maintain detailed GIP Models for – which means base effects matter a lot to projecting the probable path forward for any economy.

Data Source: Bloomberg

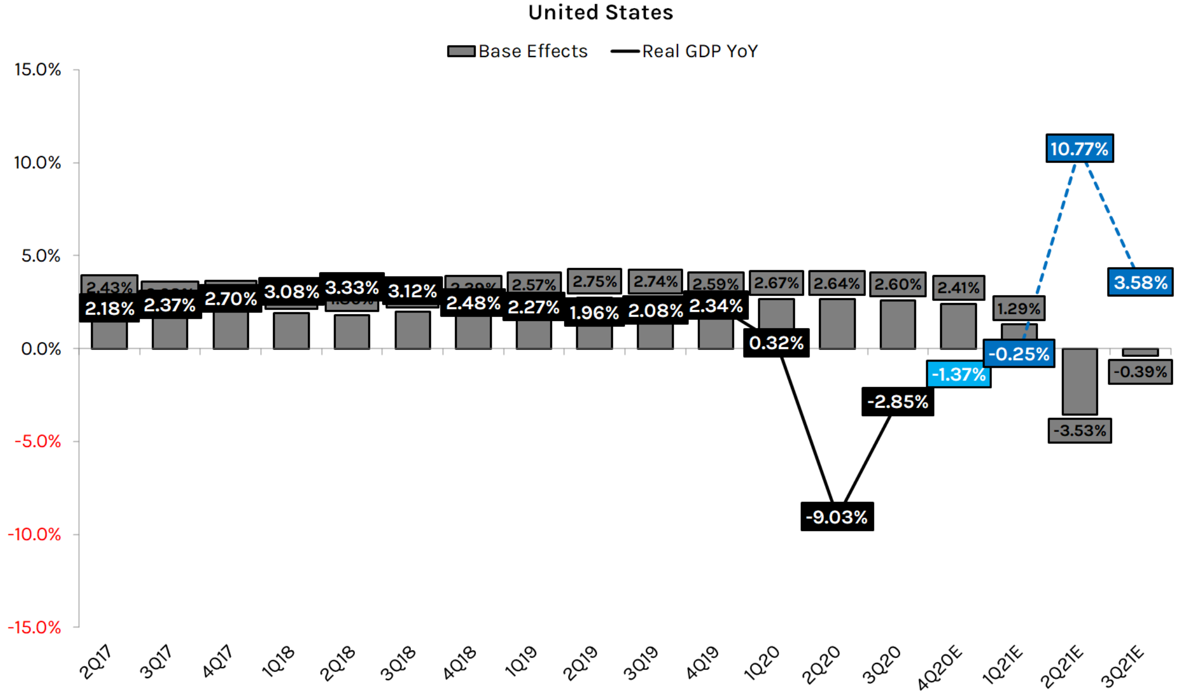
Ipso Facto, Our Bayesian Inference #Process Is Built Upon Stochastic Principles

HEDGEYE

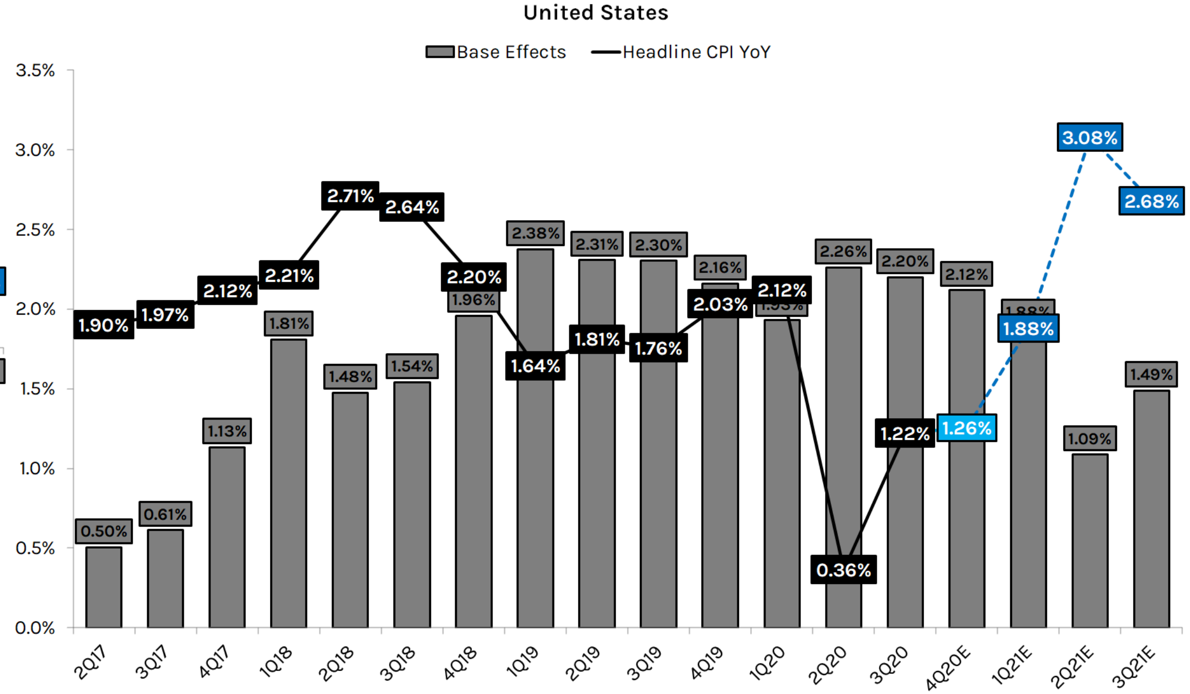
United States

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	2.43%	2.08%	2.12%	1.92%	1.80%	1.98%	2.39%	2.57%	2.75%	2.74%	2.59%	2.67%	2.64%	2.60%	2.41%	1.29%	-3.53%	-0.39%
Real GDP YoY	2.18%	2.37%	2.70%	3.08%	3.33%	3.12%	2.48%	2.27%	1.96%	2.08%	2.34%	0.32%	-9.03%	-2.85%	-1.37%	-0.25%	10.77%	3.58%
GIP Model Quad	1	2	2	2	2	4	4	4	3	1	2	3	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															80%	80%	80%	80%
Conditional Probability Of Forecasted Delta															98%	98%	98%	98%
Conditional Probability Of Quad 1															43.1%	2.4%	2.4%	2.4%
Conditional Probability Of Quad 2															54.4%	95.1%	95.1%	0.1%
Conditional Probability Of Quad 3															1.4%	2.4%	2.4%	2.4%
Conditional Probability Of Quad 4															1.1%	0.1%	0.1%	95.1%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.50%	0.61%	1.13%	1.81%	1.48%	1.54%	1.96%	2.38%	2.31%	2.30%	2.16%	1.93%	2.26%	2.20%	2.12%	1.88%	1.09%	1.49%
Headline CPI YoY	1.90%	1.97%	2.12%	2.21%	2.71%	2.64%	2.20%	1.64%	1.81%	1.76%	2.03%	2.12%	0.36%	1.22%	1.26%	1.88%	3.08%	2.68%
GIP Model Quad	1	2	2	2	2	4	4	4	3	1	2	3	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															70%	70%	70%	70%
Conditional Probability Of Forecasted Delta															56%	98%	98%	98%
Conditional Probability Of Quad 1															43.1%	2.4%	2.4%	2.4%
Conditional Probability Of Quad 2															54.4%	95.1%	95.1%	0.1%
Conditional Probability Of Quad 3															1.4%	2.4%	2.4%	2.4%
Conditional Probability Of Quad 4															1.1%	0.1%	0.1%	95.1%



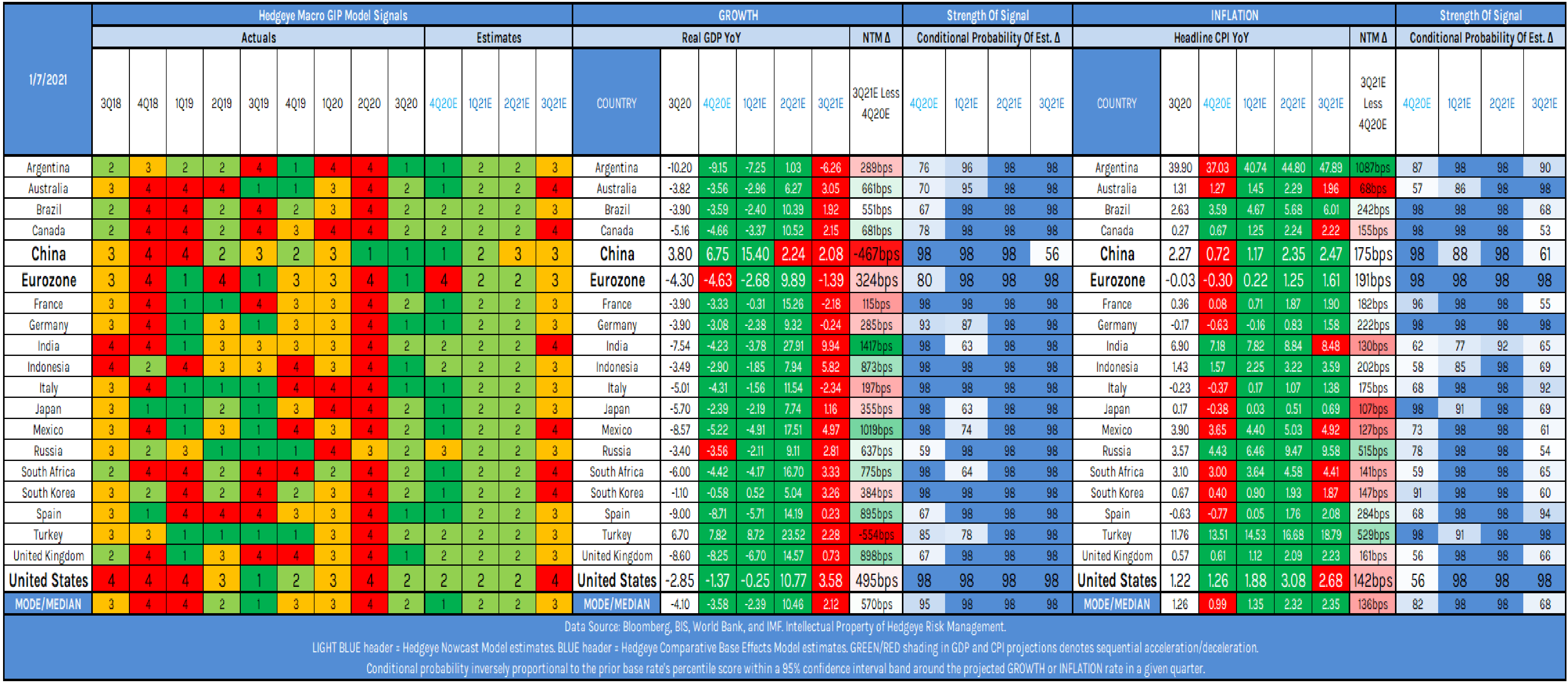
Data Source: Bloomberg. Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.



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

The Quads Are Global

G20 GIP Model Summary



1/7/2021	Hedgeye Macro GIP Model Signals												
	Actuals									Estimates			
	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	2	3	2	2	4	1	4	4	1	1	2	2	3
Australia	3	4	4	4	1	1	3	4	2	1	2	2	4
Brazil	2	4	4	2	4	2	3	4	2	2	2	2	3
Canada	2	4	4	2	4	3	4	4	2	2	2	2	4
China	3	4	4	2	3	2	3	1	1	1	2	3	3
Eurozone	3	4	1	4	1	3	3	4	1	4	2	2	3
France	3	4	1	1	4	3	3	4	2	1	2	2	3
Germany	3	4	1	3	1	3	3	4	1	1	2	2	3
India	4	4	1	3	3	3	3	4	2	2	2	2	4
Indonesia	4	2	4	3	3	4	3	4	1	2	2	2	3
Italy	3	4	1	1	1	4	4	4	1	1	2	2	3
Japan	3	1	1	2	1	3	4	4	2	1	2	2	3
Mexico	3	4	1	3	1	4	3	4	2	1	2	2	4
Russia	3	2	3	1	1	1	4	3	2	3	2	2	3
South Africa	2	4	4	2	4	4	2	4	2	1	2	2	4
South Korea	3	2	4	2	4	2	3	4	2	1	2	2	4
Spain	3	1	4	4	4	3	3	4	1	1	2	2	3
Turkey	3	3	1	1	1	1	3	4	2	2	2	2	3
United Kingdom	2	4	1	3	4	4	3	4	1	2	2	2	3
United States	4	4	4	3	1	2	3	4	2	2	2	2	4
MODE/MEDIAN	3	4	4	2	1	3	3	4	2	1	2	2	3

GROWTH							Strength Of Signal			
Real GDP YoY						NTM Δ	Conditional Probability Of Est. Δ			
COUNTRY	3Q20	4Q20E	1Q21E	2Q21E	3Q21E	3Q21E Less 4Q20E	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	-10.20	-9.15	-7.25	1.03	-6.26	289bps	76	96	98	98
Australia	-3.82	-3.56	-2.96	6.27	3.05	661bps	70	95	98	98
Brazil	-3.90	-3.59	-2.40	10.39	1.92	551bps	67	98	98	98
Canada	-5.16	-4.66	-3.37	10.52	2.15	681bps	78	98	98	98
China	3.80	6.75	15.40	2.24	2.08	-467bps	98	98	98	56
Eurozone	-4.30	-4.63	-2.68	9.89	-1.39	324bps	80	98	98	98
France	-3.90	-3.33	-0.31	15.26	-2.18	115bps	98	98	98	98
Germany	-3.90	-3.08	-2.38	9.32	-0.24	285bps	93	87	98	98
India	-7.54	-4.23	-3.78	27.91	9.94	1417bps	98	63	98	98
Indonesia	-3.49	-2.90	-1.85	7.94	5.82	873bps	98	98	98	98
Italy	-5.01	-4.31	-1.56	11.54	-2.34	197bps	98	98	98	98
Japan	-5.70	-2.39	-2.19	7.74	1.16	355bps	98	63	98	98
Mexico	-8.57	-5.22	-4.91	17.51	4.97	1019bps	98	74	98	98
Russia	-3.40	-3.56	-2.11	9.11	2.81	637bps	59	98	98	98
South Africa	-6.00	-4.42	-4.17	16.70	3.33	775bps	98	64	98	98
South Korea	-1.10	-0.58	0.52	5.04	3.26	384bps	98	98	98	98
Spain	-9.00	-8.71	-5.71	14.19	0.23	895bps	67	98	98	98
Turkey	6.70	7.82	8.72	23.52	2.28	-554bps	85	78	98	98
United Kingdom	-8.60	-8.25	-6.70	14.57	0.73	898bps	67	98	98	98
United States	-2.85	-1.37	-0.25	10.77	3.58	495bps	98	98	98	98
MODE/MEDIAN	-4.10	-3.58	-2.39	10.46	2.12	570bps	95	98	98	98

INFLATION							Strength Of Signal			
Headline CPI YoY						NTM Δ	Conditional Probability Of Est. Δ			
COUNTRY	3Q20	4Q20E	1Q21E	2Q21E	3Q21E	3Q21E Less 4Q20E	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	39.90	37.03	40.74	44.80	47.89	1087bps	87	98	98	90
Australia	1.31	1.27	1.45	2.29	1.96	68bps	57	86	98	98
Brazil	2.63	3.59	4.67	5.68	6.01	242bps	98	98	98	68
Canada	0.27	0.67	1.25	2.24	2.22	155bps	98	98	98	53
China	2.27	0.72	1.17	2.35	2.47	175bps	98	88	98	61
Eurozone	-0.03	-0.30	0.22	1.25	1.61	191bps	98	98	98	98
France	0.36	0.08	0.71	1.87	1.90	182bps	96	98	98	55
Germany	-0.17	-0.63	-0.16	0.83	1.58	222bps	98	98	98	98
India	6.90	7.18	7.82	8.84	8.48	130bps	62	77	92	65
Indonesia	1.43	1.57	2.25	3.22	3.59	202bps	58	85	98	69
Italy	-0.23	-0.37	0.17	1.07	1.38	175bps	68	98	98	92
Japan	0.17	-0.38	0.03	0.51	0.69	107bps	98	91	98	69
Mexico	3.90	3.65	4.40	5.03	4.92	127bps	73	98	98	61
Russia	3.57	4.43	6.46	9.47	9.58	515bps	78	98	98	54
South Africa	3.10	3.00	3.64	4.58	4.41	141bps	59	98	98	65
South Korea	0.67	0.40	0.90	1.93	1.87	147bps	91	98	98	60
Spain	-0.63	-0.77	0.05	1.76	2.08	284bps	68	98	98	94
Turkey	11.76	13.51	14.53	16.68	18.79	529bps	98	91	98	98
United Kingdom	0.57	0.61	1.12	2.09	2.23	161bps	56	98	98	66
United States	1.22	1.26	1.88	3.08	2.68	142bps	56	98	98	98
MODE/MEDIAN	1.26	0.99	1.35	2.32	2.35	136bps	82	98	98	68

Data Source: Bloomberg, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management.

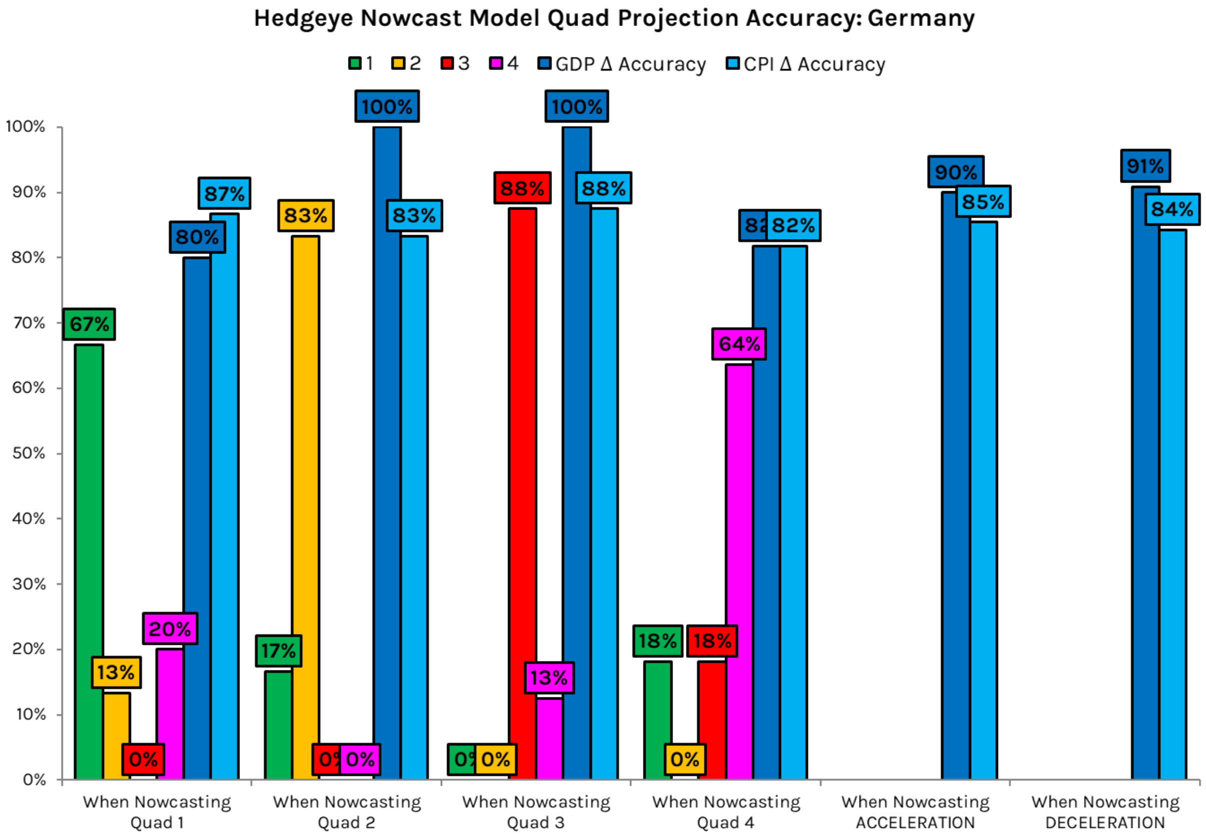
LIGHT BLUE header = Hedgeye Nowcast Model estimates. BLUE header = Hedgeye Comparative Base Effects Model estimates. GREEN/RED shading in GDP and CPI projections denotes sequential acceleration/deceleration.

Conditional probability inversely 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.

Data Source: Bloomberg

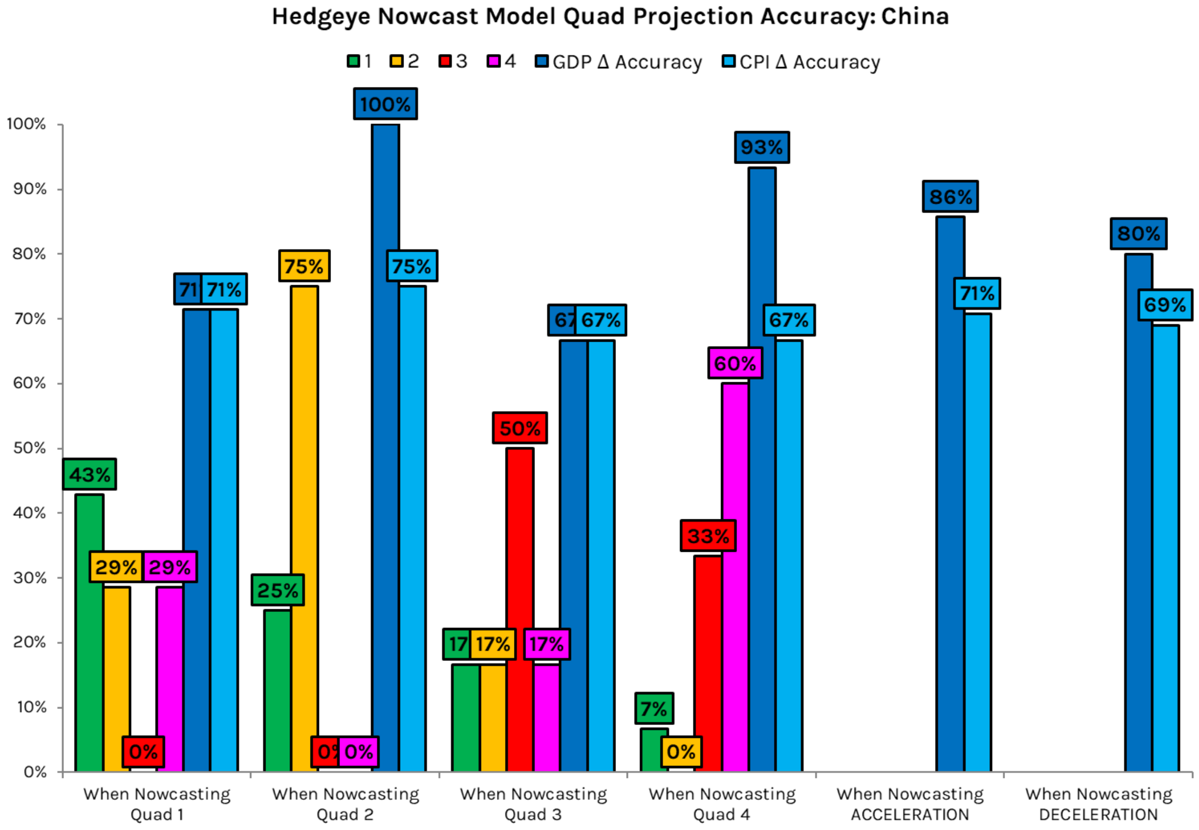
… As Are The Models

Germany Nowcast Model Backtest



Data Source: Bloomberg

China Nowcast Model Backtest



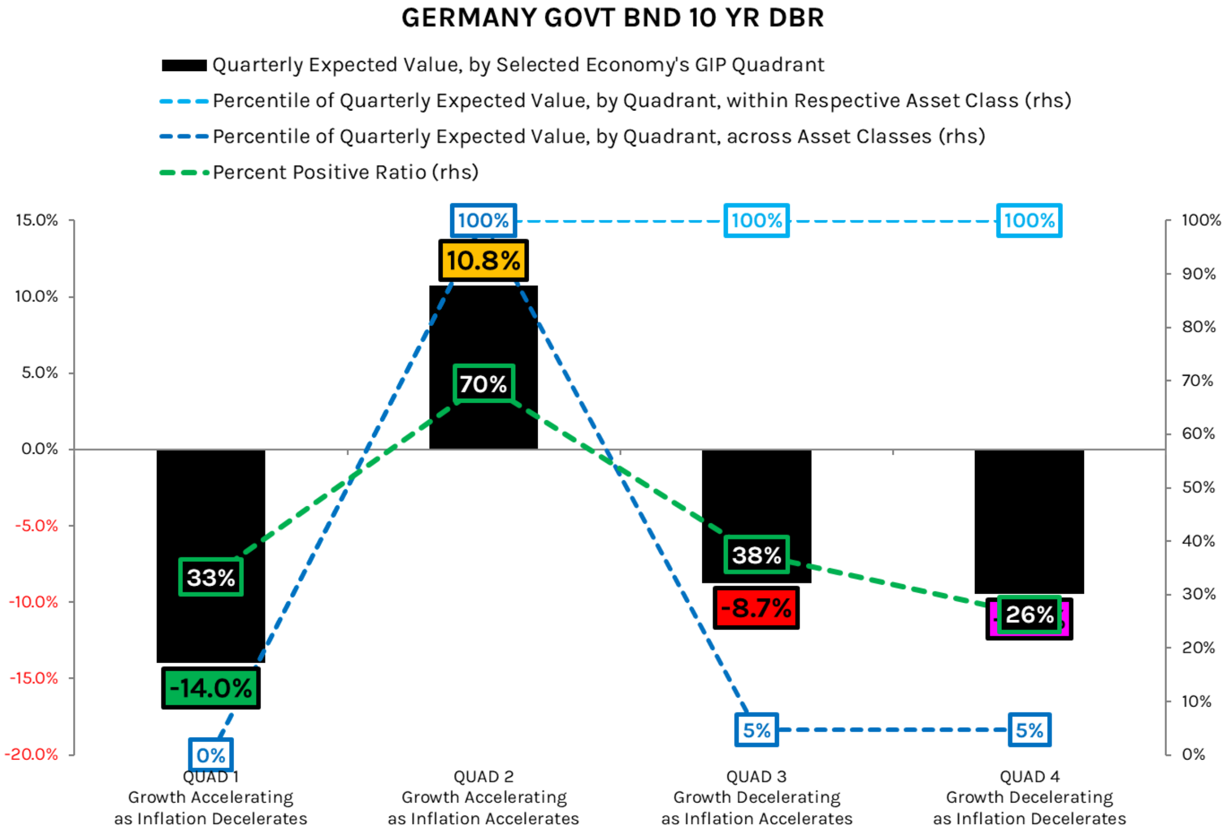
Data Source: Bloomberg

Data Source: Bloomberg. Backtests performed on a trailing 10yr rolling out-of-sample basis.

… As Are The Market Implications

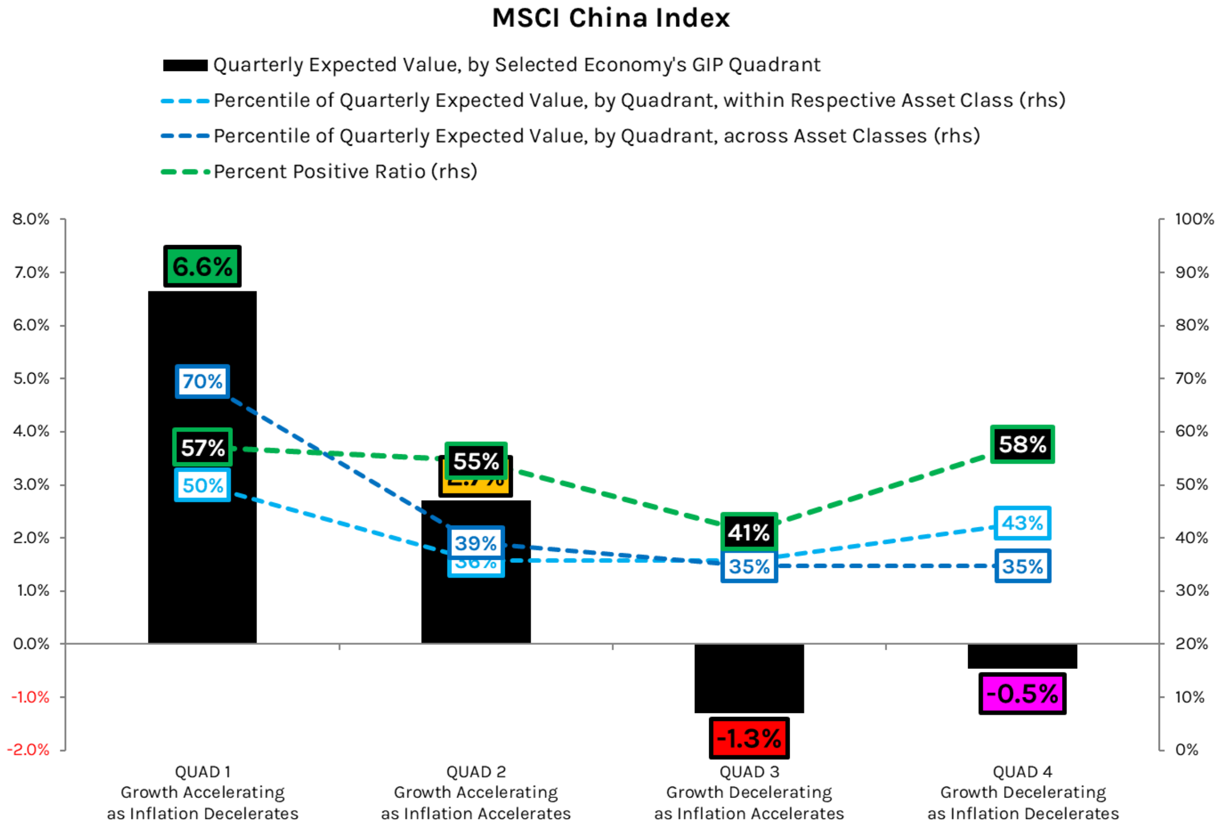
HEDGEYE

Germany GIP Model Market History Backtest: 10yr Bund Yield



Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Quarterly observations starting in 1Q98.

China GIP Model Market History Backtest: Chinese Consumer Stocks



Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Quarterly observations starting in 1Q98.

Source: Hedgeye GIP Model Market History Backtests. Quarterly observations beginning in 1Q98. Bloomberg data.

The Quads Are Global

HEDGEYE

Emerging Market GIP Model Summary

1/7/2021	Hedgeye Macro GIP Model Signals												
	Actuals									Estimates			
	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	2	3	2	2	4	1	4	4	1	1	2	2	3
Brazil	2	4	4	2	4	2	3	4	2	2	2	2	3
Chile	3	1	4	2	1	3	2	4	1	1	3	2	3
China	3	4	4	2	3	2	3	1	1	1	2	3	3
Colombia	1	2	1	2	2	3	4	4	1	1	2	2	3
Czech Republic	3	1	3	3	2	3	3	4	2	4	2	2	4
Emerging Markets	3	4	4	2	4	2	3	4	1	1	2	2	3
Greece	3	3	4	1	1	3	3	4	1	2	2	2	3
Hong Kong	3	3	4	3	3	4	4	1	1	2	2	2	3
India	4	4	1	3	3	3	3	4	2	2	2	2	4
Indonesia	4	2	4	3	3	4	3	4	1	2	2	2	3
Israel	3	4	2	4	1	1	4	4	2	3	2	2	3
Malaysia	4	1	4	2	3	4	4	4	2	4	2	2	4
Mexico	3	4	1	3	1	4	3	4	2	1	2	2	4
Peru	3	2	3	3	1	4	4	4	2	2	2	2	3
Philippines	3	1	4	4	1	1	3	4	2	2	2	2	3
Poland	3	4	1	3	3	3	3	4	1	4	2	2	4
Russia	3	2	3	1	1	1	4	3	2	3	2	2	3
Saudi Arabia	1	2	4	3	3	2	3	4	2	1	2	2	4
South Africa	2	4	4	2	4	4	2	4	2	1	2	2	4
South Korea	3	2	4	2	4	2	3	4	2	1	2	2	4
Taiwan	4	4	4	2	1	2	4	4	2	2	2	2	4
Thailand	3	1	4	3	1	4	3	4	2	2	2	2	4
Turkey	3	3	1	1	1	1	3	4	2	2	2	2	3
MODE/MEDIAN	3	4	4	2	1	4	3	4	2	2	2	2	3

GROWTH							Strength Of Signal			
	Real GDP YoY					NTM Δ	Conditional Probability Of Est. Δ			
COUNTRY	3Q20	4Q20E	1Q21E	2Q21E	3Q21E	3Q21E Less 4Q20E	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	-10.20	-9.15	-7.25	1.03	-6.26	289bps	76	96	98	98
Brazil	-3.90	-3.59	-2.40	10.39	1.92	551bps	67	98	98	98
Chile	-9.10	-3.78	-4.08	11.82	4.11	790bps	98	65	98	98
China	3.80	6.75	15.40	2.24	2.08	-467bps	98	98	98	56
Colombia	-9.50	-7.99	-6.94	13.32	5.29	1328bps	98	95	98	98
Czech Republic	-5.20	-5.37	-3.47	7.37	0.10	547bps	60	98	98	98
Emerging Markets	0.55	3.14	7.19	8.26	3.04	-10bps	98	98	98	98
Greece	-9.60	-7.61	-5.66	7.93	-0.59	702bps	98	98	98	98
Hong Kong	-3.50	-2.26	0.99	1.22	-1.41	85bps	98	98	66	98
India	-7.54	-4.23	-3.78	27.91	9.94	1417bps	98	63	98	98
Indonesia	-3.49	-2.90	-1.85	7.94	5.82	873bps	98	98	98	98
Israel	-1.09	-1.66	-0.16	9.49	1.49	316bps	79	98	98	98
Malaysia	-2.70	-3.40	-1.80	18.58	2.27	568bps	84	98	98	98
Mexico	-8.57	-5.22	-4.91	17.51	4.97	1019bps	98	74	98	98
Peru	-9.43	-7.17	-3.56	29.74	2.92	1008bps	98	98	98	98
Philippines	-11.50	-9.71	-5.66	14.54	6.83	1654bps	98	98	98	98
Poland	-1.50	-2.02	-1.27	10.74	3.65	567bps	90	98	98	98
Russia	-3.40	-3.56	-2.11	9.11	2.81	637bps	59	98	98	98
Saudi Arabia	-4.60	-2.64	-0.99	7.90	6.07	872bps	98	95	98	98
South Africa	-6.00	-4.42	-4.17	16.70	3.33	775bps	98	64	98	98
South Korea	-1.10	-0.58	0.52	5.04	3.26	384bps	98	98	98	98
Taiwan	3.92	4.22	4.93	6.57	0.91	-330bps	75	98	98	98
Thailand	-6.40	-3.59	-1.39	11.13	4.16	775bps	98	98	98	98
Turkey	6.70	7.82	8.72	23.52	2.28	-554bps	85	78	98	98
MODE/MEDIAN	-4.25	-3.58	-1.98	9.94	2.98	656bps	98	98	98	98

INFLATION							Strength Of Signal			
	Headline CPI YoY					NTM Δ	Conditional Probability Of Est. Δ			
COUNTRY	3Q20	4Q20E	1Q21E	2Q21E	3Q21E	3Q21E Less 4Q20E	4Q20E	1Q21E	2Q21E	3Q21E
Argentina	39.90	37.03	40.74	44.80	47.89	1087bps	87	98	98	90
Brazil	2.63	3.59	4.67	5.68	6.01	242bps	98	98	98	68
Chile	2.68	2.62	2.69	3.78	3.99	137bps	56	58	98	71
China	2.27	0.72	1.17	2.35	2.47	175bps	98	88	98	61
Colombia	1.94	1.62	3.37	6.65	6.87	526bps	71	98	98	65
Czech Republic	3.30	3.02	3.30	4.31	4.21	119bps	75	75	98	59
Emerging Markets	2.80	2.54	2.86	3.71	4.32	178bps	93	98	98	98
Greece	-2.23	-2.10	-1.60	-0.33	0.41	251bps	60	87	98	98
Hong Kong	-1.63	-0.63	0.20	0.90	2.23	286bps	98	98	91	98
India	6.90	7.18	7.82	8.84	8.48	130bps	62	77	92	65
Indonesia	1.43	1.57	2.25	3.22	3.59	202bps	58	85	98	69
Israel	-0.69	-0.67	-0.24	0.87	1.04	171bps	53	98	98	72
Malaysia	-1.37	-1.48	0.13	2.92	1.98	346bps	60	98	98	98
Mexico	3.90	3.65	4.40	5.03	4.92	127bps	73	98	98	61
Peru	1.79	1.94	2.95	4.44	4.66	272bps	65	98	98	72
Philippines	2.47	3.10	4.33	6.29	6.84	374bps	98	98	98	97
Poland	3.03	2.80	3.48	5.11	5.00	220bps	68	98	98	59
Russia	3.57	4.43	6.46	9.47	9.58	515bps	78	98	98	54
Saudi Arabia	6.01	5.98	8.15	10.05	7.09	111bps	52	98	98	98
South Africa	3.10	3.00	3.64	4.58	4.41	141bps	59	98	98	65
South Korea	0.67	0.40	0.90	1.93	1.87	147bps	91	98	98	60
Taiwan	-0.47	-0.04	0.56	1.69	1.64	168bps	98	98	98	56
Thailand	-0.73	-0.39	0.24	2.11	1.37	177bps	87	98	98	98
Turkey	11.76	13.51	14.53	16.68	18.79	529bps	98	91	98	98
MODE/MEDIAN	2.55	2.58	3.12	4.38	4.37	179bps	74	98	98	70

Data Source: Bloomberg, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management.

LIGHT BLUE header = Hedgeye Nowcast Model estimates. BLUE header = Hedgeye Comparative Base Effects Model estimates. GREEN/RED shading in GDP and CPI projections denotes sequential acceleration/deceleration.

Conditional probability inversely 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.

Data Source: Bloomberg

The Quads Are Global

HEDGEYE

Global Macro Risk Monitor

1/7/2021	GIP Model Signals												High-Frequency Economic Data Signals															
	Actuals								Hedgeye Forecasts				Consumption		Manufacturing		Exports		Manufacturing PMI		Consumer Conf.		Business Conf.		Headline CPI		Core CPI	
Hedgeye Global Macro Risk Monitor	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)	6-12M Trend	Percentile of Latest Reading (T3Y)
Argentina	3	2	2	4	1	4	4	1	1	2	2	3	↓	18%	↑	67%	↓	0%	-	-	↓	49%	↑	97%	↓	24%	-	-
Australia	4	4	4	1	1	3	4	2	1	2	2	4	↑	88%	↓	40%	↓	21%	↑	97%	↑	100%	↓	16%	→	21%	↓	0%
Austria	1	4	3	4	4	3	4	2	4	2	2	4	↑	6%	↑	33%	-	-	↑	63%	↓	9%	↑	20%	↓	6%	→	41%
Belgium	3	4	4	1	4	3	4	2	1	2	2	3	↑	3%	↓	88%	↓	12%	-	-	↑	83%	↑	29%	↓	9%	↓	6%
Brazil	4	4	2	4	2	3	4	2	2	2	2	3	↑	100%	↑	61%	↑	57%	↑	89%	↑	9%	↑	80%	↓	76%	↓	9%
Canada	4	4	2	4	3	4	4	2	2	2	2	4	↑	100%	↓	18%	↓	21%	↑	100%	↑	100%	↑	46%	↓	24%	↓	18%
Chile	1	4	2	1	3	2	4	1	1	3	2	3	↓	97%	↓	35%	↑	88%	-	-	↓	26%	↑	29%	↓	62%	↓	68%
China	4	4	2	3	2	3	1	1	1	2	3	3	↑	29%	→	35%	↑	94%	↑	91%	↓	68%	↑	19%	↓	0%	↓	0%
Colombia	2	1	2	2	3	4	4	1	1	2	2	3	↓	21%	↓	21%	↓	19%	↑	63%	↓	29%	-	-	↓	3%	↓	3%
Czech Republic	1	3	3	2	3	3	4	2	4	2	2	4	↓	9%	↑	36%	↓	30%	↑	89%	↓	9%	→	17%	↓	38%	↑	88%
Denmark	1	2	4	1	3	4	4	2	4	2	2	4	↑	97%	↓	6%	↓	3%	↑	3%	↑	29%	↑	23%	→	15%	↓	6%
Emerging Markets	4	4	2	4	2	3	4	1	1	2	2	3	→	34%	→	40%	↑	96%	↑	91%	↓	-	↑	-	↓	3%	↓	14%
Eurozone	4	1	4	1	3	3	4	1	4	2	2	3	↑	6%	↓	24%	↓	15%	↑	86%	↓	20%	↑	89%	↓	0%	↓	0%
Finland	3	1	2	4	4	3	4	2	1	2	2	4	↑	94%	↓	21%	↓	21%	-	-	↑	23%	↑	23%	↓	9%	→	38%
France	4	1	1	4	3	3	4	2	1	2	2	3	↑	97%	→	21%	↓	21%	↑	43%	↓	29%	↑	20%	↓	0%	↓	12%
Germany	4	1	3	1	3	3	4	1	1	2	2	3	↑	100%	↓	45%	↓	21%	↑	94%	↓	9%	↑	17%	↓	0%	↓	0%
Greece	3	4	1	1	3	3	4	1	2	2	2	3	↑	88%	↑	18%	↓	24%	↑	11%	↓	29%	↓	17%	↓	6%	↓	9%
Hong Kong	3	4	3	3	4	4	1	1	2	2	2	3	↑	56%	↓	0%	↑	76%	↑	23%	-	-	-	-	↓	9%	-	-
India	4	1	3	3	3	3	4	2	2	2	2	4	-	-	↑	61%	↑	18%	↑	94%	-	-	-	-	→	85%	-	-
Indonesia	2	4	3	3	4	3	4	1	2	2	2	3	-	-	↓	20%	↑	85%	↑	83%	-	-	-	-	↓	14%	-	-
Ireland	4	1	2	1	3	4	4	1	4	3	2	3	↓	100%	↓	6%	↓	41%	↑	91%	↓	34%	-	-	↓	9%	↓	9%
Israel	4	2	4	1	1	4	4	2	3	2	2	3	↑	9%	↑	97%	↑	50%	-	-	↓	21%	↓	24%	↓	15%	↓	21%
Italy	4	1	1	1	4	4	4	1	1	2	2	3	↑	94%	↑	33%	↓	15%	↑	77%	↓	21%	↑	24%	↓	12%	→	9%
Japan	1	1	2	1	3	4	4	2	1	2	2	3	↑	50%	↓	41%	↑	44%	↑	60%	↑	17%	↑	12%	↓	0%	↓	0%
Malaysia	1	4	2	3	4	4	4	2	4	2	2	4	-	-	↑	9%	↑	68%	↑	57%	↑	0%	→	0%	↓	9%	-	-
Mexico	4	1	3	1	4	3	4	2	1	2	2	4	↓	15%	↓	27%	↑	38%	↓	17%	↑	61%	↓	23%	↑	26%	↑	35%
Netherlands	3	3	2	2	4	4	4	1	2	2	2	3	↑	97%	↓	21%	↓	12%	↑	77%	-	-	↑	23%	↓	3%	→	41%
New Zealand	4	4	3	1	3	3	4	1	1	2	2	3	↑	21%	↓	100%	↓	18%	↑	91%	↓	26%	↑	100%	↓	10%	↓	20%
Norway	2	1	4	1	1	4	3	2	1	2	2	3	↑	97%	↑	42%	↑	24%	↑	34%	↓	0%	-	-	↑	0%	↑	53%
Peru	2	3	3	1	4	4	4	2	2	2	2	3	-	-	↓	0%	↓	7%	-	-	-	-	-	-	→	69%	-	-
Philippines	1	4	4	1	1	3	4	2	2	2	2	3	-	-	↓	18%	↓	24%	↑	17%	-	-	↓	10%	↑	63%	→	100%
Poland	4	1	3	3	3	3	4	1	4	2	2	4	↑	9%	↑	59%	↑	58%	↑	77%	↓	9%	↑	17%	↓	46%	↑	94%
Portugal	4	-	4	4	2	3	4	1	4	2	2	3	↑	12%	↑	29%	↓	30%	-	-	↓	17%	↑	17%	↓	12%	↓	9%
Russia	2	3	1	1	1	4	3	2	3	2	2	3	↑	9%	↓	21%	↓	15%	↑	57%	↑	0%	↓	6%	↑	86%	↑	74%
Singapore	4	3	3	1	2	4	4	2	2	2	2	3	↑	35%	↑	91%	↑	35%	↑	57%	-	-	↓	33%	↓	18%	-	-
Saudi Arabia	2	4	3	3	2	3	4	2	1	2	2	4	-	-	-	-	-	-	↑	83%	-	-	-	-	↑	94%	-	-
South Africa	4	4	2	4	4	2	4	2	1	2	2	4	↑	18%	↓	24%	↑	94%	↑	88%	↓	18%	↑	62%	↓	15%	↓	12%
South Korea	2	4	2	4	2	3	4	2	1	2	2	4	↑	12%	↓	53%	↑	91%	↑	97%	↑	20%	↑	69%	→	29%	→	37%
Spain	1	4	4	4	3	3	4	1	1	2	2	3	↑	12%	↓	33%	↓	21%	↑	54%	↓	23%	↑	23%	↓	14%	↓	3%
Sweden	1	4	3	1	3	4	4	2	1	2	2	3	↑	100%	↓	33%	↓	24%	↑	100%	↑	97%	↑	34%	↓	6%	→	53%
Switzerland	4	4	4	1	1	4	4	2	2	2	2	3	↑	79%	-	-	↓	38%	↑	74%	↓	9%	-	-	→	14%	→	9%
Taiwan	4	4	2	1	2	4	4	2	2	2	2	4	↑	41%	↓	82%	↑	88%	↑	100%	-	-	-	-	→	29%	-	-
Thailand	1	4	3	1	4	3	4	2	2	2	2	4	↓	15%	↑	62%	↓	38%	↑	89%	↓	9%	-	-	↑	26%	→	9%
Turkey	3	1	1	1	1	3	4	2	2	2	2	3	→	97%	↑	94%	↑	24%	↑	69%	↑	77%	↑	80%	↑	57%	↑	60%
United Kingdom	4	1	3	4	4	3	4	1	2	2	2	3	↑	91%	↓	21%	↓	6%	↑	100%	↓	20%	↓	23%	↓	3%	→	3%
United States	4	4	3	1	2	3	4	2	2	2	2	4	↑	94%	↓	18%	↓	18%	↑	97%	↓	9%	↑	21%	↓	12%	→	12%
MODE/MEAN	4	4	3	1	3	3	4	2	1	2	2	3	↑	54%	↓	39%	↓	37%	↑	91%	↓	31%	↑	33%	↓	23%	↓	26%

1/7/2021	Structural Economic Risk Factors							Financial Market Valuation Signals		
	Economic Cycle Risk				Global Capital Cycle Risk			Stock Market	Bond Market	Currency
Hedgeye Global Macro Risk Monitor	Private Nonfinancial Sector Leverage (Z-Score; T5Y)	Private Nonfinancial Sector Debt Service Ratio (Z-Score; T5Y)	Headline Unemployment Rate	35-54 Year-Old Population Cohort (5Y-Forward CAGR)	Sovereign Budget Balance as a % of Nominal GDP	Current Account Balance as a % of Nominal GDP	Twin Surplus (+)/Deficit (-) Balance as a % of Nominal GDP	MSCI Index Price-to-NTM-Earnings Ratio Spread vs. MSCI ACWI (Z-Score; T3Y)	10Y Sovereign Yield Spread vs. 10Y German Bund Yield (Z-Score; T3Y)	Broad Real Effective Exchange Rate (Z-Score; T3Y)
Argentina	0.1x	-	11.7%	1.5%	-9.0%	1.7%	-	-0.2x	0.0x	-0.5x
Australia	-0.4x	-3.2x	6.8%	1.3%	-7.8%	1.9%	-	0.2x	-0.5x	0.4x
Austria	3.6x	-	5.5%	-1.1%	-10.0%	3.4%	-	1.5x	-1.3x	2.4x
Belgium	1.0x	-0.9x	5.1%	-0.4%	-10.3%	-0.6%	-10.9%	0.4x	-1.6x	1.2x
Brazil	1.4x	-1.2x	14.3%	1.2%	-15.3%	-1.3%	-16.6%	-1.2x	-0.8x	-1.8x
Canada	3.1x	0.5x	8.5%	0.4%	-15.0%	-1.7%	-16.7%	-2.6x	-1.0x	-0.1x
Chile	2.9x	-	12.8%	0.8%	-8.7%	0.0%	-	-2.0x	0.0x	-0.9x
China	2.9x	3.0x	5.2%	0.1%	-6.7%	1.5%	-	-0.3x	1.4x	1.5x
Colombia	2.3x	-	16.1%	1.0%	-8.9%	-3.4%	-12.3%	-1.0x	-1.7x	-1.5x
Czech Republic	0.9x	1.3x	2.8%	0.2%	-7.4%	2.3%	-	-0.7x	0.8x	1.0x
Denmark	0.8x	-1.0x	6.2%	-1.0%	-4.1%	7.8%	-	0.2x	0.5x	0.9x
Emerging Markets	2.4x	-	6.0%	-	-	1.2%	1.2%	-1.0x	-1.6x	-0.5x
Eurozone	1.9x	1.7x	8.4%	-1.2%	-9.5%	2.0%	-	-1.5x	1.1x	0.7x
Finland	1.8x	0.9x	7.7%	-0.3%	-8.0%	-0.2%	-8.2%	-0.4x	-1.0x	1.1x
France	3.0x	3.5x	8.8%	-0.3%	-11.1%	-2.0%	-13.1%	-1.1x	-1.4x	0.9x
Germany	2.9x	2.7x	6.1%	-1.5%	-6.5%	7.0%	-	-3.2x	1.1x	0.2x
Greece	-0.7x	-	16.4%	-1.2%	-8.0%	-3.2%	-11.2%	-1.6x	-1.5x	-0.6x
Hong Kong	2.1x	1.9x	6.2%	-0.6%	-8.5%	7.0%	-	-1.2x	0.0x	-0.4x
India	1.7x	-0.1x	-	2.1%	-4.1%	1.3%	-	2.9x	-1.4x	0.7x
Indonesia	-0.2x	-0.6x	7.1%	0.8%	-6.3%	-1.3%	-7.6%	-0.9x	-1.5x	0.0x
Ireland	-1.4x	-	7.2%	0.2%	-6.3%	-5.5%	-11.8%	2.7x	-1.8x	-0.3x
Israel	-0.7x	-	4.7%	1.5%	-12.0%	4.9%	-	-0.8x	-0.5x	1.0x
Italy	0.8x	-0.4x	9.8%	-1.9%	-11.5%	3.5%	-	-1.2x	-1.4x	0.1x
Japan	3.3x	3.5x	2.9%	-0.9%	-12.7%	3.0%	-	3.6x	1.2x	0.4x
Malaysia	3.4x	2.7x	4.7%	0.0%	-6.3%	3.5%	-	-2.6x	-1.5x	-1.5x
Mexico	2.9x	1.8x	5.2%	1.6%	-4.9%	1.5%	-	-2.4x	-1.8x	0.0x
Netherlands	-1.1x	-1.3x	4.2%	-1.3%	-6.9%	8.8%	-	2.8x	-1.4x	1.6x
New Zealand	2.4x	-	5.3%	-0.3%	-8.5%	-2.2%	-10.7%	2.9x	-0.7x	0.8x
Norway	1.6x	1.9x	5.2%	0.2%	-2.2%	2.2%	-	-2.3x	0.0x	-1.2x
Peru	-	-	16.2%	1.9%	-8.9%	-0.1%	-9.0%	-0.6x	-1.6x	-2.1x
Philippines	-	-	8.7%	1.7%	-8.6%	2.5%	-	-0.4x	0.0x	1.4x
Poland	-1.0x	-1.5x	3.4%	1.2%	-9.5%	2.5%	-	-0.5x	-1.6x	-0.1x
Portugal	-0.7x	-0.8x	7.8%	-1.2%	-8.2%	-1.2%	-9.3%	-0.5x	-1.5x	0.3x
Russia	2.1x	-0.8x	6.3%	1.5%	-4.4%	2.5%	-	-1.7x	-0.8x	-2.2x
Singapore	3.2x	-	3.6%	-0.5%	-14.0%	16.3%	-	-0.6x	-1.3x	-1.6x
Saudi Arabia	1.3x	-	-	1.6%	-12.7%	-1.0%	-13.7%	-1.3x	0.0x	0.8x
South Africa	2.3x	1.0x	30.8%	2.7%	-15.1%	0.7%	-	-1.3x	0.0x	-0.7x
South Korea	2.6x	2.3x	3.8%	-1.1%	-4.8%	3.8%	-	-0.3x	2.0x	0.0x
Spain	0.0x	0.0x	16.3%	-1.5%	-12.2%	1.0%	-	0.8x	-1.5x	0.7x
Sweden	1.9x	2.7x	8.7%	-0.1%	-4.8%	5.2%	-	-1.1x	1.8x	1.3x
Switzerland	2.3x	2.6x	3.4%	-0.5%	-4.2%	7.6%	-	-1.4x	1.3x	1.2x
Taiwan	-	-	3.8%	0.0%	-2.2%	12.7%	-	-0.3x	0.3x	1.6x
Thailand	2.6x	1.2x	1.9%	-0.8%	-5.2%	5.7%	-	-0.4x	-0.6x	0.1x
Turkey	1.8x	-1.0x	13.1%	1.3%	-6.4%	-4.2%	-10.6%	-1.9x	-1.1x	-1.9x
United Kingdom	2.0x	1.6x	4.9%	-0.2%	-16.7%	-2.1%	-18.8%	-2.5x	-1.1x	0.4x
United States	3.7x	1.4x	6.7%	0.4%	-15.8%	-2.6%	-18.3%	1.4x	-0.9x	-0.4x
MODE/MEAN	1.6x	0.8x	8.0%	0.2%	-13.6%	0.1%	-	-0.5x	-0.5x	0.1x

Data Source: Bloomberg, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management. LIGHT BLUE header = Hedgeye Nowcast Model estimate. BLUE header = Hedgeye Comparative Base Effects Model estimates. Asterisk denotes Manufacturing PMI if the economy is devoid of a Composite PMI data series.

Data Sources: Bloomberg, IMF, BIS, World Bank

Q4 2020 Macro Themes

HEDGEYE

[1] USA: Quad 3 Or Quad 4 In Q4?

Investor consensus is heavily net short of NASDAQ futures, long bond futures, and DXY futures. One or two of these conditions must give in the coming weeks. In the presentation, we'll detail the economic and market signals we're leaning on to proactively prepare for a nasty Quad 4 market or a resumption of the Quad 3 regime Wall Street completely missed calling for back in June.

[2] Biden vs. Trump

Goldman was out recently highlighting the electoral process risk Hedgeye Demography Sector Head Neil Howe has called attention to for months. In the presentation, we'll build upon Neil's work, detail the economic drivers of America's polarized political climate, and shine light on the increasingly probable path towards MMT.

[3] China: Quads 1 & 2

We've long held the belief that Phase 3 in unencumbered economies like China, pockets of EM, and Northern Europe is unlikely to resemble Phase 3 in overly indebted economies like the USA, Core Europe, and Brazil. In the presentation, we'll detail why investors should expect heightening dispersion in the economic and financial market performance of economies across the globe in this post-Phase 2 world.

Q1 2021 Macro Themes

HEDGEYE

1 USA #Quad2

Aided by easy money from the Fed and generous fiscal support from Congress, the US economy is set to enter its third consecutive quarter of #Quad2 here in 1Q21E. While sequential momentum has waned in recent weeks due to covid restrictions, we don't believe GROWTH, INFLATION, and/or PROFITS can slow fast enough in JAN-FEB to offset the massive accelerations we're going to see in all three starting in MAR. In the presentation, we'll detail how investors should setup to take advantage of these trending ***Positive RoC*** realities.

2 Global #Quad2

The "cheap money + fiscal support + easy comps = #Quad2" equation is not just a US phenomenon. Indeed, #Quad2 represents the modal outcome for the 96% of the ~50 countries and economic blocs we maintain GIP Models for in 1Q21E. That setup is explicitly bearish for the US dollar and bullish for assets priced in US dollars, globally. In the presentation, we'll detail which geographies offer investors the best risk/reward setups from here.

3 Short Deflation/Duration

While the Fed has no plans to tighten monetary policy (at the margins) anytime soon, that doesn't mean #TheMachine has no plans to sell duration risk in the coming months. Indeed, Global #Quad2 means the long ends of the Bund, OAT, Gilt, JGB, etc. curves all backing up simultaneously and we don't think the Treasury curve will be immune to such selling pressure. In the presentation, we'll how the evolving POLICY mix – both domestically and globally – is likely to contribute to the ongoing breakout in INFLATION expectations we anticipated all the way back in early June.

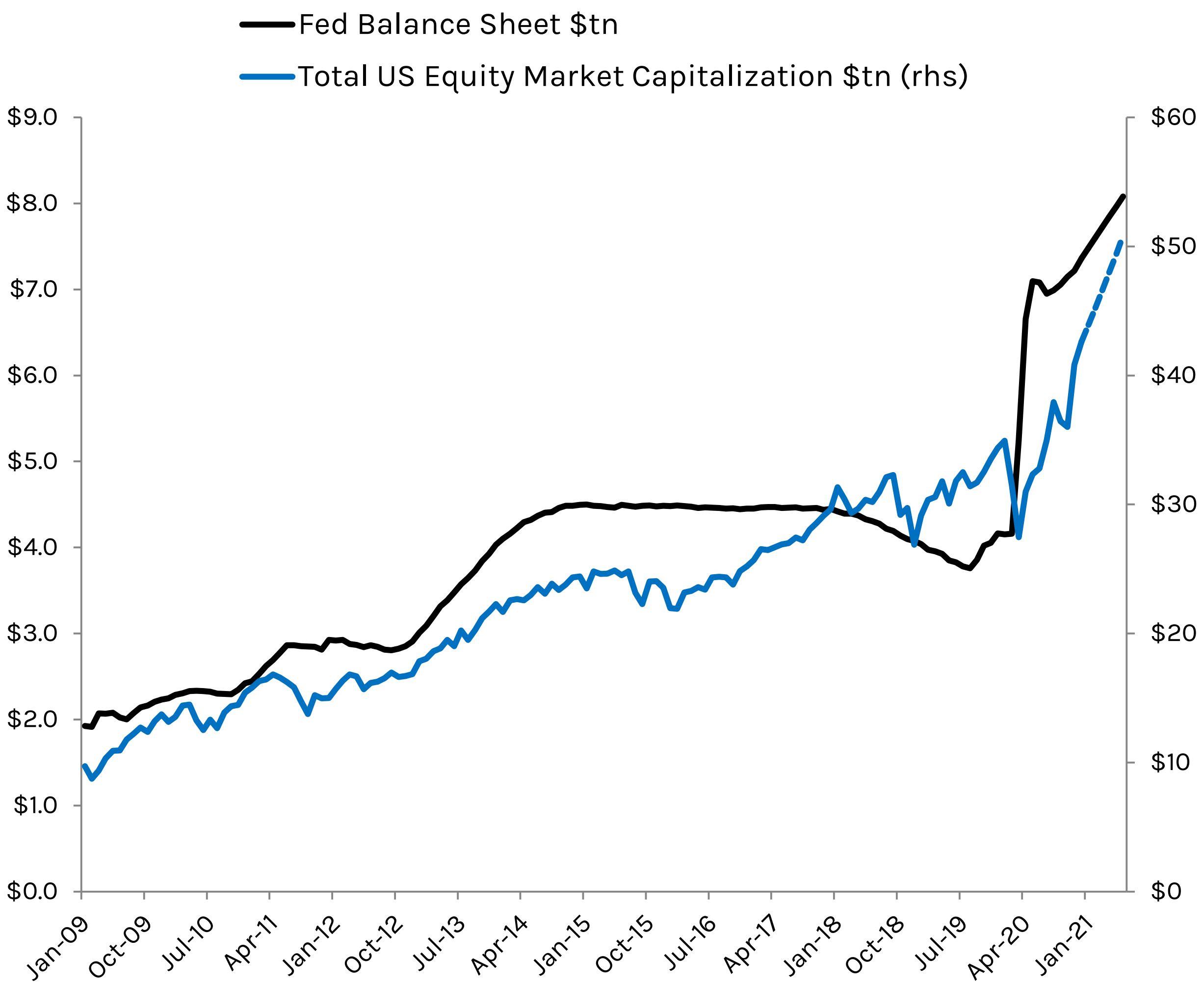
Q1 2021 Macro Themes

USA #Quad2

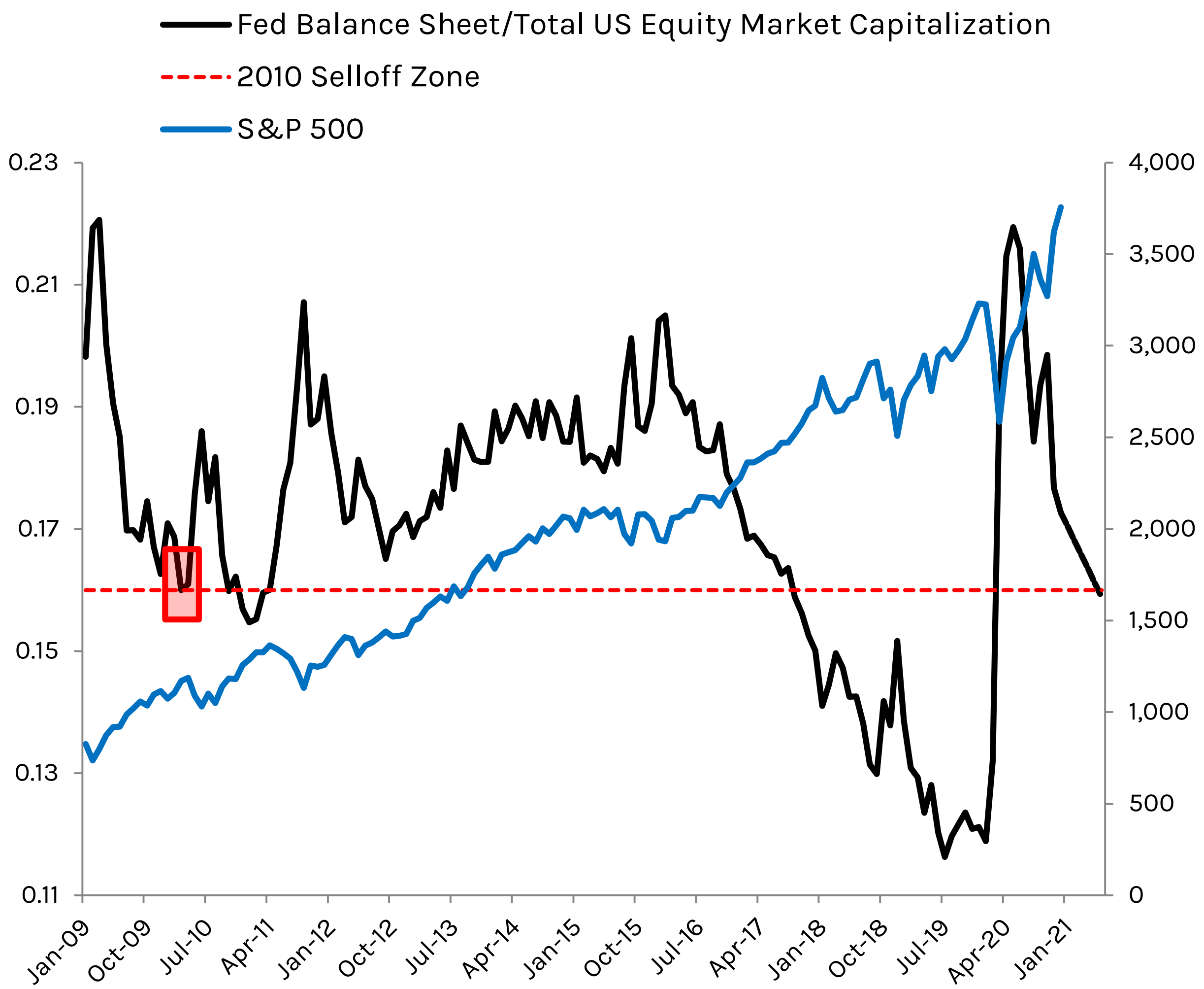
At The Fed's Current Pace Of Asset Purchases, The US Equity Market Has Room To Appreciate +3% Per Month Through June

HEDGEYE

$120bn Per Month Grows The Fed Balance Sheet To $8.1tn By The End Of June

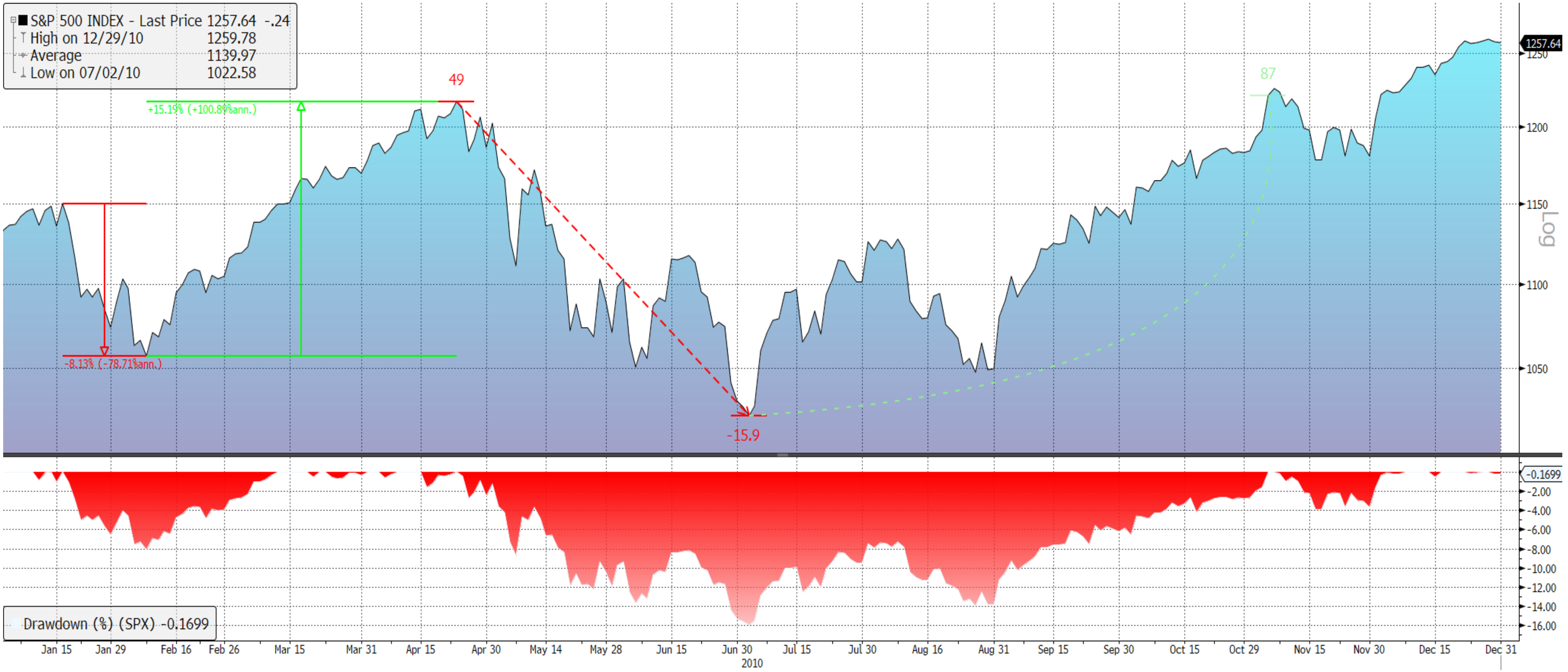


Contracting To A Ratio Of ~16% Of Total US Equity Market Capitalization Was The Sell Signal Back In April 2010



Data Source: Bloomberg

… But Investors Should Remain Cognizant Of The Pending #Quad4 Regime, Which May Catalyze A Redux Of Spring 2010 Market Risk



SPX Index (S&P 500 INDEX) 2010 Max Drawdown Daily 01JAN2010-31DEC2010

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06-Jan-2021 18:24:47

Data Source: Bloomberg

For Now, However, The Coast Is Clear As Hedge Fund Risk Budgets Are Likely Still Somewhat Constrained From A VaR Perspective

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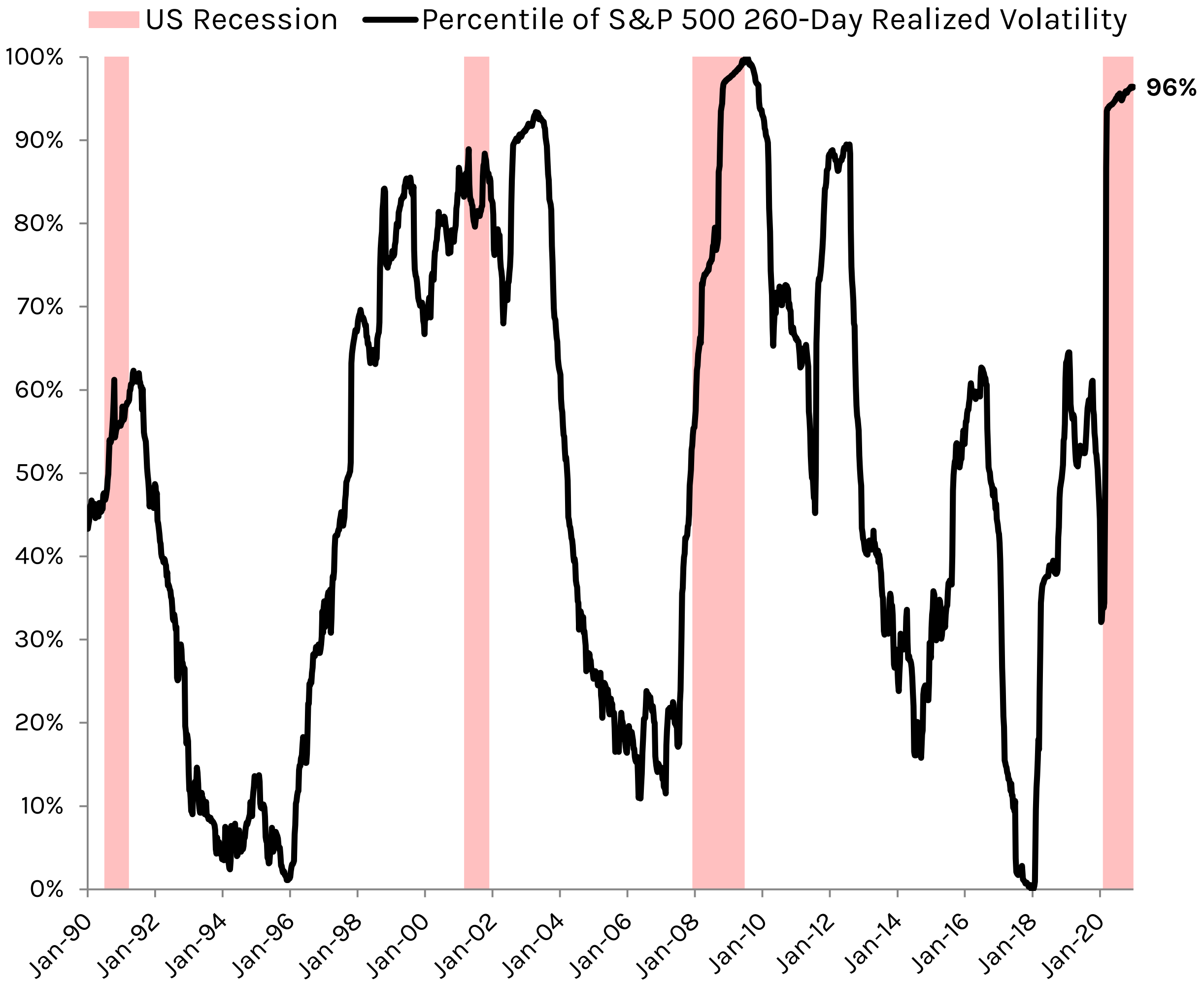
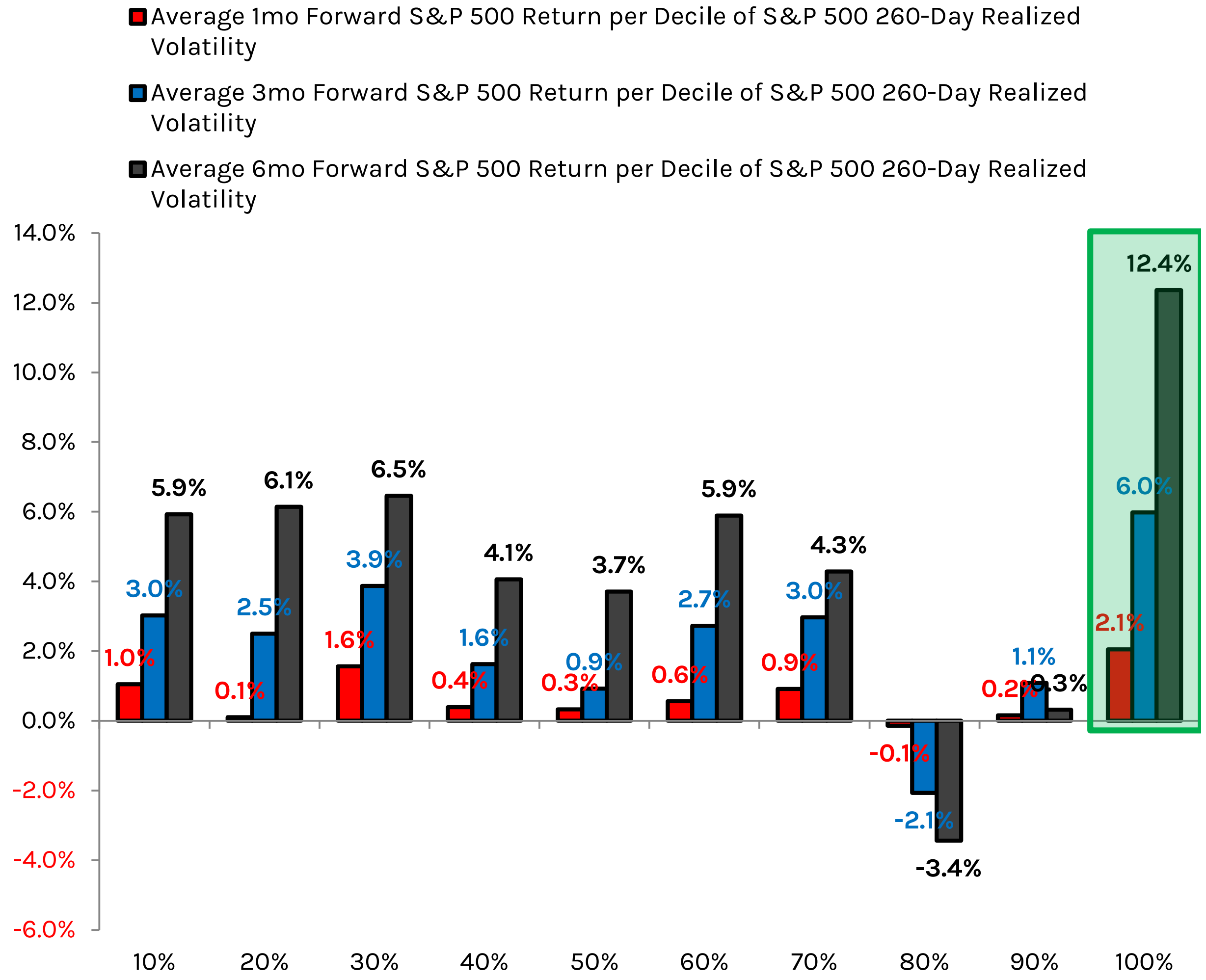
S&P 500 260-Day Realized Volatility



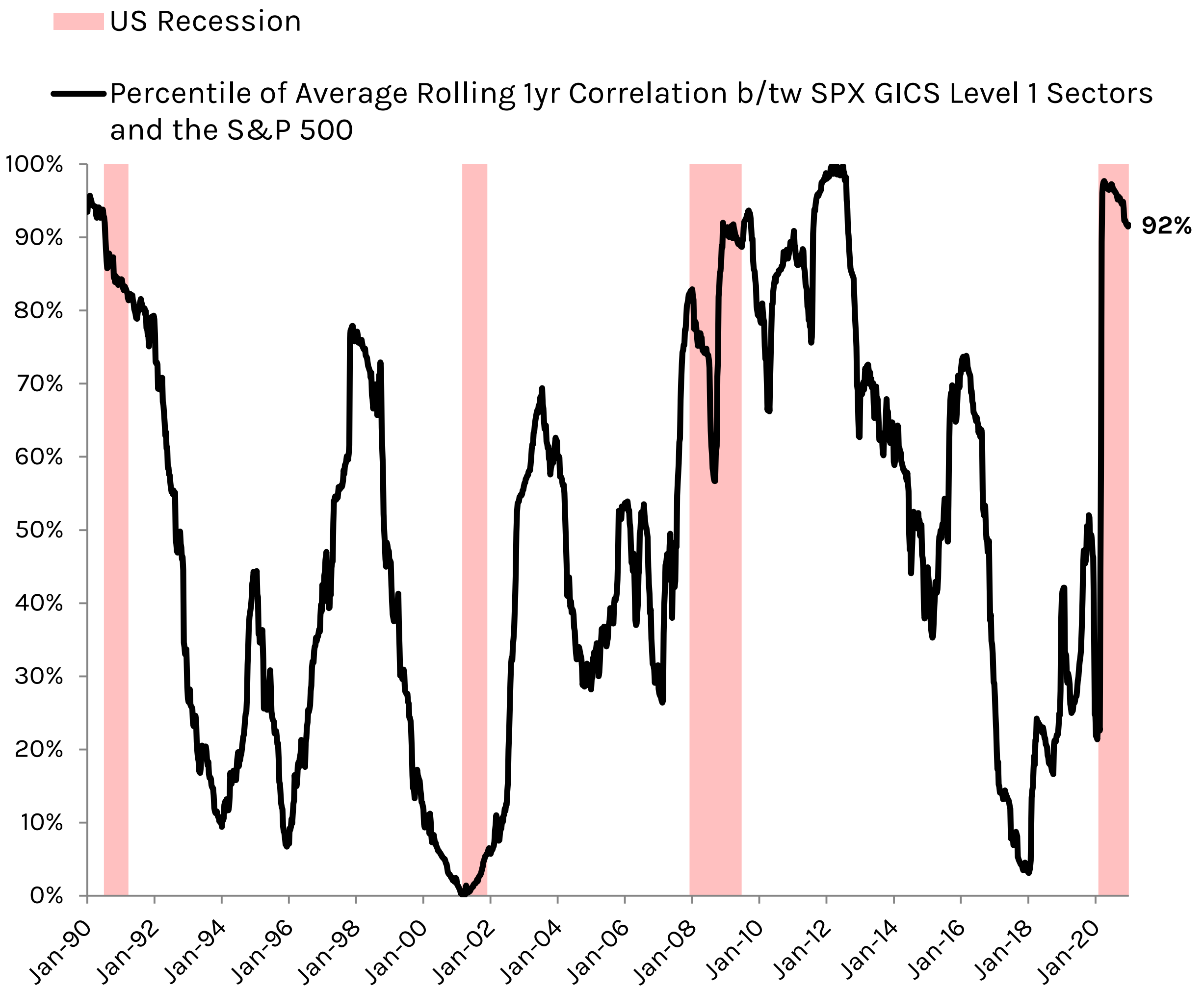
S&P 500 Forward Return Distribution By Decile Of S&P 500 260-Day Realized Volatility



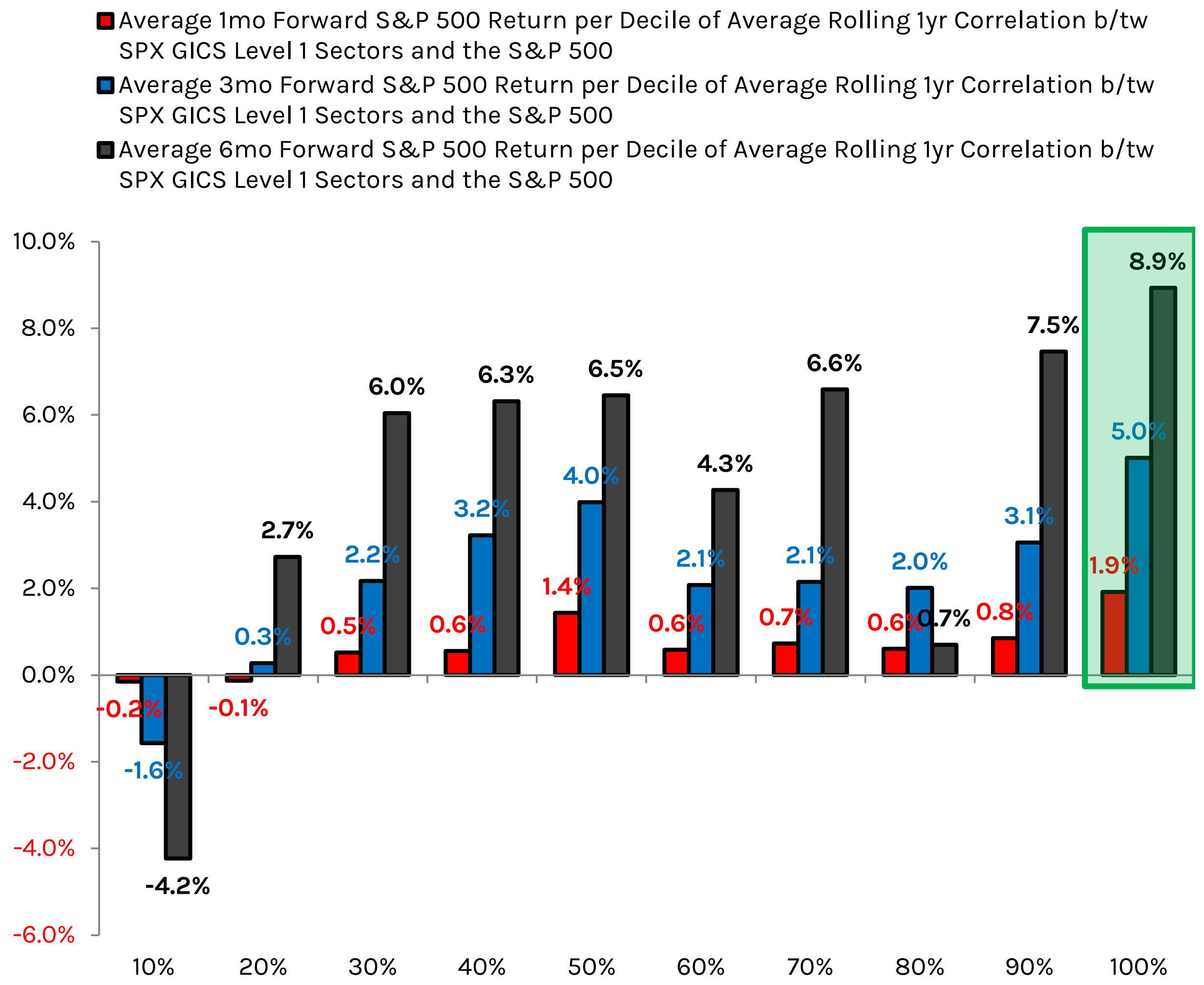
Data Source: Bloomberg

Hedge Fund Risk Budgets Are Likely Still Somewhat Constrained From A Covariance Perspective As Well

Mean Correlation Between The S&P 500 And S&P 500 GICS Level 1 Sectors



S&P 500 Forward Return Distribution By Decile Of Mean Correlation Between The S&P 500 And S&P 500 Sectors

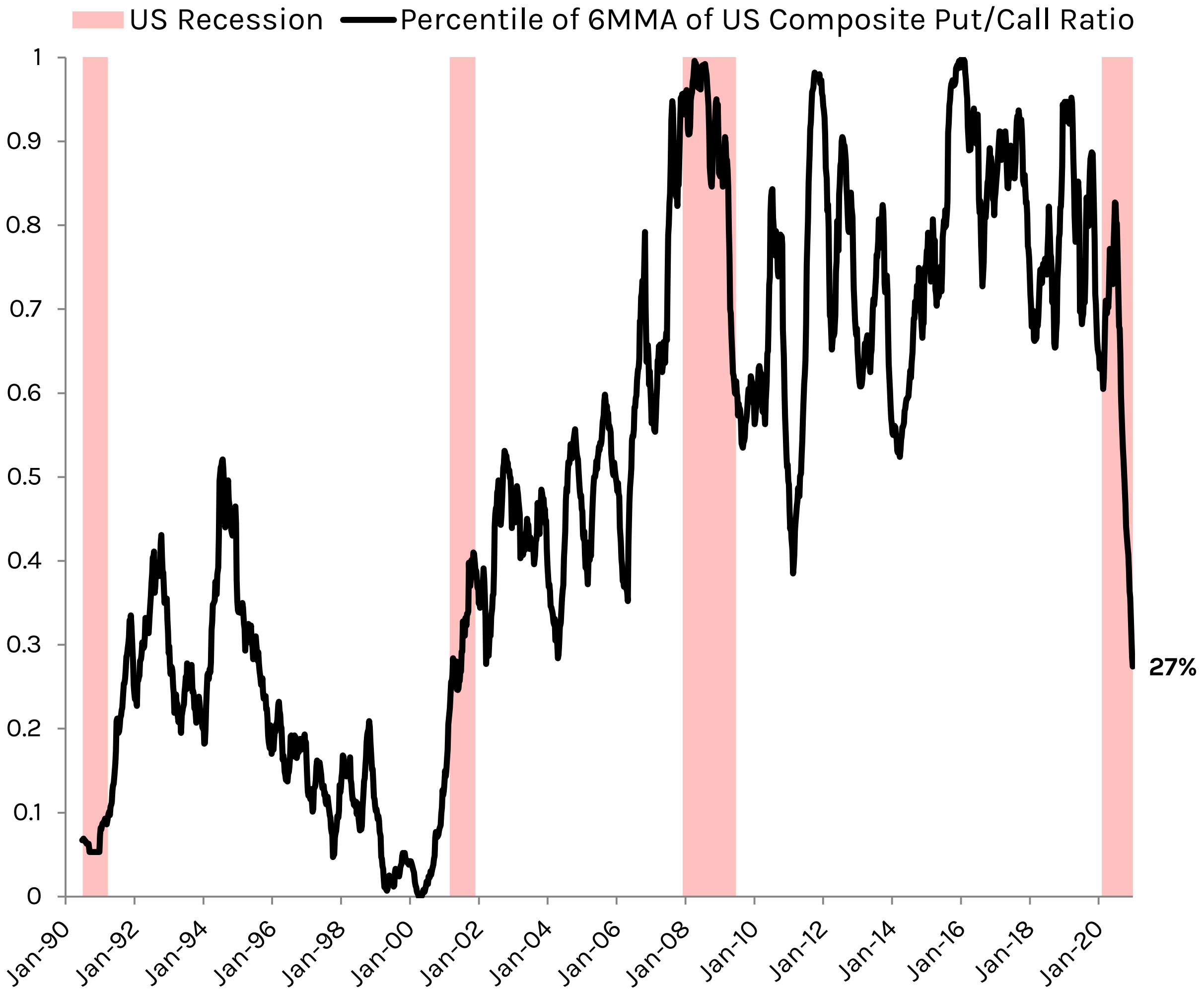


Data Source: Bloomberg

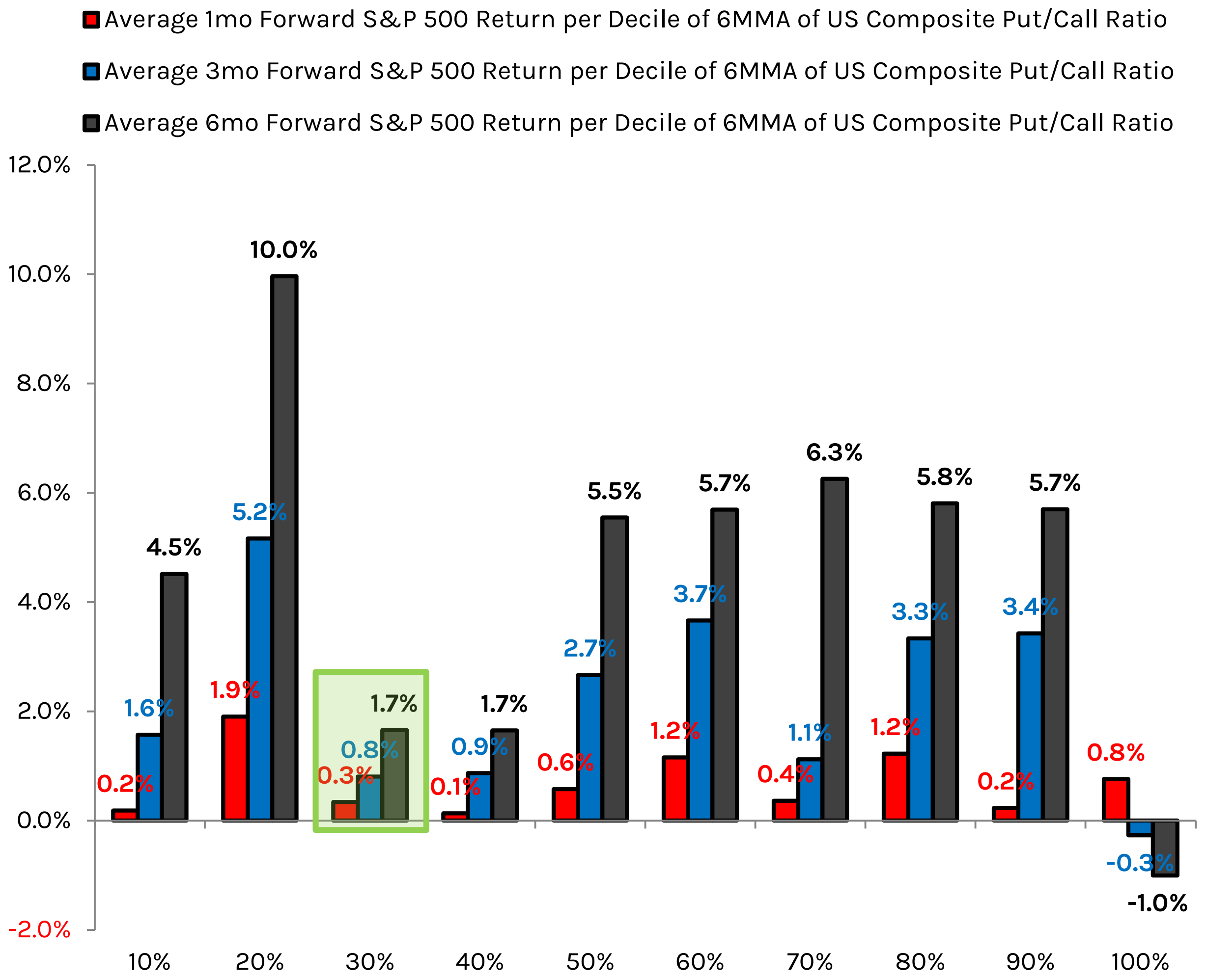
“But, Retail Is Ragingly Bullish”… Sure They Are. Your Point?

HEDGEYE

6MMA US Equity Composite Put/Call Ratio



S&P 500 Forward Return Distribution By Decile Of 6MMA US Equity Composite Put/Call Ratio

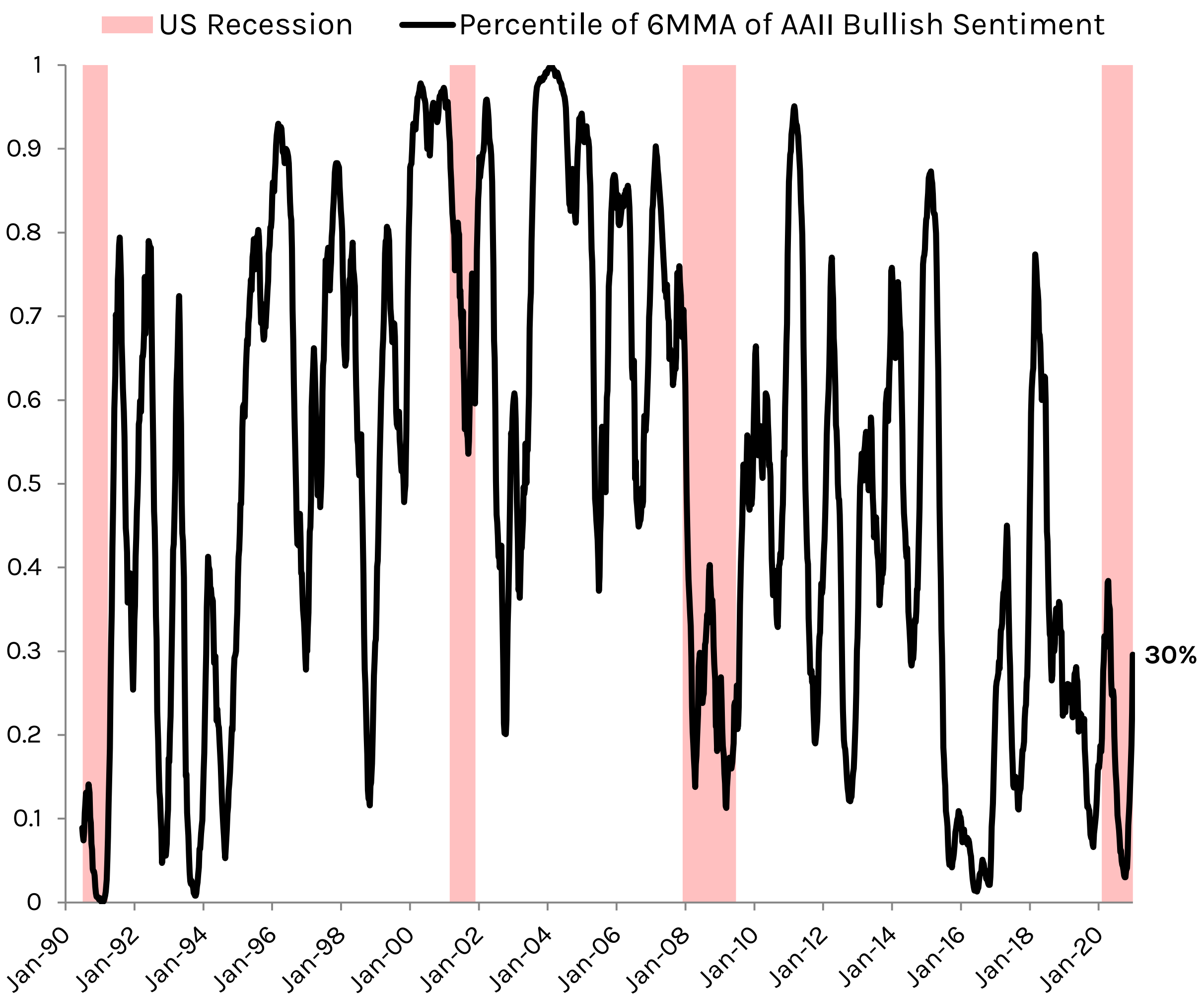


Data Source: Bloomberg

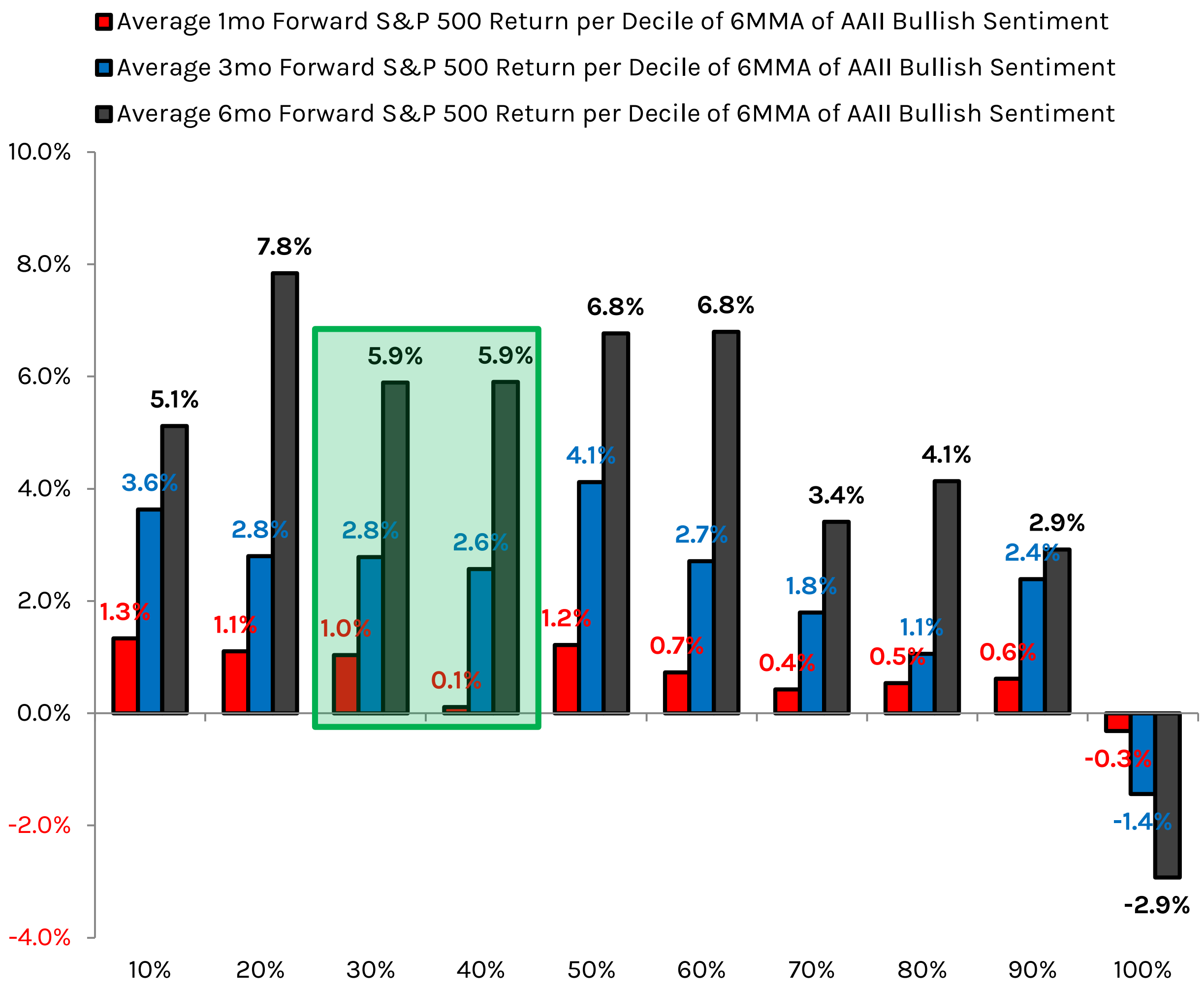
Baby Boomers Have Been Scarred By Bubbles Past And Have Been Reluctant To Fully Allocate To #Quad2

HEDGEYE

6MMA Of AAII Bullish Sentiment



S&P 500 Forward Return Distribution By Decile Of 6MMA AAII Bullish Sentiment



Data Source: Bloomberg

Let's Focus On Sentiment Gauges That Deliver Consistent Results: CROWDING

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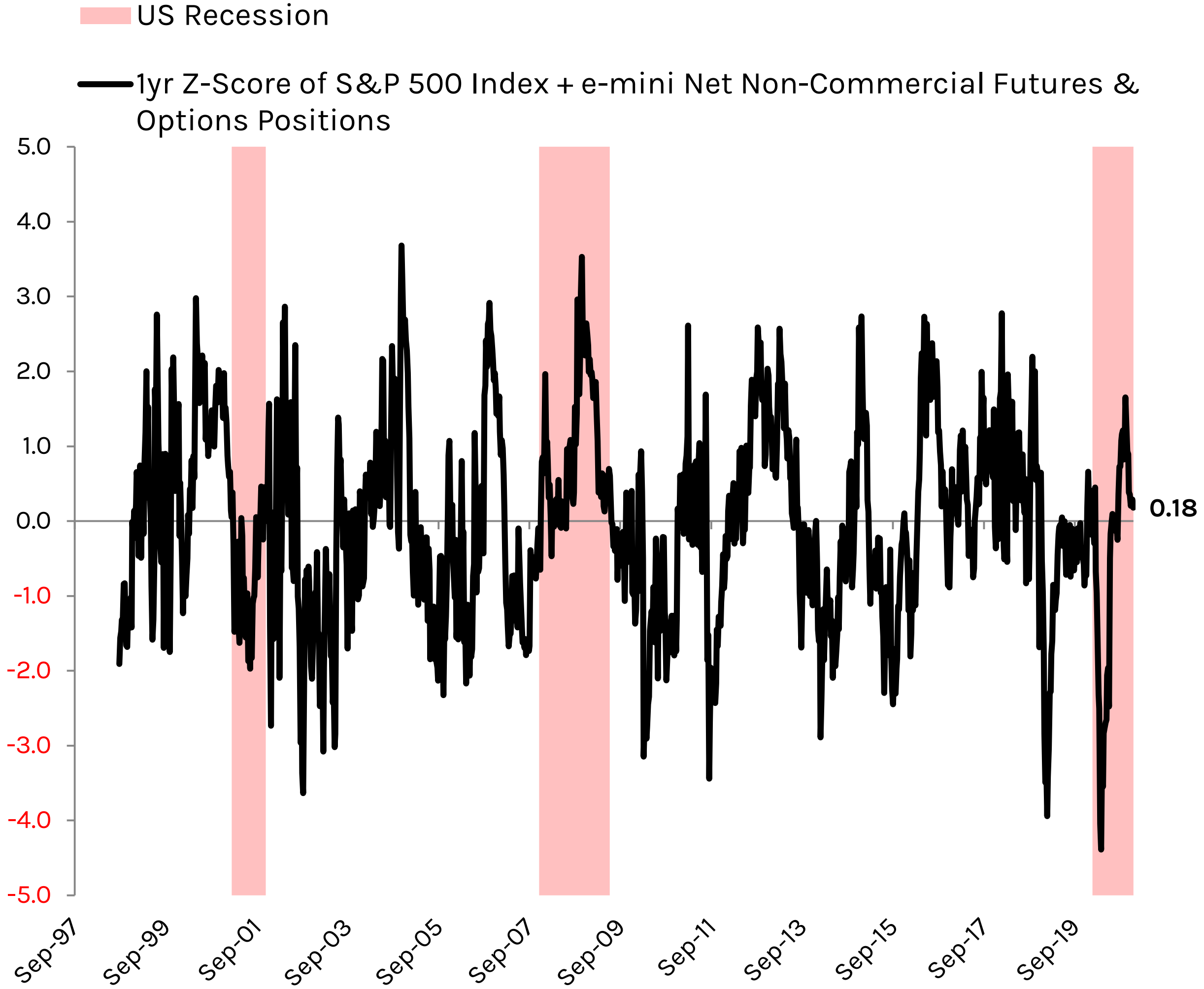
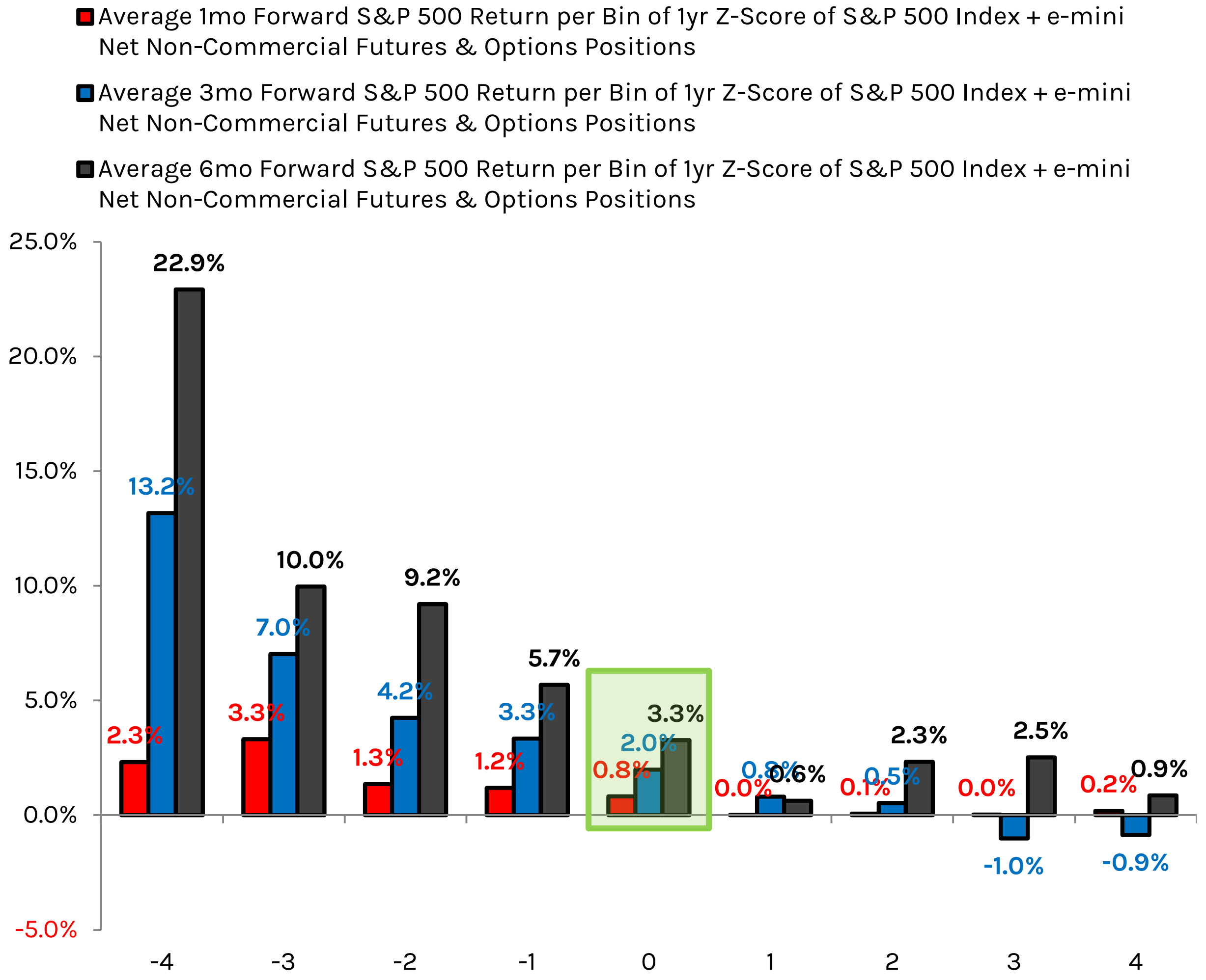
1yr Z-Score Of S&P 500 Index + e-mini Net Non-Commercial Futures & Options Positions



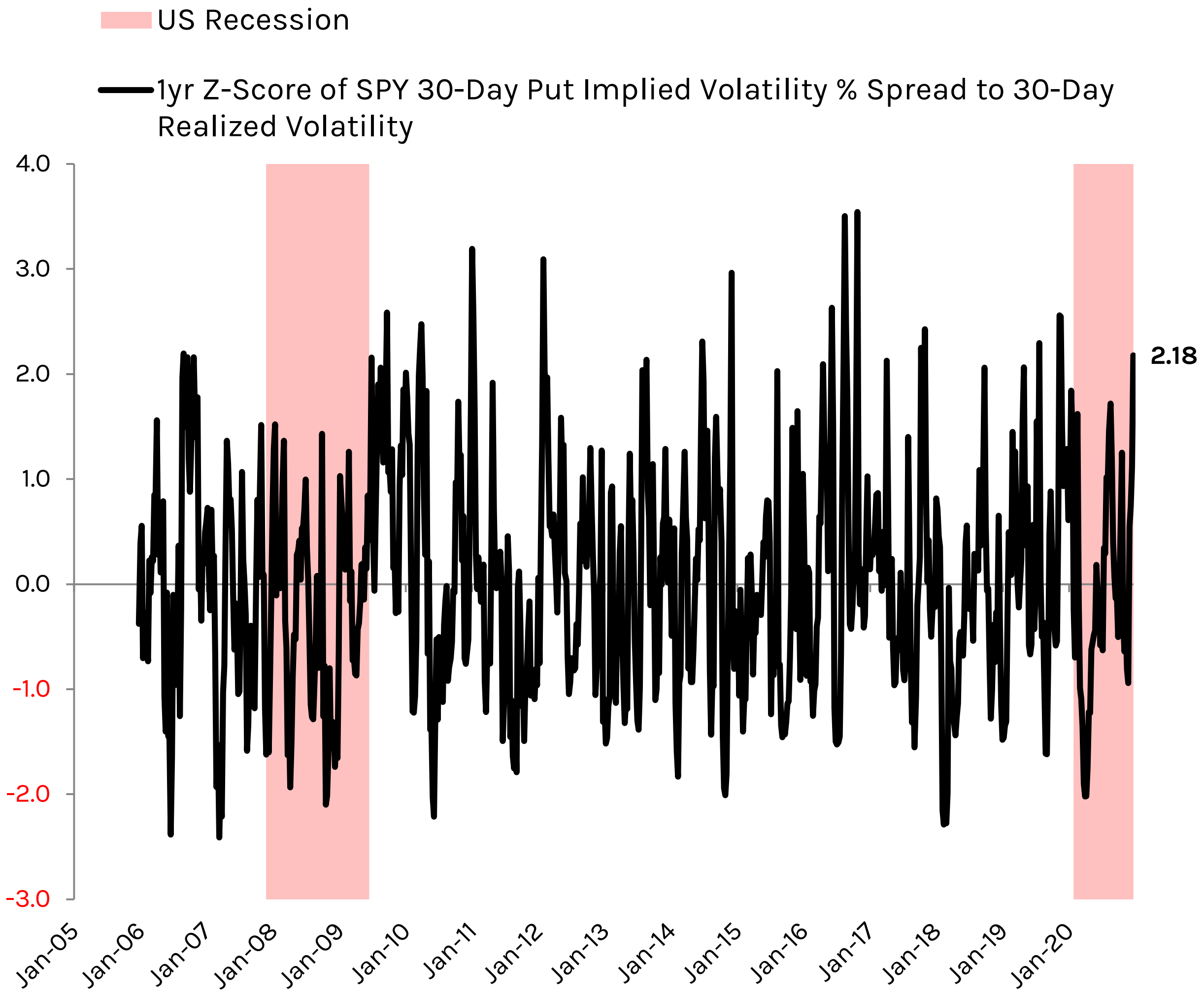
S&P 500 Forward Return Distribution Per Bin Of 1yr Z-Score Of S&P 500 NNCF&O Positions



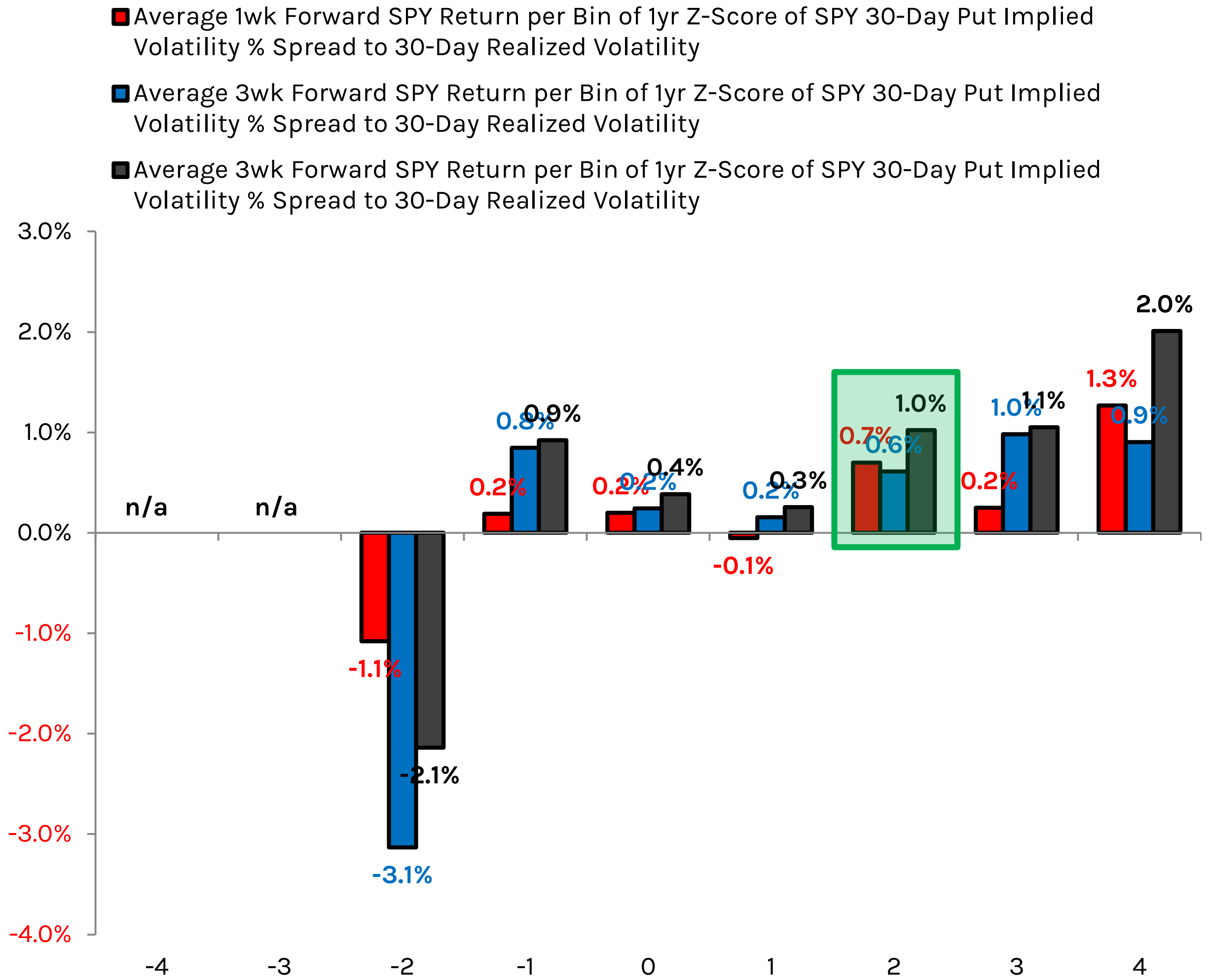
Data Source: Bloomberg

Let’s Focus On Sentiment Gauges That Deliver Consistent Results: CHASING

1yr Z-Score Of SPY 30-Day ATM Put Implied Volatility % Spread To 30-Day Realized Volatility



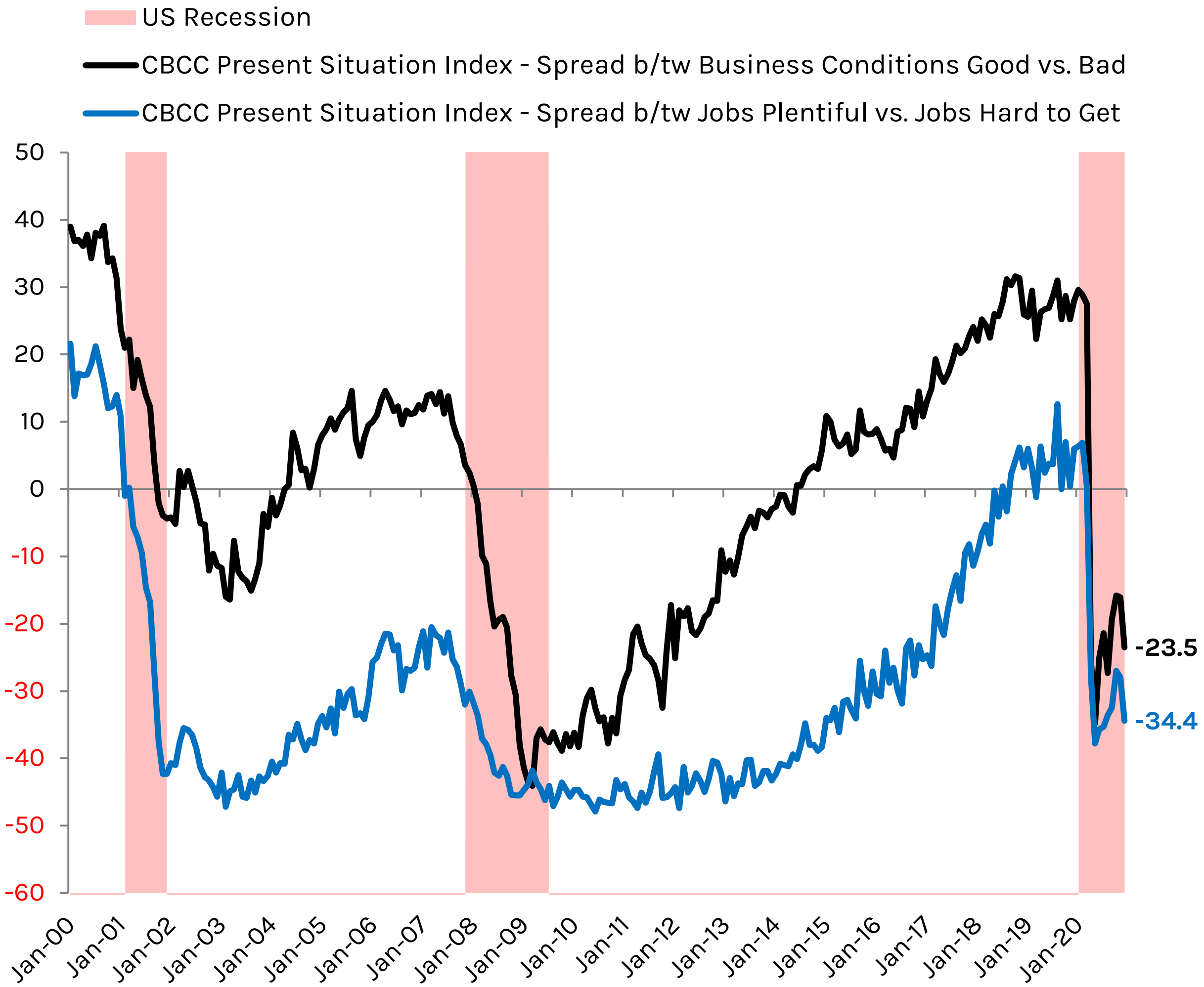
S&P 500 Forward Return Distribution Per Bin Of 1yr Z-Score Of SPY 30-Day IVOL % Spread To 30-Day RVOL



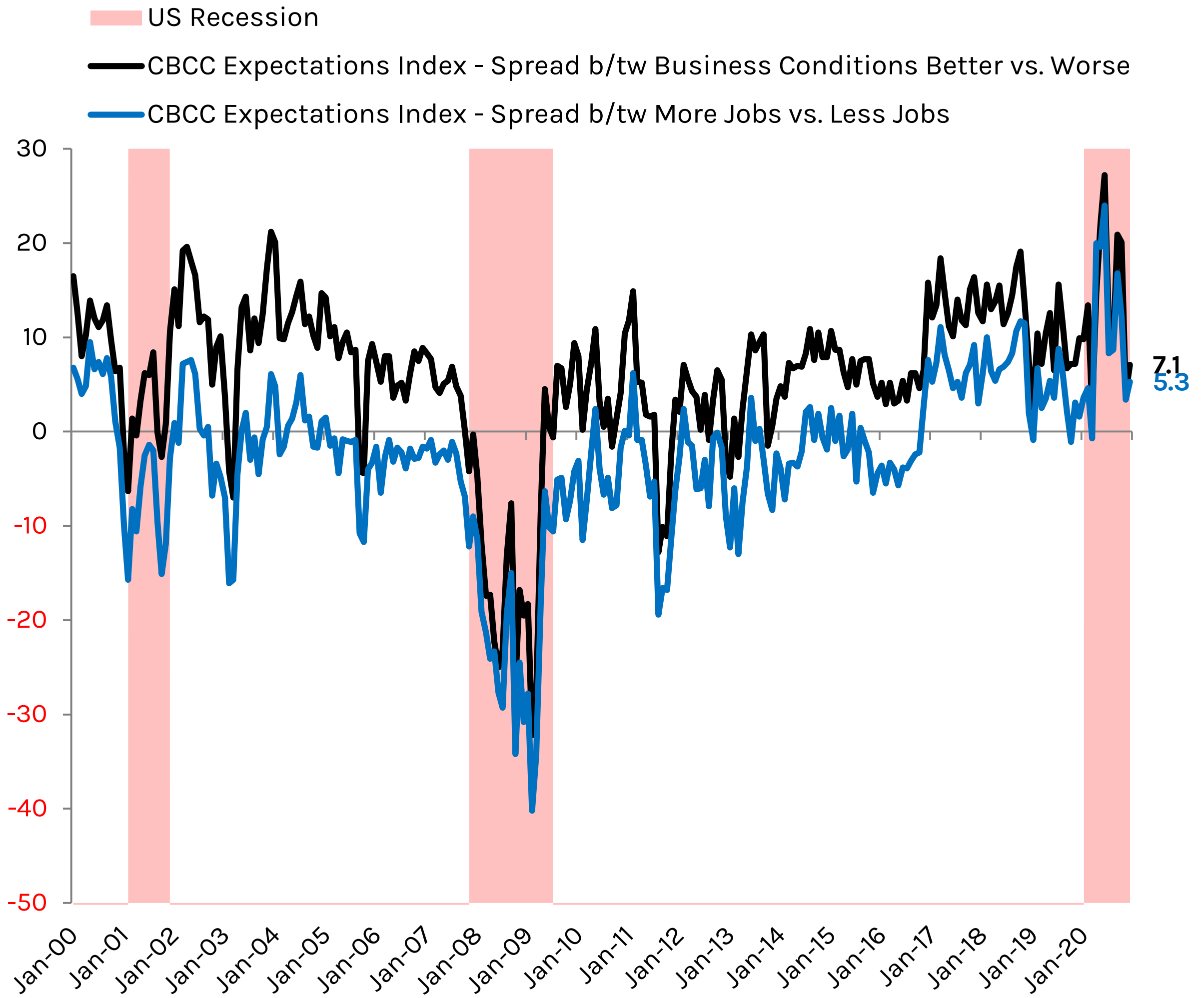
Data Source: Bloomberg

Summing Up The Debate Between #COVIDBears Versus Forward-Looking Risk Managers

Conference Board Consumer Confidence Index Present Situation Spreads



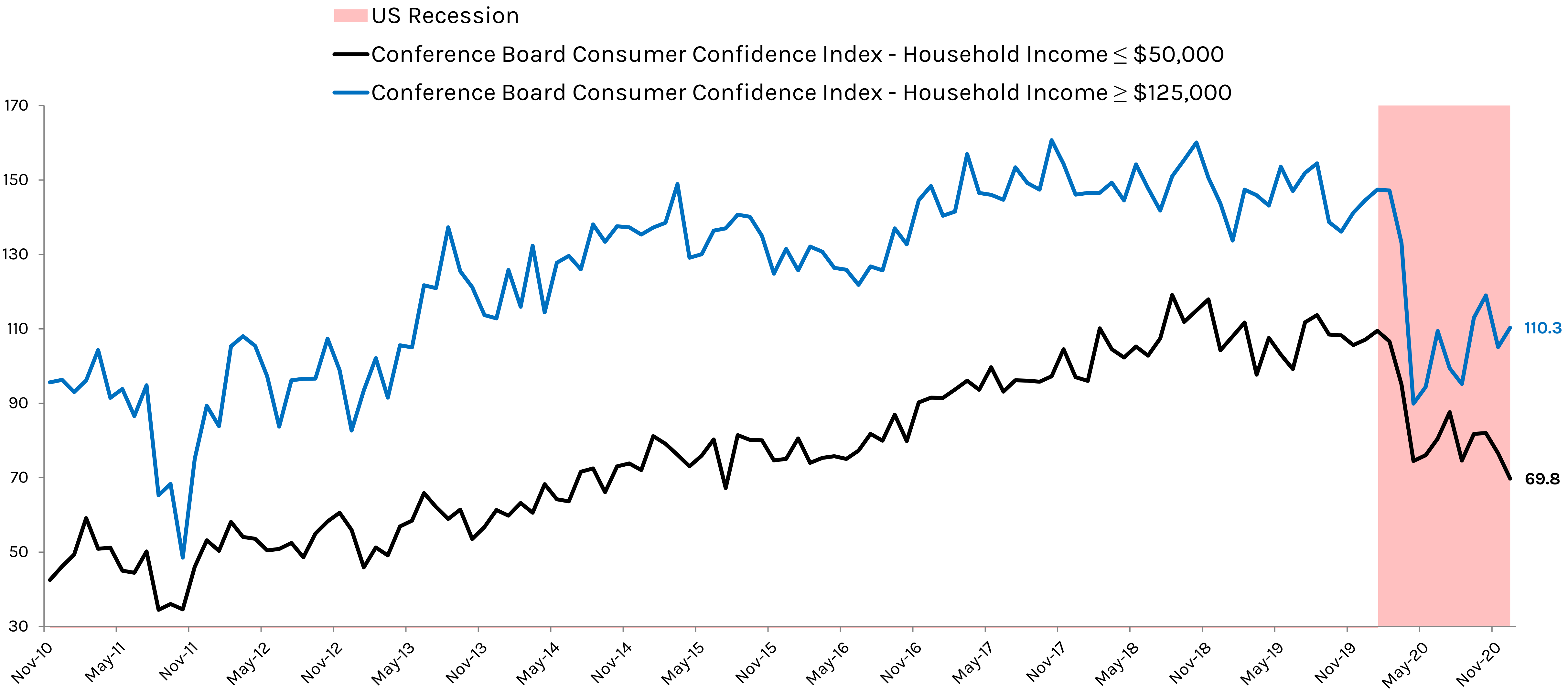
Conference Board Consumer Confidence Expectations Spreads



Data Source: Bloomberg

Reminder: The Top 20% Of Consumers By Household Income Account For ~40% Of Personal Consumption Expenditures

HEDGEYE



Data Source: Bloomberg; BLS Consumer Expenditure Survey

K-Shaped Demand Is Evident In Across The Various Drivers Of INFLATION Too

HEADLINE	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Headline CPI YoY (100% of basket)	1.12%	1.80%	2.54%	1.90%	1.97%	2.12%	2.21%	2.71%	2.64%	2.20%	1.64%	1.81%	1.76%	2.03%	2.12%	0.36%	1.22%	1.26%	1.88%	3.08%	2.68%
COMMODITIES	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Food CPI YoY (14% of basket)	-0.02%	-0.33%	0.11%	0.76%	1.15%	1.43%	1.45%	1.35%	1.40%	1.39%	1.90%	1.89%	1.76%	1.96%	1.85%	4.02%	4.06%	3.78%	3.51%	2.31%	2.36%
Food At Home CPI YoY (8% of basket)	-1.89%	-2.18%	-1.50%	-0.32%	0.35%	0.70%	0.65%	0.35%	0.42%	0.38%	1.09%	0.95%	0.57%	0.92%	0.87%	4.85%	4.45%	3.73%	3.26%	1.03%	1.48%
Food Away From Home CPI YoY (6% of basket)	2.68%	2.32%	2.38%	2.28%	2.24%	2.44%	2.52%	2.67%	2.66%	2.66%	2.89%	3.03%	3.21%	3.22%	3.02%	2.95%	3.56%	3.84%	3.81%	3.78%	3.49%
Energy CPI YoY (6% of basket)	-7.67%	2.23%	12.30%	5.67%	6.64%	7.56%	6.77%	10.50%	9.06%	3.90%	-3.41%	-0.72%	-3.72%	-0.44%	1.08%	-16.42%	-9.30%	-9.42%	-7.86%	-3.05%	-4.39%
Energy Goods CPI YoY (3% of basket)	-14.39%	2.95%	23.21%	6.86%	10.78%	12.70%	11.02%	19.88%	18.48%	6.65%	-6.32%	-0.92%	-6.21%	-0.52%	2.24%	-29.26%	-17.50%	-19.04%	-16.89%	-9.14%	-11.06%
Energy Services CPI YoY (3% of basket)	-0.19%	1.67%	3.38%	4.60%	2.90%	2.69%	2.32%	0.39%	-0.86%	0.46%	0.19%	-0.45%	-0.37%	-0.05%	-0.28%	-0.11%	0.37%	2.03%	2.54%	2.73%	2.50%
CORE	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Core CPI YoY (80% of basket)	2.24%	2.15%	2.17%	1.77%	1.69%	1.75%	1.93%	2.21%	2.24%	2.18%	2.09%	2.06%	2.32%	2.30%	2.24%	1.28%	1.67%	1.65%	1.73%	2.12%	1.86%
CORE GOODS	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Core Goods CPI YoY (20% of basket)	-0.57%	-0.62%	-0.44%	-0.67%	-0.83%	-0.86%	-0.50%	-0.29%	-0.19%	0.07%	0.14%	-0.08%	0.64%	0.16%	-0.15%	-0.99%	0.31%	1.33%	1.44%	1.55%	1.34%
Household Furnishings & Supplies CPI YoY (4% of basket)	-1.86%	-1.98%	-1.63%	-1.37%	-1.72%	-1.88%	-1.59%	-1.03%	-0.31%	0.84%	1.37%	1.03%	1.50%	0.60%	-0.23%	0.92%	2.07%	2.60%	3.10%	2.65%	1.74%
Apparel CPI YoY (3% of basket)	0.17%	0.27%	0.69%	-0.38%	-0.41%	-1.26%	0.00%	0.94%	-0.55%	-0.27%	-0.94%	-2.44%	0.03%	-1.67%	-1.27%	-6.96%	-6.14%	-5.36%	-5.12%	-3.37%	-4.17%
Transportation Goods CPI YoY (7% of basket)	-1.15%	-1.14%	-1.14%	-1.40%	-1.77%	-1.29%	-0.80%	-0.93%	0.38%	0.73%	0.71%	0.91%	0.98%	0.17%	-0.28%	-0.63%	2.22%	5.19%	5.20%	5.24%	4.51%
Medical Care Goods CPI YoY (2% of basket)	4.28%	4.66%	4.20%	3.01%	2.37%	1.66%	1.59%	2.34%	0.47%	0.27%	-0.64%	-0.65%	-0.20%	1.37%	1.60%	0.94%	0.92%	-1.16%	-0.93%	-0.50%	-0.77%
Recreation Goods CPI YoY (2% of basket)	-3.48%	-3.77%	-3.39%	-3.49%	-3.10%	-3.09%	-3.31%	-3.10%	-2.90%	-2.59%	-1.30%	-1.22%	-0.83%	0.18%	-0.86%	-2.07%	-0.82%	-1.08%	-1.01%	-0.26%	-1.36%
Education & Communication Goods CPI YoY (0% of basket)	-3.91%	-4.10%	-2.54%	-3.50%	-2.53%	-2.83%	-2.77%	-1.89%	-3.00%	-3.65%	-4.53%	-5.71%	-4.07%	-5.15%	-5.42%	-3.41%	-5.02%	-4.41%	-3.44%	-4.01%	-4.03%
Alcoholic Beverages CPI YoY (1% of basket)	1.25%	1.27%	1.09%	1.09%	1.24%	1.36%	1.32%	1.48%	1.52%	1.73%	1.69%	1.42%	1.73%	0.64%	1.02%	2.08%	1.67%	2.74%	2.77%	2.42%	2.47%
Other Goods CPI YoY (1% of basket)	1.12%	1.06%	0.73%	2.28%	2.22%	2.68%	2.66%	1.23%	0.92%	-0.15%	0.55%	1.16%	2.13%	3.06%	3.06%	2.56%	1.64%	1.08%	0.90%	0.86%	0.84%
CORE SERVICES	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Core Services CPI YoY (59% of basket)	3.17%	3.06%	3.02%	2.57%	2.50%	2.59%	2.69%	3.00%	3.03%	2.87%	2.75%	2.78%	2.87%	3.00%	3.01%	2.02%	2.11%	1.73%	1.77%	2.10%	2.04%
Shelter CPI YoY (33% of basket)	3.37%	3.56%	3.51%	3.35%	3.23%	3.20%	3.21%	3.43%	3.40%	3.20%	3.32%	3.43%	3.45%	3.30%	3.21%	2.51%	2.22%	1.97%	1.93%	2.08%	2.15%
Water, Sewer & Trash Collection CPI YoY (1% of basket)	3.27%	3.35%	3.68%	3.30%	3.28%	3.18%	2.91%	3.27%	3.66%	4.17%	3.59%	3.40%	3.12%	2.60%	3.13%	2.93%	3.29%	3.33%	3.36%	3.55%	3.51%
Household Operations CPI YoY (1% of basket)	2.65%	2.80%	2.69%	2.61%	2.60%	3.03%	5.06%	5.90%	5.63%	5.42%	4.27%	3.91%	5.32%	4.78%	4.00%	3.40%	2.11%	2.33%	3.63%	4.38%	4.28%
Medical Care Services CPI YoY (7% of basket)	4.66%	3.96%	3.47%	2.69%	1.88%	1.73%	1.98%	2.34%	2.04%	2.32%	2.39%	2.65%	4.00%	5.11%	5.33%	5.87%	5.40%	3.34%	3.08%	2.53%	1.93%
Transportation Services CPI YoY (5% of basket)	3.02%	2.65%	3.51%	3.02%	3.56%	3.93%	4.27%	3.86%	3.95%	3.29%	1.38%	1.05%	0.80%	0.71%	0.39%	-7.06%	-4.28%	-3.93%	-3.09%	-2.01%	-2.36%
Recreation Services CPI YoY (4% of basket)	3.03%	2.97%	3.56%	2.97%	3.62%	3.68%	2.64%	1.92%	1.68%	2.18%	2.40%	2.34%	1.85%	2.46%	2.44%	3.36%	2.31%	2.54%	2.50%	2.17%	2.76%
Education & Communication Services CPI YoY (6% of basket)	0.99%	0.11%	-0.78%	-2.38%	-2.38%	-1.63%	-1.07%	0.70%	1.55%	0.83%	1.04%	1.32%	0.95%	1.66%	2.14%	1.94%	2.88%	2.51%	2.12%	2.08%	1.83%
Other Personal Services CPI YoY (2% of basket)	2.98%	2.76%	3.15%	2.68%	2.24%	1.99%	2.24%	3.50%	3.37%	4.14%	3.57%	1.81%	2.15%	1.77%	2.53%	2.83%	3.04%	2.46%	2.20%	3.33%	2.90%
STRUCTURED BASKETS	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Cleveland Fed Median CPI YoY	2.51%	2.48%	2.56%	2.30%	2.22%	2.30%	2.37%	2.57%	2.63%	2.68%	2.73%	2.81%	2.93%	2.90%	2.84%	2.69%	2.61%	2.34%	2.29%	2.33%	2.31%
Atlanta Fed Sticky CPI YoY	2.62%	2.52%	2.55%	2.18%	2.12%	2.15%	2.23%	2.53%	2.49%	2.45%	2.41%	2.45%	2.62%	2.75%	2.73%	2.18%	2.36%	2.00%	2.03%	2.28%	2.11%
Atlanta Fed Core Sticky CPI YoY	2.64%	2.56%	2.59%	2.19%	2.12%	2.14%	2.21%	2.53%	2.49%	2.45%	2.37%	2.41%	2.58%	2.74%	2.73%	2.11%	2.25%	1.82%	1.86%	2.15%	1.99%
PCE DEFLATORS	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
PCE Deflator YoY	1.01%	1.55%	2.03%	1.65%	1.65%	1.84%	1.96%	2.30%	2.28%	1.98%	1.45%	1.52%	1.48%	1.51%	1.69%	0.65%	1.20%	1.13%	1.21%	1.52%	1.36%
Core PCE Deflator YoY	1.69%	1.82%	1.81%	1.63%	1.50%	1.66%	1.83%	2.06%	2.08%	2.01%	1.71%	1.67%	1.78%	1.65%	1.76%	1.02%	1.40%	1.38%	1.45%	1.81%	1.58%

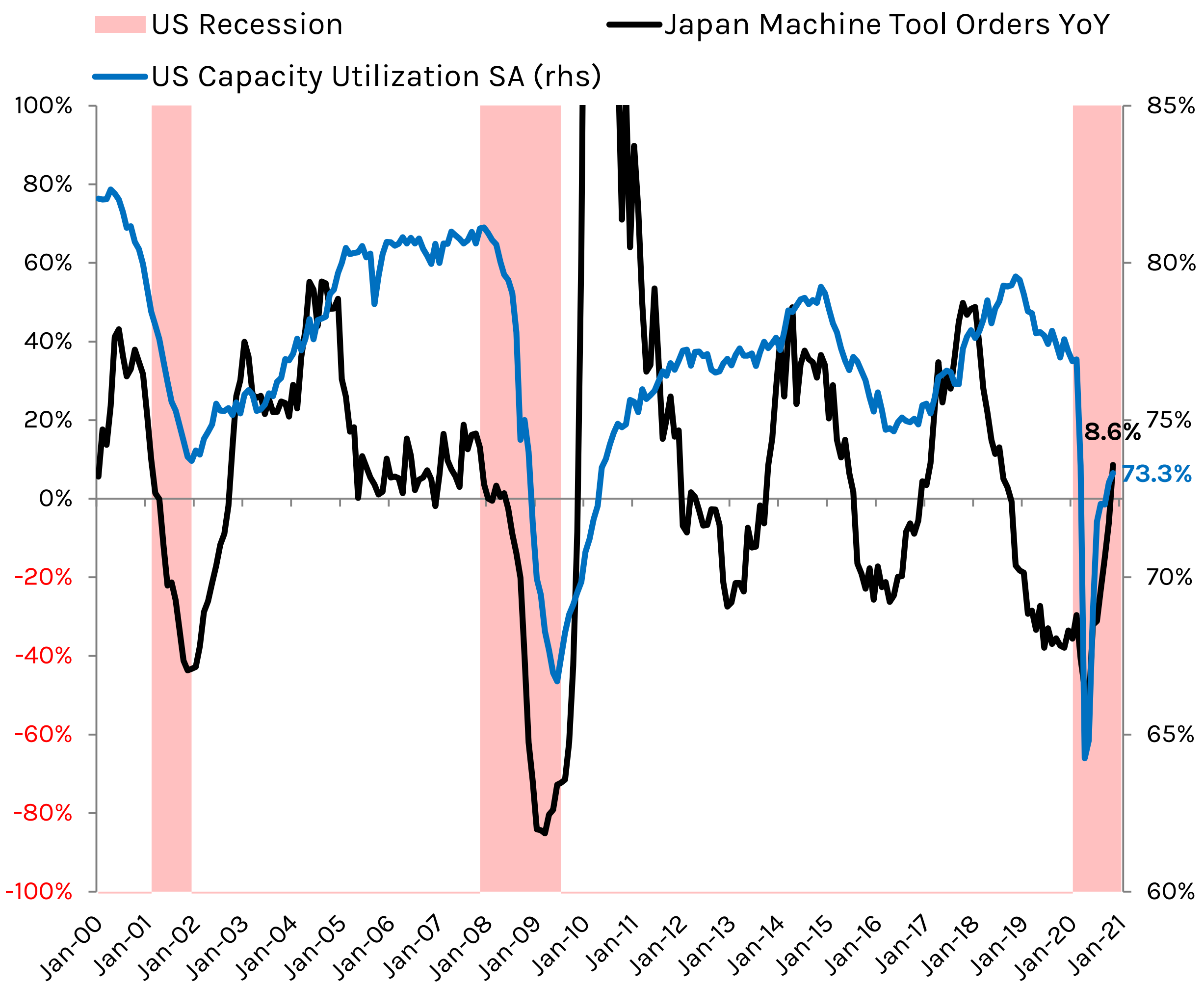
Data Source: Bloomberg. Intllectual Property of Hedgeye Risk Management. Quarterly averages. Estimates derived from our β-Adjusted Comparative Base Effects Model using 2yr comps.

Data Source: Bloomberg

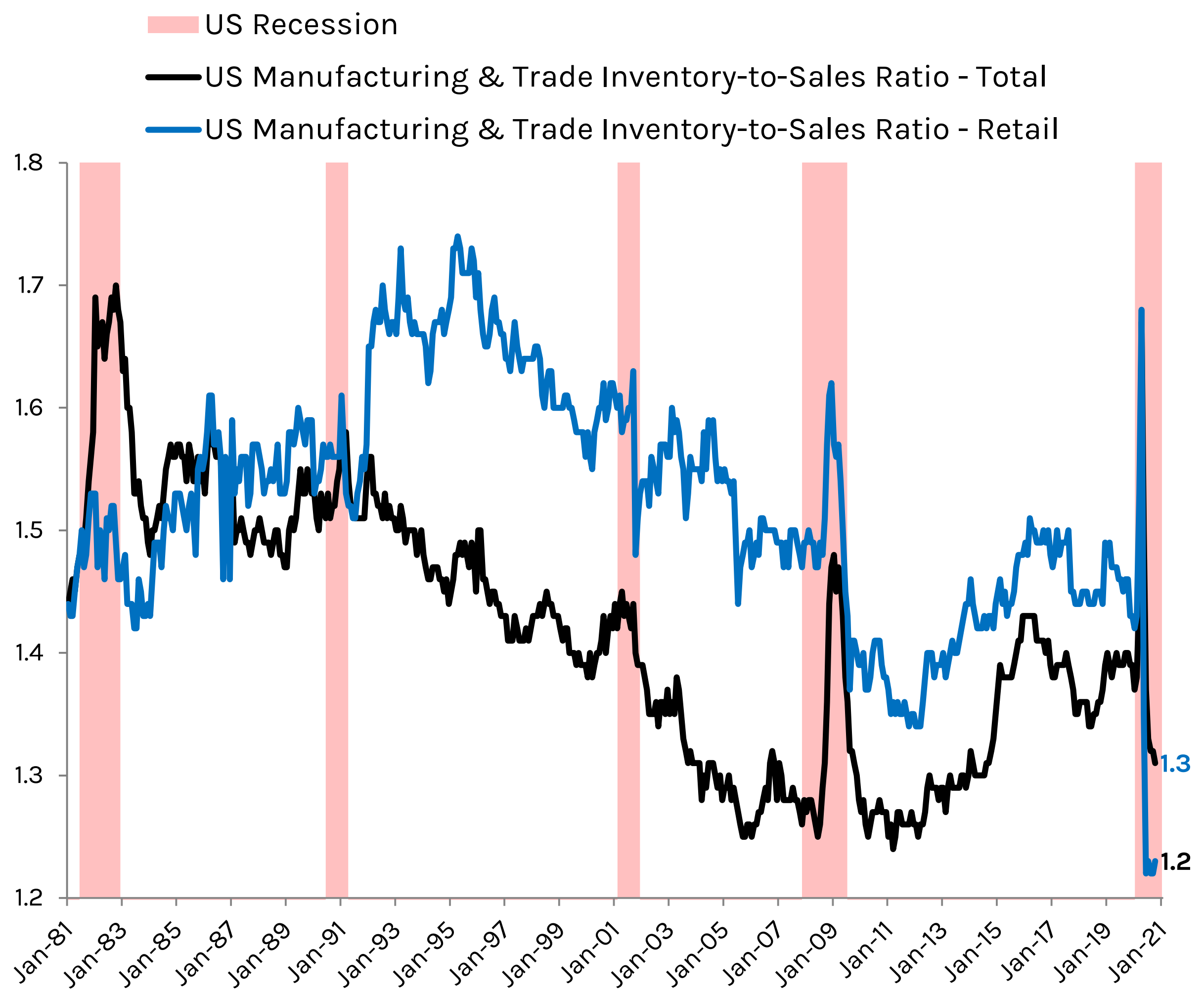
Robust Consumer Demand For Goods Suggests The #InventoryCycle Has Legs

HEDGEYE

Leading Indicators Like Japanese Machine Tool Orders Continue To Signal Momentum To The Upside



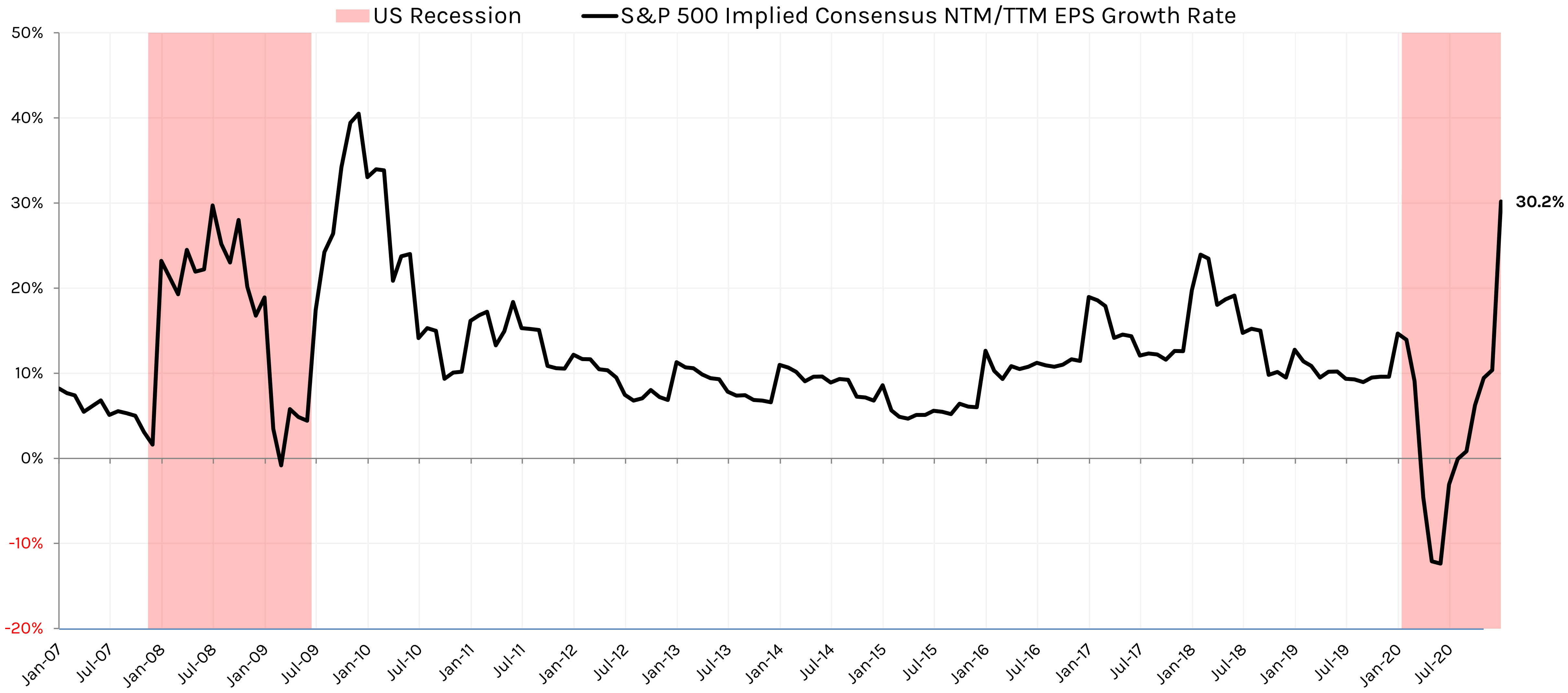
Inventory-to-Sales Ratios At Cyclical (Headline) And All-Time (Retail) Lows Portend Positively For Restocking



Data Source: Bloomberg

We Think The #ProfitsCycle Has Legs Too

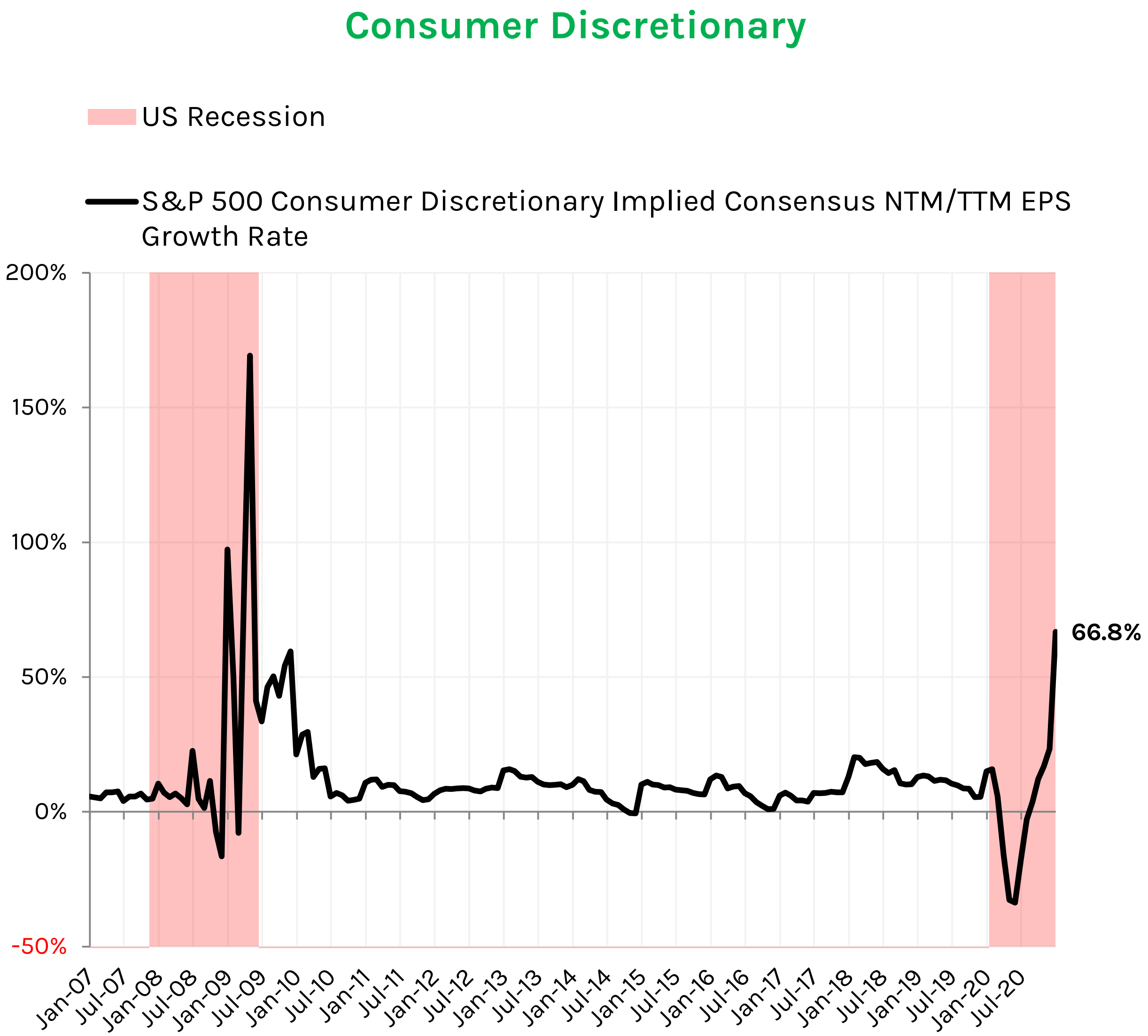
HEDGEYE

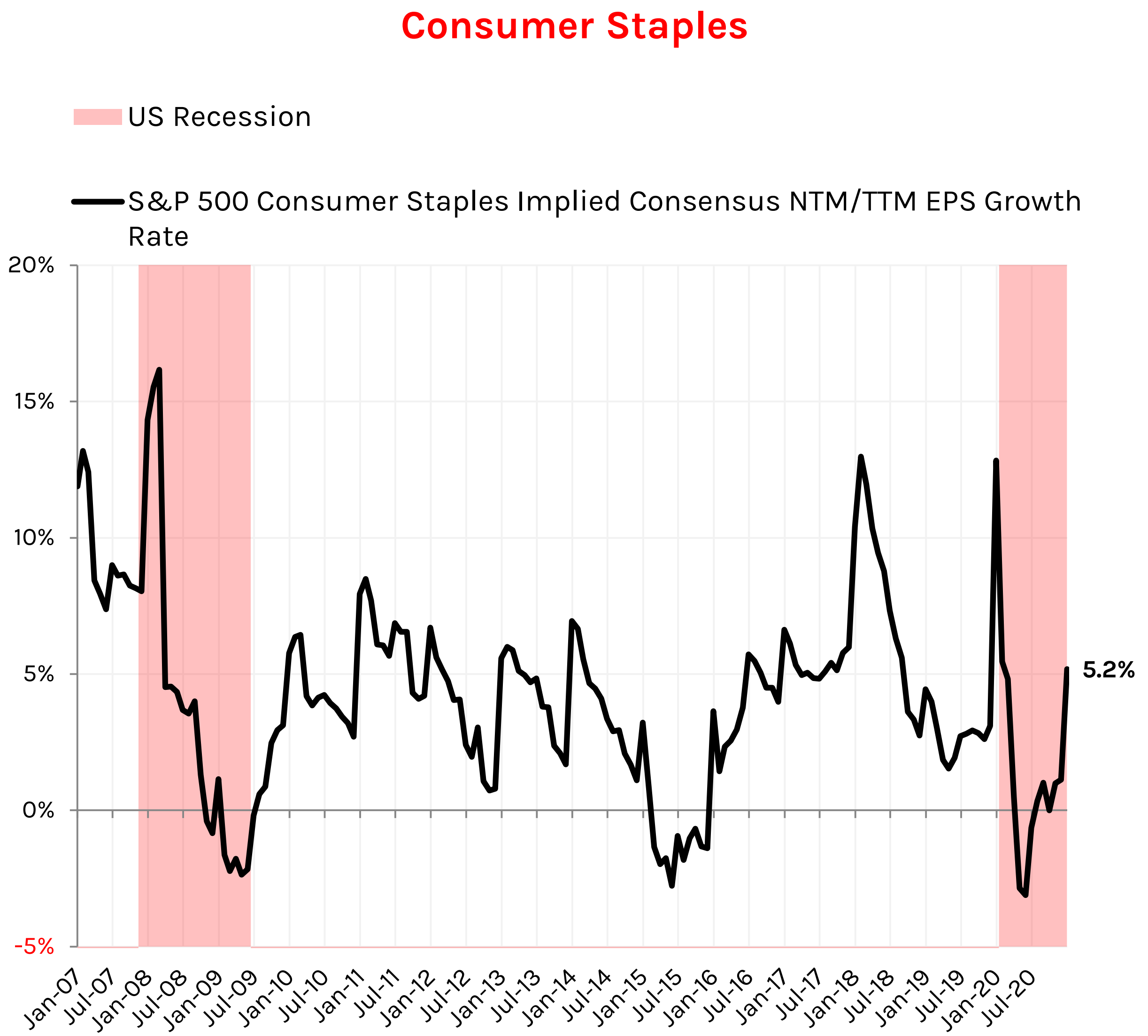


Data Source: Bloomberg

The #ProfitsCycle Suggests Being Long Consumer Cyclicals Versus Short Consumer Staples

HEDGEYE

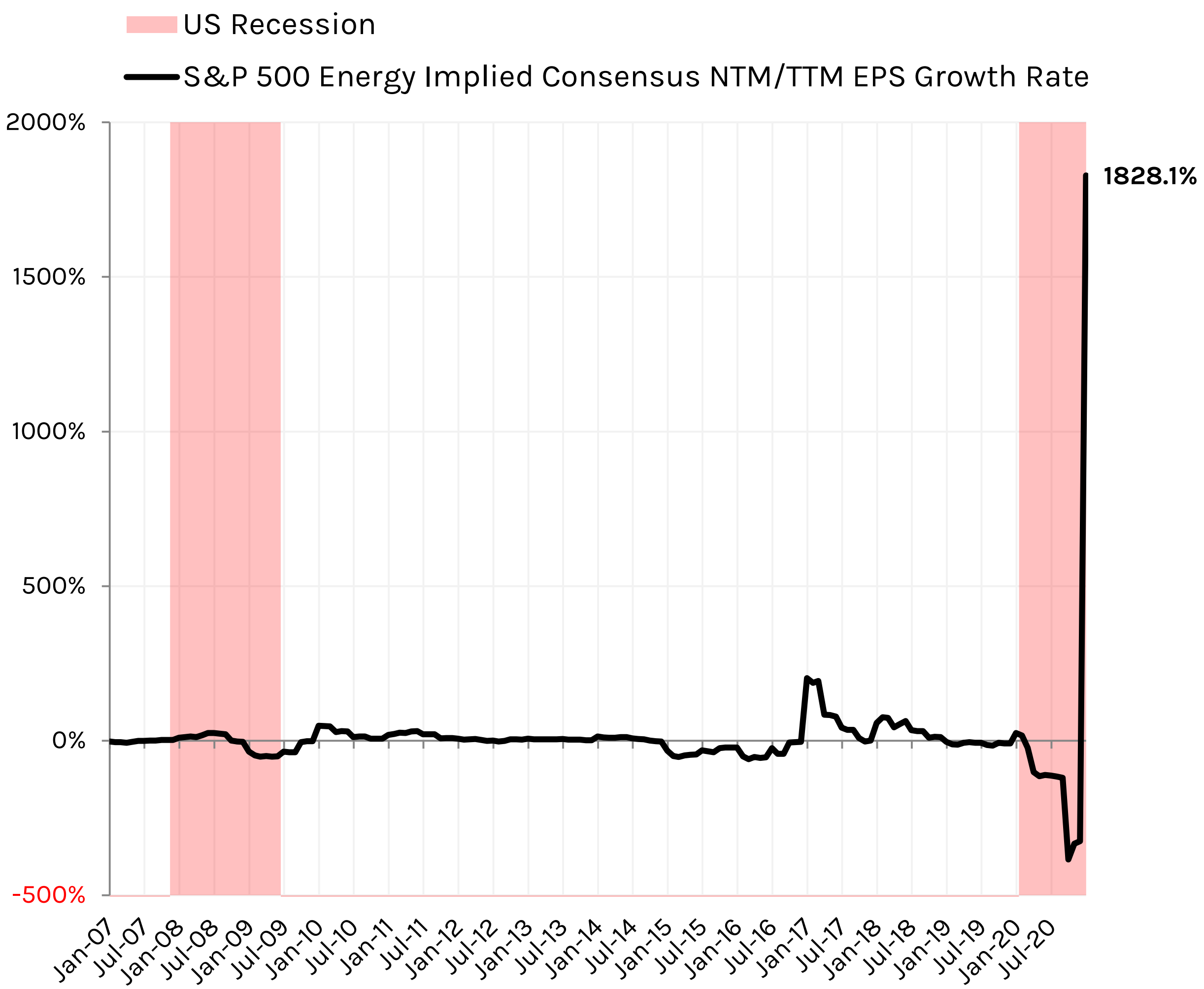




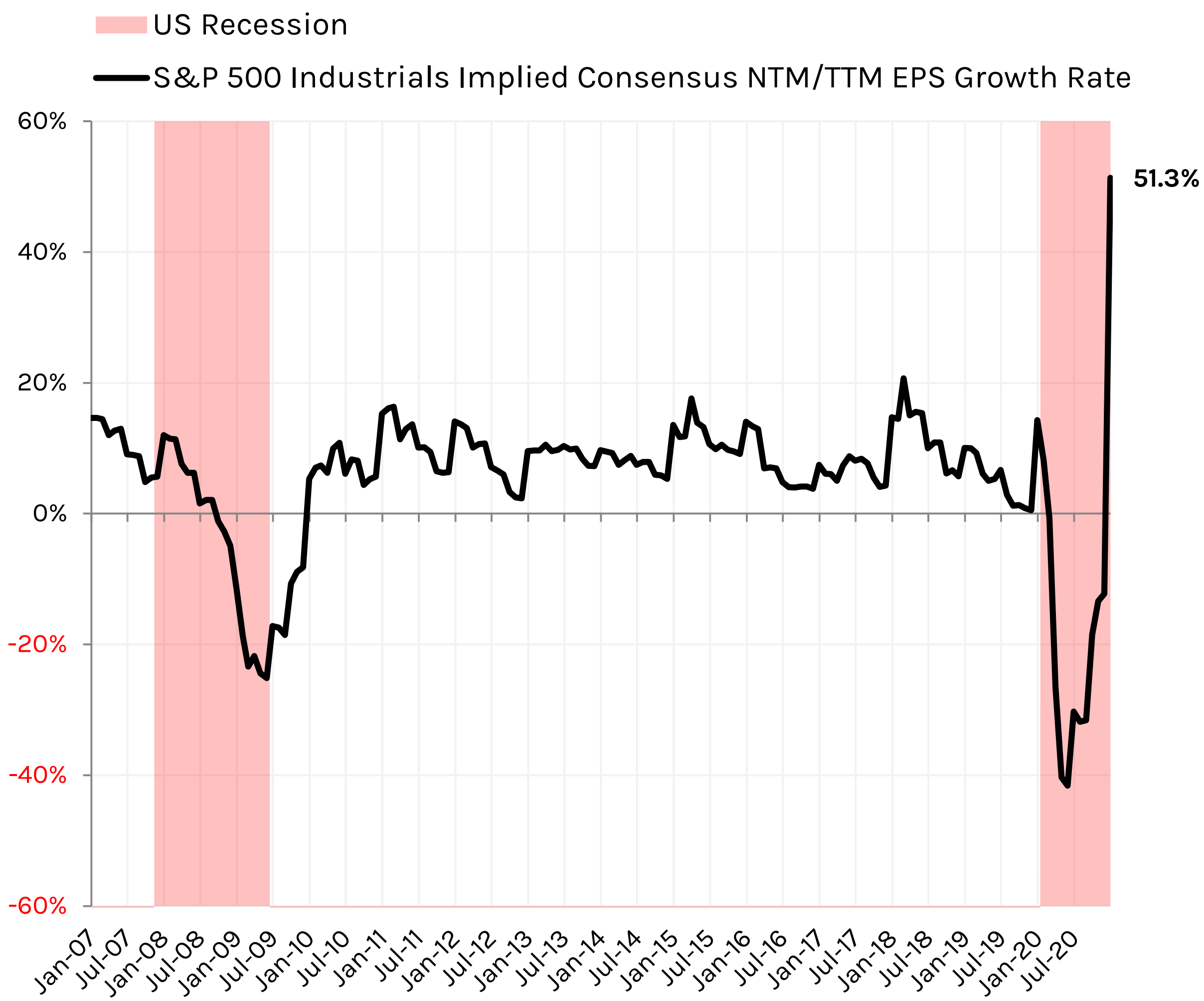
Data Source: Bloomberg

The #ProfitsCycle Is Raging Bullish For Energy And Industrials – Two #Quad2 Overweights

Energy



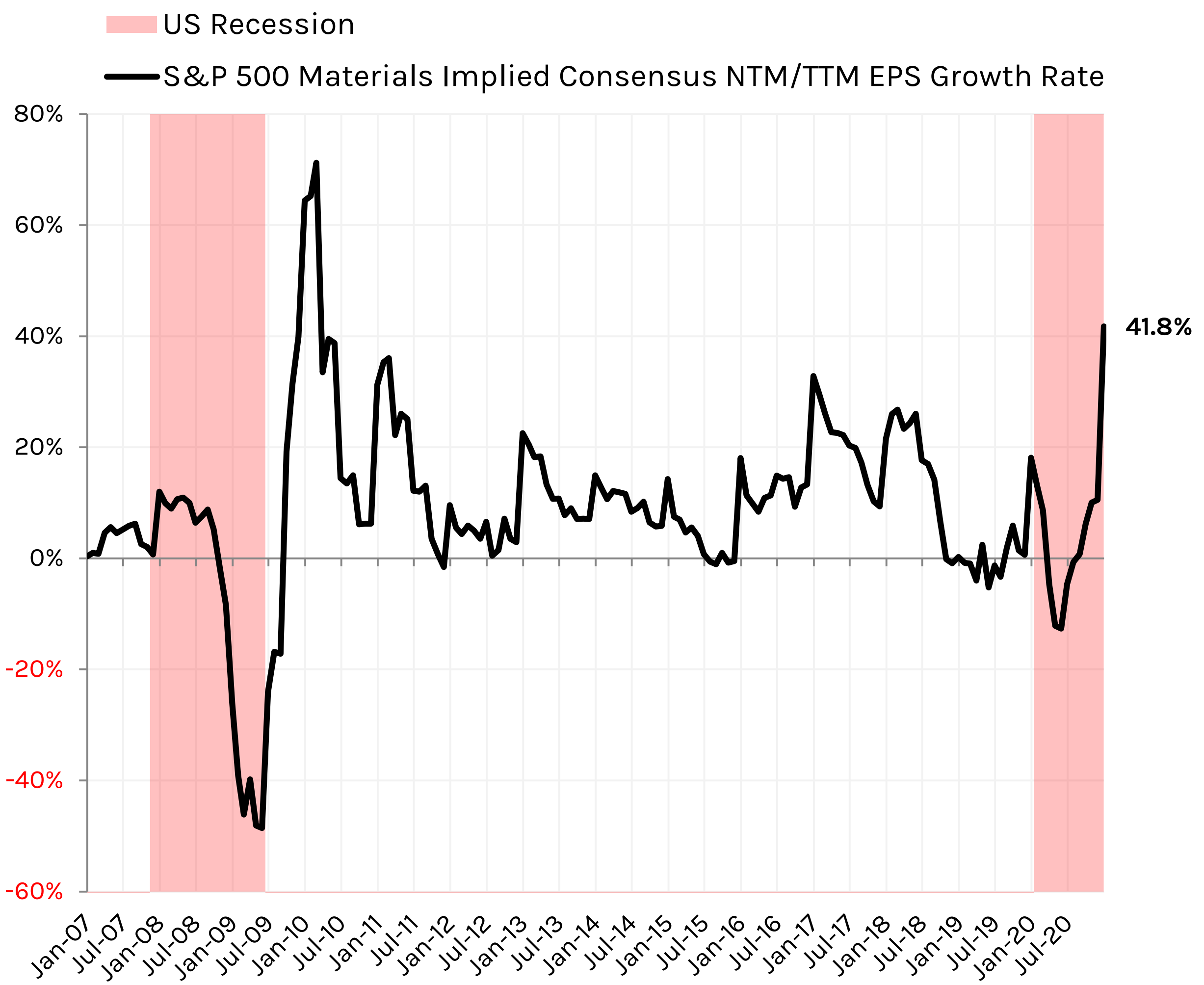
Industrials



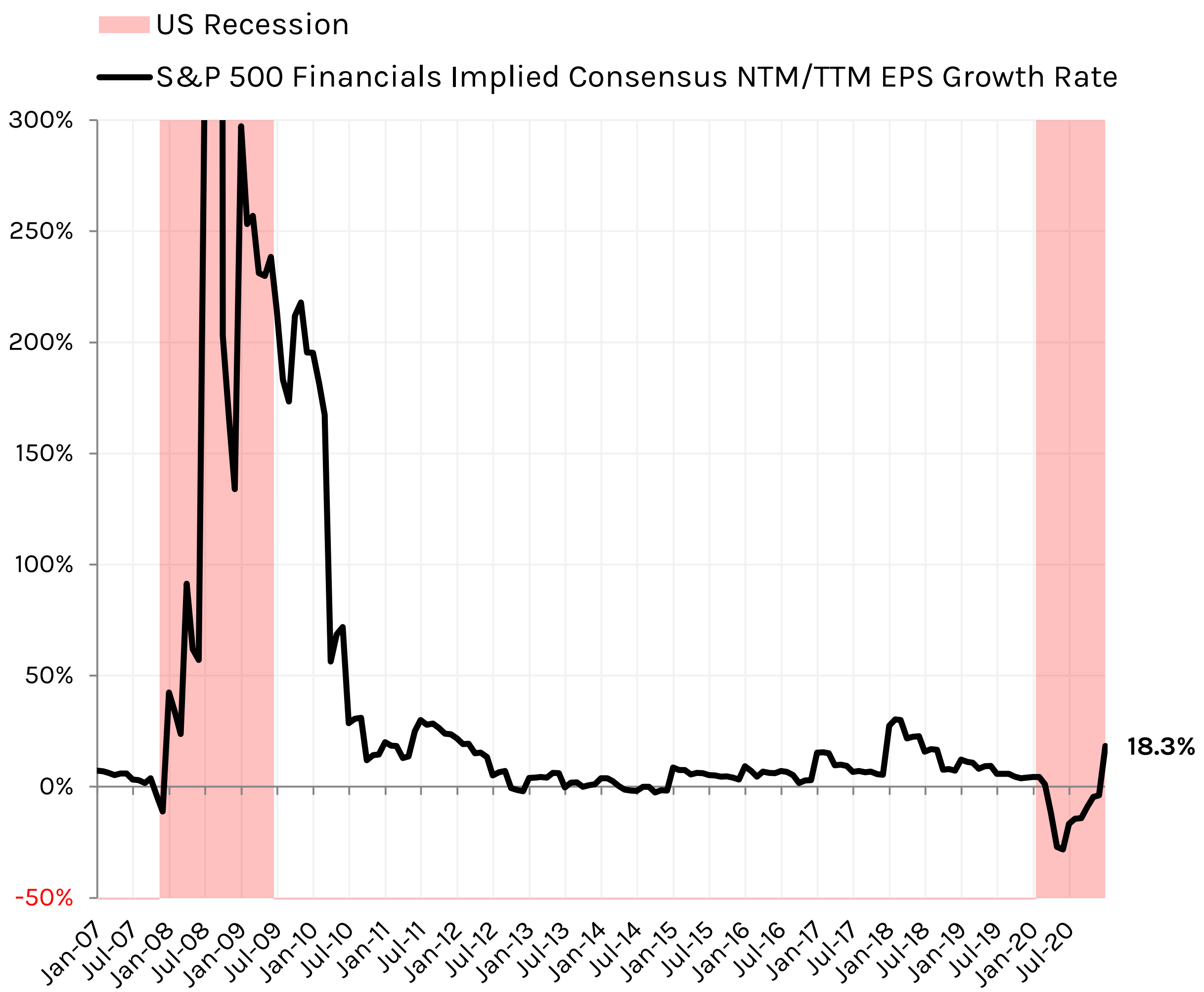
Data Source: Bloomberg

The #ProfitsCycle Is Bullish For Materials, And To A Lesser Extent, Financials – Two #Quad2 Overweights

Materials



Financials

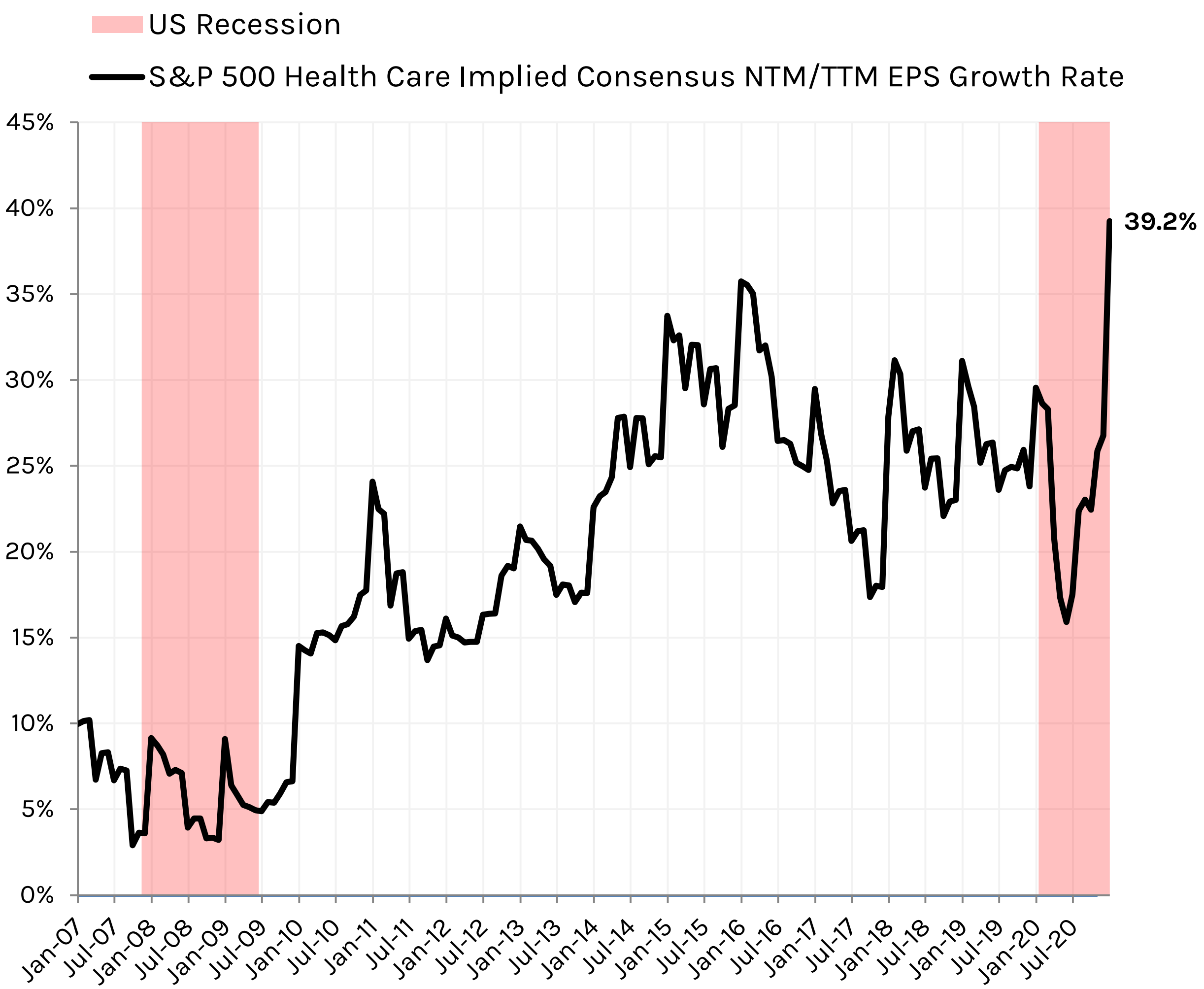


Data Source: Bloomberg

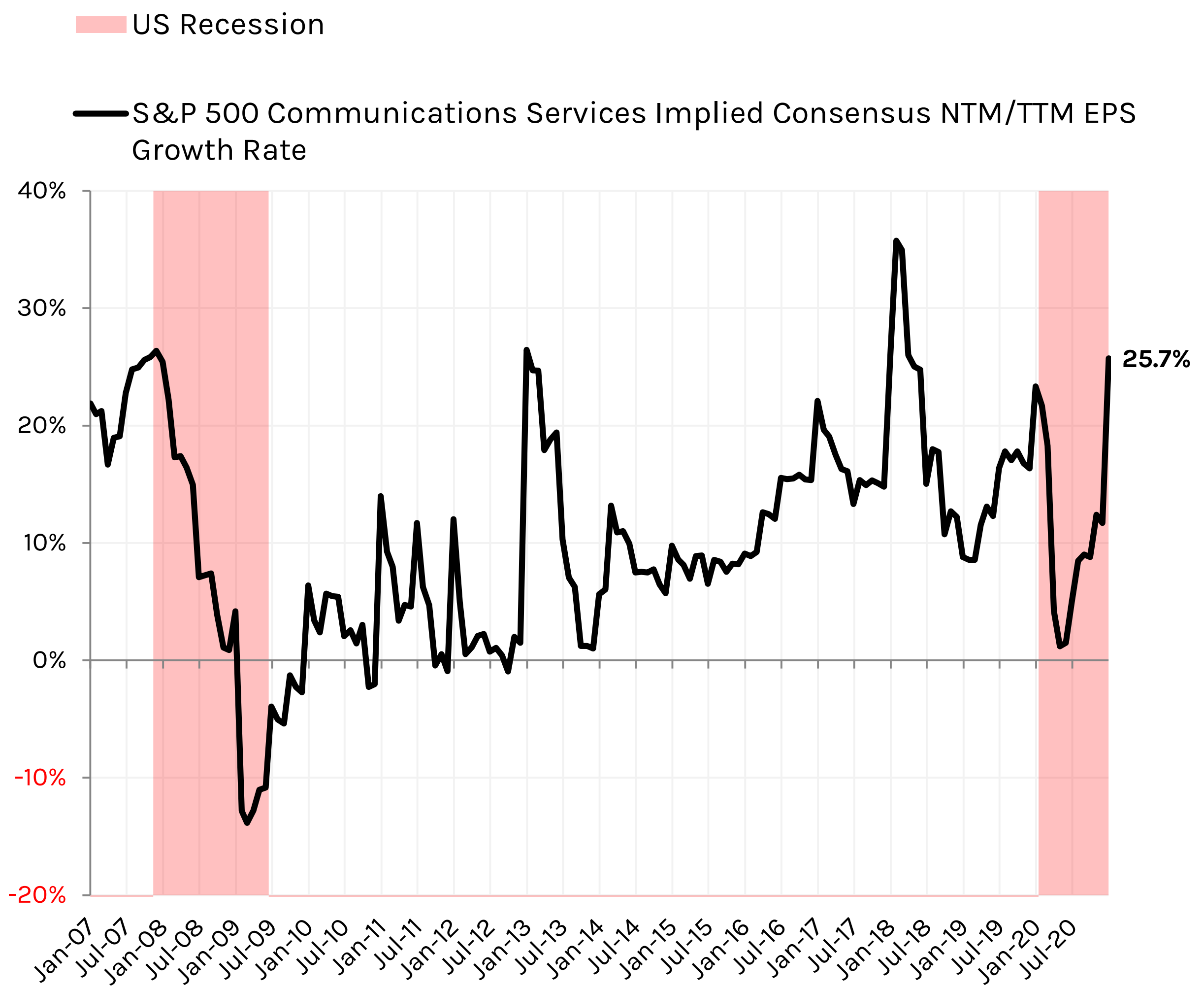
The #ProfitsCycle Suggests NOT Shorting Health Care And Communications Services – Two #Quad2 Underweights

HEDGEYE

Health Care



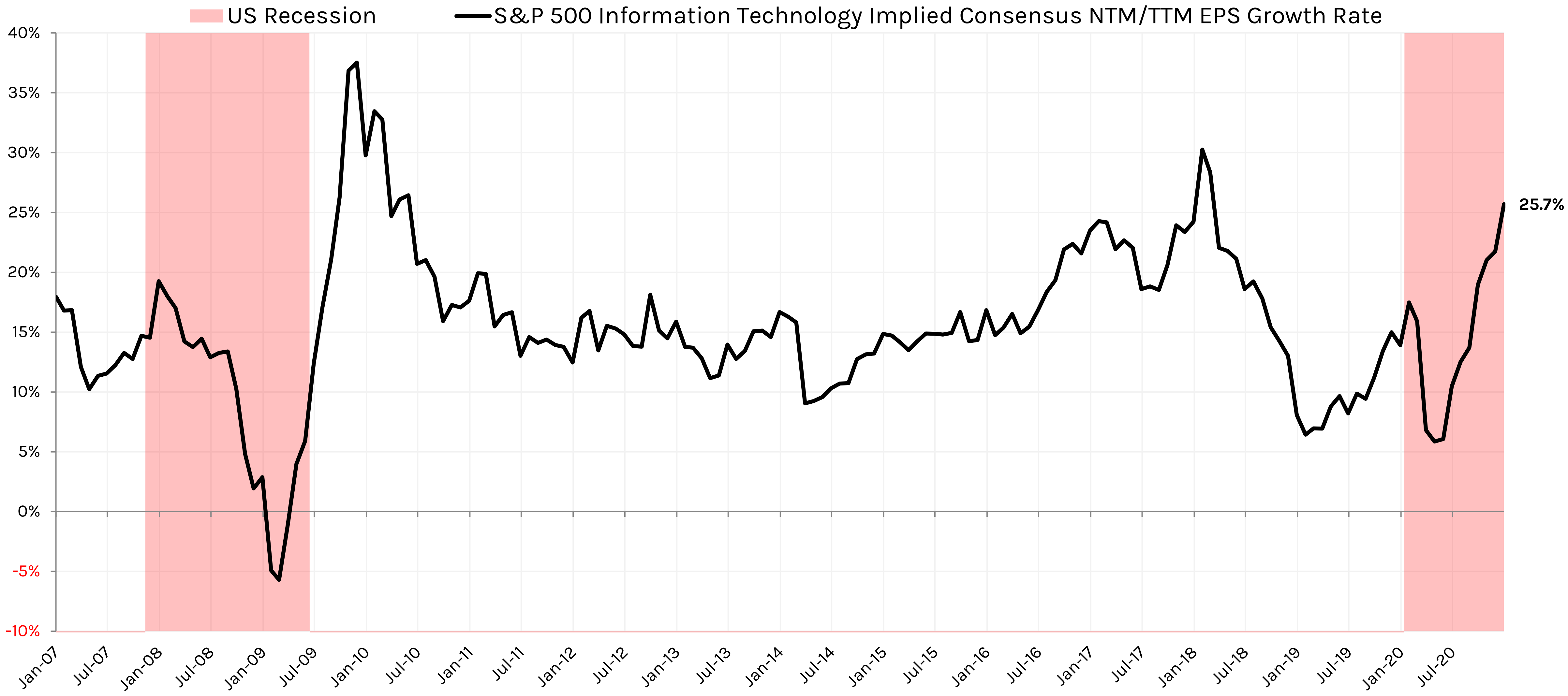
Communications Services



Data Source: Bloomberg

How To Hedge Duration Risk: Long Tech...

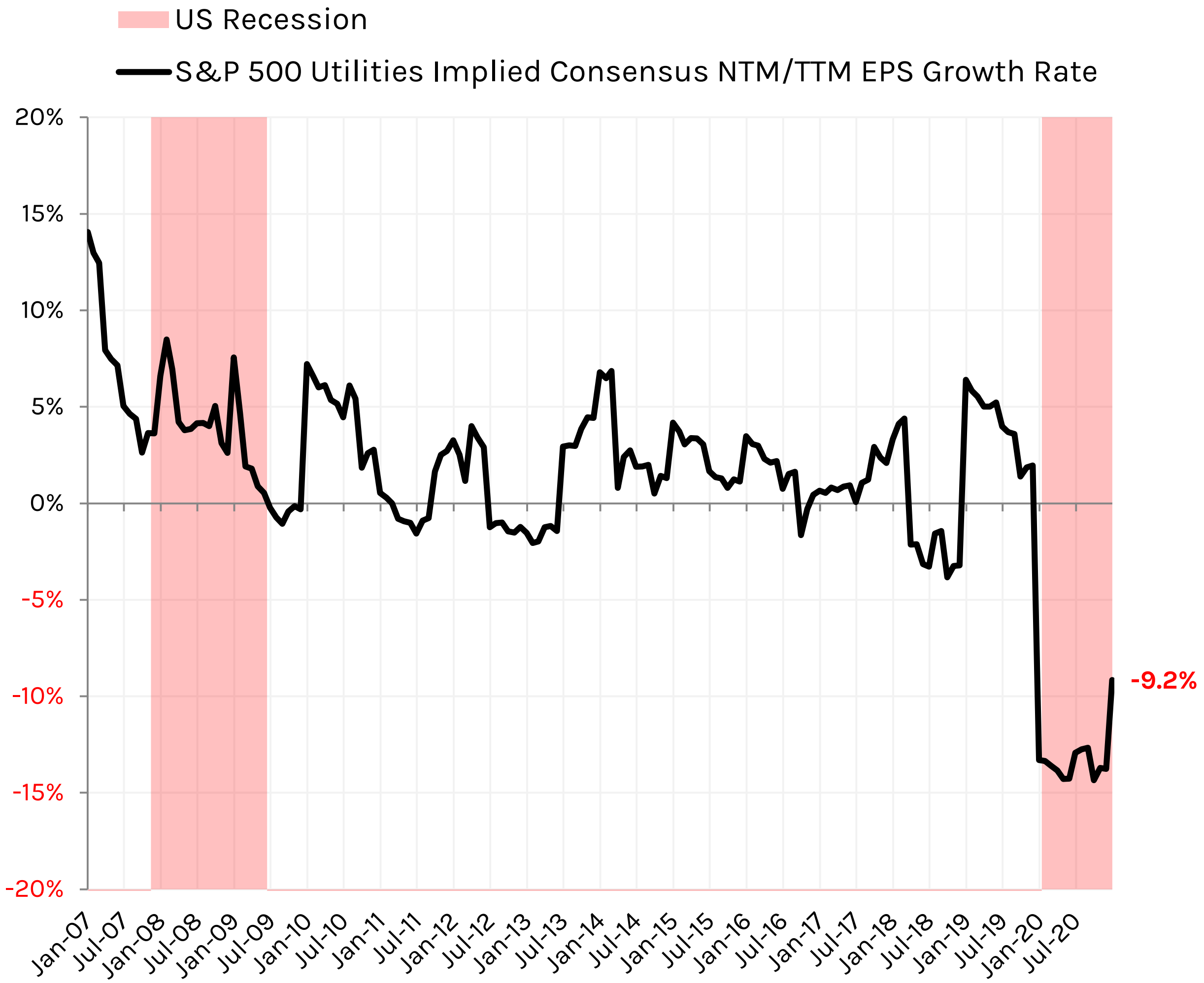
HEDGEYE



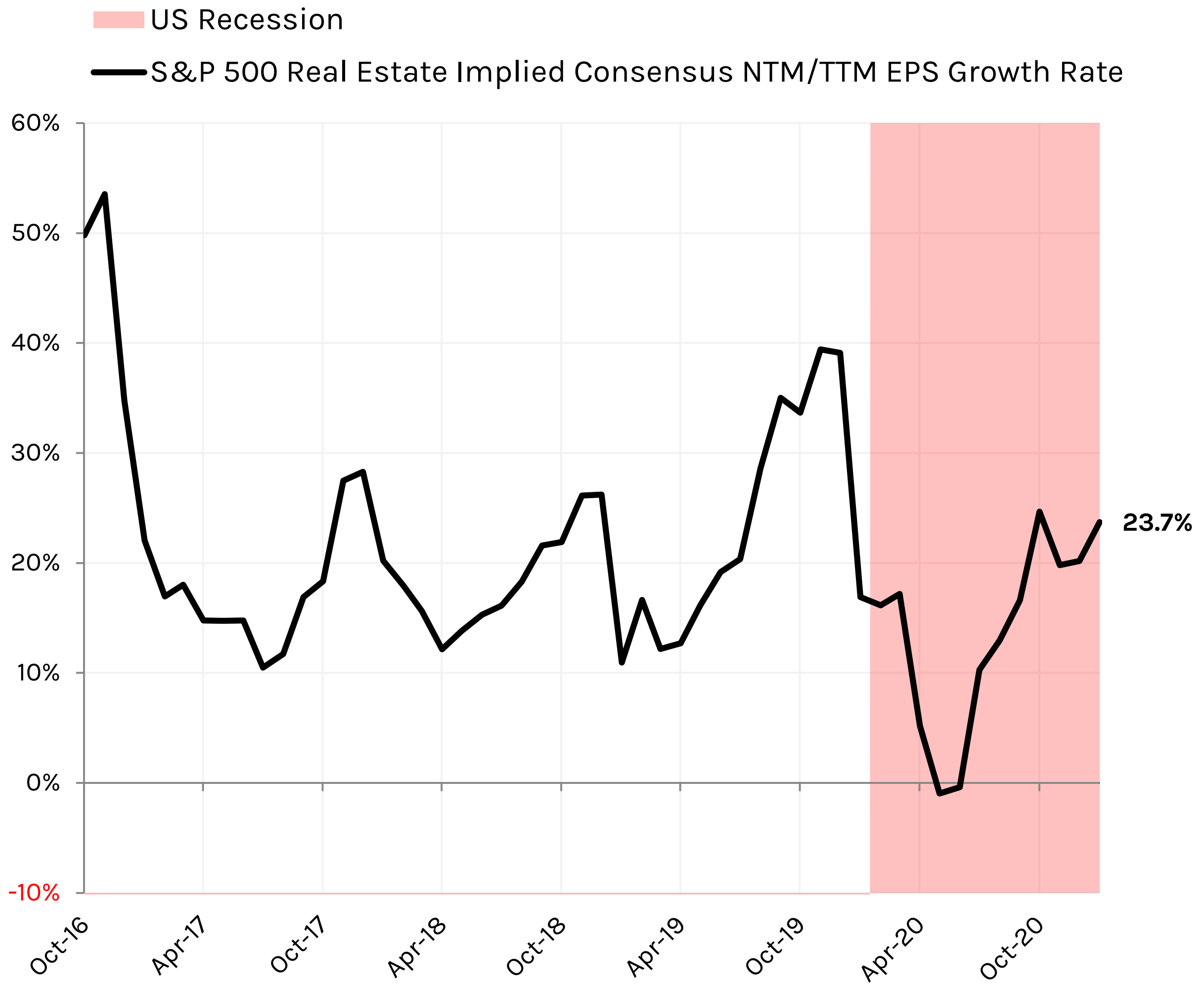
Data Source: Bloomberg

… Versus Short Utes And REITS

Utilities



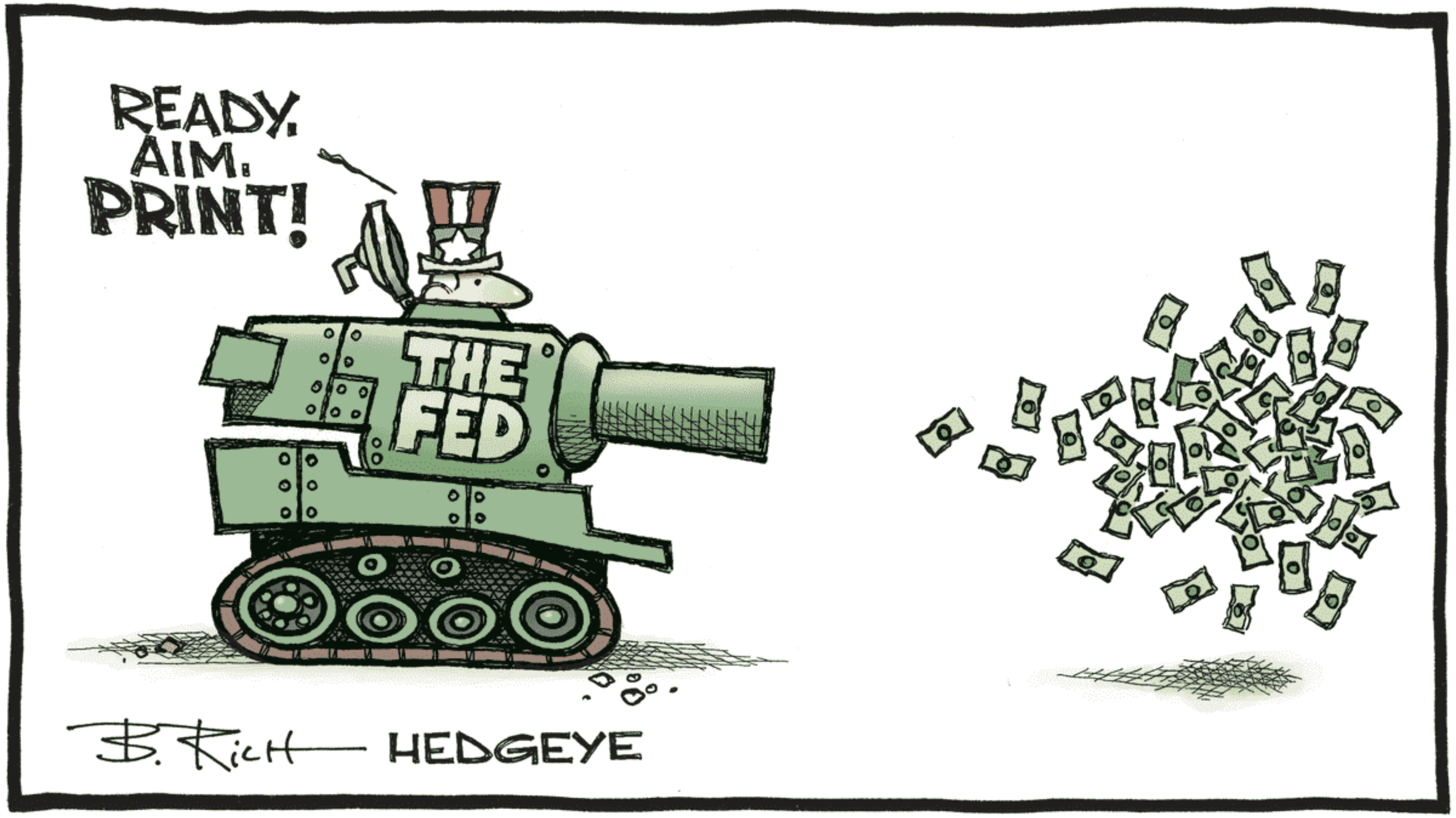
REITS



Data Source: Bloomberg

Q1 2021 Macro Themes

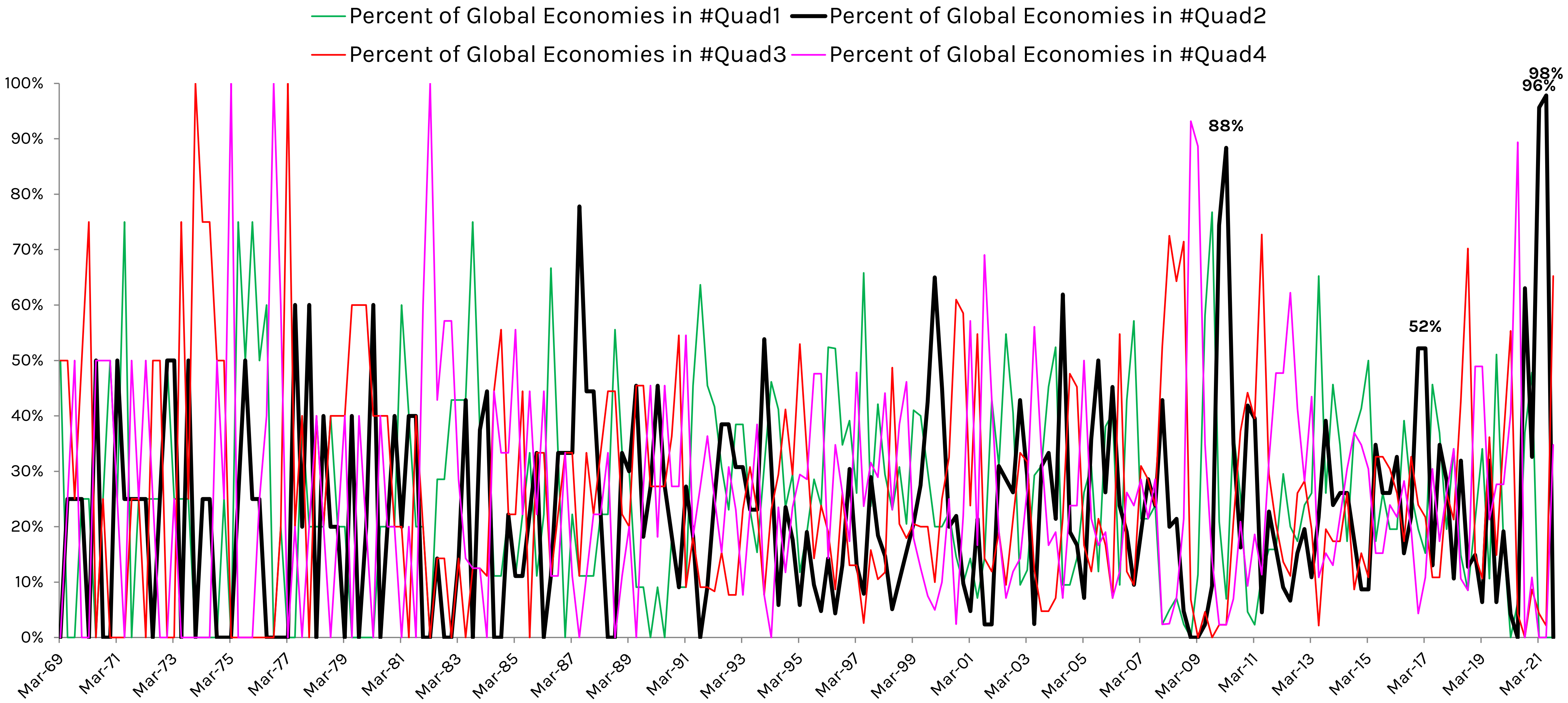
HEDGEYE



Global #Quad2

#Quad2 In 1H21E Is As Global As It Is Historic

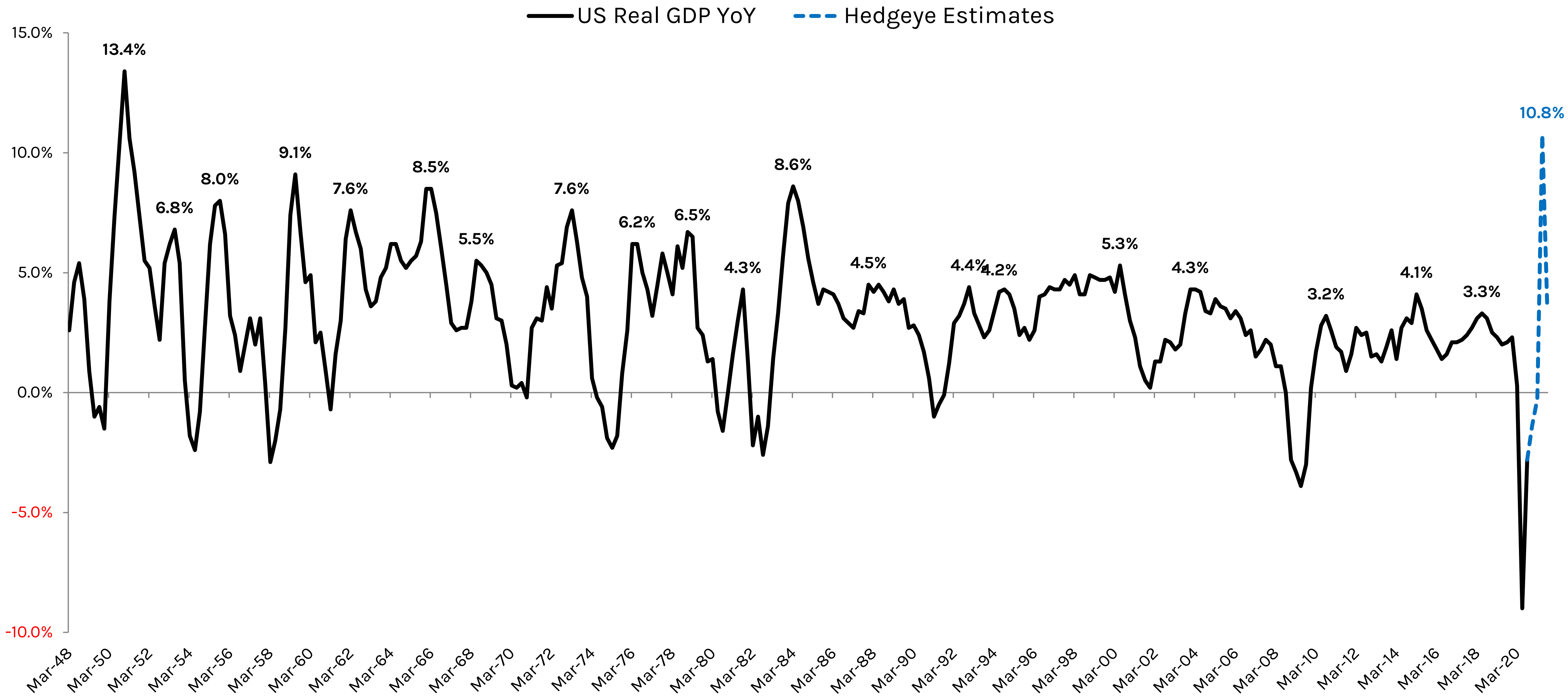
HEDGEYE



Data Source: Bloomberg

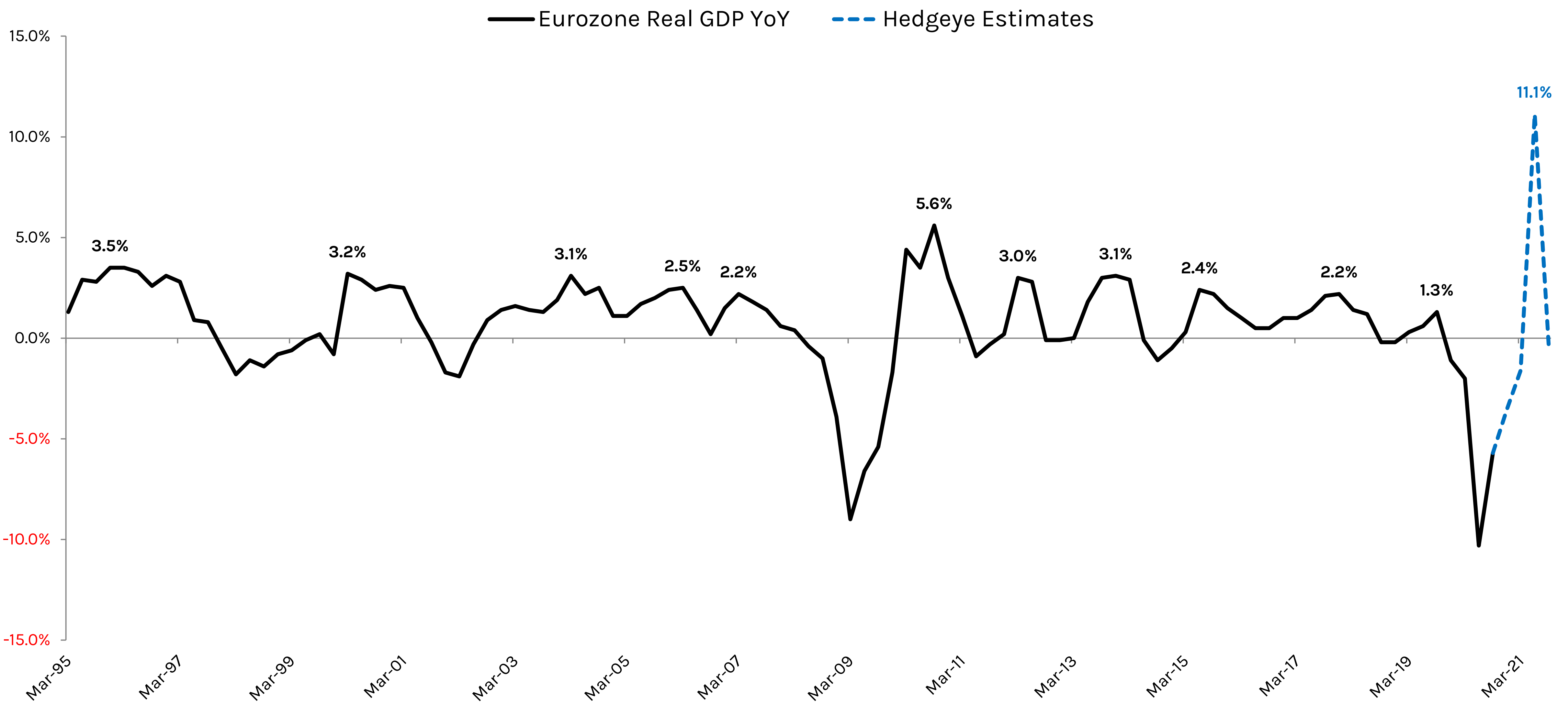
Contextualizing +11% US GROWTH

HEDGEYE



Data Source: Bloomberg

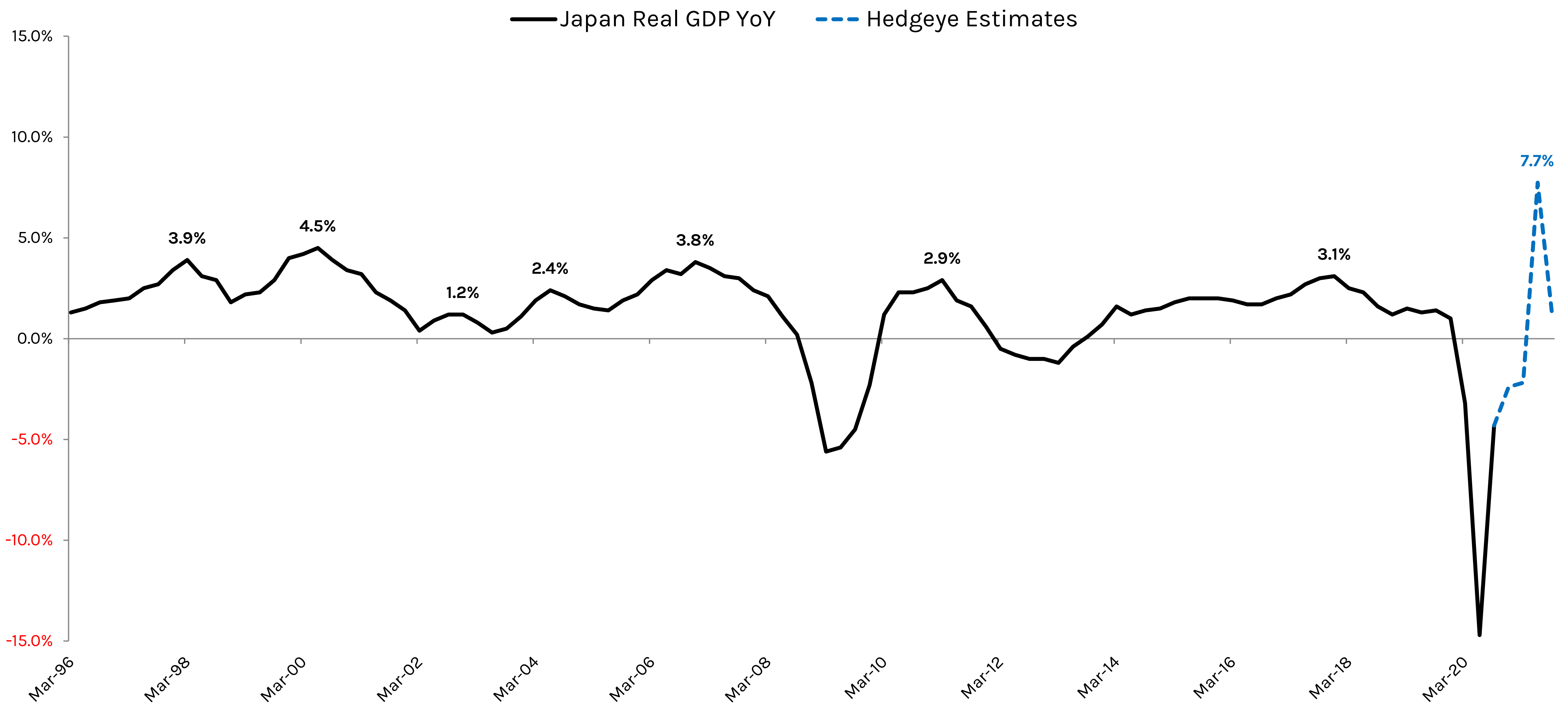
Contextualizing +11% European GROWTH



Data Source: Bloomberg

Contextualizing +8% Japanese GROWTH

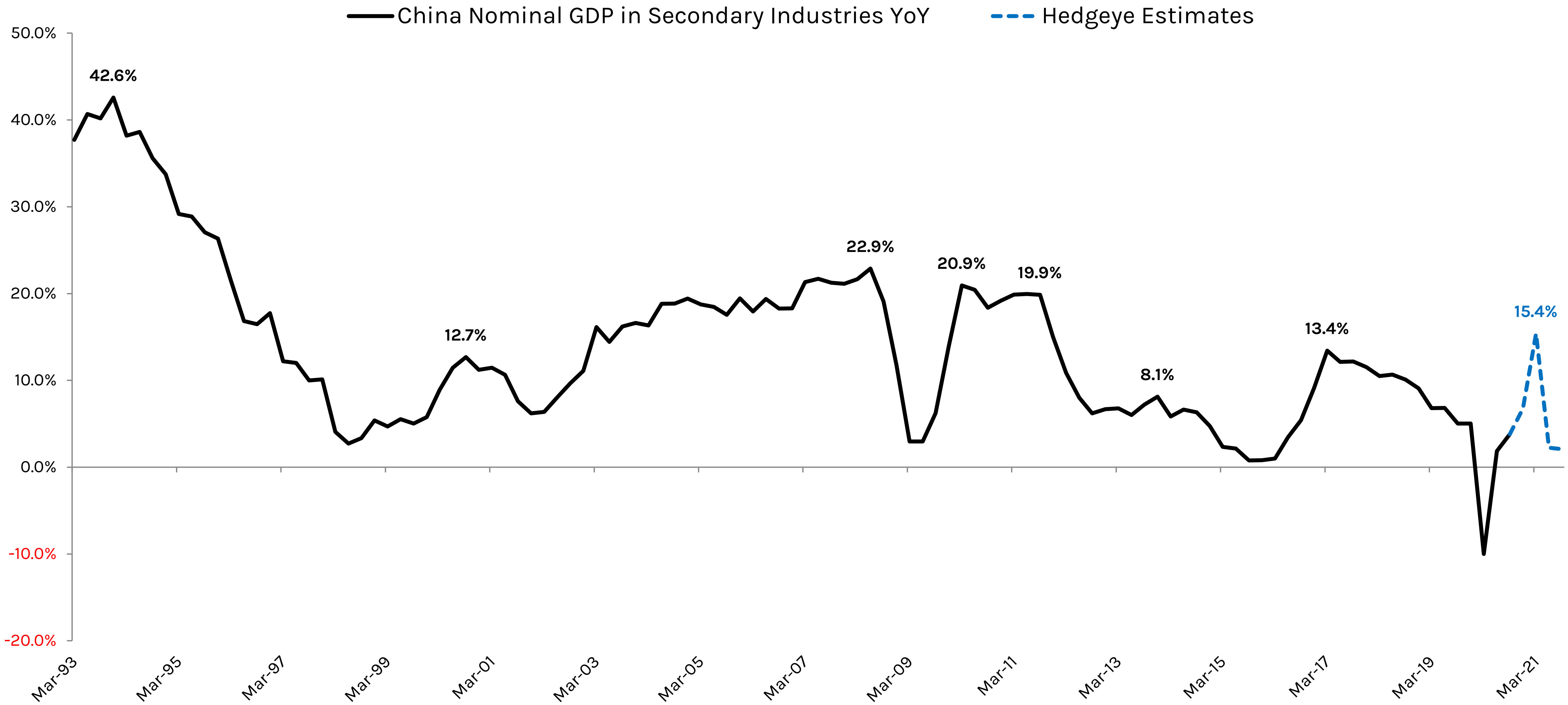
HEDGEYE



Data Source: Bloomberg

Contextualizing +15% Chinese GROWTH

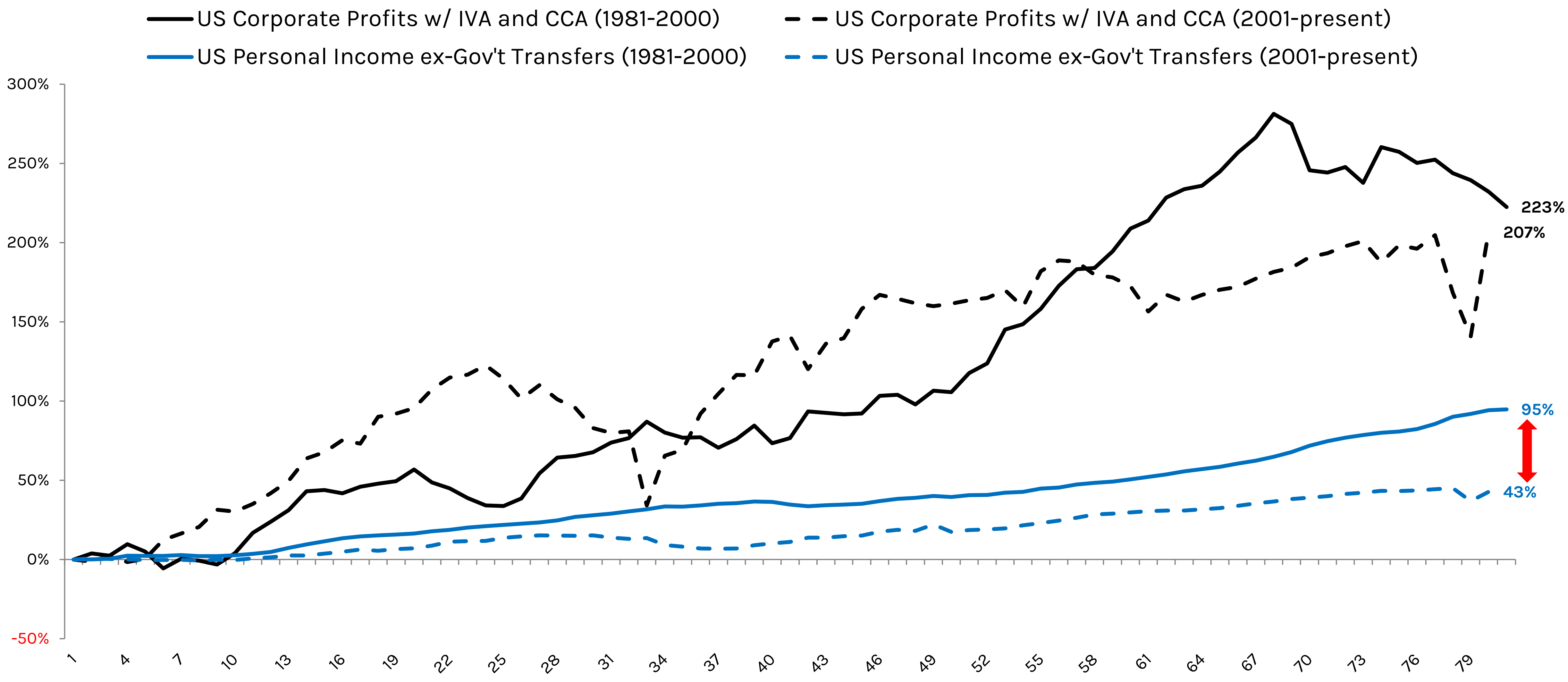
HEDGEYE



Data Source: Bloomberg

Reminder: We're Still In A #FourthTurning

HEDGEYE



Investors Should Prepare For “Team Ctrl+P” To Persistently Attack The Aforementioned Discrepancies With Easy Money

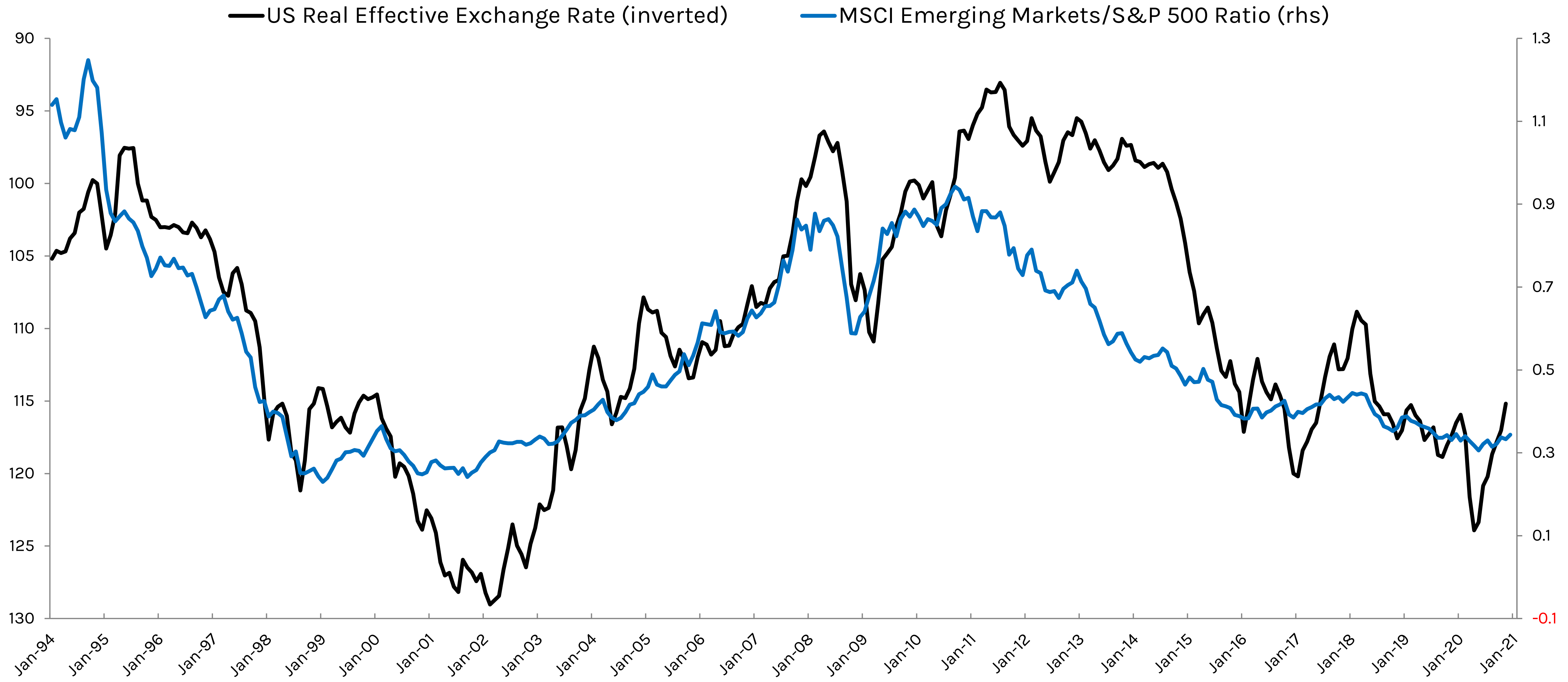
“Janet Powell” Will Find Clever Ways To Enhance The Fed’s Ability To Address Income Inequality

Council of Economic Advisors Chair Cecilia Rouse Will Work To Accomplish The Same On The Regulatory Front

Image Sources: Google

That's Explicitly Bearish For The Dollar And Bullish For EM

HEDGEYE

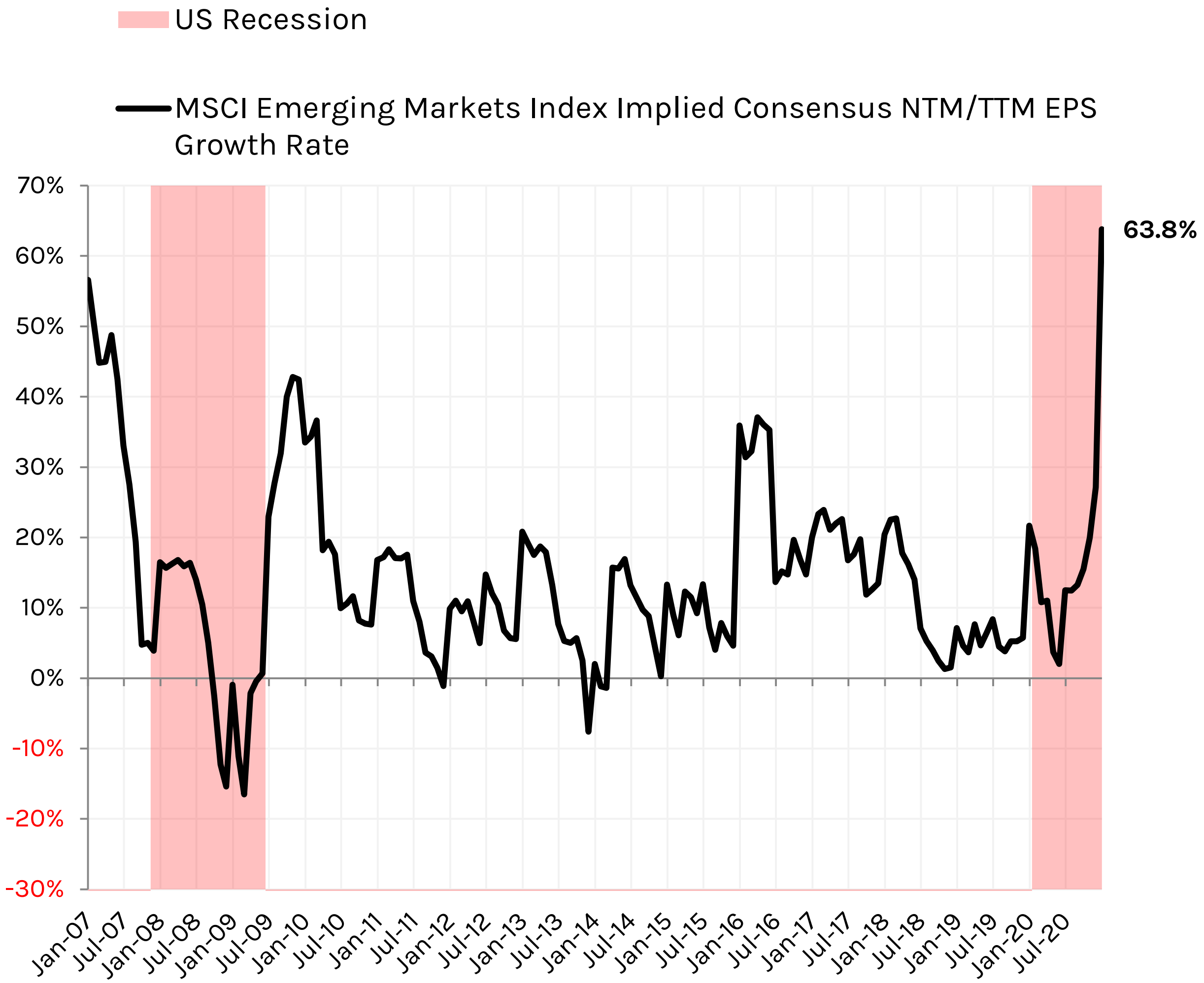


Data Source: Bloomberg

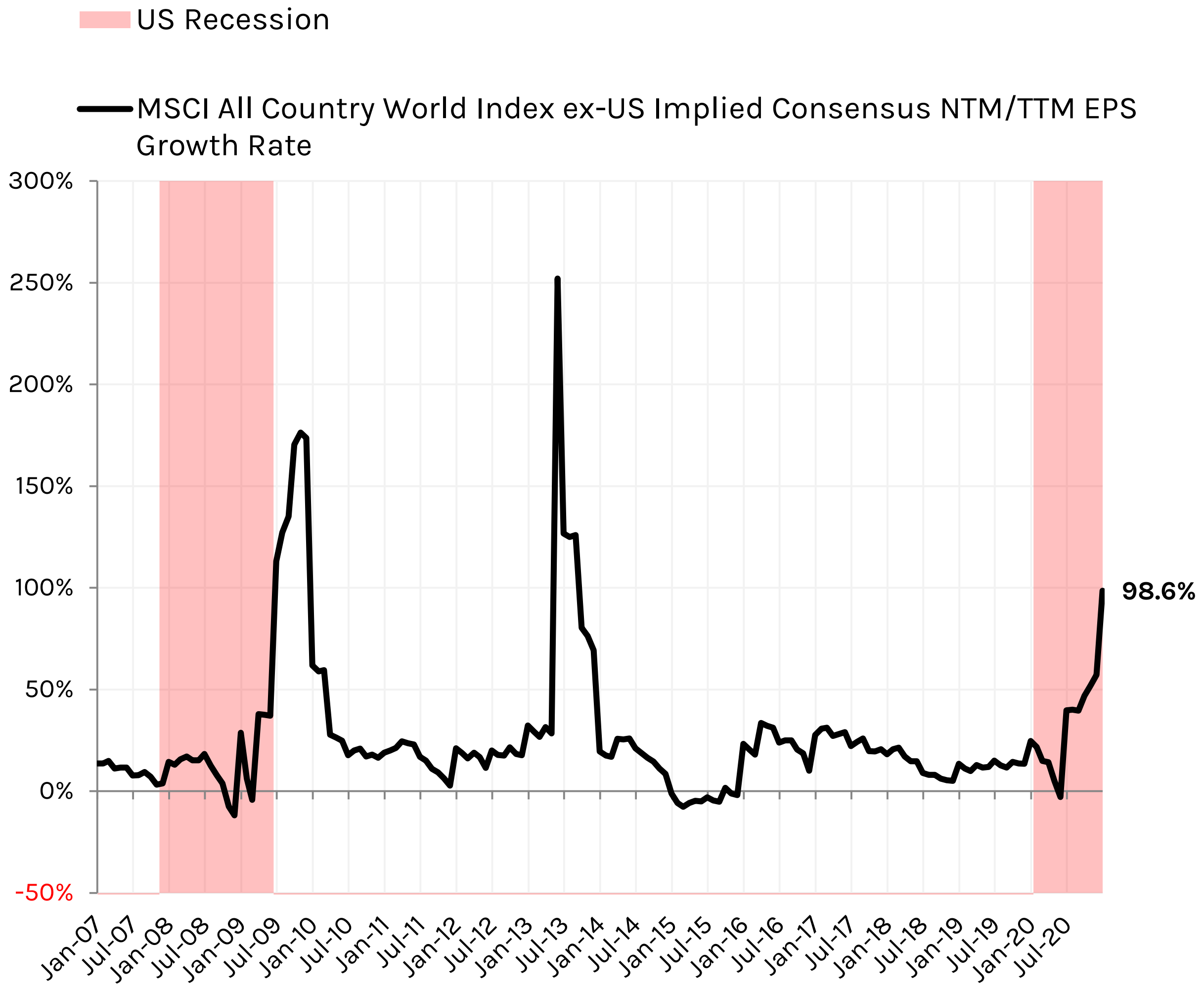
The #ProfitsCycle Is Also Quite Bullish For Emerging Markets And Global Equities In General

HEDGEYE

MSCI Emerging Marekts Index



MSCI All Country World ex-US Index

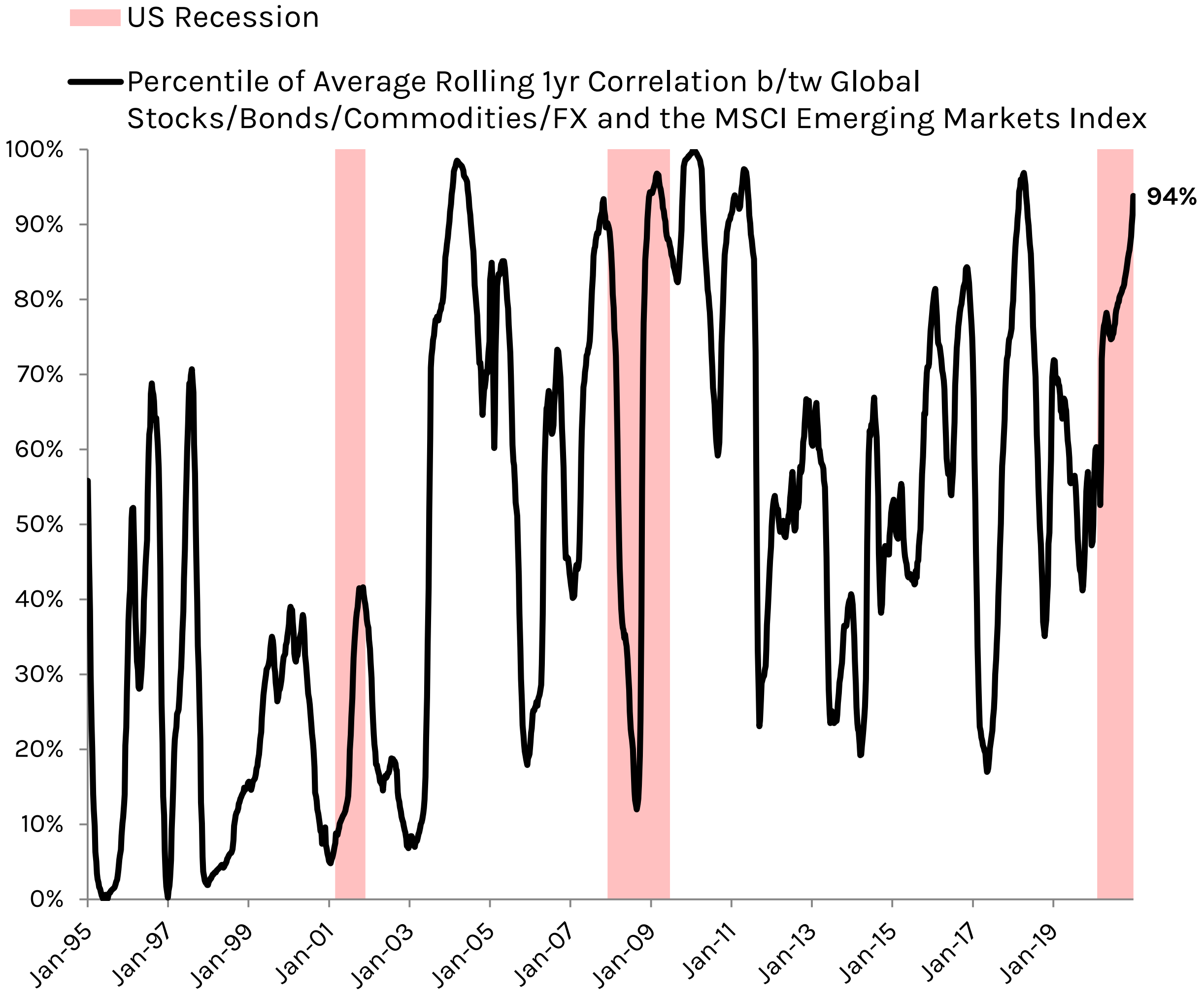


Data Source: Bloomberg

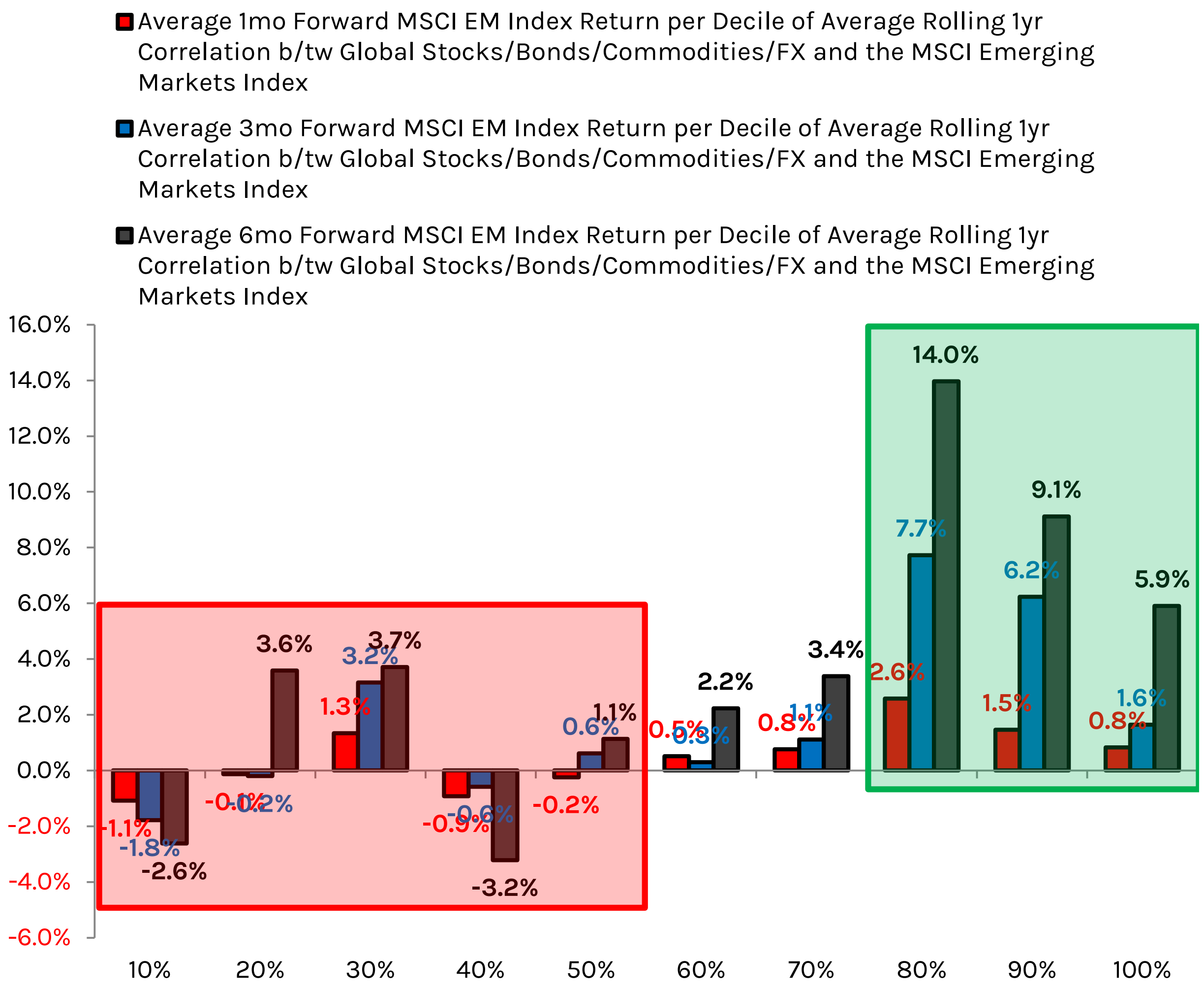
From A Pure Market Risk Perspective, It's A Fabulous Time To Bet On EM, As Many Investors Have Likely Diversified <u>Out</u> Of The Asset Class

HEDGEYE

Mean Cross-Asset Correlation With MSCI Emerging Markets Index



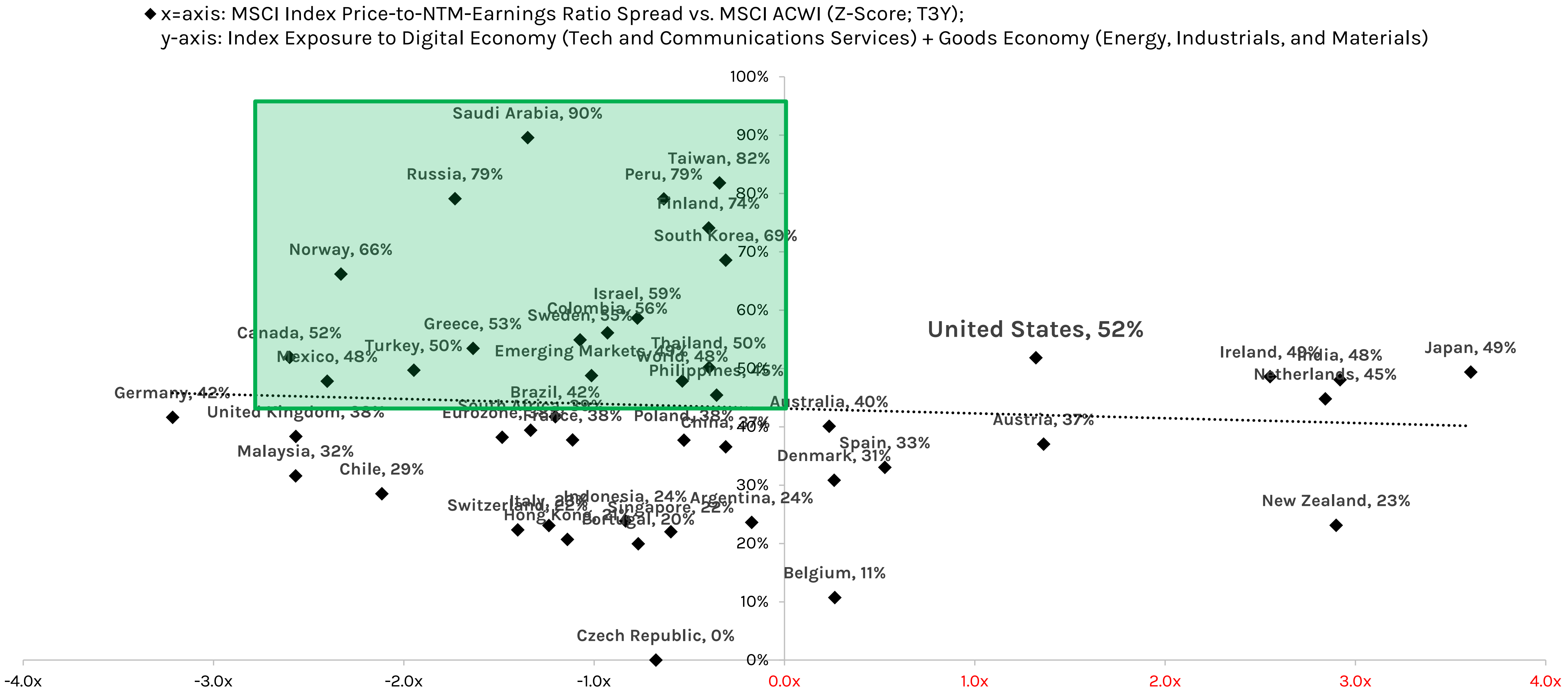
MSCI EM Index Forward Return Distribution By Decile Of Mean Cross-Asset Correlation With MSCI EM Index



Data Source: Bloomberg. Stocks = S&P 500; Bonds = Barclays Global Agg; Commodities = CRB Index; and FX = Bloomberg Correlation-Weighted US Dollar Index.

Equity Investors Should Screen For Cheap Markets With Above Average Exposure To The Digital And Goods Economies

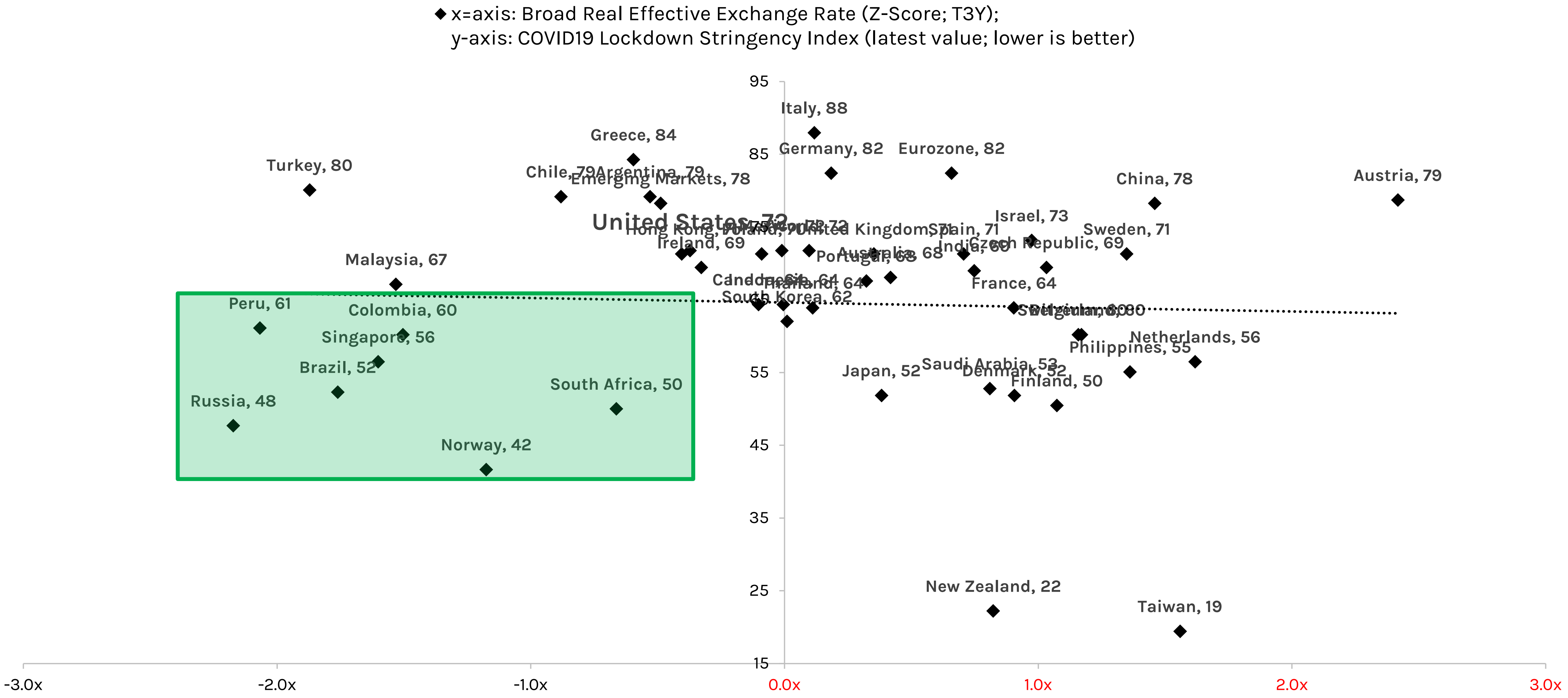
HEDGEYE



Data Source: Bloomberg

FX Investors Should Screen For Cheap Currencies In Economies With More-Relaxed COVID Restrictions

HEDGEYE



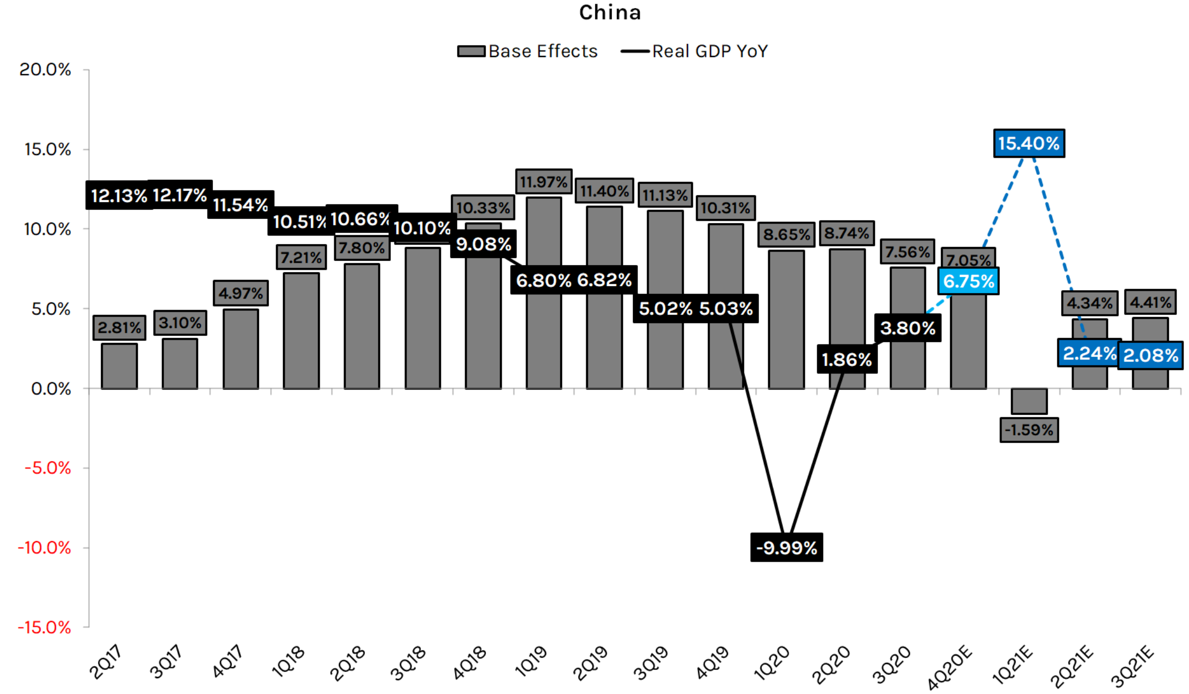
Data Source: Bloomberg

EM Focus Longs: China (KBA)

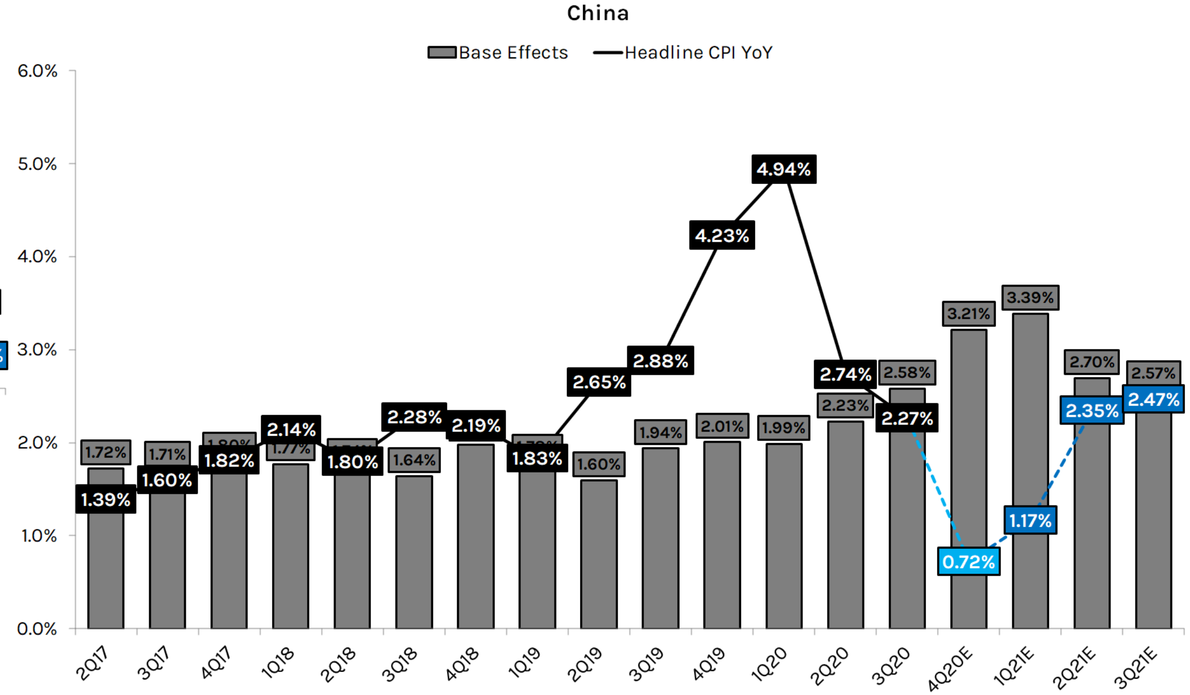
China

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	2.81%	3.10%	4.97%	7.21%	7.80%	8.79%	10.33%	11.97%	11.40%	11.13%	10.31%	8.65%	8.74%	7.56%	7.05%	-1.59%	4.34%	4.41%
Real GDP YoY	12.13%	12.17%	11.54%	10.51%	10.66%	10.10%	9.08%	6.80%	6.82%	5.02%	5.03%	-9.99%	1.86%	3.80%	6.75%	15.40%	2.24%	2.08%
GIP Model Quad	4	2	3	3	1	3	4	4	2	3	2	3	1	1	1	2	3	3
Unconditional Probability Of Forecasted Delta															68%	68%	68%	68%
Conditional Probability Of Forecasted Delta															98%	98%	98%	56%
Conditional Probability Of Quad 1															95.1%	11.3%	0.1%	17.5%
Conditional Probability Of Quad 2															2.4%	86.2%	2.4%	26.8%
Conditional Probability Of Quad 3															0.1%	2.2%	95.1%	33.7%
Conditional Probability Of Quad 4															2.4%	0.3%	2.4%	22.0%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	1.72%	1.71%	1.80%	1.77%	1.74%	1.64%	1.98%	1.78%	1.60%	1.94%	2.01%	1.99%	2.23%	2.58%	3.21%	3.39%	2.70%	2.57%
Headline CPI YoY	1.39%	1.60%	1.82%	2.14%	1.80%	2.28%	2.19%	1.83%	2.65%	2.88%	4.23%	4.94%	2.74%	2.27%	0.72%	1.17%	2.35%	2.47%
GIP Model Quad	4	2	3	3	1	3	4	4	2	3	2	3	1	1	1	2	3	3
Unconditional Probability Of Forecasted Delta															68%	68%	68%	68%
Conditional Probability Of Forecasted Delta															98%	88%	98%	61%
Conditional Probability Of Quad 1															95.1%	11.3%	0.1%	17.5%
Conditional Probability Of Quad 2															2.4%	86.2%	2.4%	26.8%
Conditional Probability Of Quad 3															0.1%	2.2%	95.1%	33.7%
Conditional Probability Of Quad 4															2.4%	0.3%	2.4%	22.0%



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



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

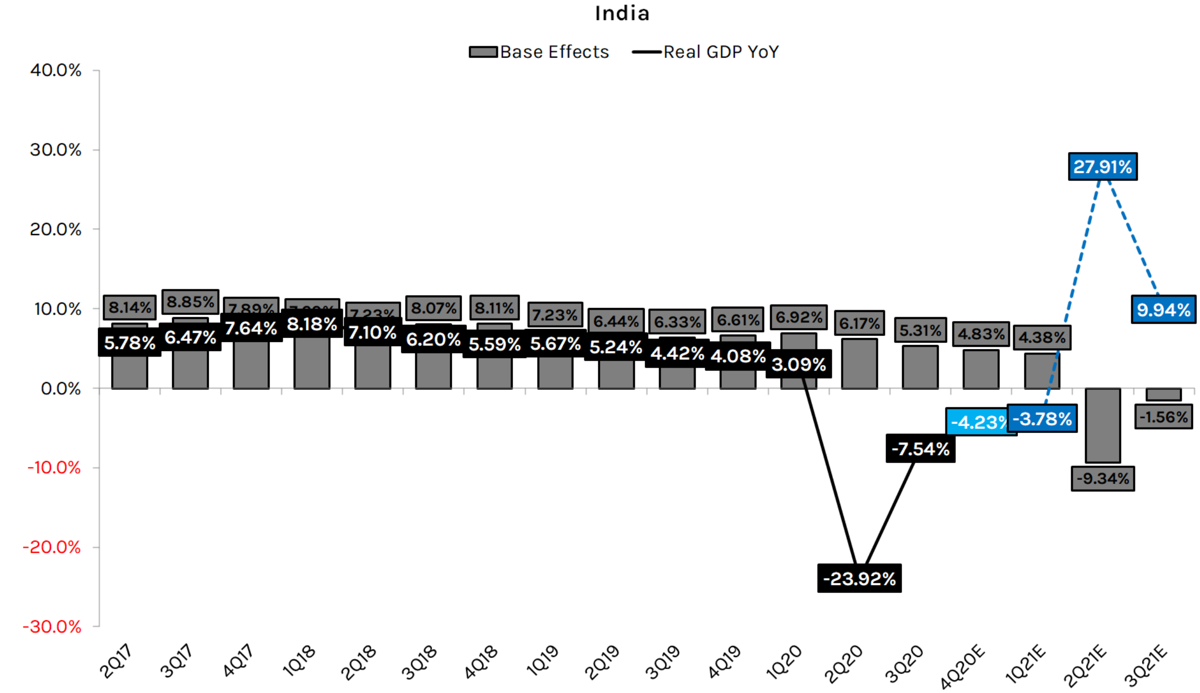
Data Source: Bloomberg

EM Focus Longs: India (INDA)

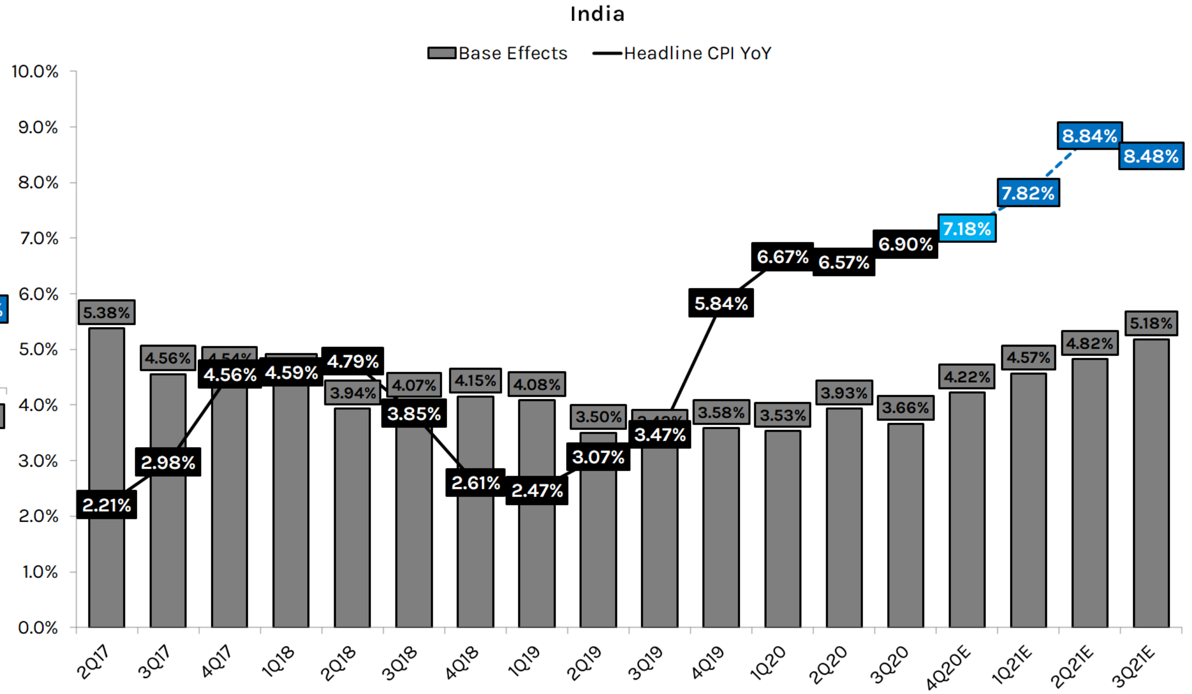
India

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	8.14%	8.85%	7.89%	7.69%	7.23%	8.07%	8.11%	7.23%	6.44%	6.33%	6.61%	6.92%	6.17%	5.31%	4.83%	4.38%	-9.34%	-1.56%
Real GDP YoY	5.78%	6.47%	7.64%	8.18%	7.10%	6.20%	5.59%	5.67%	5.24%	4.42%	4.08%	3.09%	-23.92%	-7.54%	-4.23%	-3.78%	27.91%	9.94%
GIP Model Quad	4	2	2	2	3	4	4	1	3	3	3	3	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															45%	43%	43%	43%
Conditional Probability Of Forecasted Delta															98%	63%	98%	98%
Conditional Probability Of Quad 1															37.3%	14.8%	7.7%	1.6%
Conditional Probability Of Quad 2															60.2%	48.4%	89.8%	0.9%
Conditional Probability Of Quad 3															1.5%	28.2%	2.3%	34.2%
Conditional Probability Of Quad 4															1.0%	8.6%	0.2%	63.3%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	5.38%	4.56%	4.54%	4.41%	3.94%	4.07%	4.15%	4.08%	3.50%	3.42%	3.58%	3.53%	3.93%	3.66%	4.22%	4.57%	4.82%	5.18%
Headline CPI YoY	2.21%	2.98%	4.56%	4.59%	4.79%	3.85%	2.61%	2.47%	3.07%	3.47%	5.84%	6.67%	6.57%	6.90%	7.18%	7.82%	8.84%	8.48%
GIP Model Quad	4	2	2	2	3	4	4	1	3	3	3	3	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															73%	73%	73%	73%
Conditional Probability Of Forecasted Delta															62%	77%	92%	65%
Conditional Probability Of Quad 1															37.3%	14.8%	7.7%	1.6%
Conditional Probability Of Quad 2															60.2%	48.4%	89.8%	0.9%
Conditional Probability Of Quad 3															1.5%	28.2%	2.3%	34.2%
Conditional Probability Of Quad 4															1.0%	8.6%	0.2%	63.3%



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



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

Data Source: Bloomberg

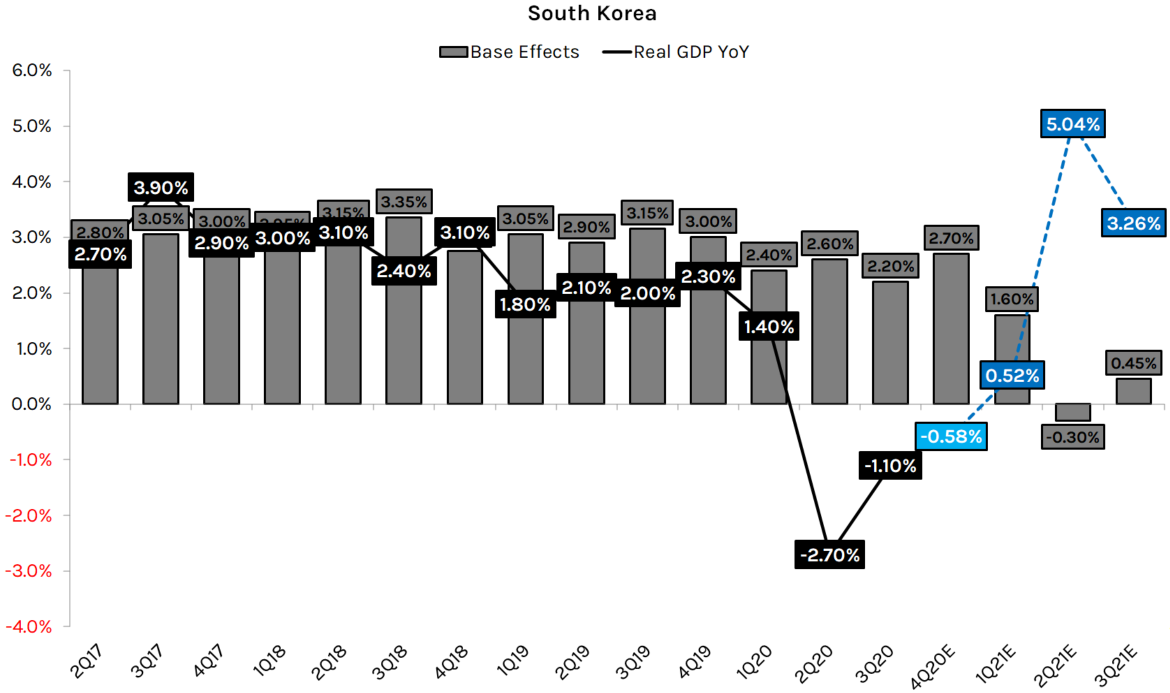
EM Focus Longs: South Korea (EWY)

HEDGEYE

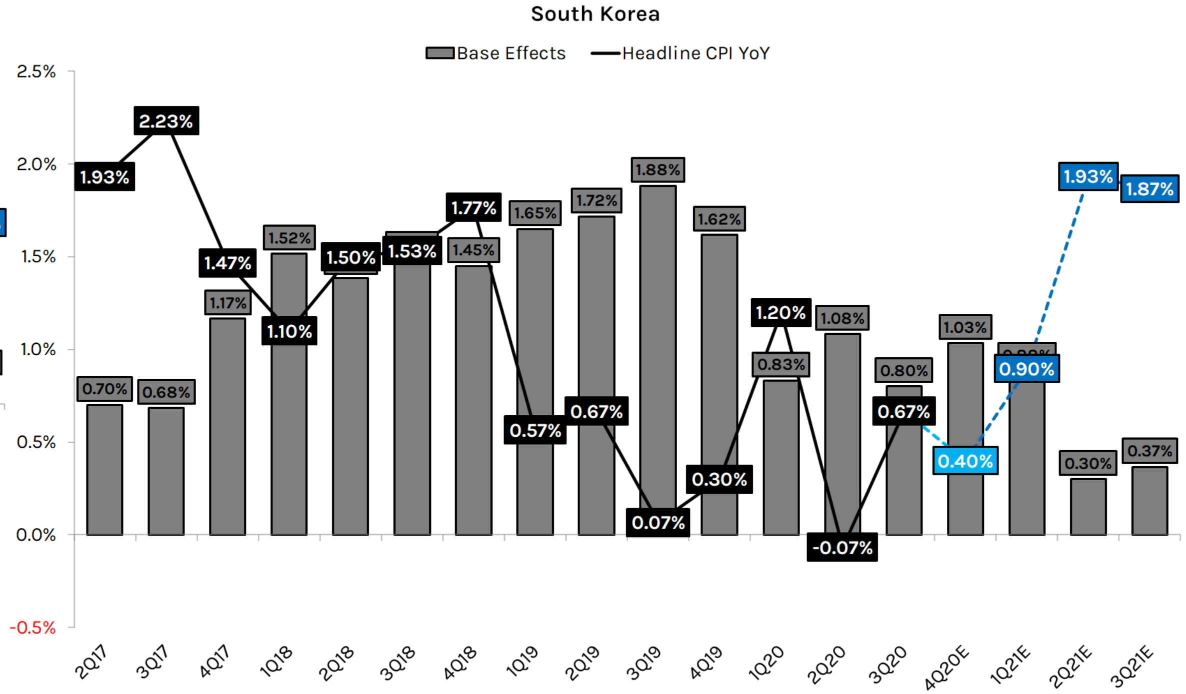
South Korea

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	2.80%	3.05%	3.00%	2.95%	3.15%	3.35%	2.75%	3.05%	2.90%	3.15%	3.00%	2.40%	2.60%	2.20%	2.70%	1.60%	-0.30%	0.45%
Real GDP YoY	2.70%	3.90%	2.90%	3.00%	3.10%	2.40%	3.10%	1.80%	2.10%	2.00%	2.30%	1.40%	-2.70%	-1.10%	-0.58%	0.52%	5.04%	3.26%
GIP Model Quad	4	2	4	1	2	3	2	4	2	4	2	3	4	2	1	2	2	4
Unconditional Probability Of Forecasted Delta															65%	65%	65%	65%
Conditional Probability Of Forecasted Delta															98%	98%	98%	98%
Conditional Probability Of Quad 1															88.7%	2.4%	2.4%	1.5%
Conditional Probability Of Quad 2															8.8%	95.1%	95.1%	1.0%
Conditional Probability Of Quad 3															0.2%	2.4%	2.4%	38.8%
Conditional Probability Of Quad 4															2.3%	0.1%	0.1%	58.7%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.70%	0.68%	1.17%	1.52%	1.38%	1.48%	1.45%	1.65%	1.72%	1.88%	1.62%	0.83%	1.08%	0.80%	1.03%	0.88%	0.30%	0.37%
Headline CPI YoY	1.93%	2.23%	1.47%	1.10%	1.50%	1.53%	1.77%	0.57%	0.67%	0.07%	0.30%	1.20%	-0.07%	0.67%	0.40%	0.90%	1.93%	1.87%
GIP Model Quad	4	2	4	1	2	3	2	4	2	4	2	3	4	2	1	2	2	4
Unconditional Probability Of Forecasted Delta															65%	65%	65%	65%
Conditional Probability Of Forecasted Delta															91%	98%	98%	60%
Conditional Probability Of Quad 1															88.7%	2.4%	2.4%	1.5%
Conditional Probability Of Quad 2															8.8%	95.1%	95.1%	1.0%
Conditional Probability Of Quad 3															0.2%	2.4%	2.4%	38.8%
Conditional Probability Of Quad 4															2.3%	0.1%	0.1%	58.7%



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



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

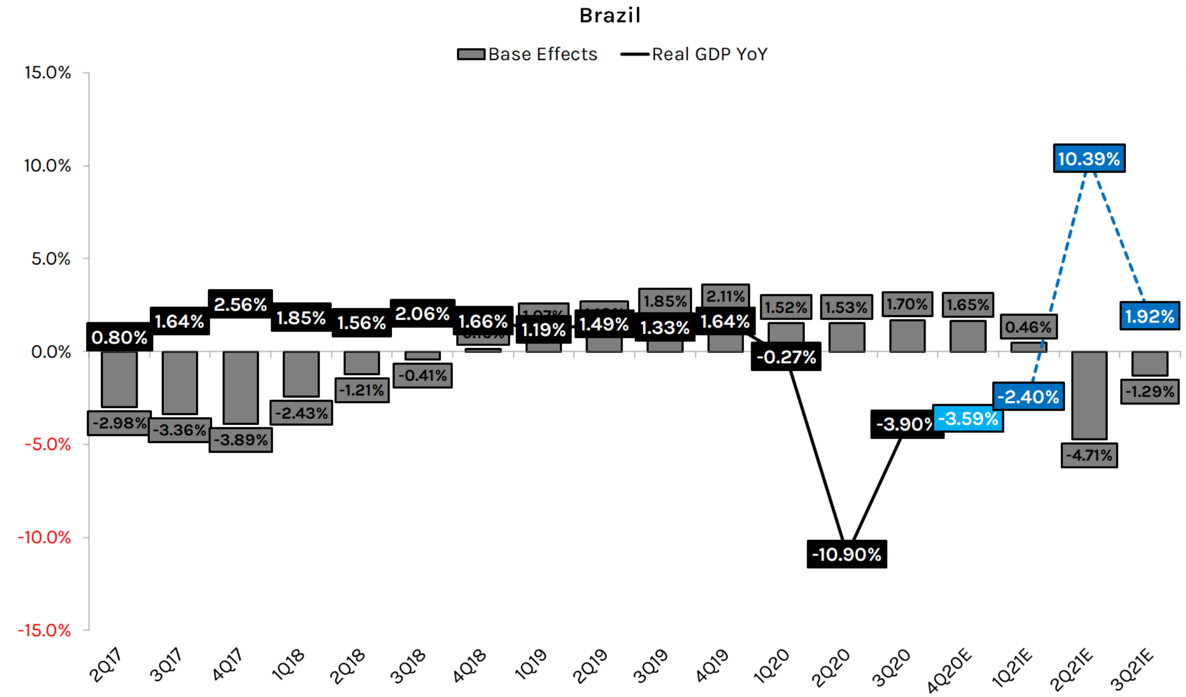
Data Source: Bloomberg

EM Focus Longs: Brazil (EWZ)

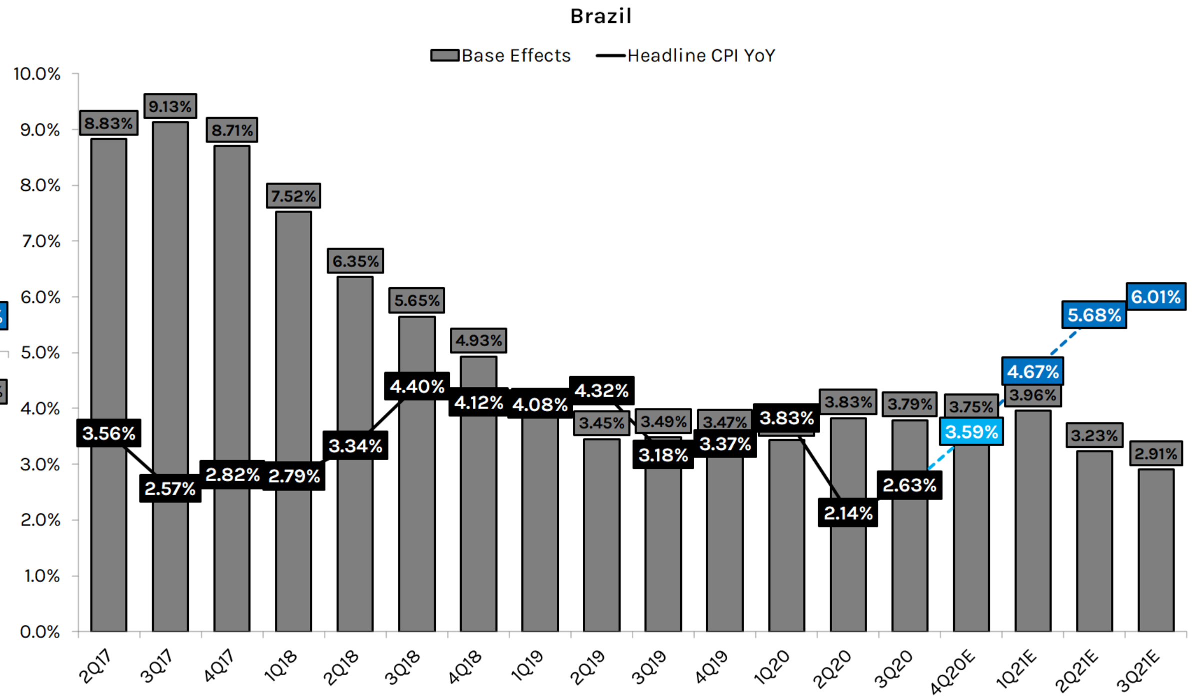
Brazil

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	-2.98%	-3.36%	-3.89%	-2.43%	-1.21%	-0.41%	0.15%	1.07%	1.18%	1.85%	2.11%	1.52%	1.53%	1.70%	1.65%	0.46%	-4.71%	-1.29%
Real GDP YoY	0.80%	1.64%	2.56%	1.85%	1.56%	2.06%	1.66%	1.19%	1.49%	1.33%	1.64%	-0.27%	-10.90%	-3.90%	-3.59%	-2.40%	10.39%	1.92%
GIP Model Quad	1	1	2	4	3	2	4	4	2	4	2	3	4	2	2	2	2	3
Unconditional Probability Of Forecasted Delta															68%	67%	67%	67%
Conditional Probability Of Forecasted Delta															67%	98%	98%	98%
Conditional Probability Of Quad 1															1.7%	2.4%	2.4%	0.8%
Conditional Probability Of Quad 2															64.9%	95.1%	95.1%	1.7%
Conditional Probability Of Quad 3															32.6%	2.4%	2.4%	66.4%
Conditional Probability Of Quad 4															0.8%	0.1%	0.1%	31.1%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	8.83%	9.13%	8.71%	7.52%	6.35%	5.65%	4.93%	3.84%	3.45%	3.49%	3.47%	3.44%	3.83%	3.79%	3.75%	3.96%	3.23%	2.91%
Headline CPI YoY	3.56%	2.57%	2.82%	2.79%	3.34%	4.40%	4.12%	4.08%	4.32%	3.18%	3.37%	3.83%	2.14%	2.63%	3.59%	4.67%	5.68%	6.01%
GIP Model Quad	1	1	2	4	3	2	4	4	2	4	2	3	4	2	2	2	2	3
Unconditional Probability Of Forecasted Delta															73%	73%	73%	73%
Conditional Probability Of Forecasted Delta															98%	98%	98%	68%
Conditional Probability Of Quad 1															1.7%	2.4%	2.4%	0.8%
Conditional Probability Of Quad 2															64.9%	95.1%	95.1%	1.7%
Conditional Probability Of Quad 3															32.6%	2.4%	2.4%	66.4%
Conditional Probability Of Quad 4															0.8%	0.1%	0.1%	31.1%



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



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

Data Source: Bloomberg

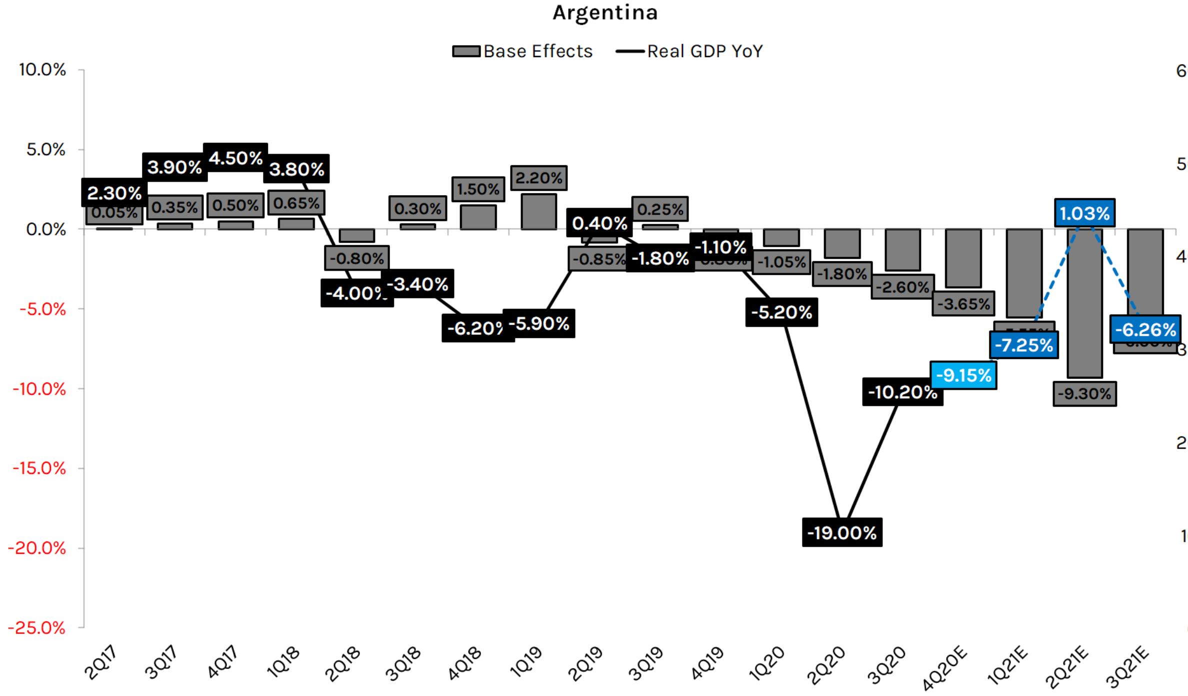
EM Focus Longs: Argentina (ARGT)

HEDGEYE

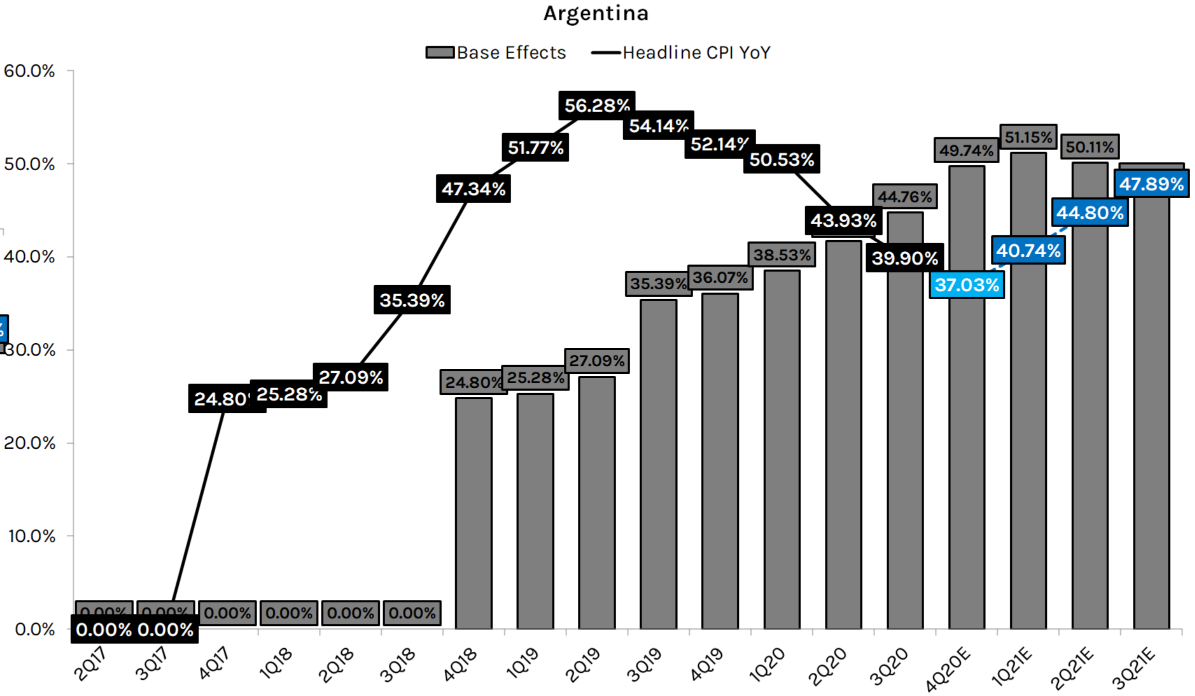
Argentina

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.05%	0.35%	0.50%	0.65%	-0.80%	0.30%	1.50%	2.20%	-0.85%	0.25%	-0.85%	-1.05%	-1.80%	-2.60%	-3.65%	-5.55%	-9.30%	-6.00%
Real GDP YoY	2.30%	3.90%	4.50%	3.80%	-4.00%	-3.40%	-6.20%	-5.90%	0.40%	-1.80%	-1.10%	-5.20%	-19.00%	-10.20%	-9.15%	-7.25%	1.03%	-6.26%
GIP Model Quad	-	-	-	3	3	2	3	2	2	4	1	4	4	1	1	2	2	3
Unconditional Probability Of Forecasted Delta															65%	64%	64%	64%
Conditional Probability Of Forecasted Delta															76%	96%	98%	98%
Conditional Probability Of Quad 1															65.9%	2.4%	2.4%	0.2%
Conditional Probability Of Quad 2															9.6%	93.9%	95.1%	2.3%
Conditional Probability Of Quad 3															3.1%	3.6%	2.4%	87.9%
Conditional Probability Of Quad 4															21.4%	0.1%	0.1%	9.6%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	-	-	-	-	-	-	24.80%	25.28%	27.09%	35.39%	36.07%	38.53%	41.68%	44.76%	49.74%	51.15%	50.11%	47.02%
Headline CPI YoY	-	-	24.80%	25.28%	27.09%	35.39%	47.34%	51.77%	56.28%	54.14%	52.14%	50.53%	43.93%	39.90%	37.03%	40.74%	44.80%	47.89%
GIP Model Quad	-	-	-	3	3	2	3	2	2	4	1	4	4	1	1	2	2	3
Unconditional Probability Of Forecasted Delta															71%	71%	71%	71%
Conditional Probability Of Forecasted Delta															87%	98%	98%	90%
Conditional Probability Of Quad 1															65.9%	2.4%	2.4%	0.2%
Conditional Probability Of Quad 2															9.6%	93.9%	95.1%	2.3%
Conditional Probability Of Quad 3															3.1%	3.6%	2.4%	87.9%
Conditional Probability Of Quad 4															21.4%	0.1%	0.1%	9.6%



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



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

Data Source: Bloomberg

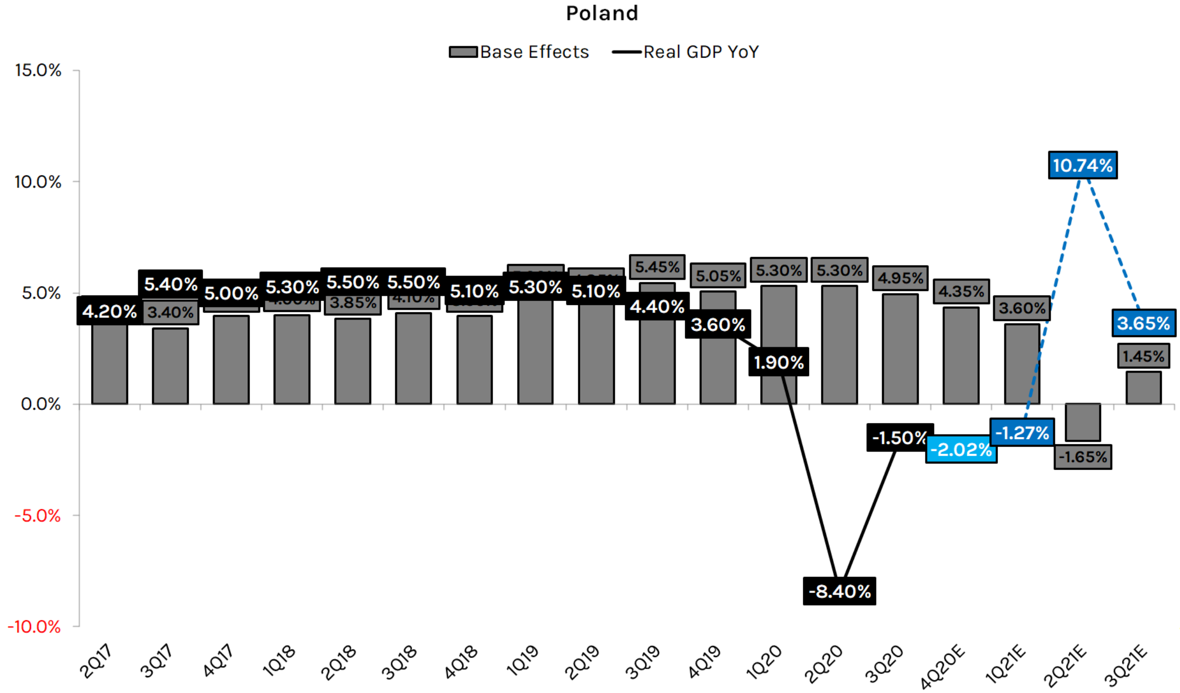
EM Focus Longs: Poland (EPOL)

HEDGEYE

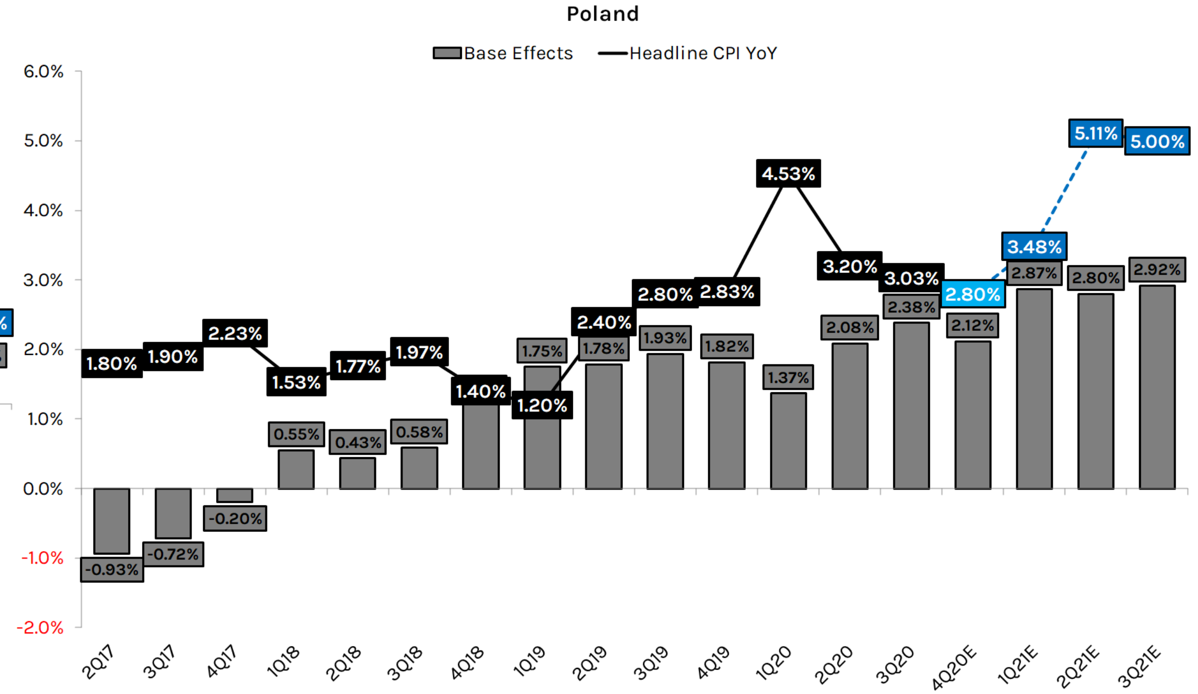
Poland

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	3.60%	3.40%	3.95%	4.00%	3.85%	4.10%	3.95%	5.00%	4.85%	5.45%	5.05%	5.30%	5.30%	4.95%	4.35%	3.60%	-1.65%	1.45%
Real GDP YoY	4.20%	5.40%	5.00%	5.30%	5.50%	5.50%	5.10%	5.30%	5.10%	4.40%	3.60%	1.90%	-8.40%	-1.50%	-2.02%	-1.27%	10.74%	3.65%
GIP Model Quad	4	2	3	1	2	3	4	1	3	3	3	3	4	1	4	2	2	4
Unconditional Probability Of Forecasted Delta															60%	59%	59%	59%
Conditional Probability Of Forecasted Delta															90%	98%	98%	98%
Conditional Probability Of Quad 1															6.8%	2.4%	2.4%	1.5%
Conditional Probability Of Quad 2															3.3%	95.1%	95.1%	1.0%
Conditional Probability Of Quad 3															29.1%	2.4%	2.4%	40.2%
Conditional Probability Of Quad 4															60.8%	0.1%	0.1%	57.3%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	-0.93%	-0.72%	-0.20%	0.55%	0.43%	0.58%	1.22%	1.75%	1.78%	1.93%	1.82%	1.37%	2.08%	2.38%	2.12%	2.87%	2.80%	2.92%
Headline CPI YoY	1.80%	1.90%	2.23%	1.53%	1.77%	1.97%	1.40%	1.20%	2.40%	2.80%	2.83%	4.53%	3.20%	3.03%	2.80%	3.48%	5.11%	5.00%
GIP Model Quad	4	2	3	1	2	3	4	1	3	3	3	3	4	1	4	2	2	4
Unconditional Probability Of Forecasted Delta															63%	63%	63%	63%
Conditional Probability Of Forecasted Delta															68%	98%	98%	59%
Conditional Probability Of Quad 1															6.8%	2.4%	2.4%	1.5%
Conditional Probability Of Quad 2															3.3%	95.1%	95.1%	1.0%
Conditional Probability Of Quad 3															29.1%	2.4%	2.4%	40.2%
Conditional Probability Of Quad 4															60.8%	0.1%	0.1%	57.3%



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



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

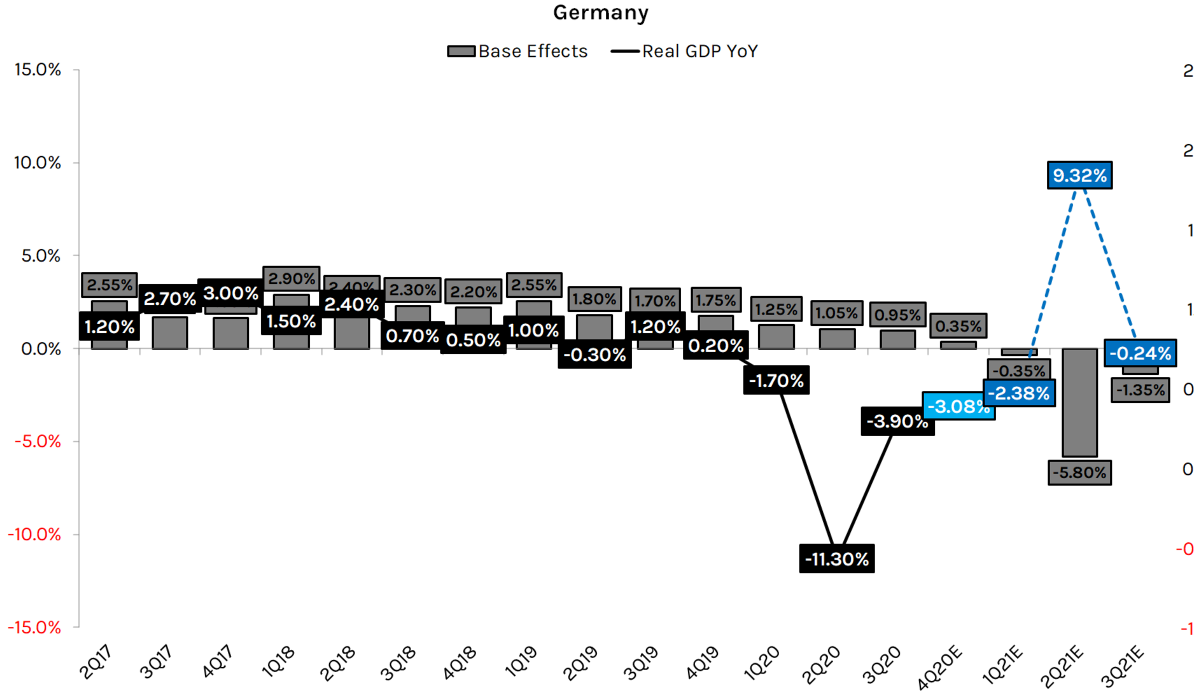
DM Focus Longs: Germany (EWQ)

HEDGEYE

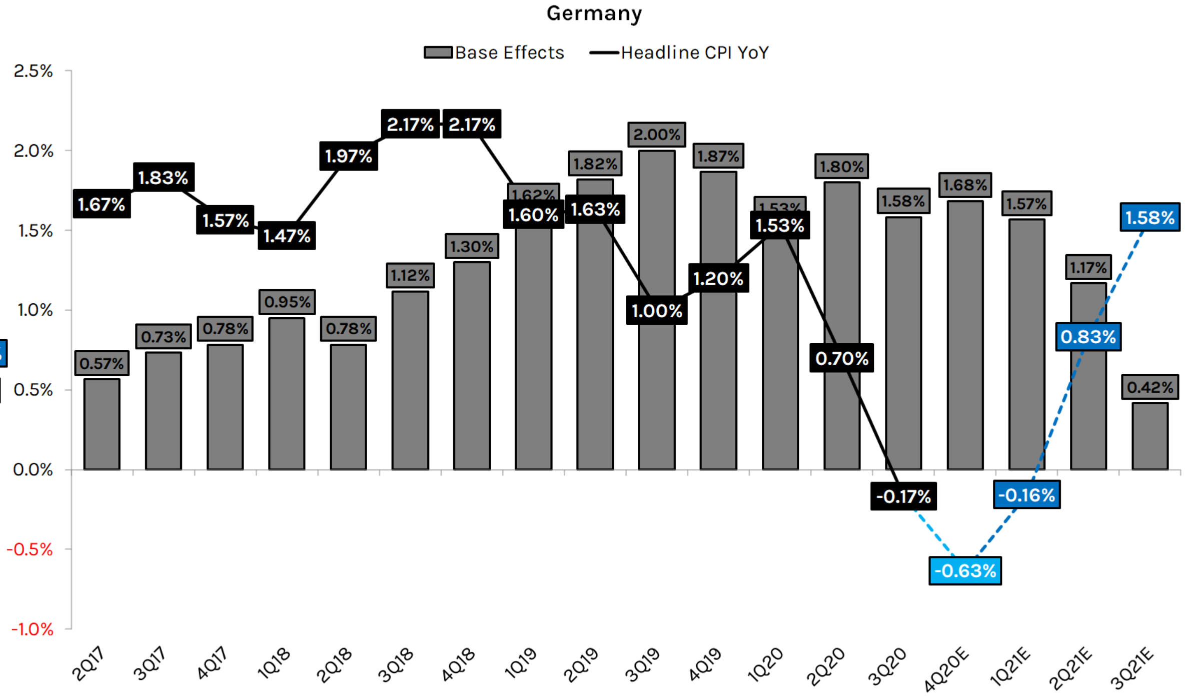
Germany

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	2.55%	1.70%	1.65%	2.90%	2.40%	2.30%	2.20%	2.55%	1.80%	1.70%	1.75%	1.25%	1.05%	0.95%	0.35%	-0.35%	-5.80%	-1.35%
Real GDP YoY	1.20%	2.70%	3.00%	1.50%	2.40%	0.70%	0.50%	1.00%	-0.30%	1.20%	0.20%	-1.70%	-11.30%	-3.90%	-3.08%	-2.38%	9.32%	-0.24%
GIP Model Quad	4	2	1	4	2	3	4	1	3	1	3	3	4	1	1	2	2	3
Unconditional Probability Of Forecasted Delta															70%	72%	72%	72%
Conditional Probability Of Forecasted Delta															93%	87%	98%	98%
Conditional Probability Of Quad 1															90.3%	2.2%	2.4%	0.1%
Conditional Probability Of Quad 2															2.3%	84.4%	95.1%	2.4%
Conditional Probability Of Quad 3															0.2%	13.1%	2.4%	95.1%
Conditional Probability Of Quad 4															7.2%	0.3%	0.1%	2.4%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.57%	0.73%	0.78%	0.95%	0.78%	1.12%	1.30%	1.62%	1.82%	2.00%	1.87%	1.53%	1.80%	1.58%	1.68%	1.57%	1.17%	0.42%
Headline CPI YoY	1.67%	1.83%	1.57%	1.47%	1.97%	2.17%	2.17%	1.60%	1.63%	1.00%	1.20%	1.53%	0.70%	-0.17%	-0.63%	-0.16%	0.83%	1.58%
GIP Model Quad	4	2	1	4	2	3	4	1	3	1	3	3	4	1	1	2	2	3
Unconditional Probability Of Forecasted Delta															65%	65%	65%	65%
Conditional Probability Of Forecasted Delta															98%	98%	98%	98%
Conditional Probability Of Quad 1															90.3%	2.2%	2.4%	0.1%
Conditional Probability Of Quad 2															2.3%	84.4%	95.1%	2.4%
Conditional Probability Of Quad 3															0.2%	13.1%	2.4%	95.1%
Conditional Probability Of Quad 4															7.2%	0.3%	0.1%	2.4%



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



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

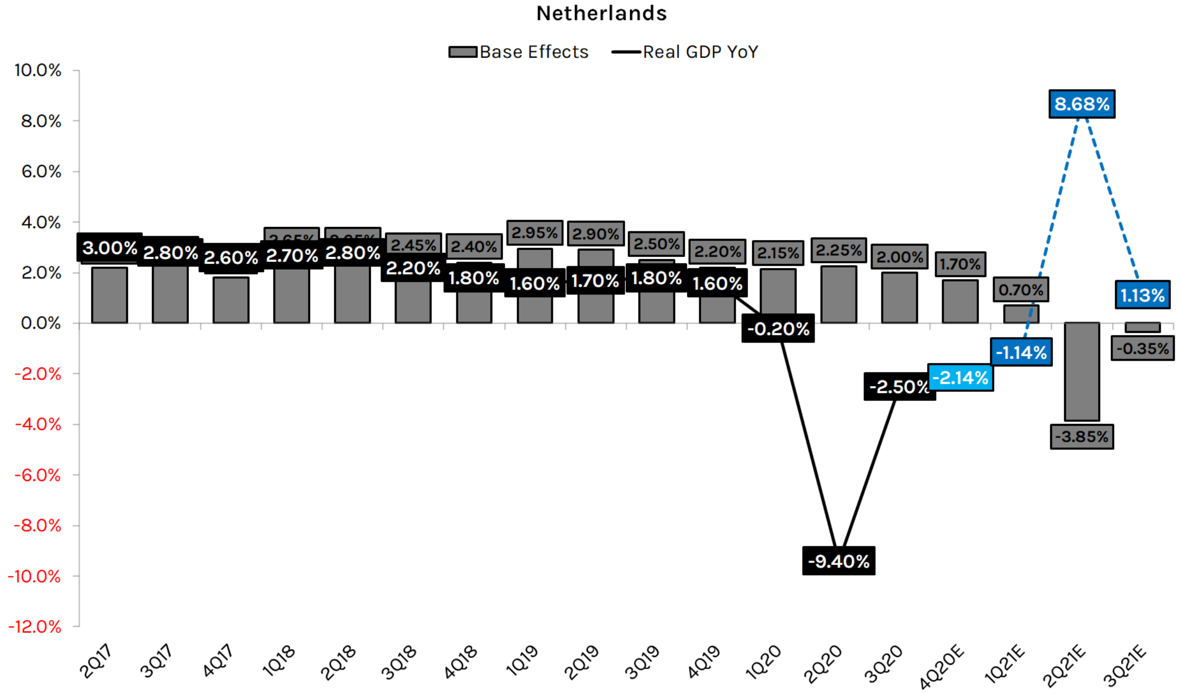
DM Focus Longs: Netherlands (EWN)

HEDGEYE

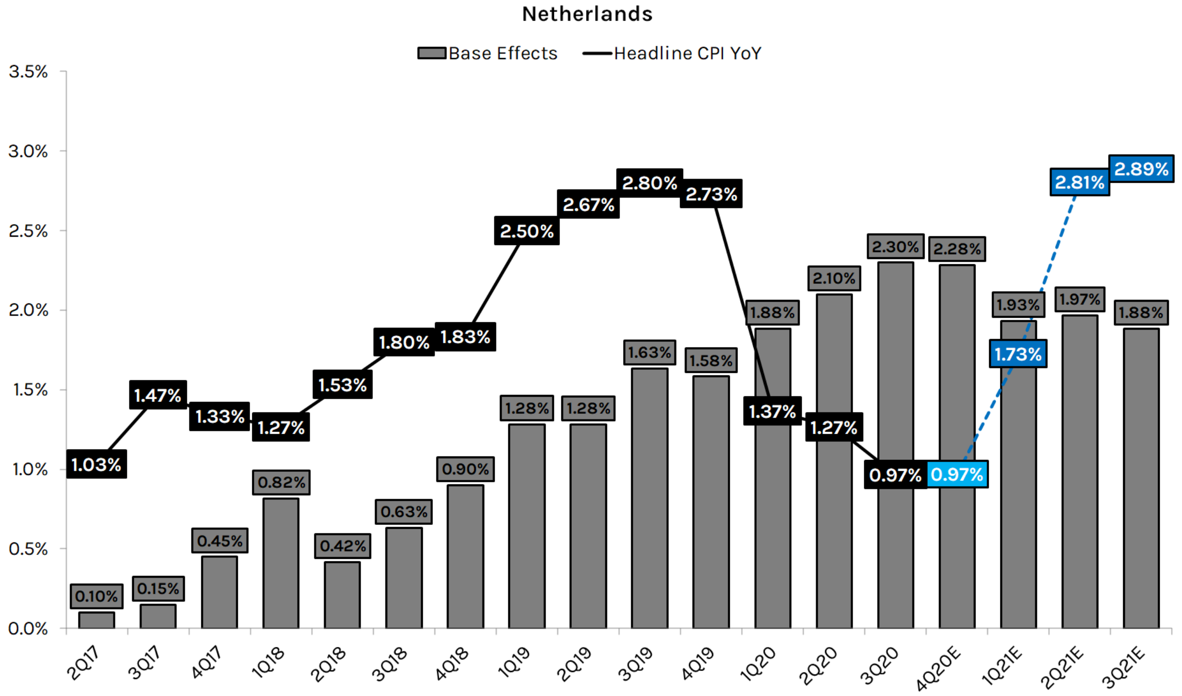
Netherlands

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	2.20%	2.30%	1.80%	2.65%	2.65%	2.45%	2.40%	2.95%	2.90%	2.50%	2.20%	2.15%	2.25%	2.00%	1.70%	0.70%	-3.85%	-0.35%
Real GDP YoY	3.00%	2.80%	2.60%	2.70%	2.80%	2.20%	1.80%	1.60%	1.70%	1.80%	1.60%	-0.20%	-9.40%	-2.50%	-2.14%	-1.14%	8.68%	1.13%
GIP Model Quad	4	3	4	1	2	3	3	3	2	2	4	4	4	1	2	2	2	3
Unconditional Probability Of Forecasted Delta															60%	59%	59%	59%
Conditional Probability Of Forecasted Delta															75%	98%	98%	98%
Conditional Probability Of Quad 1															37.4%	2.4%	2.4%	1.0%
Conditional Probability Of Quad 2															37.8%	95.1%	95.1%	1.5%
Conditional Probability Of Quad 3															12.5%	2.4%	2.4%	56.6%
Conditional Probability Of Quad 4															12.3%	0.1%	0.1%	40.9%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.10%	0.15%	0.45%	0.82%	0.42%	0.63%	0.90%	1.28%	1.28%	1.63%	1.58%	1.88%	2.10%	2.30%	2.28%	1.93%	1.97%	1.88%
Headline CPI YoY	1.03%	1.47%	1.33%	1.27%	1.53%	1.80%	1.83%	2.50%	2.67%	2.80%	2.73%	1.37%	1.27%	0.97%	0.97%	1.73%	2.81%	2.89%
GIP Model Quad	4	3	4	1	2	3	3	3	2	2	4	4	4	1	2	2	2	3
Unconditional Probability Of Forecasted Delta															70%	70%	70%	70%
Conditional Probability Of Forecasted Delta															50%	98%	98%	58%
Conditional Probability Of Quad 1															37.4%	2.4%	2.4%	1.0%
Conditional Probability Of Quad 2															37.8%	95.1%	95.1%	1.5%
Conditional Probability Of Quad 3															12.5%	2.4%	2.4%	56.6%
Conditional Probability Of Quad 4															12.3%	0.1%	0.1%	40.9%



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



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

Data Source: Bloomberg

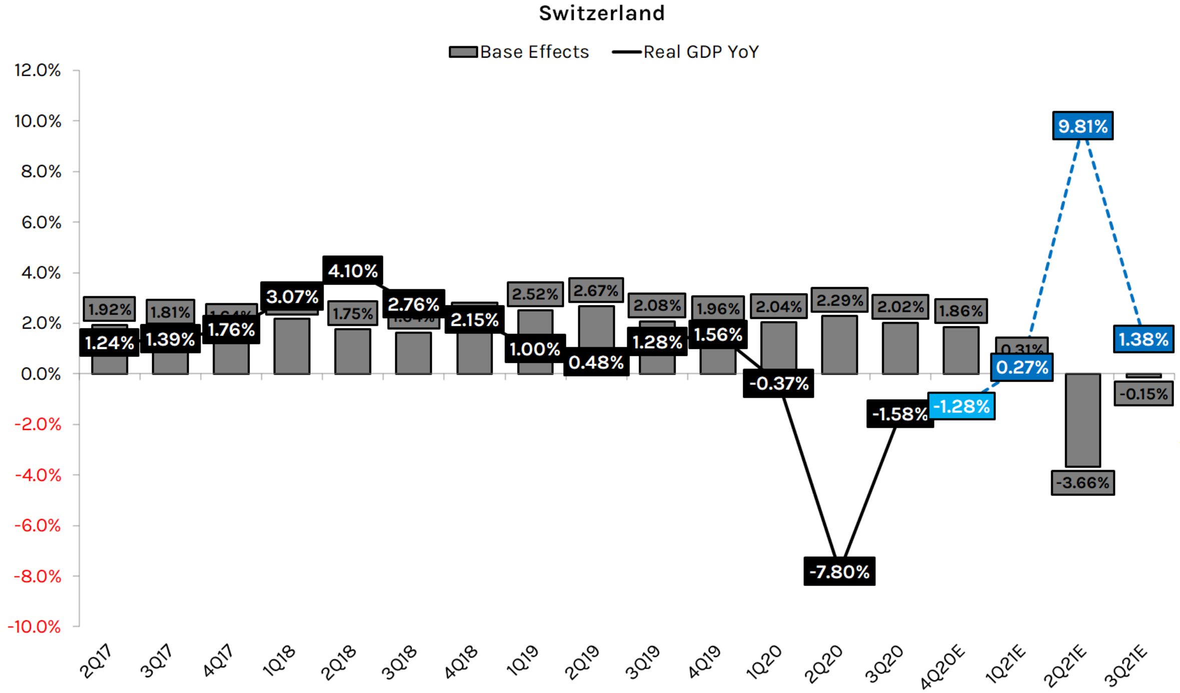
DM Focus Longs: Switzerland (EWL)

HEDGEYE

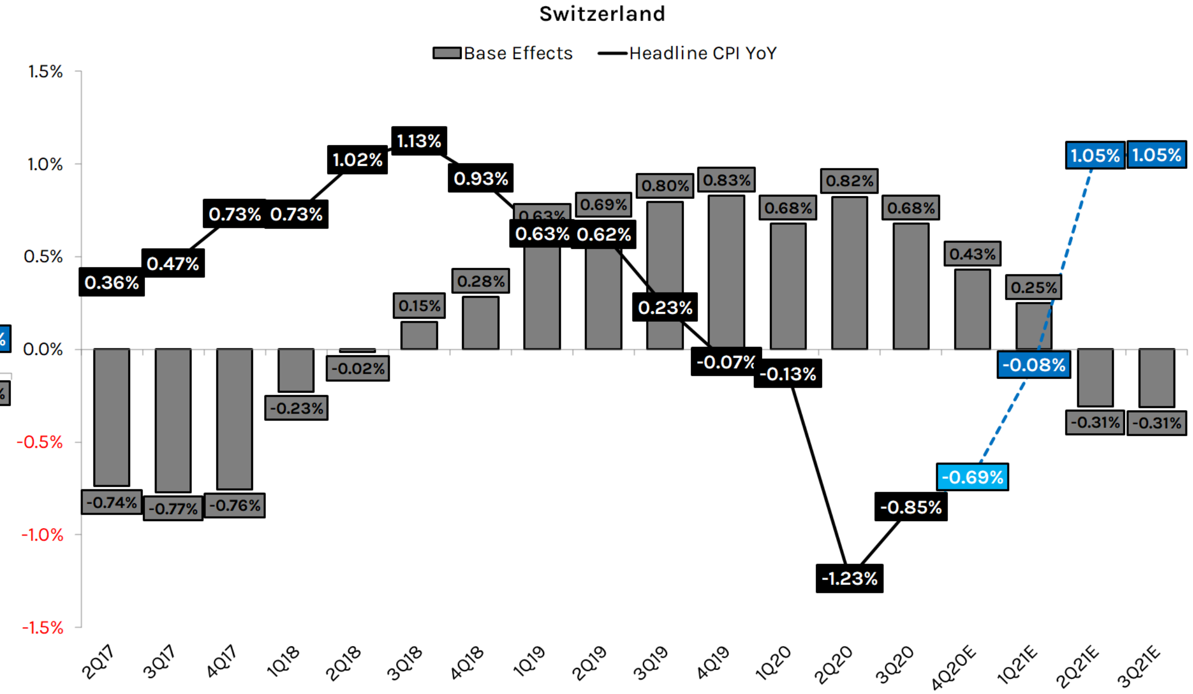
Switzerland

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	1.92%	1.81%	1.64%	2.18%	1.75%	1.64%	1.71%	2.52%	2.67%	2.08%	1.96%	2.04%	2.29%	2.02%	1.86%	0.31%	-3.66%	-0.15%
Real GDP YoY	1.24%	1.39%	1.76%	3.07%	4.10%	2.76%	2.15%	1.00%	0.48%	1.28%	1.56%	-0.37%	-7.80%	-1.58%	-1.28%	0.27%	9.81%	1.38%
GIP Model Quad	4	2	2	1	2	3	4	4	4	1	1	4	4	2	2	2	2	3
Unconditional Probability Of Forecasted Delta															73%	77%	77%	77%
Conditional Probability Of Forecasted Delta															72%	98%	98%	98%
Conditional Probability Of Quad 1															10.8%	2.4%	2.4%	1.2%
Conditional Probability Of Quad 2															60.9%	95.1%	95.1%	1.3%
Conditional Probability Of Quad 3															24.1%	2.4%	2.4%	49.5%
Conditional Probability Of Quad 4															4.2%	0.1%	0.1%	48.0%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	-0.74%	-0.77%	-0.76%	-0.23%	-0.02%	0.15%	0.28%	0.63%	0.69%	0.80%	0.83%	0.68%	0.82%	0.68%	0.43%	0.25%	-0.31%	-0.31%
Headline CPI YoY	0.36%	0.47%	0.73%	0.73%	1.02%	1.13%	0.93%	0.63%	0.62%	0.23%	-0.07%	-0.13%	-1.23%	-0.85%	-0.69%	-0.08%	1.05%	1.05%
GIP Model Quad	4	2	2	1	2	3	4	4	4	1	1	4	4	2	2	2	2	3
Unconditional Probability Of Forecasted Delta															73%	73%	73%	73%
Conditional Probability Of Forecasted Delta															85%	98%	98%	51%
Conditional Probability Of Quad 1															10.8%	2.4%	2.4%	1.2%
Conditional Probability Of Quad 2															60.9%	95.1%	95.1%	1.3%
Conditional Probability Of Quad 3															24.1%	2.4%	2.4%	49.5%
Conditional Probability Of Quad 4															4.2%	0.1%	0.1%	48.0%



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



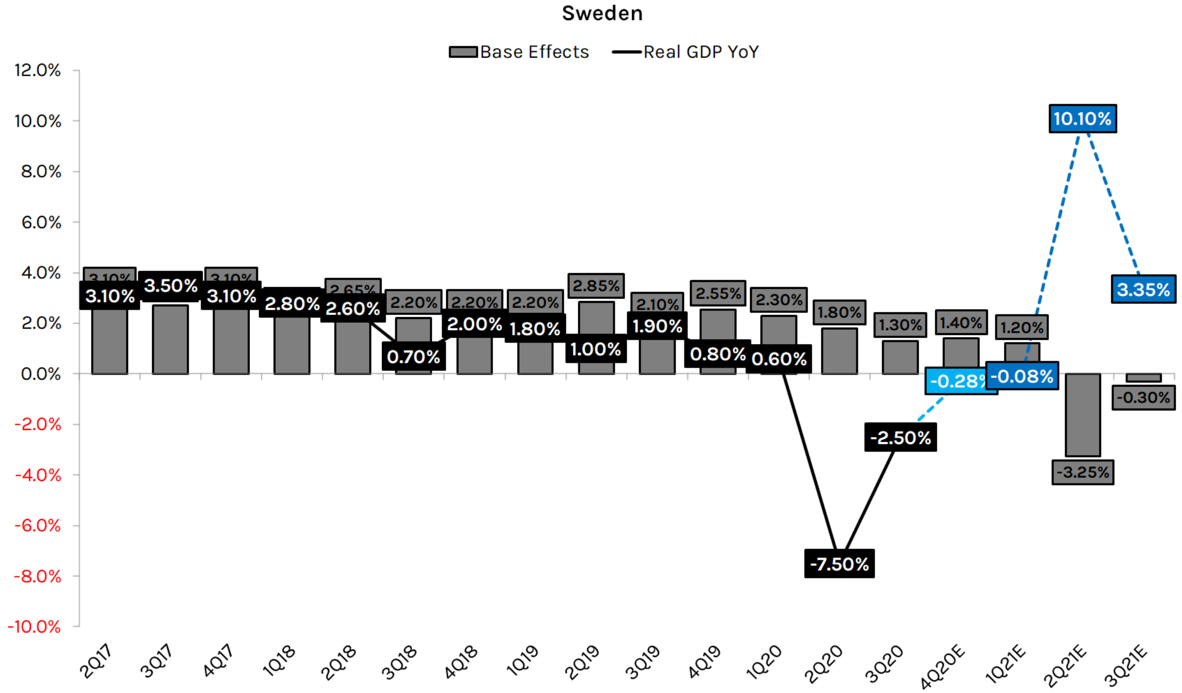
Data Source: Bloomberg. Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.

DM Focus Longs: Sweden (EWD)

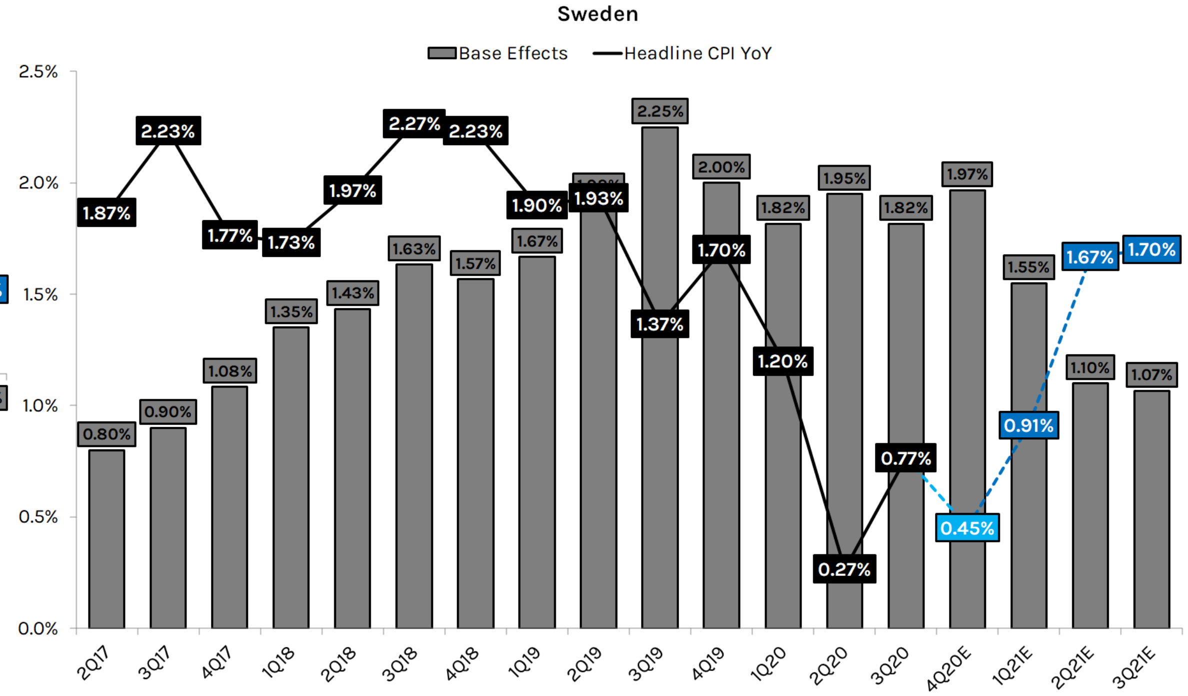
Sweden

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	3.10%	2.70%	3.10%	2.30%	2.65%	2.20%	2.20%	2.20%	2.85%	2.10%	2.55%	2.30%	1.80%	1.30%	1.40%	1.20%	-3.25%	-0.30%
Real GDP YoY	3.10%	3.50%	3.10%	2.80%	2.60%	0.70%	2.00%	1.80%	1.00%	1.90%	0.80%	0.60%	-7.50%	-2.50%	-0.28%	-0.08%	10.10%	3.35%
GIP Model Quad	2	2	4	4	3	3	1	4	3	1	3	4	4	2	1	2	2	3
Unconditional Probability Of Forecasted Delta															65%	64%	64%	64%
Conditional Probability Of Forecasted Delta															98%	64%	98%	98%
Conditional Probability Of Quad 1															95.1%	1.6%	2.4%	1.1%
Conditional Probability Of Quad 2															2.4%	62.2%	95.1%	1.4%
Conditional Probability Of Quad 3															0.1%	35.3%	2.4%	54.2%
Conditional Probability Of Quad 4															2.4%	0.9%	0.1%	43.3%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.80%	0.90%	1.08%	1.35%	1.43%	1.63%	1.57%	1.67%	1.92%	2.25%	2.00%	1.82%	1.95%	1.82%	1.97%	1.55%	1.10%	1.07%
Headline CPI YoY	1.87%	2.23%	1.77%	1.73%	1.97%	2.27%	2.23%	1.90%	1.93%	1.37%	1.70%	1.20%	0.27%	0.77%	0.45%	0.91%	1.67%	1.70%
GIP Model Quad	2	2	4	4	3	3	1	4	3	1	3	4	4	2	1	2	2	3
Unconditional Probability Of Forecasted Delta															58%	58%	58%	58%
Conditional Probability Of Forecasted Delta															98%	98%	98%	56%
Conditional Probability Of Quad 1															95.1%	1.6%	2.4%	1.1%
Conditional Probability Of Quad 2															2.4%	62.2%	95.1%	1.4%
Conditional Probability Of Quad 3															0.1%	35.3%	2.4%	54.2%
Conditional Probability Of Quad 4															2.4%	0.9%	0.1%	43.3%



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



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

Data Source: Bloomberg

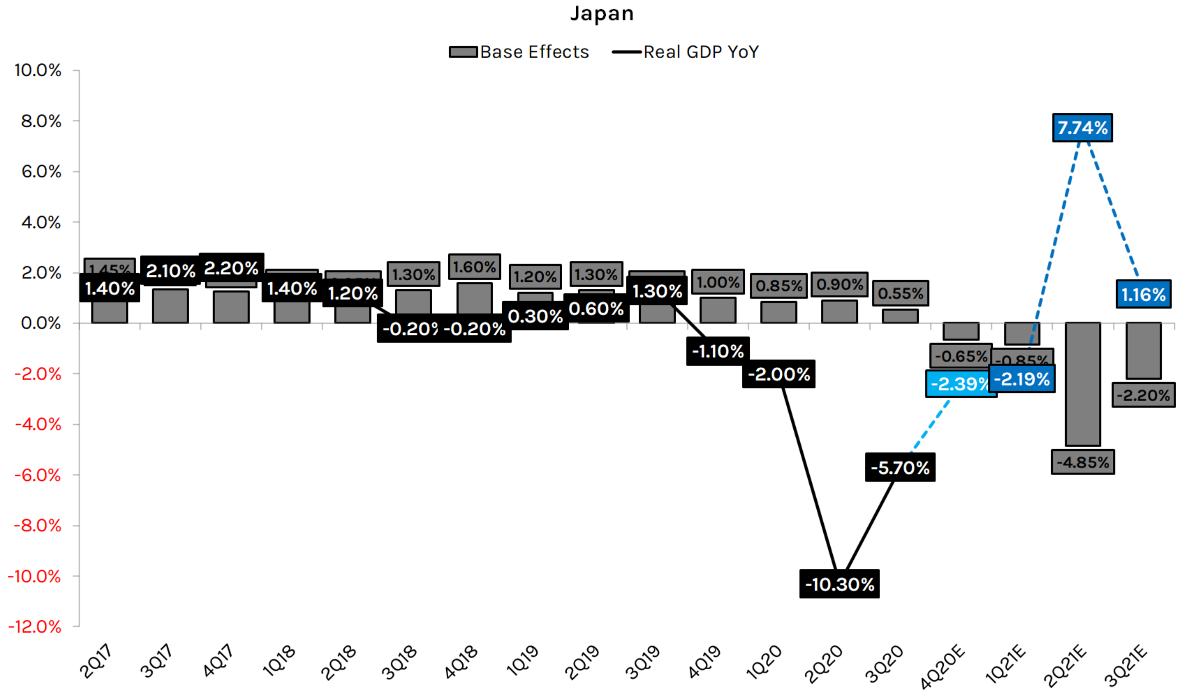
DM Focus Longs: Japan (EWJ)

HEDGEYE

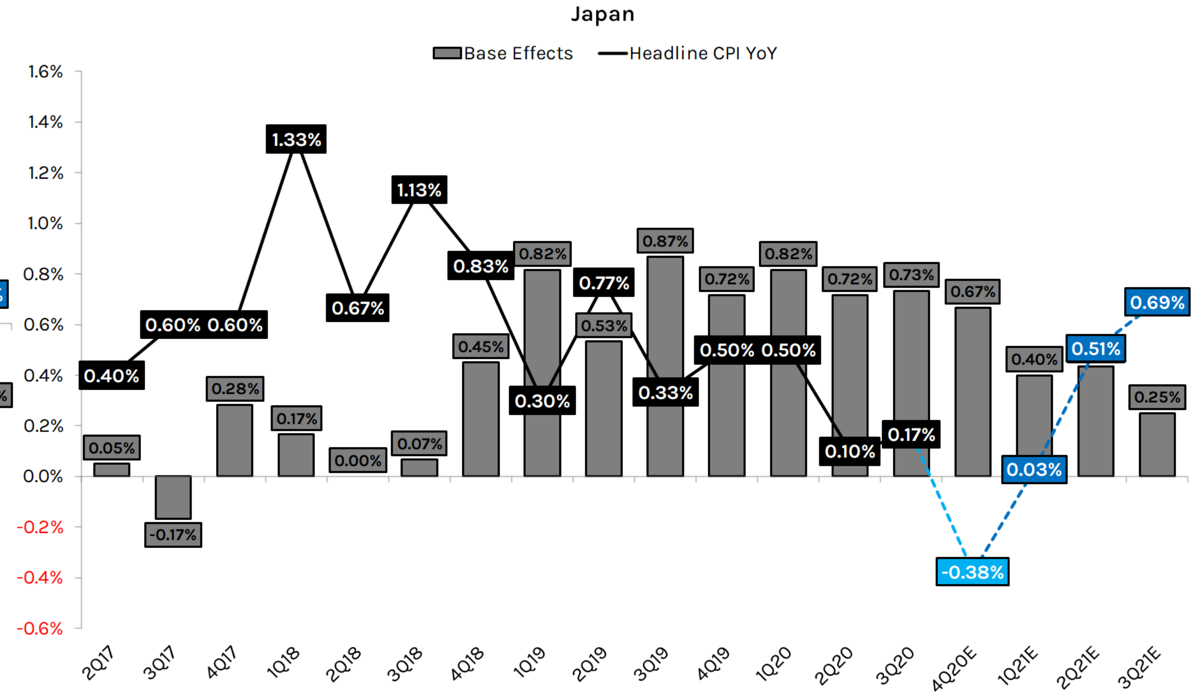
Japan

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	1.45%	1.35%	1.25%	1.00%	0.95%	1.30%	1.60%	1.20%	1.30%	0.95%	1.00%	0.85%	0.90%	0.55%	-0.65%	-0.85%	-4.85%	-2.20%
Real GDP YoY	1.40%	2.10%	2.20%	1.40%	1.20%	-0.20%	-0.20%	0.30%	0.60%	1.30%	-1.10%	-2.00%	-10.30%	-5.70%	-2.39%	-2.19%	7.74%	1.16%
GIP Model Quad	2	2	2	3	4	3	1	1	2	1	3	4	4	2	1	2	2	3
Unconditional Probability Of Forecasted Delta															65%	64%	64%	64%
Conditional Probability Of Forecasted Delta															98%	63%	98%	98%
Conditional Probability Of Quad 1															95.1%	5.6%	2.4%	0.8%
Conditional Probability Of Quad 2															2.4%	57.5%	95.1%	1.7%
Conditional Probability Of Quad 3															0.1%	33.6%	2.4%	67.0%
Conditional Probability Of Quad 4															2.4%	3.3%	0.1%	30.5%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.05%	-0.17%	0.28%	0.17%	0.00%	0.07%	0.45%	0.82%	0.53%	0.87%	0.72%	0.82%	0.72%	0.73%	0.67%	0.40%	0.43%	0.25%
Headline CPI YoY	0.40%	0.60%	0.60%	1.33%	0.67%	1.13%	0.83%	0.30%	0.77%	0.33%	0.50%	0.50%	0.10%	0.17%	-0.38%	0.03%	0.51%	0.69%
GIP Model Quad	2	2	2	3	4	3	1	1	2	1	3	4	4	2	1	2	2	3
Unconditional Probability Of Forecasted Delta															65%	65%	65%	65%
Conditional Probability Of Forecasted Delta															98%	91%	98%	69%
Conditional Probability Of Quad 1															95.1%	5.6%	2.4%	0.8%
Conditional Probability Of Quad 2															2.4%	57.5%	95.1%	1.7%
Conditional Probability Of Quad 3															0.1%	33.6%	2.4%	67.0%
Conditional Probability Of Quad 4															2.4%	3.3%	0.1%	30.5%



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



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

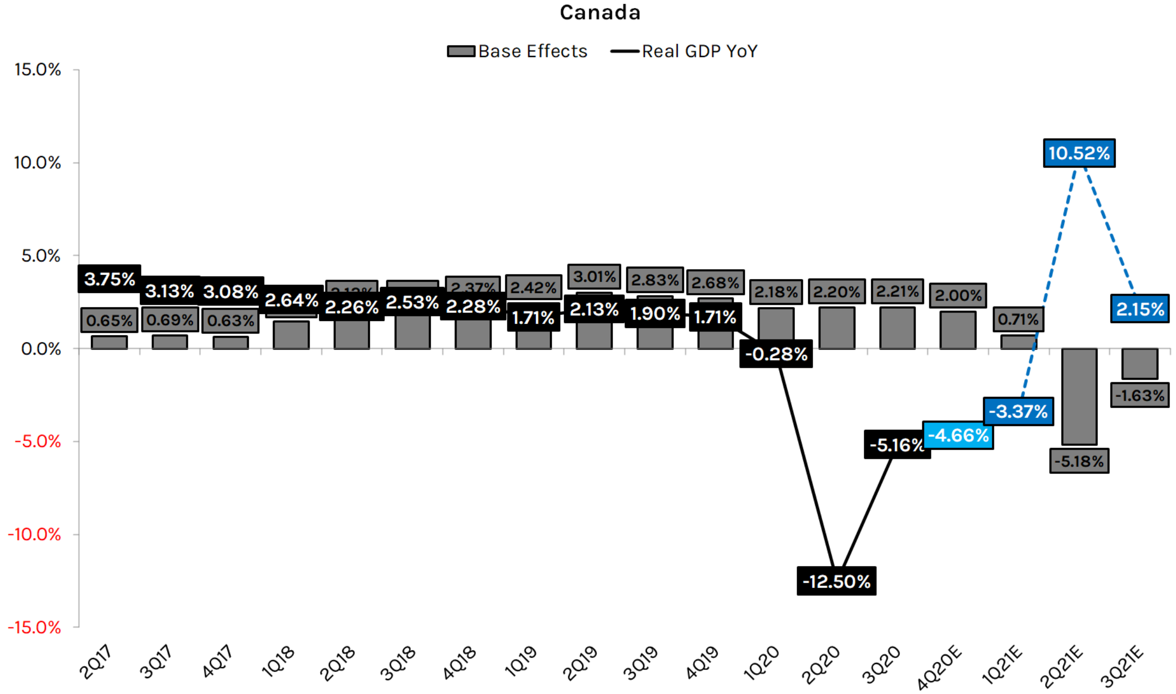
Data Source: Bloomberg

DM Focus Longs: Canada (EWC)

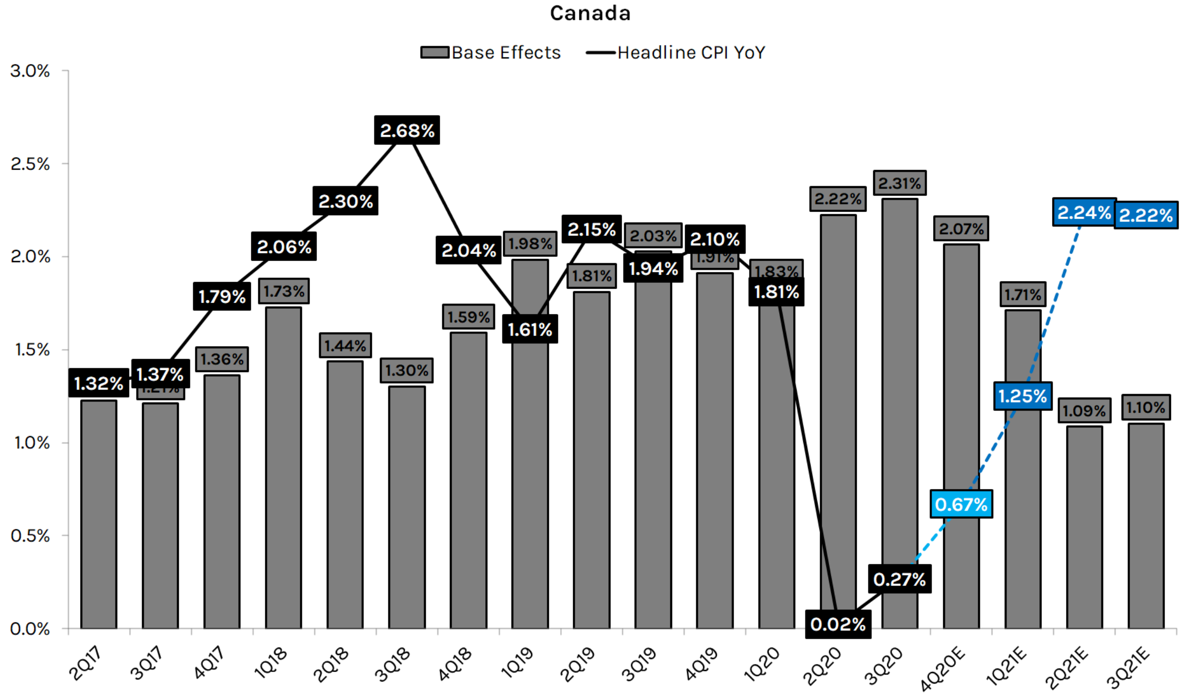
Canada

GROWTH	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	0.65%	0.69%	0.63%	1.45%	2.12%	2.14%	2.37%	2.42%	3.01%	2.83%	2.68%	2.18%	2.20%	2.21%	2.00%	0.71%	-5.18%	-1.63%
Real GDP YoY	3.75%	3.13%	3.08%	2.64%	2.26%	2.53%	2.28%	1.71%	2.13%	1.90%	1.71%	-0.28%	-12.50%	-5.16%	-4.66%	-3.37%	10.52%	2.15%
GIP Model Quad	1	3	3	3	3	2	4	4	2	4	3	4	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															70%	69%	69%	69%
Conditional Probability Of Forecasted Delta															78%	98%	98%	98%
Conditional Probability Of Quad 1															1.9%	2.4%	2.4%	1.3%
Conditional Probability Of Quad 2															76.0%	95.1%	95.1%	1.2%
Conditional Probability Of Quad 3															21.5%	2.4%	2.4%	45.6%
Conditional Probability Of Quad 4															0.6%	0.1%	0.1%	51.9%

INFLATION	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20E	1Q21E	2Q21E	3Q21E
Base Effects	1.23%	1.21%	1.36%	1.73%	1.44%	1.30%	1.59%	1.98%	1.81%	2.03%	1.91%	1.83%	2.22%	2.31%	2.07%	1.71%	1.09%	1.10%
Headline CPI YoY	1.32%	1.37%	1.79%	2.06%	2.30%	2.68%	2.04%	1.61%	2.15%	1.94%	2.10%	1.81%	0.02%	0.27%	0.67%	1.25%	2.24%	2.22%
GIP Model Quad	1	3	3	3	3	2	4	4	2	4	3	4	4	2	2	2	2	4
Unconditional Probability Of Forecasted Delta															68%	68%	68%	68%
Conditional Probability Of Forecasted Delta															98%	98%	98%	53%
Conditional Probability Of Quad 1															1.9%	2.4%	2.4%	1.3%
Conditional Probability Of Quad 2															76.0%	95.1%	95.1%	1.2%
Conditional Probability Of Quad 3															21.5%	2.4%	2.4%	45.6%
Conditional Probability Of Quad 4															0.6%	0.1%	0.1%	51.9%



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



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

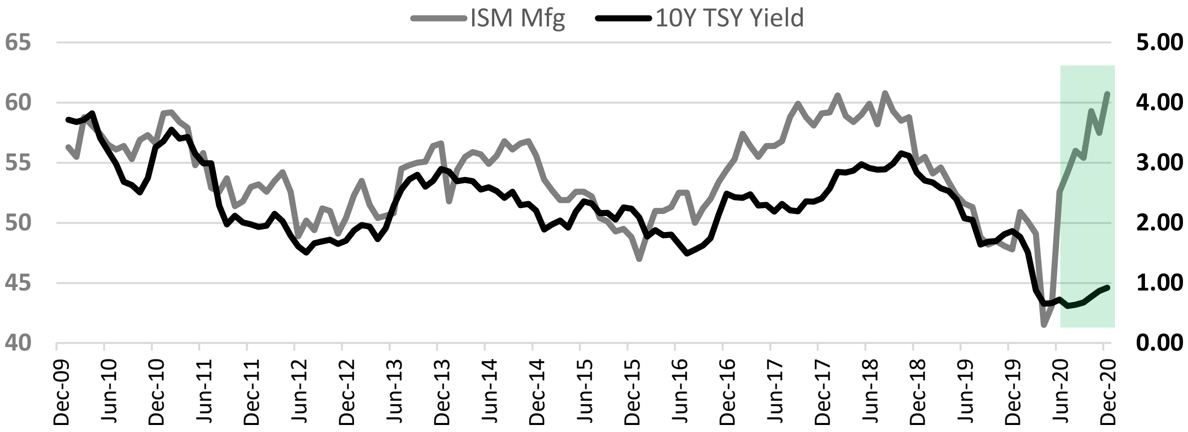
Q1 2021 Macro Themes

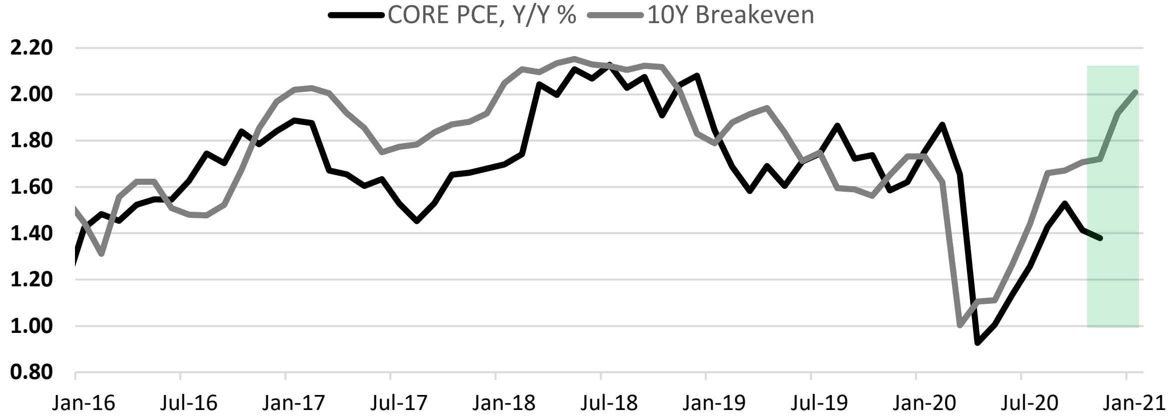
HEDGEYE

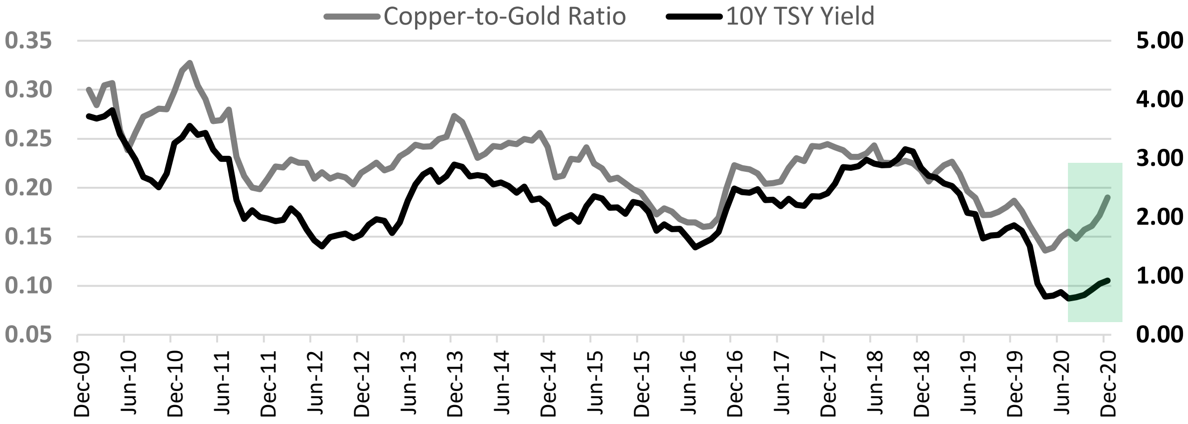
Short Deflation/Duration

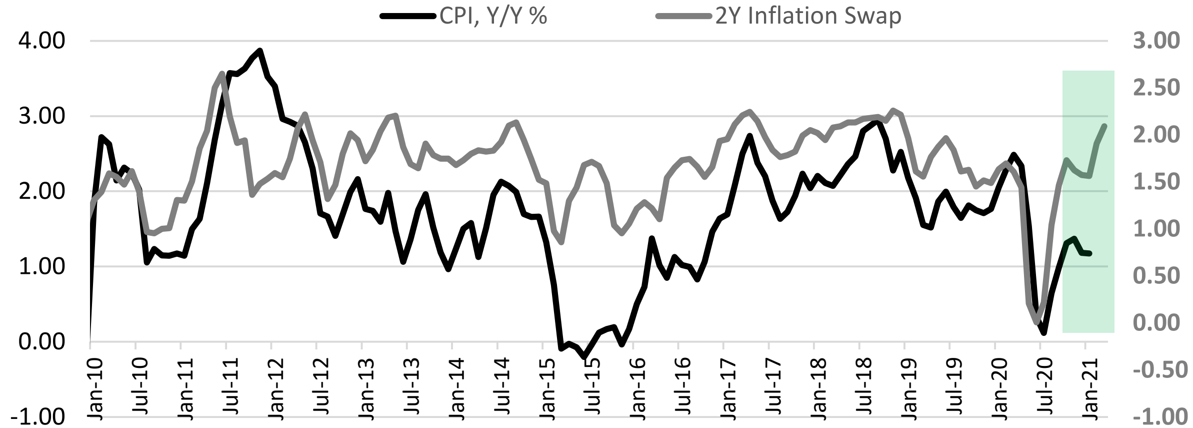
Duration/Inflation Outlook: Pick A Metric ...

Almost every conventional and stealth metric is signaling higher yields and/or higher reported inflation





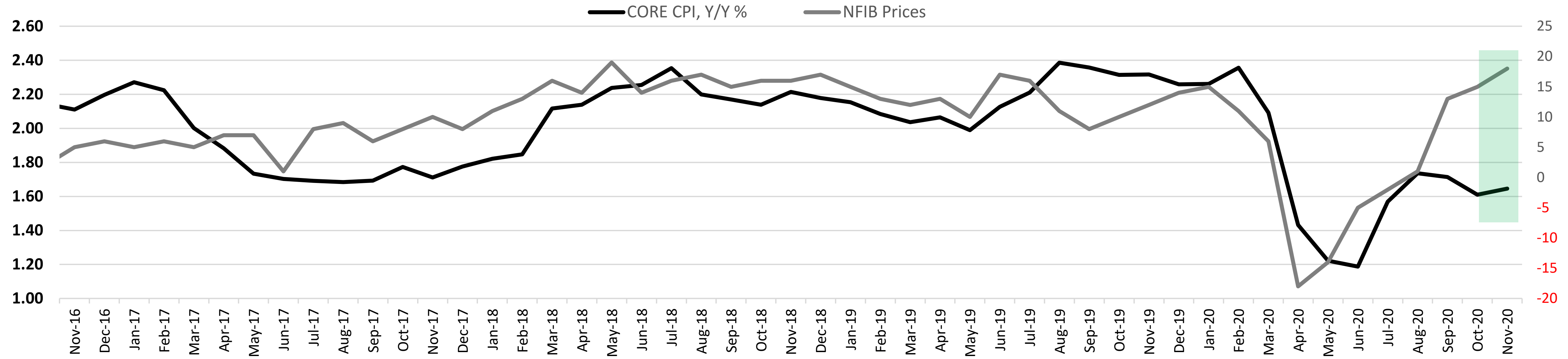


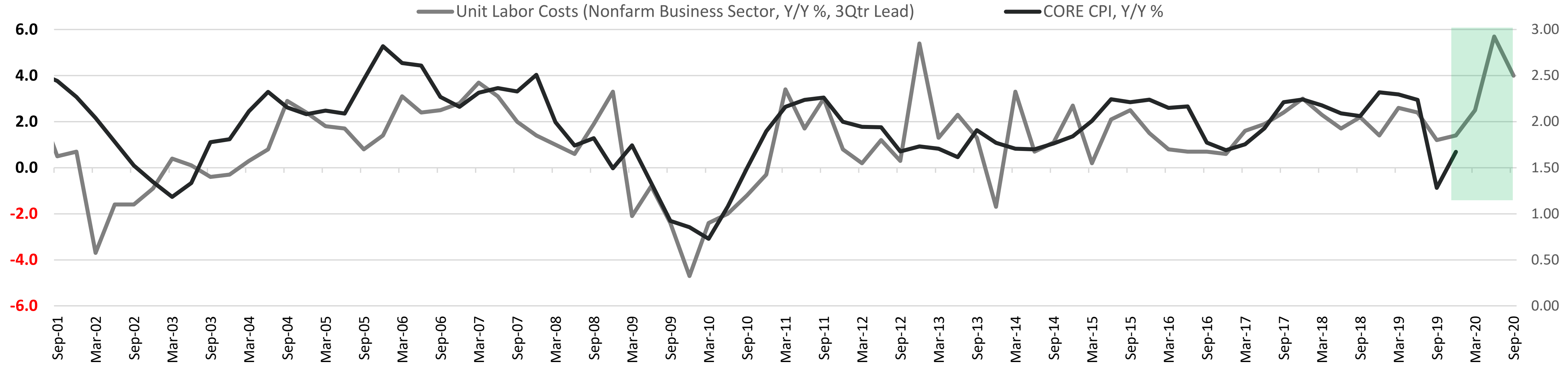


Data Source: Bloomberg

… Any Metric

HEDGEYE



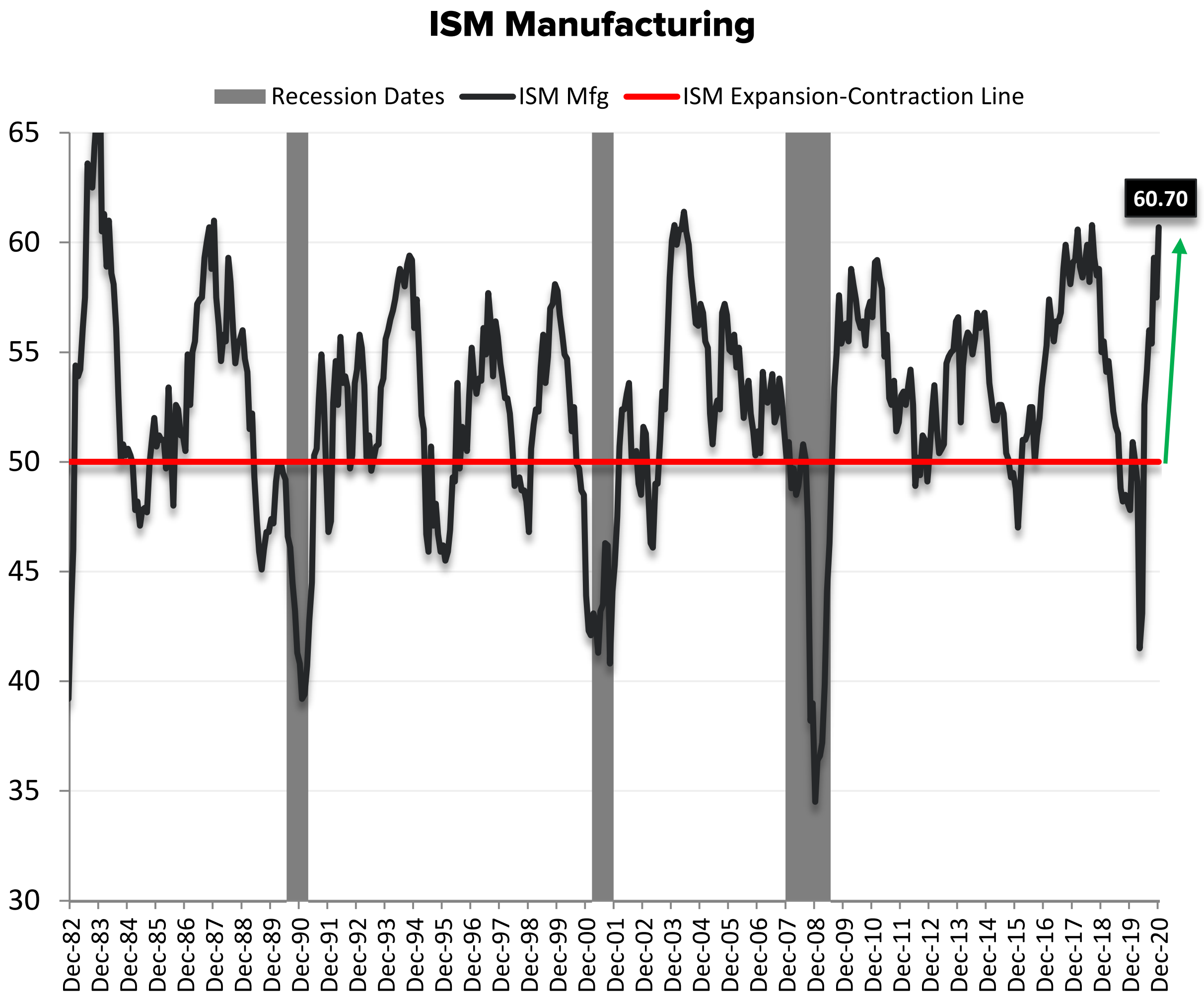


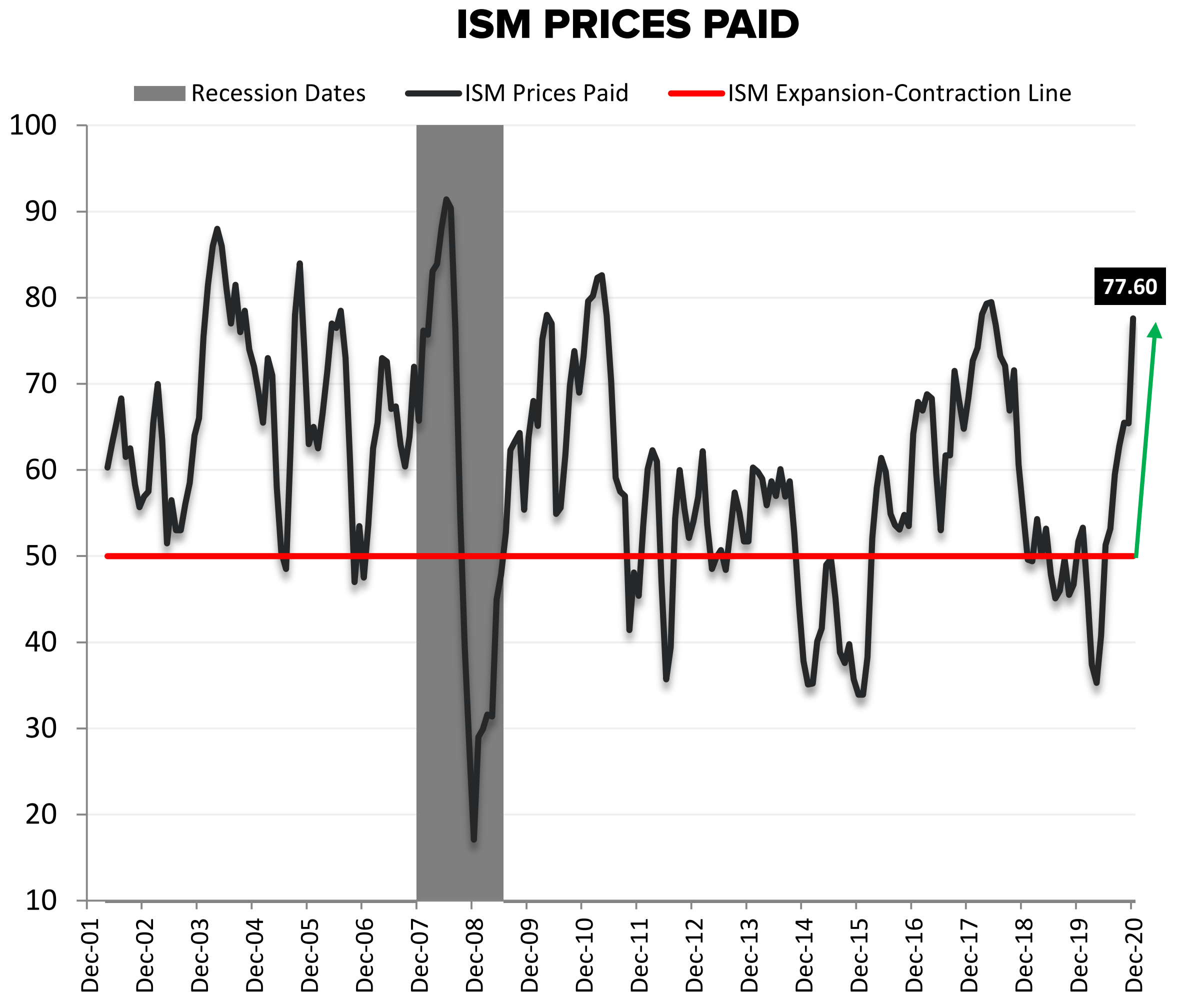
Data Source: Bloomberg

The Industrial-Manufacturing Economy is Already in (raging) #Quad2

HEDGEYE

The Headline breached 60 to the upside in December while New Orders spiked to the highest level since 2004 and Prices Paid popped +12.2 pts to a 3Y high at 77.6

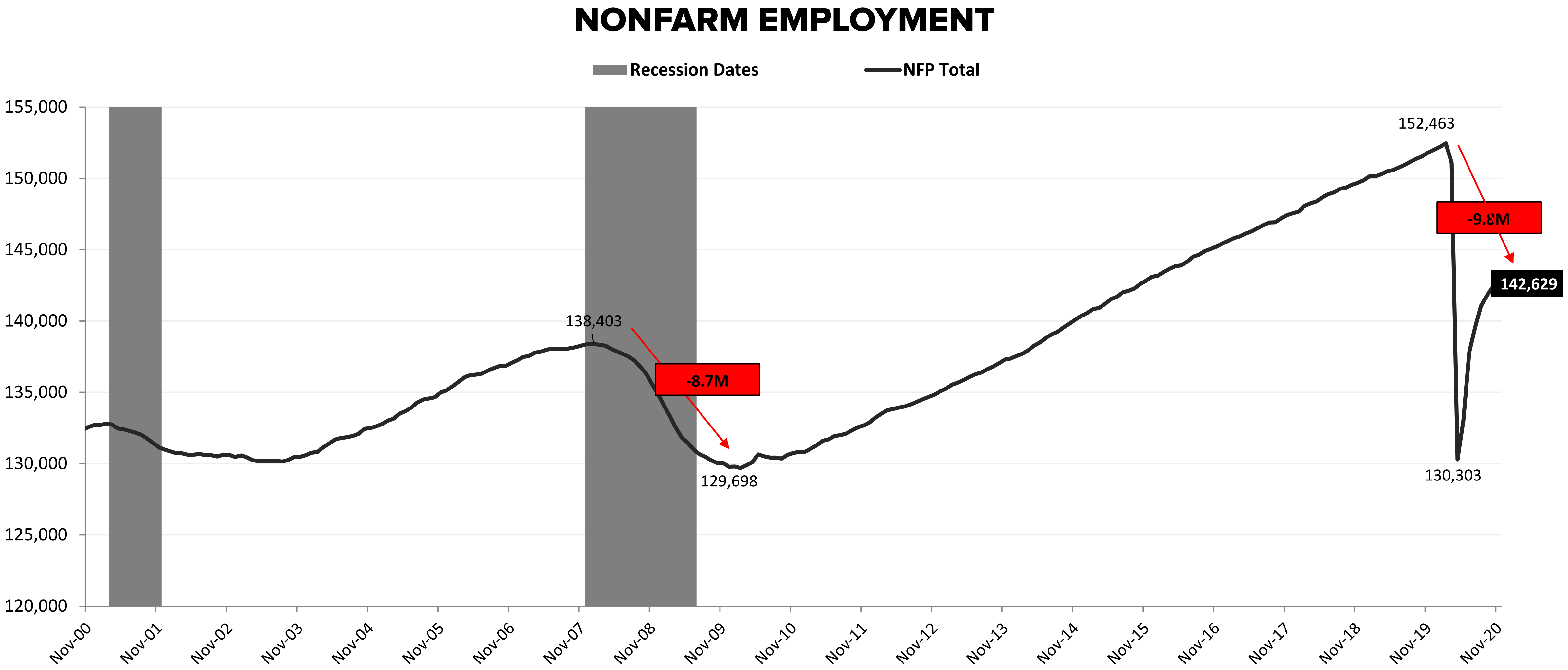




Data Source: Bloomberg

The Labor Market Remains In A Deep Hole, But ...

The payroll recovery has begun to stall out and the ranks of the long-term unemployed continued to increase. inclusive of 7-months of notable gains, we remain 9.8M below the February peak – a payroll hole that remains larger than the peak of the GFC.

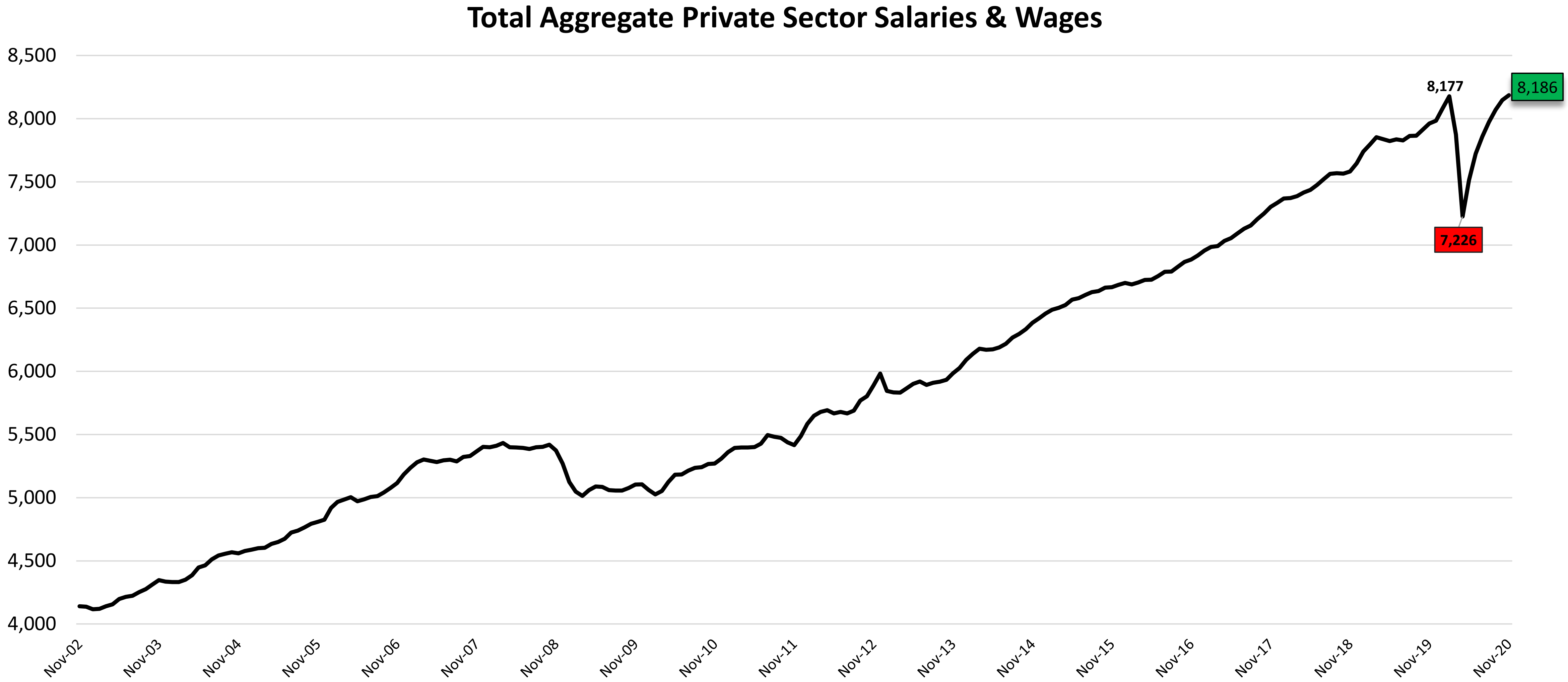


Data Source: Bloomberg

Aggregate Wage Income Has More Than Fully Recovered

HEDGEYE

Total Wage & Salary Income has now recovered above the pre-pandemic peak as of the latest November data.

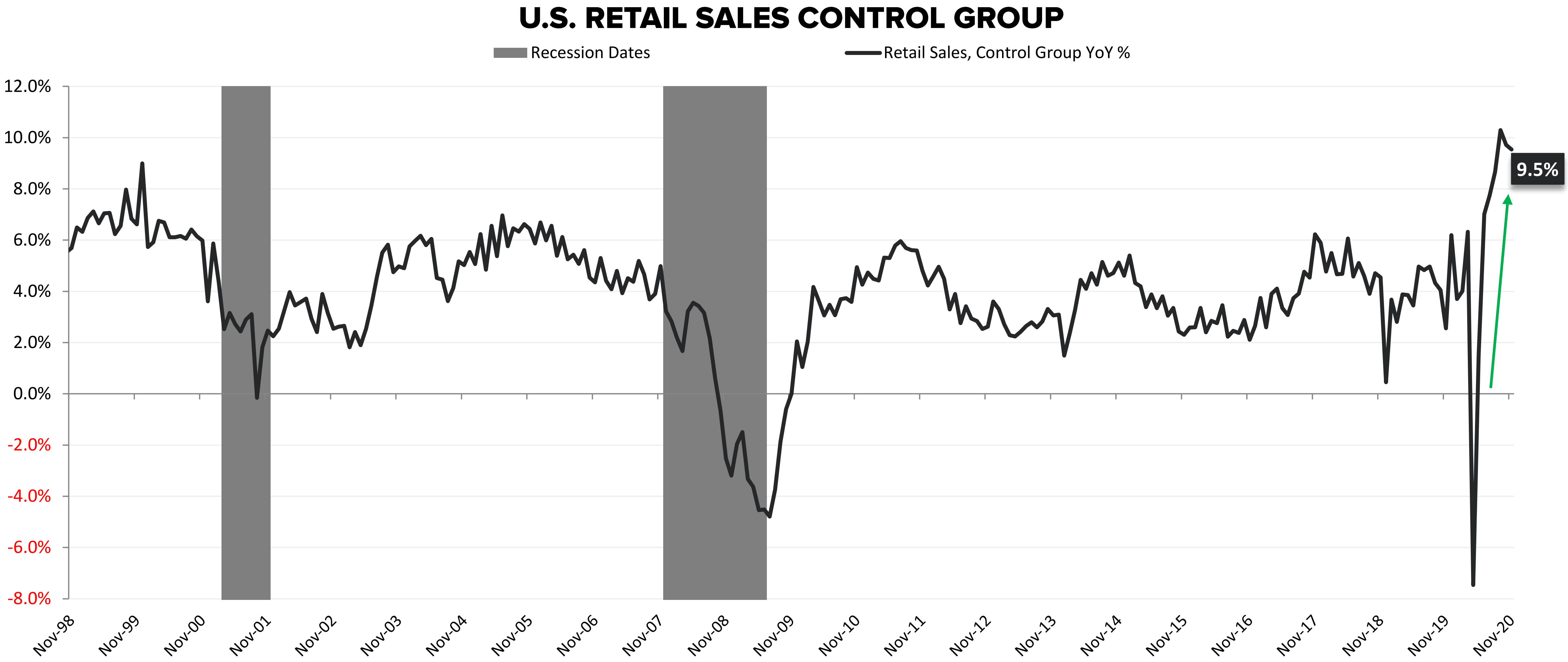


Data Source: Bloomberg

$2000 Checks! The V-shaped recovery in Retail Sales = #Obvious

HEDGEYE

Stimulus funds and the spending shift in the direction of the goods economy helped drive one of the lone, legit V-shaped recoveries among name brand macro series ... and with more "checks" on the way.

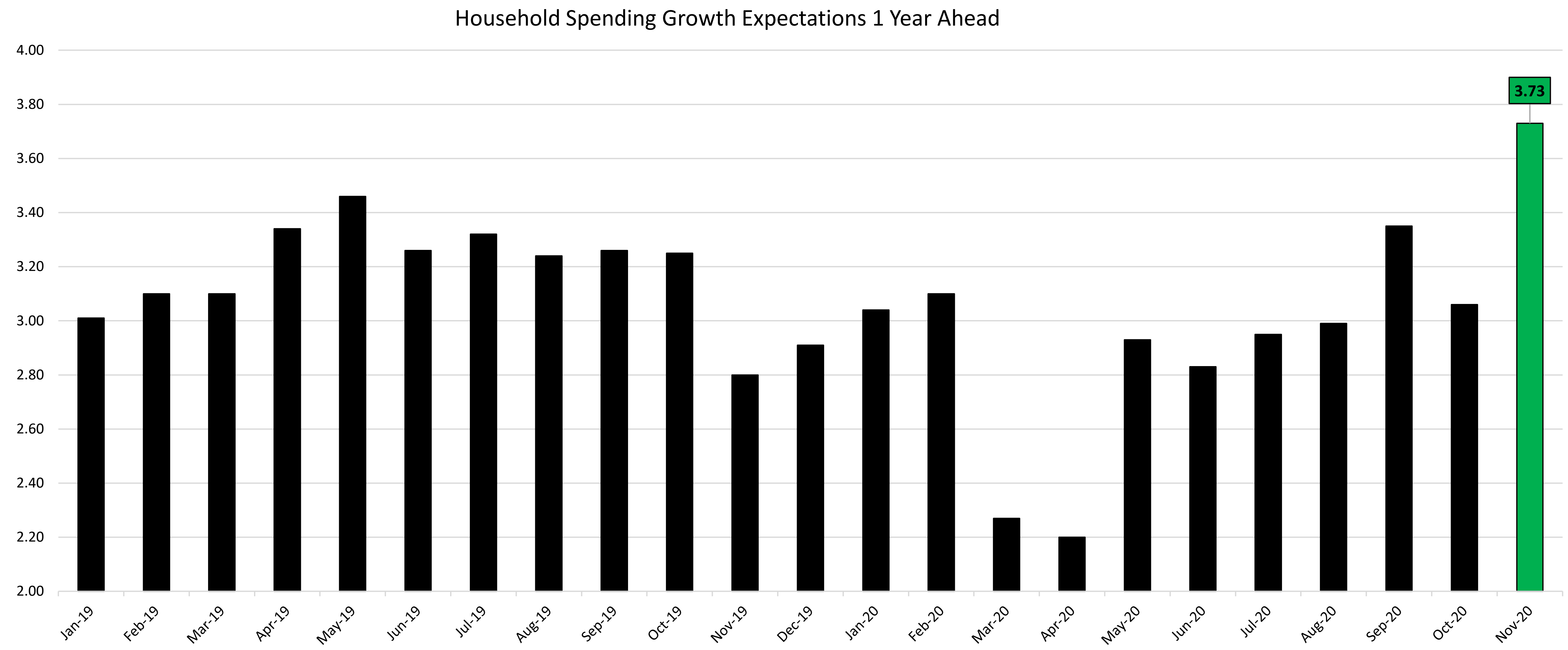


Data Source: Bloomberg

Household Spending Expectations at 4Y Highs

HEDGEYE

Spending expectations should only rise further in the wake of the latest stimulus funding and the prospects of further support following Dem victories in GA.

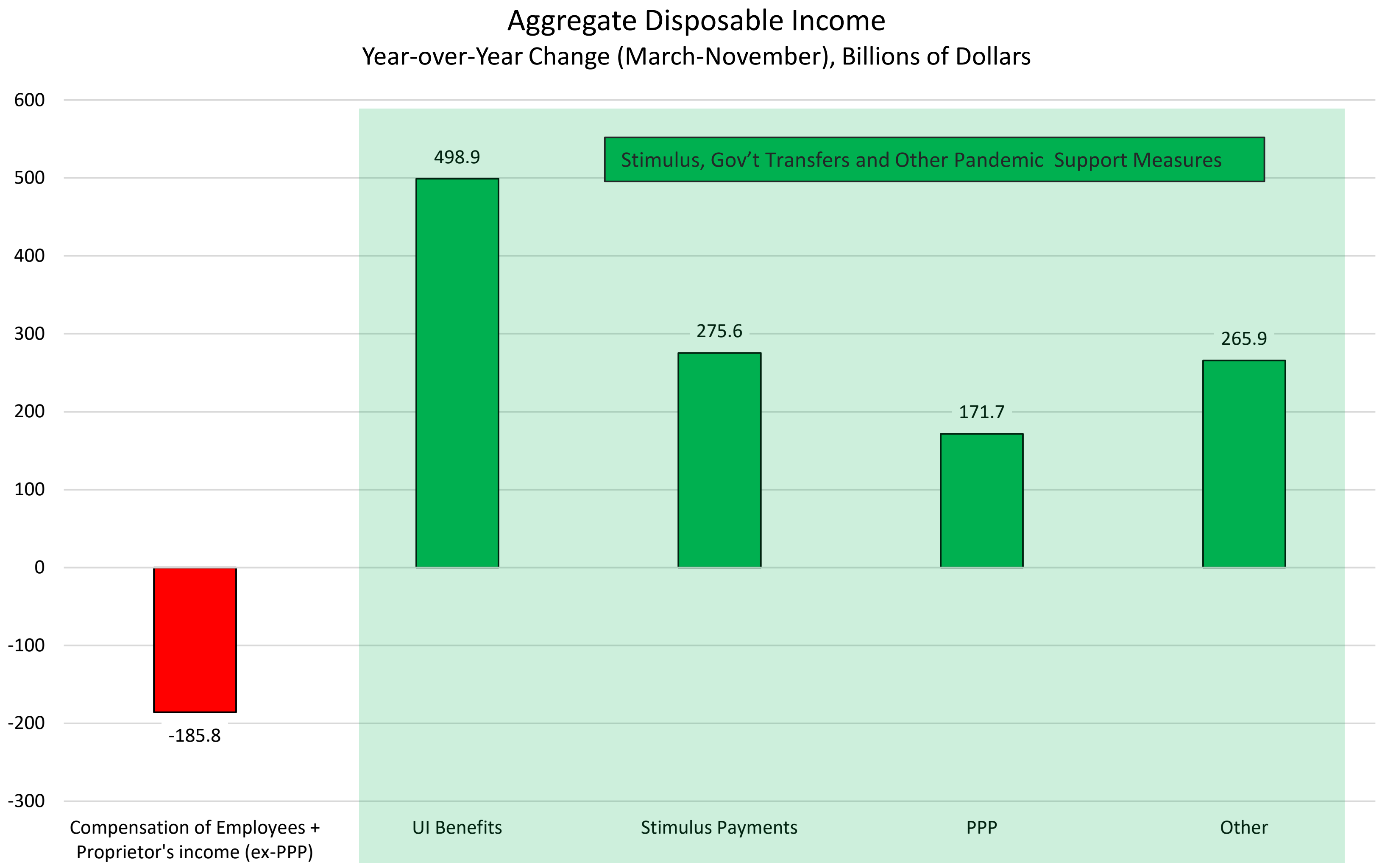


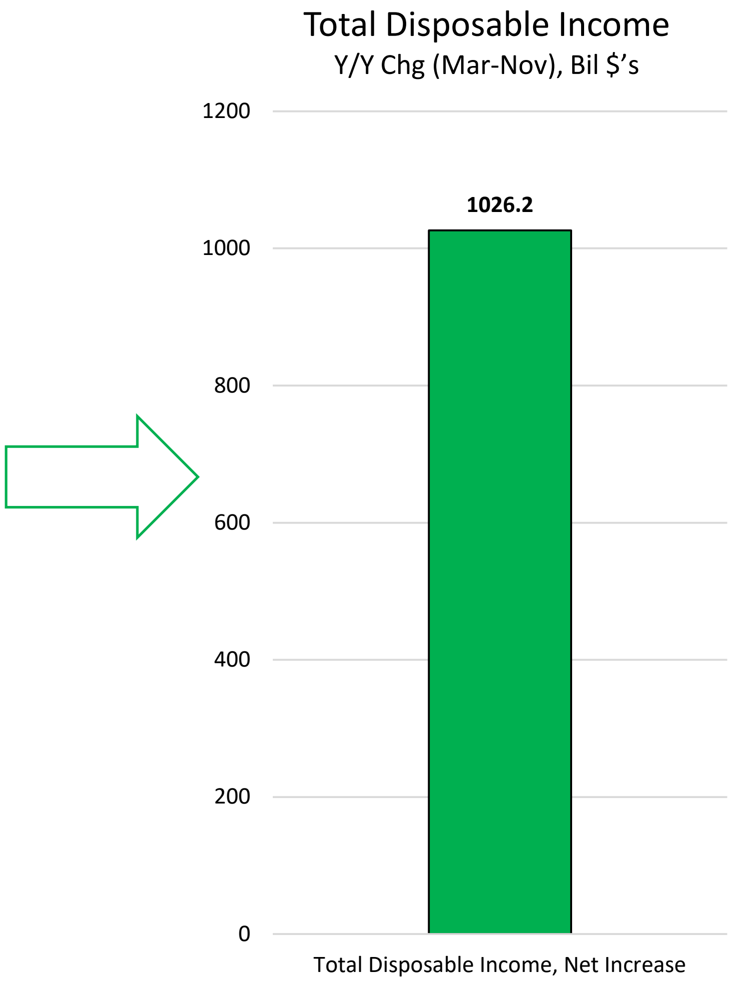
Data Source: Bloomberg, Univ. Michigan

Anatomy of a Sleeping (Consumption) Giant: INCOME = ↑

HEDGEYE

While Employee Wage Income cratered into the onset of the Pandemic, policy support measures more than offset the decline as Total Disposable Income over the March-November period rose $1.03T(!) relative to the corresponding period in 2019.



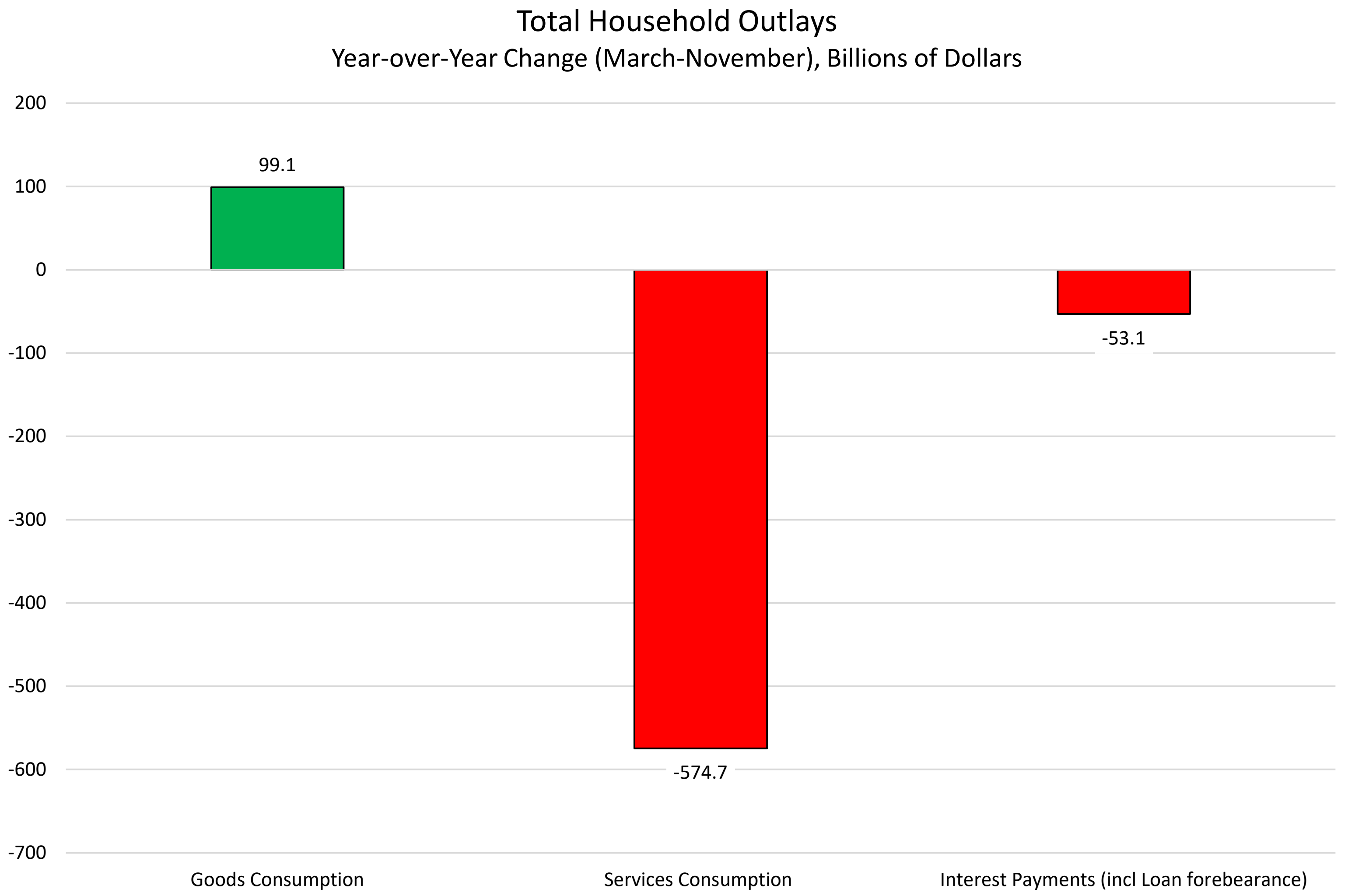


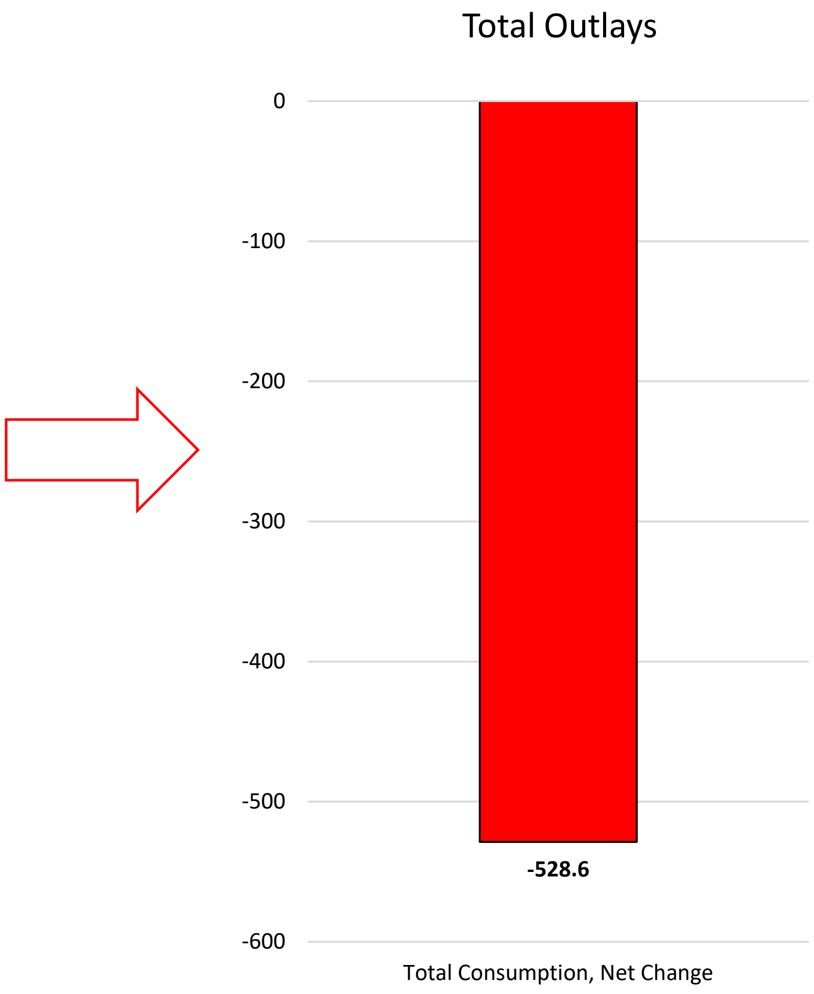
Data Source: BEA

OUTLAYS = ↓

HEDGEYE

While Goods Consumption rose, spending across the largest part of the domestic economy plunged with Services spending down -$575B in 2020 while lower rates and loan forbearance programs reduced interest costs.   Net, Total Outlays fell -$529B Y/Y relative to 2019

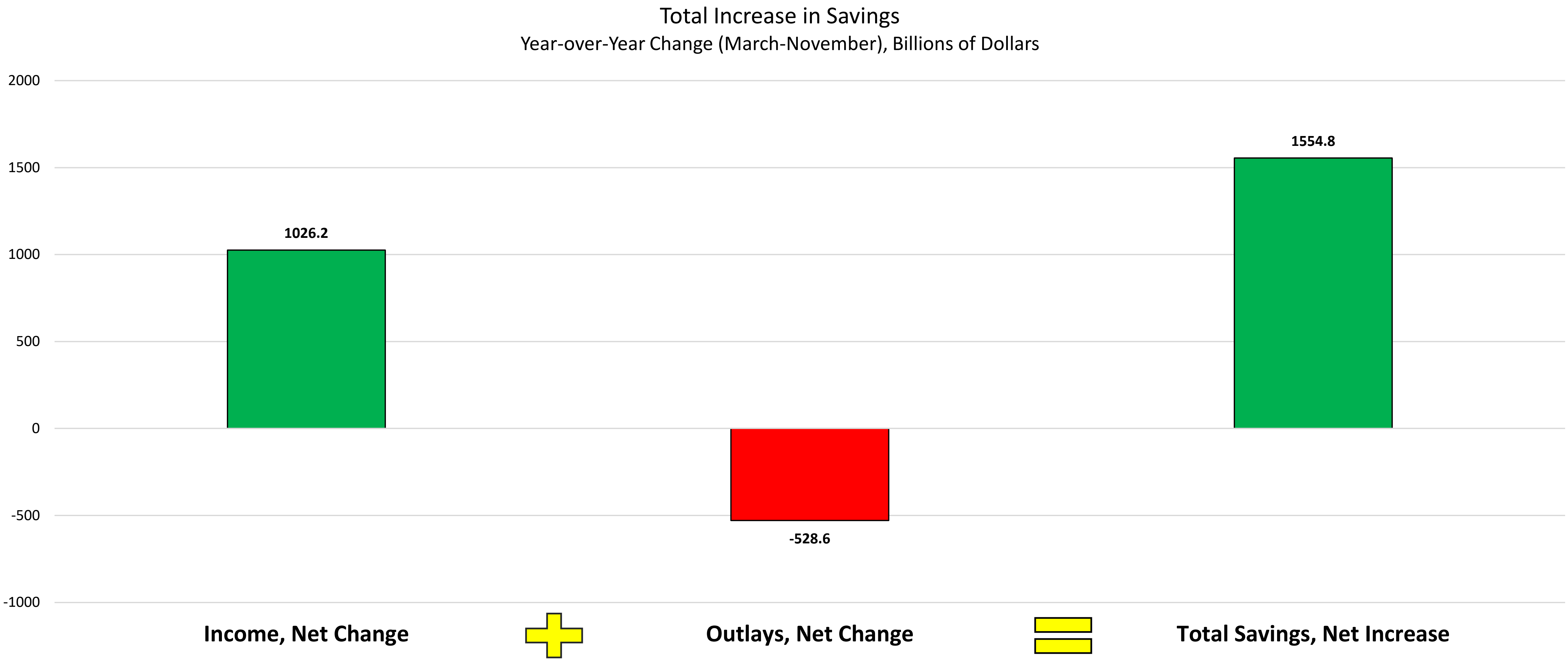




Data Source: BEA

SAVINGS = ↑↑

Significantly higher income and significantly lower spending drove a massive spike in Household Savings. Total savings increased +$1.55T relative to the March-November period in 2019. The deployment of that cumulated savings as macro activity renormalizes would serve as a meaningful amplifier to Spending growth.



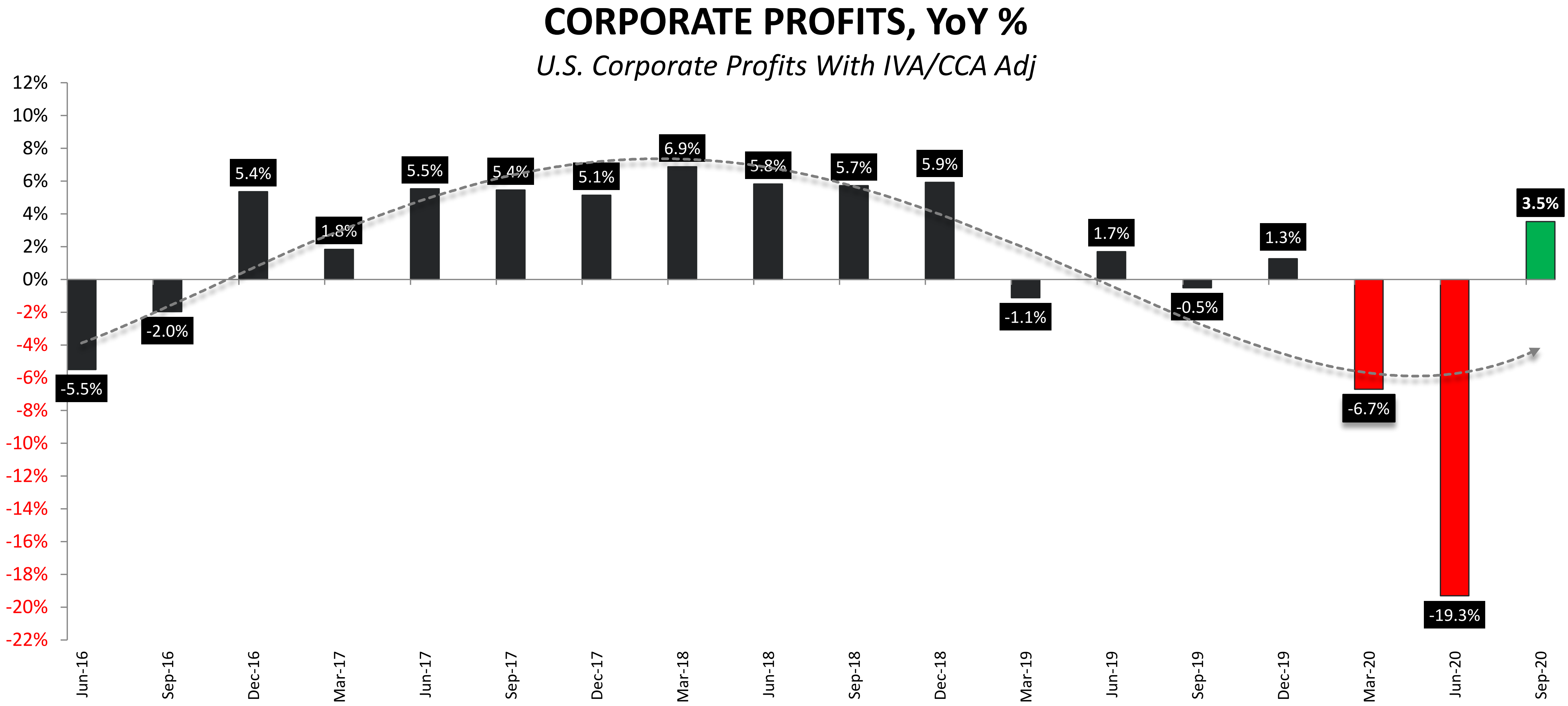
Total Increase in Savings

Year-over-Year Change (March-November), Billions of Dollars

Data Source: BEA

For Corporates, The #ProfitsCycle Has Already Inflected

HEDGEYE

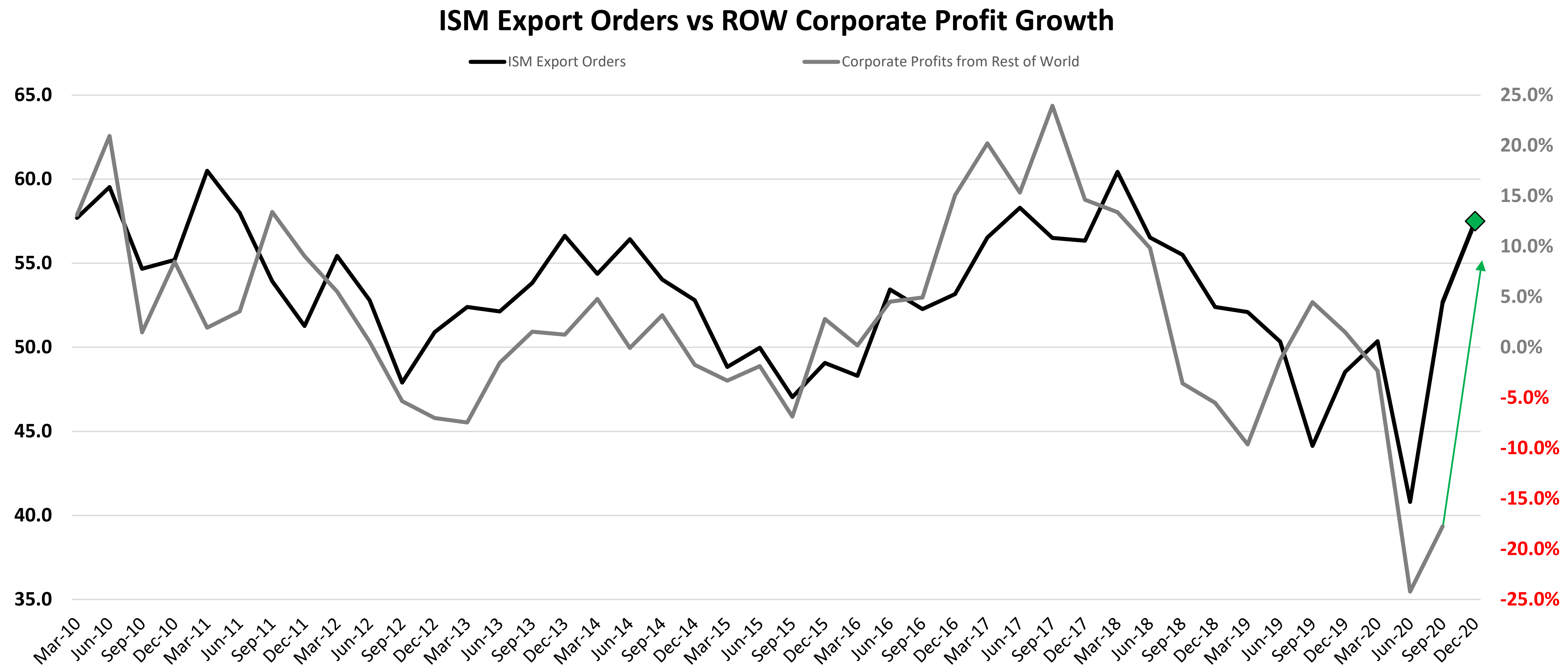


Data Source: Bloomberg

#GlobalQuad2 Will Only Further Reflate Profits

HEDGEYE

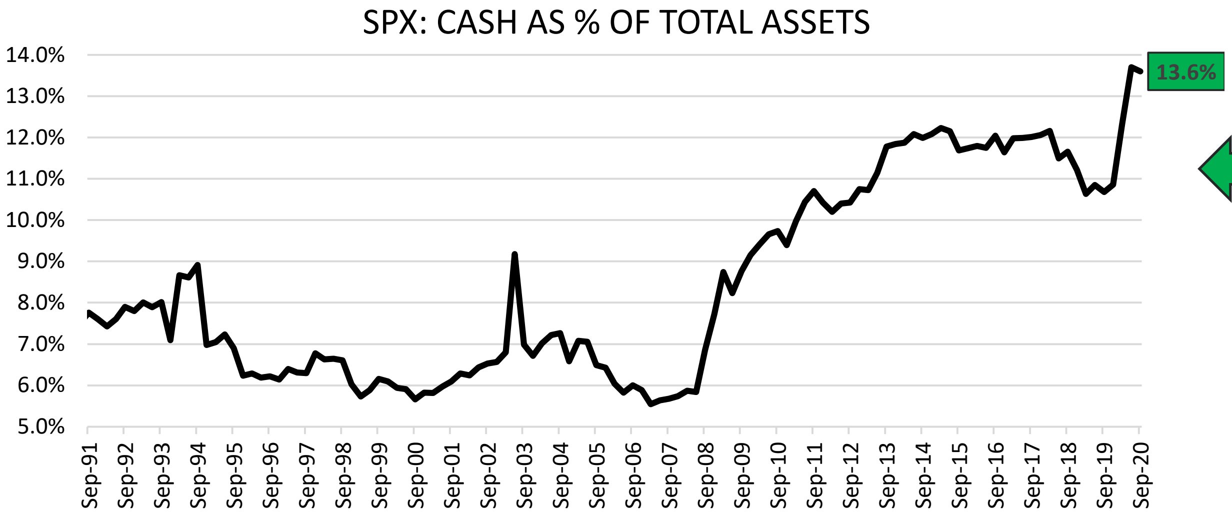
The inflection in Global PMI's and Export demand along with early weak dollar effects will support OUS profit growth for domestic companies



Data Source: Bloomberg

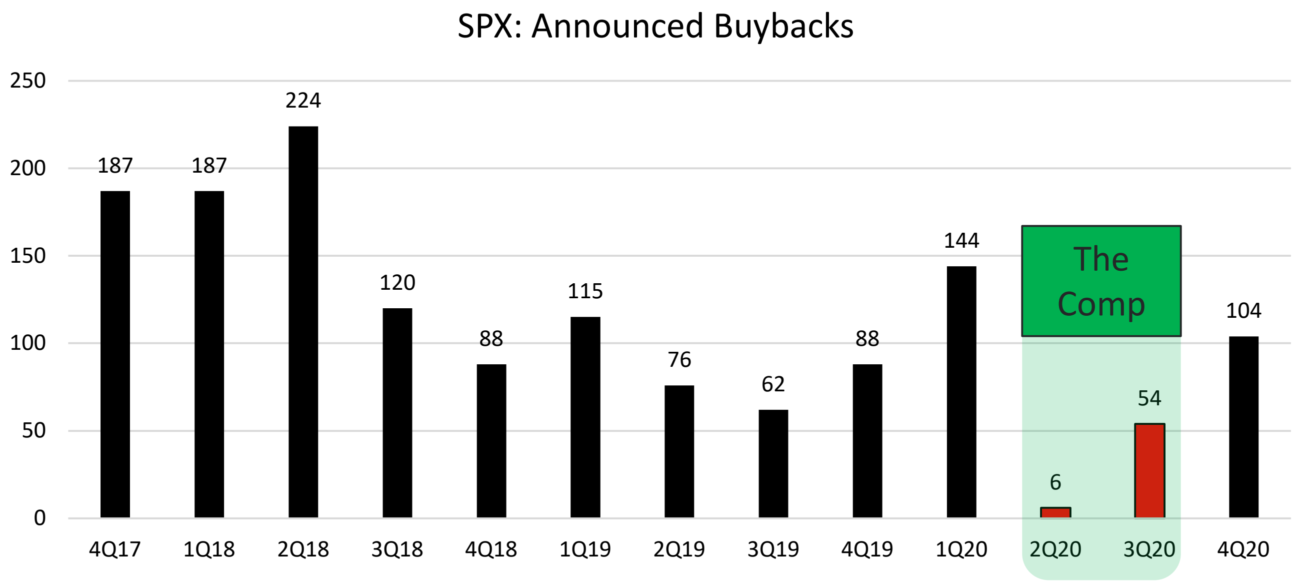
Multi-Quarter Earnings Acceleration = Easiest Trivial “Call” in Macro

More Stimulus + Accelerating Wage Income + Macro Renormalization = Demand ↑ … & with a Buyback Amplifier!



Pandemic Related Liquidity Hoarding
= Cash at Multi-Decade Highs

…. The 2021 BUYBACK COMP

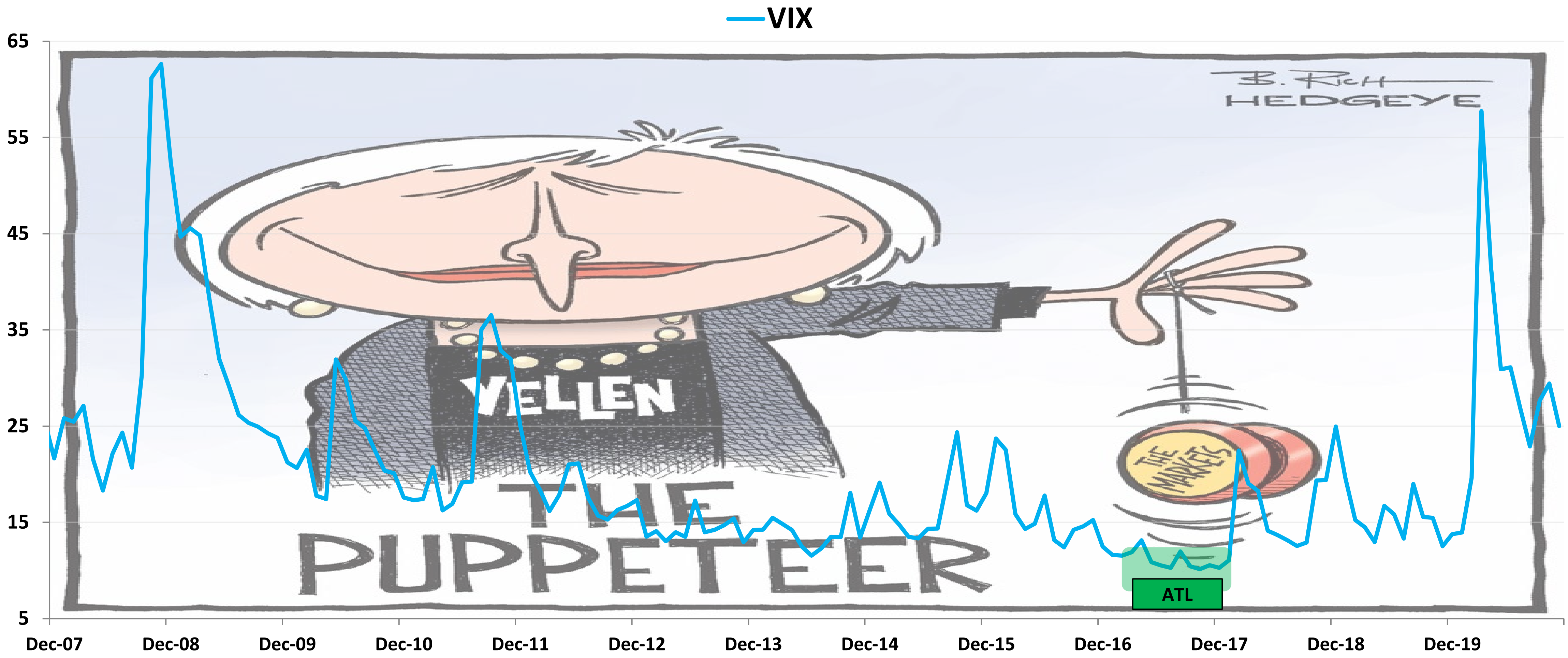


Data Source: Bloomberg

With The Mother Of All Doves Perched Atop The Treasury

HEDGEYE

Yellen, Of Course, Presided Over the Greatest Vol Suppression Regime in History

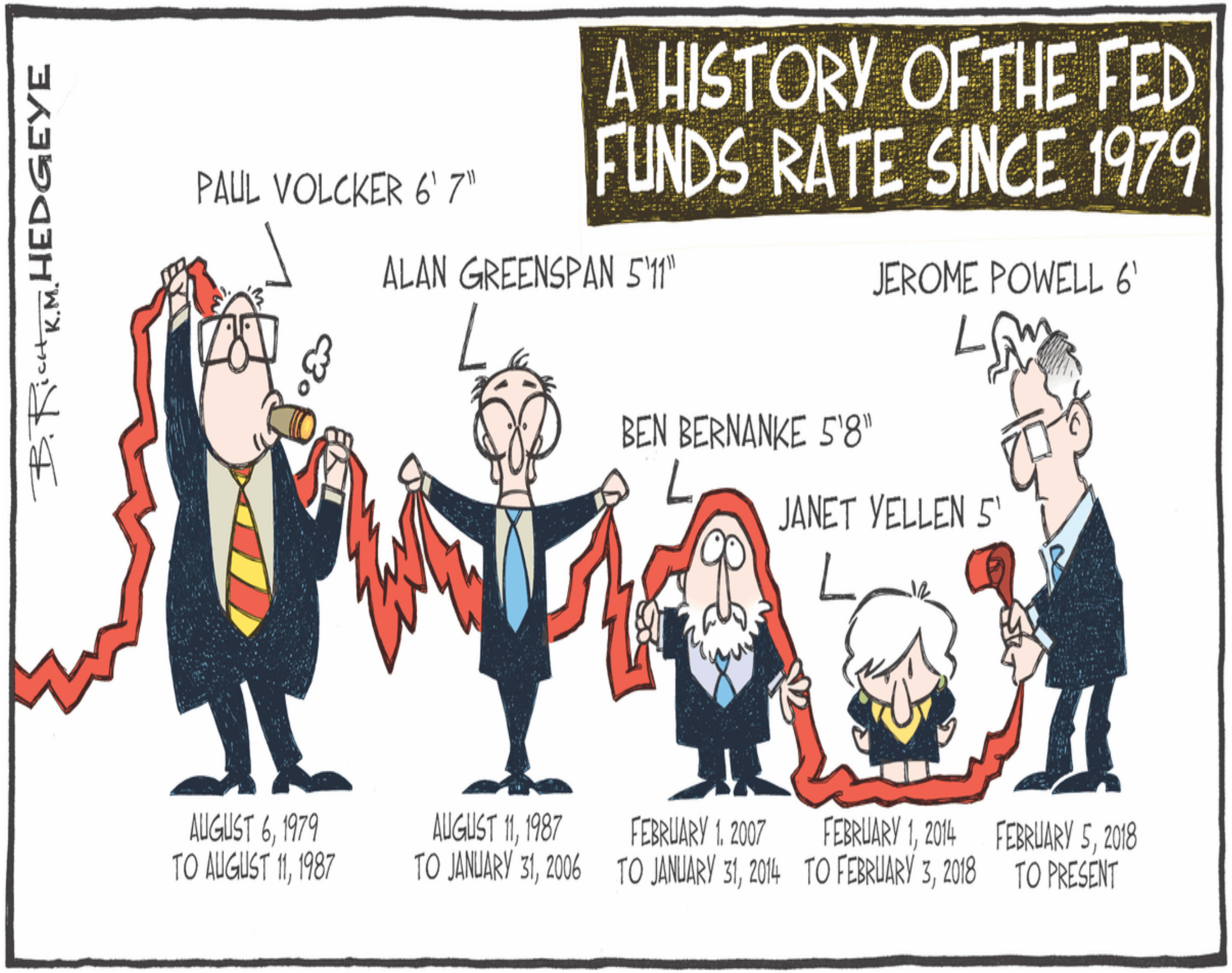


Data Source: Bloomberg

THE FELLOWSHIP OF THE ‘FLATION

HEDGEYE

The Policy Band is back together … with a new “framework” and an explicit “inclusive” agenda



“With regard to the employment side of our mandate, our revised statement emphasizes that maximum employment is **a broad-based and inclusive goal.** This change reflects our appreciation for the benefits of a strong labor market, particularly for many in low- and moderate-income communities,”

– Jay Powell

“Congress cannot expect the Fed to keep everything together on its own … the economy needs more fiscal spending to support hiring. Monetary Policy sets the table. It’s up to Congress’s fiscal dollars to “bring in the diners,” And it’s essential we move with urgency … we risk missing the obligation to redress deeper structural problems.”

– Janet Yellen

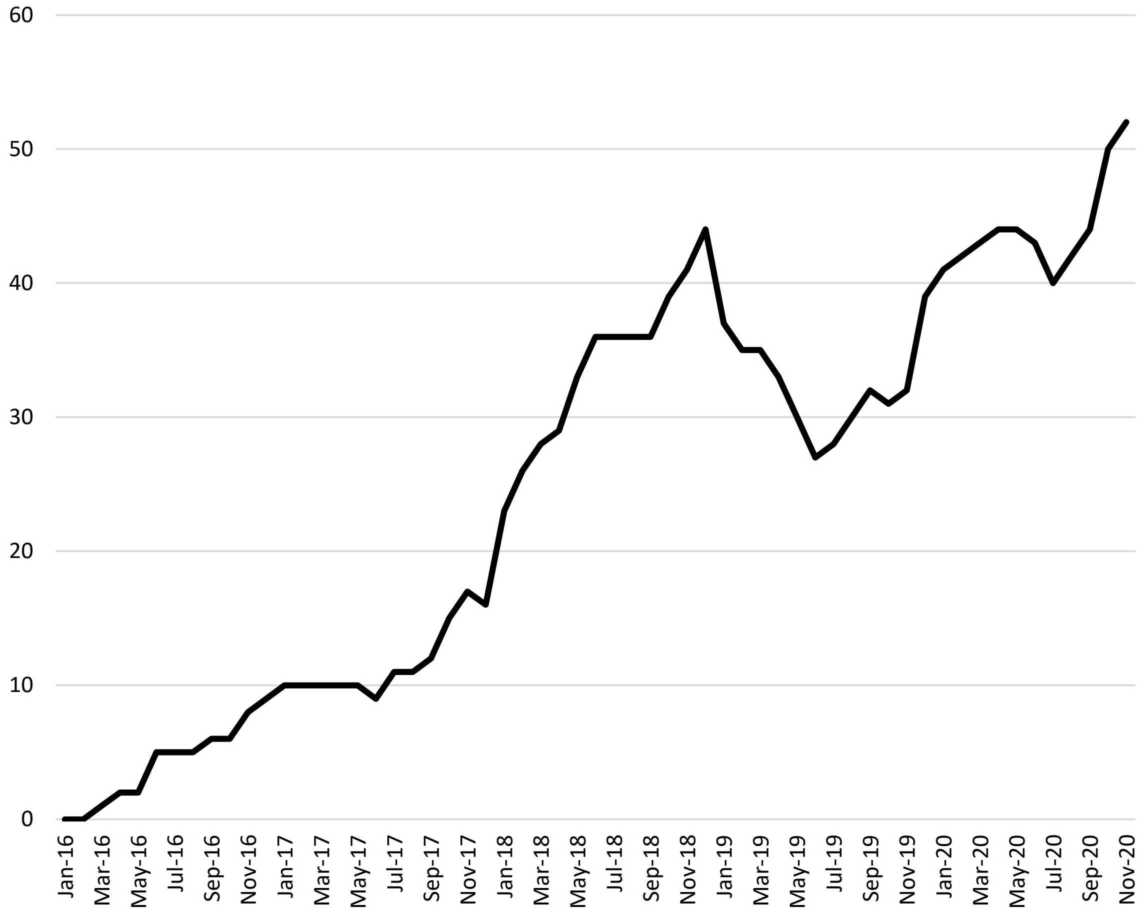
Data Source: Bloomberg

Together, They'll Shape The Central Bank Digital Currency (CBDC's) Revolution

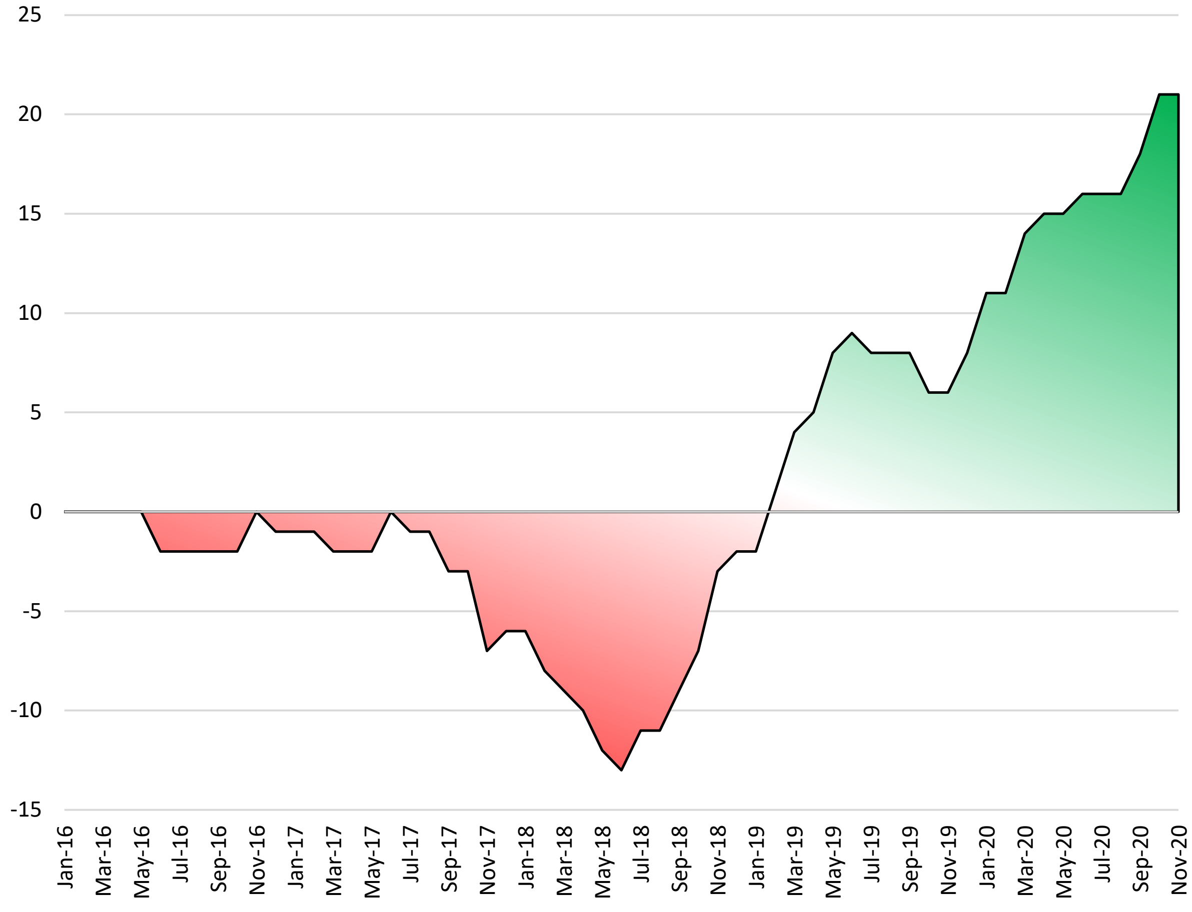
HEDGEYE

Digital Currencies are coming and the momentum is building. Recall, the digital infrastructure supporting CBDC's (ie FedNOW) effectively gives the central bank a direct line for dispersing funds to households and businesses – allowing for direct and target stimulus that bypasses financial intermediaries and avoids perpetuating inequality via asset price inflation.

Number of Central Bank Speeches & Reports on CBDC's
(rolling 12M Total)



Central Bank Sentiment on CBDC's
(sentiment scoring of speeches/reports, rolling 12M Total)



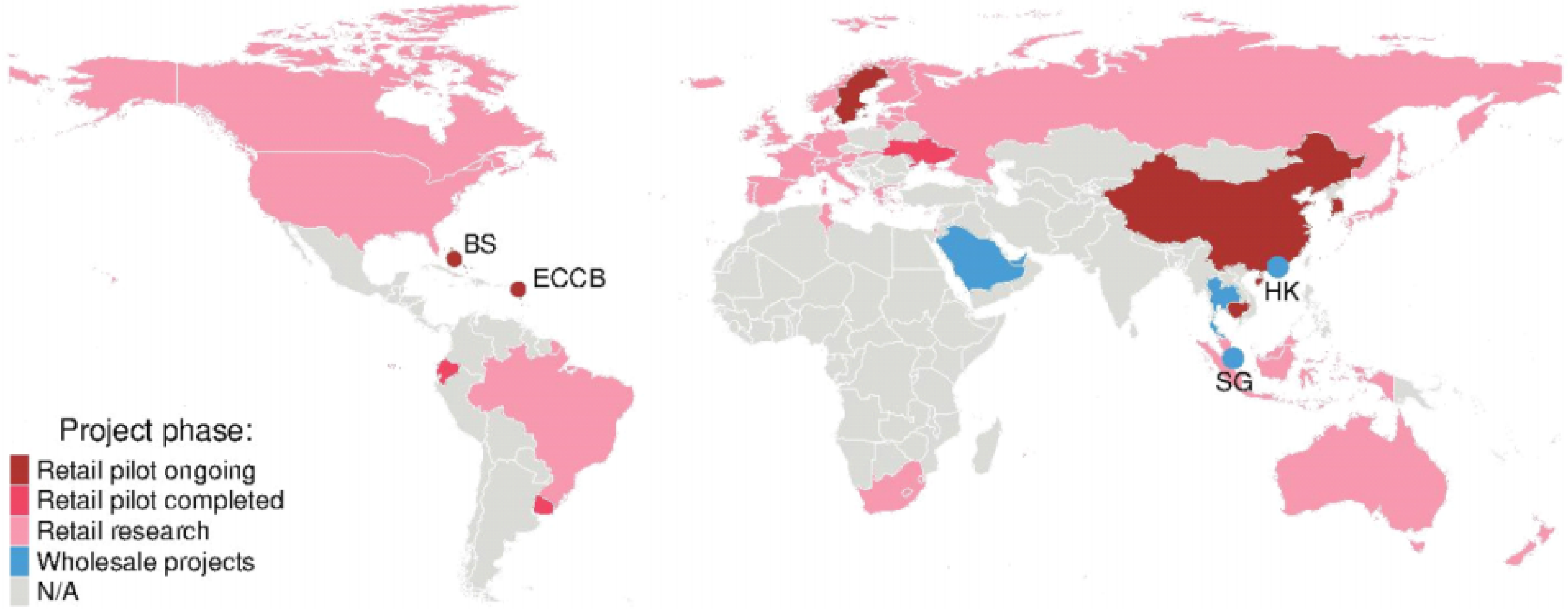
Data Source: BIS

In Fact, The Revolution Is Already Here

As of mid-July 2020, at least 36 central banks have published retail or wholesale CBDC work (Graph 3). At least three countries (Ecuador, Ukraine and Uruguay) have completed a retail CBDC pilot. Six retail CBDC pilots are ongoing: in the Bahamas, Cambodia (Bomakara (2019)), China, the Eastern Caribbean Currency Union,

CBDC projects status

Graph 3



BS = The Bahamas; ECCB = Eastern Caribbean central bank; HK = Hong Kong SAR; SG = Singapore.

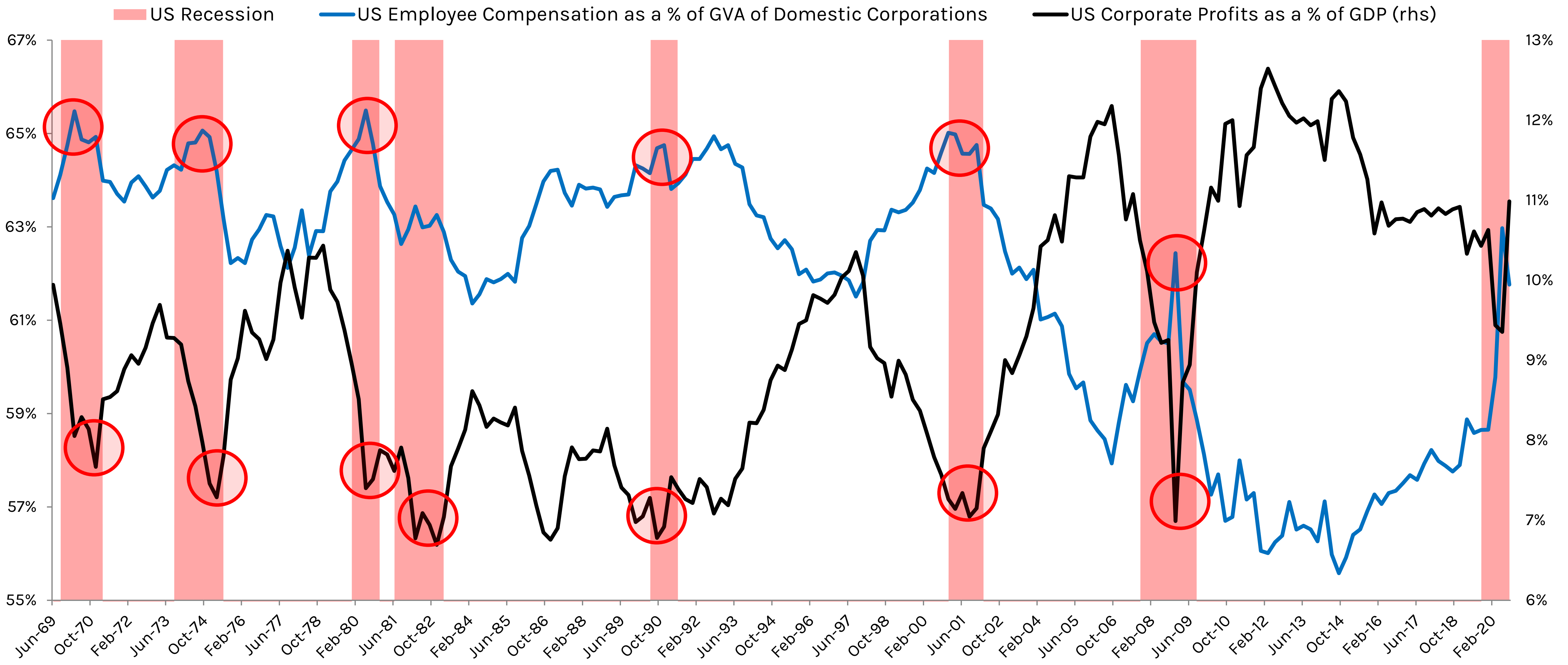
The use of this map does not constitute, and should not be construed as constituting, an expression of a position by the BIS regarding the legal status of, or sovereignty of any territory or its authorities, to the delimitation of international frontiers and boundaries and/or to the name and designation of any territory, city or area.

Source: central banks' websites.

Data Source: BIS

The Coordinated Policy Goal Is Clear: Get the Blue Line Up

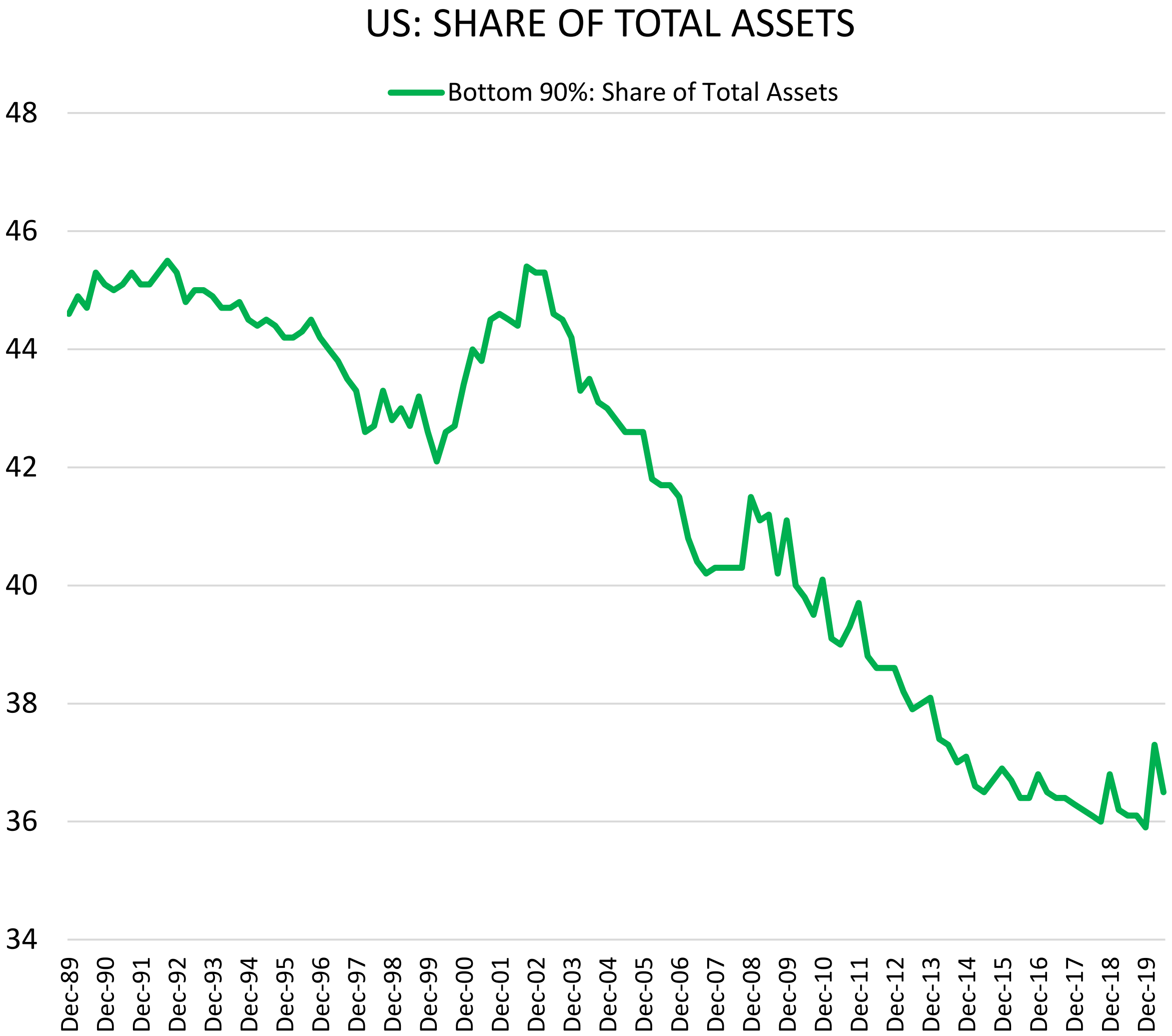
HEDGEYE

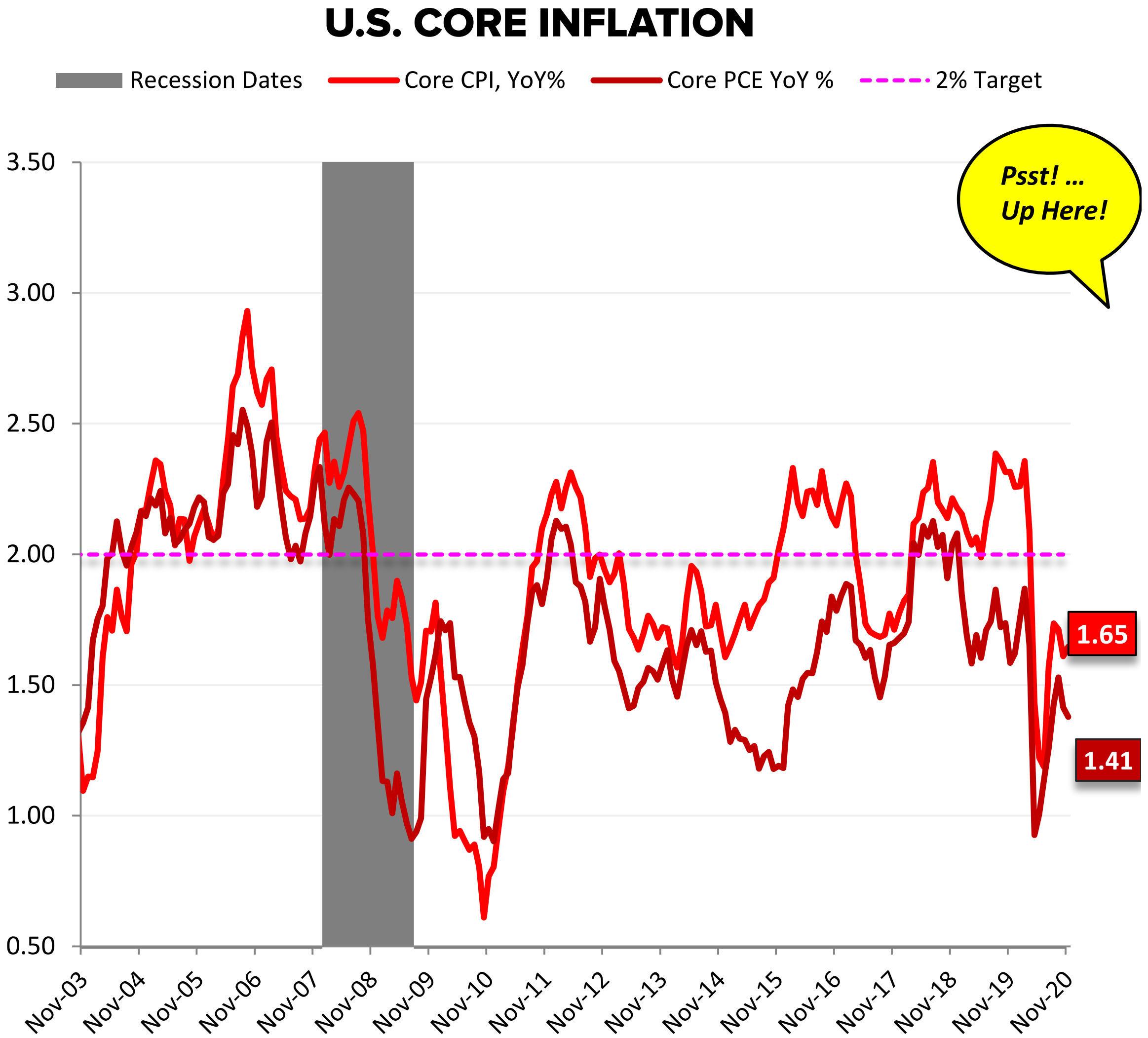


Data Source: Bloomberg

And Get the GREEN LINE Up … By Letting the RED LINES Run Hot

HEDGEYE

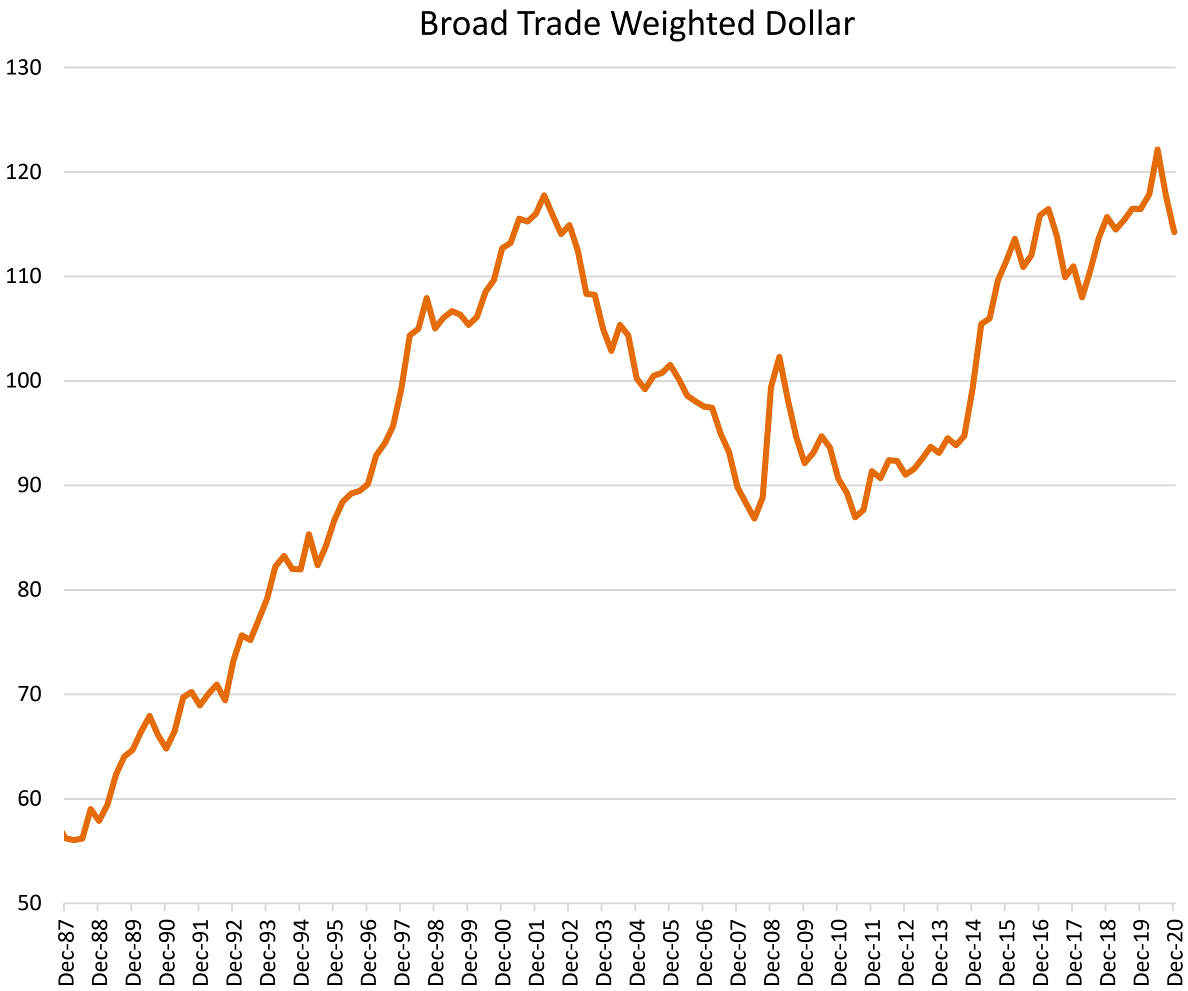


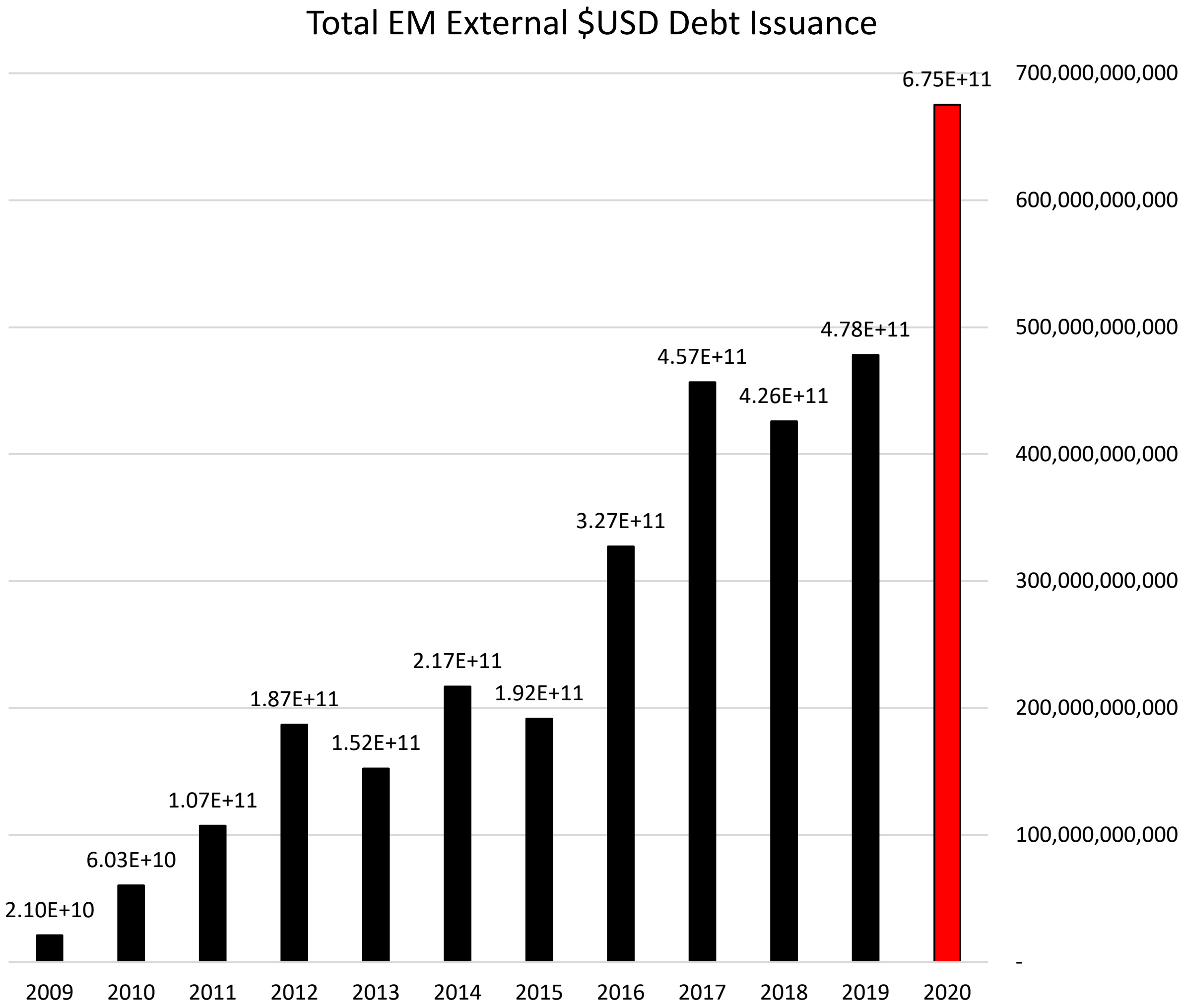


Data Source: Bloomberg

And Pressuring the Orange Line Lower

The U.S. and the Global Economy Need Weak Dollar Reflation. The world is just a happier place when dollar strength ebbs.

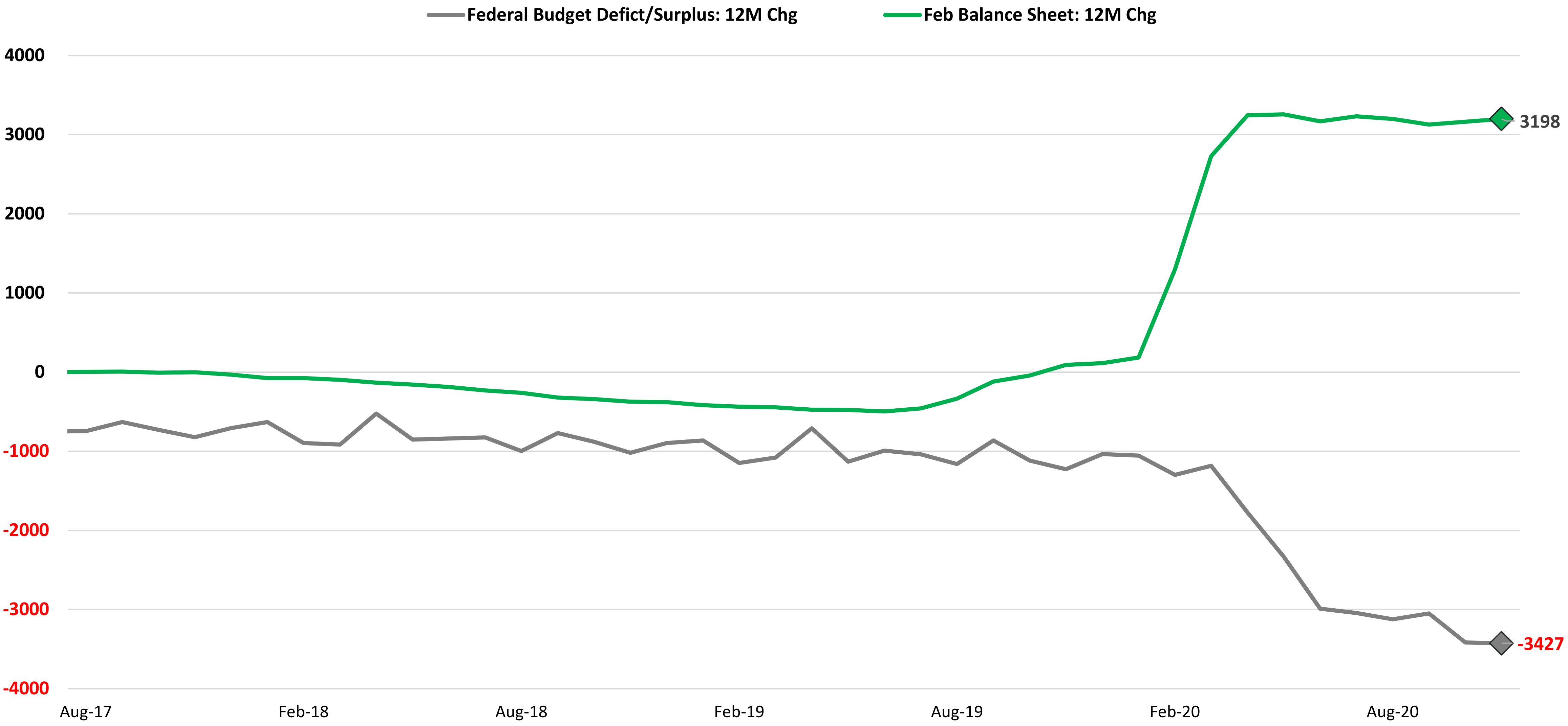




Data Source: Bloomberg

The “Cooperation” Strategy Also Remains Clear: Moar + Brrr!

HEDGEYE



Data Source: Bloomberg

Moar! + Brrr!

Stephanie Kelton
@StephanieKelton

State & Local 💰 State & Local 💰State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰 State & Local 💰

Translate Tweet

7:35am · 6 Jan 2021 · Twitter for iPhone

Data Source: Bloomberg

Thematic Investment Conclusions

1

Immediate-term TRADE (introduced at the start of this quarter)

LONGS: **Financials** (XLF), **Industrials** (XLI), **Russell** (IWM), **Growth** (IWF), **Canada** (EWC), **Brazil** (EWZ), **Argentina** (ARGT), **Poland** (EPOL), **Coffee** (JO)

SHORTS: **REITS** (XLRE), **Consumer Staples** (XLP)

2

Intermediate-term TREND (introduced in prior quarters)

LONGS: **Tech** (XLK), **Energy** (XLE), **Cannabis** (MSOS), **China A-Shares** (KBA), **South Korea** (EWY), **Taiwan** (EWT), **Japan** (EWJ), **India** (INDA), **Australia** (EWA), **Curve Steepener** (IVOL), **Japanese Yen** (FXY), **Swiss Franc** (FXF), **Corn** (CORN), **Livestock** (COW)

SHORTS: **US Dollar** (UUP), **Gold** (GLD), **Long-term Treasuries** (TLT), **Utilities** (XLU), **Gold Miners** (GDX)

3

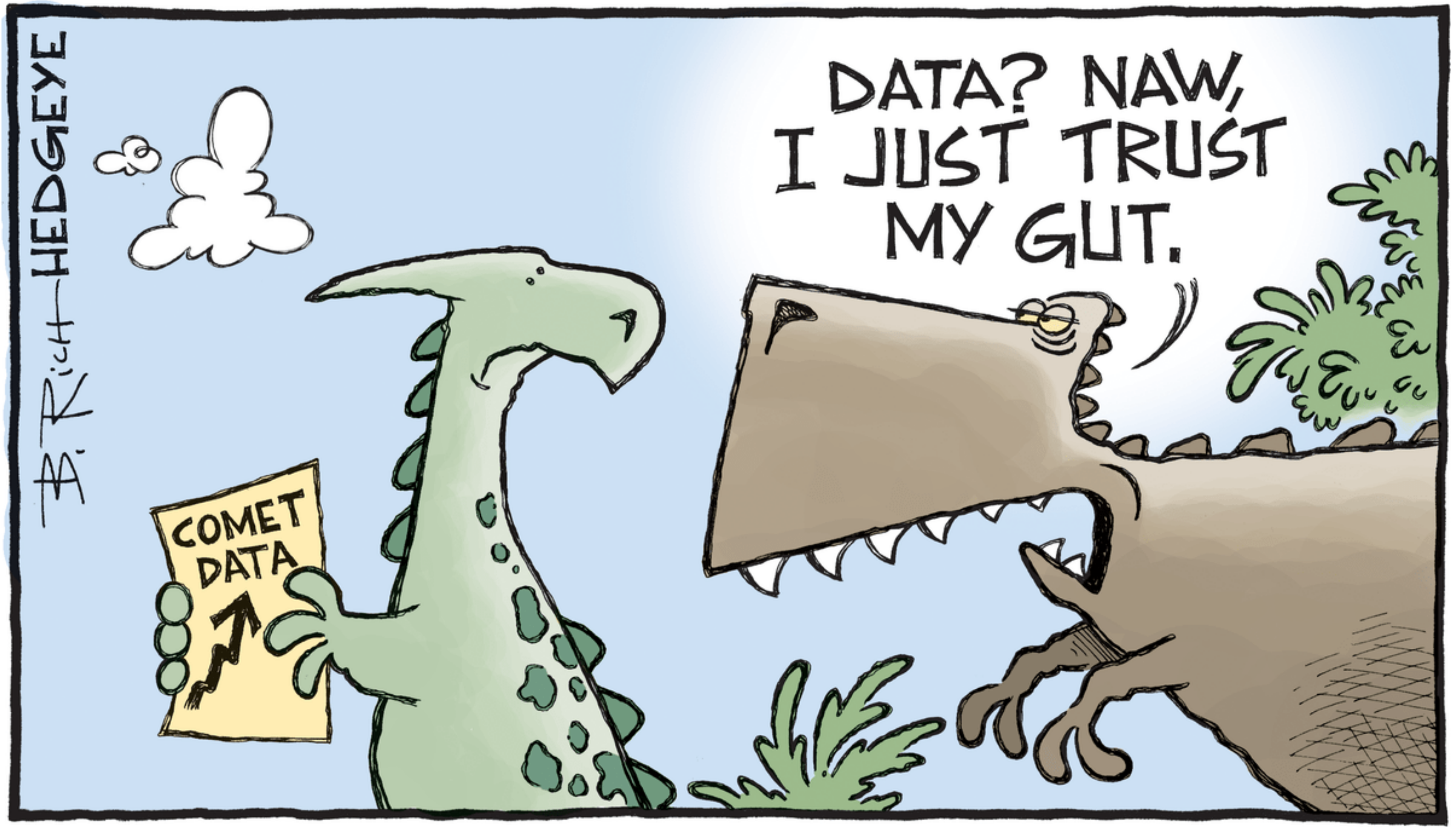
Long-term TAIL (introduced < 3yrs ago)

LONGS: New Cycle Not Old Enough

SHORTS: New Cycle Not Old Enough

Q1 2021 Macro Themes

HEDGEYE



Appendix

Our Structural Economic Risk Model Helps Investors Quantify Secular Headwinds And Tailwinds Across Geographies

	Pillar I: Demographic Risk		**Pillar II: Foreign Exchange Risk**		**Pillar III: Credit Cycle Risk**		**Pillar IV: Protectionism Risk**		**Pillar V: Competitiveness Risk**	
	5Y Forward Old-Age Dependency Ratio (65+ Year-Olds as a Ratio of the Working-Age Population)	35-54 Year-Old Population Cohort - 5Y Forward CAGR	Current Account Balance as a % of Nominal GDP	Sovereign Budget Balance as a % of Nominal GDP	Private Nonfinancial Sector Credit-to-GDP (Z-Score, Trailing 5Y)	Debt Service Ratio (Z-Score, Trailing 5Y)	GINI Coefficient	Misery Index (Unemployment Rate + Headline Inflation Rate)	World Bank Ease of Doing Business Index - Global Ranking (Rank in Ascending Order)	All-In Effective Corporate Tax Rate
Canada	20%	0.4%	-1.7%	-15.0%	3.1x	0.5x	33.7	11.0%	22	21%
United States	18%	0.4%	-2.6%	-15.8%	3.7x	1.4x	41.1	7.9%	8	21%
Austria	21%	-1.1%	3.4%	-10.0%	3.6x		30.5	6.6%	18	52%
Belgium	21%	-0.4%	-0.6%	-10.3%	1.0x	-0.9x	27.6	5.3%	45	59%
Denmark	21%	-1.0%	7.8%	-4.1%	0.8x	-1.0x	29.1	6.6%	3	25%
Eurozone	23%	-1.2%	2.0%	-9.5%	1.9x	1.7x	31.6	8.3%	31	44%
Finland	24%	-0.3%	-0.2%	-8.0%	1.8x	0.9x	27.1	7.9%	17	38%
France	22%	-0.3%	-2.0%	-11.1%	3.0x	3.5x	33.1	9.1%	32	63%
Germany	24%	-1.5%	7.0%	-6.5%	2.9x	2.7x	30.1	5.4%	24	49%
Ireland	16%	0.2%	-5.5%	-6.3%	-1.4x		32.5	4.2%	23	26%
Israel	13%	1.5%	4.9%	-8.9%	0.5x		42.8	4.0%	49	28%
Italy	25%	-1.9%	3.5%	-11.5%	0.8x	-0.4x	35.2	9.5%	51	62%
Netherlands	22%	-1.3%	9.4%	-6.9%	-1.1x	-1.3x	28.0	4.9%	36	40%
Norway	18%	0.2%	2.2%	-2.2%	1.6x	1.9x	25.9	5.6%	7	40%
Portugal	24%	-1.2%	-1.2%	-8.2%	-0.7x	-0.8x	36.0	7.4%	34	40%
Spain	22%	-1.5%	1.0%	-12.2%	0.0x	-0.0x	35.9	16.0%	30	49%
Sweden	21%	-0.1%	5.2%	-4.8%	1.9x	2.7x	27.3	8.9%	12	49%
Switzerland	21%	-0.5%	7.6%	-4.2%	2.3x	2.6x	31.6	2.6%	38	29%
United Kingdom	19%	-0.2%	-2.1%	-16.7%	2.0x	1.6x	32.6	4.8%	9	31%
Australia	18%	1.3%	1.9%	-7.6%	-0.4x	-3.2x	34.9	8.5%	18	48%
Hong Kong	21%	-0.6%	7.0%	-8.5%	2.1x	1.9x		6.0%	4	23%
Japan	29%	-0.9%	3.0%	-12.6%	3.3x	3.5x	32.1	2.1%	39	49%
New Zealand	18%	-0.3%	-2.2%	-8.5%	2.4x			6.7%	1	34%
Singapore	18%	-0.5%	16.3%	-14.0%	3.2x			3.5%	2	19%
Argentina	12%	1.5%	1.7%	-9.0%	0.1x		42.7	47.5%	119	106%
Brazil	11%	1.2%	-1.3%	-15.3%	1.4x	-1.2x	51.5	18.6%	109	68%
Chile	15%	0.8%	0.0%	-8.7%	2.9x		50.5	15.5%	56	31%
Colombia	10%	1.0%	-3.4%	-8.9%	2.3x		53.5	17.7%	65	70%
Mexico	9%	1.6%	1.5%	-4.9%	2.9x	1.8x	48.2	8.6%	54	52%
Peru	9%	1.9%	-0.1%	-8.9%			44.1	18.1%	68	36%
Czech Republic	21%	0.2%	2.3%	-7.4%	0.9x	1.3x	26.1	5.5%	35	50%
Greece	24%	-1.2%	-3.2%	-8.0%	-0.7x		36.7	14.3%	72	51%
Poland	21%	1.2%	2.5%	-9.5%	-1.0x	-1.5x	32.1	6.4%	33	40%
Russia	17%	1.5%	2.5%	-4.4%	2.1x	-0.8x	40.9	11.2%	31	47%
South Africa	6%	2.7%	0.7%	-15.1%	2.3x	1.0x	63.4	34.0%	82	29%
Turkey	10%	1.3%	-4.2%	-6.4%	1.8x	-1.0x	40.2	27.7%	43	41%
Saudi Arabia	5%	1.6%	-1.0%		1.3x				92	16%
China	14%	0.1%	1.5%	-6.7%	2.9x	3.0x	42.2	3.7%	46	68%
India	7%	2.1%	1.3%	-4.1%	1.7x	-0.1x	35.2		77	61%
Indonesia	7%	0.8%	-1.3%	-6.3%	-0.2x	-0.6x	39.5	8.8%	73	31%
South Korea	19%	-1.1%	3.8%	-4.8%	2.6x	2.3x	30.2	4.3%	5	33%
Malaysia			3.5%	-6.3%	3.4x	2.7x	46.3	3.0%	15	40%
Philippines	6%	1.7%	2.5%	-8.6%			43.0	12.2%	124	43%
Taiwan			12.7%	-2.2%			33.8	3.9%	13	
Thailand	15%	-0.8%	5.7%	-5.2%	2.6x	1.2x	40.3	1.7%	27	33%
MEDIAN	**18%**	**0.1%**	**1.7%**	**-8.3%**	**1.9x**	**1.1x**	**35.2**	**7.4%**	**33**	**40%**
STANDARD DEVIATION	**6%**	**1.2%**	**4.3%**	**3.7%**	**1.4x**	**1.7x**	**8.4**	**8.8%**	**31**	**17%**

Data Sources: Bloomberg, IMF, BIS, World Bank

Our Structural Economic Risk Model Helps Investors Compare And Contrast Secular Drivers Of Growth And Inflation Across Geographies

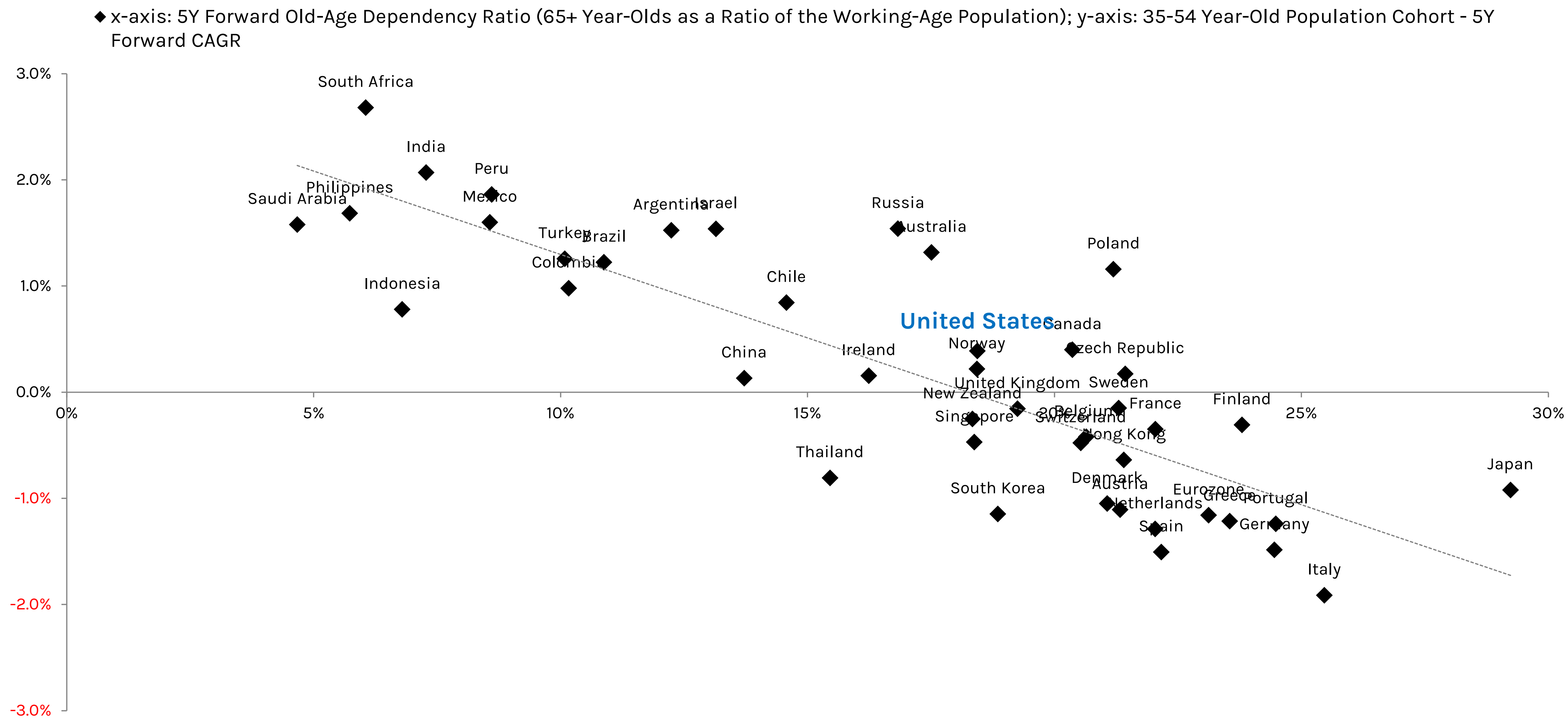
HEDGEYE

	5Y Forward Old-Age Dependency Ratio (65+ Year-Olds as a Ratio of the Working-Age Population)	35-54 Year-Old Population Cohort - 5Y Forward CAGR	Current Account Balance as a % of Nominal GDP	Sovereign Budget Balance as a % of Nominal GDP	Private Nonfinancial Sector Credit-to-GDP (Z-Score, Trailing 5Y)	Debt Service Ratio (Z-Score, Trailing 5Y)	GINI Coefficient	Misery Index (Unemployment Rate + Headline Inflation Rate)	World Bank Ease of Doing Business Index - Global Ranking (Rank in Ascending Order)	All-In Effective Corporate Tax Rate
Canada	27	17	37	41	40	27	22	34	15	4
United States	24	18	41	44	45	32	34	26	7	4
Austria	33	37	14	34	44	14	14	22	13	36
Belgium	29	30	32	35	17	7	9	15	30	38
Denmark	30	36	4	4	15	5	11	21	3	7
Eurozone	39	39	21	33	25	34	15	27	20	27
Finland	41	28	31	21	22	28	7	25	12	19
France	37	29	38	36	39	45	21	32	22	41
Germany	42	43	7	16	37	41	12	16	17	30
Ireland	18	21	45	12	1	14	19	11	16	8
Israel	14	8	10	28	13	14	37	10	32	9
Italy	44	45	13	37	14	11	26	33	33	40
Netherlands	36	42	3	18	2	3	10	14	26	23
Norway	23	19	20	2	20	37	5	18	6	20
Portugal	43	41	34	23	4	9	28	24	24	21
Spain	38	44	27	38	11	13	27	39	19	32
Sweden	32	25	9	9	24	40	8	31	9	33
Switzerland	28	32	5	6	30	39	16	5	27	10
United Kingdom	26	26	39	45	26	33	20	13	8	14
Australia	20	10	22	20	6	1	24	28	13	29
Hong Kong	34	33	6	24	27	36	1	19	4	6
Japan	45	35	15	39	42	44	18	4	28	30
New Zealand	21	27	40	24	32	14	1	23	1	17
Singapore	22	31	1	40	41	14	1	7	2	3
Argentina	13	9	23	31	12	14	36	45	44	45
Brazil	12	12	35	43	19	4	43	42	43	43
Chile	16	15	29	27	38	14	42	38	35	12
Colombia	11	14	43	29	31	14	44	40	36	44
Mexico	8	5	24	10	36	35	41	29	34	37
Peru	9	3	30	29	8	14	39	41	37	18
Czech Republic	35	20	19	19	16	31	6	17	25	34
Greece	40	40	42	21	5	14	29	37	38	35
Poland	31	13	18	32	3	2	17	20	23	23
Russia	19	7	17	7	28	8	33	35	20	28
South Africa	5	1	28	42	29	29	45	44	41	10
Turkey	10	11	44	15	23	6	31	43	29	25
Saudi Arabia	3	6	33	1	18	14	1	1	42	2
China	15	22	25	17	35	43	35	8	31	42
India	7	2	26	4	21	12	25	1	40	39
Indonesia	6	16	35	12	7	10	30	30	39	13
South Korea	25	38	11	8	34	38	13	12	5	16
Malaysia	1	23	12	12	43	42	40	6	11	22
Philippines	4	4	16	26	8	14	38	36	45	26
Taiwan	1	23	2	3	8	14	23	9	10	1
Thailand	17	34	8	11	33	30	32	3	18	15

Data Sources: Bloomberg, IMF, BIS, World Bank

Pillar I: Demographic Risk

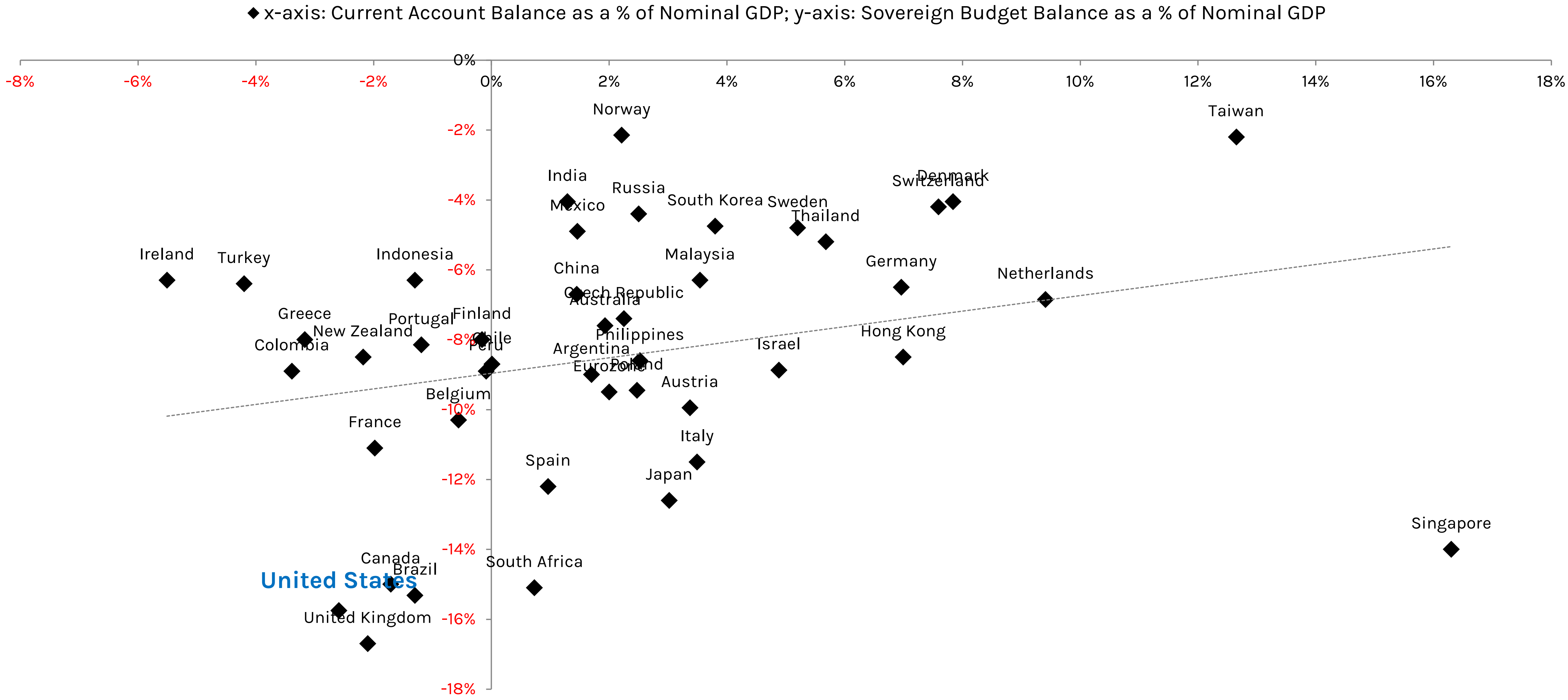
HEDGEYE



Data Sources: Bloomberg, IMF, BIS, World Bank

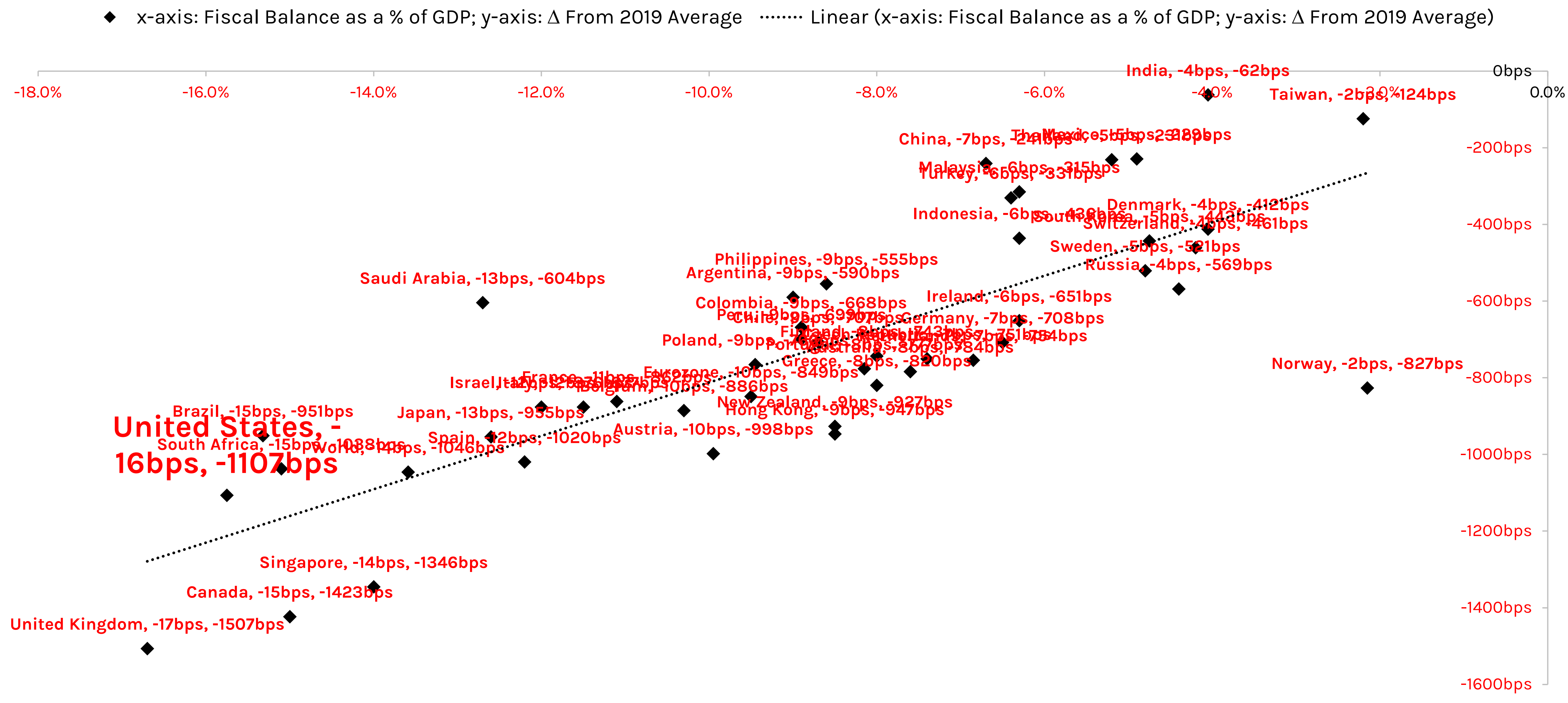
Pillar II: FX Risk

HEDGEYE



Global Investors Are Likely To Continue Financing Bloated US Budget Deficits Via A Weak Dollar

HEDGEYE



Data Source: Bloomberg

Many EMEs Have Been Starved For Capital In Recent Years Amid What Had Been Trending US Dollar Strength

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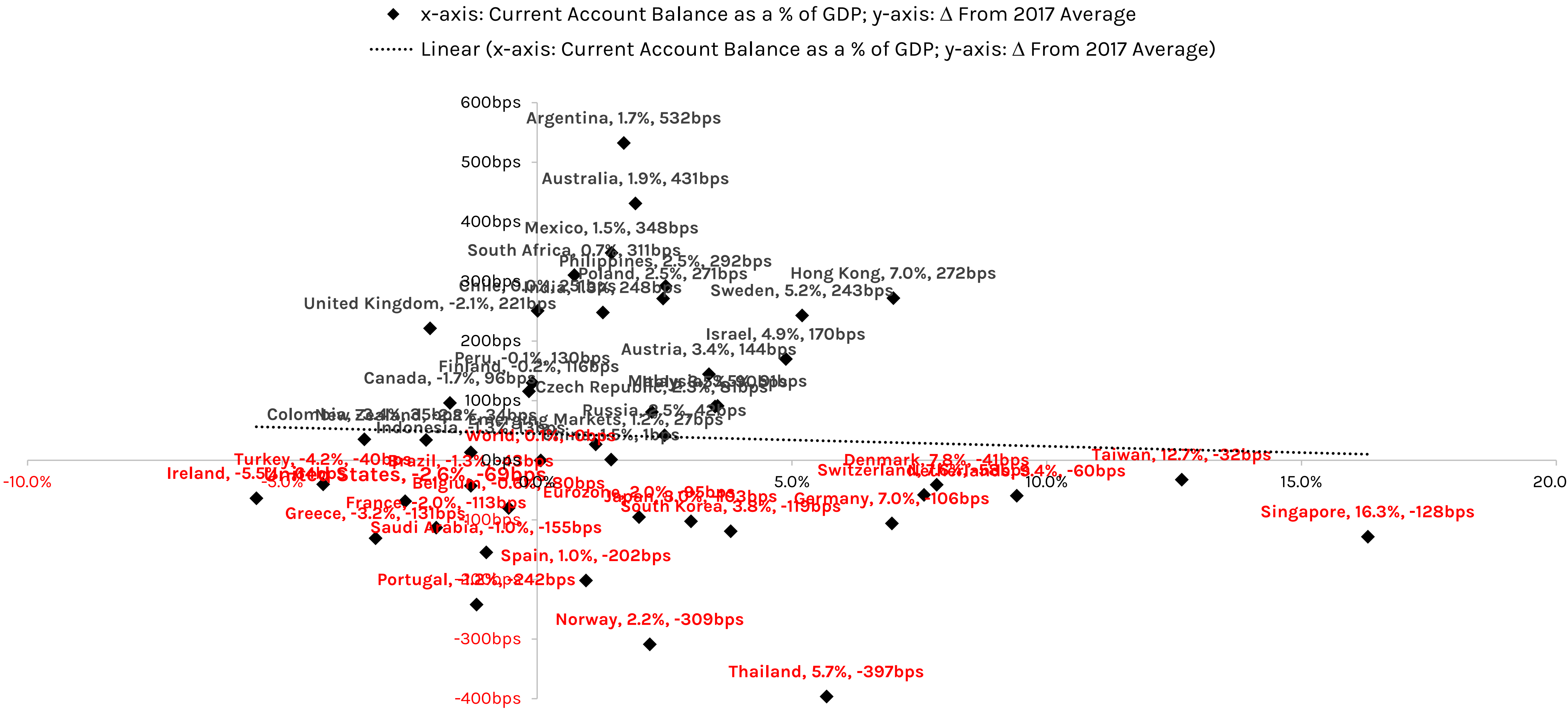
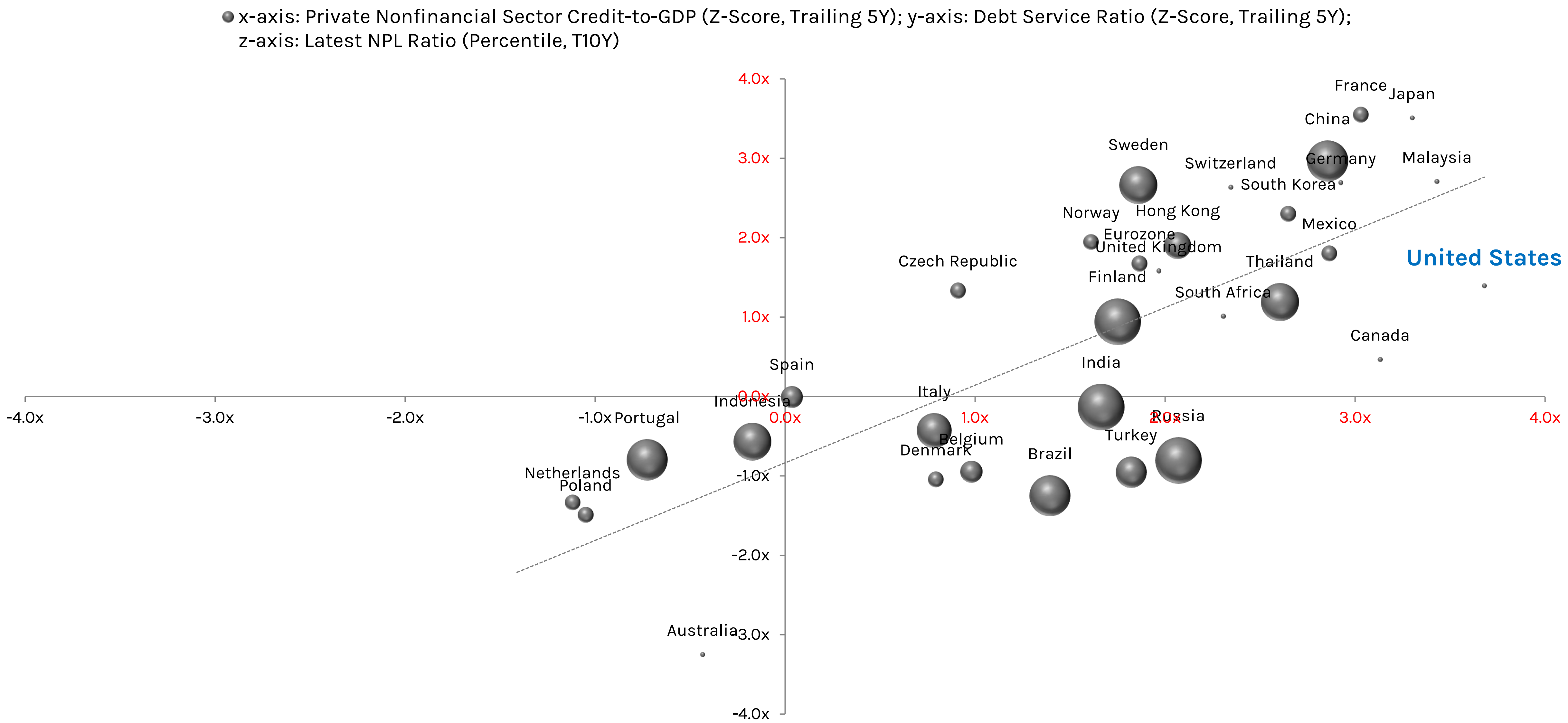


Data Source: Bloomberg

Pillar III: Credit Cycle Risk



Pillar IV: Protectionism Risk

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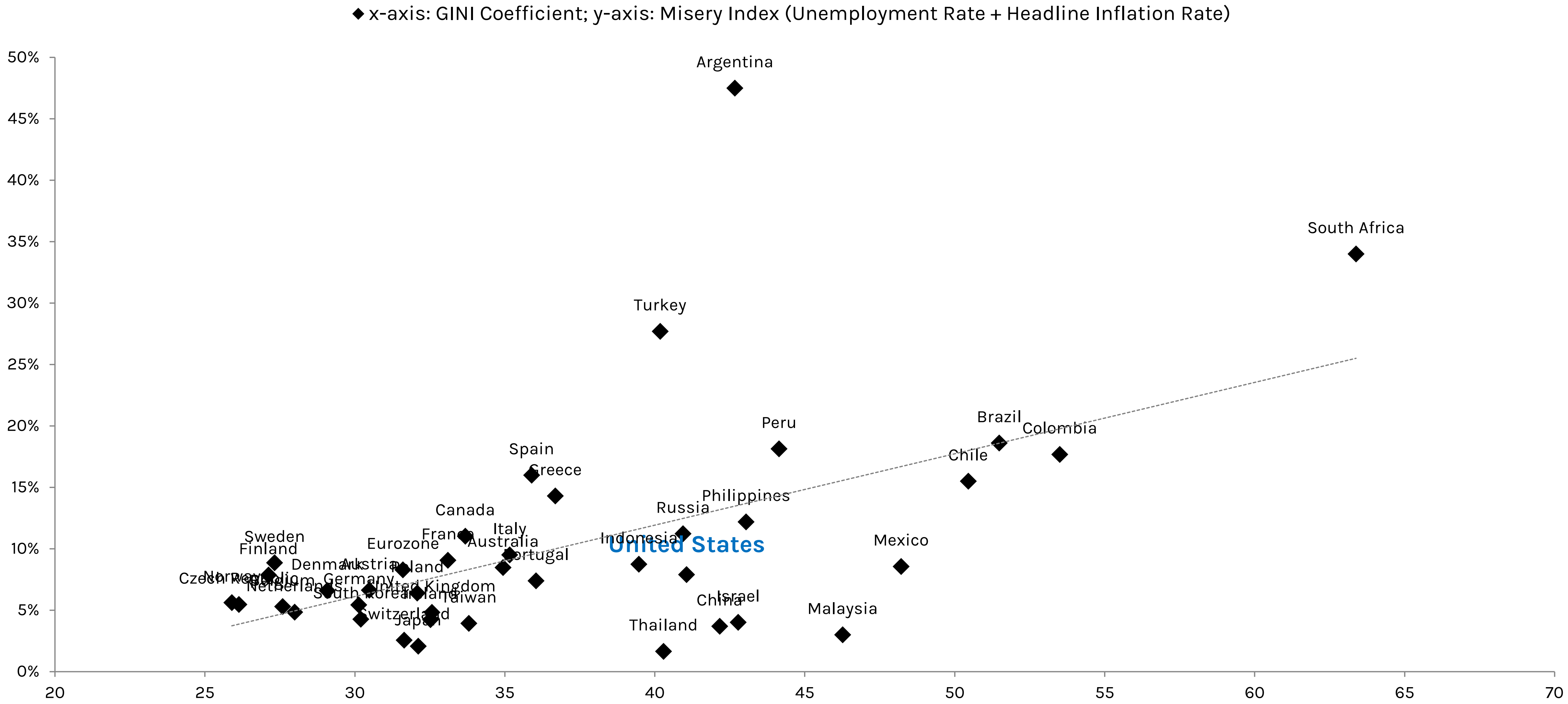

Data Sources: Bloomberg, IMF, BIS, World Bank

Socialists On The Left And Populists On The Right Are Likely To Increasingly Dominate American Politics Over The Next 3-5 Years

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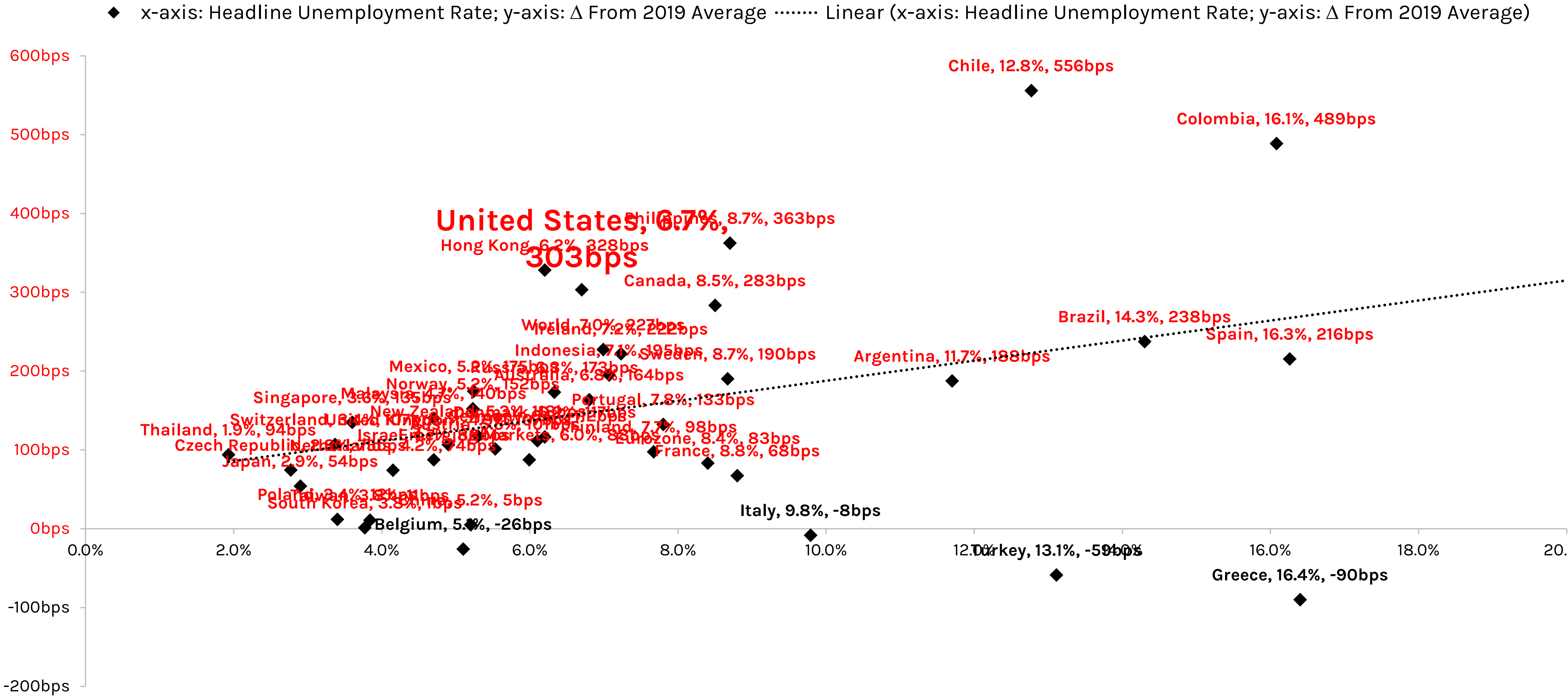
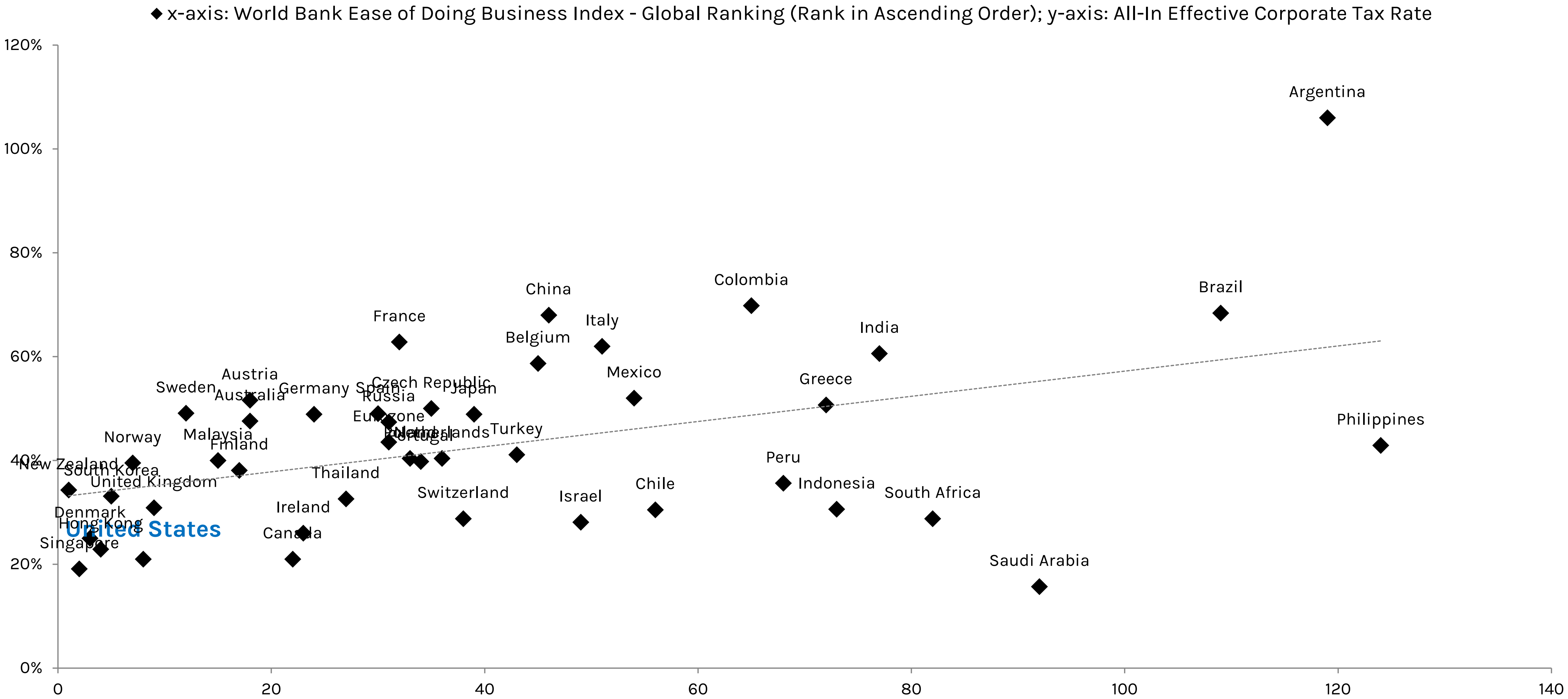


Pillar V: Competitiveness Risk



Data Sources: Bloomberg, IMF, BIS, World Bank

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