

# iTraxx Main Series 21 Tranche Report

See Appendix A-1 for Analyst Certification,  
Important Disclosures and non-US research  
analyst disclosures

Data as of COB: 01 Aug 17

Tenor: 3y Jun-17

	Upfront	Flat spread	Spread	Change (Upfront / flat spread)			Coupon	Delta	Spread / Delta	RA	B. Corr.	Exp. Loss	
				1w	1m	3m						Level	Ratio
0-3%	<b>0.22%</b>	196	196	0.00%	0.00%	0.00%	1.00%				53.9%	0.4%	60.2%
3-6%	-0.23%	<b>53</b>	53	0	0	0	1.00%				64.7%	0.3%	35.9%
6-12%	-0.22%	<b>1</b>	1	0	0	0	1.00%				79.2%	0.0%	0.7%
12-100%	-0.22%	<b>0</b>	0	0	0	0	1.00%				100.0%	0.0%	3.1%
Ref	0.00%	<b>5</b>		0.0	0.0	0.0	1.00%	1.0	5	0.00		0.0%	

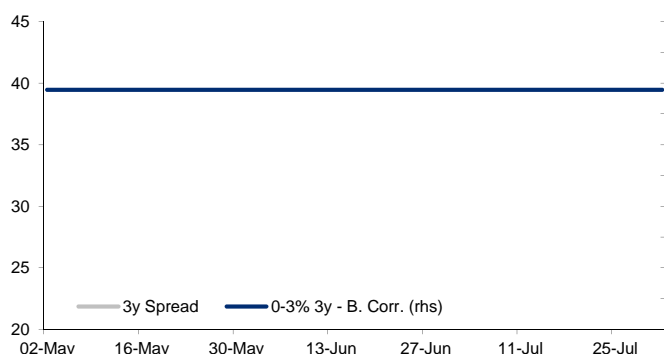
Tenor: 5y Jun-19

	Upfront	Flat spread	Spread	Change (Upfront / flat spread)			Coupon	Delta	Spread / Delta	RA	B. Corr.	Exp. Loss	
				1w	1m	3m						Level	Ratio
0-3%	<b>4.75%</b>	352	352	0.00%	-1.86%	-5.62%	1.00%				41.9%	6.6%	69.4%
3-6%	-1.51%	<b>22</b>	22	0	-17	-57	1.00%				51.5%	0.4%	4.5%
6-12%	-1.76%	<b>10</b>	10	0	-5	-19	1.00%				61.4%	0.2%	3.9%
12-100%	-1.88%	<b>4</b>	4	0	-3	-6	1.00%				100.0%	0.1%	22.2%
Ref	-1.66%	<b>13</b>		0.0	-4.8	-16.7	1.00%	1.0	13	1.92		0.3%	

## 3y - index spread & equity tranche correlation

Data since: 02-May-17

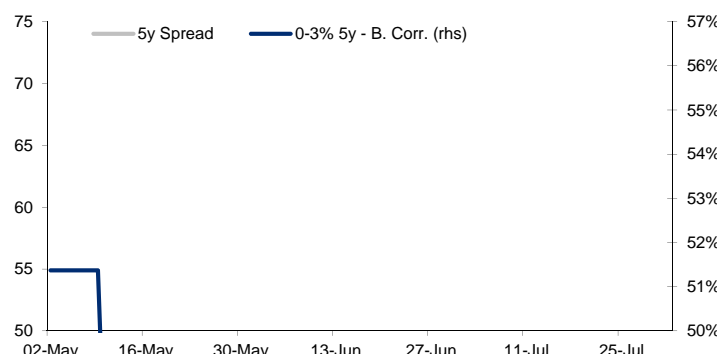
LHS: index spread (bp). RHS: equity tranche correlation (%).



## 5y - index spread & equity tranche correlation

Data since: 02-May-17

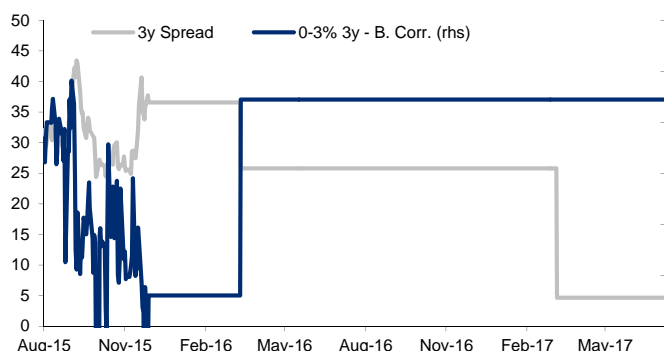
LHS: index spread (bp). RHS: equity tranche correlation (%).



## 3y - index spread & equity tranche correlation

Data since: 01-Apr-14

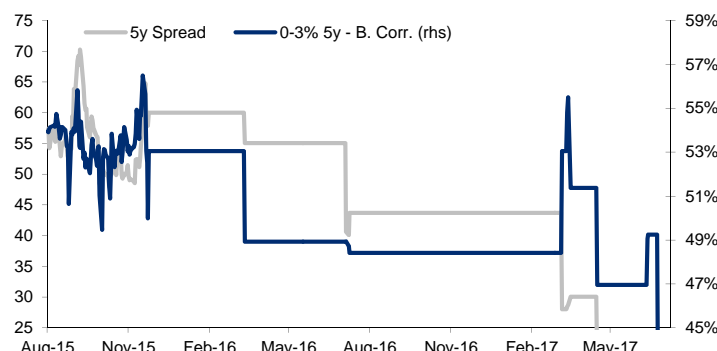
LHS: index spread (bp). RHS: equity tranche correlation (%).



## 5y - index spread & equity tranche correlation

Data since: 01-Apr-14

LHS: index spread (bp). RHS: equity tranche correlation (%).



## 3y - Tranche performance

From a protection seller's point of view, as % of notional on each instrument.

	No delta-hedged performance			Delta-hedged performance		
	1w	1m	3m	1w	1m	3m
0-3%	0.02%	0.08%	0.25%			
3-6%	0.02%	0.08%	0.25%			
6-12%	0.02%	0.08%	0.25%			
12-100%	0.02%	0.08%	0.25%			
Ref	<b>0.02%</b>	<b>0.08%</b>	<b>0.13%</b>			

## 5y - Tranche performance

From a protection seller's point of view, as % of notional on each instrument.

	No delta-hedged performance			Delta-hedged performance		
	1w	1m	3m	1w	1m	3m
0-3%	0.02%	1.94%	5.87%			
3-6%	0.02%	0.29%	1.31%			
6-12%	0.02%	0.02%	0.42%			
12-100%	0.02%	-0.05%	0.13%			
Ref	<b>0.00%</b>	<b>0.11%</b>	<b>0.40%</b>			

## iTraxx Main Series 21 - Index & Reference Portfolio

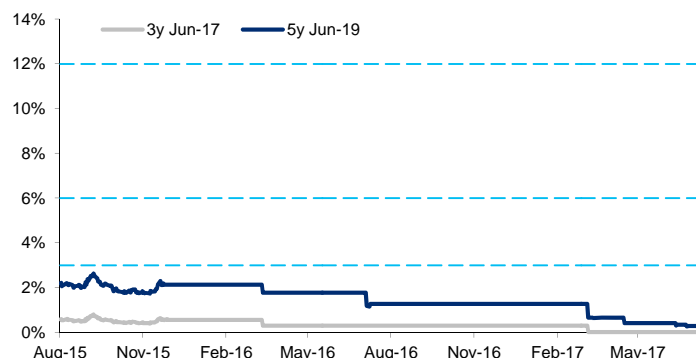
### Index spread

In bp.



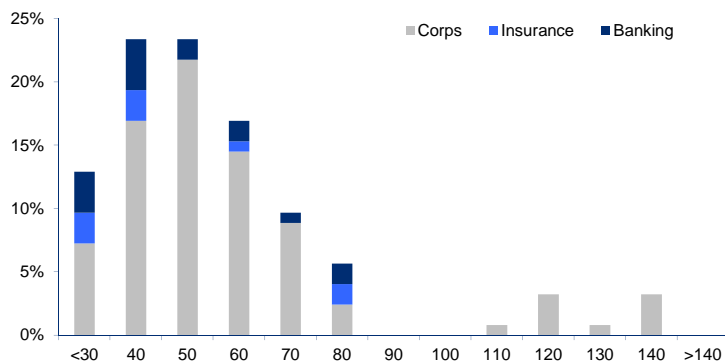
### Index expected losses

In %. Dashed lines represent tranche attachment points.



### 5y spread distribution of the reference portfolio

X-axis: 5y calendar spread (bp). Y-axis: % of credits.



### Number of credits trading wider than ...

Calendar

5y spread	All	Corps	Insurance	Banking
30	108	90	6	12
40	79	69	3	7
50	50	42	3	5
60	29	24	2	3
70	17	13	2	2
80	10	10	0	0
90	10	10	0	0
100	10	10	0	0
110	9	9	0	0
120	5	5	0	0
130	4	4	0	0
140	0	0	0	0

### Reference portfolio regional diversification

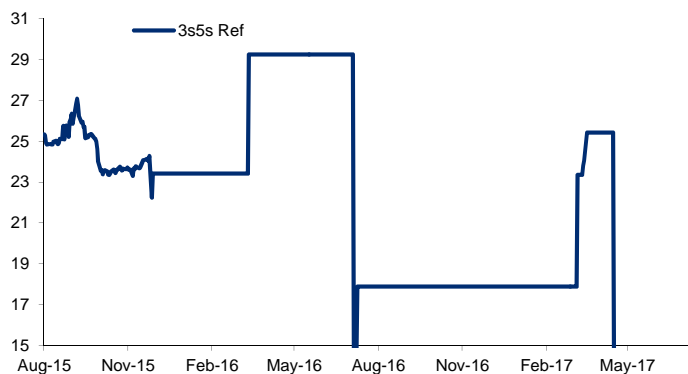
Number of credits per country

Country	# Credits	Country	# Credits
Portugal	0	Germany	22
Greece	0	Austria	1
Spain	6	Finland	1
Italy	6	Norway	2
France	29	Sweden	5
Belgium	2	Switzerland	6
Luxembourg	1	United Kingdom	34
Netherlands	9		

### Index curve

In bp.

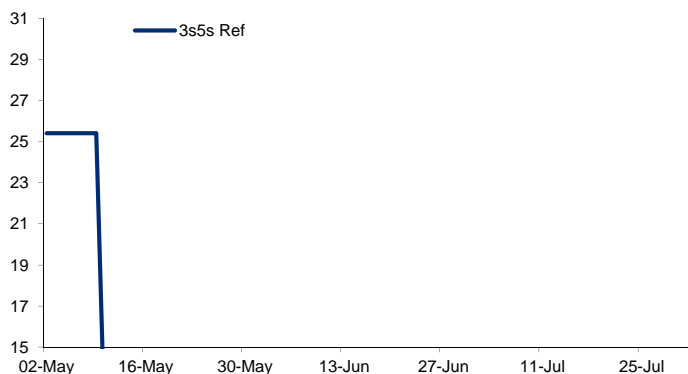
Since: 01-Apr-14



### Index curve

In bp.

Since: 02-May-17

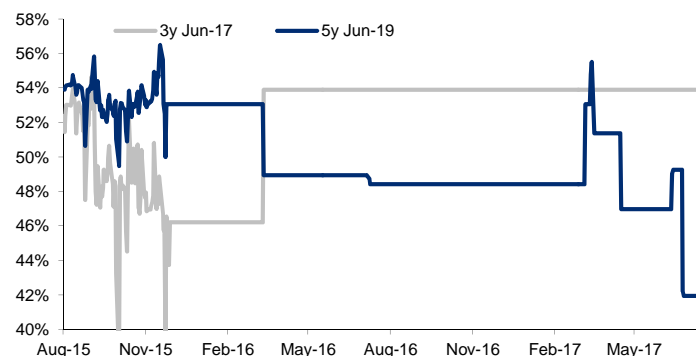


## iTraxx Main Series 21 - Tranche Base Correlations

### Equity tranche correlations

Data since: 01-Apr-14

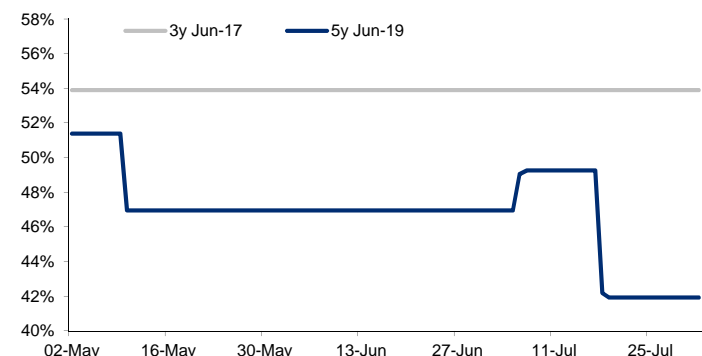
In %.



### Equity tranche correlations

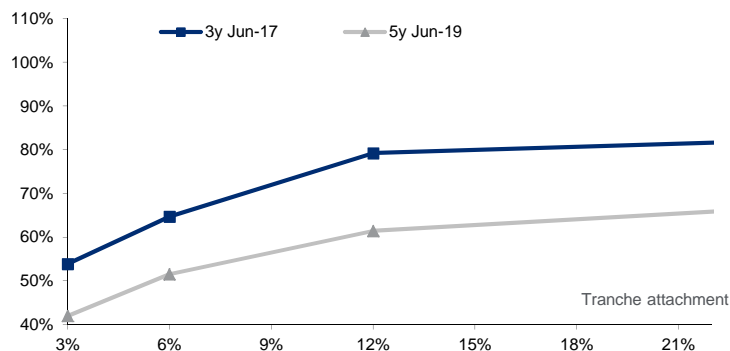
Data since: 02-May-17

In %.



### Current base correlation surface across maturities

X-axis: tranche attachment point (%). Y-axis: Base correlation (%).



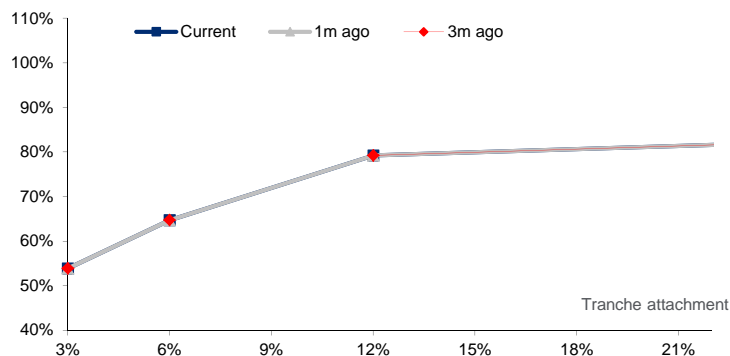
Attachment	3y Jun-17	Change		
		1w	1m	3m
3%	54%	0.0%	0.0%	0.0%
6%	65%	0.0%	0.0%	0.0%
12%	79%	0.0%	0.0%	0.0%

Attachment	5y Jun-19	Change		
		1w	1m	3m
3%	42%	0.0%	-5.0%	-9.4%
6%	52%	0.0%	-5.0%	-9.3%
12%	61%	0.0%	-5.8%	-10.9%

### Base correlation surface

Tenor: 3y Jun-17

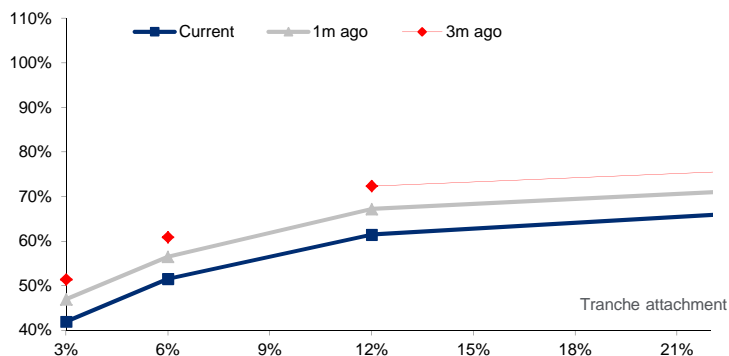
X-axis: tranche attachment point (%). Y-axis: Base correlation (%).



### Base correlation surface

Tenor: 5y Jun-19

X-axis: tranche attachment point (%). Y-axis: Base correlation (%).

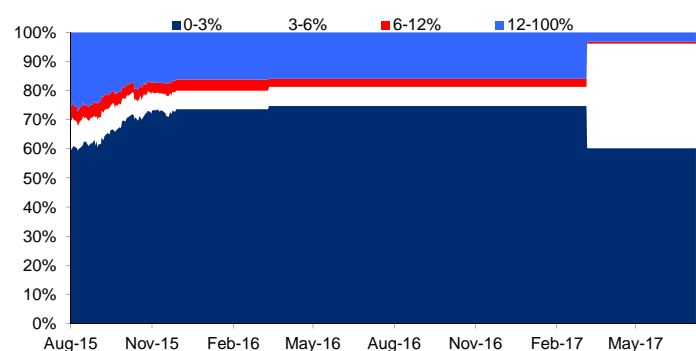


## iTraxx Main Series 21 - Tranche Expected Loss Ratios

### Expected loss ratio

Tenor: 3y Jun-17

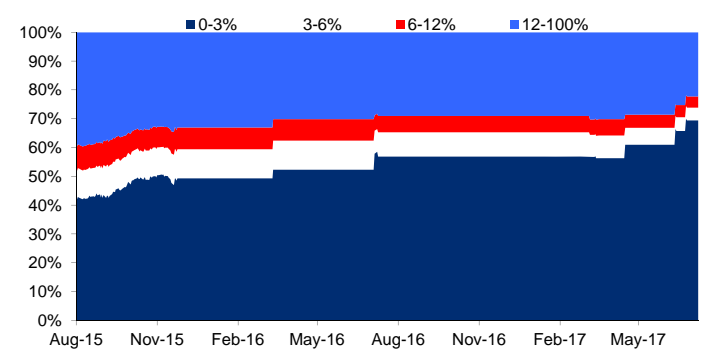
In %, computed as tranche expected loss x width / index expected loss.



### Expected loss ratio

Tenor: 5y Jun-19

In %, computed as tranche expected loss x width / index expected loss.



Source of all charts and tables: Citi Research and Markit.

## iTraxx Main Series 21 - Tranche Performance

### 3y - Tranche performance

From a protection seller's point of view, as % of notional on each instrument.

	No delta-hedged performance			Delta-hedged performance		
	1w	1m	3m	1w	1m	3m
0-3%	0.02%	0.08%	0.25%			
3-6%	0.02%	0.08%	0.25%			
6-12%	0.02%	0.08%	0.25%			
12-100%	0.02%	0.08%	0.25%			
Ref	0.02%	0.08%	0.13%			

### 5y - Tranche performance

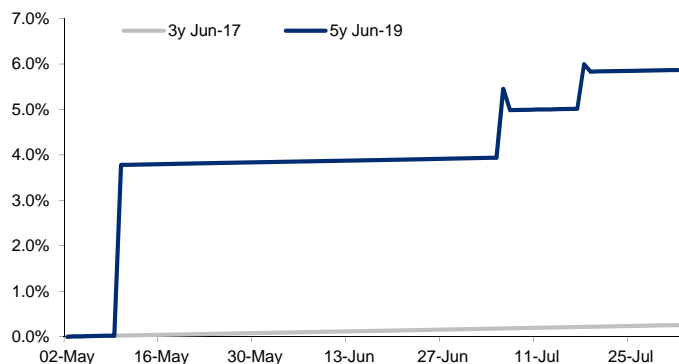
From a protection seller's point of view, as % of notional on each instrument.

	No delta-hedged performance			Delta-hedged performance		
	1w	1m	3m	1w	1m	3m
0-3%	0.02%	1.94%	5.87%			
3-6%	0.02%	0.29%	1.31%			
6-12%	0.02%	0.02%	0.42%			
12-100%	0.02%	-0.05%	0.13%			
Ref	0.00%	0.11%	0.40%			

### 0-3% NO Delta-hedged performance

Since: 02-May-17

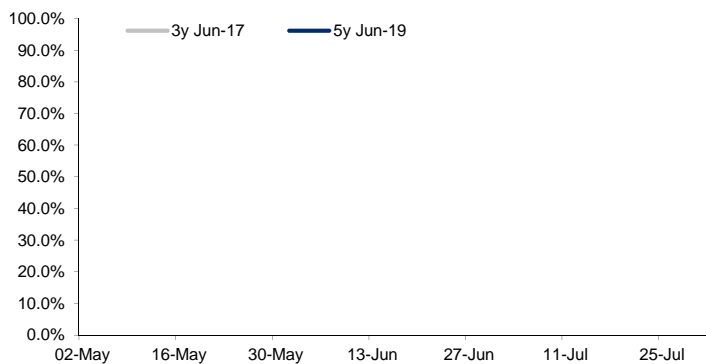
From a protection seller's point of view, as % of notional on each instrument.



### 0-3% Delta-hedged performance

Since: 02-May-17

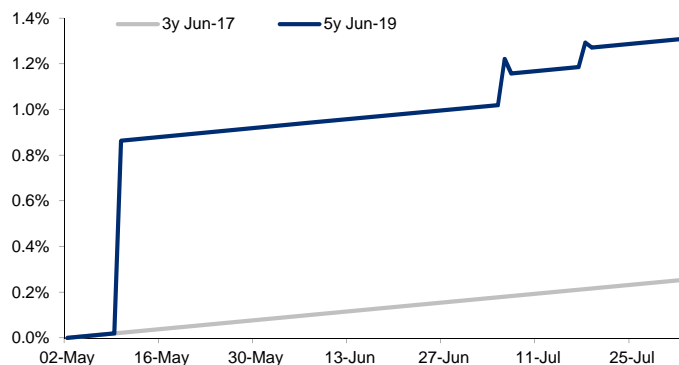
From a protection seller's point of view, as % of notional on each instrument.



### 3-6% NO Delta-hedged performance

Since: 02-May-17

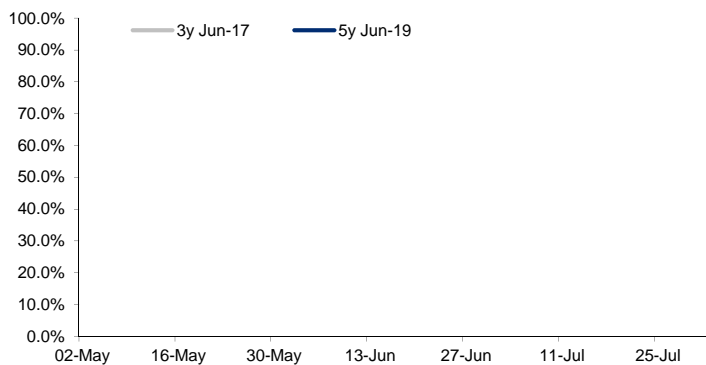
From a protection seller's point of view, as % of notional on each instrument.



### 3-6% Delta-hedged performance

Since: 02-May-17

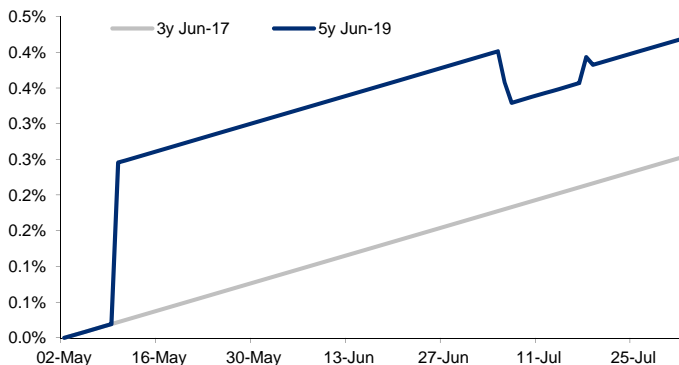
From a protection seller's point of view, as % of notional on each instrument.



### 6-12% NO Delta-hedged performance

Since: 02-May-17

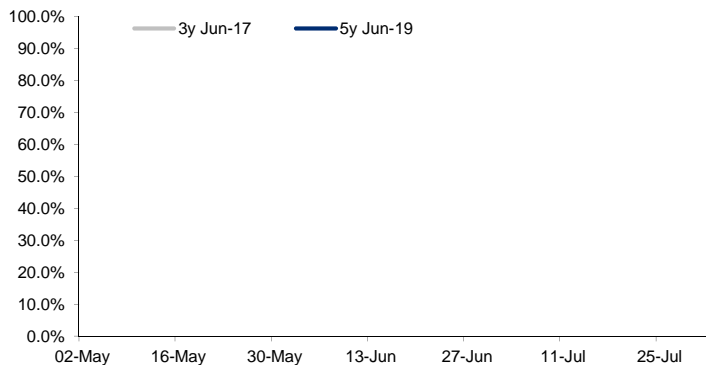
From a protection seller's point of view, as % of notional on each instrument.



### 6-12% Delta-hedged performance

Since: 02-May-17

From a protection seller's point of view, as % of notional on each instrument.

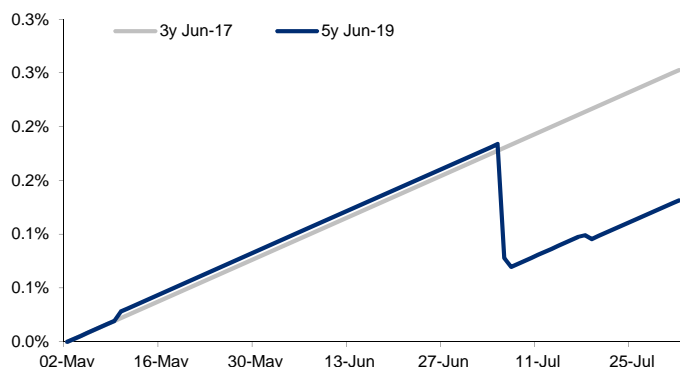


## iTraxx Main Series 21 - Tranche Performance (Cont.)

### 12-100% NO Delta-hedged performance

Since: 02-May-17

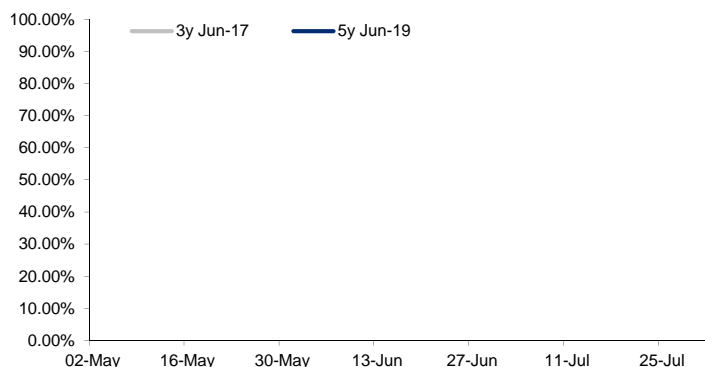
From a protection seller's point of view, as % of notional on each instrument.



### 12-100% Delta-hedged performance

Since: 02-May-17

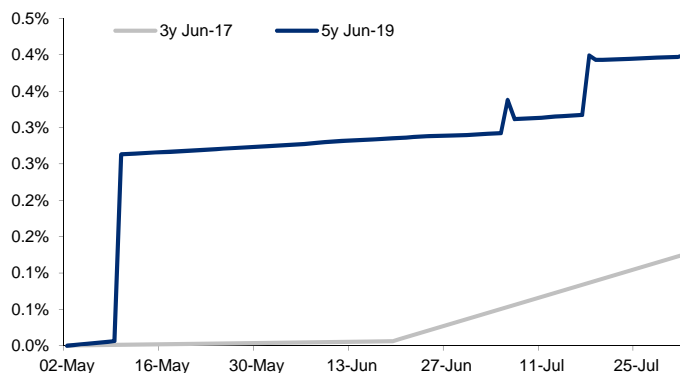
From a protection seller's point of view, as % of notional on each instrument.



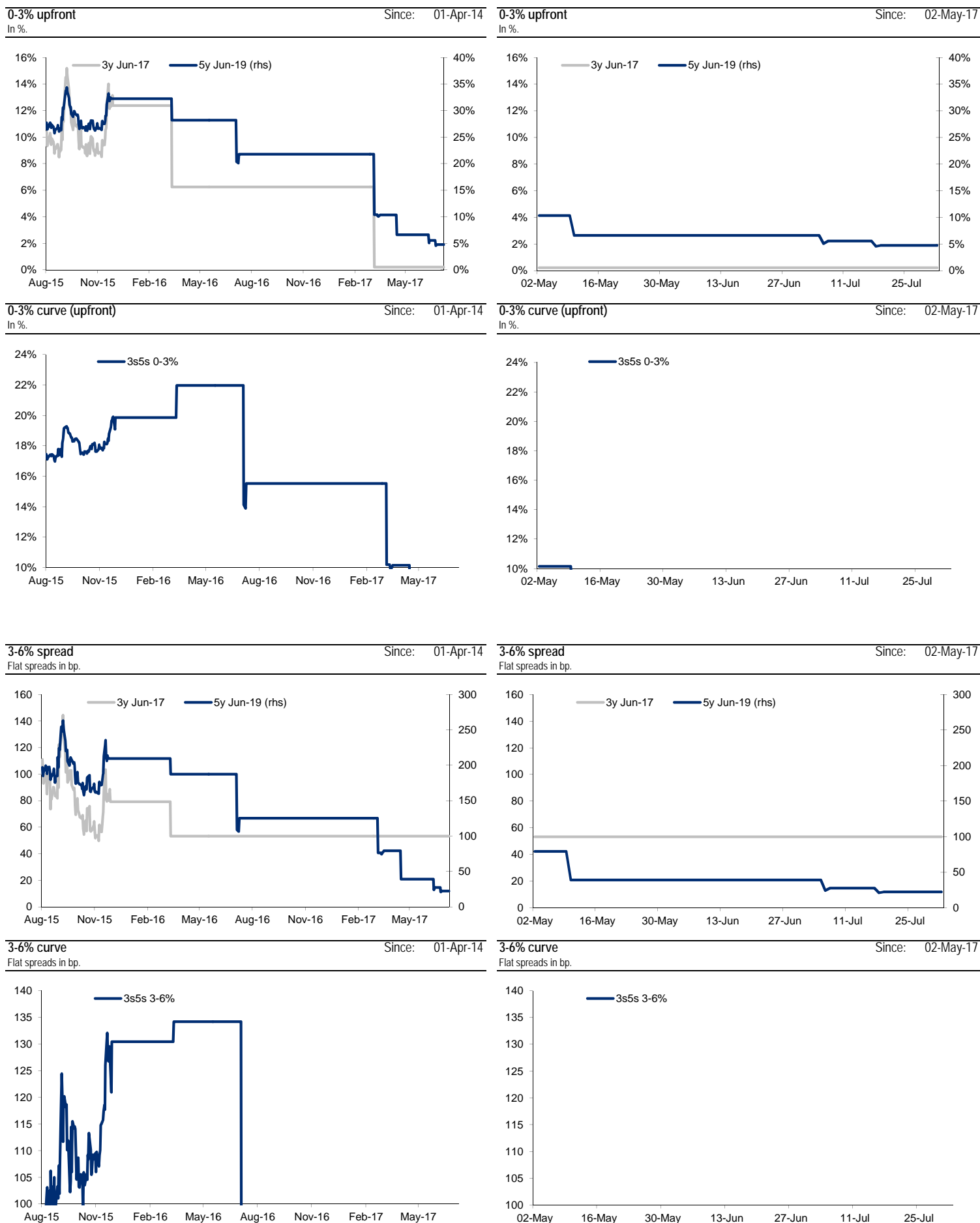
### Ref NO Delta-hedged performance

Since: 02-May-17

From a protection seller's point of view, as % of notional on each instrument.

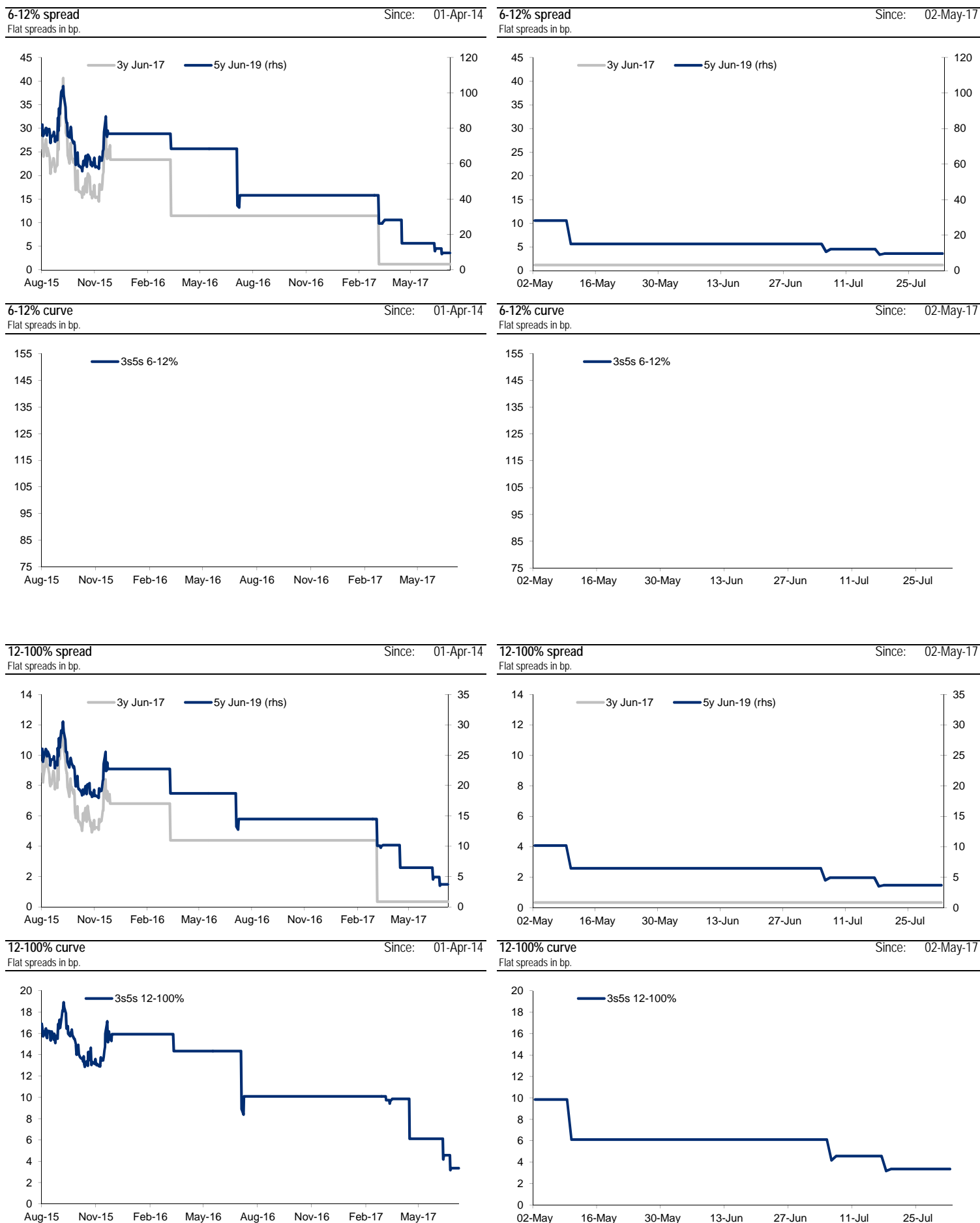


## iTraxx Main Series 21 - Tranche Levels & Curves



Source of all charts and tables: Citi Research and Markit.

## iTraxx Main Series 21 - Tranche Levels & Curves (cont.)



Source of all charts and tables: Citi Research and Markit.



# Appendix A-1

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