

Building a currency war army (What does it take to win a currency war? Part 2)

- Economies have natural advantages and disadvantages when fighting a currency war
- The relationship between a currency and local equity prices, yields and inflation can be quantified
- As can the implications of foreign currency debt
- Between the US and China neither has a dominant advantage; currency war stalemate would likely ensue

Applying science to the ability to win a currency war

In our first note (see *What does it take to win a currency war? 13 August*) we defined 'winning' a currency war as being able to maintain a weaker currency for a sustained period. We then linked the term 'sustained' to an economy's ability to withstand the consequences of currency weakness.

Here we extend that analysis by detailing the four key quantifiable determinants of the ability to withstand the consequences of currency weakness:

1. Impact of a weaker currency on local equity prices – ideally a lower currency coincides with higher local equity prices
2. Impact of a weaker currency on local bond yields – ideally a lower currency coincides with lower local bond yields
3. The degree of foreign currency-denominated debt – less is better
4. Impact of a weaker currency on local inflation – less impact is better

In summary, we find that G10 economies have a fundamental advantage over emerging market (EM) economies when waging a currency war. The best placed are Australia, New Zealand and the UK. In EM the best placed is the Czech Republic.

In EM the worst placed to wage a currency war are the high yield debt-laden economies – Turkey, Indonesia, Russia and Brazil are most exposed.

For the key protagonists of the current trade war, the US and China, it is more mixed:

1. The US benefits from the negative correlation between the USD and local equity prices but suffers from its safe-haven status in times of turmoil
2. China benefits from the positive correlation between yields and the CNY. Restrictions on capital mobility make it much easier to control long-term rates. However, it suffers from the positive correlation between local equity prices and the CNY. And while the impact on inflation in China of a weaker currency is greater than that for the US, China's political backdrop is arguably more conducive to a protracted currency war

Currency war stalemate between the US and China is the most likely outcome.

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G10 has an advantage via impact on local equity prices

Impact of a weaker currency on local equity prices

Figure 1 shows correlations between currencies and local equity markets. This is an extension of Figure 5 in the Part 1 note, which shows the same for G10. Here we have only used the last 100-day correlation in order to fit all G10 and EM currencies into one chart. For those at the left of the chart a lower currency is typically associated with higher local equity prices. For those at the right of the chart a lower currency is typically associated with lower local equity prices.

There is a clear distinction between G10 and EM currencies in this chart, where G10 has a negative correlation to local equity prices and EM a positive correlation. Logically, this suggests that for G10 one of two drivers dominate, either of which is helpful in a currency war:

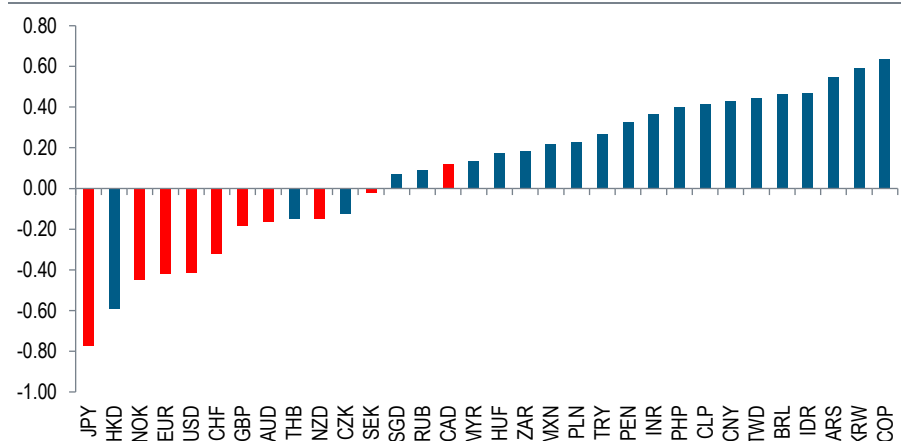
1. Translation effects are important (i.e., local corporates earn money offshore), if the local currency falls the translated local currency foreign earnings are higher (e.g., FTSE after the June 2016 Brexit referendum)
2. Global equity managers optimise their portfolio in USDs (or some other base currency). When other currencies fall they buy more equities in that currency because they are 'cheap' (or to rebalance a USD-based portfolio)

For EM the opposite is true. This suggests that one of the following two drivers dominate, either of which is unhelpful in a currency war:

1. There is a common driver of local currencies and local equity prices – e.g., for commodity exporters a decline in commodity prices hurts local currencies *and* local equity earnings
2. Global EM equity managers are greatly impacted by currency movements so are less inclined to buy local equities if currencies are falling

The relationship between currencies and local equities helps G10 and hurts EM. Higher equity prices would also assist G10 political will to continue a currency war.

Figure 1: Correlation between nominal TWI and local equity prices
Correlation coefficient, last 100 days (G10 red, EM blue)



Note: We calculate 5-day percent changes in trade-weighted exchange rates and local equity prices for each country

Source: Bloomberg, Standard Chartered Research



Safe-haven G10 and debt-laden EM are at a disadvantage

Impact of a weaker currency on bond yields

Figure 2 shows the correlation between currencies and local 10Y yields. For those at the left of the chart a lower currency is typically associated with lower yields. For those at the right of the chart a lower currency is typically associated with higher yields.

Here the G10/EM dynamic is much more mixed. In G10 the split can be logically arranged into 'growth' G10 (left of chart) versus 'safe-haven' G10 (right of chart). For growth G10, if yields rise foreign investors buy more local bonds and so the currency appreciates. For safe-haven G10, when conditions deteriorate (and yields go lower) cash is brought home and so the currency appreciates. This split can also be thought of as being determined by whether a country has a net foreign asset (typically in the safe-haven camp) or liability (typically in the growth camp) position.

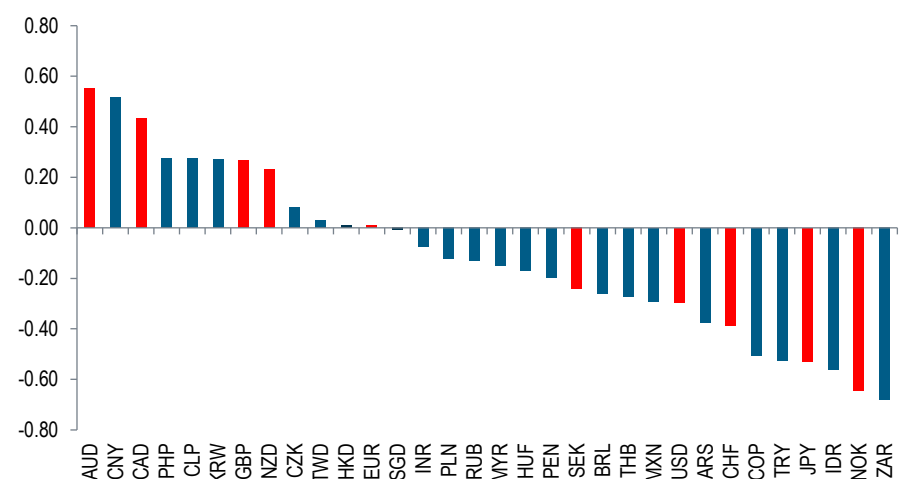
Note also that the correlation captures a mixture of shocks. At times the USD will experience both types of shocks discussed above. The correlations show both the exposure of countries at the extremes and the nature of the shocks that they experience.

For EM, for those at the right-hand side the dominant relationship seems to be that if local bonds sell off then local currencies also sell off. This is either due to foreign investors removing positions or hedging their FX exposure. Unsurprisingly, this is where high-yield EM sits. Debt dynamics and budget deficits dominate the logic here.

Those EM countries at the left-hand side display similar properties to growth G10. That is, if yields go up foreigners buy more local bonds helping the currency higher. Importantly, we note China is next to Australia at this left-hand end. We note that in general low-yield EM seems to display similar dynamics to G10, while high-yield EM seems to face pressure on back-end yields when currencies weaken.

To further examine causation here, rather than just correlation, we ran a series of regressions across our G10 and EM universe. The left-hand side of the equations are local 10Y yields. On the right-hand side we have local 2Y yields and nominal trade weighted indices (TWIs). Our thesis here is that when local 10Y yields are driven by local 2Y yields we can say that local monetary policy dominates. However, when

Figure 2: Correlation between nominal TWI and local 10Y yields
Correlation coefficient, last hundred days (G10 red, EM blue)



Note: We calculate 5-day percent changes in trade-weighted exchange rates and 10Y bond yields for each country

Source: Bloomberg, Standard Chartered Research



local 10Y yields are driven by nominal TWIs, the currency war point we are making is important.

Figure 3 depicts the regression coefficients on the TWI terms on the right-hand side of these equations. It shows that this currency impact on 10Y yields is most pronounced for high-yield debt laden EM. Specifically, Turkey, Indonesia, Russia and Brazil sit to the far right of Figure 3. The negative regression coefficients here suggest that a decline in these currencies causes their 10Y yields to rise.

Causation for the other groups here (low-yield EM, growth G10 and safe-haven G10) is less clear. For the USD, for example, this less clear correlation suggests that the relationship between 10Y yields and the USD changes over time. For example, after Trump's 2016 election victory, higher 10Y UST yields helped drive the USD higher (in a growth G10 way). However, in 2019 lower 10Y UST yields have coincided with USD strength – the safe-haven angle has dominated.

The relationship between currencies and local yields helps growth-currency warriors while it hinders both debt-laden EM currency warriors and safe-haven G10 ones. Higher yields as a result of currency weakness (for debt-laden EM) would also hinder political will to continue the currency war as it would result in higher borrowing costs locally. A large unexpected cost for the debt-laden EM currency warrior to bear in mind.

The degree of foreign currency-denominated debt

Less foreign currency debt is better

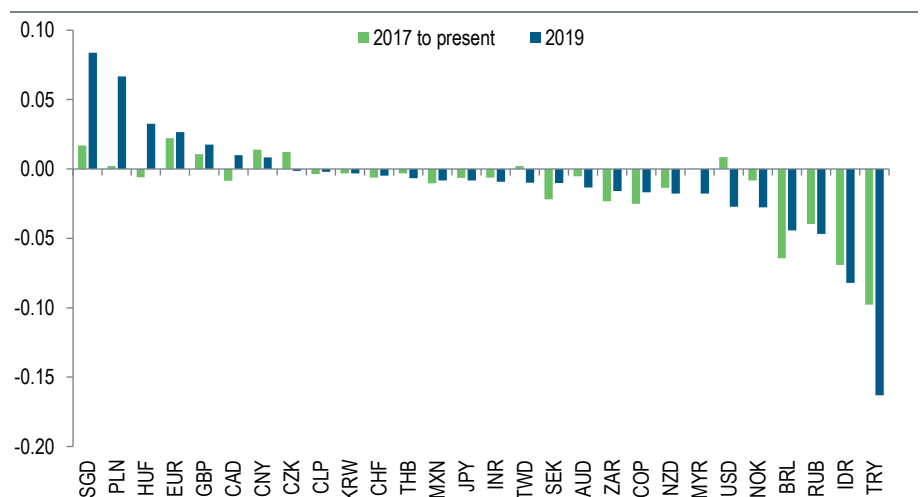
Figure 4 shows foreign currency debt-to-GDP data for EM countries. We have focused solely on EM in this chart as foreign currency debt is almost entirely an EM phenomenon. EM countries issue debt in hard currency and local corporates also borrow in hard currency (as borrowing costs are typically lower offshore). By contrast, G10 governments issue debt in local currency and most corporate debt is locally sourced.

The point here is that the more foreign currency debt a country has, if a currency falls then the local currency value of that debt increases. This makes fighting a currency war all but impossible for those at the right-hand side of this chart.

Importantly, from the perspective of the current trade war, we note that China is at the very left of this chart. While foreign currency debt in China is large in absolute numbers (the largest in EM), it is small compared to the size of the economy. There

Figure 3: Regression between local 10Y yields and nominal TWI

Coefficient



Source: Bloomberg, Standard Chartered Research



may still be some vulnerability if the exposure is high relative to the capital buffers in exposed corporates and financial institutions, but these data are not readily available.

Impact of a weaker currency on local inflation

Implications are greater for EM on the inflation front

Weaker currencies tend to result in higher local inflation rates. While the price of most items in CPI baskets is locally driven (economists' oft-used haircut example being the case in point), a number are driven by global prices. As currencies fall the local price of these items increases. Typical examples of such items are food and energy. The risk of social tensions if global prices spillover into domestic necessities is a restraining factor on currency aggression.

In Figure 5 we show the weight of food prices in CPI baskets across all of G10 and EM. We have used food prices as we could obtain a consistent basis for this across countries. Countries at the left-hand side will experience a much smaller increase in local prices on the back of a weaker currency than those at the right-hand side. Unsurprisingly, G10 countries almost totally dominate the left-hand side of this chart. As incomes grow the weight of food in the CPI basket falls.

The point here is twofold. Higher inflation makes it more difficult for central banks to lower rates, so a weaker exchange rate for those at the right-hand side results in a weaker economy, all else equal. In addition, a jump in the price of basic items like food tends to dampen the political will to continue a currency war for even the most determined currency warriors.

Figure 4: Foreign currency debt (sovereigns and corporates)

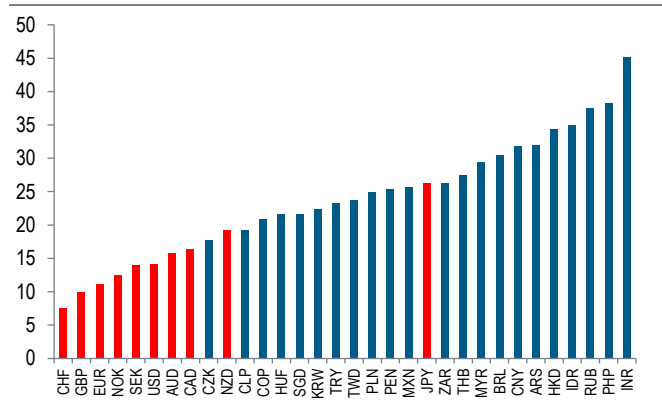
% of GDP, latest



Source: CEIC, local central banks, Standard Chartered Research

Figure 5: Food weight in CPI baskets

% (G10 red, EM blue)



Source: Macrobond, local central banks, local stats agencies, Standard Chartered Research



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