Trade Book: Model Portfolio Performance and Recommended Trades

Alan Brazil September 2018 Month End

Trade Book: Model Portfolio Performance and Recommended Trades

Update on Performance, and the Portfolio

Historical Performance As of September 28, 2018

		Investme	ent (MM)	Cumulative Total Return (%)	
Positions	Number Trades	Initial	End of Sept	End of Sept	Last Month
Open	6	30	30	-0.4%	13.0%
Closed	21	105	285	171.2%	176.0%
Total	27	135	315	133.1%	138.5%

Commentary

- Model portfolio had a tough month
 - EM, particularly Brazil bounced back
 - The Euro strengthened a bit
 - The performance of the higher rates trade offset some of these, leaving the c
 TROR to zero on the current 6 recommend trades
- I only did one trade over the month with Restriking the October 7300 put on Brazil equities to 6800 with a December expiry
- I addition, I moved my EV trade into a new section on prospective Macro themes but without near term repricing events
 - This is where the EV should have been all along
 - Going forward, I will use this section to highlight potential macro themes that are interesting but not yet ready for prime time

Trade Book: Model Portfolio Performance and Recommended Trades

Update of Current Recommended Trades As Of September 28, 2018

Step 4: Find Asymmetric Trades

	Initial Position					Current Valuation (9/28/18)			
Trade	Date	MM/Shares	Price	Face (MM)	Investment (MM)	Price	Investment (MM)	Total Return	
Buy December 2018 7% OTM Put on EM Equites	28-Jun-18	295	1.7	5.0	5.0	1.5	4.4	-12%	
Buy Bovepa 10% OTM puts for Dec	13-Sep-18	13513	370.0	5.0	5.0	157.0	2.1	-58%	
Sell CNH One Year Forward vs USD	25-Jul-18	100	100.0	100.0	5.0	103.5	8.5	70%	
Buy Dec Euro Puts/Dollar Calls, 1.13 strike	29-May-18	454	1.10	5.0	5.0	0.7	3.2	-36%	
Short AAA CMBX/Buy Protection on IG	25-Jul-18	-250	100.0	250.0	5.0	100.0	5.0	0%	
1/5 Payer Swaption 3% Strike	22-Mar-18	556	0.9	5.0	5.0	1.2	6.7	33%	

Trade Book: Model Portfolio Performance and Recommended Trades

Closed Recommended Trades As of September 28, 2018

Step 4: Find Asymmetric Trades

		Initial Position				Closed Valuation/Performance				
					Investme	ent (MM)				
SOM Strategy	Trade	Date	MM/ Shares(000)	Price	Face Value	Actual	Date	Price	Investment (MM)	Total Return
Abenomics	Long a 6-month Call 17000/19000 call spread on Nikkei	9-Sep-16	76.9	6.5	y arue 5	Actual 5	17-Jan-17	14.0	10.8	115%
Abenomics	Long a 6-month Call 15000/17000 call spread on Nikkei	24-Jun-16	62.5	8.0	5	5	9-Sep-16	18.5	11.6	131%
Brazil	Long Mxn Peso vs Short Brazilian Real at 6.1	8-Nov-16	100.0	100.0	100	5	3-Jan-17	95.0	0.0	-100%
Brazil	Long a 6-month 61000 strike put on Bovespa	31-Oct-16	248.8	2.0	5	5	21-Dec-16	5.7	14.2	184%
Credit is Not a Bubble	Short 5-yr HY CDS	5-Sep-17	400.0	330	400	5	22-Mar-18	345	8.6	72%
Credit is Not a Bubble	Short 5-yr IG CDS at 66 bp	22-Mar-18	-333	66 bp	333	5	25-Jul-18	59 bp	6.90	38%
Greece	Long 30yr GGBs	24-Mar-17	29.3	68.2	20	5	7-Feb-18	114	13.4	269%
Greece	Long basket of Greek banks	25-Mar-17	899.0	1.1	10	5	15-Aug-17	2.1	19.1	182%
Position For Higher Rates	1/10 Payer Swaption 2.5% Strike	9-Nov-16	333.3	1.5	5	5	9-May-17	1.4	4.7	-7%
Position For Higher Rates	1/5 Payer Swaption 2.5 % Strike	9-May-17	625.0	0.8	5	5	22-Mar-18	1.5	9.4	88%
Strategies For BREXIT	Short GBP vs USD at 1.33	1-Jul-16	159.0	100.00	159	5	11-Oct-16	108.27	13.4	263%
Strategies For Trumpanomics	Long Regional banks	9-Nov-16	1.1	46.5	50	5	25-May-18	64.2	24.1	382%
Strategies For Trumpanomics	Long Materials sector	9-Nov-16	1.04	48.3	50	5	14-May-18	59.6	16.7	235%
Strategies For Trumpanomics	Long Mortgage Insurers and Home Builders	9-Nov-16	2.3	21.7	50	5	14-May-18	26.6	16.2	224%
Strategies For Trumpanomics	Long S&P500	9-Nov-16	0.46	216.0	100	5	4-Dec-17	265	27.7	455%
Strategies For Trumpanomics	Best of Puts Euro, Yen vs USD	9-Nov-16	625.0	0.8	5	5	23-Dec-16	3.7	23.1	363%
The Normalization of The EMU	Long EMU Bank Equities	29-Dec-17	0.32	156.7	50	5	24-May-18	141.0	0.0	-100%
The Return of The King: Long the Dollar	Buy 9-month Euro Puts/Dollar Calls, 1.21 strike	11-Apr-18	515	0.97	5	5	29-May-18	5.80	29.9	498%
Stronger Dollar Part IIPosition For A Weaker EM	Buy December 2018 7% OTM Put on EM Equites	11-Apr-18	285	1.75	5	5	28-Jun-18	3.75	10.7	114%
Stronger Dollar Part IIPosition For A Weaker EM	Buy USD, Sell A Basket of EM Commodity FX (BRL, RUB, ZAR)	11-Apr-18	100	100.0	100.0	5.0	12-Jul-18	110.5	15.50	210%
Stronger Dollar Part IIPosition For A Weaker EM	Buy Bovepa 10% OTM puts for October	25-Jul-18	13513	370.0	5.0	5.0	13-Sep-18	800.0	10.8	116%

State Of the Markets: The Return of The King—Positioning For A Stronger Dollar

• Step 1: Macro Theme: The Return of The King—Positioning For A Stronger Dollar

- The USD has depreciated substantially over the last year, with more depreciation priced in the future
- The USD could rebound as the forces that drove the weakness fade and potentially reverse

• Step 2: Fundamental Economic Framework

- The USD is weaker because growing US deficits increased the risk that they could push the current account wider--the "Twin Deficits" theory
- The USD is weaker despite substantially higher interest rates than Japan/Europe because of the expectation that their central banks will also normalized monetary policy given recent economic trends
- The USD is weaker because the current budget problems of the US could accelerate the move to the RMB as the new world reserve currency
- However, the "Twin Deficits" theory is not supported by the data, as the opposite seems to hold true, as historically the private sector has increased savings to offset increased public borrowing
- Japan/Europe may not normalize their monetary policy as growth and inflation are fading, while US growth is still strong
- The USD will remain king as the dominate world reserve currency as the RMB is a long way from being a viable substitute

• Step 3: Find Potential Repricing Events

- The USD could strengthen if US private saving could increase offsetting the pressure on the USD from rising deficits
- The USD could strengthen if current wide interest rate differential weigh on the Euro and Yen as slowing economic growth and inflation reduces the probability of a change in their monetary policy
- The USD could strengthen as the interest rate spread differential widens versus current market pricing if US growth accelerates and the FED actually follows the "Dots".
- The USD could strengthen from an increase in capital inflows from Europe reflecting the impact of US tax reform
- The USD could strengthen as the impracticality of replacing it with the RMB gets highlighted as world trade continue accelerates

Step 4: Find Asymmetric Trade

- Trade 1: Buy Euro Puts/USD Calls

State Of the Markets: The Return of The King—Positioning For A Stronger Dollar

Step 4: Find Asymmetric Trades

Trade 1: Position For A Stronger USD—Buy OTM EUR Puts/Dollar Calls

Trade Thesis

- USD could rebound from current weakness
 - Impact on USD from rising "Twin Deficits" from increasing federal borrowing could be offset by rising private savings
 - Continued Economic growth in the US/weakening growth in Europe could further widen interest rate differentials
 - World trade growth will increase demand for USD given that RMB is not yet a viable alternative for trade denomination
 - US tax reform could increase demand for USD vs Euro from a substantial increase in capital flows into the US from Europe
- Buy 9-month OTMF of Euro Puts/USD calls

Risk is continue weakening of USD

Euro Looks Vulnerable if ECB Does Not Normalize Rates¹



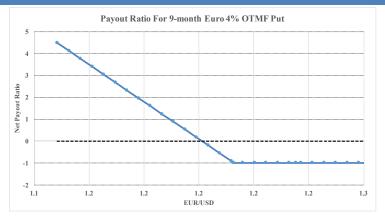
1. Bloomberg

2. BIS Quarterly review, March 2018

Rebound Could Be Swift Given Current Positioning²



Potential Net Payouts of Euro Put/USD Calls



State Of the Markets: Stronger Dollar Part II—Position For Weaker EM

• Step 1: Macro Theme: Potential Impact of a Stronger Dollar on EM

- The USD depreciation since the end of 2015 could reverse as US continues to grow, while the ROW slows
- EM could weaken as the dollar strengthens along with rising US rates—the real "taper tantrum"

• Step 2: Fundamental Economic Framework

- The dollar has weakened against a backdrop of synchronized growth across advanced and EM economies
- The weaker dollar explains much of the synchronized growth particularly for EM
- A stronger dollar could weaken EM GDP substantially and domestic growth even more
- Commodity prices, another source of EM growth, could also weaker with a stronger dollar
- EM relies on a substantial flow of external capital, most of it denominated in USD

• Step 3: Find Potential Repricing Events

- The USD could strengthen if the BOJ and the ECB do not raise rate if Japanese and European economies slow
- The USD could strengthen versus pricing if the US economies continues to grow and the Fed raises rates higher and faster versus current pricing
- The unwind of QE could put reverse the flows of capital into EM, which has supported their growth
- Pressure on EM FX and EM rates/Central banks could also create a headwind to EM growth by increasing the cost of capital
- EM banks could tighten credit and slow EM economies as NPL surge with higher funding costs and weakening domestic growth

• Step 4: Find Asymmetric Trade

- Trade 2: Buy USD, sell a basket of EM commodity currencies
- Trade 3: Buy OTM puts on EM equities

State Of the Markets: Stronger Dollar Part II—Position For Weaker EM

Step 4: Find Asymmetric Trades

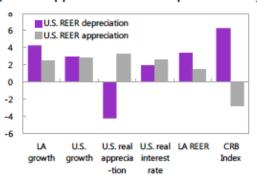
Trade 2: Position for A Stronger Dollar — Buy USD Against EM Commodity Country FX

Trade Thesis

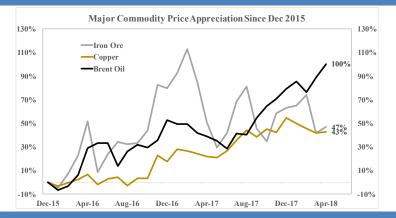
- USD could strengthen
 - The dollar could strengthen as the Fed could continues to raise rates and unwind QE as the US economy continues to grow
 - Capital flows into the US spurred by tax reform could also strengthen the dollar result is a strengthening of the USD
- EM commodity country FX could weaken as their economies slow
 - External capital flows could dry up and reverse
 - Dollar funding costs could rise with higher US rates and stronger USD
 - Commodity income could fall as commodity prices fall in the face of a stronger US
 - Domestic credit growth could decline in face of rising problem loans
- Buy USD vs a basket of EM commodity country FX (BRL, RUB, ZAR)

Dollar Highly Correlated With Commodities and EM1

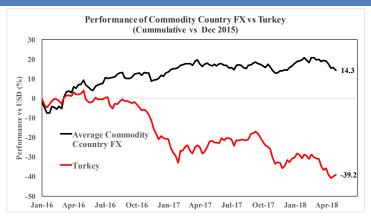
Figure 6. Appreciation and Depreciation Cycles



Commodity Prices Have Surged As The USD As Deprecated...²



Which Has Supported Commodity Country FX vs Other EMs²



^{1.} Druck, Magud, Mariscal, "Collateral Damage: Dollar Strength and Emerging Markets' Growth", IMF Working Paper, 15/179

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State Of the Markets: Stronger Dollar Part II—Position For Weaker EM

Step 4: Find Asymmetric Trades

Trade 3: Position For A Down Turn In EM—Buy Puts on EM Equities

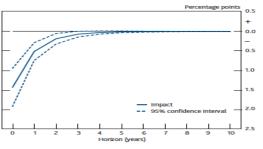
Trade Thesis

- Dollar strength could slow economic growth and that could reverse the recent rally in EM equities
 - Stronger dollar and higher borrowing cost could push cost of external capital substantially higher
 - Slowing domestic credit growth as banks scale back lending as NPLs rise
 - Domestic income growth slows if commodity prices fall with the stronger dollar
- EM equities prices could also fall if retail investors sell positions driven by another EM crisis
 - Taper tantrum II
- Buy 5% OTM puts with December 2018 expiry for 3.5%

EM Economies Could Slow If The Dollar Appreciates¹

Summary chart Average real GDP growth reaction in emerging market economies to a 10% US dollar appreciation^(a)

Percentage points 0.5

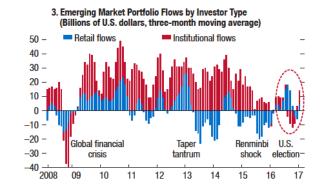


Source: Bank calculations.

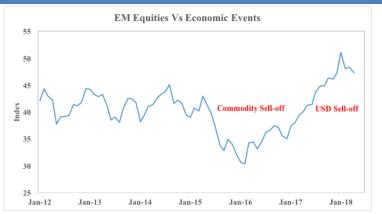
(a) Response obtained using a Panel Vector Autoregressive (PVAR) model described in the annex.

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An EM Slowdown Or Crisis Could Created Outflow By Retail²



Rally In EM Equities Could Reverse From An Appreciating USD³



 [&]quot;The global role of the US dollar and Its consequences", Quarterly Bulletin, 2017 Q4 Authors' Calculation
 IMF, Global Financial Stability Report, April 2017

State Of the Markets: Position For A Weaker EM—Shorting Brazil

- Step 1: Macro Theme: Position For A Weaker EM--Shorting Brazil
 - The Brazil economy looks to be softening, with the election looming
 - Brazil asset are starting to price in a return of stress and recession but is there more repricing to come?
- Step 2: Fundamental Economic Framework
 - The USD strength and rising US rates have started to be reflected in the Brazil real economy
 - That headwind to growth has revealed a Brazil economy with substantial vulnerabilities
 - Low savings and investment rates
 - Dependency on external capital
 - · Falling capital investment and inadequate investment in infrastructure
 - Poor labor quality but with rising demand for jobs
 - Rising government debt loads
 - Rising pressure from pension spending
- Step 3: Find Potential Repricing Events
 - The USD could strengthen further, while the Fed raises rates higher which would put pressure on the Brazil economy
 - Election could result in no pension reform
- Step 4: Find Asymmetric Trade
 - Trade 1: Puts on Brazil equity

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State Of the Markets: Position For A Weaker EM—Shorting Brazil

Step 4: Find Asymmetric Trades

Trade: Buy 3-month Puts On Brazil Equities

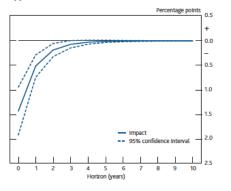
Trade Thesis

- Dollar strength could slow economic growth and that could reverse the recent rally in Brazil equities
 - Stronger dollar and higher borrowing cost could slow the Brazilian economy
 - Slowdown reveals substantial vulnerabilities and no real engine of growth
 - Election could result in more pressure if no consensus emerges on pension reform
- Brazil equities look overvalued without a pickup in growth
- Buy 5% OTM puts with December 2018 expiration

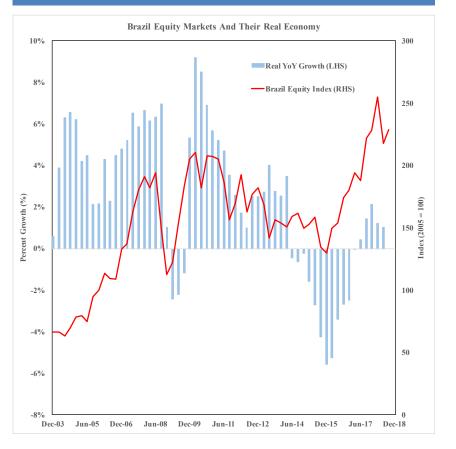
Risk is Brazil economy rebounds

Dollar Strength Could Slow The Brazil Economy

Summary chart Average real GDP growth reaction in emerging market economies to a 10% US dollar appreciation^(a)



Recent Prices Look Rich Versus The Real Economy



State Of the Markets: The Coming Economic War Between the US and China

• Step 1: Macro Theme: The Coming Economic War Between the US and China

- The Trump administration is determined to engage in an economic war with China
- They believe that China has been actively engaged already in this war, which goes far beyond trade
- The question is how far will the US go to win this war, and how will China respond?

• Step 2: Fundamental Economic Framework

- The US trade balance with China is growing
- China is escalating their acquisition of intellectual capital both directly and indirectly
- China has put barriers to US technology companies entering into China

• Step 3: Find Potential Repricing Events

- The Trump administration now has the power to impose unlimited tariffs on a range of China imports
 - They followed the protocol of section 301 of the 1974 Trade Expansion Pact
- Trump's aggressive stance towards China was one of the main components of his contract with America during the 2016 campaign
 - He has delivered on pretty much every other component of this contract
 - Mandate from 2016 partly driven by impact of Chinese imports on voting patterns in the rust belt
- China may retaliated through a variety of channels beyond increasing tariffs on US imports
 - Imposing tariffs is a losing strategy for China given the current trade imbalance
 - · Constrain access to US markets for US technology companies
 - Use their demand for oil to disrupt US foreign policy

• Step 4: Find Asymmetric Trade

- Trade 1: Receive USD and Sell CNH on a forward basis
- Trade 2: Buy puts on USD based EM equities
- Trade 3. Buy tail protection on highly rated corporate credit

State Of the Markets: The Coming Economic War Between the US and China

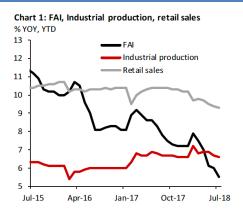
Step 4: Find Asymmetric Trades

Trade 1: Position For A Weaker RMB

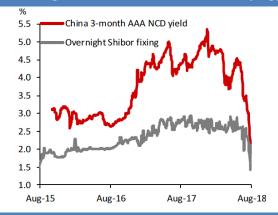
Trade Thesis

- Fed policy could strengthen the USD against all currencies
 - Reversing QE
 - Raising rates
- China could weaken the RMB for a variety of reasons both directly and indirectly
 - They could weaken their currency to offset the impact of tariffs
 - They could weaken their currency by lowering policy rates to spur their
 - They could weaken their currency to reignite trade as an engine of growth
 - They could weaken their currency to retaliate against US tariffs
- Buy USD and sell CNH using a 1-year forward contract

US Is Raising Rates While China Is Lowering Rates¹



China Trade Engine Has Slowed As Their Currency Appreciated¹



China Has Plenty of Room to Depreciate²



Chow, 'Trade war taking a toll on China; expect more policy support", DBS Economics, August, 14, 2018

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State Of the Markets: The Coming Economic War Between the US and China

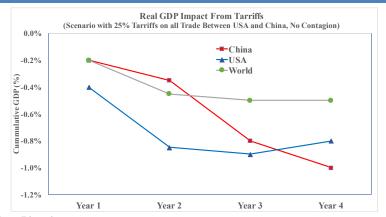
Step 4: Find Asymmetric Trades

Trade 2: Buy Puts On USD Based EM Equity Indexes

Trade Thesis

- EM equity associated with China and their currencies could sell off in an economic war between the US and China
 - US trade deficit with China is growing, as is the intensity of China's economic war with the US
 - The US could potentially put unlimited tariffs on Chinese imports
- China could retaliate against the imposition of US tariffs
 - The could put more barriers to imports from US technology companies
 - They could us oil as a political weapon against the US
- Buy puts on a broad base USD EM equity index
 - Impact of an economic war on the Chinese equity markets could be substantial
 - China and its circle of influence constitute the majority market weight of broad base EM indexes

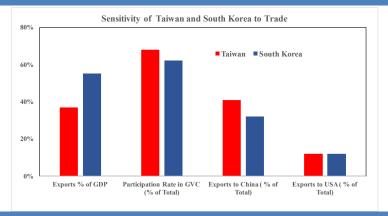
US Deficit With China is Growing¹



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2. "Trade Wars: There are no winners", KPMG, August 2018, Just US And China involved

US Technology Companies Are Vulnerable to China Retaliation²



China Could Use It Growing Demand For Oil As A Political Weapon¹

Country/Area	EM Equity Index Exposure (%)	Currecy Exposure
China	31.0	RMB
Korea (South)	14.8	KRW
Taiwan	12.1	TWD
India	8.9	IDR
South Africa	6.2	ZAR
Brazil	6.0	BRL

State Of the Markets: The Coming Economic War Between the US and China

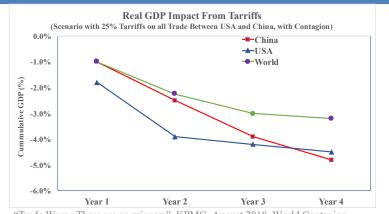
Step 4: Find Asymmetric Trades

Trade 3: Position For A Risk-Off Event From A Full Blown Global Trade War 1

Trade Thesis

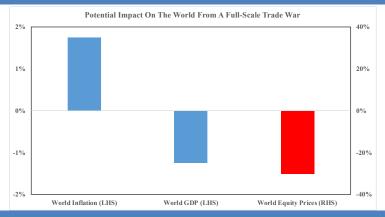
- This Economic war could escalate creating a tail event
 - The US could potentially put unlimited tariffs on all Chinese imports
 - China could escalate conflict bringing in the rest of the world using nontariff strategies
- Escalation would affect not only the US and China but also the rest of the world
 - GDP could fall substantially, bringing down equity markets around the world
- Buy CDS protection on highly rated US corporates
 - Cheaper protection than buying protection on US High Yield or OTM equity puts
 - 60 bp will buy a 35% OTM 1-year put on S&P500

US Deficit With China is Growing¹



- 1. "Trade Wars: There are no winners", KPMG, August 2018, World Contagion
- 2. Luca Paolini,"A zero sum game", PICTET Asset Management, June 2018
- Bloomberg

US Technology Companies Are Vulnerable to China Retaliation²



China Could Use It Growing Demand For Oil As A Political Weapon³

	_	Corporate Wide	_	
Dates	Tail Event	AAA	BBB	S&P 500
5/1998-8/1998	EM Crisis	94%	70%	-16%
9/2011-10/2001	September 2011	16%	14%	-8%
5/2002-9/2002	Telecom/Inasdaq Crash	30%	20%	-24%
5/2008-3/2009	GFC	211%	145%	-48%
5/2011-9/2011	Euro Crisis	82%	63%	-17%

SOM Macro Strategies State Of the Markets: Position For Higher Rates

- Step 1: Macro Theme: Position For Higher Rates
 - Interest rates are very low by historical norms given current economic growth and strong labor market
- Step 2: Fundamental Economic Framework
 - Nominal GDP growth is determined by real GDP growth and inflation
 - Historically interest rates have been highly correlated with nominal GDP Growth
 - The Fisher equation
- Step 3: Find Potential Repricing Events
 - Real economic growth could accelerate, particularly given Trumpanomics
 - Tight labor market and both the success and failure of Trumpanomics could push up inflation
 - QE unwind and financial reform could remove barrier on yields moving closer to historical norms
- Step 4: Find Asymmetric Trade
 - Trade: Buy 1/5 25bp OTM payer swaptions

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State Of the Markets: Position For Higher Rates

Step 4: Find Asymmetric Trade

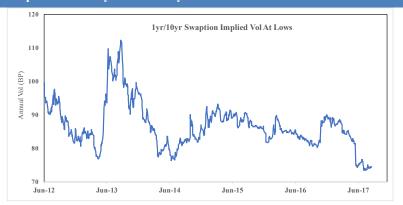
Trade: Position For Higher Rates--Buy Out-of-The Money 1y/5y Payer Swaptions

Trade Thesis

- · Interest rates are below normal given current economic conditions
- Rates could move higher closer to norms
 - Real growth pickup, e.g. Trumpanomics
 - Tight job market or deficit spending pushes up inflation
 - QE unwind or financial reform reduces demand for duration
- · Payer Swaptions are compelling
 - Vol is low by historical standards so it misprices the tail of significantly higher rates
 - Payouts could be north of 3 to 1

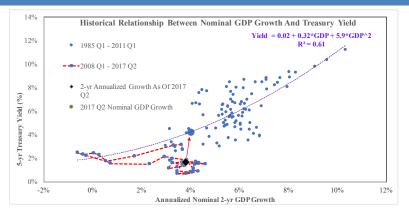
Risk is the the US is following the path of Japan

Implied Volatility Not Rich By Historical Standards¹

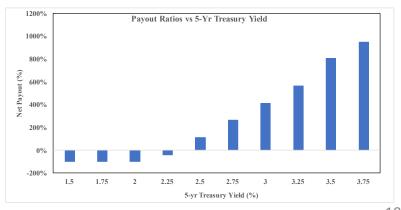


- 1. CBOE, SRVIX Index of Implied Volatility of 1/10 Swaptions
- St. Louis Federal Reserve (FRED)
- 3. Authors analysis

Nominal Growth Will Push Rates Higher 1,2



Performance of 1/5 Swaption ³



SOM Macro Strategies Potential Macro Themes

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SOM Macro Strategies Potential Macro Themes: Electric Vehicles

- Step 1: Macro Theme: Electric Vehicle
 - Affordability and government support of electric vehicle (EV) has potentially put them at the cusp of explosive growth
 - Electric vehicles and ultimately driverless cars could transform the transportation industry worldwide
- Step 2: Fundamental Economic Framework
 - EV now has the same affordability level as the Ford's model-T in 1917 prior to the explosive growth of cars with internal combustion engines (ICE)
 - Already on the same exponential growth path of other recent technological innovations
 - Factors driving demand
 - Affordability
 - Policy
 - Demand for EV metals could swamp near term supply
 - EV production growth could put earnings pressure on existing car companies
 - Development costs for EV and batteries could will be substantial
 - Over the next 20 years technology could fundamentally change the transportation industry
 - EV growth will crush oil demand
 - Driverless cars based on EV could hallow out the auto industry
- Step 3: Find Potential Repricing Events
 - None

SOM Macro Strategies Electric Vehicle Metals As The Next Oil

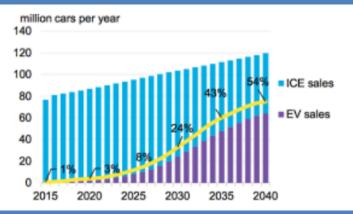
Step 1: Macro Theme

The Future of Electric Vehicles (EV) Battery Demand Overwhelm Supply

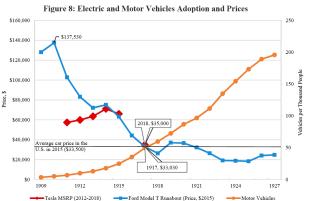
Theme Thesis

- Affordability puts EV demand at the cusp of exponential growth
 - EV as with absorption of other technical advancements has reached a take off point where demand explodes
 - As the internal combustion engine (ICE) rapidly replaced the horse, so to could the EV replace the ICE
- Demand for EVs could put substantial pressure on the existing transportation and energy infrastructure
 - Conversion to EV from ICE means new winners and losers
- Ultimately, EV gives way to autonomous vehicles (AV) then to transportation as a service (TaaS), and that is a game changer
 - Oil demand falls
 - Car demand falls

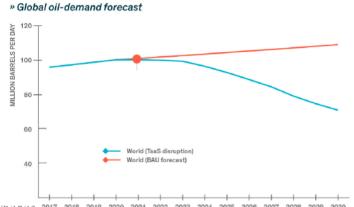
EV Demand Could Reshape the Landscape of the Auto Industry²



EV Affordability is Similar to Model-T Before ICE Demand Surged¹



$EV \Rightarrow AV \Rightarrow TaaS \Rightarrow End of Oil?^3$



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