

## Interrogating the backtest

# Weekly Digest

3 September 2018

#### - Stephen Nguyen, CFA

Factor investing has gained a lot of prominence in recent years and product providers have been quick to capitalise on this new area of growth, launching a huge number of new funds and strategies. We don't spend time talking (and in this case writing) about factor investing because it's new or somehow exciting, but because we've always talked about it – blending styles and harvesting factor premia has been part of our investment process since we started out in London a little over 20 years ago.

Factor investing is synonymous with "smart beta", but it is worth paying attention to the nuances, particularly if you want to understand what is contributing to performance. Smart beta at its most basic level involves taking an established market cap weighted benchmark and reweighting the stocks based on company fundamentals. The term itself is so widely used that today, anything that is not market-capitalisation weighted is often thrown into the 'smart' beta category. Factor-based investing should be a more focused portfolio construction approach, specifically designed to gain exposure to the factor(s) in question, for example value, quality and momentum.

As many as 300 risk factors have been identified by practitioners, but only a small subset of these meet our preferred criteria. To ensure that factors are both robust and persistent they need to be backed by strong economic rationale and compelling empirical evidence. Investors should only seek to gain exposure to factors that have been proven to deliver a positive premium over the long term. Premia typically arise as compensation for taking on additional perceived risk or as a result of behavioural biases which are difficult to completely arbitrage away.

Investors have shown a healthy appetite for any idea that offers attractive returns on paper. Ever faster computing power means millions of different portfolio combinations can be analysed in minutes, hence it is easy to mine

historical data to isolate the combination of factors that would have produced seemingly high returns. Faced with a multitude of near perfect backtests, how should investors go about separating the good strategies from the bad and the ugly?

The first thing is to be highly selective: out of the 300 risk premia mentioned earlier, we currently believe only a handful would sufficiently compensate investors. Secondly, understand that there are differences between what can be produced in a sanitised test environment and the sometimes compromised reality of an implemented solution. Hence it is often worth waiting to see how a live strategy performs rather than relying purely on the backtest. Impressive results (on paper) for many new offerings do not necessarily translate into attractive live returns.

Investors should pay attention to the "hidden" risks and biases of factor-based investments; unintentional sector/ regional tilts which could have significant impact on short to medium term performance. Macroeconomic risks need to also be monitored as some factors could be exposed to similar macro drivers as other asset classes within the portfolio, thereby reducing the diversification benefits. Lastly, is valuation risk – did the strong factor return come from true alpha or was it a case of rising valuations, where the factor has become more expensive relative to the market.

We fundamentally believe in factor investing and support the innovation in terms of new offerings. Not only does it provide us with a bigger tool box to deliver on our clients' outcomes but also allows us to be more selective in paying for active management, rather than paying up for factor beta masquerading as genuine alpha. The moral of the story? Don't believe everything a backtest tells you

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### The Marketplace

- U.S. equity indices set new records
- Emerging market currencies tumble
- Brent Crude increased 2.1% to \$77.42
- Gold fell by 0.5% to \$1200 per ounce

#### Market Focus

#### US

- The U.S. and Mexico have agreed a revised NAFTA trade agreement; the deal makes changes to supply chain requirements and rules of origin, Canada – the other member of NAFTA - is yet to agree to the new deal
- President Trump has renewed his criticism of China's foreign exchange policy and threatened to impose tariffs on an additional \$200 billion worth of Chinese goods
- US economic data remains supportive; with upward revisions in Q2 GDP to 4.2% from an earlier 4.1% estimate and August consumer confidence climbing to 133.4, its highest level since October 2000, fuelled by a buoyant labour market
- U.S. equities set new records this week; the S&P 500 increased 1.0%, closing at 2,901 on Friday. The Nasdaq Composite Index gained 2.0%, crossing the 8000 mark and closing at 8,109. The Russell 2000 Index increased 0.9% and closed at 1,740

#### UK

 There was a positive shift in tone regarding ongoing Brexit negotiations following European Union's chief Brexit negotiator, Michael Barnier, saying the EU is willing to offer the UK an unprecedentedly close relationship after its exit. This set off a short rally in the pound as hopes for a deal increased. Overall, the pound strengthened 0.8% against the dollar and 1.0% against the Euro in the week

FTSE 100 fell 1.9% and closed at 7,432

#### **Europe**

- The Italian Deputy Prime Minister Matteo Salvini said the government will come close to the 3% deficit limit set by the European Union. The yield on 10-year Italian government bonds rose to 3.24%, surpassing the peak level reached in late May
- Eurozone headline inflation slowed to 2.0% in August, down from 2.1% in July and 10 basis points below market expectations
- EuroStoxx 50 Index fell 1.0% closing at 3,392

#### **Emerging Markets / Asia**

- A rise in global risk aversion resulted in an emerging market currencies sell off; the Argentina peso fell 19.4% in the week following President Macri's request for the IMF to speed up disbursements under its current bailout program. The Argentina Central Bank hiked interest rates by 15% to 60%, in an effort to halt a sharp slide in the value of the peso
- The Turkish Lira came under renewed pressure, falling 8.9% in the week. The Turkish government have taken action to shore up currency by reducing taxes on lira deposits and hike those on foreign currency deposits
- China's August PMIs were stronger than expected resulting in the composite PMI of 53.8, above 53.6 printed in the previous month
- The Japanese unemployment rate ticked up for the second straight month, reaching 2.5% in July



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Asset Class/Region	Currency	Currency returns				
		Week ending 31 Aug. 2018	Month to date	YTD 2018	12 months	
Developed Market Equities						
United States	USD	1.0%	3.7%	9.5%	19.0%	
United Kingdom	GBP	-1.9%	-2.7%	-0.5%	3.6%	
Continental Europe	EUR	-0.2%	-1.6%	0.9%	4.1%	
Japan	JPY	1.6%	-1.8%	-3.4%	9.6%	
Asia Pacific (ex Japan)	USD	1.0%	-1.2%	-4.2%	3.1%	
Australia	AUD	1.3%	1.4%	7.2%	15.4%	
Global	USD	0.7%	1.5%	4.8%	13.1%	
Emerging markets equities						
Emerging Europe	USD	1.2%	-7.2%	-12.2%	-8.9%	
Emerging Asia	USD	1.2%	-1.1%	-5.2%	2.7%	
Emerging Latin America	USD	-1.1%	-9.6%	-11.1%	-11.8%	
BRICs	USD	0.4%	-4.6%	-7.5%	-0.5%	
MENA countries	USD	1.1%	-2.3%	8.3%	7.0%	
South Africa	USD	-4.6%	-9.6%	-20.1%	-9.3%	
India	USD	-0.4%	0.1%	1.1%	7.8%	
Global emerging markets	USD	0.6%	-2.9%	-7.2%	-0.7%	
Bonds						
US Treasuries	USD	-0.1%	0.9%	-0.8%	-1.6%	
US Treasuries (inflation protected)	USD	-0.2%	0.8%	0.1%	0.9%	
US Corporate (investment grade)	USD	-0.2%	0.7%	-2.0%	-1.0%	
US High Yield	USD	0.1%	0.8%	2.0%	3.4%	
UK Gilts	GBP	-0.1%	0.5%	0.2%	-0.5%	
UK Corporate (investment grade)	GBP	-0.1%	0.8%	-1.2%	-0.9%	
Euro Government Bonds	EUR	-0.3%	-0.4%	-0.4%	-0.3%	
Euro Corporate (investment grade)	EUR	-0.1%	0.1%	-0.4%	0.1%	
Euro High Yield	EUR	-0.3%	-0.1%	-0.4%	0.9%	
Japanese Government	JPY	-0.1%	0.0%	-0.2%	-0.2%	
Australian Government	AUD	0.2%	1.0%	3.0%	4.2%	
Global Government Bonds	USD	0.0%	0.0%	-1.5%	-1.7%	
Global Bonds	USD	-0.1%	0.0%	-1.6%	-1.4%	
Global Convertible Bonds	USD	1.0%	1.0%	0.5%	1.4%	
Emerging Market Bonds	USD	-0.9%	-2.9%	-7.0%	-7.4%	



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Asset Class/Region		Currency returns				
	Currency	Week ending 31 Aug. 2018	Month to date	YTD 2018	12 months	
Property						
US Property Securities	USD	0.8%	4.7%	4.2%	5.0%	
Australian Property Securities	AUD	1.3%	2.3%	3.5%	10.5%	
Asia Property Securities	USD	0.9%	-3.0%	-4.5%	-0.2%	
Global Property Securities	USD	0.7%	1.1%	0.4%	4.6%	
Currencies						
Euro	USD	-0.2%	-1.0%	-3.6%	-2.4%	
UK Pound Sterling	USD	0.8%	-1.4%	-4.2%	0.5%	
Japanese Yen	USD	0.1%	-0.1%	1.4%	-0.8%	
Australian Dollar	USD	-1.9%	-3.0%	-8.0%	-9.3%	
South African Rand	USD	-2.5%	-10.5%	-15.7%	-11.4%	
Swiss Franc	USD	1.3%	1.8%	0.4%	-0.9%	
Chinese Yuan	USD	-0.4%	-0.5%	-4.9%	-3.7%	
Commodities & Alternatives						
Commodities	USD	0.5%	-1.2%	2.7%	10.9%	
Agricultural Commodities	USD	0.3%	-3.6%	-2.6%	-3.1%	
Oil	USD	2.1%	3.3%	15.8%	47.8%	
Gold	USD	-0.5%	-1.9%	-8.1%	-8.9%	
Hedge funds	USD	0.5%	0.5%	-0.5%	1.6%	



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