



GLOBAL PROJECT BONDS MARKET OVERVIEW

Recently closed transactions

ENERGY

- **Parque Eólico Kiyu S.A. (-- / BBB- / --):** \$88MM in 23-year senior secured notes to refinance the 49MW Parque Eólico Kiyu wind farm in Uruguay which has a long term offtake agreement with state-owned utility UTE. The fully amortizing notes were privately placed at a 4.860% coupon and publicly-rated by S&P. (Sponsor: Zero-E Dollar Assets, S.L.) **Crédit Agricole Securities acted as Sole Placement Agent.**
- **Adani Transmission Line (Baa3 / -- / BBB-):** \$500MM in 17-year senior secured notes to refinance a transmission line in India. The 144A notes, which have a 10-year average life, priced at a 4.250% coupon. (Sponsor: Adani Energy)
- **Cove Point LNG:** \$1,325MM in 19-year privately placed senior secured notes backing the Cove Point Liquefaction Project in the United States. The notes have a 10-year average life and priced at a 3.92% coupon with a 215bps spread over Treasuries. (Sponsors: Dominion Energy and Brookfield Asset Management)
- **Akuo Energy:** €45MM in 6-year green bonds priced at 4.000% to refinance the French renewable energy company's debt and accelerate the financing of green energy projects. (Sponsor: Akuo Energy)
- **Ventos do Sul (AAA bra):** BRL325MM (\$80MM eq.) in senior secured notes backing the 150MW Ventos do Sul wind farm in Brazil. The transaction was structured in two tranches: the first of BRL227MM priced at the Brazil interbank rate (CDI) plus 750bps, while the second BRL98MM tranche priced at the HICP inflation rate plus 325bps. (Sponsor: Enerfin (Elecnor))
- **Cheniere Corpus Christi Holdings LLC (Ba1 / BBB- / BBB-):** \$1,500MM in 10-year senior secured notes to refinance part of Cheniere's Corpus Christi LNG export facility debt. Corpus Christi achieved substantial completion and commercial operation of Trains 1 and 2 of the project this year and construction of Train 3 is ahead of schedule. The notes priced at 190bps over Treasuries to reach a 3.700% coupon. (Sponsor: Cheniere Energy Inc.)
- **Carlsbad Energy Center (IG):** \$216MM in 19-year senior secured notes to lever up the 527MW gas-fired Carlsbad Energy Center in California at the holdco level. The fully amortizing notes have an investment grade rating and bear a 4.210% coupon. (Sponsor: Global Infrastructure Partners (GIP))
- **Prairie Breeze Class B Holdings LLC (BBB-):** \$176MM in 20-year privately placed senior secured notes issued by the Class B equity interest in the 201MW Prairie Breeze wind farm located in Nebraska. The notes priced with a 3.55% coupon, at a 180bps spread over 13-year interpolated Treasuries. (Sponsors: TerraForm Power and Invenergy LLC)
- **DTEK Renewables (-- / -- / B):** €325MM in 5-year Euronext Dublin-listed secured green bonds priced at 8.500% to finance and refinance new and existing wind and solar projects in Ukraine that total c. 955MW. This is the first green bond from a Ukrainian issuer. (Sponsor: DTEK Renewables)

INFRASTRUCTURE

- **Ermewa Group:** €465MM in senior secured US private placement notes split in three tranches (10, 12 and 15 years) to refinance all the French rail company's existing bank debt and intercompany loans. BlackRock, IFM, M&G, Nationwide and Guardian Life Insurance figure as main investors in the USPP deal. The debt package also includes a term loan and a revolving credit facility, amounting to a total of €1.6BN. (Sponsor: SNCF)
- **Silvertown Tunnel PPP:** £90MM in 29-year private placement notes as part of a £1.2BN debt package to finance the construction of a 1.4km twin-bore tunnel under the River Thames in east London. Construction works are expected to begin in 2020 and the new tunnel is due to open in 2025. (Sponsors: Macquarie, Aberdeen Standard Investments, BAM PPP PGGM, Cintra, SK Group). **Crédit Agricole CIB acted as Sole Placement Agent.**
- **Mersin International Port:** \$600MM in 5-year Euronext Dublin-listed secured bonds priced at 5.375% to refinance the port's debt. The European Bank for Reconstruction and Development (EBRD) invested \$90MM in the issuance, which was rated BB- by Fitch and is callable after 3 years. (Sponsor: Mersin International Port)
- **Augsburger Netze Rolling Stock Scheme (Lot 2):** Senior secured private placement notes to, along with a €150MM term loan, finance the construction of around 40 new vehicles concerning a 9-year passenger operating contract commencing in December 2021. (Sponsor: Transdev). **Crédit Agricole CIB acted as Sole Placement Agent.**
- **Glasgow City Council SPV (-- / AA / --):** £195MM in 30-year senior secured privately placed notes to buy five public services buildings, such as schools and hospitals, owned by the council, in order to lease them back for 30 years to the Glasgow City Council. The issuance was rated AA by S&P. (Sponsor: Glasgow City Council)
- **Indiana Toll Road Concession Co (BBB):** \$670MM in privately placed senior secured notes backing the 157-mile Indiana Toll Road which serves as a critical link in the US freight and transportation network between Chicago Skyway in the west and Ohio turnpike in the east. The transaction was done in five tranches: 7-year bullets, at +130bps; 10-year bullets, at +140bps; 12-year bullets, at +150bps; 15-year bullets, at +160bps and 20-year bullets, at +160bps on treasuries.
- **Port of Melbourne (Baa2 / BBB / --):** A\$550MM (\$376MM eq.) in 7-year senior secured MTN offering backing the Port of Melbourne. The notes priced at a 2.450% coupon and a spread of 130bps over asset swaps. (Sponsors: Queensland Investment Corporation, The Future Fund, CALpers, GIP, China Investment Corp, South Korea's National Pension Service and Borealis)

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal,



EMEA TRANSACTION SPOTLIGHT:

Silvertown Tunnel PPP

- **The Issuer:** Riverlinx consortium, comprising Macquarie Capital, BAM PPP PGGM, SK Group, Cintra and Aberdeen Standard Investments, in charge of the Silvertown Tunnel PPP, a 1.4km twin-bore tunnel under the River Thames in east London.
 - ✓ The project's sponsors have provided around £100MM of equity, with Macquarie, Cintra, Aberdeen and BAM PPP PGGM each taking a 22.5% equity stake and SK 10%.
 - ✓ Physical construction works are expected to start next year, while completion is expected to 2025.
- **The Transaction:** The senior amortizing private placement issuance of £90MM was provided by two insurance companies with a 29-year maturity.
 - ✓ The £1.2BN debt package also comprises £1BN term loans provided by CACIB, Instituto de Credito Oficial, KDB, Hana Bank, Norinchukin Bank, Shinshei Bank, Export-Import Bank of Korea and KfW and a 5.5-year £102MM equity bridge loan provided by CACIB, DZ Bank, SMBC and Woori Bank.
 - ✓ **Crédit Agricole CIB acted as Sole Placement Agent.**

AMERICAS TRANSACTION SPOTLIGHT:

Parque Eolico Kiyu S.A.

- **The Issuer:** Parque Eolico Kiyu S.A. is an Uruguayan special purpose company owning the 49MW Parque Eolico Kiyu wind farm in Uruguay.
 - ✓ The Project has been operating since April 2017.
 - ✓ Fully-contracted under a 24-year (23 years remaining) power purchase agreement with state owned utility Administración Nacional de Usinas y Trasmisiones Eléctricas (UTE).
 - ✓ Zero-E Dollar Assets, S.L. (F/K/A BowPower S.L.) is the sponsor of this transaction.
- **The Transaction:**
 - ✓ \$88 million fully-amortizing non-recourse senior secured notes.
 - ✓ The notes received a BBB- rating by S&P and were privately placed to a single investor.
 - ✓ First Project Bond in Uruguay executed in the international capital markets without the involvement of a development bank.
 - ✓ **Crédit Agricole Securities acted as Sole Placement Agent.**

FY 2018 Global Project Bond League Tables
(Source: PFI)

#	Lead Manager	(\$MM)	# deals
1	Citigroup	7,882	28
2	MUFG	3,681	17
3	Bank of America	2,868	14
4	JP Morgan	2,544	12
5	Crédit Agricole	2,171	14
6	SMBC	1,973	16
7	HSBC	1,741	10
8	Societe Generale	1,656	8
9	BNP Paribas	1,547	10
10	RBC Capital Markets	1,393	9

FY 2018 Global Project Bond League Tables
(Source: IJGlobal)

#	Lead Manager	(\$MM)	# deals
1	Citigroup	4,705	18
2	JP Morgan	2,776	11
3	MUFG	2,463	14
4	HSBC	2,007	13
5	Crédit Agricole	1,917	15
6	Societe Generale	1,831	10
7	RBC	1,811	10
8	Bank of America	1,636	5
9	Sumitomo	1,494	16
10	Santander	1,441	17

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal.



GLOBAL PROJECT BONDS MARKET OVERVIEW (cont'd)

Primary Issuances

ENERGY									
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)
Parque Eolico Kiyu S.A.	LatAm	USD	88	19-Nov	23	14	4.860%	--	-- / BBB- / --
Adani Transmission Line	APac	USD	500	19-Nov	17	10	4.250%	--	Baa3 / -- / BBB-
Cove Point LNG	NAm	USD	1,325	19-Nov	19	11	3.920%	215 bps	--
Akuo Energy	EMEA	EUR	45	19-Nov	6	--	4.000%	--	--
Ventos do Sul	NAm	BRL	227 / 98	19-Nov	--	--	CDI+750bps / HICP+325bps	--	AAA(bra)
Cheniere Corpus Christi Holdings LLC	NAm	USD	1,500	19-Nov	10	--	3.700%	190 bps	Ba1 / BBB- / BBB-
Carlsbad Energy Center (HoldCo)	NAm	USD	216	19-Nov	19	--	4.210%	--	IG
Prairie Breeze Class B Holdings LLC	NAm	USD	176	19-Nov	20	13	3.550%	180 bps	BBB-
DTEK Renewables	EMEA	EUR	325	19-Nov	5	--	8.500%	--	-- / -- / B
Ohio State Energy Partners	NAm	USD	240	19-Oct	30	Bullet	3.820% / 3.870%	155 bps / 160 bps (delay funding)	-- / A- / --
Arcoverde Transmission Line	APac	INR	52	19-Oct	23	--	--	--	-- / -- / AAA
CED California Holdings IV LLC	NAm	USD	303	19-Oct	19	11	3.820%	202 bps	NAIC-2
Cheniere Corpus Christi Holdings LLC	NAm	USD	475	19-Oct	20	15	3.925%	202 bps	Ba1 / BBB- / BBB-
Cypark Ref Sdn Bhd	APac	RM	550	19-Oct	3 - 21	--	4.600% - 5.990%	--	AA3 (RAM)
Edra Solar	APac	RM	245	19-Oct	3 - 18	--	3.950% - 5.050%	--	AA2 (RAM)
IFM Colonial Pipeline 2 LLC	NAm	USD	325	19-Oct	10	Bullet	3.640%	210 bps	-- / BBB- / --
Adani Indian Solar Portfolio	APac	USD	363	19-Oct	20	14	4.625%	300 bps	Baa3 / BBB- / BBB-
Qualitas Energy's Solar Portfolio	EMEA	EUR	130	19-Oct	--	--	--	--	--
Terna Energy Onshore Wind Portfolio	EMEA	EUR	150	19-Oct	7	Bullet	2.600%	--	--

INFRASTRUCTURE									
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)
Ermewa Group	EMEA	EUR	465	19-Nov	10 / 12 / 15	--	--	--	--
Silvertown Tunnel PPP	EMEA	GBP	90	19-Nov	29	--	--	--	--
Mersin International Port	EMEA	USD	600	19-Nov	5	Callable	5.375%	--	--
Augsburger Netze Rolling Stock Scheme (Lot 2)	EMEA	EUR	ND	19-Nov	ND	--	--	--	--
Indiana Toll Road Concession Co	NAm	USD	670	19-Nov	7 / 10 / 12 / 15 / 20	--	--	130 bps / 140 bps / 150 bps / 160 bps	-- / BBB
Port of Melbourne	APac	AUD	550	19-Nov	7	--	2.450%	IS+130bps	Baa2 / BBB
Glasgow City Council SPV	EMEA	GBP	195	19-Oct	30	--	--	--	-- / AA / --
Prumo Participacoes e Investimentos (Prumopar)	LatAm	USD	50	19-Oct	12	--	7.500%	--	-- / -- / BB
Rutas 2 and 7 Finance	LatAm	USD	290	19-Oct	16	10	5.000%	324 bps	Ba1 / BB / BB+
Alpha Trains	EMEA	EUR	200	19-Oct	12	Bullet	--	--	-- / -- / BBB
Porterbrook Rail	EMEA	GBP	150	19-Oct	12	7	2.560%	--	Baa2 / -- / --
Welcome Break	EMEA	GBP	165	19-Oct	--	--	--	--	--
Soha Housing	EMEA	GBP	40	19-Oct	--	--	--	--	--
A35 Brebemi	EMEA	EUR	1,679	19-Oct	19 / 19 / 23 / 10	--	FTN / 3.375% / Zero Coupon / FTN	--	-- / -- / BBB-
Bristol Airport	EMEA	GBP	126	19-Oct	15 / 20	--	2.440% / 2.810%	--	NAIC-2
Barcelona Metro Line 9	EMEA	EUR	555	19-Oct	18	--	--	--	--

* Source: Crédit Agricole Corporate & Investment Bank, Bloomberg, PFI, IJGlobal,



GLOBAL BOND MARKET OVERVIEW

Market update November 2019

EUR Bond Corporate Market

- On November 22nd, Christine Lagarde gave her first speech as Head of the ECB. She made a call for European governments to boost public investment and increase harmonization in services, banking and capital markets in order to shift Europe's economy to lean more on domestic demand and to be less dependent on exports. Ms. Lagarde also said Europe was currently going through a "moment of opportunity" to tackle the issues of trade tensions and technological disruptions. The ECB president left the door open to further easing stating that the central bank would "continue to support the economy and respond to future risk". However, she added that the monetary policy "cannot and should not be the only game in town".
- Even though issuers and investors can still expect benchmark rates to continue at a low level during the first months of next year, markets remained active in November as issuers are seizing the last window before the year end. With a volume of YTD issuance already 38% above 2018FY, the issuance window is in fact narrowing as days pass, since investors are showing signs of fatigue and are more and more price sensitive.
- The total volume issued in 2019YTD is of €371BN. 2019 has thus become the fastest year in history in terms of volume, the previous record being 2017 when €316.8BN had been issued over the entire year.

Key Transactions in November

- On Wednesday 27th, Spanish environment services company FCC Medioambiente (NR/BBB-) launched its €1.1BN transaction in two tranches: 4 years and green 7 years. IPTs were released at MS+135bps and MS+200bps area, respectively. The final terms were eventually set at MS+110bps and MS+180bps.
- Also on Wednesday 27th, Gas Network Ireland (A3/A) announced a 5-year €300MM transaction. The IPTs were revealed at MS+60bps before tightening at MS+40-45bps. The transaction was finally priced at MS+40bps.
- On Wednesday 20th, French optical equipment company EssilorLuxottica (A2/A) launched a jumbo deal of €5BN in four tranches: Long 3 years, Long 5 years, 8 years and 12 years. The IPTs were announced respectively at MS+50bps area, MS+65bps area, MS+75-80bps and MS+90bps area. With orderbooks at more than €12BN combined, the final terms were fixed at MS+27.5bps, MS+45bps, MS+55bps and MS+70bps for tranches of respective size of €1BN, €1.5BN, €1.5BN and €1BN. [CACIB acted as bookrunner on the transaction.](#)

US Investment Grade Public Corporate Bond Market

- November volume exceeded market expectations (\$98BN priced vs \$97BN expected). YTD primary market volume is still behind last year by 6% and now stands at \$1.10TR. A manageable calendar combined with continued inflows into investment grade funds has created a constructive backdrop for deal execution in the month of November.
- Deals generated orderbooks just over 3x covered on average, giving issuers the pricing leverage to compress spreads ~22bps on average from IPTs to pricing.
- New issue concessions remained low throughout the month with many deals pricing through fair value—weighted average NIC landed at -0.2bps.
- Primary market momentum is set to continue into December with ~\$25BN expected to price over the course of the next two weeks as the Fed meeting on December 11th marks the unofficial year-end.
- For the week ended November 27th 2019, Lipper reported an inflow of \$4.55BN into investment grade funds. This brought YTD net fund flows to \$108.25BN.
- A manageable primary calendar in combination with a favorable market backdrop has contributed to continued performance in credit. The ICE BAML Corporate Index closed at +109bps on the week, representing 49bps tighter on the year and the tightest level year-to-date.

	Statistics (LTM)				
	Min	Max	Average	Current	Δ 01/01/19
IG Index	109 bps	161 bps	126 bps	109 bps	-49 bps
A Index	82 bps	126 bps	97 bps	83 bps	-40 bps
BBB Index	140 bps	205 bps	162 bps	141 bps	-60 bps

USPP Market Highlight

- The volume of private placements reached \$4.5BN in November vs. \$7.6BN in October and \$4.0BN last November. November volume consisted in 26 issues by 14 issuers vs. 47 issues by 24 issuers last month. Year-to-date issuances continue to lag behind last year's issuances by 7% with \$58.8BN of USPP issued YTD vs \$63.3BN last year.
- The issuances of USPP were mainly domestic in November (80%). On a year-to-date basis, the amount of domestic USPP issued now outperforms the cross-border USPP.
- Energy and Infrastructure (including transportation) issuances have been accounting for 58% of the total issuance YTD accounting for 33% and 25% respectively.



EMEA BOND MARKET OVERVIEW

EMEA market – Public secondary levels

Sources: Crédit Agricole CIB, Bloomberg

ENERGY										
Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM	
21/02/2017	2i Rete Gas	Italy	Baa2	BBB	2026	435	1.750%	87	0.78	
24/10/2017	2i Rete Gas	Italy	Baa2	BBB	2027	550	1.608%	96	0.94	
04/09/2018	2i Rete Gas	Italy	Baa2	BBB	2025	500	2.195%	75	0.61	
09/03/2017	A2A	Italy	Baa3	BBB	2024	300	1.250%	56	0.34	
10/12/2013	Elenia Finance	Finland	NR	BBB	2020	500	2.875%	33	-0.02	
31/03/2017	Elia	Belgium	NR	BBB+	2027	250	1.375%	71	0.66	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2034	100	3.250%	133	1.70	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2029	250	2.750%	163	1.74	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2032	50	2.375%	137	1.64	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2027	300	1.750%	150	1.48	
22/11/2013	Madrikena Red de Gas Finance	Spain	NR	BBB	2023	275	4.500%	69	0.46	
05/04/2017	Madrikena Red de Gas Finance	Spain	NR	BBB	2029	300	2.250%	117	1.24	
05/04/2017	Madrikena Red de Gas Finance	Spain	NR	BBB	2025	300	1.375%	82	0.65	
05/07/2017	National Grid	UK	Baa1	BBB+	2024	500	1.000%	60	0.40	
21/09/2017	NorteGas	Spain	NR	BBB-	2027	750	2.065%	123	1.21	
21/09/2017	NorteGas	Spain	NR	BBB-	2022	550	0.918%	52	0.22	
24/03/2014	Redexis Gas	Spain	Baa3	BBB	2021	650	2.750%	49	0.14	
20/09/2018	RTE	France	NR	A	2038	500	2.125%	48	0.94	
20/09/2018	RTE	France	NR	A	2030	500	1.500%	38	0.54	
30/08/2017	SSE	UK	A3	A-	2025	600	0.875%	60	0.45	
28/08/2018	SSE	UK	A3	A-	2027	650	1.375%	65	0.62	
13/03/2017	Statkraft	Norway	Baa1	A-	2025	500	1.125%	45	0.27	
19/07/2017	Terna	Italy	Baa1	BBB	2027	1 000	1.375%	63	0.61	
03/06/2013	Vier Gas Transport	Germany	NR	BBB+	2025	750	2.875%	26	0.11	
03/06/2013	Vier Gas Transport	Germany	NR	A-	2020	750	2.000%	16	-0.18	
01/07/2013	Vier Gas Transport	Germany	NR	A-	2023	750	3.125%	23	-0.02	
17/09/2018	Vier Gas Transport	Germany	NR	A-	2028	500	1.500%	39	0.43	
20/11/2015	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2023	500	2.375%	74	0.49	
23/05/2016	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2026	550	2.875%	103	0.93	

INFRASTRUCTURE AND TRANSPORTATION

Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM	
10/05/2016	Abertis	Spain	NR	BBB	2026	1 150	1.375%	115	1.05	
02/11/2016	Abertis	Spain	NR	BBB	2027	500	1.000%	115	1.11	
05/12/2013	Aeroporti Di Roma	Italy	Baa1	BBB+	2021	600	3.250%	64	0.30	
01/06/2017	Aeroporti Di Roma	Italy	Baa1	BBB+	2027	500	1.625%	141	1.37	
28/05/2013	Aeroports de Paris	France	NR	A+	2028	600	2.750%	19	0.23	
01/10/2014	Aeroports de Paris	France	NR	A+	2025	500	1.500%	25	0.07	
15/07/2015	Aeroports de Paris	France	NR	A+	2023	500	1.500%	23	-0.04	
06/12/2017	Aeroports de Paris	France	NR	A+	2027	500	1.000%	24	0.22	
04/10/2018	Aeroports de Paris	France	NR	A+	2038	500	2.125%	47	0.94	
18/03/2015	Alpha Trains	Luxembourg	Baa2	NR	2025	350	2.064%	137	1.22	
01/06/2016	APRR	France	Baa2	A-	2026	700	1.125%	33	0.20	
16/11/2016	APRR	France	Baa2	A-	2031	500	1.875%	48	0.66	
16/11/2016	APRR	France	Baa2	A-	2027	500	1.250%	32	0.25	
31/05/2017	APRR	France	Baa2	A-	2032	500	1.625%	50	0.73	
06/11/2017	APRR	France	NR	A-	2033	700	1.500%	48	0.76	
04/05/2016	ASF	France	A3	A-	2026	500	1.000%	30	0.19	
05/01/2017	ASF	France	A3	A-	2027	1 000	1.250%	28	0.21	
05/04/2017	ASF	France	A3	A-	2026	500	1.125%	31	0.20	
10/01/2018	ASF	France	A3	A-	2030	1 000	1.375%	44	0.56	
21/06/2018	ASF	France	A3	A-	2028	700	1.375%	31	0.33	
26/01/2017	Atlantia	Italy	Baa2	BBB	2025	750	1.625%	286	2.70	
06/07/2017	Atlantia	Italy	Baa2	BBB	2027	1 000	1.875%	316	3.14	
18/09/2017	Autostrade	Italy	Baa1	BBB+	2029	700	1.875%	291	3.02	
03/05/2017	Brisa	Portugal	Baa3	NR	2027	300	2.375%	101	0.98	
25/06/2013	Brussels Airport	Belgium	Baa1	NR	2020	500	3.250%	40	0.06	
26/04/2017	Brussels Airport	Belgium	Aa1	NR	2024	300	1.000%	51	0.30	
03/02/2014	Heathrow Funding	UK	NR	A-	2030	750	1.500%	81	0.95	
13/05/2014	Heathrow Funding	UK	NR	A-	2022	600	1.875%	38	0.07	
28/06/2017	Heathrow Funding	UK	NR	A-	2032	500	1.875%	90	1.17	
17/11/2017	HIT	France	Baa3	NR	2027	500	1.625%	118	1.16	
17/11/2017	HIT	France	Baa3	NR	2023	500	0.625%	78	0.49	
09/10/2014	Infra Park (Indigo)	France	NR	BBB	2025	650	2.125%	49	0.32	
12/07/2017	Infra Park (Indigo)	France	NR	BBB	2037	125	2.951%	121	1.65	
06/11/2015	SANEF	France	Baa1	NR	2026	600	1.875%	82	0.70	
11/10/2016	SANEF	France	Baa1	NR	2028	300	0.950%	101	1.07	
17/04/2018	Sydney Airport	Australia	Baa1	BBB+	2028	500	1.750%	59	0.60	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2027	300	2.375%	188	1.89	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2024	300	1.625%	139	1.22	
06/09/2017	Transurban	Australia	Baa1	BBB+	2028	500	1.750%	74	0.74	



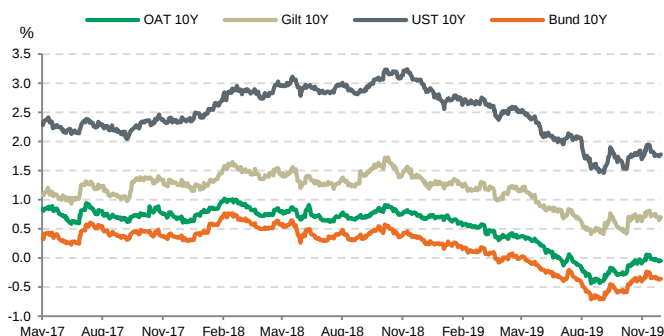
MACROECONOMIC ENVIRONMENT

- It was a month in terms of US-China tensions, with a number of conflicting developments. Both the Senate and the House passed a bill supporting the protestors in Hong Kong, which was later signed into law by President Donald Trump, to what China vowed to retaliate, increasing tensions in the short term. Although market participants are still optimistic, the latest update on the US China trade talks is not overly promising with newswire reports suggesting China continues to demand a rollback of existing tariffs as part of any phase-one trade deal, something the US currently seems reluctant to do. Instead markets seem more interested in the upward surprises in China's official and private sector manufacturing PMI data with the latter hitting 51.8 in November, the highest reading in three years. The next key deadline falls on 15 December when the next tranche of US tariffs are due to take effect.
- In the UK, Brexit headlines were replaced with election headlines. The market's thought process would be for the Conservatives to win a healthy majority enabling them to push through the Withdrawal Agreement and thus avoid a no-deal Brexit.
- In Europe, there is a dose of political risk in the short-term. In Germany, the SPD ousted its leader and Chancellor Merkel's current Finance minister, Olaf Scholz. He will be replaced by the more left-leaning Norbert Walter-Borjans and Saskia Esken. Both have been openly critical of government policies such as the balanced budget, calling for more aggressive public spending on 'green' policy initiatives. The new SPD leaders are not necessarily calling for a break-up of the ruling CDU-SPD coalition, but their position on a number of policies could lead to future frictions with the CDU/CSU parties.
- Also in Europe, November saw the first appearance of the new chief of ECB, Christine Lagarde, in front of the EU parliament. She stated the ECB should have a key role for climate change and make it a subject of priority, creating the first disagreement between governing council members.

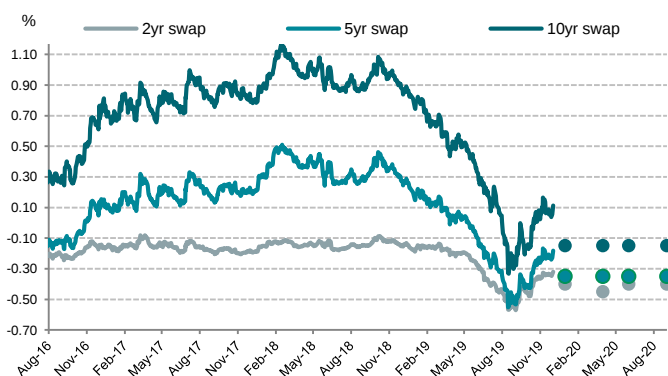
Swap rates (as of November 30th, 2019)

	EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
3Y	-0,31%	-4,0%	1,58%	-1,6%	0,80%	2,2%
5Y	-0,23%	-1,1%	1,58%	-0,9%	0,83%	4,1%
7Y	-0,12%	3,4%	1,62%	-0,7%	0,86%	4,5%
10Y	0,06%	-20,3%	1,71%	-0,5%	0,91%	4,1%
12Y	0,17%	-9,0%	1,75%	-0,6%	0,95%	4,0%
15Y	0,30%	-6,1%	1,80%	-0,8%	0,98%	3,6%
20Y	0,43%	-5,0%	1,86%	-1,1%	1,01%	3,3%

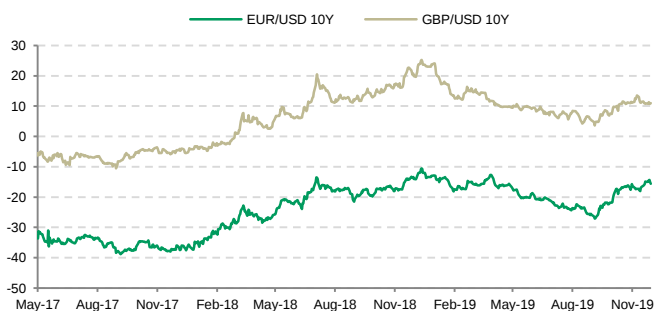
Government yields (10Y)



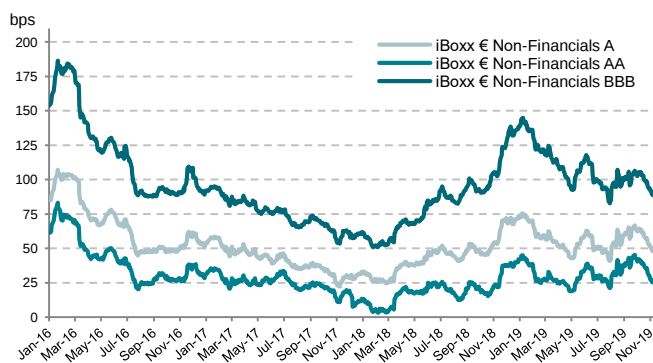
EUR swap rates (historic and forward levels)



10Y basis swap evolution



Credit spread evolutions (EUR)



Main upcoming events

	Events / Data	Expected impact
11-Dec	Fed meeting + 'dot-plot' update	Lower short term US rates, weaker USD
12-Dec	ECB monetary meeting (+updated projections)	Cap EUR rates, flatter curve
23-Jan	ECB monetary meeting	No change expected

iBoxx™ bond indices offer broad benchmarking and liquid tradable index solutions that track bond markets globally. Fuelled by multi-source pricing, iBoxx provides transparency to bond market performance.

Sources: Bloomberg, Crédit Agricole CIB



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