**Cross Asset Research**

**A primer for consistent and systematic market analysis**

- We introduce a framework for consistent and systematic analysis of markets across asset classes.

- We emphasise the importance of distinguishing tactical asset views from strategic ones. This includes identifying and appreciating the importance of secular trends and persistency in investment environments.

- We illustrate the framework by assessing a key driver of asset returns; the USD. In this framework the COVID-19 policy responses have profound implications for the USD – and by extension broader asset return distributions for the next few years.

**A systematic approach for analysing risk**

The purpose of this piece is to present a framework for consistent market analysis across asset classes. Chart 1 illustrates our framework starting in layer 1 and finishing in layer 4. In our view, this framework ensures a systematic approach which enables a better estimate of future return distributions and hence decision making. The framework is no holy grail, yet we do believe many aspects included in this framework are much too often neglected, leading to a wrong perception of market risks. Examples of such are the decline in neutral rates, investment environment persistency and USD cycles.

By definition this framework does not help you identify ‘unknown unknowns’. Yet the framework consistently treats ‘known unknowns’ which allows for a more versatile analysis. One of the key points of this framework is that while it brings the analysis of various asset classes together, at the end of the day there are only limited macro meta risks to position for or protect against. The ultimate exercise therefore is to identify these risks and which asset class – equities, credit, FX, bonds, linkers, commodities etc. - best enables the desired exposure.

This paper is structured as follows. Part 1 brings a stylised introduction to the four layers while Part 2 illustrates the setup by analysing one of the most important and, in our view, underappreciated drivers of asset classes broadly; the trade weighted USD.

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**Chart 1: The framework illustrated**

![Chart 1: The framework illustrated](source: Danske Bank)

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Part 1: The framework

A stylised introduction to the four layers

In this section we will give a stylised introduction to each of the four layers. Importantly, each layer can be expanded with various inputs but here we give examples of things that we specifically like to consider.

Layer 1: Strategic allocation; determining the long-run investment environment (typical time horizon of 5-10Y)

We think the importance of this layer is often given too little attention. A key pillar in our analysis is the appreciation of the persistency in the broader investment environment and the risks associated with betting against it. For instance, what are the secular trends to take into account? In recent years there has been an increasing focus on trends in structural net savings (S-I) and the decline in neutral rates. We wrote about this last year in Research Global: Euro area rates to stay very low for very long, 13 March 2019, and it is only recently that global central banks seem to have fully appreciated the importance of this and the challenge to the way monetary policy has been conducted in the last decades.

The implication? Understanding the secular decline in neutral rates illustrates how positioning for higher rates can never be a strategic case unless one has identified a sustainable change to the structural trend in net savings or a tactical trigger to temporarily counter it (layer 2). Any factors impacting savings (S) or investments (I) in the way of demography, technology, productivity, labour market structures, climate and regulation should be factored in at this stage.

Since the financial crisis the pain trade has been to position for higher rates. It is likely that many got a false sense of strategic comfort from central banks signalling higher rates without appreciating how unchanged policy rates implicitly led to tighter monetary conditions over time (lower neutral rate gap). Meanwhile, the trend of lower neutral rates goes back much longer than just the last decades, and various research pieces point to a centuries-long structural trend. For instance see this Bank of England working paper: Eight centuries of global real interest rates, R-G, and the ‘suprasecular’ decline, January 2020.

Layer 1 should also take into account the balance of power between fiscal and monetary policy. History has shown that a crisis can shift the balance, but in-between crises we rarely see changes, as illustrated by the last decade, where monetary policy has been the only game in town amid the post-crisis focus on balance sheet consolidation and austerity. In the same ball park is the credit cycle. For instance, how vulnerable is the economy to an unforeseen rise in interest rates, who are the biggest creditors and who are the biggest debtors? What is the implication of central banks increasingly having credit risk (via purchase programmes) on their books in the attempt to ease monetary policy with rates stuck at the zero lower bound?

Finally, but not least, layer 1 should include a stance on historical investment cycles. History has shown a remarkable persistency in winning strategies across asset classes with typical cycle lengths of 5-10 years. Recent examples of such are the commodity/emerging market dominance of the noughties/early 2010s and the US tech bias since roughly 2013. In other words, yesterday’s winners will most likely be tomorrow’s winners also – unless we experience a regime change or a tactical trigger. We will return to this in the USD section in Part 2 where we show how a simple framework is able to shed light on the risks facing entities with USD exposure – much beyond a simple growth, relative rates and valuation metric.
Getting an understanding of layer 1 and of all of the above – and more – is a tricky and daunting task. However, there is one comforting point of layer 1, namely, that the investment environment rarely changes unless we see a catalyst or trigger. The past helps us identify these triggers, which historically have been economic or financial crises (potentially war related), political decisions associated with the USD or an improvement/worsening in the allocation of resources. For this very reason discussing the COVID-19 crisis is as relevant as ever; have we seen a historical trigger or will we return to the aforementioned US tech investment environment that we have been in since roughly 2013?

Hence the key point of layer 1 is appreciating the secular and strategic trends which form the basis of the strategic asset allocation. In our view this is a prerequisite before we can move on to discussing the tactical asset allocation of layer 2.

Layer 2: the tactical asset allocation (< 1 year and often <6M)

Layer 2 is the typical tactical asset allocation part which often characterises traditional sell side research. This amongst other things should include analysis of the macroeconomic business cycle outlook relative to potential growth, monetary policy, fiscal policy, trade policy and various valuation metrics.

Ultimately this should answer questions such as is growth accelerating/decelerating, will the level of growth be above/below potential and will wage growth move higher or lower? The answers to these questions will have important tactical allocation implications but should always be held up against the strategic findings of layer 1. This is key as an investor who is unaware of betting against a secular trend will have a wrong perception of her return distributions and often overestimates the desired time horizon of her positions (chart 2). This also goes for inflation analysis where a bottom-up approach misses the important drivers of layer 1 and by extension the endogenous role of monetary policy in creating inflation (i.e. neutral rate gaps).

While models can be useful to describe elements in layer 1, we often see a higher usage of quantitative tools and methods in layer 2. One example of this is our quantitative business cycle model MacroScope. The cyclical lead signals from MacroScope can be a very useful tool but say nothing about the important elements discussed in layer 1.
Layer 3: the overlay; benchmarking conviction relative to markets

Layer 3 is the overlay part, essentially weighting the conviction of the strategic and tactical signals from layer 1 and 2. Key areas to consider, amongst others, are speculative positioning, technicals and economic surprise indices. For instance it is a much stronger market signal if your strategic and tactical views are at odds with market consensus than if markets are already positioned for this.

Layer 4: combining it all; what’s the risk and what’s the trade?

Layer 4 is the final part in which your market views are expresses in actual trades. This is where the top-down approach of layers 1-3 meets bottom-up considerations that have not been treated so far. Examples of such could be specific expectations for the syndication of a government bond, flow analysis/expectations and an overall evaluation of the risk of one’s portfolio.

Part 2: the broad USD example

Underestimating the importance of the USD ...

The broad dollar indisputably remains crucial for global monetary conditions via USD-peggs and USD-denominated debt, commodities and trade invoices. Indeed, prominent research papers suggest that almost ¾ of global GDP in some way is tied to the USD as an anchor currency. For example, see Exchange Arrangements Entering the 21st Century: Which Anchor will hold? by. Rogoff et al. Consequently, the huge importance of the greenback is easily underestimated. One truly odd way to show this is how changes to the USD can work as a leading variable of the economic surprise index (!), cf. chart 5.

Given the importance of the USD it is crucial to get the USD right for one’s portfolio. Things to consider in analysing and forecasting the USD are elements of layer 2 and 3 of our framework. For example, what is the outlook for relative growth, relative rates, valuation and positioning? The answers to these questions are important for tactical USD fluctuations but it is key not to confuse this with strategic USD drivers which we discuss in the next sections.

... and appreciating the drivers of the ‘USD cycle’

An initial observation when forecasting the USD longer-term is how remarkably persistent changes in the USD historically have been (chart 4) - hence the term ‘USD cycles’. Including relative rates and prices will show that these cycles are at odds with FX economic theory stating that currencies are determined by the purchasing power parity (PPP) and the real interest rate parity; i.e. the uncovered interest rate (UIP) and PPP combined. However, as people who have worked with FX know, PPP and UIP have poor explanatory powers in the short and medium run. This is best illustrated by the profitability of carry Trades; i.e. the notion of borrowing in a low yielding currency and lending in a high yielding currency.

Theoretically carry trades should only work for very short time periods as the high yielding currency quickly appreciates until the point where growth and competitiveness suffers, rates move lower and market participants benefit from arbitrage in tradable goods (PPP). History, however, has shown that these valuation imbalances can be built up for long periods of time and that it takes years for them to burst. Why is that?
The persistency of investment environments

We believe the empirical observation of persistency in historical investment environments and capital flows gives the answer. It is difficult to explain this persistency, but part of the explanation probably lies in how capital is managed with a clear winner’s bias. Managers pursuing successful strategies get increasing power and influence until a fundamental shift happens, imbalances reach a breaking point and managers either shift strategy or get fired, paving the way for new ideas.

In simple terms, winning strategies have over the last many decades generally stemmed from one of from a combinations of three investor preferences or biases:

1. **Industry and manufacturing.** Typically this bias has gained increased influence in the aftermath of a significant improvement in the allocation of the factors of production (land, capital and labour). The best examples of such are the break-down of the Soviet Union, the re-unification of Germany and China becoming a member of the WTO, sharply accelerating EMs and globalisation.

2. **Technology.** Typically, this bias has gained increased influence during times of innovation and the emergence of new businesses characterised by high margins, i.e. creative destruction. Historically, the US has been the global technological epicentre.

3. **Commodities and energy producers.** Typically this bias has gained increased influence following a period of underinvestment in commodities, supply restrictions and a sharp decline in the USD.

In our view, the investment environment leading up to COVID-19 shares some crucial similarities to the late-60s, late 70s/early 80s and late 90s/early noughties: namely that of the technology bias 2). The common denominators for all of these periods have been an investor preference for US assets and a significant over-performance of US equities and by extension the USD (chart 7). These investment cycles have proven remarkably resilient as picking winners (i.e. creative destruction) has been almost identical to buying tech stocks where the US has dominated (think IBM, Microsoft, dot-com bubble and now FANG) and hence USD. The investment influx into the US from 2013 and the subsequent US asset outperformance benefitted the US corporate sector, the labour market and by extension private consumption. Also lower oil prices (quoted in USD) significantly improved the US terms of trade and profit impulse into the economy. Together this supported the US recovery post the financial crisis and ultimately led the Fed to initiate its well-known lonely hiking cycle from late-2015 to 2018.

![Chart 6: The US terms of trade have significantly improved since 2013, benefiting US businesses and consumers.](chart6.png)

![Chart 7: ... and contributed to a shift from USD weakness/US underperformance to USD strength/US outperformance.](chart7.png)

Note: Past performance is not a reliable indicator of future results
Source: Macrobond, Danske Bank
Why this is has cross asset implications

The investor preference for USD assets has come at a global cost and had huge implications for global asset classes broadly. Indeed higher US rates and the stronger USD forced an implicit tightening of global monetary policy via the channels described at the beginning of Part 2. Many emerging market countries imported the US tightening by drawing down FX reserves to counter currency weakness. Most prominently, China was ultimately forced to abandon its USD exchange rate regime in August 2015. What is more, commodity producers suffered a substantial terms-of-trade shock (negative profit impulse) from the stronger USD as commodity revenues in domestic currency fell – ultimately requiring a weaker domestic currency to make up for negative demand shock (chart 8 and 9).

Historically we can trace similar dynamics back in time during periods of persistent USD strength. More generally, during these periods dollar pegs, traditional industries (i.e. commodity importers) and commodity producers have often all suffered at the expense of primarily US innovation. In our view, that is exactly what has happened since the 2013 ‘taper tantrum’ with heavy EM underperformance and commodity-producing countries suffering (chart 10). Together this deflationary impulse hit profit margins of manufacturing heavy supply-chains which further contributed to investor preferences for US technology stocks and new businesses where margins were high. And the big winner stayed the USD.

What has made matters worse in the current cycle has been a Chinese focus on deleveraging the economy (CAPEX negative). Also the Trump administration has forced China to import USD tightness by pressuring the Chinese not to allow CNY to weaken, and finally protectionism/trade wars have arguably worsened the allocation of the factors of production reducing the attractiveness of the industry and manufacturing bias 1).

All of this has in our view had big implications for relative growth, relative sector performances, yields, credit and by extension the rest of FX. As chart 10 shows, since 2013 picking winners has been all about being long US equities, technology stocks and long the USD. On the other hand, value stocks, manufacturing, energy and EM have all significantly underperformed. In the decade leading up to 2013 it was the exact opposite as shown in chart 11.
Norway and Sweden as an example

In our view Scandinavia is a good (perhaps non-intuitive) example of the derived effects stemming from the global environment and the USD cycle. Both Sweden (manufacturing heavy) and especially Norway (commodity heavy) have since 2013 suffered from the negative commodity and supply chain shocks explained above. Both economies were already challenged by relatively high levels of unit labour costs stemming from the noughties’ benign environment. Together this has acted as a negative corporate profit impulse requiring a weakening of the respective currencies. As referred to previously, a real effective exchange (REER) rate should over time be stationary according to PPP. However, if the economy experiences notable differences in productivity between the tradable and non-tradable sectors of the economy then the REERs may actually trend (also known as the Balassa Samuelson effect). This is what we often see in emerging market economies – but also in the both SEK and NOK when the global economy challenges the profit streams of the economy.

Charts 13 and 14 shows how both the real effective NOK and SEK were stationary during the noughties. In this period both the Swedish and Norwegian economy enjoyed rising commodity prices (Norway) and surging emerging markets benefiting not least a manufacturing heavy Swedish economy. Meanwhile, when the USD cycle flipped in 2013 both economies suddenly faced a competitiveness challenge as well as the global deflationary impulses stemming from implicit monetary tightening and Chinese deleveraging. Both Norges Bank and not least the Riksbank have faced this challenge over a number of years. In our view, the implied strategic weakening pressure stemming from the USD cycle has been a crucial factor for both SEK and NOK weakness over the past many years – but importantly via two different channels (commodity versus manufacturing).

Arguably, there have been times since 2013 where positioning for a stronger NOK or SEK have been winning trades but they have proven a tactical position against a bigger strategic trend not appreciated by many. This point is crucial for estimating a EUR/NOK or EUR/SEK return distribution - something a currency analysis based only on the tactical layer 2 would have missed.*

This also has the important implication that any position in Norwegian and Swedish markets (FX, rates, FI, credit etc.) as well as tactical views on the Riksbank or Norges Bank should always be held against the impulses stemming from the global investment environment and the strategic direction of the USD.

*Note: In Danske Bank FX Research we have bridged the gap between long-run FX economics and short-term FX drivers via econometric models such as the MEVA model. In this model we expand the understanding of currency moves with relative terms of trade and a proxy for relative productivity to capture the so-called Balassa Samuelson effect. This essentially is the same as taking into account the derived effects stemming from the USD cycle.
Conclusion: so where are the USD and we heading?

This leaves the ultimate question of what may trigger a reversal of the pronounced USD strength? Historically, USD appreciation cycles have come to a halt when one or a combination of the following things have occurred: 1) a US recession alongside forceful Fed easing and non-US fiscal easing, 2) a political agreement to weaken the USD, or 3) a positive change in global supply chains.

Potentially, we are now witnessing the beginning of a regime shift via 1). As a response to COVID-19 global central banks – most prominently the Fed – have eased monetary policy aggressively and non-US economies have eased fiscal policy significantly much unlike the years following the great financial crisis. Also banking regulation has been eased. History tells us this is a potential trigger for a global shift in the investment environment.

Where could we be heading? Higher inflation is negative for a currency and the biggest valuation correction potential is in US assets and the USD given the imbalances built up over the past 6-7 years. If the global policy responses to COVID-19 over the coming year(s) bring about a shift in the USD this could have huge implications for commodities. Investments in renewable energy remain modest globally and oil investments have suffered from lower oil prices and higher cost of capital (chart 16). Historically, after a period of underinvestment in energy, a weakening of the USD has triggered a period of rising commodities and cost-push inflation. Possibly we are moving towards the commodity investor bias 3) which in turn means inflation seems underpriced.

What about the industry/manufacturing bias 1)? In our view protectionism/trade wars still seem to limit this potential as COVID-19 policy actions so far are not aimed at improving the allocation of the factors of production; rather the opposite with the crisis highlighting supply chain vulnerabilities and global companies now onshoring production.

It is no secret that while the authors of this paper strongly believe in the overall framework of understanding the USD they do not 100% agree on the implications of COVID-19; maybe investors simply return to the USD post COVID-19? If so long USD, US equities, tech and duration will likely continue to be winning strategies at the expense of inflation, value, industry and commodities as set out by the layer 1.

The important implication is that the policy response to COVID-19 has created a massive tail risk for portfolio managers, investors and corporates as the strategic return distribution has been shifted. The analysis of layer 1 will have brought us to this realisation and the understanding of the potential historical ramifications – much beyond the tactical analysis of layer 2. Hopefully this paper has shed light on a common framework to discuss these risks relative to tactical views. The jury is out.
Disclosures

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None

Date of first publication

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