

# **FX** Insight

# Exploiting the $\underline{B}$ ehaviours, $\underline{A}$ symmetries and $\underline{D}$ ispersions in FX

#### **Environment of Increasing Fluidity**

Given the fluidity of ever-changing market events in the coming weekend, weeks and months relating to US-China trade deal onoff, central banks adopting pre-emptive measures tilting from hawkish to dovish and the potential re-escalation of geopolitical tensions between US and Iran, we aim to re-explore FX behaviours—in terms of their relationships with other key financial indicators—and provide opportunistic trading plays which will attempt to exploit risk-return asymmetries in different types of external environments.

#### Three FX Basket Plays: "Grey Swan", Defensive or Optimal

A "grey swan" scenario of protracted period of trade tension (with risk of new tariffs being added), alongside softer oil prices, Fed easing bias in response to downside risks to growth favors long JPY, CHF, PHP vs. Short CNH, TWD, KRW and CAD. As a subset of the "grey swan" scenario to position for defensive Relative Value (RV) play within the Asian FX space, our analysis suggests a RV basket FX play on long low-beta FX vs. short high-beta FX: long THB, PHP, JPY vs. Short in KRW, AUD, NZD. But in the optimal scenario of simultaneous occurrence post G20 meeting in Osaka, of (1) US-China trade truce (i.e. with chance of partial removal of tariffs); (2) Fed adopting an easing bias as seen from the last FoMC meeting; and an environment of supported oil prices, AUD, NZD, MYR and SGD will outperform. A continued protracted US-China trade/tech war would support the "grey swan" and defensive play related FX strategies mentioned above.

#### Monte Carlo Simulations to Uncover Dispersion & Asymmetries

Given the host of uncertainties that markets face now, we thought it would be useful to experiment with a simulation-based approach to tease out certain behavioral asymmetries and dispersion bands (uncertainty) among currency pairs. Results seem to point to THB's usefulness as a low-beta stabilizer in portfolios; PHP seems like a "safe bet" in terms of limited downsides under protracted trade tensions; KRW seems highly-sensitive and could potentially outperform if conditions shift sharply towards risk-on moods. Aside from KRW, there is also a possibility that IDR could outperform most Asian peers if a return to risk-on tones indeed set in, given its attractive carry play allure.

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#### Indeed Sell- in May Came (but Went Away Quickly Too!)

The "Sell in May" adage played out in full glory this year. In the FX space, between 30 Apr - 31 May 2019, almost all currencies were sold against the USD except for JPY, CHF and THB. Elsewhere, safe haven plays such as gold and bonds were in demand while equity indexes such as S&P 500, FTSTI were down nearly 7% and 8%, respectively.

#### The May Volatility Was Welcomed!

The escalation of the US-China trade war in May allowed us an opportunity to take profit on our opportunistic trades as stated in this report dated 14 May 2019. Even though we have held a moderately optimistic view of the US-China trade relations right from the start, the low volatility environment in 1Q and the potential for central bank policy divergence to slow gave us a window to initiate certain profitable trades and the subsequent surge in volatility in May thereafter gave us a collective gain of +7.6%.

#### FX Trade Ideas: Cumulative Return of Nearly 10% YTD

				P&L (Close			
Date	Trade	Objective	Entry	Price - Entry Price)	SL	Open/ Closed	Motivation
Date	11445	osjective	Linuy	Titley	52	Closed at	We look for USDJPY to trade lower on (1) expectations for UST- JGB yield differential to narrow (slowing Fed-BoJ policy divergence as Fed pauses) while (2) a case of more global growth downward revision could dampen risk appetite. [Risk:Reward ratio of 1:2.5] As of 14 May, trade was closed at 109.50 to lock is 1.97% profit.
8-Mar	Short USDJPY	108, 105	111.7000	1.90%	114.5000		Link to Report - What Makes FX SKip a Heartbeat
o-mai	Long 3month USD call on USDKRW (spot ref 1129; strike	106, 103	1148.2 as the	1.70%	114.5000	107.30	USDKRW vols have fallen from above 8-handle to around 6-handle (near 5-year low) and looks attractive to buy as a hedge in the event of a equity sell-off amid growth downgrades. A 3m call on USDKRW with strike at 1140 (spot ref 1129), 6.2 vol (offer), costs about US\$7,700 per notional size of US\$1mio. A move above 1148.2 (option breakeven) will see the trade profitable. Taking stock, USDKRW traded at 1186 (14 May). This represented a gross profit of +.3.8% when option is sold. Accounting for option cost,
	1140; BE at		breakeve	2 400/		Closed [14	net profit was +3.1%.
8-Mar	1148)	0.0815, 0.0840, 0.0860	n price	3.10%		Closed at	Link to Report - What Makes FX SKip a Heartbeat  Relative resilience in IDR over KRW as BI have monetary space to maneuver while Korea is facing slowing inflation, rising unemployment, downside risks to domestic growth. Trade has met first objective at 0.0815. We closed the trade at 0.0823 (14 May) to lock in +2.8% gain.
8-Mar	Long IDRKRW	(final)	0.0800	2.80%	0.0780	May 2019]	Link to Report - What Makes FX SKip a Heartbeat
16-Nov	Long THB and IDR vs. Short PHP in basket FX trade	100.56, 100.95, 101.34 (final)	99.5	1.85%	98.60	_	Differential in the ability of central banks (i.e. policy space) to hike policy rate that may translate into trading opportunities for ASEAN FX (long IDR, THB vs. short PHP). The basket trade exceeded our objectives to trade at a high of 102.80 (4th Feb Link to Report - ASEAN Neutral Rates: Ammunition Unravelled

Links to Reports: <u>ASEAN X Macro: What Makes FX Skip a Heart Beat;</u> ASEAN X Macro: ASEAN Neutral Rates: Ammunition Unraveled



#### Then, the USD Withered... So How Do We Trade in Such Volatility?

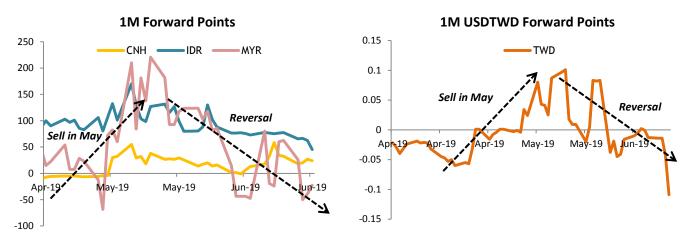
Since then, the USD has capitulated from the top of the 95-98 range that has contained the greenback since Nov 2018 back to the lower bound which brings to mind our last <u>ASEAN X Macro - Greenback to Wither as Green Shoots Flourish</u> dated 18 Apr 2019 where we had looked for USD strength to fade on a combination of factors including (1) Fed pause amid benign inflation environment; (2) moderation in US activity momentum while global activity is showing signs of stabilization; (3) more central bank shifting to patience and accommodative stance with their monetary policies and policymakers responding with fiscal support may prove to be timely to cushion against a deeper global growth slowdown and support sentiment; (4) growing optimism of a trade deal with US and China possibly coming earlier than later.

Within the piece, we also made the case that Fed's window to tighten further is about to be closed as the yield curve nears inversion. The Fed's policy bias has proven to be a key trigger for broad USD sales when Fed became outright dovish in its Jun meeting.

In tandem, pressure on Asian currencies also waned with forward points for a number of USDAXJ off their recent highs, reversed to pre-May levels. The past two months have demonstrated how events such as the trade war between the US and China, Fed's policy stance as well as those of other central banks can swing regional currencies.

We are faced with a few fluid situations at this point, not least of all the G20 Osaka Summit on 28-29 Jun, during which there could be a Trump-Xi meeting. In this report, we attempt to propose a few basket trade ideas based on our quantitative studies.

#### The 1M Forward Points for most USDAXJ Reverses Back to Pre-May Levels



Source: Bloomberg, Maybank FX Research & Strategy

Note: The above chart denotes the 1M forward points of USDCNH, 1M USDIDR NDF, 1M USDMYR NDF, 1M USDTWD NDF and 1M USDKRW NDF



## A Quantitative Feel of FX Behaviours

Given the fluidity of ever-changing market events in coming weekend, weeks and months relating to US-China trade deal on-off, central banks adopting pre-emptive measures tilting from hawkish to dovish and the potential re-escalation of geopolitical tensions between US and Iran, we aim to re-explore FX behaviours—in terms of their relationships with other key financial indicators—and provide opportunistic trading plays which will attempt to exploit risk-return asymmetries in different types of external environments.

There are 2 parts to our analysis.

First we extract simple historical betas<sup>1</sup> of changes in AxJ/USD exchange rates vis-à-vis changes in financial market variables. This is done to come up with broad characterisations of each currency pair's behaviour, in relation to movements in these financial indicators. For instance, when gold price changes, maybe as risk aversion rises, how do the different currency pairs tend to behave? We're aware of the limitations of such univariate approaches, but we also appreciate their simplicity in interpretation and usefulness as first-cut filters.

Using these betas, we broadly consider which currencies could potentially benefit more under different themes which could be more relevant in the next six months, including instances involving Fed monetary policy stance, trade tensions/truce and oil price movements.

Second, to hopefully pick up some nuances about the potential currency trajectories in the two quarters ahead, we turn to a simulation-based approach. This approach also adds value by allowing us to quantify the associated uncertainty bands associated with the estimated trajectories from a total of 10,000 simulations.

We do this for two broad scenarios, one involving a protracted period of trade tensions, and one involving a re-emergence of aggressive risk-on tones in global markets (perhaps from a confluence of quick diffusion in trade tensions, accommodative monetary policy and stronger-than-expected underlying growth trends). Likelihood of each scenario aside, comparing estimated currency trajectories under both scenarios could give us a sense of the risk-return trade-offs for different currency pairs.

Finally, some insights which we have gleaned from the above two quick analyses are utilised in conjunction with our understanding of current market conditions to construct several FX value plays in the last section of this report.

#### **FX Plays in Different Scenarios**

We extracted simple historical betas of changes in individual currency/USD exchange rates vis-à-vis changes in financial market variables, including S&P 500, MSCI AXJ equities, Gold, Brent, 3M Libor and USDCNH (proxy for trade policy tension) over a 13-year sample period from Jan-2006 to end May-2019. For instance, a beta of 0.53 (blue cell) between MSCI World and AUDUSD indicates that a 1% increase in MSCI World was consistent with a 0.533% rise in the AUDUSD pair historically (Jan 2006-May 2019).

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 $<sup>^{1}</sup>$  Historical betas are extracted via univariate regressions of y = c + bx, where y series are daily changes in individual currency/USD pair values and x series are the respective daily changes in financial indicators such as gold prices.



#### Historical Beta (Jan 2006- May 2019)

	DXY	USD-TWI	EUR	JPY	CHF	CAD	AUD	NZD	CNY	SGD	MYR	IDR	INR	THB	KRW	TWD	PHP	VND
Gold	-0.174	-0.095	0.189	0.132	0.223	0.159	0.226	0.230	0.016	0.104	0.066	0.070	0.087	0.066	0.108	0.041	0.054	-0.002
Brent	-0.061	-0.055	0.040	-0.038	0.034	0.126	0.147	0.108	0.006	0.048	0.066	0.040	0.039	0.024	0.082	0.030	0.036	0.001
S&P	-0.076	-0.075	0.126	-0.212	-0.007	0.276	0.404	0.357	0.006	0.114	0.105	0.122	0.097	0.046	0.264	0.067	0.074	0.004
MSCI World	-0.171	-0.167	0.216	-0.202	0.073	0.354	0.533	0.462	0.017	0.165	0.174	0.195	0.167	0.082	0.366	0.107	0.139	0.005
MSCI AxJ	-0.059	-0.101	0.057	-0.096	0.017	0.109	0.224	0.167	0.017	0.076	0.135	0.163	0.141	0.050	0.278	0.128	0.127	0.002
Fed Rate	0.015	0.139	-0.074	0.687	0.091	-0.261	-0.771	-0.658	-0.029	-0.015	-0.197	-0.107	-0.273	-0.156	-0.298	-0.106	-0.099	0.021
3M US LIBOR	0.473	0.808	-0.291	-1.981	-0.942	-0.265	-1.519	-1.278	-0.242	-0.759	-0.920	-0.500	-0.792	0.090	-0.297	-0.402	-0.674	0.189
US 2Y	1.472	-0.065	-1.031	-6.585	-3.641	1.737	2.025	1.368	-0.071	-0.129	0.408	0.681	0.335	-0.058	1.403	0.168	0.295	0.085
US10Y	0.397	-0.538	0.187	-5.627	-2.377	2.539	2.905	1.912	-0.039	0.455	0.841	0.678	0.704	0.119	2.016	0.409	0.643	0.073
2Y10Y diff	-1.244	-1.136	1.895	-2.582	0.156	2.924	3.062	2.026	0.011	1.137	1.201	0.396	1.049	0.328	2.182	0.633	0.920	0.062
3M10Y diff	-0.002	-0.407	0.317	-2.909	-1.024	1.429	1.078	0.745	-0.007	0.340	0.647	0.280	0.357	0.163	1.167	0.267	0.393	0.091
USDCNH	0.690	0.578	-0.751	-0.335	-0.504	-0.645	-1.038	-0.997	-0.571	-0.686	-0.669	-0.601	-0.648	-0.485	-0.991	-0.646	-0.446	-0.033

Note: Betas shown here are meant as a general indication of average currency (XXX/USD) sensitivity to changes in market variables over defined sample period of 2006 - May-2019. Sensitivities can increase or decrease when defined sample period changes.

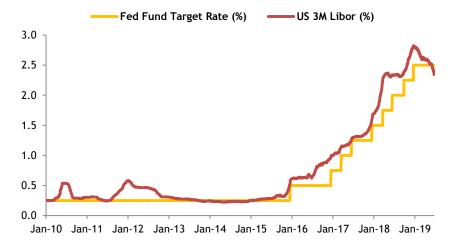
Source: Maybank FX Research & Strategy Estimates

We proceed to utilize some of the above indicators as proxies so as to sift out the currencies that would benefit from the three broad themes that are likely to dominate FX plays for the next few months.

- 1) Fed's Accommodative Monetary Policy
- 2) The Potential for a Trade Truce?
- 3) Oil Gains

#### 1) Fed's Accommodative Monetary Policy Stance

# US 3M Libor Normally Front-runs the FFTR because of market's expectations and Fed's Forward Guidance



Source: Bloomberg, Maybank FX Research & Strategy

An upcoming 25bps cut by the Fed is priced-in and more are looking for a 50bps reduction within a single FOMC sitting in Jul. We used 3M US Libor as a proxy for Fed rate action as the Fed has become increasingly preemptive over the years and market players typically price in a rate cut way before it happens. Changes in the 3M US Libor in the past decade track the Fed Fund Target Rate rather closely and is sometimes even, a leading indicator, swung by Fed's forward guidance and market's interpretation and expectation of its next move.

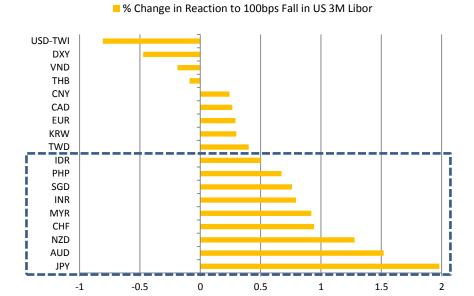
Looking at the historical betas, the currencies that benefit the most from a Fed that pursues a more accommodative monetary policy (as proxy by the declines in the US 3M Libor) include JPY, AUD, NZD and CHF.

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Within the ASEAN space, MYR, SGD, IDR and INR would get the strongest boost.

#### Currencies That Receive the Most Boost from an Easing Fed



Source: Maybank FX Research & Strategy Estimates, Bloomberg

The findings make sense as AUD and NZD have been pro-cyclical currencies for the most part of last decade and a fall in the rates would typically be positive for the antipodeans. The JPY has been sensitive to Fed's monetary policy too especially with its pursuit of negative interest rate monetary stance that increases the sensitivity of the JPY to changes in US rates. The negative yielding CHF also behaves somewhat like the JPY as well.

The outcomes of the findings as described give us more confidence in the result within the ASEAN space - that MYR, INR, SGD, PHP and IDR are sensitive to the changes in the Fed's monetary policy stance.

## 2) The Potential of a Trade Truce?

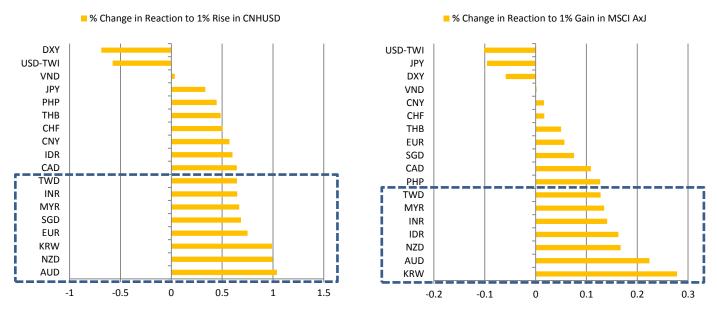
The biggest uncertainty that has been at the fore is the trade relations between the US and China. With a dinner proposed on 29 Jun after the G20 Summit ends in Osaka by two nations' leaders, market players seem to be repositioning for more positive developments from the Trump-Xi summit. After all, the last meeting which took place seven months ago, resulted in a trade truce and a risk rally for months after.

USDCNH has been seen as the barometer for progress in US-China trade talks. This is due to the fact that it is arguably driven by more speculative flows than the onshore USDCNY, and that there has been a general expectation that China would allow its currency to weaken as a cushion against the tariffs. Given that USDCNH could still have idiosyncratic drivers, we also like to take into account the sensitivity of the currencies to regional equities as denoted by MSCI Asia Ex Japan. Trade war escalation is normally characterized by a rise in USDCNH and decline in MSCI Asia Ex Japan.

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#### We look for those currencies that benefit most from a trade truce

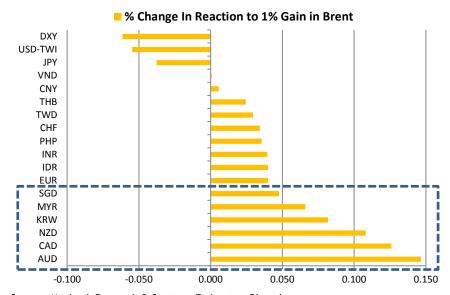


Source: Maybank Research & Strategy Estimates, Bloomberg

**AUD, NZD and KRW** are the most sensitive to both USDCNH and MSCI Asia Ex Japan. EUR also benefits but to a lesser extent within the G10 space. Within the ASEAN space, **CNH, TWD, SGD, MYR, INR and IDR** stand to benefit the most should US-China ties improve. Note that the study was done using USD as the base currencies.

#### 3) Oil Gains

#### Oil Typically Rallies in A Growth Environment, These FX Should Too



Source: Maybank Research & Strategy Estimates, Bloomberg

The rise in the crude between Jan-Apr may have been milder than what we have seen in 2018 but we do not want to rule out its potential effects on FX. Should the scenario 2 - Potential of a trade truce becomes a reality, it is useful to have a sense of which currencies seem to have the highest beta vs. brent crude according to our 13-year sample. We found that AUD, NZD, CAD, KRW, SGD and MYR are the most sensitive to oil swings.

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## Simulation-based Approach: Uncovering Dispersion & Asymmetries

To get a sense of the potential trajectories and uncertainty bands which Asian currency pairs could trade in under distinctly different external conditions, we apply a Monte Carlo simulation approach. The simulations cover around 130 trading days or two quarters — any extension beyond two quarters would presumably be less realistic as shifts in asset behaviours would likely have happened by then.

We choose two broad scenarios, one involving a protracted period of trade tensions, and one involving a re-emergence of aggressive risk-on tones in global markets. While this is largely a hypothetical exercise, we suggest that exploring how currency pairs perform under these two types of distinct external conditions would help form some sort of "behavioural bounds" to our views of currency trajectories.

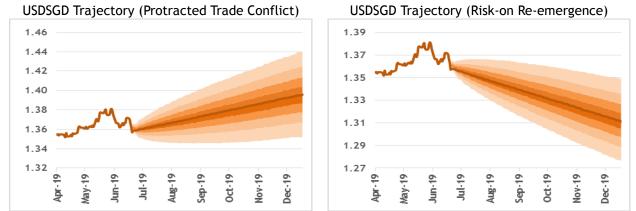
#### Methodology

The simulation design is relatively simple, outlined in steps (i) to (v) below. More details can be found in the Appendix.

- (i) Four distinct indicators were chosen to proxy for different market conditions:
  - a. Gold price (risk aversion proxy)
  - b. MSCI AxJ (sentiment proxy)
  - US 10Y-2Y Bond Yield Diff. (long-term growth expectations proxy)
  - d. USDCNH (trade tension proxy)
- (ii) The behaviour (means and standard deviations) of these indicators were extracted from two main historical periods:
  - a. 2H 2018 chosen as the period reflecting conditions akin to that of a "protracted trade conflict". Gold rose, MSCI AxJ saw double-digit dips, US 10Y-2Y yield differential declined, USDCNH increased.
  - b. Jan-Apr 2018 chosen as the period reflecting conditions akin to that of an aggressive "risk-on re-emergence" in global markets. Gold price was largely unchanged, MSCI AxJ saw double-digit increase, US 10Y-2Y yield differential rose modestly, USDCNH dipped.
- (iii) Daily values (changes) for these four indicators were simulated, across 130 trading days (~2 quarters), using their distributional characteristics in (ii).
- (iv) <u>Conditional</u> Betas were then applied to the values of the four indicators in (iii) to derive trajectories for currency pairs. E.g., "Protracted trade conflict" Betas were derived only from daily data on days which saw both a rise in USDCNH and a fall in the MSCI AxJ index. "Risk-on Re-emergence" Betas were derived only from daily data on days which saw (i) a rise in US 2Y bond yields and (ii) a rise in S&P500 index.

Repeat (iii) and (iv) for 10,000 simulations per currency pair/scenario.

#### Example of Distributional Outcomes: Fan Charts for USDSGD Pair



Note: Dark line represents actual historical data up to 20<sup>th</sup> Jun 2019 and median simulated currency trajectory. Each colored shading band is a 10% outcome range, with the top and bottom bands representing 90-percentile and 10-percentile outcomes respectively.

Source: Maybank Research & Strategy estimates

The two fan charts above showcase the results of the Monte Carlo exercise for the USDSGD pair. As expected, SGD depreciates against the USD under a case of protracted trade tensions, potentially heading towards the 1.40-level (median estimate) by year end. The uncertainty bounds are relatively wide, with the 10-percentile and 90-percentile outcomes at 1.353 and 1.441 respectively. On the other hand, a case of re-emergence in global risk-on tones could see USDSGD falling towards 1.31-levels, with similarly wide uncertainty bands.

More charts can be found in the Appendix. For now, the table below shows a quick summary of the various distributional outcomes for some Asian currency pairs.

# % Changes in Currency Pairs by End-2019 Under Different External Conditions

	Protra	cted Trade ( (% Change)	Conflict	Risk-on Re-emergence (% Change)				
	10- percentile Median		90- percentile	10- percentile	Median	90- percentile		
SGDUSD	-5.7	-2.7	0.4	0.7	3.6	6.5		
MYRUSD	-8.1	-4.2	-0.1	1.5	4.3	7.1		
IDRUSD	-5.5	-2.6	0.3	2.1	4.9	7.8		
THBUSD	-2.9	-1.0	1.0	0.3	2.1	4.1		
KRWUSD	-9.2	-4.6	0.3	3.8	9.1	14.7		
PHPUSD	-4.1	-2.1	0.1	1.6	3.6	5.8		

Note: Starting points of currency pair values are as at 20 June 2019. 10-percentile, median and 90-percentile values refer to the respective percentile values out of a range of 10,000 simulated outcomes as at end-2019, under external conditions specified in each scenario.

Source: Maybank FX Research & Strategy Estimates

Comparing different currency pairs' median outcomes, we see that even within the same scenario, median % changes and dispersion ranges vary significantly among currencies.

#### THB as Low-Beta Stabiliser in a Basket Portfolio

For instance, THB could potentially see the least negative impact (-1.0%) over the next 2 quarters under a continued trade conflict. This outcome is actually consistent with certain factors lending support to the THB in the short-term, even under trade conflict stresses. For instance, it is



expected to have a relatively healthy current account balance (house view of 6.5% of GDP this year). It would also take a greater degree of economic fallout from the trade conflict for BoT to cut rates, as compared to other AxJs, given financial stability concerns. This could help maintain relative yield differentials in Thailand's favour. However, in the event that conditions shift rapidly towards risk-on moods, THB's potential gains (+2.1%) would also likely be capped.

Notably, the dispersion of the range of outcomes surrounding THBUSD (10-percentile/90-percentile at -2.9% to +1.0%) is also the narrowest among currency pairs, indicating some form of resilience against shocks.

#### PHP as "Safe Bet"

In the case of PHP, depreciation pressures under trade conflict conditions (-2.1%) are also likely manageable, even though this is expected to be modestly greater than THB's. However, in a reversal towards risk-on moods, it could see modestly greater returns (+3.5%). The dispersion of the likely range of outcomes (-4.1% to 0.1%) is also relative tight, giving a tad of assurance that losses, if any, could be relatively contained.

#### SGD, MYR with Balanced Risk-Returns

SGD and MYR seem more balanced in terms of risk-return trade-offs under both scenarios, i.e., they seem to be exposed to upsides and downsides to fair extents. This seems rather intuitive, given that both economies are relatively trade-dependent, but also have robust fundamentals (positive current account balances for both, resilient GDP growth in Malaysia, Singapore's financial hub status) to leverage on in a case of risk-on re-emergence. We also note the relatively large dispersion outcomes for MYR (-0.1% to -8.1%) if trade tensions remain protracted.

#### Highly-sensitive KRW; Some Asymmetries in KRW, IDR Simulations

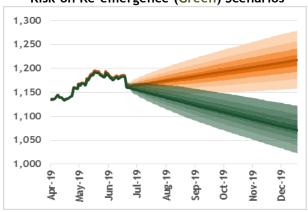
The KRW could potentially be the most battered (-4.6%) among the listed currencies under a protracted trade conflict, consistent with Korea's role in the global tech/semiconductor supply chain and its bleak (and worsening) export performance since late-2018.

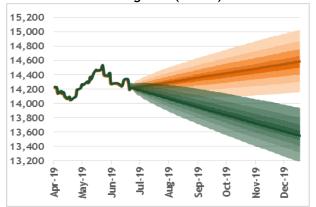
However, in a scenario of financial markets melt-ups, especially if investors start positioning for longer-term positivity in capital investments (e.g., PCs, servers), could affect Korea positively in an amplified manner. Aside from KRW, there is also a possibility that IDR could outperform most Asian peers if a return to risk-on tones indeed set in, given its attractive carry play allure

These asymmetries can be seen to a certain extent via the steeper gradient of the (green) down-slopes (i.e., greater KRW and IDR appreciation vs. USD) in a risk-on environment.

#### USDKRW in Protracted Trade Conflict (Brown) Vs. Risk-on Re-emergence (Green) Scenarios

#### USDIDR in Protracted Trade Conflict (Brown) Vs. Risk-on Re-emergence (Green) Scenarios





Note: Admittedly, real-world developments are way more complex than simulation environments, and the extent of upward/downward pressures on currency pairs will depend on the exact nature of the trade war/truce/deal that plays out.

Source: Maybank FX Research & Strategy Estimates

#### FX Implication and Opportunistic Relative Value Plays

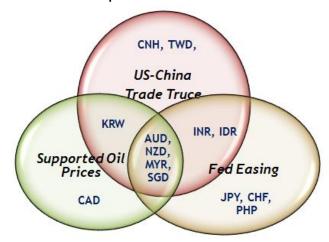
Our analysis of FX behaviors in light of prevailing and evolving market thematics further reinforced our FX house views. There are also a few relative value plays that we believe could pan out over the coming months.

#### An Optimal Case: Long AUD, NZD, MYR, SGD

For a start, let's consider an optimal scenario of simultaneous occurrence of (1) US-China trade truce (i.e. no plans to further increase tariffs from either party); (2) Fed adopting an easing bias as seen from the last FoMC meeting (20th Jun); and environment of supported oil prices (on the back of renewed demand amid OPEC's commitment to continue with production cuts). In this optimal scenario, our sensitivity analysis shows AUD, NZD, MYR and SGD will outperform.

## AUD, NZD, MYR and SGD to Benefit Most in a Simultaneous Occurrence of Trade Truce, Fed Easing and Supported Oil Prices

Which FX to Outperform under the Three Scenarios



Note: Venn diagram constructed based on betas of FX to various market variables over sample period Jan-2006 to May-2019.

Source: Maybank FX Research & Strategy Estimates





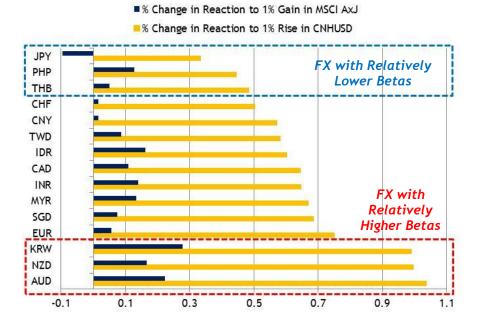
#### "Grey Swan": Long JPY, CHF, PHP vs. Short CNH, TWD, KRW and CAD

We do not rule out the likelihood of the optimal case but our house view is a "grey swan" scenario, taking into consideration the re-escalation in "tit-for-tat" tariffs and non-tariff actions. This scenario encompasses a protracted period of tension and "lines of communication" remain open. A case of protracted US-China trade talks (with risk of escalation but short of no-deal) alongside softer oil prices and Fed easing bias in response to downside risks to growth could see JPY, CHF and PHP retaining their relative strength while CNH, TWD, KRW and CAD underperform.

#### Defensive Play: Long THB, PHP, JPY vs. Short KRW, AUD, NZD

As a subset of the "grey swan" scenario to position for defensive Relative Value (RV) play within the Asian FX space, our analysis shows that THB, PHP and JPY are relatively more resilient than KRW, AUD and NZD in an environment of protracted US-China trade talks (proxied by CNH depreciation and decline in MSCI AXJ equities). Betas of KRW, AUD and NZD are about twice that of THB, PHP and JPY with movements in CNH and MSCI AXJ equities.

#### Long Low-Beta FX vs Short High-Beta FX in Defensive RV Basket Play



Source: Maybank FX Research & Strategy Estimates

This is also consistent with our house view's constructive bias for THB, PHP and JPY.

In particular we are broadly constructive on the outlook of PHP on a combination of factors including (1) receding political uncertainties as recent mid-term elections gave President Duterte a strong mandate to continue with his policies; (2) recent move by S&P to upgrade Philippines sovereign credit rating to BBB+ which is expected to be supportive of further foreign inflows; (3) BSP's RRR cut though may weaken the peso but is supportive of growth and activity; (4) softer oil prices in the



interim (as demand could soften owing to US-China "grey swan" scenario) to help net oil importing FX such as PHP and INR; (5) PHP less vulnerable amongst AXJ FX in the environment of US-China trade tensions; and (6) though Philippines suffers from current account deficit, the deficit-to-GDP ratio is improving and is not a top concern as deficit is investment-driven and have been funded by relatively healthy inflow from tourism, Business process outsourcing receipts and OFWR.

We are also constructive on THB for its relatively healthy current account surplus (our house view forecast: 6.5% of GDP in 2019) and relative stability in monetary policies (i.e. BoT likely to stand pat on monetary policy vs. BoK, RBA, RBNZ on easing bias). We do however acknowledge there may be some risk of political uncertainty (such as razor-thin majority of the junta-led coalition increasing difficulty in passing meaningful policy) that could pose downside pressure on THB.

We continue to see a case of downward trajectory for USDJPY or JPY strength on (1) protracted US-China trade talks resulting in a "grey swan" between US and China and (2) risk of further growth slowdown in Japan owing to weak domestic demand and little in the room for BoJ to ease monetary policies further given its ultra-loose setting. In addition, the government could raise VAT to 10% in Oct-2019. This could further dampen consumption and weigh on Japanese equities and USDJPY. So in an environment of general dollar weakness emanating from a more certain Fed easing trajectory coupled with a view that BoJ has limited room to ease monetary policy as well as JPY fair value at around 95-100, makes USDJPY move downwards supported and fits our constructive bias for the JPY. However, any positive news on the US-China trade dispute, improved Japanese activity data, and renewed GPIF purchases of foreign assets could temporarily limit JPY strength.

#### In Light of G20 Summit in Osaka...

G20 Summit in Osaka over the weekend (starts today with a key focus on Xi-Trump meeting on Sat at 1130am).

Much uncertainties remain over whether: (1) trade tensions, tech war will escalate further resulting in full-blown trade war (new tariffs being added) with all lines of communication cut (worse case) or; (2) if there will be some compromise leading to a trade truce (akin to the G20 in Bueno Aires) with chance of (partial) removal of tariffs (optimal case) or; (3) it could result in a "grey swan" (basically no deal/protracted trade war with risk of new tariffs being added) but lines of communication still open (our house base-case view and probably a market consensus as well).

If the "grey swan" view materialized, then there could be some market disappointment. AXJs including CNH, TWD, KRW and CAD could come under pressure while JPY and CHF could outperform.

But if we get an optimal outcome (as highlighted in scenario 2 above), AUD, NZD, MYR and SGD will outperform (and vice versa for scenario 1).



# Appendix: Technical Details on Simulations

This appendix will list down some of the technical details associated with the simulation analysis on Asian currency trajectories. Please refer to the main text for simulation design.

As mentioned, changes in the four main financial indicators are assumed to be drawn from normal regressions in the exercise. Their means and standard deviations (of <u>daily changes</u>) are as shown:

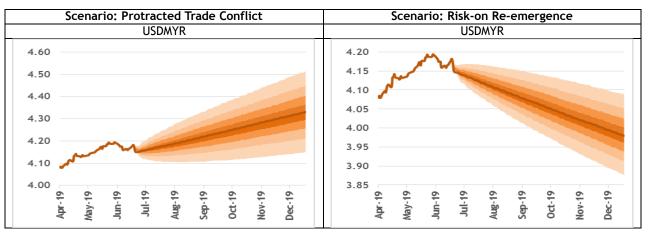
		Gold (% Change)	MSCI AxJn (% Change)	US 10Y-2Y Yield Diff. (BPs Change)	USDCNH (% Change)
Protracted Trade Conflict	Mean	0.0199	-0.0856	-0.10	0.0273
(Mirroring 2H 2018)	Std Dev.	0.6138	1.0497	1.76	0.3750
Risk-on Re-emergence	Mean	0.002	0.148	0.05	-0.023
(Mirroring Jan-Apr 2019)	Std Dev.	0.552	0.742	1.37	0.247

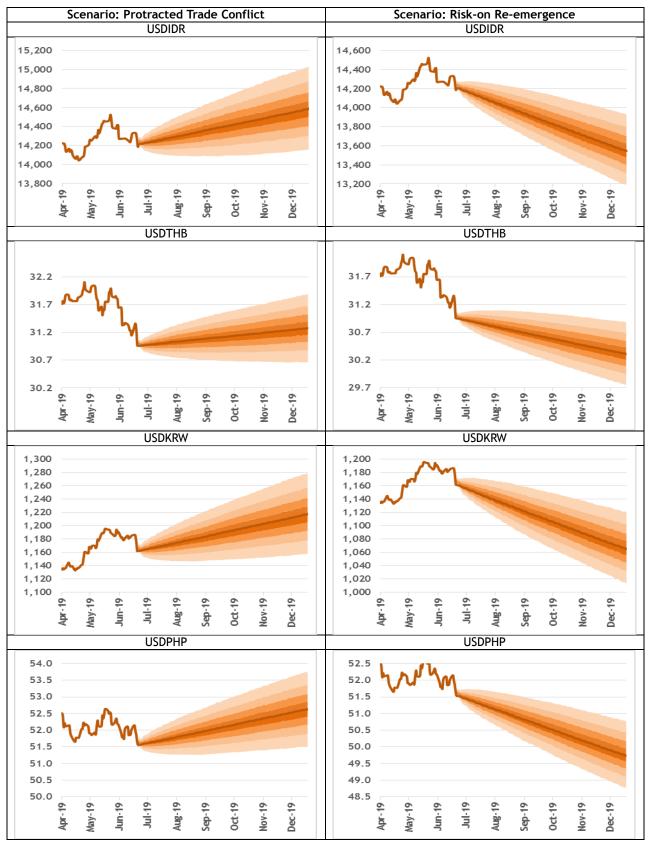
Conditional Betas were derived for each financial indicator/currency pair, for each scenario separately. "Protracted trade conflict" betas were derived only from daily data on days which saw both (i) a rise in USDCNH and (ii) a fall in the MSCI AxJ. "Risk-on Re-emergence" Betas were derived only from daily data on days which saw (i) a rise in US 2Y bond yields and (ii) a rise in S&P500 index.

Using Gold/MYRUSD/risk-on as an example, a beta of 0.06 means that a 1% change in gold price is broadly associated with a 0.09% change in SGDUSD in a risk-on environment. Respective Betas used are as shown:

Conditional Be	SGDUSD	MYRUSD	IDRUSD	THBUSD	KRWUSD	PHPUSD	
	Gold	0.09	0.04	0.05	0.13	0.07	0.03
Protracted Trade Conflict	MSCI AxJ	0.07	0.20	0.11	0.02	0.18	0.08
	US 2Y10Y Diff	2.01	2.61	-0.37	0.81	1.66	1.32
	USDCNH	-0.52	-0.51	-0.44	-0.28	-0.72	-0.31
	Gold	0.09	0.06	0.05	0.05	0.13	0.04
Risk-on Re-emergence	MSCI AxJ	0.07	0.12	0.16	0.04	0.30	0.12
_	US 10Y2Y Diff	1.22	1.05	0.60	-0.18	2.62	0.98
	USDCNH	-0.71	-0.62	-0.59	-0.50	-1.00	-0.43

#### Additional Monte Carlo Charts:





Note: Dark line represents actual historical data and (median) simulated currency trajectory. Each colored shading band is a 10% outcome range, with the top and bottom bands representing 90-percentile and 10-percentile outcomes respectively.

Source: Maybank FX Research & Strategy Estimates



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