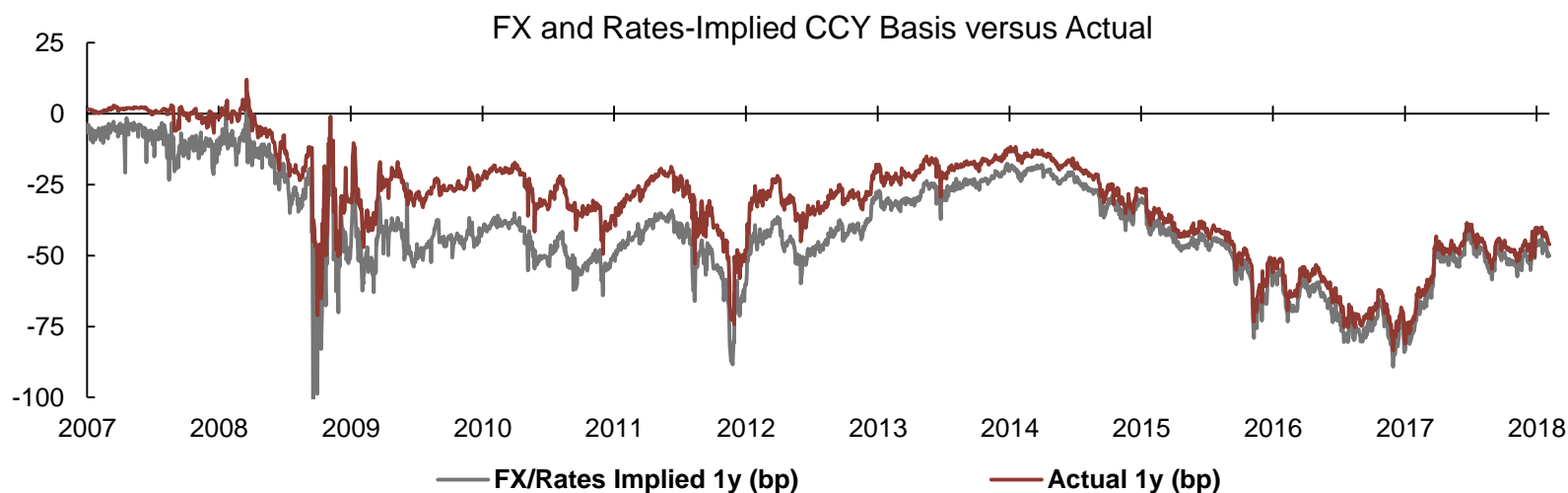
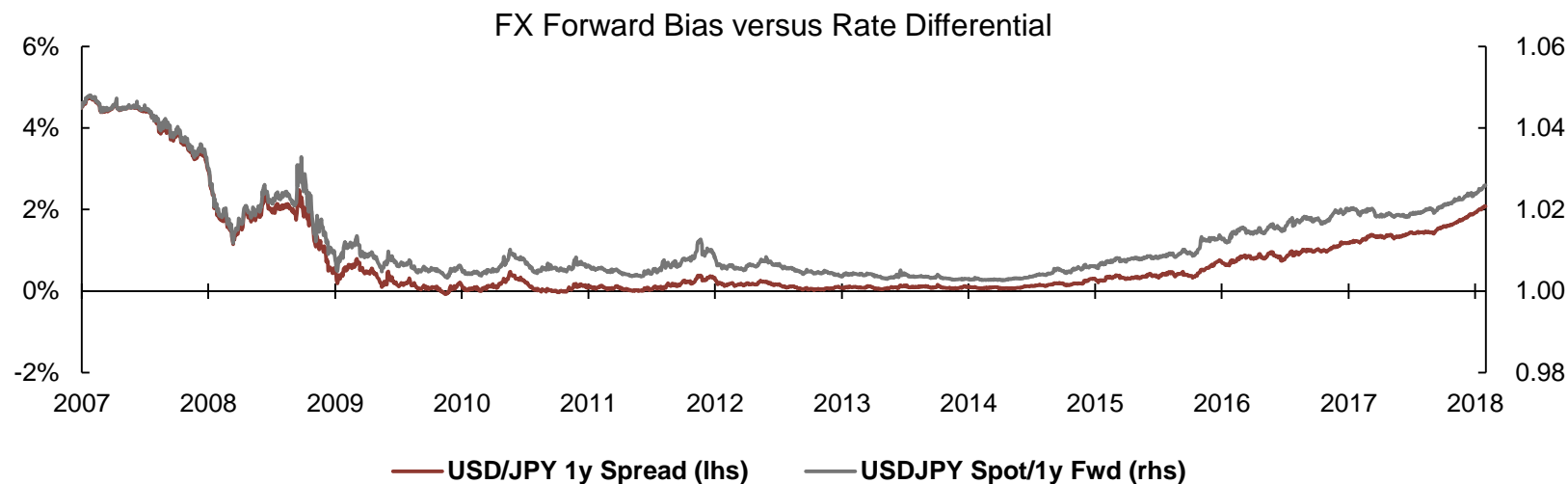


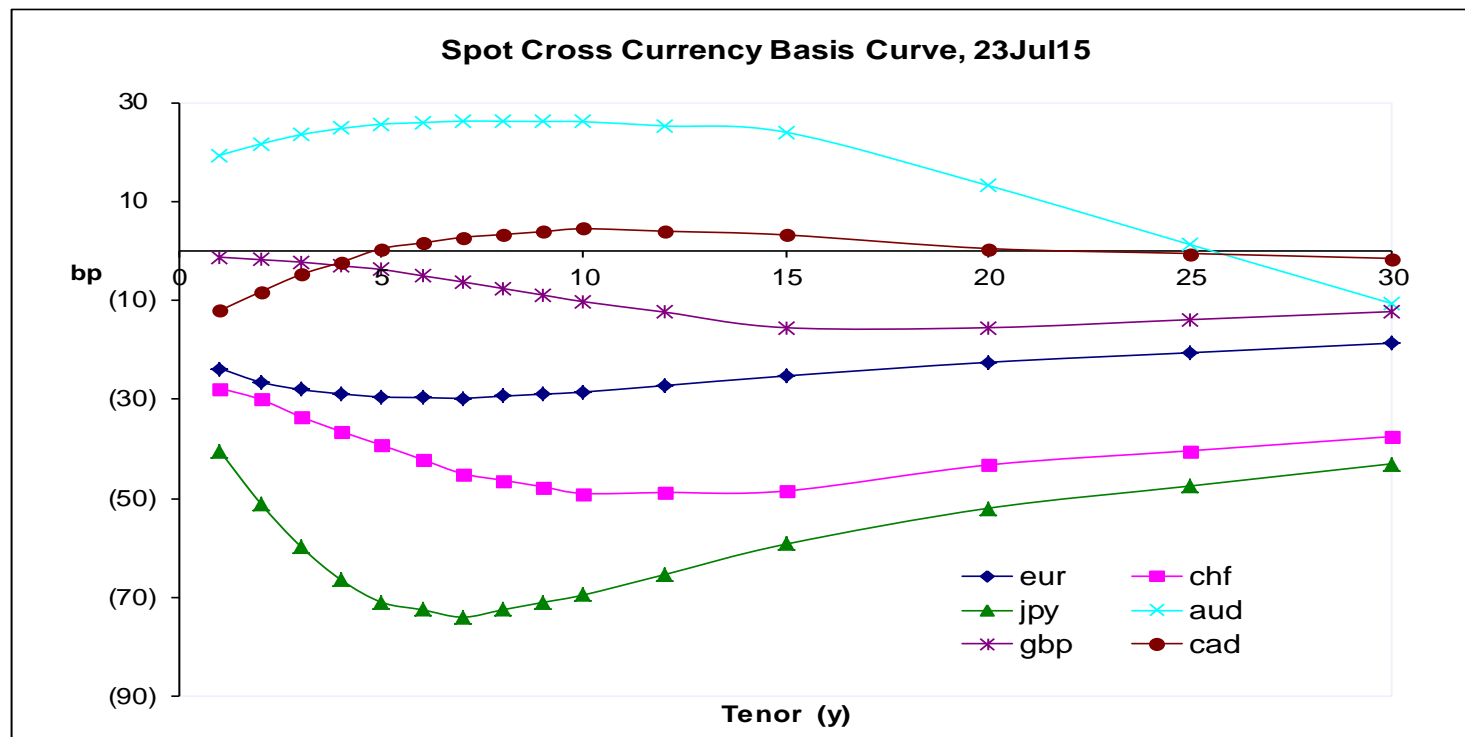
**Supplementary reading**  
**Fundamental drivers of currency basis**

# A cross currency swap links the FX and interest rates markets in two currencies



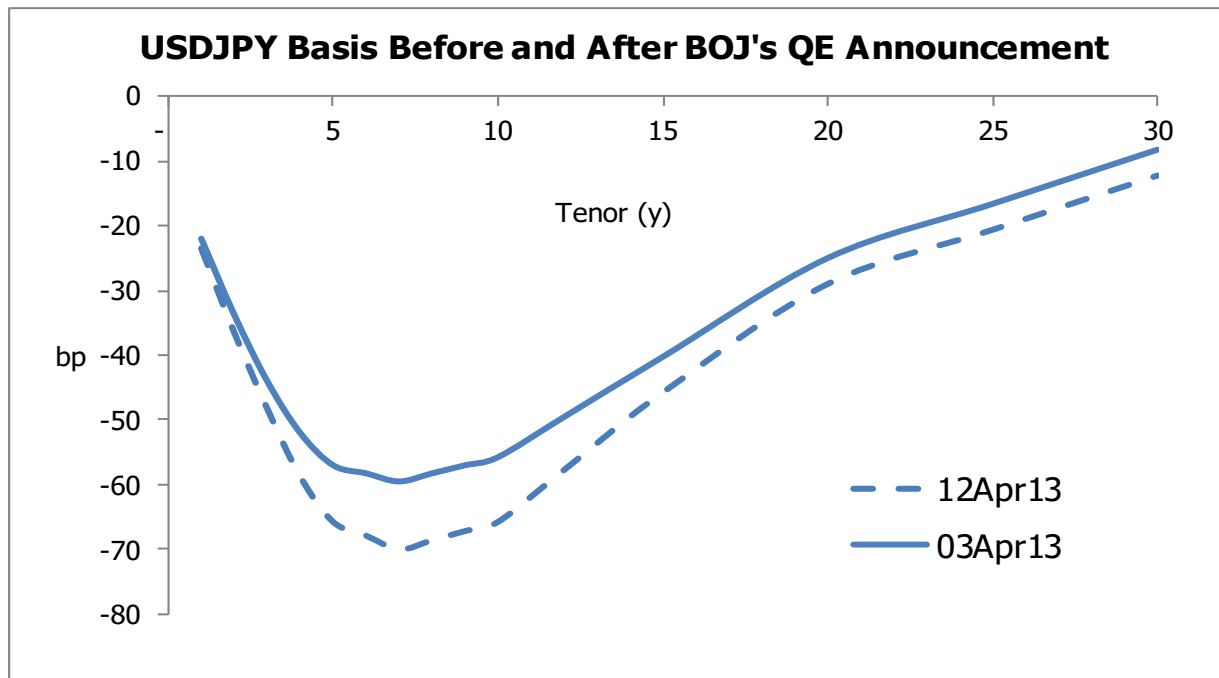
# Fundamental drivers of currency basis

- Front-end basis driven by relative funding needs between currency pairs and relative credit risk between markets
- The belly of the basis curve driven by cross-market issuance flows
- Long-end driven by hedging for long-dated fx/rates structured notes



# Funding Demand for USD versus JPY

- BOJ announced large-scaled quantitative easing (“QE”) on April 4, 2013
- JPY depreciated versus USD and USDJPY basis curve inverted further
- Basis movements reflect a higher demand for USD out of JPY

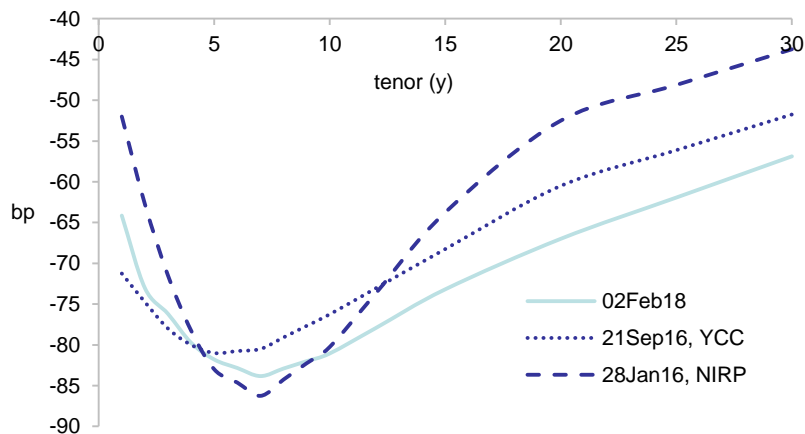


# Fundamental Drivers – Front End

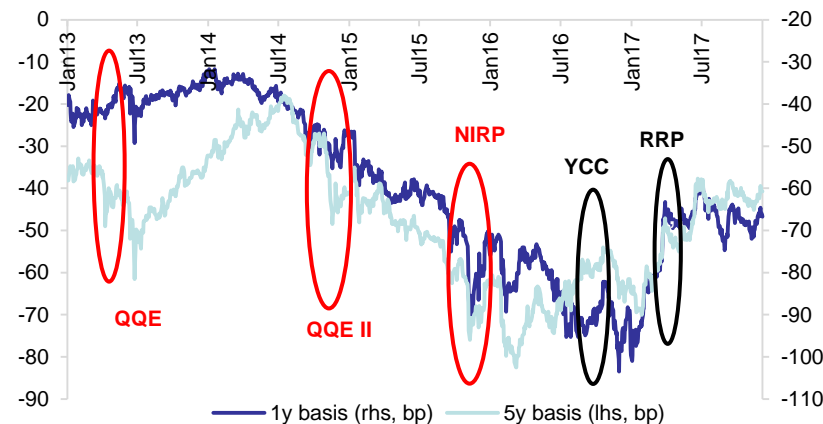
## Relative monetary policy outlook between central banks



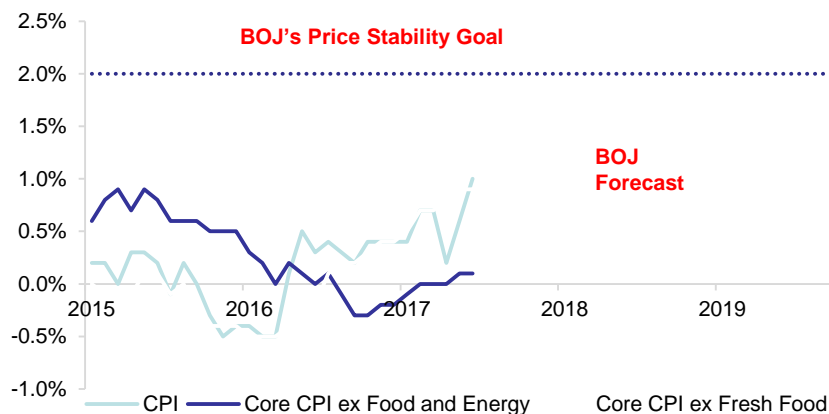
USDJPY Ccy Basis Curve



USDJPY Ccy Basis and BOJ Policy Changes



Japan CPI Inflation and BOJ Policy Outlook



USDJPY Ccy Basis 5d Changes by BOJ Policy Measure

Date	BOJ	3m	1y	5y	10y
4/4/2013	QQE	(11.3)	(1.1)	(11.3)	(9.1)
10/31/2014	QQE II	(4.9)	(1.3)	(4.9)	(6.0)
1/28/2016	NIRP	(7.1)	(4.4)	(7.1)	(6.0)
9/21/2016	YCC	2.2	3.5	2.2	0.1
3/22/2017	RRP	3.4	6.9	3.4	1.3

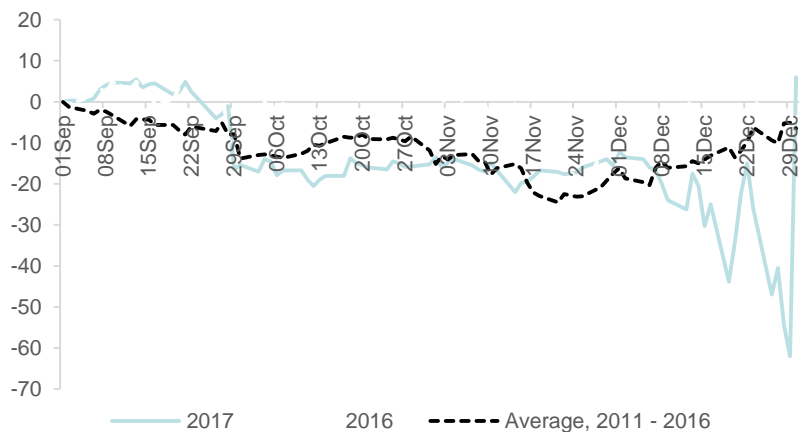
- USDJPY ccy basis is driven by monetary policy outlook
- Basis widened on BOJ's easing (QQE & NIRP)
- And tightened when BOJ withdrew JPY liquidity (YCC & RRP)

# Fundamental Drivers – Front End

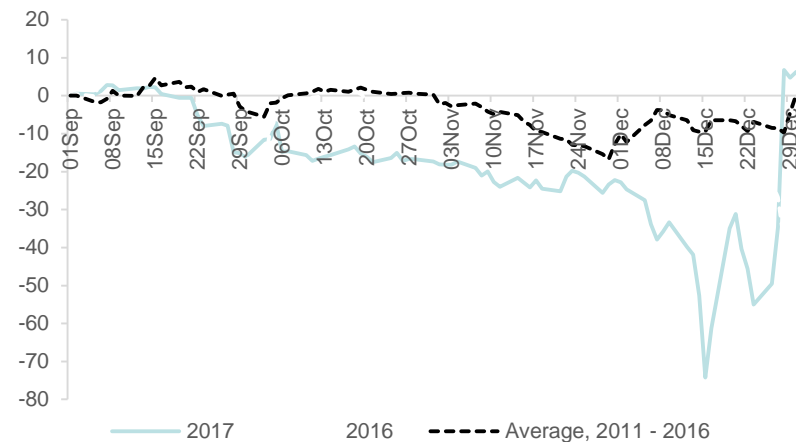
## Relative funding demand between two currencies



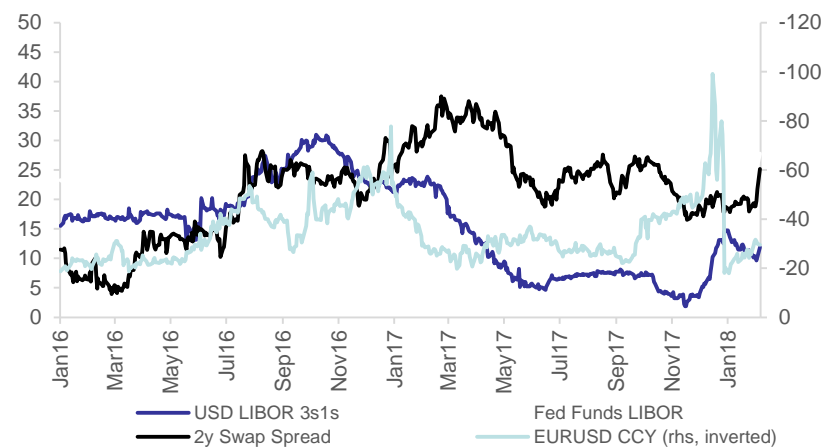
USDJPY Ccy Basis and Turn of the Year Effect (3m Basis, bp)



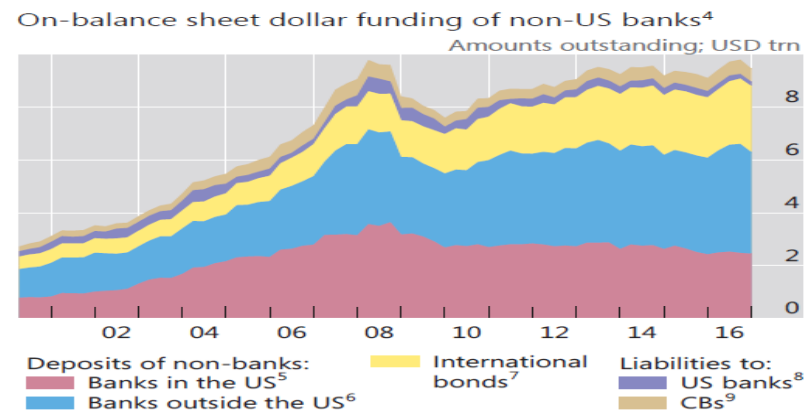
EURUSD Ccy Basis and Turn of the Year Effect (3m Basis, bp)



Rising LIBOR and Other Front-end Basis around Year End (bp)



Dollar Funding of Non-US Banks Not Affected by MMF Reform

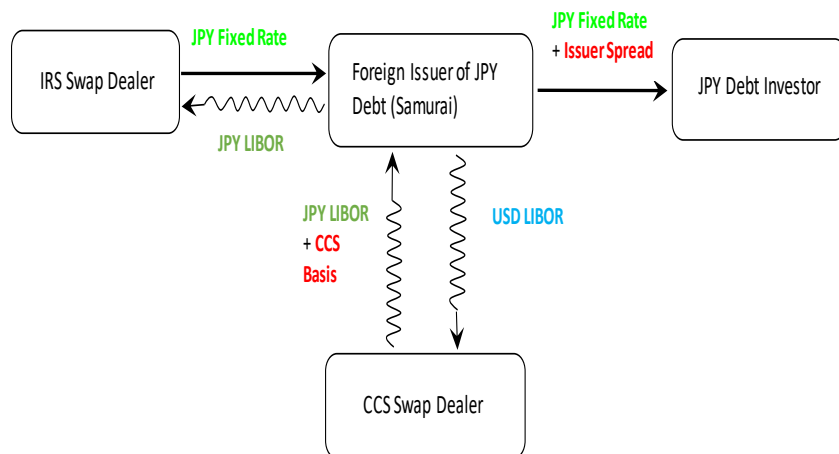


# Fundamental Drivers – Longer End

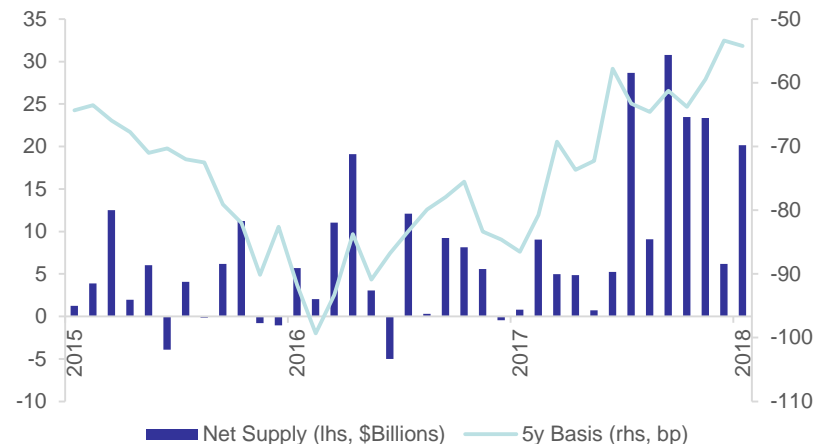
## Relative demand for assets between two currencies



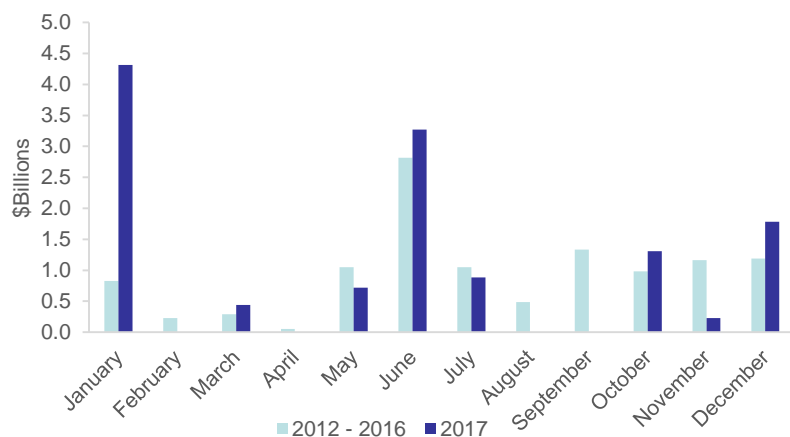
Flow Chart for Fx-Hedged Samurai Bond Issuance



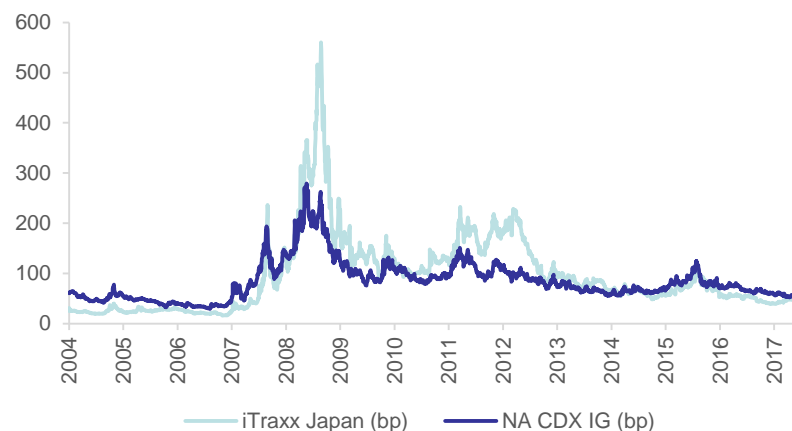
Net Issuance in USD and JPY



Seasonal Issuance Pattern for Samurai Bonds

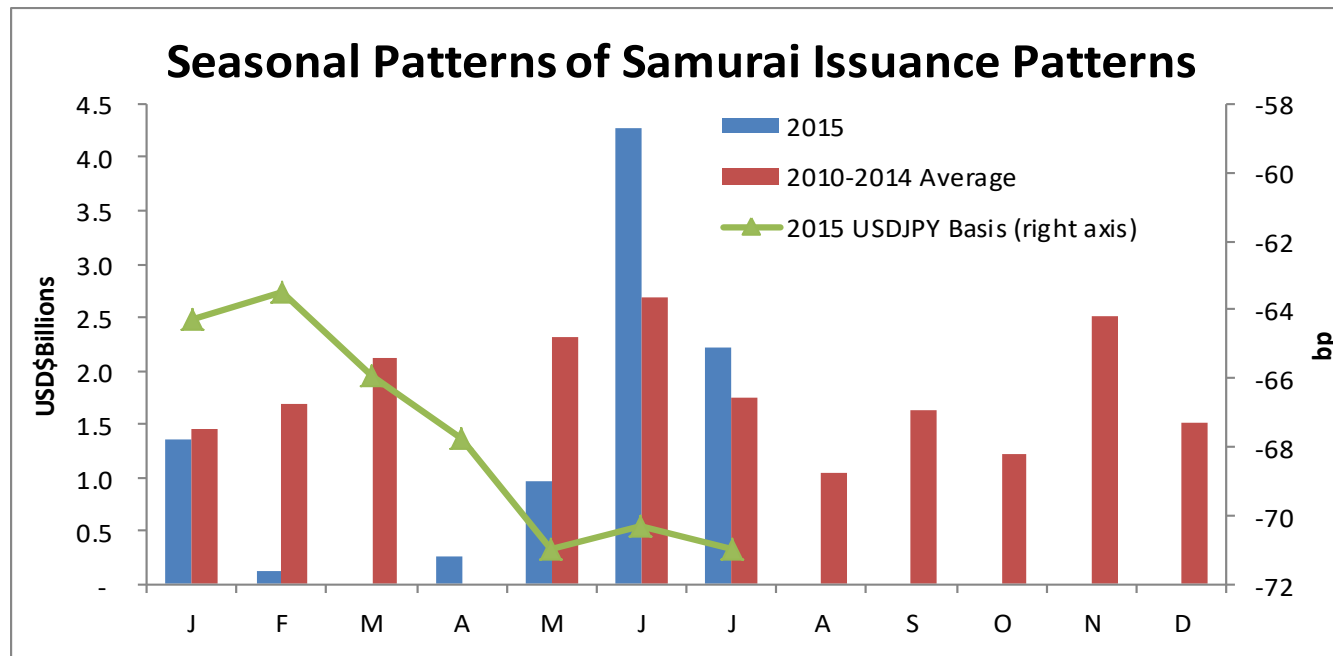


Relative Credit Spreads for JPY and USD IG Names



# USDJPY Basis and Samurai Issuance

- Inverted USDJPY basis curve driven by anticipated Samurai issuance
- Seasonal pattern of Samurai issuance correlated with basis movements
- A pick up in Samurai issuance in H2 is likely to keep basis wide (negative)

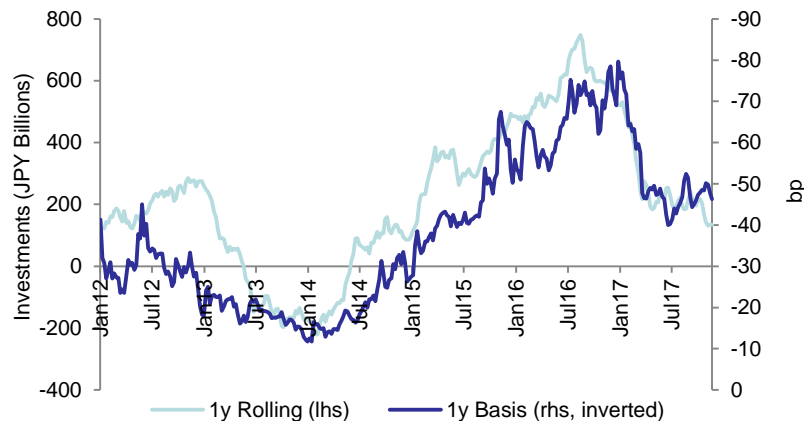




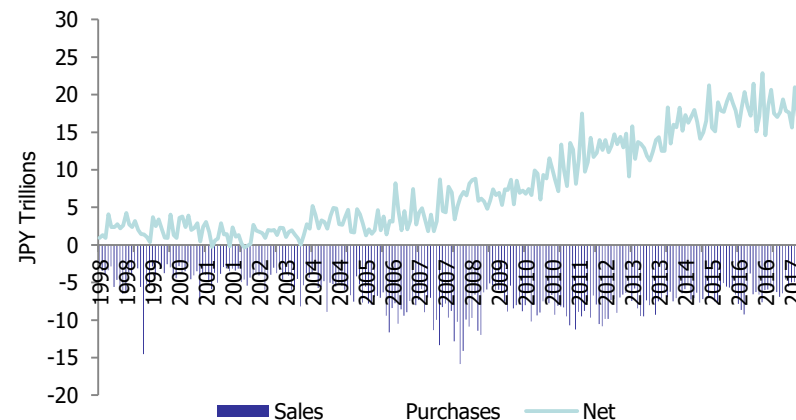
# Recent basis tightening reflects declining domestic demand for foreign securities and rising foreign demand for JGB



## Net Demand for Foreign Securities by Japanese Investors



## Net JGB Investments by Foreign Investors



## Basis-Swapping a JGB into USD

JGB 0.1 12/20/22 #134 Corp				Settings ▾	Yield and Spread Analysis				
100.868/100.918 -0.078/-0.088				BGN @ 02:59	99 Buy	90 Sell			
J Yield & Spread		2 Yields	3 Graphs	4 Pricing	5 Description	6 Custom			
JGB 0.1 12/20/22 #134 ( JP1051341HC3 )				XCCY ▾		JPY/ USD	SWPM		
C-Spr	0.00 bp	vs	5y JGB 0.1 22 #134	Currency Pair		JPY/ USD			
Price	100.918		100.918 16:32:31	Fixed Cpn Eqv (S/A)	2.960 %	FX	109.22...		
ImpYld	-0.088	Wst	-0.088000	S/A	G-Spr	53.4	Curve	125	
Wkout	12/20/2022 @	100.00	Duration	6.6	ASW Q	39.5	Curve	\$42	
Settle	02/08/18		02/08/18		Z-Spr	38.0	Xccy Sprd	62.1	
					Bench Sprd (S/A)	52.00 vs	T 2 %	01/31/23	
Sprd/Yld ▾				Invoice					
J G-Spr	0.0	Simple Yield	-0.088	Face		1,000 M			
I-Spr	-24.0	Compound Yield	-0.0883	Principal		1,009,180			
Basis	N.A.	Equiv 1 Yr	-0.0880	Accrued (50 Days)		136			
Z-Spr	-24.1	Mmkt (Act/ 365)		Total (JPY)		1,009,316			
ASW	-24.0	Current Yield	0.099						
OAS	-2.1								
SPRD ▾ Cash ▾				FPA ▾					
JPY Japan Sovereign Curve (I18)				Repo Rate	-0.12	Days	1	Amt (MM)	1
Spread	Term	Rate (%)	Security	Fwd Prc	100.917394	Money At			
0.0	5.00yr	-0.088	JGB 0.1 12/20/22 #134	Price Drop	0.000606	Settle	1,009,316.00		
0.0	4.87yr	-0.088	G-Spr (Interpolated)	Yld Drop (bp)	0.1	Term	1,009,313.00		
-3.6	6.00yr	-0.052	JGB 0.6 12/20/23 #332	Constant Price		Carry P&L	6.00		

## Relative Values for Swapping a JGB into Major Currencies

JGB 0.1 12/20/22 #134		↑ -.083	- .006	- .078 / - .088	100.869/100.918
		As of 05 Feb			Source BGN
JGB 0.1 12/20/22 #134		🔍 Actions	⚙ Settings	Asset Swap Calculator	
1 Pricing		2 Cashflow	3 Relative Value	4 Deal Summary	
Price		Bond Currency JPY			
100.9180					
Currency	Curve Details	Index	Pay/Reset Freq	FX Rate	ASW Spread
JPY	13 JPY (vs. 6M LIBOR)	JY0006M	SemiAnnual	1.000000	-24.1
Cross-currency Spreads					
Currency	Curve Details	Index	Pay/Reset Freq	FX Rate	ASW Spread
AUD	303 AUD (vs. 3M Bank Bills)	BBSW3M	Quarterly	86.099000	60.8
USD	23 USD (30/360, S/A vs. 3M LIBOR)	US0003M	Quarterly	109.242000	39.5
HKD	10 HKD (vs. 3M HIBOR)	HIH003M	Quarterly	13.967470	36.7
GBP	222 GBP (vs. 3M LIBOR)	BP0003M	Quarterly	152.646000	33.0
EUR	201 EUR (vs. 3M EURIBOR)	EUR003M	Quarterly	135.368000	1.6
JPY	308 JPY (vs. 3M LIBOR)	JY0003M	Quarterly	1.000000	-18.8

■ ASW Spread

⊕ Track

🔍 Annotate

🔍 Zoom