



GLOBAL PROJECT BONDS MARKET OVERVIEW

Recently closed transactions

ENERGY

- **Ohio State Energy Partners (-- / A- / --):** \$240MM in 30-year bullet senior secured notes backing Ohio State University energy management system. A consortium made of Engie and Axium operates the school's power, heating and cooling systems for 50 years. The notes were issued in two tranches of similar size and maturity but with a 3-month delay funding feature for the second one. The two privately placed notes priced at a 3.820% and 3.870% coupon respectively (Sponsors: Engie and Axium Infrastructure).
- **Arcoverde Transmission Line (-- / -- / AAA):** INR 52MM (\$12.5MM eq.) in 23-year senior secured notes backing the 139km Arcoverde transmission line in India (Sponsor: Sterlite Power).
- **CED California Holdings IV LLC (NAIC-2):** \$303MM in 19-year senior secured notes to refinance two operating solar projects in California. The privately placed notes priced at a 3.820% coupon (Sponsor: Con Edison Clean Energy Businesses Inc.).
- **Cheniere Corpus Christi Holdings LLC (Ba1 / BBB- / BBB-):** \$475MM in 20-year senior secured notes backing the Corpus Christi LNG liquefaction project in Texas. The notes priced at a 3.925% coupon (Sponsor: Cheniere Energy Inc.).
- **Cypark Ref Sdn Bhd (AA3 RAM):** RM 550MM (\$138MM eq.) in 3-to-21 year Malaysian sukuk to finance the construction of three solar assets in Malaysia. The 30MW portfolio includes two floating PV projects (asset class financed on the capital market for the first time) and one ground mounted PV project. The notes priced at coupons ranging from 4.600% to 5.990% (Sponsor: Cypark Resources Berhad).
- **Edra Solar (AA2 RAM):** RM 245MM (\$59MM eq.) in seven tranches of 3-to-18 year Malaysian sukuk to refinance a 50MW solar plant. The sukuk issue will be the country's first to be aligned with the globally recognized Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines. The sukuk priced at coupons ranging from 3.950% to 5.050% (Sponsor: Edra Power Holdings).
- **IFM Colonial Pipeline 2 LLC (-- / BBB- / --):** \$325MM in 10-year bullet senior secured notes issued by IFM Colonial Pipeline 2 LLC that holds a 16% equity interest in the Colonial Pipeline. Colonial Pipeline, which goes from Houston to NY harbor, is the largest refined products pipeline (such as gasoline, home heating oil, aviation fuel and other refined petroleum products) in North America. The bullet notes priced at a 3.640% coupon (Sponsor: IFM investors).
- **Adani Indian Solar Portfolio (Baa3 / BBB- / BBB-):** \$363MM in 20-year senior secured notes issued to refinance a portfolio of 10 solar assets in India. The notes, which are the first investment grade bond from an Indian renewable energy company, were structured as green bonds with a 14-year weighted average life and priced at a 4.625% coupon (Sponsor: Adani Green Energy).
- **Qualitas Energy's Solar Portfolio:** €130MM in senior secured private placement notes to refinance a 26MW portfolio of solar plants in Spain (Sponsor: Qualitas Energy).
- **Terna Energy Onshore Wind Portfolio:** €150MM in 7-year bullet 2.600% senior secured private placement green notes to finance the construction of an onshore wind portfolio in Greece of up to 217.6MW due to be built in the first half of 2020 (Sponsor: Terna Energy).

INFRASTRUCTURE

- **Alpha Trains (-- / -- / BBB):** €200MM in 12-year senior secured private placement green fixed-rate bullet notes to refinance the company's current debt and fund the acquisition of high quality assets for leasing purposes. Alpha Trains is a leading European rolling stock lessor: ranked #1 in the German passenger market and #3 in the European locomotives market (Sponsors: Arcus Infrastructure, PSP Investments, AMP Capital). **Crédit Agricole CIB acted as Joint Placement Agent.**
- **Porterbrook Rail (Baa2 / -- / --):** £150MM in 12-year senior secured private placement amortizing green notes to refinance the company's public bond maturing in 2020. Porterbrook is the largest UK-based rolling stock leasing company. The notes priced at a 2.560% coupon. (Sponsors: Allianz, AIMCo, EDF Invest, UTA, TIF, RBS Pension Fund). **Crédit Agricole Securities acted as Lead Joint Placement Agent.**
- **Prumo Participacoes e Investimentos (Prumopar) (-- / -- / BB):** \$50MM in 12-year senior secured notes backing the the Ferroport Logistica Comercial Exportadora port terminal in Brazil priced at a 7.500% coupon (Sponsor: Prumo Logistica).
- **Rutas 2 and 7 Finance (Ba1 / BB / BB+):** \$290MM in 16-year senior secured notes to finance the rehabilitation of the 171km Rutas 2 and 7 highways in Paraguay. The 144A notes priced at a 5.000% coupon (Sponsors: Sacyr and Ocho).
- **Welcome Break:** £165MM in senior secured private placement notes to refinance the motorway service station operator's debt. Funds are part of a £370MM debt package that also comprised a £205MM term loan and a £40MM capex facility (Sponsor: Applegreen).
- **Soha Housing:** £40MM in senior secured private placement notes to finance the development of 250 affordable homes annually for an undisclosed number of years (Sponsor: Soha Housing).
- **A35 Brebemi (-- / -- / BBB-):** €1.679BN in senior secured public bonds to refinance the tollroad's existing debt split into four tranches: a €15MM 19-year floating rate tranche; a €934MM 19-year fixed-rate with 3.375% coupon tranche; a €558MM 23-year zero coupon tranche; and a €172MM 10-year floating-rate junior tranche. The bonds are listed on Euronext Dublin and the senior tranches were assigned a BBB-rating by Fitch. The debt package also comprises a €307MM senior bank loan (Sponsors: Banca Intesa Sanpaolo, SATAP).
- **Bristol Airport (NAIC-2):** £126MM in senior secured privately placed notes split into two bullet tranches: a £80MM 15-year tranche with a 2.440% coupon and a £46MM 20-year tranche with a 2.810% coupon. The issuer, viewed as an NAIC-2, is a UK regional airport.
- **Barcelona Metro Line 9:** €555MM in 18-year senior secured privately placed notes to refinance the section 2 of Barcelona's Metro Line 9 PPP, divided in a €415MM fixed-rate tranche and a €140MM floating-rate one. The bonds are part of a €725MM debt package, which also included a €170MM 10-year loan (Sponsors: Allianz Capital Partners, Arbejdsmarkedets Tillaegspension, Dalmore Capital, Equitix, ACS).

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



GLOBAL PROJECT BONDS MARKET OVERVIEW (cont'd)

EMEA TRANSACTION SPOTLIGHT:

Porterbrook Rail

- **The Issuer:** Porterbrook Rail Finance Ltd. is the holding company of Porterbrook Leasing Company Ltd., the largest UK-based rolling stock leasing company.
 - ✓ As of 31st December 2018, Porterbrook's portfolio consisted of 5,050 vehicles with a Net Book Value of £2,159 million. Passenger vehicles comprised c.4,500 of this total, representing 31% of the overall UK passenger train fleet.
- **The Transaction:** The amortizing private placement issuance of £150MM was structured with a Weighted Average Life of 7.16 years, a funding delay of 12 months, and a final maturity of April 2033.
 - ✓ The use of proceeds will partly pre-fund the repayment of a £250MM public bond maturing in 2020.
 - ✓ The notes were marketed in Private Placement format under Section 4(a)(2) / Reg. D. The deal was launched as £125MM of senior secured notes, and was 2.5x oversubscribed. With that, the amount was upsized to £150MM and was successfully placed with 5 large institutional investors. The notes feature a 12-month delayed draw with funding in October 2020. [Crédit Agricole Securities](#) acted as Lead Joint Placement Agent.

AMERICAS TRANSACTION SPOTLIGHT:

CED California Holdings IV LLC

- **The Issuer:** CED California Holdings IV LLC is a wholly-owned subsidiary of Con Edison Clean Energy Businesses Inc.
 - ✓ The issuer owns two operating solar farms in California with an aggregated capacity of 247MW.
 - ✓ The solar farms have a 100% contracted offtake with Southern California Edison.
 - ✓ Con Edison Clean Energy Businesses Inc, which acquires, develops, builds and operates wind and solar electric generation facilities across the US, is one of the largest owners and operators of solar projects in North America.
- **The Transaction:** \$303MM were issued in senior secured notes backing the 247MW solar projects.
 - ✓ The amortizing notes were structured with a Weighted Average Life of 11 years.
 - ✓ The notes were privately placed.

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



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)	
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%	--	--	
GridFlex Generation, LLC	NAm	USD	378	19-Sep	11	--	5.210%	--	BBB- (Kroll)	
Pioneer Transmission LLC	NAm	USD	102	19-Sep	30	23	3.360%	125 bps	A- (Kroll)	
EEW Capital Finance Solar Portfolio	EMEA	EUR	25	19-Sep	--	--	--	--	--	
Independent Oil and Gas Upstream Assets	EMEA	EUR	100	19-Sep	5	Bullet	9.500%	--	--	
Qualitas Energy Solar Portfolio	EMEA	EUR	38	19-Sep	21	--	--	--	--	
Hermes Infrastructure Solar Portfolio	EMEA	GBP	57.5	19-Aug	--	--	--	--	--	

INFRASTRUCTURE										
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
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	--	--	--	--	
SFR FTTH	EMEA	EUR	571	19-Sep	7	--	--	--	--	
Tottenham Hotspur FC	EMEA	GBP	525	19-Sep	23	--	--	--	--	
Thames Tunnel Tideway	EMEA	GBP	75	19-Sep	22	--	2.418%	160 bps	--	
Acorn Project (Two) LLP	EMEA	KES	5,000	19-Sep	--	--	--	--	Aa2.ke / -- / --	
Scandlines	EMEA	EUR	305	19-Aug	12.5	--	--	--	-- / -- / BBB	
Akiem	EMEA	EUR	360	19-Aug	10 / 15	10 / 11	--	--	--	
University of Leicester Student Accommodation PPP	EMEA	GBP	125	19-Aug	50	--	--	--	--	

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



GLOBAL BOND MARKET OVERVIEW

Market update October 2019

EUR Bond Corporate Market

- While the major economies are not showing the excesses that typically herald a sharp drop in growth, they are all on the path to slowdown in one way or another. Still-robust domestic fundamentals are up against declining foreign demand and widespread uncertainty that has already proven costly in terms of growth. In this complicated context, accommodative monetary policy is therefore the name of the game, more so than ever given the need to guard against the risks inherent to this unprecedented, primarily uncertainty-driven late cycle.
- The IG corporate market has had another great month. Activity in the primary market increased by more than 50% in comparison to the same month of last year: €36.2BN have been priced in October 2019. On a year-to-year comparison, corporate primary issuance volumes amounted to €329BN YTD, representing a 40% increase from last year's €235BN YTD.
- Investors are showing a strong appetite and are participating actively in the transactions allowing issuers to price at a limited New Issuance Premium (NIP) of 5.3bps in average YTD (versus 11.4bps in 2018 FY).

Enel Sustainability Linked Bond

- On October 10th, Italian energy company **Enel**, through its the Dutch-registered finance subsidiary Enel Finance International N.V. (Baa2/BBB+/BBB), launched a multi-tranche sustainable bond for institutional investors on the European market totaling €2.5BN. The bond is linked to the achievement of the United Nations Sustainable Development Goals (SDGs) and is the Group's first General Purpose SDG Linked Bond issued on the European market.
- This bond issue is particularly linked to Enel's ability to achieve the following SDGs: SDG 7 "Affordable and clean energy", through the achievement, by 2021, of a percentage of installed renewable generation capacity equal to or greater than 55% of total consolidated installed capacity (against 45.9% in June 2019); and SDG 13 "Climate action", through the achievement of a level of greenhouse gas emissions by 2030 equal to or less than 125 g of CO2 per kWh (369 g of CO2 per kWh in 2018), in line with the commitment to reduce Enel's direct greenhouse gas emissions per kWh by 70% by 2030 compared to 2017. If any target is not achieved, a step-up mechanism will be applied to the respective tranche, increasing the rate by 25 bps as of the first interest period subsequent to the publication of the auditor's assurance report/ report issued by a third-party expert charged with validating the CO2 emissions measuring methodology.
- The deal was placed in three tranches: a 5-year linked to SDG 7, a 8-year also linked to SDG 7 and a 15-year linked to SDG 13. IPTs were released at MS+75-80bps area, MS+95 and MS+130bps area, respectively. The final terms were eventually set at MS+55bps, MS+68bps and MS+103bps, respectively.
- The issuance was almost four times oversubscribed, with total orders of about 10 billion euros and the significant participation by Socially Responsible Investors (SRIs), enabling the Enel Group to continue to diversify its investor base. The issue is expected to be listed on the Irish Stock Exchange. **CACIB acted as Joint Bookrunner on the transaction.**

US Investment Grade Public Corporate Bond Market

- Despite last week's resurgence of IG supply as corporates exited blackout, October still failed to meet market expectations (\$75BN priced vs \$87BN expected). YTD primary market volume is still behind last year by 7% and now stands at \$1.04TR.
- New issues were 3.4x covered on average contributing to strong movements (20-25bps) from IPT-to-pricing. Deals managed to land with minimal new issue concessions (mid-single digits) with many pricing through fair value. Secondary performance on new issues was mixed as the market reacted to the flurry of economic releases last week.
- For the week ended October 30th, 2019, Lipper reported a net inflow of \$2.32BN for the 13th straight week of inflows. This brought YTD net fund flows to \$94.0BN. The CDX widened out slightly over renewed trade concerns this week.
- As expected, the Fed cut rates 0.25% to 1.5%-1.75% (3rd cut in the last 3 months) and signaled a pause in rate action (either way) for the remainder of the year.
- Treasuries fell following the better-than-expected jobs report (+128k jobs for the month of October vs +85k expected), countering the rally post-FOMC. Yields on the 10Y and 30Y closed at 1.710% and 2.190% on Friday, compared to 1.794% and 2.287% the prior Friday .
- IG spreads are 1bp wider on the week and 44bps tighter on the year with the ICE BAML Corporate Index closing on Friday at +114bps.

	Statistics (LTM)				
	Min	Max	Average	Current	Δ 01/01/19
IG Index	111 bps	161 bps	127 bps	114 bps	-44 bps
A Index	84 bps	126 bps	98 bps	87 bps	-36 bps
BBB Index	142 bps	205 bps	164 bps	146 bps	-55 bps

USPP Market Highlight

- The volume of private placements reached \$6.9BN in October vs. \$3.3BN in September and \$7.9BN last October. October volume consisted in 47 issues by 24 issuers vs. 41 issues by 22 issuers last month. Year-to-date issuances continue to slightly lag behind last year's issuances by 4% with \$53.6BN of USPP issued YTD vs \$56.0BN last year.
- The issuances of USPP were mainly domestic in October (67%). On a year-to-date basis, the amount of domestic USPP issued now equals the cross-border USPP.
- Energy and Infrastructure (including transportation) issuances have been accounting for 59% of the total issuance YTD accounting for 33% and 26% 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 Spread	Bid YTM	
21/02/2017	2i Rete Gas	Italy	Baa2	BBB	2026	435	1.750%	77	0,58	
24/10/2017	2i Rete Gas	Italy	Baa2	BBB	2027	550	1.608%	83	0,70	
04/09/2018	2i Rete Gas	Italy	Baa2	BBB	2025	500	2.195%	67	0,43	
09/03/2017	A2A	Italy	Baa3	BBB	2024	300	1.250%	59	0,30	
10/12/2013	Elenia Finance	Finland	NR	BBB	2020	500	2.875%	34	-0,03	
31/03/2017	Elia	Belgium	NR	BBB+	2027	250	1.375%	77	0,61	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2034	100	3.250%	133	1,58	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2029	250	2.750%	166	1,66	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2032	50	2.375%	146	1,61	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2027	300	1.750%	146	1,33	
22/11/2013	Madrilena Red de Gas Finance	Spain	NR	BBB	2023	275	4.500%	69	0,39	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2029	300	2.250%	116	1,12	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2025	300	1.375%	84	0,58	
05/07/2017	National Grid	UK	Baa1	BBB+	2024	500	1.000%	58	0,30	
21/09/2017	NorteGas	Spain	NR	BBB-	2027	750	2.065%	120	1,07	
21/09/2017	NorteGas	Spain	NR	BBB-	2022	550	0.918%	53	0,17	
24/03/2014	Redexis Gas	Spain	Baa3	BBB	2021	650	2.750%	55	0,18	
20/09/2018	RTE	France	NR	A	2038	500	2.125%	42	0,77	
20/09/2018	RTE	France	NR	A	2030	500	1.500%	37	0,42	
30/08/2017	SSE	UK	A3	A-	2025	600	0.875%	66	0,42	
28/08/2018	SSE	UK	A3	A-	2027	650	1.375%	74	0,61	
13/03/2017	Statkraft	Norway	Baa1	A-	2025	500	1.125%	44	0,18	
19/07/2017	Terna	Italy	Baa1	BBB	2027	1 000	1.375%	56	0,43	
03/06/2013	Vier Gas Transport	Germany	NR	BBB+	2025	750	2.875%	30	0,06	
03/06/2013	Vier Gas Transport	Germany	NR	A-	2020	750	2.000%	17	-0,18	
01/07/2013	Vier Gas Transport	Germany	NR	A-	2023	750	3.125%	24	-0,08	
17/09/2018	Vier Gas Transport	Germany	NR	A-	2028	500	1.500%	37	0,30	
20/11/2015	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2023	500	2.375%	71	0,40	
23/05/2016	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2026	550	2.875%	103	0,83	

INFRASTRUCTURE AND TRANSPORTATION										
Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid Spread	Bid YTM	
10/05/2016	Abertis	Spain	NR	BBB	2026	1 150	1.375%	110	0,91	
02/11/2016	Abertis	Spain	NR	BBB	2027	500	1.000%	114	0,99	
05/12/2013	Aeroporti Di Roma	Italy	Baa1	BBB+	2021	600	3.250%	65	0,28	
01/06/2017	Aeroporti Di Roma	Italy	Baa1	BBB+	2027	500	1.625%	137	1,22	
28/05/2013	Aeroports de Paris	France	NR	A+	2028	600	2.750%	27	0,20	
01/10/2014	Aeroports de Paris	France	NR	A+	2025	500	1.500%	28	0,02	
15/07/2015	Aeroports de Paris	France	NR	A+	2023	500	1.500%	25	-0,08	
06/12/2017	Aeroports de Paris	France	NR	A+	2027	500	1.000%	26	0,14	
04/10/2018	Aeroports de Paris	France	NR	A+	2038	500	2.125%	53	0,88	
18/03/2015	Alpha Trains	Luxembourg	Baa2	NR	2025	350	2.064%	131	1,08	
01/06/2016	APRR	France	Baa2	A-	2026	700	1.125%	31	0,08	
16/11/2016	APRR	France	Baa2	A-	2031	500	1.875%	46	0,52	
16/11/2016	APRR	France	Baa2	A-	2027	500	1.250%	31	0,15	
31/05/2017	APRR	France	Baa2	A-	2032	500	1.625%	50	0,62	
06/11/2017	APRR	France	NR	A-	2033	700	1.500%	49	0,65	
04/05/2016	ASF	France	A3	A-	2026	500	1.000%	30	0,09	
05/01/2017	ASF	France	A3	A-	2027	1 000	1.250%	26	0,09	
05/04/2017	ASF	France	A3	A-	2026	500	1.125%	30	0,09	
10/01/2018	ASF	France	A3	A-	2030	1 000	1.375%	41	0,42	
21/06/2018	ASF	France	A3	A-	2028	700	1.375%	29	0,20	
26/01/2017	Atlantia	Italy	Baa2	BBB	2025	750	1.625%	245	2,19	
06/07/2017	Atlantia	Italy	Baa2	BBB	2027	1 000	1.875%	264	2,51	
18/09/2017	Autostrade	Italy	Baa1	BBB+	2029	700	1.875%	246	2,47	
03/05/2017	Brisa	Portugal	Baa3	NR	2027	300	2.375%	89	0,76	
25/06/2013	Brussels Airport	Belgium	Baa1	NR	2020	500	3.250%	35	0,01	
26/04/2017	Brussels Airport	Belgium	Aa1	NR	2024	300	1.000%	49	0,20	
03/02/2014	Heathrow Funding	UK	NR	A-	2030	750	1.500%	78	0,80	
13/05/2014	Heathrow Funding	UK	NR	A-	2022	600	1.875%	35	-0,01	
28/06/2017	Heathrow Funding	UK	NR	A-	2032	500	1.875%	87	1,02	
17/11/2017	HIT	France	Baa3	NR	2027	500	1.625%	110	0,98	
17/11/2017	HIT	France	Baa3	NR	2023	500	0.625%	70	0,36	
09/10/2014	Infra Park (Indigo)	France	NR	BBB	2025	650	2.125%	50	0,24	
12/07/2017	Infra Park (Indigo)	France	NR	BBB	2037	125	2.951%	132	1,64	
06/11/2015	SANEF	France	Baa1	NR	2026	600	1.875%	78	0,57	
11/10/2016	SANEF	France	Baa1	NR	2028	300	0.950%	98	0,92	
17/04/2018	Sydney Airport	Australia	Baa1	BBB+	2028	500	1.750%	71	0,61	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2027	300	2.375%	189	1,79	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2024	300	1.625%	142	1,16	
06/09/2017	Transurban	Australia	Baa1	BBB+	2028	500	1.750%	84	0,75	



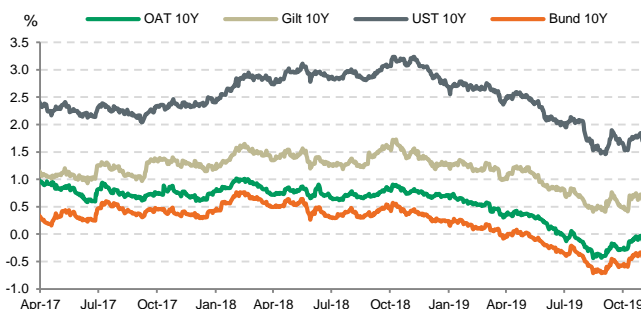
MACROECONOMIC ENVIRONMENT

- In the US, on October 30th the FOMC cut its policy target rates by 25bps, for the third meeting in a row, with the Fed funds target range now at 1.50-1.75%. At the same time, the FOMC statement sent a clear signal that the Fed is ready for a pause, as “monetary policy is in a good place”. Powell did not close the door for future easing, as he was clear that the Fed would “act accordingly” if the outlook were to change “in a material way”. The Fed has also removed investors' worst fear that the pause might be followed by a rate hiking cycle, as inflation expectations are at an all-time low. Powell pointed out that inflation prints would have to move up significantly and stay there before the Fed would consider raising rates to fight that. Regarding the trade war, China announced on Monday 28th that parts of the text for the first phase of a trade deal with the U.S. are “basically completed” following consensus on subjects including standards used by agricultural regulators. While market expectations have been building towards a phase one deal being agreed by the time the APEC Summit comes around, some slippage in the timeline may be acceptable as long as markets remain comfortable that progress is being made.
- In Europe, for his last ECB Meeting, Mario Draghi did not announce anything new regarding monetary policy, as expected. Nothing has changed since the September announcement: the ECB confirmed that it intends to keep rates “at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2%”. Christine Lagarde is set to replace Mario Draghi at the ECB's highest post and follow the QE path that is to start in November.
- In the UK, Brexit remained a key driver on the markets. Parliament showed support to the Withdrawal Agreement Bill; however, the MP refused the calendar proposed by the Prime Minister thus binding B. Johnson to request a Brexit extension to the EU, which was granted by the EU rescheduling the exit date to the 31st of January. In parallel, the UK government tabled a motion to hold a snap election on 12th December which passed after receiving support from opposition. The uncertainty and concern over the accuracy of polling data means markets are likely to ignore most of these until Election Day, while working on the premise that the Conservative Party will win an election and therefore push the Withdrawal Agreement through Parliament.

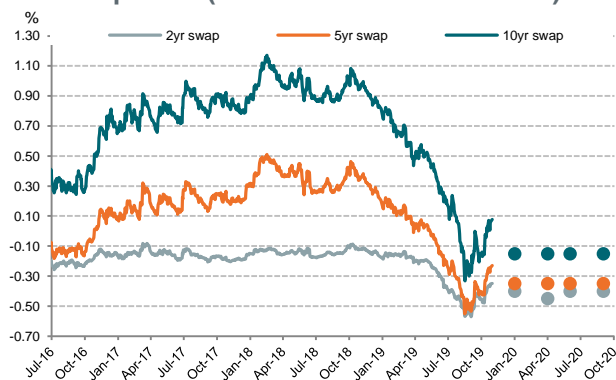
Swap rates (as of October 31st, 2019)

	EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
3Y	-0.34%	-24,1%	1,52%	1,2%	0,74%	16,1%
5Y	-0.27%	-32,4%	1,50%	2,7%	0,74%	22,7%
7Y	-0.16%	-46,8%	1,52%	3,2%	0,76%	24,4%
10Y	0,01%	-108,5%	1,60%	4,0%	0,81%	24,4%
12Y	0,12%	-608,3%	1,65%	4,2%	0,84%	25,6%
15Y	0,26%	150,5%	1,70%	4,5%	0,88%	26,5%
20Y	0,38%	73,3%	1,76%	4,7%	0,90%	27,3%

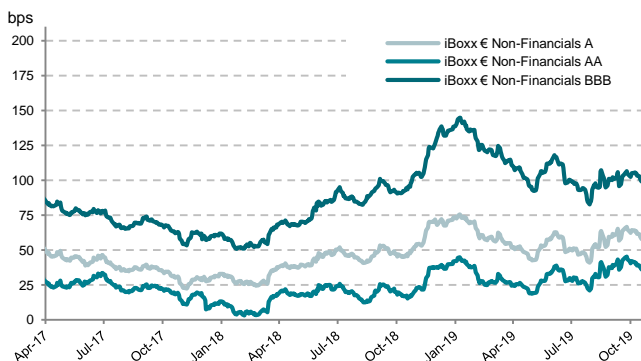
Government yields (10Y)



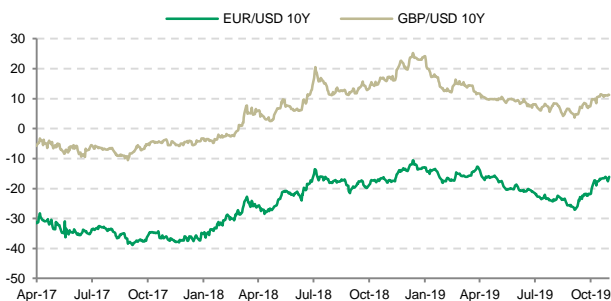
EUR swap rates (historic and forward levels)



Credit spread evolutions (EUR)



10Y basis swap evolution



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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