



## GLOBAL PROJECT BONDS MARKET OVERVIEW

### Recently closed transactions

#### ENERGY

- **Hermes Infrastructure Solar Portfolio:** £58MM in senior secured private placement notes to refinance two rooftop solar portfolios with a combined capacity of 34.5 MW, comprising 9,000 residential rooftops PV systems in England and Wales. (Sponsor: Hermes Infrastructure)
- **MV24 Capital B.V. (-- / BB / BB):** \$1.1BN in 14.9-year senior secured notes with a 6.748% coupon to refinance the Floating Production Storage and Offloading ("FPSO") Cidade de Mangaratiba oil vessel which has been operational since 2014 in the pre-salt field Lila-Iracema located in Brazil. The project revenues derive from a 20-year charter agreement maturing in 2034 with Petrobras (Ba2 / BB- / BB-), Shell Brasil (Aa2 / AA- / --) (via BG Energy) and Petrogal (NR) (via Galp) which all guarantee the payments. (Sponsors: Modec (Mitsui), MOL and Marubeni)
- **FLNG Liquefaction 3, LLC (-- / BBB- / BBB-):** \$700MM in 20-year fully-amortizing 4(a)(2) senior secured notes were issued to refinance the construction loans for Freeport LNG Train 3 located on Quintana Island near Freeport, Texas. The notes priced at a 4.360% coupon. This is the project's fourth bond issuance for the purpose of refinancing the previously contracted bank debt. The project is expected to reach substantial completion in a few months. (Sponsor: Freeport LNG)
- **EDP Transmissão SP-MG (AA+ bra):** BRL800MM in 20-year senior secured notes issued to refinance the 375km, 500kV transmission line between São Paulo and Minas Gerais in Brazil. The notes priced at a 4.450% spread over the Brazilian consumer price index. The transmission line is expected to begin operation in 2022 and has a 25-year concession ending in August 2047. (Sponsor: EDP)

#### INFRASTRUCTURE

- **Scandlines (-- / -- / BBB):** €305MM in 12.5-year senior secured privately placed notes to refinance the German ferry operator company. The new debt facility will mature later partly because the Fehmarn Belt Fixed Link Tunnel, which will offer quicker journeys between Germany and Denmark, is now not expected to open before late 2031, preventing Scandlines from any competitive pressure and securing an investment grade rating for a longer period. (Sponsors: 3i, Hermes and First State)
- **Akiem:** €360MM in privately placed senior secured notes to refinance the rail leasing company's 2016 term loan. The transaction was issued in two tranches with 10 and 15 years tenor. The new debt also includes a 7-year €360MM term loan and a €400MM capex facility. (Sponsors: DWS, SNCF). [Crédit Agricole CIB acted as Joint Lead Placement Agent.](#)
- **Newport City Homes Refinancing:** £95MM in 30-year in senior secured private placement loan to refinance the social housing company and to deliver its development program of 250 affordable homes per year in the United Kingdom. The notes priced at a coupon of less than 3%. The debt refinancing package also includes £30MM in credit facilities of 5 and 10-year maturities. (Sponsor: Newport City Homes)
- **El Dorado International Airport (-- / -- / BBB):** \$415MM in 7.5-year 4(a)(2) fully-amortizing senior secured notes to refinance El Dorado International Airport located in Bogota, Colombia. The notes, whose maturity matches the end of the airport's 20-year concession in 2026, priced at a 4.090% coupon. The airport is South America's busiest in terms of cargo and third busiest airport in terms of passenger traffic. (Sponsor: Odinsa)
- **MacDonald Block Complex Retrofit PPP (A3 / -- / --):** C\$144MM in senior secured notes to finance the retrofit of MacDonald Block Government's building complex located in Toronto, Canada. The transaction entails two maturities of 19 and 35 years. The retrofit involves updating all core building systems, which have reached the end of their useful life. Availability payments are to be provided by Ontario Infrastructure and Lands Corporation (Aa3). (Sponsors: Fengage Capital and PCL Construction)
- **Corner Brook Acute Care Regional Hospital PPP (A3 / -- / --):** C\$290MM in senior secured notes to finance the construction of the Western Memorial Regional Hospital located in Corner Brook, Canada which will receive from the Province of Newfoundland and Labrador (A1 stable) and the Western Regional Health Authority 30-year availability payments. The transaction entails two tranches: C\$265MM in 30-year notes and C\$25MM in 10-year notes. (Sponsors: Plenary Group, PCL Construction, Marco Services and Johnson Controls)
- **Leicester University Accommodation PPP (-- / AA / --):** £125MM in 45-year inflation-linked senior secured notes to finance the development of student accommodation project at the University of Leicester, England. The project involves the demolition of existing facilities and construction of 1,164 new bed spaces for students, a multi-story 550-space car park, and new teaching facilities, under a 50-year facilities management contract. The notes were wrapped by Assured Guaranty which provided guarantee on timely payment of scheduled principal and interest payments. (Sponsors: Equitix and Engie Regeneration)
- **Lima Metro Line 2 Finance II Limited (Baa1 / BBB / BBB):** \$539MM in 17-year senior secured notes backing the continued construction of the Lima Metro Line 2 subway in Peru. The notes priced at a 4.350% coupon. The notes will be secured by contractual payment rights, which constitute direct, unconditional and irrevocable payment obligations of the Republic of Peru. The proceeds of the notes will be used to finance further construction and repay previous senior secured notes issued in year 2015. (Sponsors: Iridium (ACS Group), Salini Impregilo, FCC Construcción, Ansaldo STS, Ansaldo Breda and Cosapi)
- **Melbourne Airport (A3 / A- / --):** \$210MM and A\$400MM in four tranches of senior secured notes backing the Melbourne Airport, the second busiest airport in Australia which operates under a fully-prepaid 50 year lease (commencing 1997). Two tranches of \$105MM each had maturities of 12 and 15-years with coupons of 3.140% and 3.240%, respectively. AUD-denominated tranches of A\$150MM and A\$250MM had maturities of 20 and 25-years, with coupons of 3.710% and 3.870%, respectively. (Sponsors: AMP, IFM, FutureFund, SAS Trustee and Utilities of Australia)

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



GLOBAL PROJECT BONDS MARKET OVERVIEW (cont'd)

EMEA TRANSACTION SPOTLIGHT:

Akiem

- **The Issuer:** Akiem is a Paris-based rolling stock company owned 50/50 by French state railway operator SNCF and German asset manager DWS.
  - ✓ Managing 440 diesel and electric locomotives used for freight and passenger services in Continental Europe, Akiem is well-positioned as an European leader in the rail leasing market.
  - ✓ Use of proceeds from this issuance will refinance the Company's current debt, fund future growth along with general corporate purposes.
- **The Transaction:** The transaction was part of a total €1.2BN refinancing that also comprises a 7-year €360MM term loan and a €400MM revolving capex facility.
  - ✓ The privately placed senior secured notes were issued in two tranches: €150MM in 10-year bullet notes and €210MM in 15-year amortizing notes, whose funds were provided by seven US and European institutional investors. **Crédit Agricole CIB** acted as **Sole Placement Agent**.

AMERICAS TRANSACTION SPOTLIGHT:

Lima Subway Line 2

- **The Issuer:** Lima Metro Line 2 Finance II Limited is created for the purpose of issuing senior notes for the purchase of eligible Peruvian Government-backed payment certificates ("RPI-CAOs") related to the Lima subway line 2.
  - ✓ Concession agreement for design, financing, construction, operation and maintenance of the 26.87-kilometer Line 2 and the 7.66-kilometer that are part of Line 4 of the Lima metro system.
  - ✓ 35-year contract awarded in 2014 by the Ministry of Transport and Communications of Peru (MTC).
  - ✓ The notes will be backed by RPI-CAOs: investment recognition payments, that are unconditional and irrevocable rights to receive fixed-quarterly payments in US dollars from the MTC.
  - ✓ RPI-CAOs relate to the completion of construction milestones and are vested upon execution of a Certificado de Avance de Obras (CAO) by the regulator of Investment in Public Transport Infrastructure Facilities (OSITRAN) and an RPI-CAO certificate by the MTC.
- **The Transaction:** \$539MM in 17-year; 144A fully amortizing senior secured notes priced at a 4.350% coupon.
  - ✓ The notes have a 2-year interest-only period and will fully amortize through 60 quarterly payments up to maturity in year 2036.
  - ✓ The transaction is the third Peruvian project bond transaction this year, and demonstrates strong appetite for the market.

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)	
Hermes Infrastructure Solar Portfolio	EMEA	GBP	58	19-Aug	--	--	--	--	--	
MV24 Capital B.V.	LatAm	USD	1,100	19-Aug	15	-	6.748%	--	-- / BB / BB	
FLNG Liquefaction 3, LLC	NAm	USD	700	19-Aug	20	12	4.360%	225bps	-- / BBB- / BBB-	
EDP Transmissão SP-MG	LatAm	BRL	800	19-Aug	20	20	--	445bps + ICPA	AA+ (bra)	
Northern Courier Pipeline LP	NAm	CAD	1,000	19-Jul	23	11	3.365%	177bps	NAIC-1	
Mong Duong Finance Holdings	APac	USD	679	19-Jul	10	7	5.125%	--	Ba3 / -- / BB	
Ergon Peru, S.A.C.	LatAm	USD	222	19-Jul	15	--	4.870%	--	-- / BBB / --	
Glenmont Partners REBS	EMEA	EUR	42	19-Jul	--	--	--	--	--	
Niigata Solar	APac	JPY	16,000	19-Jul	20	--	1.200%	--	--	
Jackson Generation CCGT Plant	NAm	USD	100	19-Jun	5	--	--	--	--	
Renewable Japan	APac	YEN	6	19-Jun	21	--	--	--	BBB (Japan)	
Izcalli Investments Spanish Solar Portfolio	EMEA	EUR	207	19-Jun	19	--	--	--	-- / AA / --	
JSC's Polish Solar Portfolio	EMEA	EUR	30	19-Jun	--	--	--	--	--	
CAAB Energia Italian Solar Portfolio	EMEA	EUR	8	19-Jun	14	--	4.970%	--	--	
Adani Green Energy Solar Portfolio	APac	USD	500	19-Jun	6	--	6.250%	--	--	
La Bufa Wind	LatAm	USD	225	19-May	18	12	5.770%	--	--	
Archimede Sicily CSP Plant	EMEA	EUR	5	19-May	23	--	6.070%	--	--	
FLNG Liquefaction 2, LLC	NAm	USD	865	19-May	20	12	4.390%	190bps	-- / BBB / BBB	
Tablares Wind Farm	EMEA	EUR	--	19-May	--	--	--	--	--	
Niles Energy Center	NAm	USD	150	19-Apr	8	--	6.750%	--	--	
Shady Hills Energy Center	NAm	USD	422	19-Apr	33	25	--	195bps	--	
Andali Energia	EMEA	EUR	20 / 10	19-Apr	2	--	8.000%	--	--	
APLNG	APac	USD	600	19-Apr	6 / 14 / 19	--	--	--	--	
Springbok 3	NAm	USD	--	19-Apr	--	--	--	--	--	
ERG S.P.A.	EMEA	EUR	500	19-Apr	6	6	1.875%	190bps	- / - / BBB-	

INFRASTRUCTURE										
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
Scandlines	EMEA	EUR	305	19-Aug	13	--	--	--	-- / -- / BBB	
Akiem	EMEA	EUR	360	19-Aug	10 / 15	10 / 11	--	--	--	
Newport City Homes	EMEA	GBP	95	19-Aug	30	--	--	--	--	
El Dorado International Airport	LatAm	USD	415	19-Aug	8	--	4.090%	--	-- / -- / BBB	
MacDonald Block Complex Retrofit	NAm	CAD	54 / 91	19-Aug	19 / 35	--	--	--	A3 / -- / --	
Corner Brook Acute Care Hospital	NAm	CAD	25 / 265	19-Aug	10 / 30	--	--	--	A3 / -- / --	
Lima Metro Line 2 Finance II Limited	LatAm	USD	563	19-Aug	17	--	4.350%	--	Baa1 / BBB / BBB	
Leicester University Accommodation	EMEA	GBP	125	19-Aug	45	--	--	--	-- / AA / --	
Melbourne Airport	APac	USD / AUD	105 / 105 / 150 (AUD) / 250 (AUD)	19-Aug	12 / 15 / 20 (AUD) / 25 (AUD)	--	3.140% / 3.240% / 3.710% (AUD) / 3.870% (AUD)	110bps / 120bps / 135bps / 135bps	NAIC-1 (A3 / A- / --)	
Forth Ports Ltd	EMEA	GBP / USD	45 / 58 / 90 / 5(20-Jul) / 55(20-Jul) / 30 (20-Jul) / 21 (USD)	19-Jul	10 / 12 / 18 / 10 (USD)	--	2.970% / 3.030% / 3.190% / 3.070% / 3.130% / 3.290% / 3.780%(USD)	G+224bps / G+217bps / G+192bps / G+234bps / G+227bps / G+202bps / T+170bps	NAIC-2	
Ardian Portuguese Toll Road Portfolio	EMEA	EUR	75	19-Jul	11	--	3.210%	--	--	
Red de Carreteras de Occidente ("RCO")	LatAm	MXN	2,800 / 7,000	19-Jun	19 / 21	--	9.670% / 6.000%	-- / Udibono+310bps	-- / BBB+ / BBB	
Perth Airport Pty Ltd	Apac	USD	225	19-Jun	10 / 15	--	3.450% / 3.700%	135bps / 160bps	Baa2 / BBB / --	
Brussels Airport	EMEA	EUR	500	19-Jun	15 / 20 / 30	--	--	--	Baa1 / -- / BBB+	
Corredor Bioceánico Highway	LatAm	USD	732	19-May	15	9	5.375%	--	Ba1 / BB / --	
Ravenhall Finance Co Pty	Apac	AUD	462	19-May	23	--	4.230%	--	--	
Autopistas Metropolitanas de Puerto Rico, PR22	LatAm	USD	120	19-May	20	15	7.000%	--	-- / BBB- / --	
Terminal Investment Ltd	EMEA	USD / EUR	100 / 100 / 70 / 110	19-May	10 / 15 / 12(EUR) / 7(EUR)	--	4.470% / 4.730% / 2.270% / 1.830%	195bps / 210bps / MS+160bps / MS+160bps	NAIC-2	
Brisbane Airport	Apac	USD / AUD	107 / 108 / 26 (AUD) / 24 (AUD)	19-May	10 / 12 / 10 (AUD) / 12 (AUD)	--	3.620% / 3.720% / 3.480% / 3.660%	115bps / 125bps / 120bps / 130bps	Baa2 / BBB / --	
Milan Metro Line 5	EMEA	EUR	144	19-May	17	--	--	--	--	
Axione Infrastructures	EMEA	EUR	250	19-Apr	23	--	--	--	--	
Attero Waste	EMEA	EUR	52 / 198 / 113	19-Apr	9 / 10 / 15	--	--	MS+193bps / MS+195bps / MS+205bps	NAIC-2 (BBB)	
GMR Hyderabad International Airport	APac	USD	300	19-Apr	5	--	5.375%	--	Ba1 / BB+ / BB+	

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



## GLOBAL BOND MARKET OVERVIEW

### Market update August 2019

#### EUR Bond Corporate Market

- The current low yield environment, aggravated by recent ECB's and Fed's interest rate cuts, is pushing issuers towards longer transactions. The average maturity of August was at 9.8y, versus an 8.2y average maturity since the beginning of the year and 8.6y average in July.
- The IG corporate market has fully reopened post summer break. Activity in the primary market increased 40% in comparison to July: €21.4BN have been priced for the month of August. On a year-to-year comparison, corporate primary issuance volumes amounted to €231BN YTD, representing a 27% increase from last year's €182BN. Following the same trend, investors' appetite improved in a comparison over last year, with an average oversubscription of 3.3x YTD vs. 2.6x in 2018.

#### Key recent transactions

- After three calm weeks due to summer break, the last week of August (26-30) was the most loaded of the year: 19 deals, accounting for more than 75% of August's total issue volume:
  - ✓ On Tuesday 27th, German industrial multinational Siemens (A1/A) launched its €3.5BN transaction in four tranches: 2, 5, 10 and 15 years. IPTs were released at MS+50bps area, MS+55/60bps area, MS+75bps area and MS+90bps area, respectively. The final terms were eventually set at MS+22bps, MS+30bps, MS+45bps and MS+60bps, respectively, with a total order book of €15.5BN.
  - ✓ Also on August 27th, General Motors Financial (Baa2/BBB) issued a 3 year €600MM transaction. IPTs started at MS+100/105bps and final terms set at MS+75bps with an 3.3x oversubscription. **Crédit Agricole CIB acted as a joint bookrunner.**
  - ✓ Still on August 27th, Swedish industrial group Atlas Copco Finance (NR/A+) hit the market with a €300MM single tranche 10 years transaction, launched at IPTs of MS+80bps area. With a strong order book of €1.8BN, the company finally set its final terms at MS+47bps.
  - ✓ On Wednesday 28th, French telecom company Orange (Baa1/BBB+) launched its €2.5BN transaction in three tranches: 7, 13 and 30 years. IPTs were released at MS+75bps, MS+105 and MS+165bps area, respectively. The final terms were eventually set at MS+43bps, MS+73bps and MS+138bps, respectively, with a total order book of €6.1BN. **Crédit Agricole CIB acted as a global coordinator.**

#### US Investment Grade Public Corporate Bond Market

- As is standard for the last weeks of summer and with August's macro volatility on top, issuers generally remained slow in August shifting the pipeline to post-Labor Day.
- About \$74.0BN have been issued in investment grade corporate bonds in August, what is flat compared to last month but the lowest in the last three years. The YTD primary market volume stands at \$771.0BN what is approx. 8% behind last year's pace.
- While global markets have been weighed down by trade tension, fear of recession, and concern over the path of rate cuts, the primary market has largely withstood the volatility.
- Investors have remained engaged in new deals with orderbooks averaging at ~3.3x over the month, allowing issuers to compress spreads by ~20bps from IPT to pricing. Although slightly elevated at a weighted average of 7bps, concessions have been tracking downward for the final two weeks of August.
- 10Y and 30Y UST yields hit 1-year lows on Tuesday as the yield curve inversion deepened before stabilizing due to positive trade news. 10Y UST yield was at 1.520% at time of writing on Friday vs 1.535% the prior Friday, while the 30Y UST yield was at 1.985% vs 2.025%.

	Statistics (LTM)				
	Min	Max	Average	Current	Δ 01/01/19
<b>IG Index</b>	110 bps	161 bps	127 bps	124 bps	-34 bps
<b>A Index</b>	85 bps	126 bps	98 bps	95 bps	-28 bps
<b>BBB Index</b>	140 bps	205 bps	162 bps	161 bps	-40 bps

#### USPP Market Highlight

- The volume of private placements reached \$4.7BN in August vs. \$7.2BN in July. August volume consisted in 41 issues by 22 issuers vs. 55 issues by 22 issuers last month. About \$42.2BN of USPP have been issued YTD.
- The issuances of USPP were spread almost evenly between domestic and cross-border USPP in August. About \$23.5BN of cross-border USPP have been issued YTD vs. \$18.6BN of domestic USPP.
- Energy and Infrastructure (including transportation) issuances have been accounting for 59% of the total issuance YTD accounting for 33% and 27% 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%	81	0.35	
24/10/2017	2i Rete Gas	Italy	Baa2	BBB	2027	550	1.608%	85	0.45	
04/09/2018	2i Rete Gas	Italy	Baa2	BBB	2025	500	2.195%	73	0.22	
09/03/2017	A2A	Italy	Baa3	BBB	2024	300	1.250%	80	0.26	
10/12/2013	Elenia Finance	Finland	NR	BBB	2020	500	2.875%	28	-0.25	
31/03/2017	Elia	Belgium	NR	BBB+	2027	250	1.375%	87	0.44	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2034	100	3.250%	136	1.29	
20/11/2014	Fluxys Belgium	Belgium	NR	NR	2029	250	2.750%	175	1.47	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2032	50	2.375%	162	1.46	
28/09/2017	Fluxys Belgium	Belgium	NR	NR	2027	300	1.750%	151	1.11	
22/11/2013	Madrilena Red de Gas Finance	Spain	NR	BBB	2023	275	4.500%	72	0.17	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2029	300	2.250%	118	0.86	
05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2025	300	1.375%	84	0.32	
05/07/2017	National Grid	UK	Baa1	BBB+	2024	500	1.000%	57	0.03	
21/09/2017	NorteGas	Spain	NR	BBB-	2027	750	2.065%	127	0.87	
21/09/2017	NorteGas	Spain	NR	BBB-	2022	550	0.918%	55	-0.02	
24/03/2014	Redexis Gas	Spain	Baa3	BBB	2021	650	2.750%	57	0.03	
20/09/2018	RTE	France	NR	A	2038	500	2.125%	59	0.61	
20/09/2018	RTE	France	NR	A	2030	500	1.500%	49	0.25	
30/08/2017	SSE	UK	A3	A-	2025	600	0.875%	72	0.21	
28/08/2018	SSE	UK	A3	A-	2027	650	1.375%	83	0.43	
13/03/2017	Statkraft	Norway	Baa1	A-	2025	500	1.125%	39	-0.13	
19/07/2017	Terna	Italy	Baa1	BBB	2027	1 000	1.375%	62	0.22	
03/06/2013	Vier Gas Transport	Germany	NR	BBB+	2025	750	2.875%	42	-0.08	
03/06/2013	Vier Gas Transport	Germany	NR	A-	2020	750	2.000%	27	-0.21	
01/07/2013	Vier Gas Transport	Germany	NR	A-	2023	750	3.125%	22	-0.34	
17/09/2018	Vier Gas Transport	Germany	NR	A-	2028	500	1.500%	45	0.11	
20/11/2015	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2023	500	2.375%	69	0.13	
23/05/2016	Viesgo (IE2 Holdco)	Spain	NR	BBB-	2026	550	2.875%	105	0.58	

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%	100	0.54	
02/11/2016	Abertis	Spain	NR	BBB	2027	500	1.000%	102	0.60	
05/12/2013	Aeroporti Di Roma	Italy	Baa1	BBB+	2021	600	3.250%	48	-0.07	
01/06/2017	Aeroporti Di Roma	Italy	Baa1	BBB+	2027	500	1.625%	130	0.88	
28/05/2013	Aeroports de Paris	France	NR	A+	2028	600	2.750%	44	0.09	
01/10/2014	Aeroports de Paris	France	NR	A+	2025	500	1.500%	27	-0.25	
15/07/2015	Aeroports de Paris	France	NR	A+	2023	500	1.500%	28	-0.29	
06/12/2017	Aeroports de Paris	France	NR	A+	2027	500	1.000%	30	-0.09	
04/10/2018	Aeroports de Paris	France	NR	A+	2038	500	2.125%	70	0.71	
18/03/2015	Alpha Trains	Luxembourg	Baa2	NR	2025	350	2.064%	134	0.84	
01/06/2016	APRR	France	Baa2	A-	2026	700	1.125%	32	-0.17	
16/11/2016	APRR	France	Baa2	A-	2031	500	1.875%	50	0.27	
16/11/2016	APRR	France	Baa2	A-	2027	500	1.250%	34	-0.10	
31/05/2017	APRR	France	Baa2	A-	2032	500	1.625%	57	0.39	
06/11/2017	APRR	France	NR	A-	2033	700	1.500%	57	0.43	
04/05/2016	ASF	France	A3	A-	2026	500	1.000%	32	-0.15	
05/01/2017	ASF	France	A3	A-	2027	1 000	1.250%	29	-0.15	
05/04/2017	ASF	France	A3	A-	2026	500	1.125%	33	-0.14	
10/01/2018	ASF	France	A3	A-	2030	1 000	1.375%	45	0.18	
21/06/2018	ASF	France	A3	A-	2028	700	1.375%	36	0.00	
26/01/2017	Atlantia	Italy	Baa2	BBB	2025	750	1.625%	214	1.62	
06/07/2017	Atlantia	Italy	Baa2	BBB	2027	1 000	1.875%	232	1.93	
18/09/2017	Autostrade	Italy	Baa1	BBB+	2029	700	1.875%	222	1.95	
03/05/2017	Brisa	Portugal	Baa3	NR	2027	300	2.375%	91	0.50	
25/06/2013	Brussels Airport	Belgium	Baa1	NR	2020	500	3.250%	34	-0.14	
26/04/2017	Brussels Airport	Belgium	Aa1	NR	2024	300	1.000%	50	-0.04	
03/02/2014	Heathrow Funding	UK	NR	A-	2030	750	1.500%	99	0.73	
13/05/2014	Heathrow Funding	UK	NR	A-	2022	600	1.875%	40	-0.17	
28/06/2017	Heathrow Funding	UK	NR	A-	2032	500	1.875%	106	0.91	
17/11/2017	HIT	France	Baa3	NR	2027	500	1.625%	108	0.69	
17/11/2017	HIT	France	Baa3	NR	2023	500	0.625%	62	0.06	
09/10/2014	Infra Park (Indigo)	France	NR	BBB	2025	650	2.125%	53	0.02	
12/07/2017	Infra Park (Indigo)	France	NR	BBB	2037	125	2.951%	156	1.55	
06/11/2015	SANEF	France	Baa1	NR	2026	600	1.875%	76	0.29	
11/10/2016	SANEF	France	Baa1	NR	2028	300	0.950%	96	0.62	
17/04/2018	Sydney Airport	Australia	Baa1	BBB+	2028	500	1.750%	72	0.35	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2027	300	2.375%	218	1.81	
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2024	300	1.625%	165	1.13	
06/09/2017	Transurban	Australia	Baa1	BBB+	2028	500	1.750%	82	0.45	



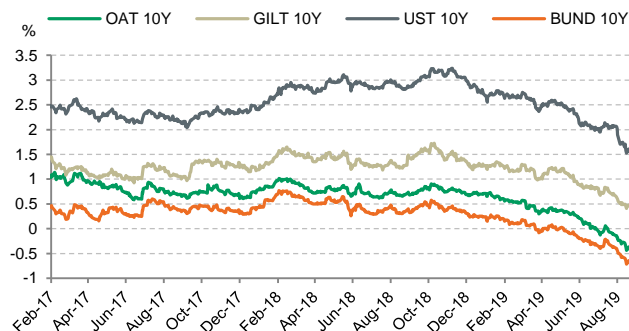
### MACROECONOMIC ENVIRONMENT

- The tension has remained strong between USA and China over the month. Despite some encouraging comments from Donald Trump assessing that talks were ongoing, few actions are effectively taken. In fact, the month of September started off with a lift from 25% tariff rate on approx. \$250BN worth of Chinese imports to 30% and with the notice that 15% tariffs have come into effect on about \$110BN worth of additional imports. China responded by imposing an extra 5% tariffs on top of the existing 25% on \$75BN of US goods.
- In Asia, protests continued to escalate in Hong Kong. An editorial in the Chinese state-controlled media assessed that Chinese troops in Hong Kong would take action if the situation was to worsen. Any escalation in this direction could trigger an international intervention that would have a negative impact on the current trade talks between the US and China.
- In Europe, investors are still following the developments of the political situation in Italy. After the League leader Matteo Salvini triggered the downfall of the previous coalition, a new government involving the Five Star Movement and the Democratic Party is on the verge of being formed, which would prevent the country from organizing anticipated elections. Expectations are that this new government, excluding the euro-skeptical party, would soften the continuous budget tensions with Brussels.
- In the UK, Boris Johnson unexpectedly asked and obtained from the Queen the Parliament suspension from September 12 up to October 14. This considerably increases the risk of a no-deal Brexit, although a vote of no confidence in Johnson's government could still be motioned in Parliament until the 12th, which would lead to an early election.
- Considering this unstable context, markets are rather in risk off mode and the rush to government bonds is still continuing to put pressure on yields. The euro mid-swap curve is currently negative up to 17 years while the Germany's Bund curve is still entirely negative. In this very special environment, issuers have been numerous to take advantage of this window to announce their transactions. It is also to be noted that August closed with a total volume issued of €21.4BN thus being the most active month of August in capital markets' history.

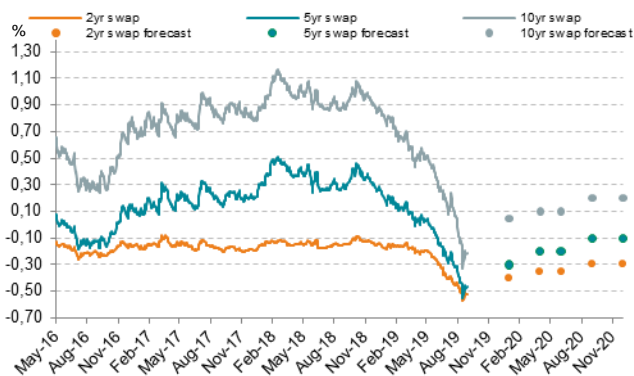
### Swap rates (as of August 30th, 2019)

	EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
3Y	-0.56%	35.5%	1.43%	-21.4%	0.62%	-7.7%
5Y	-0.53%	66.6%	1.36%	-25.0%	0.58%	-17.3%
7Y	-0.44%	148.7%	1.37%	-26.9%	0.58%	-24.8%
10Y	-0.28%	-704.3%	1.43%	-28.0%	0.60%	-31.8%
12Y	-0.18%	-199.5%	1.47%	-28.3%	0.61%	-34.8%
15Y	-0.06%	-118.4%	1.52%	-28.4%	0.63%	-37.5%
20Y	0.05%	-90.4%	1.57%	-28.2%	0.65%	-40.0%

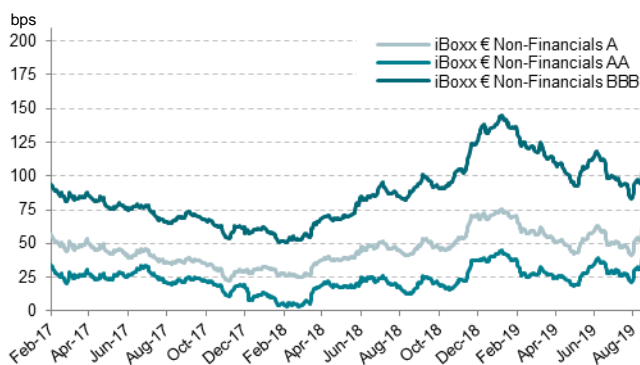
### Treasury yields (10Y)



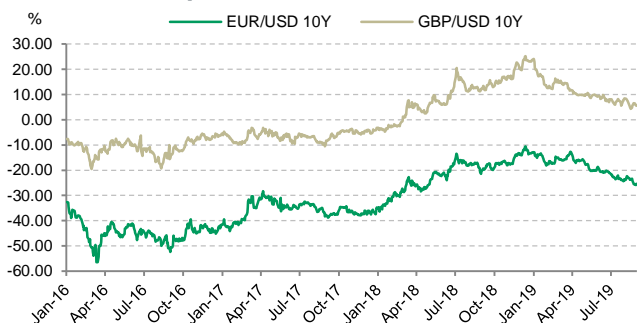
### EUR swap rates (historic and forward levels)



### Credit spread evolutions (EUR)



### 10Y basis swap evolution



### Main upcoming events

	Events / Data	Expected impact
12-Sept	ECB Monetary Meeting	To cap long term EUR rates, reduce peripheral spreads
18-Sept	Fed Meeting	Cap USD rates, weaker USD
24-Oct	ECB Monetary Meeting	N/A

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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