

## Logica Capital - November 2020 Summary

Logica Absolute Return - Upside/Downside Convexity - No Correlation

Logica Tail Risk - Max Downside Convexity - Negative Correlation

### November 2020 Performance\*

Logica Absolute Return -2.1%

Logica Tail Risk -3.1%

S&P500 +10.9%

VIX -17.5 pts

### Year-To-Date Performance\*

Logica Absolute Return +14.5%

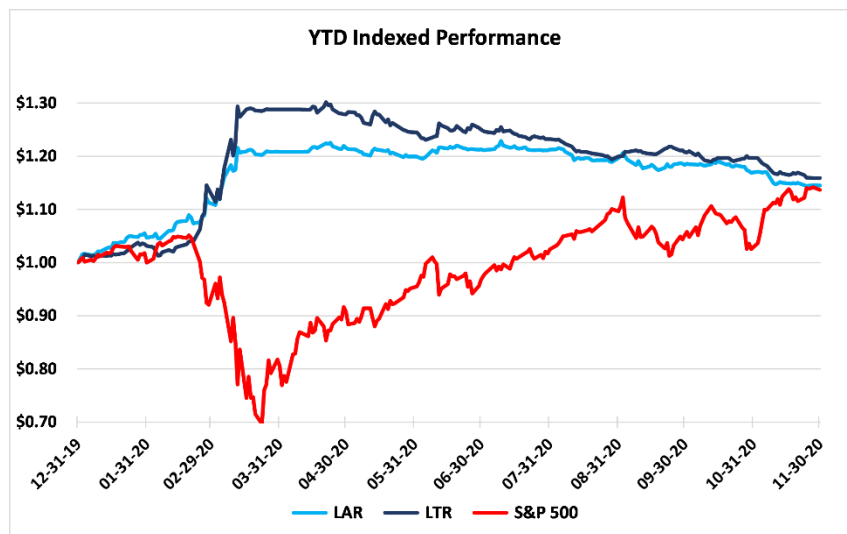
Logica Tail Risk +15.8%

S&P500 +13.7%

\*Returns are Gross of fees to illustrate strategy performance.

Logica Absolute Return Fund, LP returned -2.17% (net) for November 2020

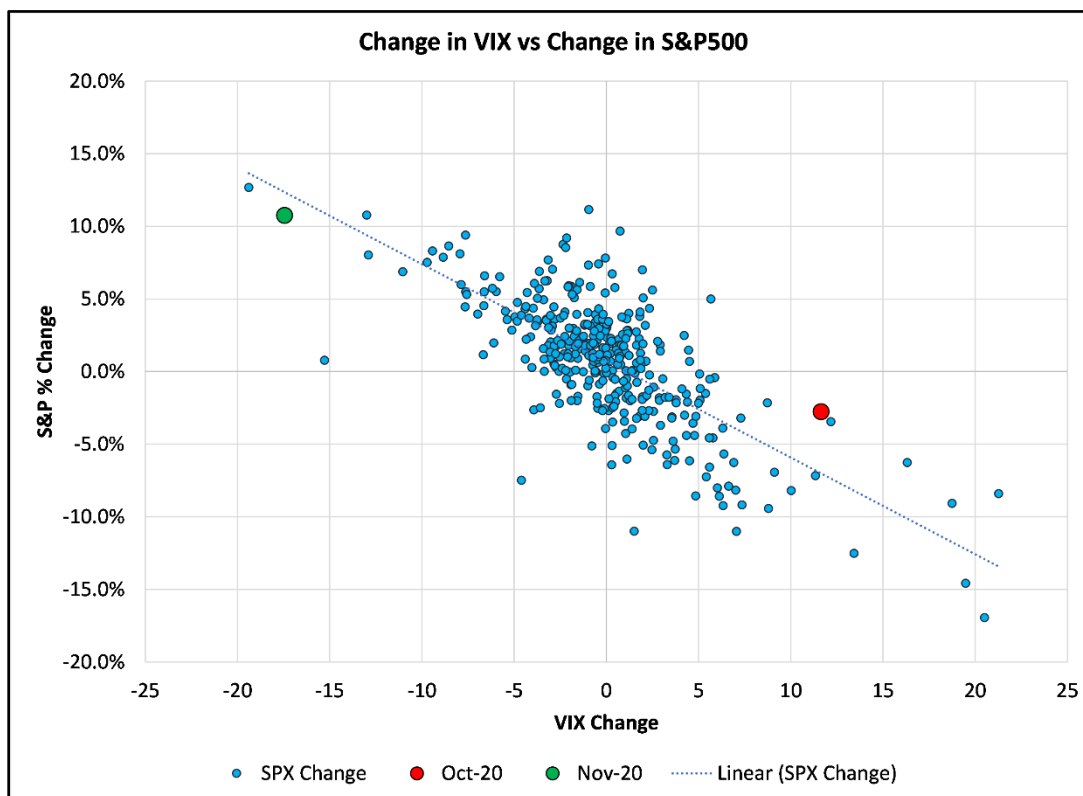
*Summary: Equity markets entered November with high volatility priced for the US elections. As fears of a disorderly election retreated, a repeat of the 2016 post-election rally emerged. This was turbocharged by an unprecedented momentum reversal tied to the announcement of Covid-19 vaccines on November 9<sup>th</sup>. The combination of a sharp decline in volatility and poor results for the momentum factor resulted in unfavorable outcomes for Logica's strategies.*



*"I hope you guys checked this place out good, cos I'm goin' in alone, and I don't want no f'n' surprises."*

*"Oh, yeah. I checked everything, Momo."  
Get Shorty, 1995*

One of the benefits in struggling to write the October letter is that we were able to offer a teaser of the difficult environment for long volatility in November. Unlike last month, the relationship between volatility (VIX) change and price change for the S&P 500 was perfectly normal, and as you'd expect in a month where the VIX fell by a near record amount (eclipsed only by April 2020). Unfortunately, the character of that return was anything but normal.



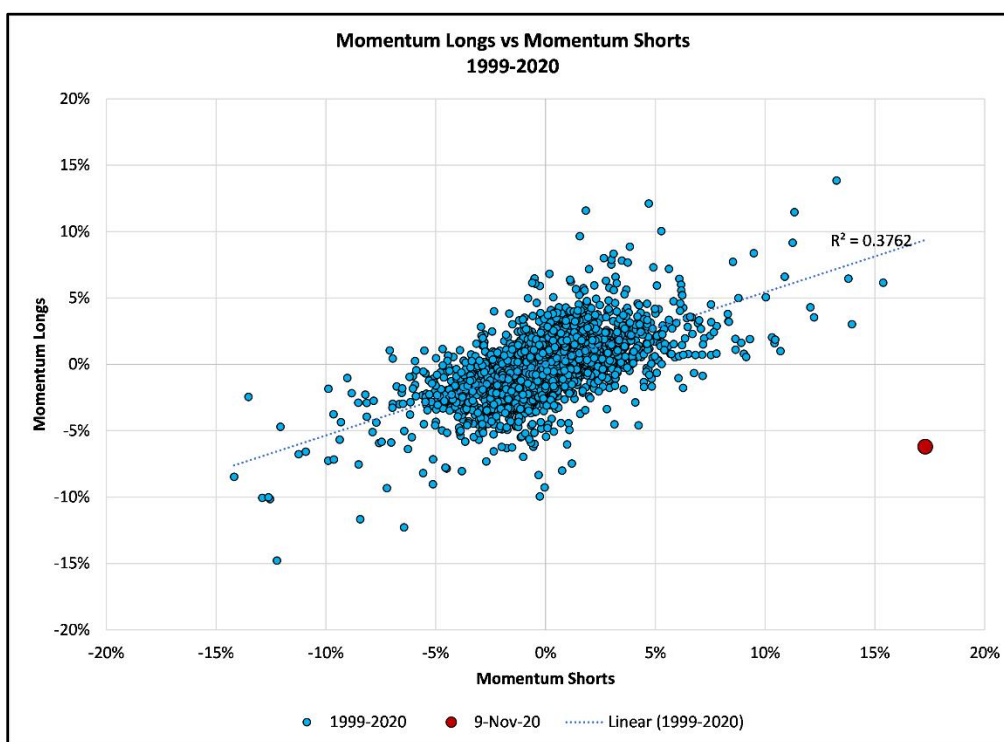
We prepared for the election. Given the wide uncertainty of the outcome, we constrained our delta bias to a more S&P neutral exposure. In recognizing our limited ability to “call the election”, exchanging gamma scalping edge for a simple straddle was the safest bet. Having seen the dynamics of the 2016 election, and recognizing that markets were pricing in significant risk off with a VIX entering the month at 38, it made perfect sense to prepare for a reversal similar to 2016. This neutral position, alongside our momentum exposure on the long side, allowed us to offset the volatility crush from 38 to 25 that occurred from October until November 6<sup>th</sup>. On November 6<sup>th</sup>, with the election safely in the rear-view mirror and only the most intransigent convinced of an election reversal, we felt happy to be out of the woods.

**Nicky: How's Momo these days anyway?**

**Chili: Dead.**

### **Who Killed Momo?**

On Monday, November 9<sup>th</sup>, Pfizer announced the results of its Covid-19 vaccine trials and a light at the end of the long pandemic tunnel appeared. Markets reversed sharply, with underperformers rocketing higher and leaders over the shelter-in-place period collapsing. Our long positions in single stock call options on momentum-biased names were hammered while our puts on the S&P were concurrently hit as the S&P shot upwards. The momentum factor experienced the single largest one-day reversal in its history.



Given Logica's momentum-focused long positions, it should be no surprise that this day was quite painful, accounting for nearly all of the losses for the month of November. For the remainder of the month, we struggled with the volatility crush that has bedeviled our approach throughout the summer, but the violence of this outlier momentum reversal requires examination. The narrative has been fairly straightforward: "The vaccines are around the corner and life will go back to normal. Better than normal, because the Biden administration is likely to push through sizeable stimulus and unlike the monetary stimulus of prior Obama & Trump administrations, this stimulus will be fiscal and therefore inflationary. Inflation is bad for growth and good for value, therefore value stocks will outperform from here."

***"You're trying to tell me you f'd up without sounding stupid.  
That's hard to do."***

Having written a three-part series on the systematic value factor and explaining why we expected the momentum factor to persist, there would appear to be some egg on our faces.

***“I wish he really was dead. He's a son of a bitch.”***

Here's the fascinating, but unsurprising, thing: the narrative is wrong. Both in its mechanical description of what occurred on November 9<sup>th</sup> and in the description of what occurred through the remainder of the month.

If we breakdown the performance of individual stocks by their factor rankings, we can analyze the contribution of each factor to the total return. For the election impact, we can look at returns from Nov 2<sup>nd</sup> to Nov 4<sup>th</sup>. For the vaccine, we can look at returns on Nov 9<sup>th</sup>. For the month of November, we can look at returns from October 30<sup>th</sup> to November 30<sup>th</sup>. When we do this, we discover that “value” has not been a positive contributor to return. What we saw in November was not a “value” rally – it was small stocks and “anti-momentum” (momentum shorts). Unfortunately, both factors that Logica emphasizes (size and momentum long) were negative contributions for the month.

SUMMARY OUTPUT: November								
Regression Statistics								
Multiple R	0.48							
R Square	0.23							
Adjusted R Square	0.22							
Standard Error	0.21							
Observations	666							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	5	8.20	1.64	48.36	0.00			
Residual	661	28.04	0.04					
Total	666	36.24						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	47.2%	0.0547	<b>8.6395</b>	0.00	0.37	0.58	0.37	0.58
Prior Size	-3.3%	0.0065	<b>(5.0054)</b>	0.00	(0.05)	(0.02)	(0.05)	(0.02)
<b>Momentum Shorts</b>	<b>19.75%</b>	<b>0.0256</b>	<b>7.7290</b>	<b>0.00</b>	<b>0.15</b>	<b>0.25</b>	<b>0.15</b>	<b>0.25</b>
<b>Momentum Longs</b>	<b>-1.65%</b>	<b>0.0257</b>	<b>(0.6408)</b>	<b>#NUM!</b>	<b>(0.07)</b>	<b>0.03</b>	<b>(0.07)</b>	<b>0.03</b>
<b>Value Longs</b>	<b>-3.86%</b>	<b>0.0252</b>	<b>(1.5298)</b>	<b>0.13</b>	<b>(0.09)</b>	<b>0.01</b>	<b>(0.09)</b>	<b>0.01</b>

If we focus exclusively on November 9<sup>th</sup>, there was positive contribution from the Value factor as well. But that contribution continued to be far less than size (bigger stocks did worse) and anti-momentum.

SUMMARY OUTPUT: Vaccine day (Nov 9th, 2020)								
Regression Statistics								
Multiple R	0.70							
R Square	0.49							
Adjusted R Square	0.49							
Standard Error	0.09							
Observations	666							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	5	5.32	1.06	160.45	0.00			
Residual	661	5.48	0.01					
Total	666	10.80						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	7.93%	0.02	<b>3.28</b>	0.00	0.03	0.13	0.03	0.13
Prior Size	-0.73%	0.00	<b>(2.54)</b>	0.01	(0.01)	(0.00)	(0.01)	(0.00)
<b>Momentum Shorts</b>	<b>17.43%</b>	<b>0.01</b>	<b>15.43</b>	<b>0.00</b>	<b>0.15</b>	<b>0.20</b>	<b>0.15</b>	<b>0.20</b>
<b>Momentum Longs</b>	<b>-6.39%</b>	<b>0.01</b>	<b>(5.62)</b>	<b>#NUM!</b>	<b>(0.09)</b>	<b>(0.04)</b>	<b>(0.09)</b>	<b>(0.04)</b>
<b>Value Longs</b>	<b>5.07%</b>	<b>0.01</b>	<b>4.55</b>	<b>0.00</b>	<b>0.03</b>	<b>0.07</b>	<b>0.03</b>	<b>0.07</b>

And finally, if we look at November ex-Nov 9<sup>th</sup> (returns for all of November ex-Nov 9<sup>th</sup>), we discover that momentum is not dead at all. But boy, was he a son of a b\*tch in November.

SUMMARY OUTPUT: November ex-Vaccine Day								
Regression Statistics								
Multiple R	0.30							
R Square	0.09							
Adjusted R Square	0.08							
Standard Error	0.21							
Observations	666							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	5	2.72	0.54	15.92	0.00			
Residual	661	28.23	0.04					
Total	666	30.95						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	37.69%	0.05	<b>6.87</b>	0.00	0.27	0.48	0.27	0.48
Prior Size	-2.35%	0.01	<b>(3.60)</b>	0.00	(0.04)	(0.01)	(0.04)	(0.01)
<b>Momentum Shorts</b>	<b>-0.69%</b>	<b>0.03</b>	<b>(0.27)</b>	<b>0.79</b>	<b>(0.06)</b>	<b>0.04</b>	<b>(0.06)</b>	<b>0.04</b>
<b>Momentum Longs</b>	<b>6.65%</b>	<b>0.03</b>	<b>2.58</b>	<b>#NUM!</b>	<b>0.02</b>	<b>0.12</b>	<b>0.02</b>	<b>0.12</b>
<b>Value Longs</b>	<b>-8.87%</b>	<b>0.03</b>	<b>(3.51)</b>	<b>0.00</b>	<b>(0.14)</b>	<b>(0.04)</b>	<b>(0.14)</b>	<b>(0.04)</b>

*“Look at me, Ray.”  
 “Did you just say look at you?”  
 “Look at me, Ray.”*

*“I’ll tell you what, Harry. Why don’t you take a f’n look at this?”*

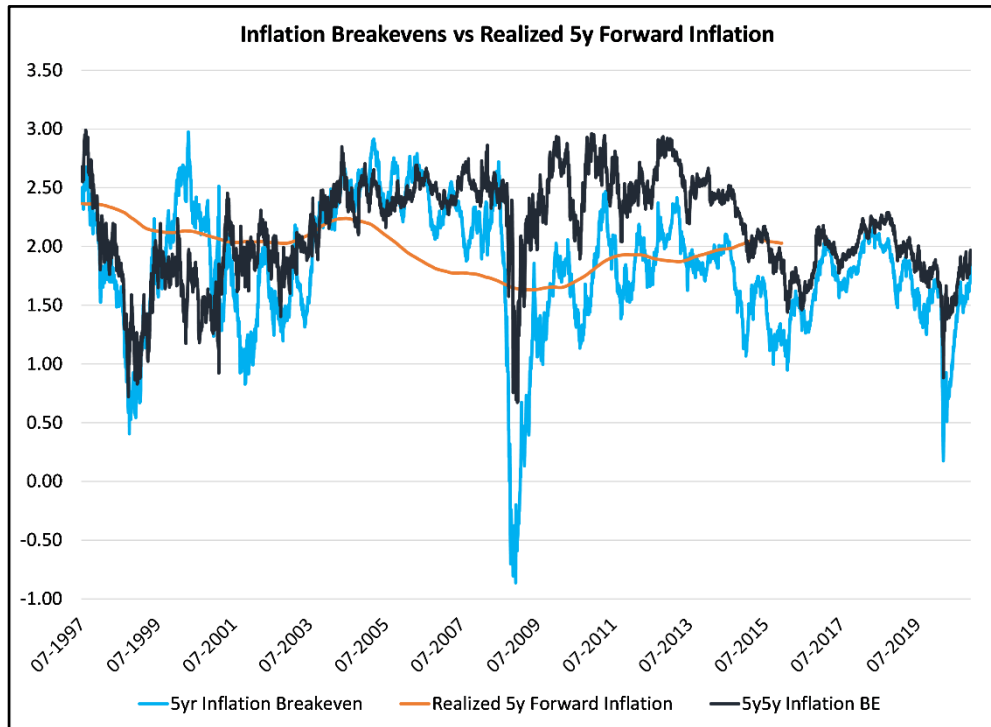
It is always dangerous to say, “It’s different this time”; and the natural conclusion after a decade of momentum and size outperformance is that “it’s time” for value to reassert itself. The world has a history of disappointing those whose rationale is “it’s time” (just ask Bob Dole, John McCain, Jeb Bush or Hilary Clinton). What we saw in November 2020 is functionally identical to the behavior in November 2016, but with the vaccine as the catalyst rather than the election.

In 2016, the Size, Growth & Value factors reversed soon after the lows in February 2016 with high beta cyclicals and commodities powering upwards on a reflationary theme. The election of Donald Trump added fuel to the fire (even though initially projected to lead to a market crash) and stocks, especially smaller and more cyclical names, rocketed higher. The dollar initially plummeted, and gold rose 27% from its lows. Sound familiar? And then the reflation trade as expressed in equities stopped roughly a month after the election while crude oil and copper prices rose through early 2018. With the Federal Reserve hiking and shrinking the balance sheet (remember the “like watching paint dry?”), 10-year interest rates pushed higher until Q4 2019.

	2016 Recovery			2020 Recovery			Statistical Difference?
	Start 2/11/2016	End 12/3/2016	Chg	Start 3/23/2020	End 12/7/2020	Chg	
Oil (WTI 1y Strip)	\$ 33.63	\$ 54.29	61.5%	29.7683	45.8717	54.1%	No
Copper	\$ 200.65	\$ 261.50	30.3%	211.95	350	65.1%	No
Gold	\$ 1,247.90	\$ 1,175.10	-5.8%	1567.6	1858.1	18.5%	No
S&P 500	1,829.08	2,191.95	19.8%	2237.4	3685.09	64.7%	Yes
R2000 Value	80.25	114.82	43.1%	71.79	128.7246	79.3%	No
VIX	28.14	14.12	(14.02)	61.59	21.6	(39.99)	No
10yr Bonds	1.66%	2.38%	0.72%	0.79%	0.93%	0.14%	No
5yr Inflation Breakevens	0.96%	1.78%	0.82%	0.39%	1.85%	1.45%	No
DXY (USD)	95.562	100.77	5.4%	102.487	90.842	-11.4%	Yes
Fed Balance Sheet	\$ 4,486	\$ 4,446	-0.9%	\$ 4,668	\$ 7,222	54.7%	Yes

But core CPI effectively peaked in the aftermath of the election at 2.2% and vacillated between 1.7 and 2.4% until March 2020 when it crashed to 1.2%. It has since recovered... and now turned lower again. Inflation breakevens have recovered to almost exactly their level from Dec 2016.

Statistically, we cannot distinguish between the 2016 and 2020 recoveries except for the US dollar (primarily against the Euro) and the S&P500 (higher) and Fed Balance Sheet (much higher). Will these drive the inflation narrative going forward? Can fiscal stimulus drive inflation higher and power the (still missing) value factor?



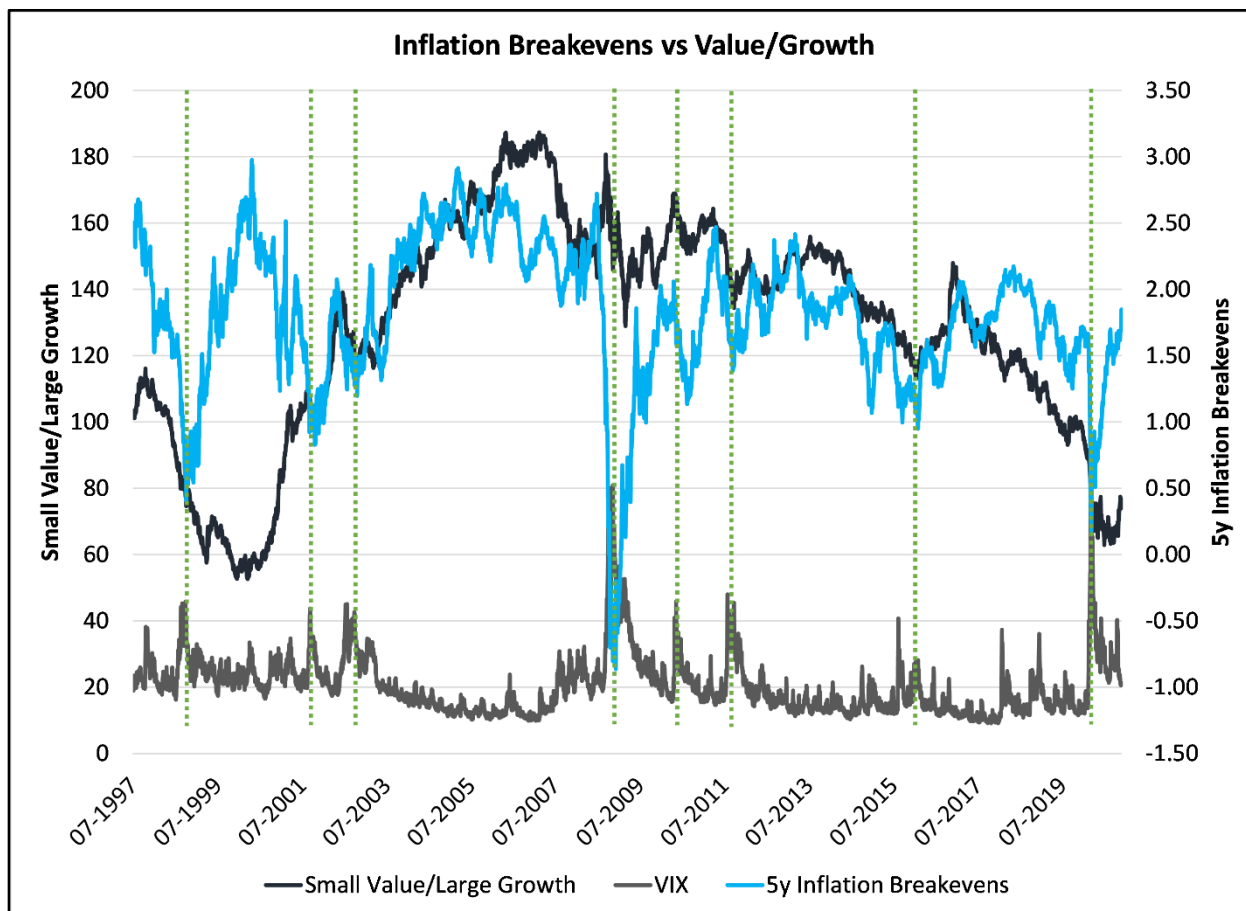
We cannot know the answer to these questions, but it is important to distinguish between the excitement of inflation breakevens rising and an expectation that higher inflation is imminent. It is equally important to distinguish between inflation as a driver of fundamentals and inflation as a driver of market performance.

Why are inflation breakevens rising? Because this “market derived” measure of inflation requires position financing. Inflation breakevens are created by the relationship between nominal and inflation-protected bonds (TIPS) of equivalent maturity. The “arbitrage” between the two is payment of a CPI-linked principal; financing this arbitrage requires going long TIPS and short the nominal while hedging out the more volatile components of CPI (largely energy). As a result, when financing or hedging costs rise (e.g., credit spreads widen or crude oil implied volatility rises), the spread between TIPS and nominals widens (ie breakevens collapse signaling “deflation”). When these costs retreat (as they have from March lows), breakevens rise. There is nothing in the market pricing that reflects an expectation that inflation will accelerate from here. In fact, the far more stable 5y5y (5y inflation breakevens, 5 years in the future) remains unexcitingly below 2%, suggesting skepticism that the Fed/Biden administration will be able to generate accelerating inflation.

This relationship also explains the perception that “Value” is positively associated with inflation. If we compare inflation breakevens to the Small Value/Large Growth ratio, there appears to be a robust relationship. However, this relationship is completely explained by spikes in volatility and the rising interest rates that accompany recoveries. When we control



for interest rates and VIX spikes, there is no explanatory power for inflation breakevens and the Value/Growth relationship.



### **Inflation? Less Likely Than Is Believed and Unlikely to Change Market Drivers**

It is worth briefly discussing the economic fundamentals of inflation. Inflation, a rise in the general price level, can have two sources – demand driven inflation and supply shortage inflation. Demand driven inflation is created when incremental demand emerges, and inelastic supply is incapable of meeting this demand on a short-term basis. In response, prices must rise to allocate the scarce quantity to those who most demand it. This was the driver of the 2002-2012 rise in commodity prices which rose to reflect demand from China and the emergence of institutional investor demand following the publication of Professor Gary Gorton’s “Facts and Fantasies About Commodity Futures”<sup>1</sup>. The inflation that appears to be developing today is supply driven as production disruptions associated with worker illness, shortages of critical supplies and labor actions have interrupted the flow of materials.

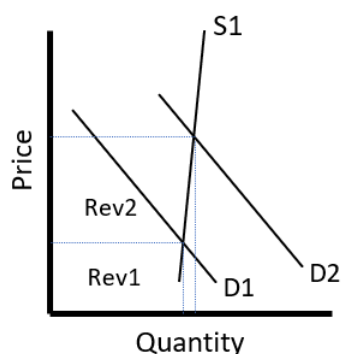
The difference in these two drivers matters for corporate profitability. A simple supply/demand illustration highlights the impact. A demand driven price increase results in a large increase in revenue as inelastic supply is forced to meet an outward shift in demand. In addition, the outward shift in aggregate demand for the end product (e.g., copper<sup>2</sup>) often creates additional demand for new production facilities. And the creation



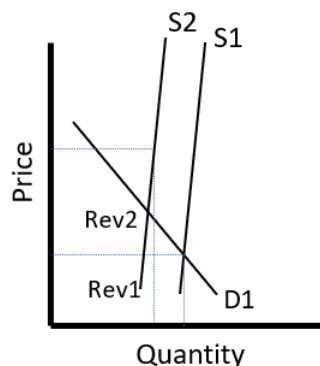
of these new production facilities (mines) in turn creates additional demand for labor and raw materials.

In contrast, a temporary inward shift in the supply curve results in only a modest increase in aggregate revenues and if there is a reasonable expectation of eventual return of the production facilities, there is very limited demand for new production facilities.

Demand Driven Price Increase

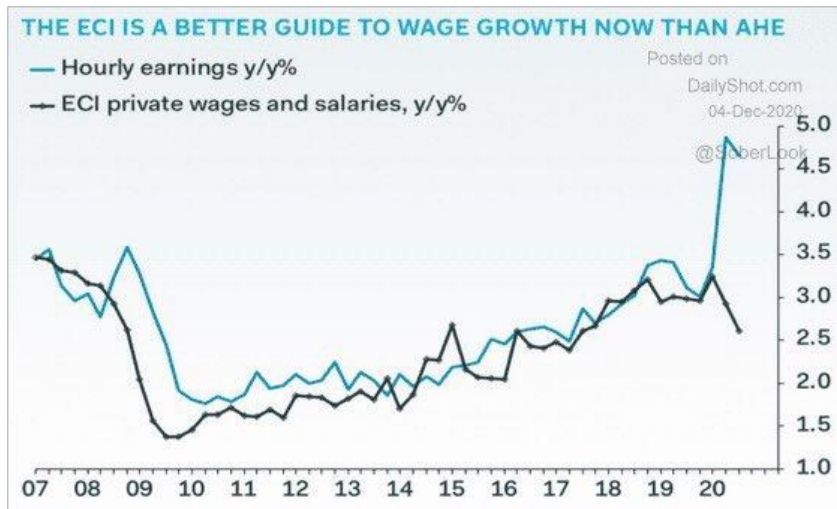


Supply Driven Price Increase



With supply almost always less elastic than demand, the shortages of product ripple through a general supply chain creating short-term disruptions that result in less fulfilled aggregate demand and lower aggregate corporate profits. This is not the outcome that might drive a sustainable commodity cycle or increase in inflation.

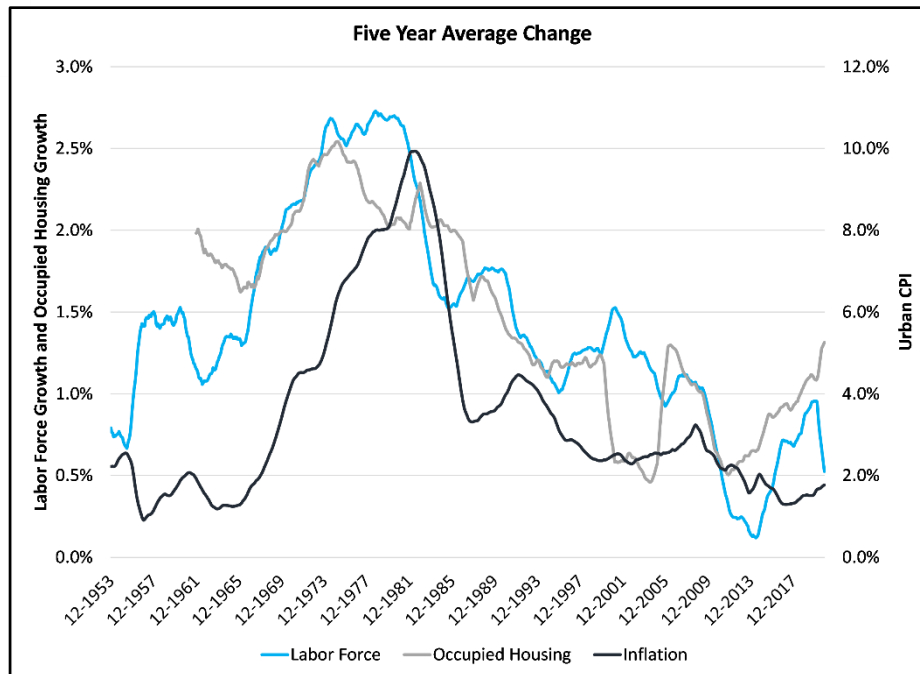
The second argument for inflation is that direct fiscal transfers to either households (in the form of transfer payments like Universal Basic Income) or the corporate sector via an infrastructure spending plan (Green New Deal, etc) will result in an outward shift in the demand curve. While this is certainly possible, it seems reasonable to hold our excitement. The recent stimulus has certainly created some forms of demand (e.g., recreational durable goods) to expand, this appears to have largely been a function of (1) services consumption substitution, (2) undeclared increases in household debt via unpaid rent and mortgages and (3) good old-fashioned errors in reporting. This last point is critical. We have data collection systems in the developed world that are not designed to handle the types of disruptions that occurred in 2020. One simple example is the misreporting of average hourly wages. When compared to the ECI indices which adjust for composition (remember those exciting debates from the jobless recovery days of 2012?), a very different picture emerges for 2020:



Finally, it is worth sharing one more chart. One of the biggest challenges in making forecasts for “stagflation” is a general misunderstanding of the stagflation from the 1960s and 1970s. It was not a negative real interest rate story. It was an outward shift in aggregate demand driven by extraordinary labor force growth tied to the Baby Boomers, women and minorities entering the labor force. This was exacerbated by the actions of the Fed which misinterpreted the rising prices as indicative of froth rather than a need for capital deepening and production increases. Raising interest rates did nothing to address the unique supply shocks that emerged for oil (which prior to 1974 accounted for roughly 1/3<sup>rd</sup> of US factory power supply) and food (as climate cooled and crop shortages emerged worldwide). What those interest rate hikes did do was dissuade factory owners from investing in additional supply. As a result, demand was serviced from outside the United States (think Hondas and Toyotas) and the US dollar fell against our trading partners. So far in the pandemic, this part of the story has certainly played out with US demand being met by Chinese supply (and of course the dollar has fallen against countries with which we have a trade deficit). While this will almost certainly lead to price increases, it is unlikely they will be sustained. To quote Alan Blinder’s under-cited analysis from 1982:

*The dramatic acceleration of inflation between 1972 and 1974 can be traced mainly to three "shocks": rising food prices, rising energy prices, and the end of the Nixon wage-price controls program. Each of these can be conceptualized as requiring rapid adjustments of some relative prices. The equally dramatic deceleration of inflation between 1974 and 1976 can be traced to the simple fact that the three factors just named were not repeated. **In other words, double-digit inflation went away "by itself."** Blinder 1982<sup>3</sup>*

What is unlikely to repeat are the errors of Volcker hiking interest rates to a level that crushed domestic economic activity and, more importantly, the stunning growth in labor force that provided the base for the increase in aggregate demand.



Again, Blinder:

***"The initial impetus for accelerating inflation in 1978 came mainly from the food sector, with some help from mortgage interest rates. The further acceleration into the double-digit range in 1979 mainly reflected soaring energy prices and, once again, rising mortgage rates. Finally, mortgage interest carried the ball almost by itself in early 1980."***

So while we may get supply chain disruption induced price increases, the most reasonable interpretation is that this will not be a sustained inflationary pressure. Prices of some goods will rise on a relative basis, but the aggregate demand picture does not remotely resemble the 1970s. More importantly, as the end of year shutdowns accelerate under mounting pressure from a combination of renewed Cov-19 outbreaks and seasonal illness patterns, it is difficult to expect the aggregate demand picture to remain supportive barring another round of aggressive stimulus.

Considering the above evidence, the key concern for market participants must be, "How does a short-term increase in prices due to supply disruptions meaningfully change the underlying dynamic of momentum-biased passive investing?" In Logica's view, it does not.

### **End of Year Thanks**

2020 has been a momentous year for Logica and we wanted to take a moment to say, "Thank you" to all our new investors and friends. We would never have guessed that the year would have contained as many "learning opportunities" as it has provided, and we are excited to put our additional insights to work in 2021. We could not do it without your support, and we cannot express enough our appreciation for the trust you place in us. Thank you.

## **Business Update**

### ***Logica Absolute Return Offshore Fund***

As previously discussed, Logica has launched the offshore version of the Logica Absolute Return Fund. We are thrilled to announce our first institutional relationships underpinning this launch and look forward to an increasingly favorable environment.

## **Logica Strategy Details**

Note: We have comprehensive statistics and metrics available for our strategies, but only include a select few to highlight what we believe is our most valuable contribution to any larger portfolio.

**If you would like to learn more about our strategies, please reach out to Steven Greenblatt at [greenblatt@logicafunds.com](mailto:greenblatt@logicafunds.com) 424-652-9520.**



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Follow Michael on Twitter @ProfPlum99

### Notes:

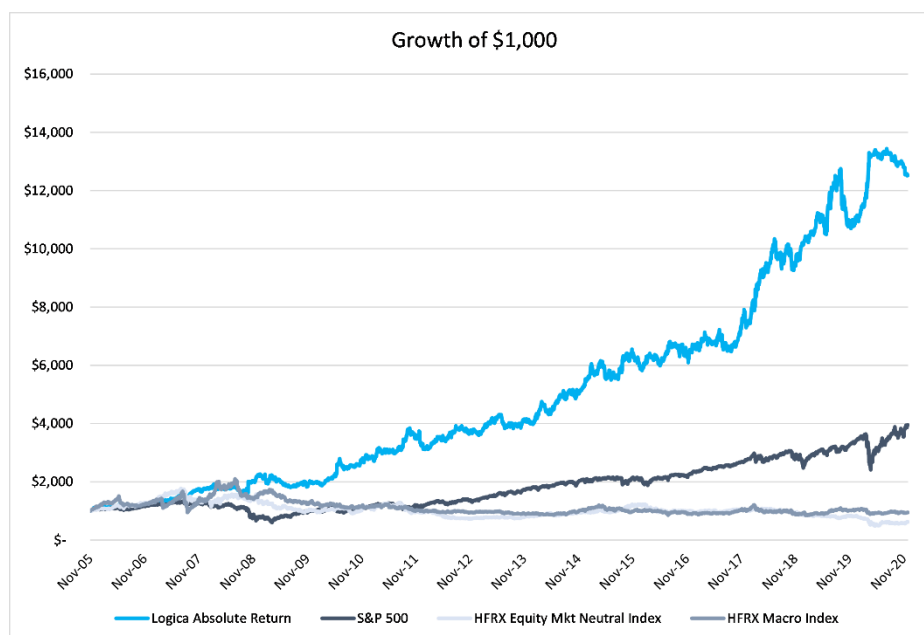
- 1) Gorton & Rouwenhorst, "Facts and Fantasies About Commodity Futures", Jun 2004  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=560042](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=560042)
- 2) Copper supply disruptions <https://www.bloomberg.com/news/articles/2020-07-09/peru-s-mining-ramp-up-taking-longer-than-expected-minister-says>
- 3) Blinder, "The Anatomy of Double-Digit Inflation in the 1970s", 1982,  
<https://www.nber.org/system/files/chapters/c11462/c11462.pdf>

## Logica Absolute Return

2015-2019 stats & grid, reconstitution of live sub-strategies  
2005 to present growth of \$1000 chart, simulation  
Jan 2020 live with partner capital

	Sortino	Correlation (S&P 500)	Skew
<b>Logica Absolute Return</b>	<b>1.91</b>	<b>(0.16)</b>	<b>0.05</b>
S&P 500 Index	1.05	1.00	(0.30)
HFRX Macro Index	(0.07)	0.32	(0.24)
HFRX Equity Mkt. Neutral Index	(0.47)	0.33	(1.26)

Logica Absolute Return - Monthly Returns													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
<b>2020</b>	4.7%	6.3%	8.6%	0.6%	-1.4%	1.1%	0.0%	-1.3%	-1.1%	-1.2%	-2.1%		<b>14.50%</b>
<b>2019</b>	1.9%	0.3%	7.2%	-1.2%	-3.8%	9.2%	5.4%	3.0%	-8.5%	-6.0%	0.3%	0.1%	<b>6.53%</b>
<b>2018</b>	7.3%	10.8%	3.6%	0.7%	7.2%	-2.3%	-2.8%	6.5%	-0.2%	-5.4%	1.8%	6.6%	<b>37.98%</b>
<b>2017</b>	1.2%	5.3%	-1.2%	-1.4%	3.2%	-5.6%	-2.0%	3.2%	0.7%	8.9%	2.4%	-1.1%	<b>13.63%</b>
<b>2016</b>	6.0%	1.9%	-0.9%	-4.3%	3.9%	6.0%	1.7%	-2.1%	2.0%	-5.1%	1.8%	0.9%	<b>11.58%</b>
<b>2015</b>	8.8%	-3.6%	5.2%	-8.4%	4.4%	-3.4%	2.3%	8.4%	1.6%	1.2%	-3.4%	-5.0%	<b>6.62%</b>



## Logica Tail Risk

2015-2019 stats & grid, reconstitution of live sub-strategies  
2005 to present growth of \$1000 chart, simulation  
Jan 2020 live with partner capital

	Sortino	Correlation (S&P 500)	Skew
<b>Logica Tail Risk</b>	<b>1.29</b>	<b>(0.57)</b>	<b>1.02</b>
S&P 500	1.05	1.00	(0.30)
EH Tail Risk Index	(0.99)	(0.54)	5.98

Logica Tail Risk - Monthly Returns													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
<b>2020</b>	<b>3.1%</b>	<b>10.2%</b>	<b>13.2%</b>	-0.7%	-2.6%	0.4%	-1.4%	-2.7%	<b>0.7%</b>	-0.9%	-3.1%		<b>15.84%</b>
<b>2019</b>	-1.1%	-1.8%	5.4%	-2.5%	0.8%	4.2%	4.2%	2.7%	-7.1%	-6.6%	-1.3%	-1.9%	<b>-5.8%</b>
<b>2018</b>	2.2%	<b>11.9%</b>	5.8%	0.6%	3.1%	-2.7%	-3.3%	3.1%	-0.7%	0.8%	1.7%	<b>13.1%</b>	<b>39.9%</b>
<b>2017</b>	0.4%	2.9%	-0.6%	-1.6%	0.7%	-4.6%	-2.6%	1.8%	-1.2%	4.5%	0.0%	-1.2%	<b>-1.8%</b>
<b>2016</b>	<b>10.4%</b>	3.5%	-4.6%	-2.5%	1.7%	4.3%	-0.2%	-1.8%	1.0%	-3.0%	-3.1%	-0.6%	<b>4.3%</b>
<b>2015</b>	<b>11.2%</b>	-6.9%	3.4%	-6.6%	1.2%	-3.6%	0.2%	<b>12.9%</b>	3.3%	-1.3%	-3.4%	-5.0%	<b>3.3%</b>

