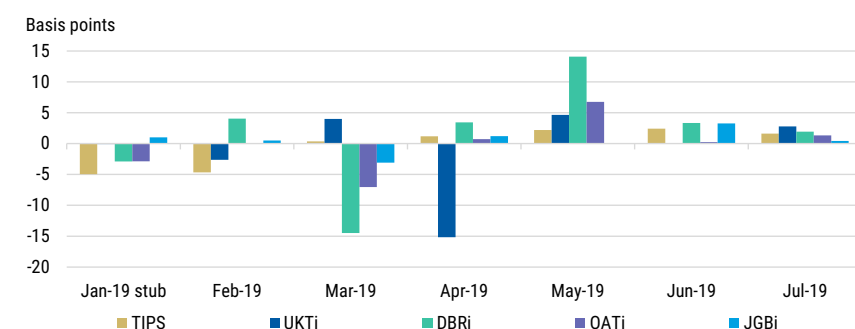


December 31, 2018 11:09 AM GMT

Global Interest Rate Strategy | Global

Global Inflation Tracker

We provide global linker real yield and breakeven carry projections derived from Morgan Stanley inflation forecasts, snapshots of real yield and breakeven forwards, and historical breakeven levels and cross-market spreads.

Exhibit 1: 10y breakeven benchmark monthly carry profile

Source: Morgan Stanley Research, Bloomberg

Inflation Strategy Bulletin

[Global Inflation Strategy: Can Breakevens Climb the Wall of Worry? \(14 Dec 2018\)](#)

[2019 Global Rates Outlook: The Ryder Cup of Bonds \(2 Dec 2018\)](#)

[2019 Global Strategy Outlook: The Turning Point \(25 Nov 2018\)](#)

[US Economics, US Fixed Income Strategy, and Banks: A Surprisingly Early End to Balance Sheet Normalization \(12 Jul 2018\)](#)

[2018 Global Mid-Year Outlook: Favoring The US Over Europe \(18 May 2018\)](#)

[UK Economics and Strategy: Homemade Inflation \(15 Mar 2018\)](#)

[European Economics & Rates Strategy: Inflation: How Will it Surprise? \(12 Dec 2017\)](#)

[US Economics & Rates Strategy: What's Eating Away at Inflation? \(6 Sep 2017\)](#)

[US Economics & Rates Strategy: The Phillips Curve: Wanted Dead or Alive \(12 May 2017\)](#)

MORGAN STANLEY & CO. INTERNATIONAL PLC+

Shreya Chander

STRATEGIST

Shreya.Chander@morganstanley.com

+44 20 7425-4740

MORGAN STANLEY & CO. LLC

Guneet Dhingra, CFA

STRATEGIST

Guneet.Dhingra@morganstanley.com

+1 212 761-1445

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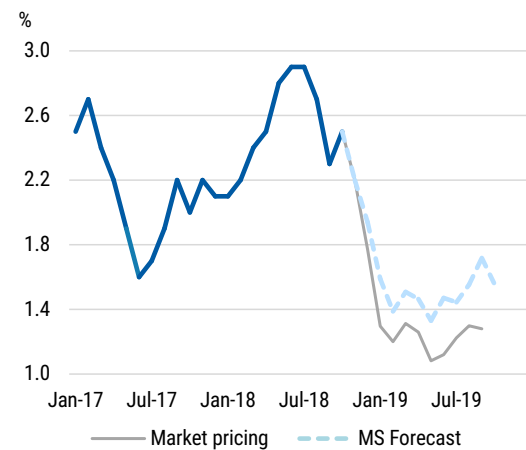
Forecasts

Exhibit 2: Realized and forecast inflation

US CPI			UK RPI		Euro HICPxT		France CPIxT	
	Index	Y/Y %	Index	Y/Y %	Index	Y/Y %	Index	Y/Y %
1/31/2017	242.84	2.5	265.50	2.59	100.39	1.7	100.41	1.4
2/28/2017	243.60	2.7	268.40	3.23	100.77	2.0	100.52	1.2
3/31/2017	243.80	2.4	269.30	3.14	101.59	1.5	101.14	1.1
4/30/2017	244.52	2.2	270.60	3.52	101.96	1.8	101.23	1.1
5/31/2017	244.73	1.9	271.70	3.66	101.84	1.4	101.28	0.8
6/30/2017	244.96	1.6	272.30	3.50	101.86	1.2	101.30	0.7
7/31/2017	244.79	1.7	272.90	3.61	101.33	1.3	100.94	0.7
8/31/2017	245.52	1.9	274.70	3.90	101.60	1.5	101.47	0.9
9/30/2017	246.82	2.2	275.10	3.85	102.04	1.5	101.30	0.9
10/31/2017	246.66	2.0	275.30	3.97	102.14	1.3	101.40	1.0
11/30/2017	246.67	2.2	275.80	3.88	102.20	1.5	101.47	1.1
12/31/2017	246.52	2.1	278.10	4.12	102.58	1.3	101.77	1.1
1/31/2018	247.87	2.1	276.00	3.95	101.64	1.2	101.67	1.3
2/28/2018	248.99	2.2	278.10	3.61	101.84	1.1	101.64	1.1
3/31/2018	249.55	2.4	278.30	3.34	102.83	1.2	102.42	1.3
4/30/2018	250.55	2.5	279.70	3.36	103.12	1.1	102.59	1.3
5/31/2018	251.59	2.8	280.70	3.31	103.64	1.8	103.06	1.8
6/30/2018	251.99	2.9	281.50	3.38	103.76	1.9	103.07	1.7
7/31/2018	252.01	2.9	281.70	3.22	103.41	2.1	102.96	2.0
8/31/2018	252.15	2.7	284.20	3.46	103.58	1.9	103.48	2.0
9/30/2018	252.44	2.3	284.10	3.27	104.05	2.0	103.25	1.9
10/31/2018	252.89	2.5	284.50	3.34	104.30	2.1	103.37	1.9
11/30/2018	252.04	2.2	284.72	3.19	104.13	1.9	103.15	1.7
12/31/2018	251.30	1.9	286.26	2.84	104.53	1.9	103.24	1.4
1/31/2019	251.80	1.6	283.87	2.71	103.49	1.8	102.65	1.0
2/28/2019	252.45	1.4	285.70	2.58	103.88	2.0	102.82	1.2
3/31/2019	253.32	1.5	286.44	2.81	105.02	2.1	103.54	1.1
4/30/2019	254.21	1.5	287.77	2.80	105.31	2.1	103.62	1.0
5/31/2019	254.93	1.3	288.59	2.76	105.52	1.8	103.83	0.7
6/30/2019	255.69	1.5	289.40	2.78	105.57	1.7	103.94	0.8
7/31/2019	255.65	1.4	289.61	2.77	105.07	1.6	103.71	0.7
8/31/2019	256.06	1.6	291.54	2.56	105.31	1.7	104.35	0.8
9/30/2019	256.78	1.7	291.71	2.67	105.71	1.6	103.93	0.7
10/31/2019	256.82	1.6	291.89	2.63	105.86	1.5	103.97	0.6
11/30/2019			292.26	2.71	105.76	1.6	103.97	0.8
12/31/2019			294.02	2.81	106.11	1.5	104.26	1.0

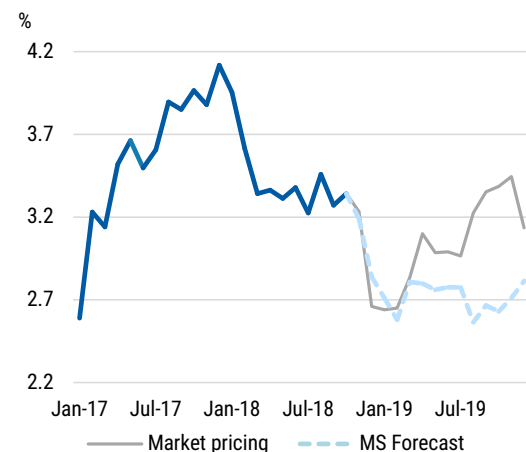
Source: Morgan Stanley Research, Central Banks

Exhibit 3: US CPI: MS forecast & market fixings



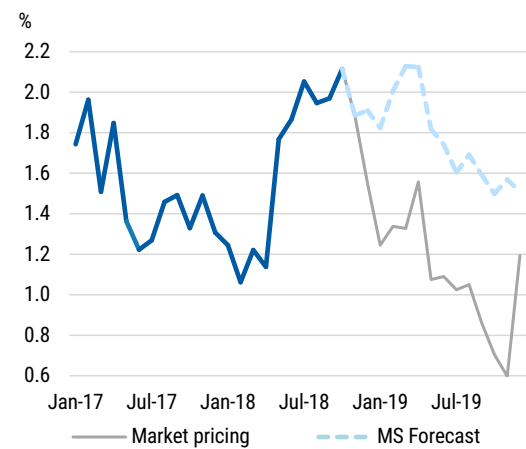
Source: Morgan Stanley Research, BGC

Exhibit 4: UK RPI : MS forecast & market fixings



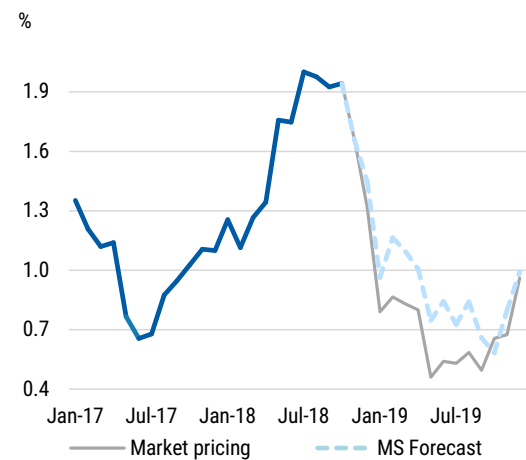
Source: Morgan Stanley Research, BGC

Exhibit 5: Euro HICPxT: MS forecast & market fixings



Source: Morgan Stanley Research, BGC

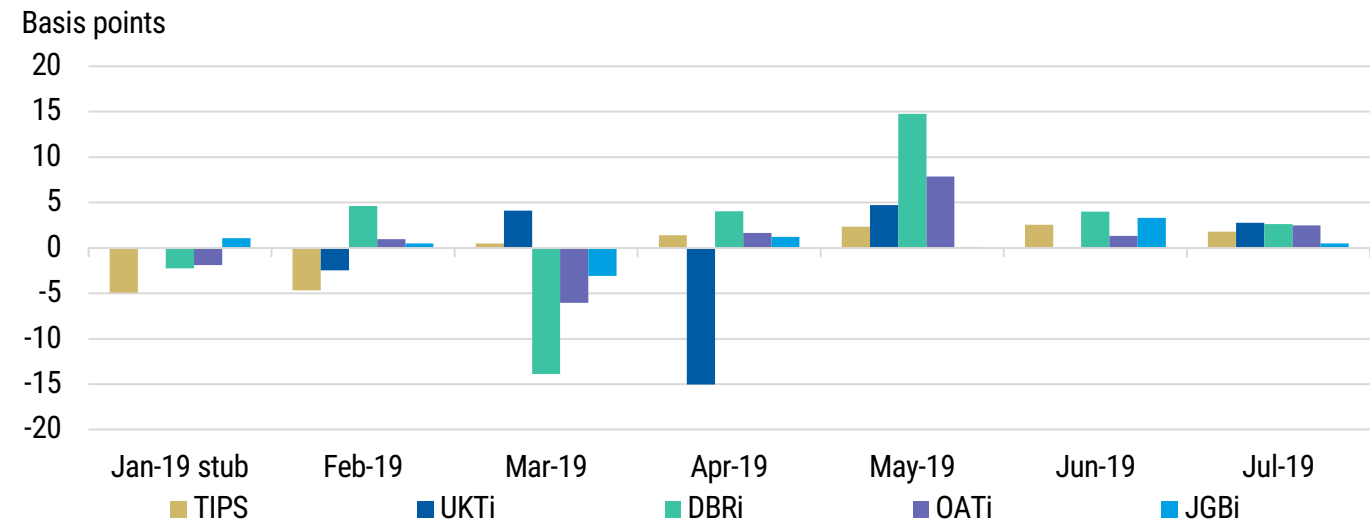
Exhibit 6: France CPIxT: MS forecast & market fixings



Source: Morgan Stanley Research, BGC

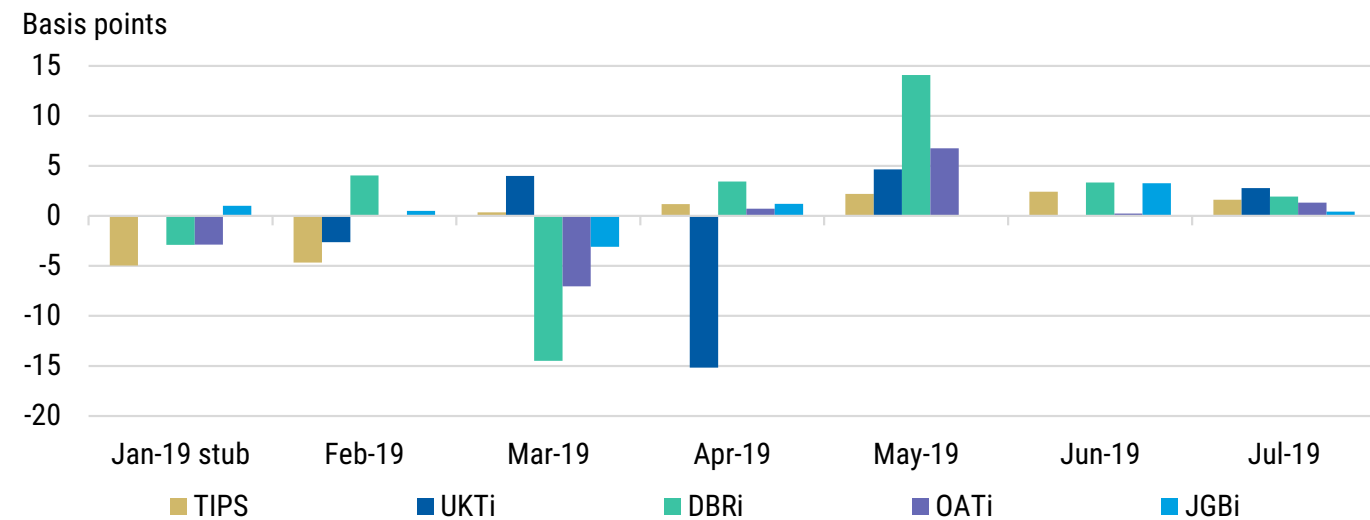
Carry Projections

Exhibit 7: 10y real yield benchmark monthly carry profile



Source: Morgan Stanley Research, Bloomberg

Exhibit 8: 10y breakeven benchmark monthly carry profile



Source: Morgan Stanley Research, Bloomberg

TIPS

Exhibit 9: TIPS real yield and breakeven carry projections

TII	TIPS		TIPS Yield Carry				Reference UST	Breakeven	Breakeven Carry			
	Assumed Spot Price	Funding Rate Spot Yield	2.68% 1M	2.59% 3M	2.58% 6M	2.64% 12M			2.68% 1M	2.59% 3M	2.58% 6M	2.64% 12M
2.125% Jan-19	99.86	6.05%					2.750% Feb-19	-3.62%				
0.125% Apr-19	98.59	5.17%	-70.6	625.6			1.625% Apr-19	-2.73%	-60.2	674.1		
1.875% Jul-19	99.70	2.44%	-85.8	-157.8	1338.5		3.625% Aug-19	0.11%	-85.6	-157.1	1352.2	
1.375% Jan-20	99.39	1.97%	-45.1	-72.4	46.7	-6764.7	3.625% Feb-20	0.64%	-45.5	-74.0	44.1	-6714.0
0.125% Apr-20	97.75	1.90%	-36.0	-56.1	28.1	-853.9	1.375% Apr-20	0.67%	-35.0	-55.5	28.0	-832.9
1.250% Jul-20	99.80	1.38%	-33.1	-55.5	-4.1	-563.4	2.625% Aug-20	1.16%	-32.8	-54.9	-2.3	-544.1
1.125% Jan-21	99.53	1.36%	-24.8	-40.4	-3.5	-294.7	3.625% Feb-21	1.15%	-24.5	-39.8	-1.2	-279.3
0.125% Apr-21	97.22	1.36%	-21.8	-35.1	-2.8	-232.3	1.375% Apr-21	1.13%	-20.9	-33.8	-0.6	-221.3
0.625% Jul-21	98.87	1.08%	-20.7	-34.5	-9.6	-215.3	2.125% Aug-21	1.43%	-20.4	-33.7	-7.8	-206.2
0.125% Jan-22	97.00	1.13%	-17.0	-27.8	-6.7	-158.4	2.000% Feb-22	1.36%	-16.7	-27.0	-4.9	-150.8
0.125% Apr-22	96.67	1.16%	-15.5	-25.2	-5.4	-139.8	1.875% Apr-22	1.36%	-15.0	-24.4	-4.2	-133.8
0.125% Jul-22	97.04	0.98%	-15.0	-24.7	-8.1	-133.2	1.625% Aug-22	1.55%	-14.7	-24.2	-7.1	-128.5
0.125% Jan-23	96.49	1.02%	-13.0	-21.2	-6.4	-110.1	2.000% Feb-23	1.52%	-12.8	-20.9	-5.7	-106.3
0.625% Apr-23	98.29	1.03%	-12.3	-19.9	-5.7	-102.5	2.750% Apr-23	1.50%	-11.8	-19.5	-4.9	-98.7
0.375% Jul-23	97.65	0.90%	-11.8	-19.4	-7.0	-98.4	2.500% Aug-23	1.64%	-11.7	-19.2	-6.5	-95.1
0.625% Jan-24	98.32	0.97%	-10.5	-17.2	-5.6	-85.5	2.750% Feb-24	1.60%	-10.5	-17.2	-5.4	-83.0
0.125% Jul-24	95.79	0.91%	-9.6	-15.7	-5.6	-76.2	2.375% Aug-24	1.68%	-9.6	-15.7	-5.6	-74.6
2.375% Jan-25	108.08	0.99%	-9.0	-14.7	-4.4	-72.5	7.625% Feb-25	1.60%	-9.2	-15.2	-4.7	-69.8
0.250% Jan-25	95.65	1.00%	-8.7	-14.0	-4.3	-67.3	2.000% Feb-25	1.62%	-8.7	-14.2	-4.6	-66.5
0.375% Jul-25	96.37	0.95%	-8.1	-13.1	-4.3	-62.3	2.000% Aug-25	1.68%	-8.1	-13.3	-4.7	-61.9
2.000% Jan-26	106.65	1.02%	-7.7	-12.5	-3.6	-59.8	6.000% Feb-26	1.60%	-7.9	-12.9	-4.0	-58.4
0.625% Jan-26	97.34	1.02%	-7.5	-12.0	-3.5	-56.7	1.625% Feb-26	1.63%	-7.5	-12.3	-4.0	-56.8
0.125% Jul-26	93.85	0.97%	-7.0	-11.2	-3.5	-51.9	1.500% Aug-26	1.70%	-7.0	-11.4	-4.1	-52.3
0.375% Jan-27	94.97	1.03%	-6.5	-10.4	-2.9	-48.1	6.625% Feb-27	1.62%	-6.7	-10.9	-3.5	-47.2
2.375% Jan-27	110.36	1.03%	-6.8	-11.1	-3.1	-52.4	6.625% Feb-27	1.62%	-7.0	-11.6	-3.7	-51.5
0.375% Jul-27	94.98	0.99%	-6.2	-9.9	-3.0	-45.4	2.250% Aug-27	1.71%	-6.3	-10.3	-3.8	-46.1
0.500% Jan-28	95.42	1.03%	-5.8	-9.3	-2.6	-42.4	2.750% Feb-28	1.68%	-5.9	-9.7	-3.5	-43.2
1.750% Jan-28	106.18	1.03%	-6.0	-9.7	-2.7	-45.1	2.750% Feb-28	1.68%	-6.2	-10.1	-3.5	-45.8
3.625% Apr-28	122.75	1.05%	-6.4	-10.1	-2.8	-46.7	5.500% Aug-28	1.68%	-6.6	-10.7	-3.9	-47.3
0.750% Jul-28	97.84	0.99%	-5.6	-9.0	-2.7	-41.1	5.500% Aug-28	1.74%	-5.8	-9.6	-3.7	-41.6
2.500% Jan-29	97.84	0.99%	-5.6	-9.0	-2.7	-41.1	5.250% Feb-29	1.74%	-5.8	-9.6	-3.7	-41.6
3.875% Apr-29	113.84	1.04%	-5.6	-9.0	-2.4	-41.6	5.250% Feb-29	1.70%	-5.8	-9.6	-3.4	-42.4
3.375% Apr-32	127.30	1.06%	-5.8	-9.3	-2.5	-42.4	5.375% Feb-31	1.67%	-6.1	-9.9	-3.5	-43.2
2.125% Feb-40	128.37	1.08%	-4.6	-7.2	-1.9	-32.4	4.625% Feb-40	1.68%	-4.8	-7.8	-2.9	-33.3
2.125% Feb-41	117.86	1.17%	-2.8	-4.4	-0.8	-19.4	4.750% Feb-41	1.76%	-3.1	-5.0	-2.1	-21.2
0.750% Feb-42	118.56	1.17%	-2.7	-4.2	-0.8	-18.6	3.125% Feb-42	1.78%	-3.0	-4.9	-2.1	-20.6
0.625% Feb-43	91.16	1.19%	-2.3	-3.6	-0.7	-15.8	3.125% Feb-43	1.79%	-2.6	-4.2	-1.9	-17.7
1.375% Feb-44	88.11	1.19%	-2.2	-3.4	-0.6	-14.9	3.625% Feb-44	1.81%	-2.4	-4.1	-1.9	-17.0
0.750% Feb-45	103.85	1.20%	-2.3	-3.6	-0.6	-15.5	2.500% Feb-45	1.81%	-2.5	-4.2	-1.9	-17.6
1.000% Feb-46	89.90	1.20%	-2.1	-3.2	-0.6	-14.0	2.500% Feb-46	1.82%	-2.3	-3.8	-1.8	-16.0
0.875% Feb-47	95.34	1.20%	-2.1	-3.2	-0.6	-13.9	2.500% Feb-46	1.83%	-2.3	-3.8	-1.7	-15.9
1.000% Feb-48	92.30	1.20%	-2.0	-3.1	-0.6	-13.3	3.000% Feb-48	1.83%	-2.2	-3.7	-1.7	-15.3

Source: Morgan Stanley Research, Bloomberg

UKTi

Exhibit 10: UKTi real yield and breakeven carry projections

UKTi			UKTi Yield Carry				Breakeven Carry					
UKTi	Assumed Funding Rate		0.95%	0.95%	1.00%	1.07%	Reference UKT	Breakeven	0.95%	0.95%	1.00%	1.07%
	Spot Price	Spot Yield	1M	3M	6M	12M			1M	3M	6M	12M
0.125% Nov-19	102.05	-2.14%	-22.7	-151.5	-109.7		1.75% Jul-19	2.89%	-21.1	-137.0	105.0	
1.875% Nov-22	117.01	-2.28%	-5.3	-28.7	-15.4	-27.6	0.50% Jul-22	3.08%	-5.0	-27.5	-12.0	-16.9
0.125% Mar-24	112.82	-2.18%	-3.6	-20.1	-9.5	-16.1	2.75% Sep-24	3.12%	-3.5	-19.8	-8.6	-12.9
0.125% Mar-26	117.05	-2.05%	-2.5	-13.9	-5.8	-8.9	1.50% Jul-26	3.12%	-2.7	-14.4	-6.3	-8.9
1.250% Nov-27	132.40	-2.05%	-2.1	-11.6	-4.9	-7.3	4.25% Dec-27	3.20%	-2.3	-12.2	-5.8	-8.4
0.125% Aug-28	122.87	-2.02%	-1.7	-10.0	-3.7	-5.9	1.63% Oct-28	3.30%	-2.0	-10.9	-5.3	-8.5
0.125% Mar-29	123.57	-1.95%	-1.7	-9.5	-3.4	-4.9	4.75% Dec-30	3.33%	-2.0	-10.6	-5.5	-8.4
1.250% Nov-32	150.64	-1.91%	-1.3	-7.2	-2.6	-3.4	4.25% Jun-32	3.41%	-1.7	-8.5	-4.9	-7.6
0.750% Mar-34	145.91	-1.85%	-1.1	-6.4	-2.0	-2.6	4.50% Sep-34	3.45%	-1.5	-7.6	-4.4	-7.1
2.000% Jan-35	276.79	-5.02%	6.2	-2.4	-3.5	-15.6	4.50% Sep-34	6.63%	5.8	-3.6	-5.9	-20.2
0.125% Nov-36	141.21	-1.81%	-0.9	-5.1	-1.5	-1.9	4.25% Mar-36	3.48%	-1.3	-6.4	-4.0	-6.5
1.125% Nov-37	166.03	-1.80%	-0.9	-5.2	-1.5	-1.8	1.75% Sep-37	3.53%	-1.3	-6.4	-3.8	-6.1
0.625% Mar-40	159.93	-1.71%	-0.7	-4.4	-1.1	-1.1	4.25% Dec-40	3.47%	-1.2	-5.7	-3.5	-5.6
0.125% Aug-41	150.25	-1.69%	-0.6	-3.9	-0.8	-0.9	4.25% Dec-40	3.45%	-1.1	-5.2	-3.3	-5.4
0.625% Nov-42	168.18	-1.68%	-0.6	-3.9	-0.9	-0.8	4.50% Dec-42	3.46%	-1.1	-5.1	-3.3	-5.3
0.125% Mar-44	154.48	-1.62%	-0.6	-3.5	-0.7	-0.5	3.25% Jan-44	3.44%	-1.0	-4.7	-3.0	-4.8
0.125% Mar-46	158.24	-1.58%	-0.5	-3.2	-0.6	-0.3	1.50% Jul-47	3.38%	-0.8	-4.1	-2.3	-3.6
0.750% Nov-47	185.81	-1.58%	-0.5	-3.2	-0.6	-0.3	1.50% Jul-47	3.39%	-0.8	-4.1	-2.4	-3.6
0.125% Aug-48	164.19	-1.57%	-0.5	-2.9	-0.5	-0.3	1.50% Jul-47	3.37%	-0.8	-3.8	-2.2	-3.6
0.500% Mar-50	183.68	-1.57%	-0.5	-2.9	-0.5	-0.2	4.25% Dec-49	3.35%	-0.8	-3.9	-2.4	-3.9
0.250% Mar-52	178.94	-1.56%	-0.4	-2.6	-0.4	-0.2	3.75% Jul-52	3.30%	-0.8	-3.6	-2.2	-3.3
1.250% Nov-55	238.35	-1.53%	-0.4	-2.6	-0.4	-0.1	4.25% Dec-55	3.25%	-0.7	-3.4	-2.0	-3.0
0.125% Nov-56	184.80	-1.52%	-0.4	-2.2	-0.3	-0.1	4.25% Dec-55	3.24%	-0.6	-3.1	-1.9	-3.0
0.125% Mar-58	187.88	-1.51%	-0.3	-2.2	-0.3	0.0	4.00% Jan-60	3.20%	-0.6	-2.9	-1.7	-2.6
0.375% Mar-62	215.43	-1.51%	-0.3	-2.0	-0.3	0.0	4.00% Jan-60	3.20%	-0.6	-2.8	-1.7	-2.6
0.125% Nov-65	212.21	-1.51%	-0.3	-1.8	-0.3	0.0	2.50% Jul-65	3.20%	-0.5	-2.4	-1.4	-2.1
0.125% Mar-68	223.97	-1.55%	-0.3	-1.7	-0.3	-0.1	3.50% Jul-68	3.25%	-0.5	-2.4	-1.5	-2.3

Source: Morgan Stanley Research, Bloomberg

Euro-indexed linkers

DBRi

Exhibit 11: DBRi real yield and breakeven carry projections

DBRi			DBRi Yield Carry				Breakeven Carry					
OBLi/DBRi	Assumed Funding Rate		-0.57%	-0.57%	-0.57%	-0.56%	Reference DBR	Breakeven	-0.57%	-0.57%	-0.57%	-0.56%
	Spot Price	Spot Yield	1M	3M	6M	12M			1M	3M	6M	12M
1.75% Apr-20	102.88	-0.49%	-8.9	-70.1	134.2	574.7	3.25% Jan-20	-0.34%	-9.2	-65.1	153.8	8915.1
0.10% Apr-23	105.44	-1.14%	-3.5	-21.3	18.8	28.1	1.50% May-23	0.75%	-3.9	-22.4	16.4	22.6
0.10% Apr-26	108.46	-1.02%	-1.8	-11.7	11.5	16.7	0.50% Feb-25	0.85%	-2.5	-13.5	7.8	8.7
0.50% Apr-30	115.67	-0.82%	-1.0	-7.1	8.4	12.5	6.25% Jan-30	1.08%	-1.7	-9.4	3.5	2.0
0.10% Apr-46	122.96	-0.67%	-0.3	-2.7	3.7	5.4	2.50% Aug-46	1.51%	-0.6	-4.1	0.6	-1.2

Source: Morgan Stanley Research, Bloomberg

OATei

Exhibit 12: OATei real yield and breakeven carry projections

OATei			OATei Yield Carry					Breakeven Carry				
Assumed Funding Rate			-0.50%	-0.50%	-0.50%	-0.49%			-0.50%	-0.50%	-0.50%	-0.49%
OATei	Spot Price	Spot Yield	1M	3M	6M	12M	Reference OAT	Breakeven	1M	3M	6M	12M
2.25% Jul-20	105.48	-1.23%	-10.8	-68.8	61.3	143.1	3.50% Apr-20	0.65%	-10.5	-67.2	65.4	164.2
0.10% Mar-21	102.74	-1.15%	-8.1	-46.5	39.7	71.5	3.75% Apr-21	0.66%	-8.4	-46.9	38.9	69.8
1.10% Jul-22	108.33	-1.19%	-4.3	-26.9	22.1	32.7	3.00% Apr-22	0.83%	-4.9	-28.3	19.1	25.6
0.25% Jul-24	106.91	-0.96%	-2.5	-15.7	15.3	22.8	2.25% May-24	0.98%	-3.2	-18.2	9.9	10.5
1.85% Jul-27	121.82	-0.63%	-1.2	-9.5	12.6	19.7	2.75% Oct-27	1.15%	-2.0	-12.5	6.2	5.6
0.70% Jul-30	112.17	-0.33%	-0.8	-6.3	10.1	16.4	2.50% May-30	1.17%	-1.6	-9.3	3.6	2.1
3.15% Jul-32	147.84	-0.30%	-0.6	-5.8	10.0	16.1	5.75% Oct-32	1.27%	-1.0	-8.4	3.7	2.0
0.10% Jul-36	103.63	-0.10%	-0.4	-3.7	7.0	11.5	1.25% May-36	1.35%	-1.4	-6.5	1.3	-0.5
1.80% Jul-40	141.24	-0.09%	-0.4	-3.4	6.6	10.8	4.50% Apr-41	1.46%	-0.7	-5.7	1.4	-0.8

Source: Morgan Stanley Research, Bloomberg

BTPei

Exhibit 13: BTPei breakeven and real yield carry projections

BTPei			BTPei Yield Carry					Breakeven Carry				
Assumed Funding Rate			-0.41%	-0.41%	-0.38%	-0.38%			-0.41%	-0.41%	-0.38%	-0.38%
BTPei	Spot Price	Spot Yield	1M	3M	6M	12M	Reference BTP	Breakeven	1M	3M	6M	12M
2.35% Sep-19	101.66	-0.03%	-14.0	-148.2	584.4		4.25% Sep-19	0.32%	-22.9	-185.0	386.1	
2.10% Sep-21	104.20	0.53%	-1.4	-21.9	67.5	147.1	4.75% Sep-21	0.48%	-6.1	-36.2	34.6	58.1
0.10% May-22	97.42	0.88%	0.0	-13.6	56.9	117.3	1.35% Apr-22	0.35%	-4.6	-27.2	27.4	44.6
2.60% Sep-23	106.78	1.11%	0.4	-9.0	43.9	86.7	4.75% Aug-23	0.54%	-4.7	-22.7	15.7	22.8
2.35% Sep-24	105.59	1.33%	0.6	-6.3	37.9	73.6	3.75% Sep-24	0.72%	-3.5	-18.4	12.3	15.8
3.10% Sep-26	110.80	1.60%	0.8	-3.9	30.8	58.7	4.50% Mar-26	0.73%	-3.0	-15.0	7.6	7.6
1.30% May-28	95.69	1.80%	0.9	-2.3	25.1	47.2	4.75% Sep-28	0.81%	-2.3	-11.8	5.4	4.8
1.25% Sep-32	91.15	1.99%	0.8	-1.2	18.1	33.7	1.65% Mar-32	0.89%	-1.7	-8.3	3.7	3.3
2.35% Sep-35	105.93	1.93%	0.6	-1.3	16.0	29.5	2.35% Sep-35	0.00%	-0.8	-5.5	7.5	11.7
2.55% Sep-41	106.45	2.19%	0.6	-0.6	13.4	24.8	5.00% Sep-40	1.30%	-1.7	-7.5	-0.6	-4.4

Source: Morgan Stanley Research, Bloomberg

SPGBei

Exhibit 14: SPGBei breakeven and real yield carry projections

SPGBei			SPGBei Yield Carry					Breakeven Carry				
Assumed Funding Rate			-0.40%	-0.40%	-0.40%	-0.35%			-0.40%	-0.40%	-0.40%	-0.35%
SPGBei	Spot Price	Spot Yield	1M	3M	6M	12M	Reference SPGB	Breakeven	1M	3M	6M	12M
0.55% Nov-19	101.30	-0.87%	-18.5	-128.0	183.8		4.30% Oct-19	0.46%	-18.9	-128.1	184.8	
0.30% Nov-21	103.62	-0.93%	-5.3	-32.1	30.4	48.2	0.75% Jul-21	0.76%	-6.2	-34.6	24.7	36.4
0.15% Nov-23	103.17	-0.49%	-2.4	-16.2	21.5	34.8	4.40% Oct-23	0.89%	-3.6	-20.5	11.8	13.5
1.80% Nov-24	112.99	-0.37%	-1.8	-13.2	19.5	31.7	3.80% Apr-24	0.93%	-2.9	-17.7	9.4	9.3
0.65% Nov-27	104.56	0.13%	-0.8	-7.2	15.3	25.8	1.50% Apr-27	1.08%	-2.5	-12.4	4.5	3.0
1.00% Nov-30	106.31	0.46%	-0.4	-4.8	13.1	22.4	1.95% Jul-30	1.20%	-2.0	-9.7	2.9	1.2

Source: Morgan Stanley Research, Bloomberg

OATi

Exhibit 15: OATi real yield and breakeven carry projections

OATi			OATi Yield Carry				Breakeven Carry						
	Assumed Funding Rate		-0.56%	-0.50%	-0.50%	-0.49%			-0.56%	-0.50%	-0.50%	-0.49%	
OATi	Spot Price	Spot Yield	1M	3M	6M	12M	Reference OAT	Breakeven	1M	3M	6M	12M	
1.30% Jul-19	101.02	-0.53%	-39.6	-218.9	425.1		4.25% Apr-19	-0.25%	-30.9	-103.0			
0.10% Jul-21	102.72	-0.95%	-8.8	-33.4	2.5	9.0	3.75% Apr-21	0.46%	-9.4	-33.8	1.7	7.3	
2.10% Jul-23	113.54	-0.81%	-4.3	-17.4	3.6	9.0	4.25% Oct-23	0.70%	-5.3	-19.8	-1.4	-2.3	
0.10% Mar-25	104.21	-0.57%	-3.1	-11.6	4.2	10.1	0.50% May-25	0.78%	-4.1	-14.5	-1.9	-3.2	
0.10% Mar-28	104.19	-0.35%	-1.9	-7.1	4.0	9.1	2.75% Oct-27	0.87%	-2.8	-10.1	-2.5	-5.1	
3.40% Jul-29	141.28	-0.42%	-1.6	-6.9	3.9	8.5	5.50% Apr-29	1.10%	-2.2	-9.8	-2.8	-6.5	

Source: Morgan Stanley Research, Bloomberg

JGBi

Exhibit 16: JGBi real yield and breakeven carry projections

JGBi			JGBi Yield Carry				Breakeven Carry						
	Assumed Funding Rate		-0.15%	-0.15%	-0.16%	-0.16%			-0.15%	-0.15%	-0.16%	-0.16%	
JGBi	Spot Price	Spot Yield	1M	3M	6M	12M	Reference JGB	Breakeven	1M	3M	6M	12M	
0.10% Sep-23	102.15	-0.36%	1.7	-3	5.5	38.6	0.80% Sep-23	0.20%	1.8	-2.9	5.6	38.5	
0.10% Mar-24	102.40	-0.36%	1.5	-3.2	4.3	33.3	0.60% Mar-24	0.20%	1.6	-3.1	4.3	33.2	
0.10% Sep-24	102.60	-0.35%	1.4	-3	3.5	29.4	0.50% Sep-24	0.20%	1.5	-3.2	3.5	29.3	
0.10% Mar-25	102.85	-0.36%	1.3	-3.1	3.1	26.4	0.40% Mar-25	0.20%	1.4	-3.0	3.1	26.3	
0.10% Mar-26	103.35	-0.36%	1.1	-3	2.7	22.1	0.10% Mar-26	0.21%	1.1	-2.6	2.6	21.9	
0.10% Mar-27	103.50	-0.32%	1.3	-1.6	3.2	20.2	0.10% Mar-27	0.22%	1.2	-1.7	2.8	19.4	
0.10% Mar-28	103.20	-0.24%	1.2	-1	3.3	18.7	0.10% Mar-28	0.20%	1.1	-1.5	2.6	17.3	

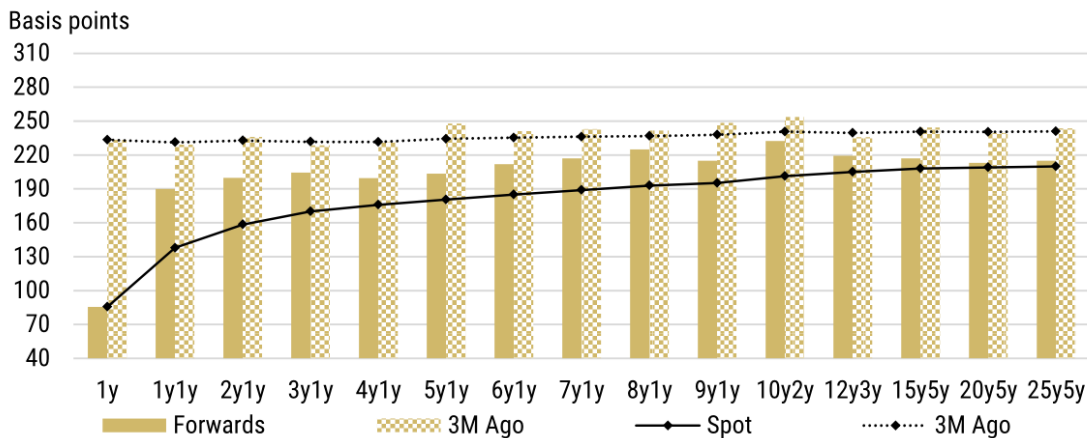
Source: Morgan Stanley Research, Bloomberg

Forward real yield and breakeven curves

We construct forward breakeven and real yield curves by estimating the forward rates between inflation bonds and inflation swaps. These curves reflect the market's pricing of the evolution of the spot real yield and inflation rates. We use the same maturity month bonds to calculate forward real yield and breakeven curves so as to avoid distortions stemming from seasonality issues.

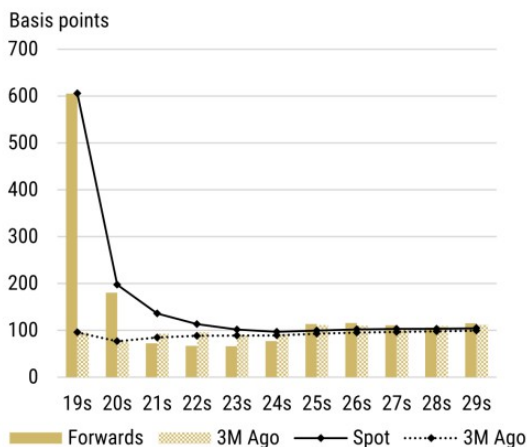
United States

Exhibit 17: US CPI breakeven forwards



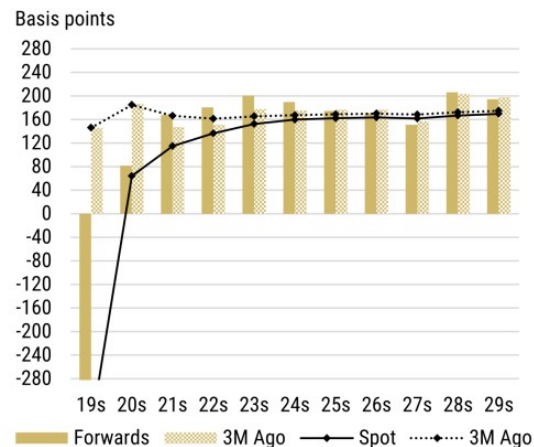
Source: Morgan Stanley Research, Bloomberg

Exhibit 18: TII January maturity real yield forwards

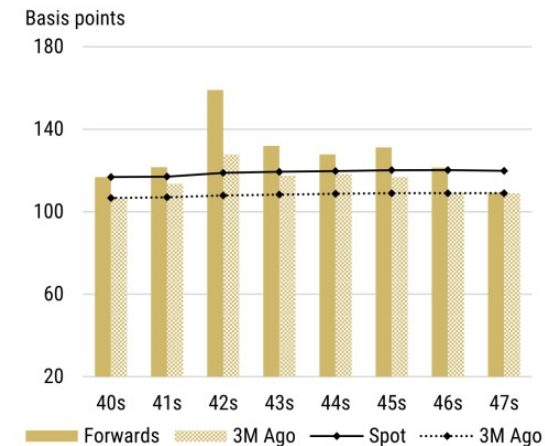


Source: Morgan Stanley Research, Bloomberg

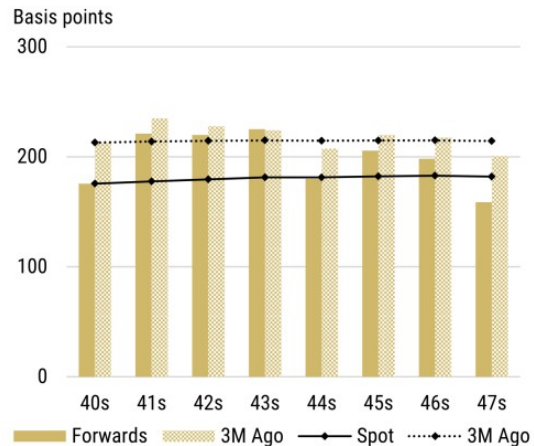
Exhibit 19: TII January maturity breakeven forwards



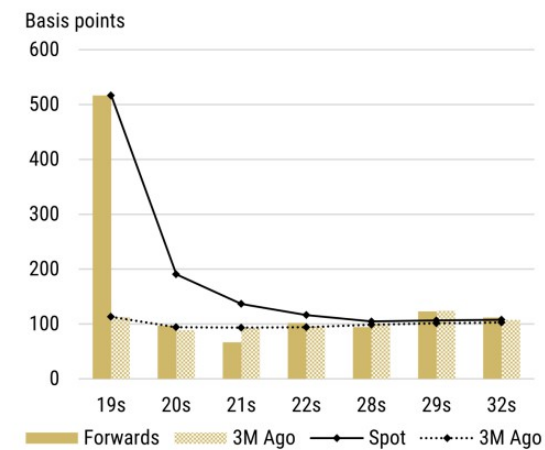
Source: Morgan Stanley Research, Bloomberg

Exhibit 20: TII February maturity real yield forwards


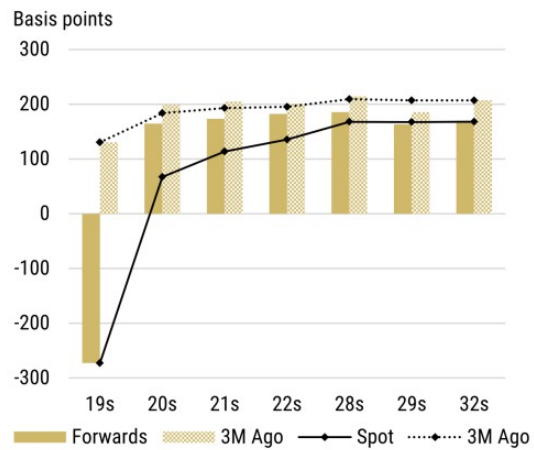
Source: Morgan Stanley Research, Bloomberg

Exhibit 21: TII February maturity breakeven forwards


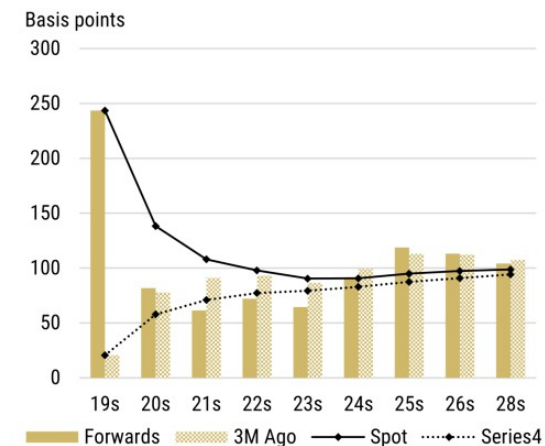
Source: Morgan Stanley Research, Bloomberg

Exhibit 22: TII April maturity real yield forwards


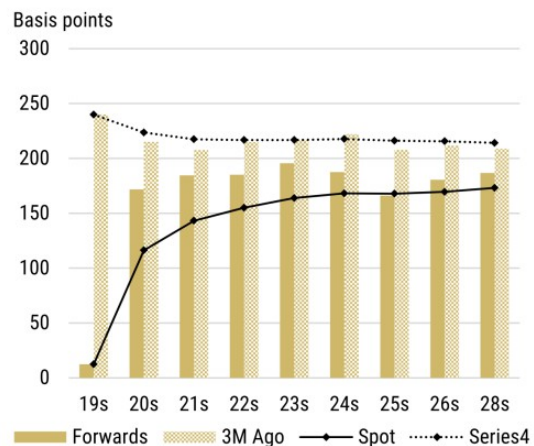
Source: Morgan Stanley Research, Bloomberg

Exhibit 23: TII April maturity breakeven forwards


Source: Morgan Stanley Research, Bloomberg

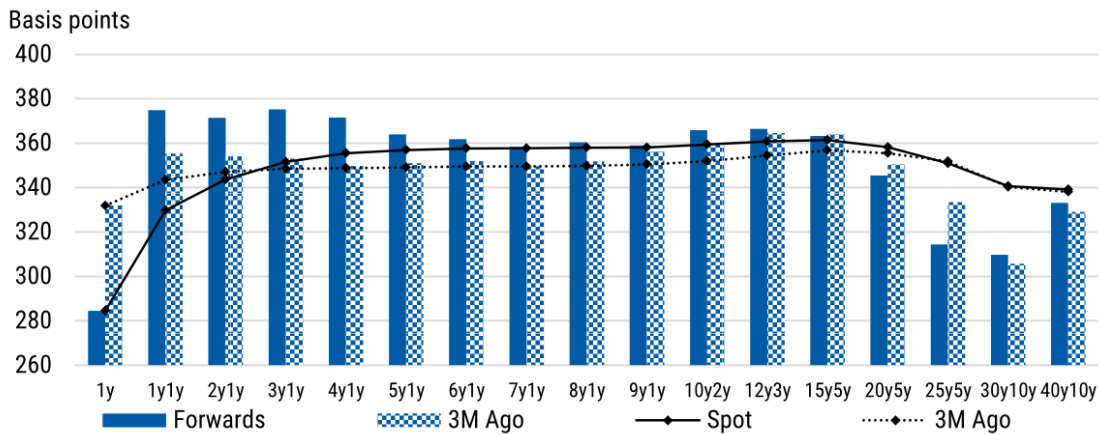
Exhibit 24: TII July maturity real yield forwards


Source: Morgan Stanley Research, Bloomberg

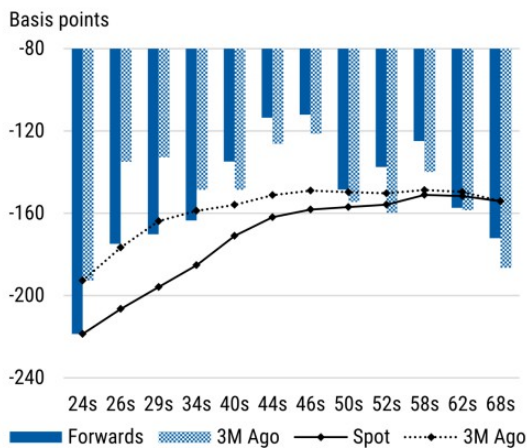
Exhibit 25: TII July maturity breakeven forwards


Source: Morgan Stanley Research, Bloomberg

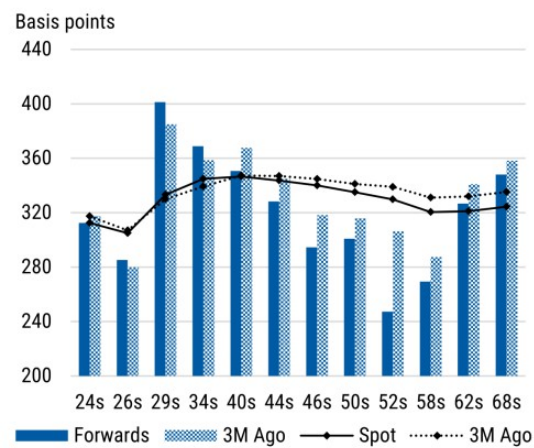
United Kingdom

Exhibit 26: UK RPI breakeven forwards


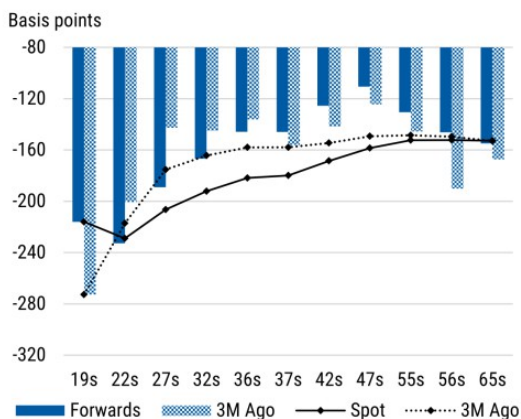
Source: Morgan Stanley Research, Bloomberg

Exhibit 27: UKTi March maturity real yield forwards


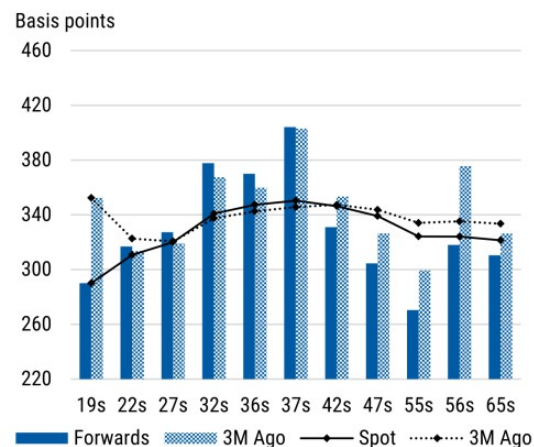
Source: Morgan Stanley Research, Bloomberg

Exhibit 28: UKTi March maturity breakeven forwards


Source: Morgan Stanley Research, Bloomberg

Exhibit 29: UKTi November maturity real yield forwards


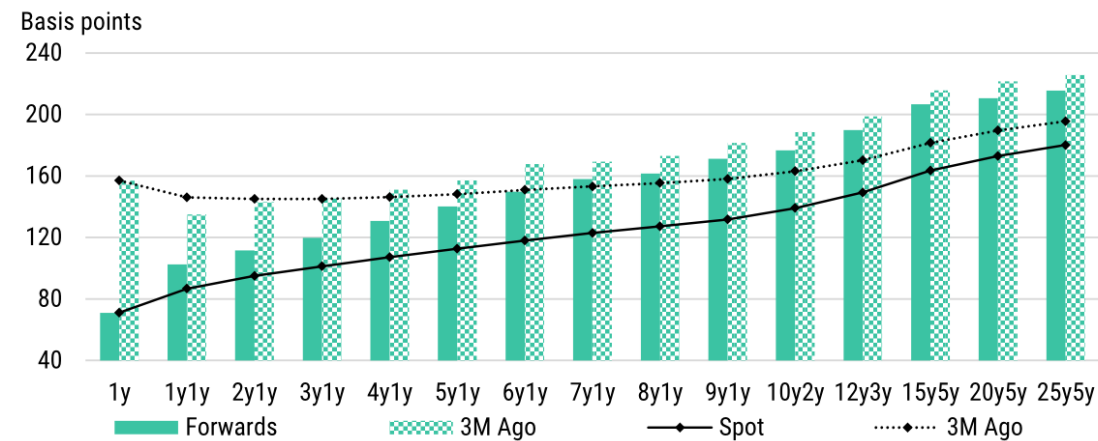
Source: Morgan Stanley Research, Bloomberg

Exhibit 30: UKTi November maturity breakeven forwards


Source: Morgan Stanley Research, Bloomberg

Euro Area

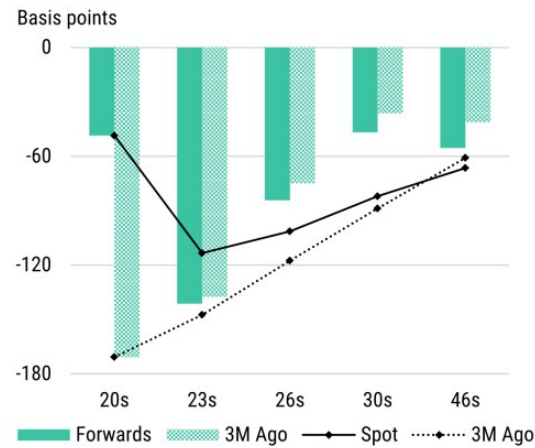
Exhibit 31: Euro HICPxT breakeven forwards



Source: Morgan Stanley Research, Bloomberg

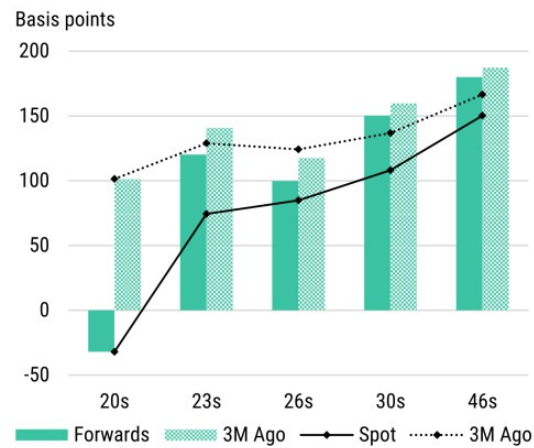
DBRi

Exhibit 32: DBRi April maturity real yield forwards



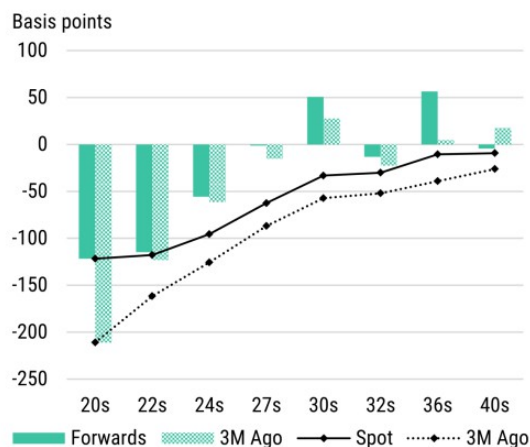
Source: Morgan Stanley Research, Bloomberg

Exhibit 33: DBRi April maturity breakeven forwards

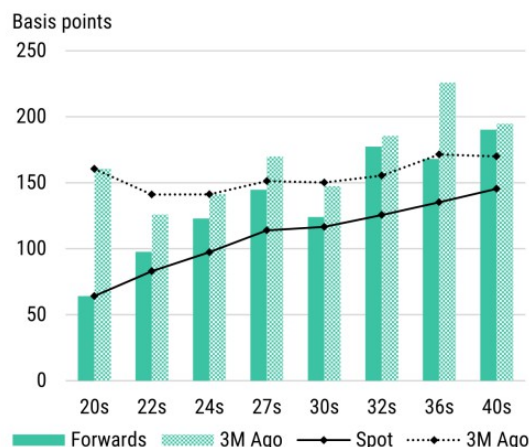


Source: Morgan Stanley Research, Bloomberg

OATei

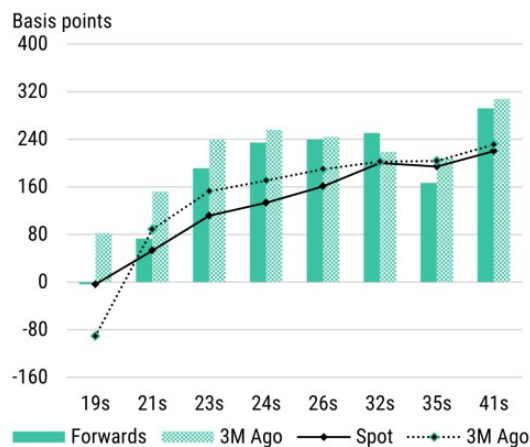
Exhibit 34: OATei July maturity real yield forwards


Source: Morgan Stanley Research, Bloomberg

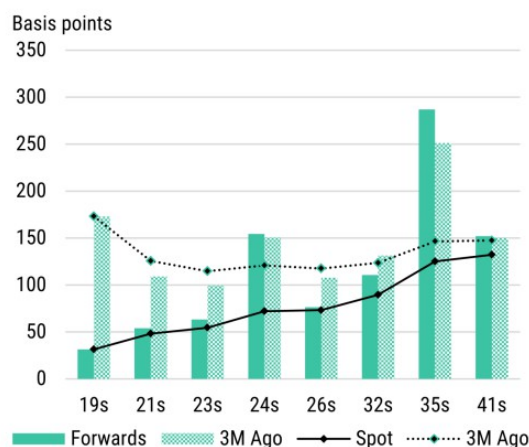
Exhibit 35: OATei July maturity breakeven forwards


Source: Morgan Stanley Research, Bloomberg

BTPEi

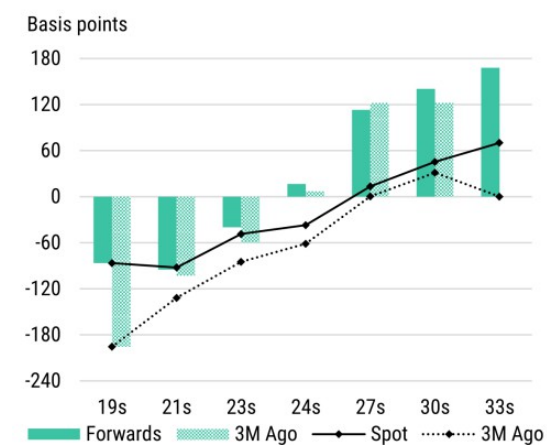
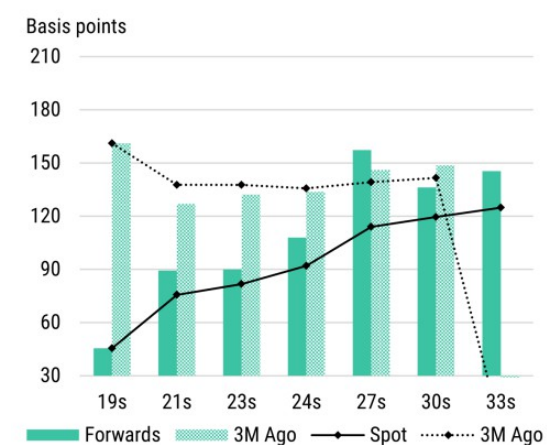
Exhibit 36: BTPEi September maturity real yield forwards


Source: Morgan Stanley Research, Bloomberg

Exhibit 37: BTPEi September maturity breakeven forwards


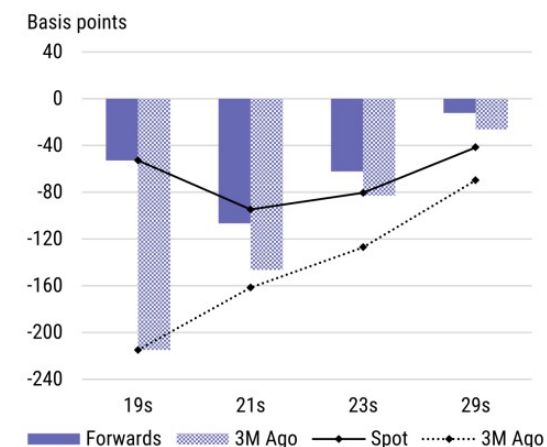
Source: Morgan Stanley Research, Bloomberg

SPGBei

Exhibit 38: SPGBei November maturity real yield forwards

Exhibit 39: SPGBei November maturity breakeven forwards


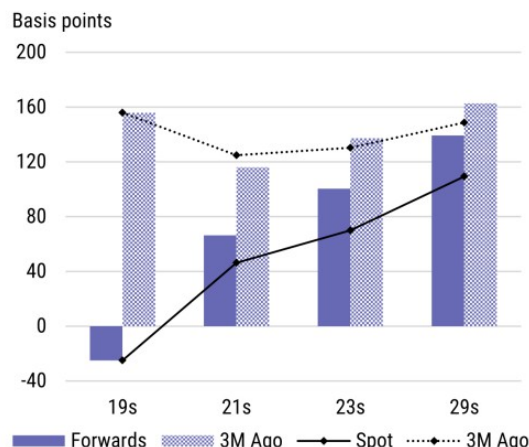
France

Exhibit 40: OATi July maturity real yield forwards



Source: Morgan Stanley Research, Bloomberg

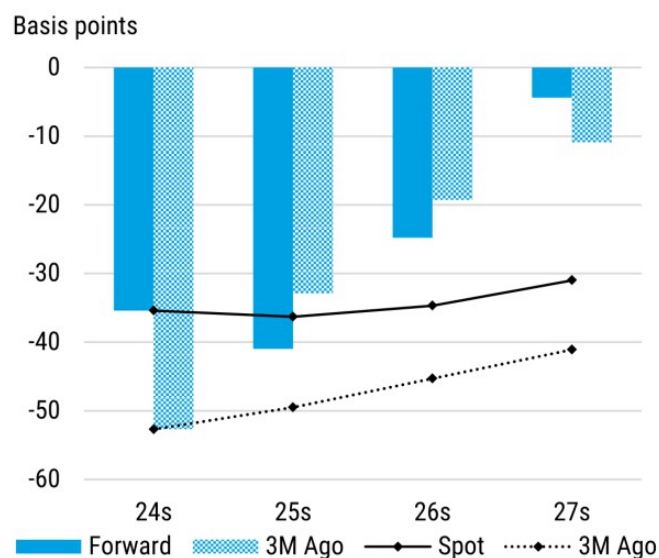
Exhibit 41: OATi July maturity breakeven forwards



Source: Morgan Stanley Research, Bloomberg

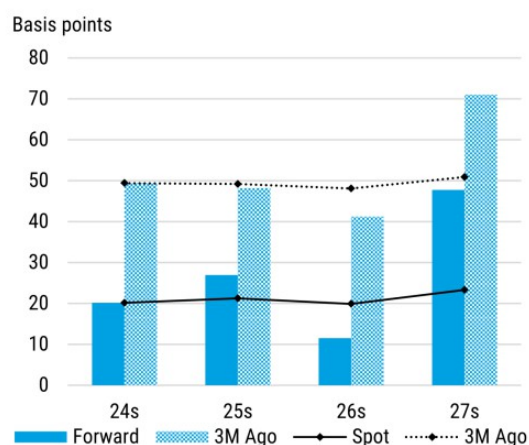
Japan

Exhibit 42: JGBi March maturity real yield forwards



Source: Morgan Stanley Research, Bloomberg

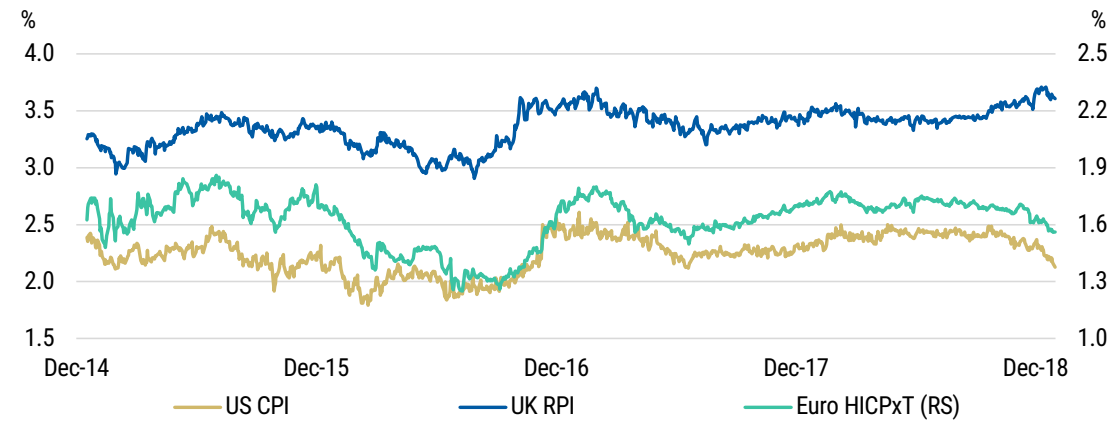
Exhibit 43: JGBi March maturity breakeven forwards



Source: Morgan Stanley Research, Bloomberg

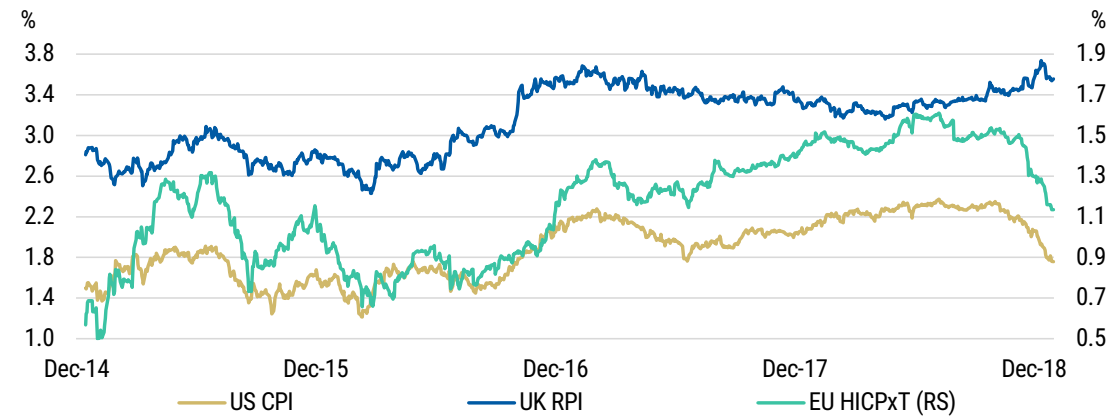
Historical breakeven levels and cross-market spreads

Exhibit 44: US, UK and Euro 5y5y swap breakevens



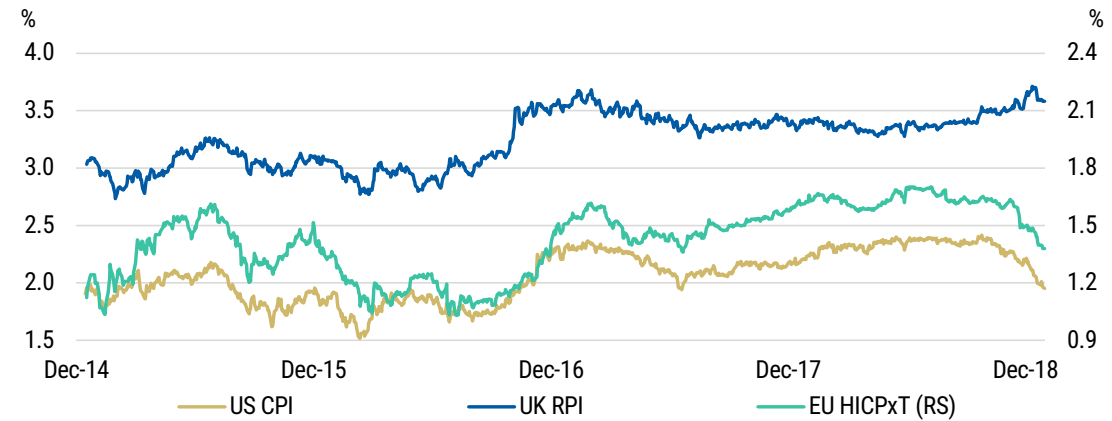
Source: Morgan Stanley Research, Bloomberg

Exhibit 45: US, UK and Euro 5y swap breakevens



Source: Morgan Stanley Research, Bloomberg

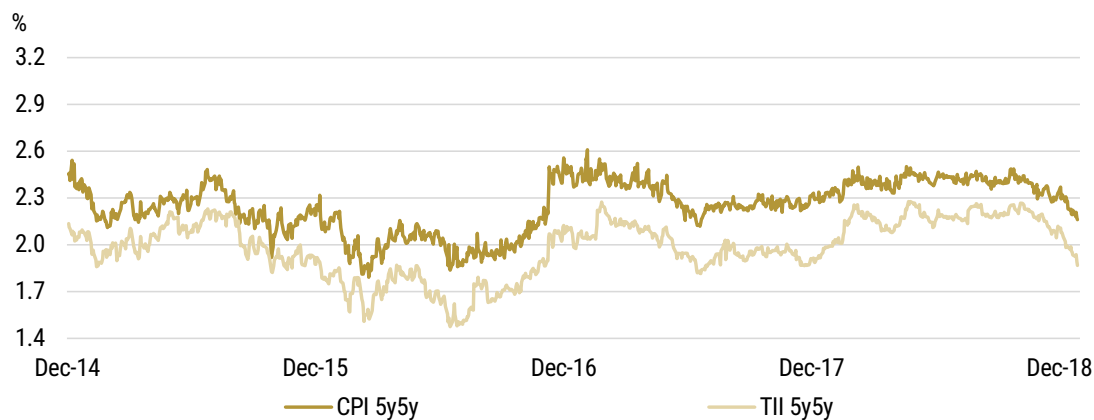
Exhibit 46: US, UK and Euro 10y swap breakevens



Source: Morgan Stanley Research, Bloomberg

United States

Exhibit 47: 5y5y CPI & 5y5y TII breakeven



Source: Morgan Stanley Research, Bloomberg

Exhibit 48: 5y CPI & 5y TII breakeven



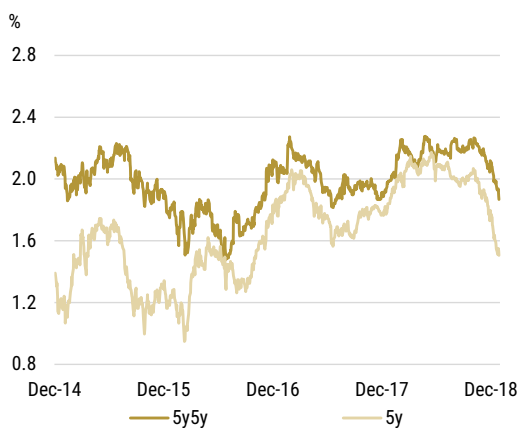
Source: Morgan Stanley Research, Bloomberg

Exhibit 49: 10y CPI & 10y TII breakeven



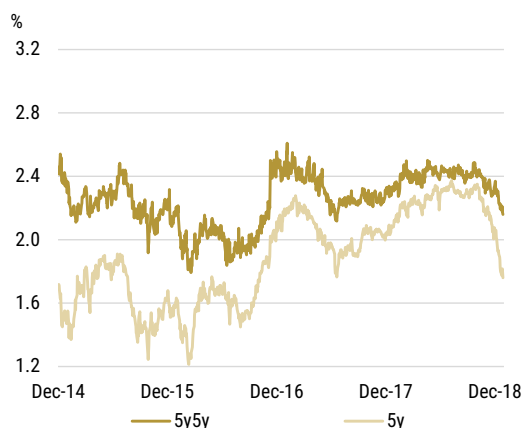
Source: Morgan Stanley Research, Bloomberg

Exhibit 50: 5y5y & 5y TII breakevens



Source: Morgan Stanley Research, Bloomberg

Exhibit 51: 5y5y & 5y CPI breakevens



Source: Morgan Stanley Research, Bloomberg

Exhibit 52: 10y20y & 10y TII breakevens



Source: Morgan Stanley Research, Bloomberg

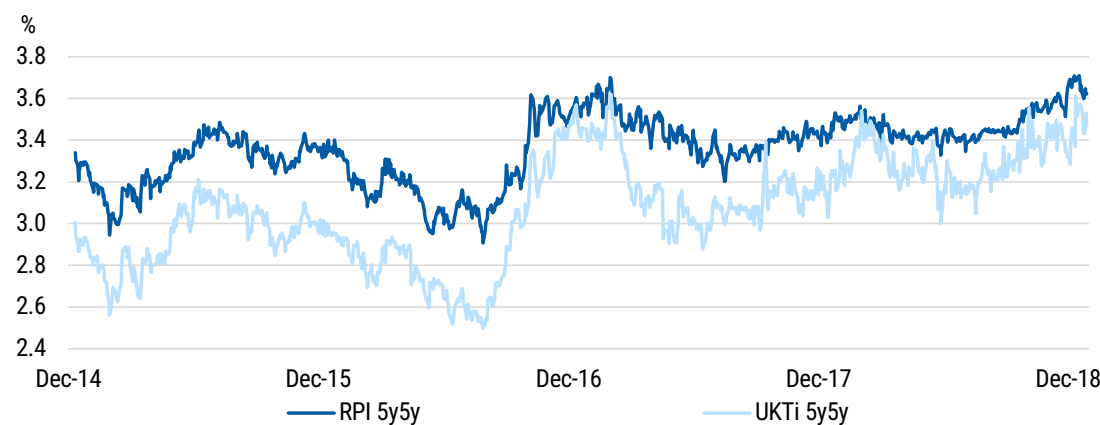
Exhibit 53: 10y20y & 10y CPI breakevens



Source: Morgan Stanley Research, Bloomberg

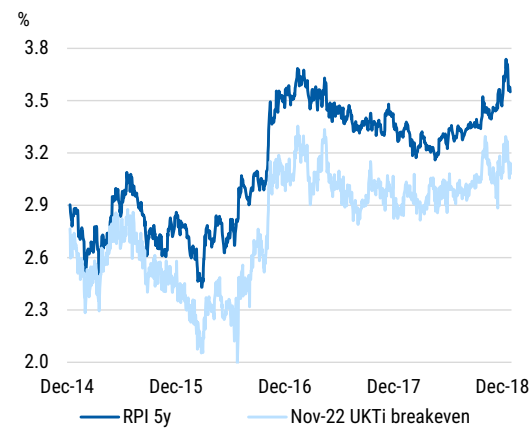
United Kingdom

Exhibit 54: 5y5y RPI & 5y5y UKTi breakeven



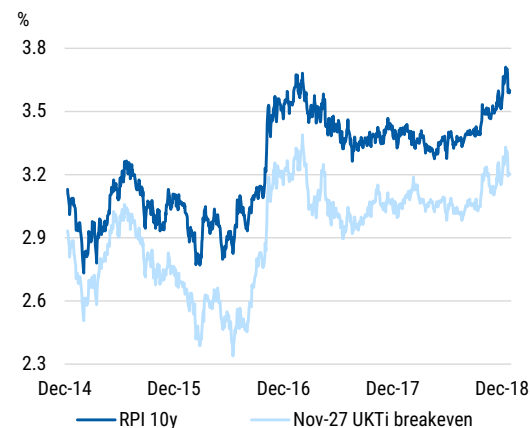
Source: Morgan Stanley Research, Bloomberg

Exhibit 55: 5y RPI & Nov-22 UKTi breakeven

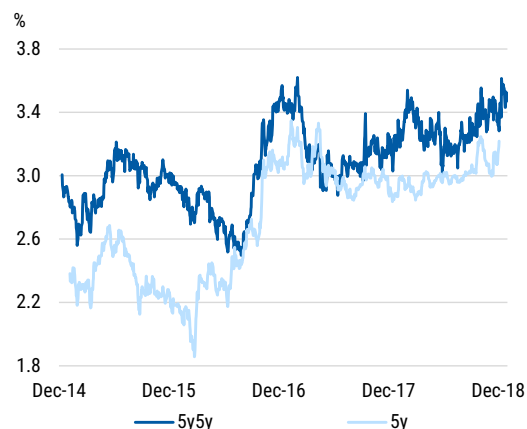


Source: Morgan Stanley Research, Bloomberg

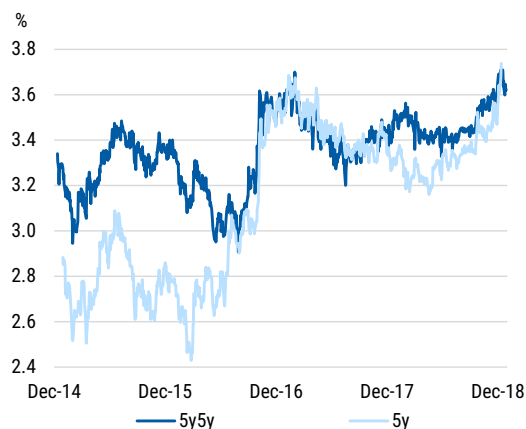
Exhibit 56: 10y RPI & Nov-27 UKTi breakeven



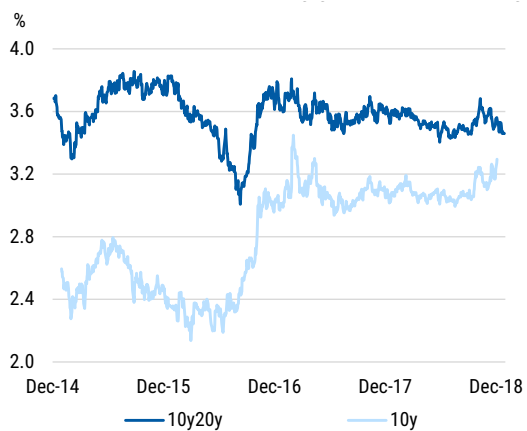
Source: Morgan Stanley Research, Bloomberg

Exhibit 57: 5y5y & 5y UKTi breakevens


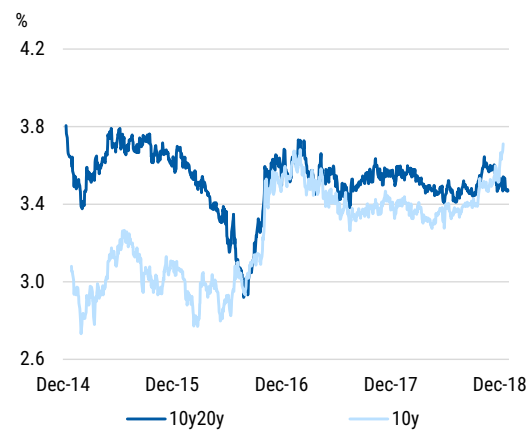
Source: Morgan Stanley Research, Bloomberg

Exhibit 58: 5y5y & 5y RPI breakevens


Source: Morgan Stanley Research, Bloomberg

Exhibit 59: 10y20y & 10y UKTi breakevens


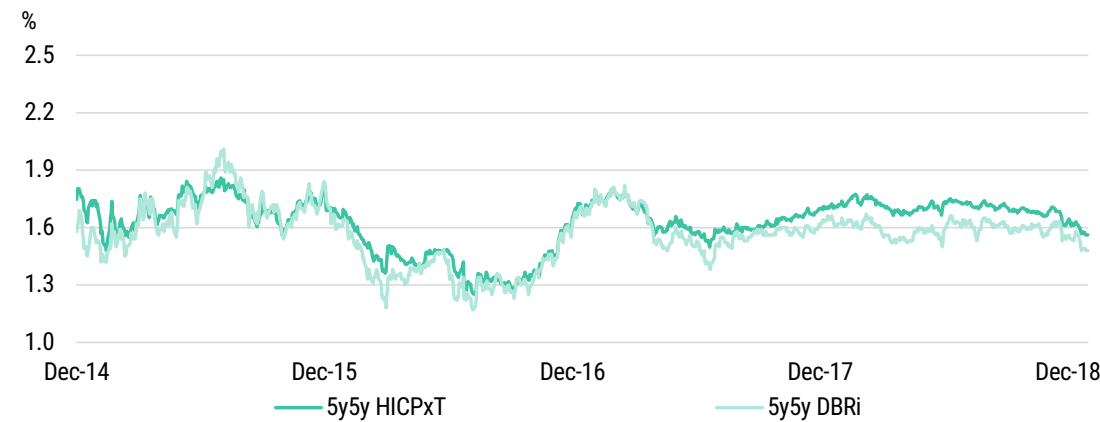
Source: Morgan Stanley Research, Bloomberg

Exhibit 60: 10y20y & 10y RPI breakevens


Source: Morgan Stanley Research, Bloomberg

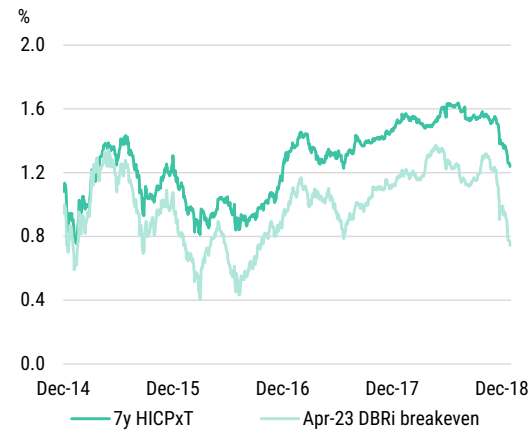
Euro Area

Exhibit 61: 5y5y HICPxT & 5y5y DBRi breakevens



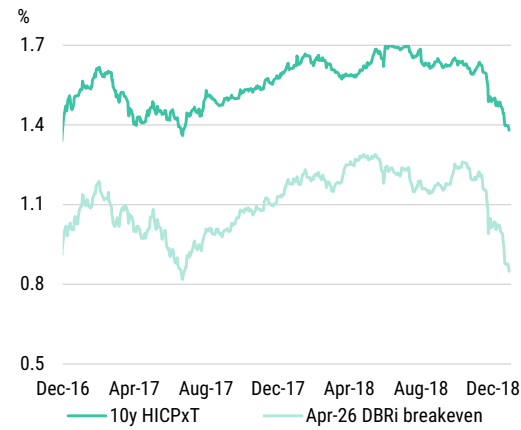
Source: Morgan Stanley Research, Bloomberg

Exhibit 62: 7y HICPxT & Apr-23 DBRi breakeven



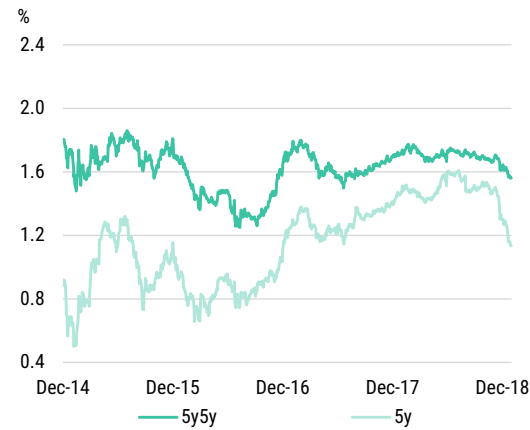
Source: Morgan Stanley Research, Bloomberg

Exhibit 63: 10y HICPxT & Apr-26 DBRi breakeven



Source: Morgan Stanley Research, Bloomberg

Exhibit 64: 5y5y & 5y HICPxT breakevens



Source: Morgan Stanley Research, Bloomberg

Exhibit 65: 10y20y & 10y HICPxT breakevens

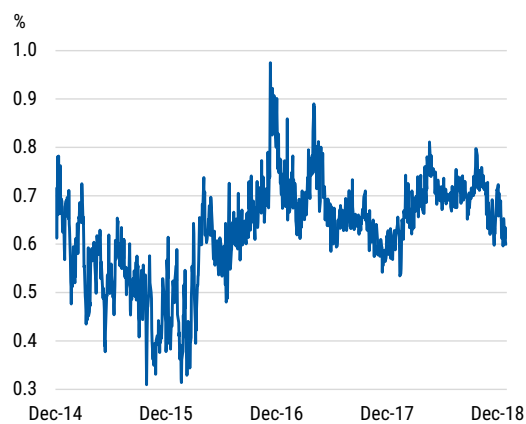


Source: Morgan Stanley Research, Bloomberg

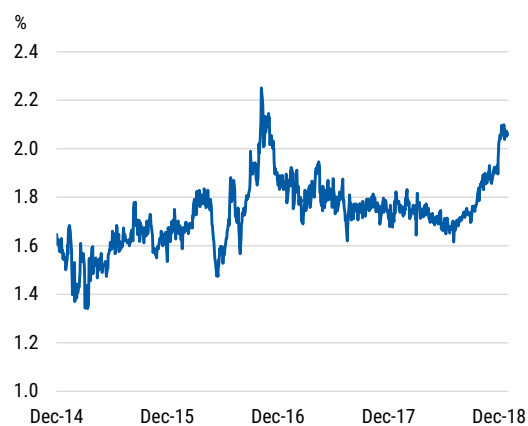
Cross-Market

Exhibit 66: UK-US 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Exhibit 67: US-EU 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Exhibit 68: UK-EU 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Exhibit 69: US-JP 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Exhibit 70: UK-JP 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Exhibit 71: EU-JP 5y5y swap breakeven spread

Source: Morgan Stanley Research, Bloomberg

Morgan Stanley developed market inflation surprise indices

Our Morgan Stanley Inflation Surprise Indices provide a real-time barometer of global inflation relative to consensus expectations. We construct three types of series: individual region actual surprises, 6M & 1Y individual region surprise balances, and normalized DM and EM aggregates of the two. Please refer to the Inflation section of [Global Interest Rate Strategist: The Hors d'œuvre Election \(21 Apr 2017\)](#) for a detailed write-up on index construction and a list of all available Bloomberg tickers.

Exhibit 72: Morgan Stanley DM 1M, 6M & 1Y inflation surprise indices

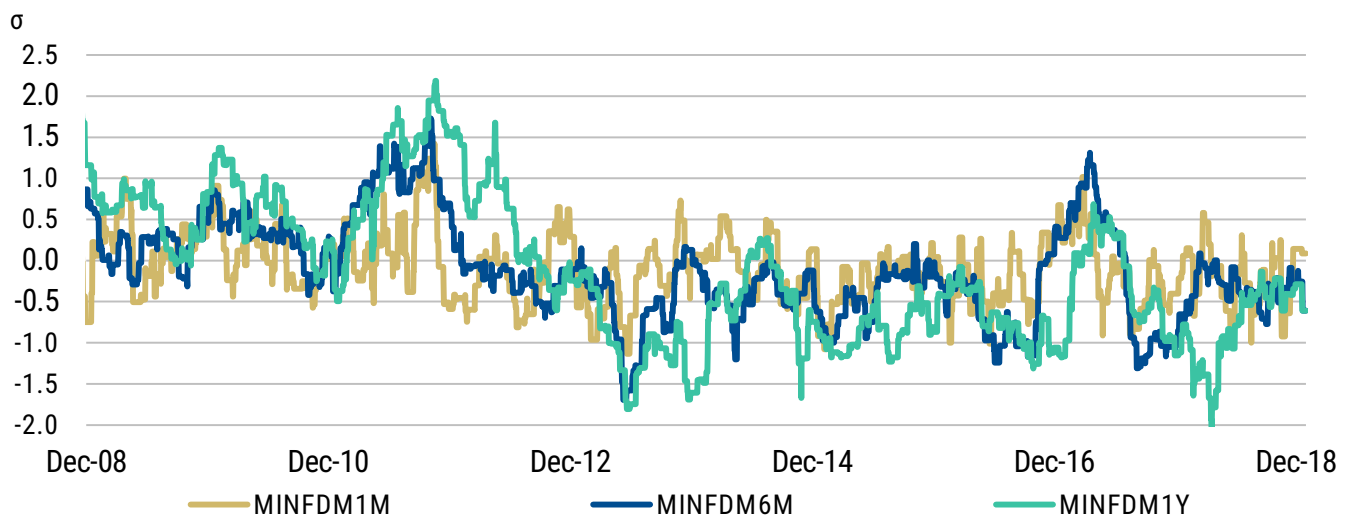


Exhibit 73: Morgan Stanley US 1M, 6M & 1Y inflation surprise indices

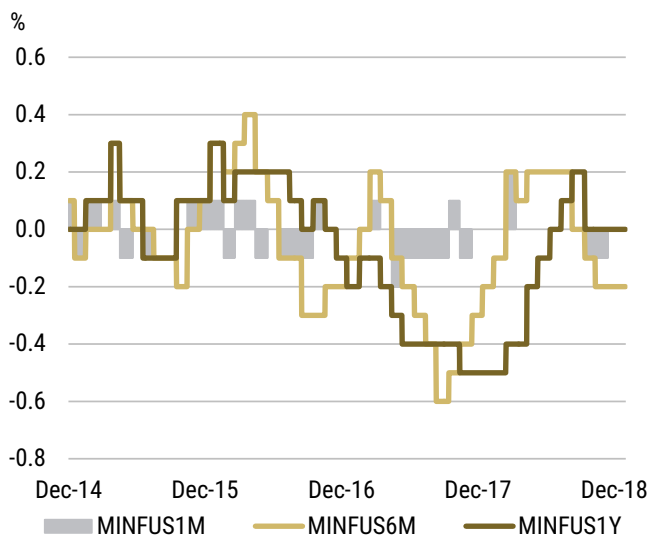


Exhibit 74: Morgan Stanley UK 1M, 6M & 1Y inflation surprise indices

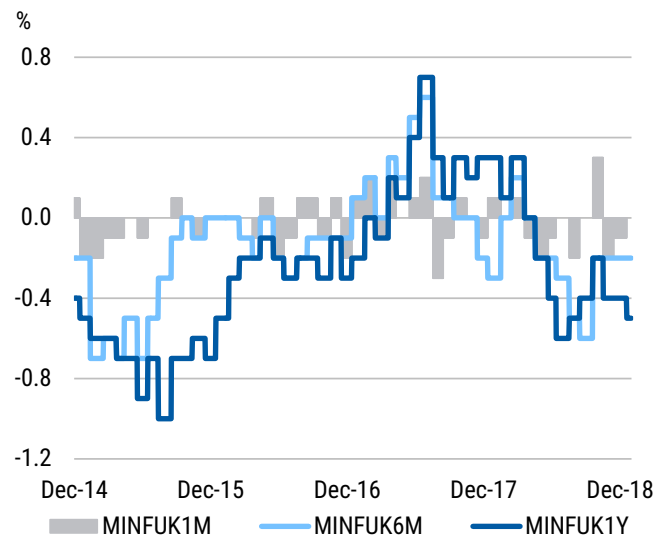
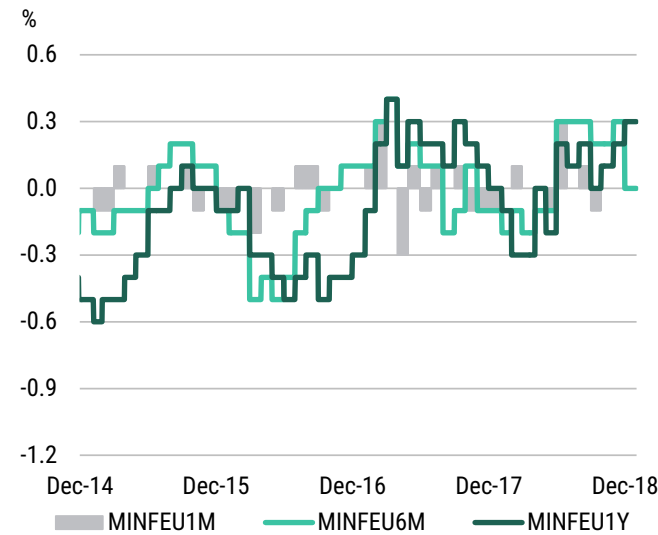
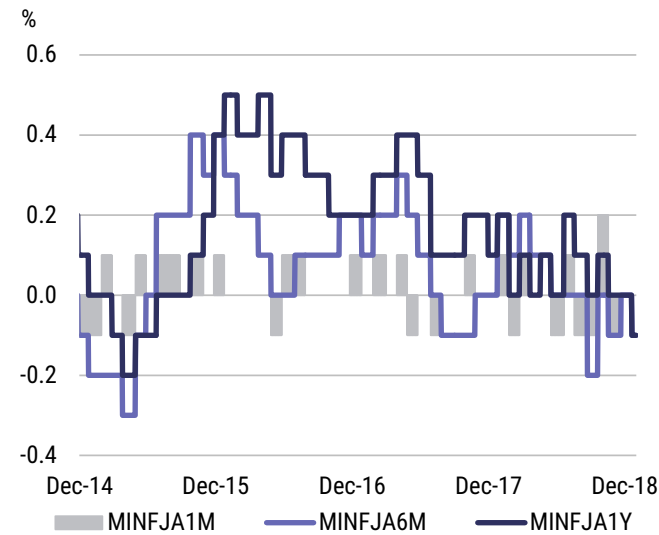


Exhibit 75: Morgan Stanley Euro area 1M, 6M & 1Y inflation surprise indices



Source: Morgan Stanley Research, Bloomberg

Exhibit 76: Morgan Stanley Japan 1M, 6M & 1Y inflation surprise indices



Source: Morgan Stanley Research, Bloomberg

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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MSC
Overweight/Buy	1156	37%	295	40%	26%	541	38%
Equal-weight/Hold	1405	44%	342	47%	24%	641	45%
Not-Rated/Hold	46	1%	7	1%	15%	7	0%
Underweight/Sell	555	18%	85	12%	15%	226	16%
TOTAL	3,162		729			1415	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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