

- January & February 2020 -



### GLOBAL PROJECT BONDS MARKET OVERVIEW

Recently closed transactions

#### **ENERGY**

- Janauba Transmissora de Energia Eletrica: BRL575MM in 25-vear senior secured notes to finance the construction of more than 500km of transmission lines and associated substations in Brasil including the 238km Pirapora 2 - Janauba 500kV line, the 304km Bom Jesus da Lapa II - Janauba 3 500kV line, and the Janauba 3 500kV substation. The 4.830% notes have been structured to accommodate for the construction phase with interest payments planned to occur starting in 2022 and principal payments, adjusted by inflation (IPC-A), to begin in 2025. (Sponsor: Transmissora Alianca de Energia Eletrica)
- Hohe See and Albatros Offshore Wind Farms (BBB+ by Scope): €511MM in 12-year green-labelled senior secured notes to refinance CPPIB 24.5% interest in an offshore wind portfolio located in the German North Sea. With a combined capacity of 609MW, Hohe See and Albatros wind farms which were commissioned in January 2020, constitute the largest offshore wind complex in Germany. This refinancing follows CPPIB's recent acquisition from Enbridge. The notes were structured as a holdco and are almost fully amortizing to a small balloon and mature at least 10 years before the project life ends. (Sponsor: Canadian Pension Plan Investment Board)
- Atlantica Yield Plc (BBB-): €290MM in 6-year senior secured notes backing Atlantica Yield diversified power portfolio which is comprised of 1,496 MW of renewable assets, 300 MW of gas-fired assets, 1,152 miles of transmission lines and 10.5 Mft3 per day of water assets across EMEA, Latin America and North America. The 1.960% notes, structured as bullet, priced at m/s +216 bps. (Sponsor: Atlantica Yield)
- Q-Energy: (-- / AA / -- ): €342MM in 21-year fixed-rate senior notes to refinance a portfolio of 23 Spanish solar farms. This transaction is the largest renewable energy transaction guaranteed by Assured Guaranty. (Sponsor: Q-Energy Asset Management)
- Teréga SAS (Baa3 / -- / -- ): €400MM in public unsecured notes to fund new investments in gas infrastructure and refinance part of the company's debt. The 8-year notes priced at a 0.625% coupon. (Sponsors: GIC, EDF Invest, Predica and Snam) CACIB acted as Joint
- Bishop Hill Energy LLC (-- / BBB- / --): \$252MM in 17-year senior notes secured by a wind farm located in Illinois in the U.S. The 3.290% notes, which have a 8-year weighted average life, priced at a 180 bps spread over treasuries. (Sponsors: TerraForm Power and Invenergy)
- Adani Transmission Ltd (-- / BBB- / --): \$310MM in 30-year senior secured notes backing one of the largest private sector power transmission companies in India. The 5.200% notes have a 16-year weighted average life. (Sponsor: The Adani Group)
- ReNew Power Renewable Portfolio (-- / BB- / BB-): \$450MM in 7-year green-labelled senior secured notes backing a renewable portfolio owned by ReNew Power, the largest renewable energy IPP in India. The 144A / Reg S offering priced at a 5.875% coupon. (Sponsors: Goldman Sachs, Abu Dhabi Investment Authority, JERA, Canada Pension Plan Investment Board and the Global Environment Fund)
- Hull Hydro Portfolio (BBB- by Kroll): \$124MM 16-year privately placed notes to finance the acquisiton of a 255MW portfolio of 31 hydro facilities in the United States from a joint venture between Enel Green Power North America and GE Energy Financial Services. The notes priced in the 3.500-3.750% range: the cheapest coupon for hydro assets to date. (Sponsor: Hull Street Energy)
- Hong Phong 1A Solar (-- / AA / --): VND12.9TN in credit enhanced senior notes secured by the operating 195MW Hong Phong 1A solar farm in Vietnam. The project has a 20-year fixed price PPA with EVN. The transaction was structured in two tranches of 5-year and 15year maturities. The 15-year notes, which benefit from a 7-year grace period, priced at a 7.500% coupon. Both notes were enhanced by a wrap from the ADB trust fund Credit Guarantee and Investment Facility (-- / AA / --), hence the AA rating. (Sponsor: Vietracimex)
- Green Genius: €30MM in senior secured notes backing the development of renewable energy projects across Europe including Lithuania, Poland, Ukraine, Belarus, Spain and Italy. The loan was granted on a revolving basis. (Sponsor: Modus Group)
- Valfortec: €52MM in 21-year public bond to refinance 16 photovoltaic projects located in eastern regions of Spain, priced at a 2.500% coupon. The solar projects were commissioned between 2006 and 2012 and have a total capacity of 12 MW. (Sponsor: Valfortec)
- Loiste Group: €300MM in 15-year private placement notes to refinance the 5th largest Finnish electricity retailer. Loiste Group's electricity grid operates in an area of central Finland covering 7% of the country, while its district heating business operates around the city of Kaajani in central Finland. (Sponsors: Infranode, Vauban Infrastructure Partners)
- Caruna: €150MM in private placement secured notes to fund the construction of an electricity and fiber-optic network in southwest Finland in cooperation with the telecommunication company Telia. The transaction entails maturities of 15 and 18 years that both priced at more than 200 bps. Caruna is a Finnish electricity distributor which owns c.20% of Finnish distribution grid and serves 680,000 customers. (Sponsor: Caruna)

Page 1

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

CRÉDIT AGRICOLE



- January & February 2020 -



#### **INFRASTRUCTURE**

- Q-Park (-- / BB- / --): €1,455MM in senior secured notes to refinance existing debt. Q-Park owns and operates 835,000 parking spaces in 10 European countries. The notes were split in three tranches: €425MM in 5-year 1.500% notes, €630MM in 7-year 2.000% notes and €400MM in 6-year floating rate notes which priced 200bps over Euribor with a 0% floor. (Sponsor: KKR Infrastructure)
- Parkdema: €27MM in 6-year secured notes to expand the business's parking operations and refinance existing debt. Parkdema operates
  more than 500 car parks in the Baltics and Eastern Europe for a combined total capacity of over 150,0000 parking spaces. (Sponsors:
  Modus and Lords LB's Energy and Infrastructure SME fund)
- TransJamaica Highway Ltd (-- / B+ / BB-): \$225MM in 16-year fully amortizing senior secured notes to refinance the 50km TransJamaica highway in Jamaica the country's largest infrastructure project. The 144A / Reg S notes priced at a 5.750% coupon. (Sponsor: National Road Operating Constructing Company)
- Sydney Airport (Baa1 / BBB+ / -): \$400MM eq. in privately placed senior secured notes backing Sydney Airport and including the first-ever ESG-linked USPP tranche. The transaction was comprised of 5 tranches in 3 currencies (USD, EUR and AUD) and 3 maturities (15-year, 20-year and 30-years) that priced at coupons ranging from 1.060% for the €50MM tranche to 3.530% for the 30-year AUD120MM tranche. The AUD100MM 20-year ESG-linked tranche initially priced similarly to the traditional AUD220MM 20-year but the coupon will evolve based on Sydney airport's ESG score assessed by Sustainalytics.
- Empark Aparcamientos y Servicios (Ba3 / -- / --): €575MM in 30-year senior secured notes backing Empark's parking portfolio which consists of 450,000 parking spaces across Spain, Portugal, Andorra, France, Turkey and the UK. The transaction included a €475MM 1.875% fixed-rate tranche and a €100MM floating tranche at 200 bps over 3-month Euribor. (Sponsor: Macquarie Infrastructure)
- Adra (Tai) Cyfyngedig (NAIC-1): £75MM in a 33-year secured private placement backing the Adra (Tai) Cyfyngedig's portfolio of affordable homes in north Wales, UK. The 3.170% notes feature a £25MM delayed draw in December. £50MM was already disbursed in January 2020.

# EMEA TRANSACTION SPOTLIGHT: Teréga SAS

- The Issuer: Teréga SAS, formerly known as TIGF, is a French company providing natural gas transportation and storage services. The company is owned by GIC, EDF Invest, Predica and Snam.
  - The group intends to use up to 50% of the proceeds to refinance convertible bonds held at the SAS level and the remaining part to refinance future investments. This includes more than 5,000 km of gas pipelines, representing over 15% of the French network, and almost a quarter of the national storage capacity.

#### The Transaction:

- ✓ After wrapping up a highly successful roadshow and on the back of excellent feedbacks, Teréga SAS announced a €400MM 8-year transaction at IPTs of m/s +125-130 bps.
- With an oversubscription rate of 9.8x, this was the second most demanded deal of the year. The orderbook benefited from a strong momentum thanks to the visibility gained through the roadshow and to the absence of competing supply on the market that day.
- This allowed the issuer to price the transaction at m/s +90 bps leading to a 0.625% coupon rate.
- ✓ The notes were rated Baa3 by Moody's.

CACIB acted as Joint Bookrunner

# AMERICAS TRANSACTION SPOTLIGHT: TransJamaica Highway Ltd

- The Issuer: TransJamaica Highway Ltd (TJH), is special purpose entity owning the operating ~50km Highway 2000 East-West toll road which is the main link between the Jamaican capital Kingston and other populated urban and industrial centers.
  - Largest infrastructure project in Jamaica and only high-speed roadway serving the western part of Kingston's metropolitan area, with an estimated population of 1.4 million people.
- The Concessionaire of the highway, the National Road Operating Constructing Company (NROCC), is owned by the Government of Jamaica.
- NROCC made an initial public offering (IPO) for up to 80% of TJH's shares shortly after the issuance of the notes.

#### The Transaction:

- \$225MM in 16-year 144A / Reg S 5.750% senior secured notes (-- / B+ / BB-)
- Rate-setting mechanism allowing tariffs to be adjusted annually by US inflation and foreign exchange variations between the Jamaican dollar and the US dollar.
- 1.7x and 2.0x minimum and average rating case DSCRs.
- Proceeds of the issuance intended to pay the offer for sale, listing expenses related to TJH IPO and redeem equity bridge notes.



FY 2019 Global Project Bond League Tables (Source: PFI)					
#	Lead Manager	(\$MM)	# deals		
1	JP Morgan	6,675	27		
2	MUFG	4,855	26		
3	Citi	4,582	32		
4	SMBC	3,974	22		
5	Morgan Stanley	3,495	8		
6	Mizuho	3,465	17		
7	Crédit Agricole	3,406	26		
8	RBC	2,649	12		
9	Santander	2,132	24		
10	Goldman Sachs	1,996	15		



FY 2019 Global Project Bond League Tables (Source: IJGlobal)					
#	Lead Manager	(\$MM)	# deals		
1	SMBC	4,622	27		
2	JP Morgan	4,374	18		
3	Citi	3,755	22		
4	MUFG	3,729	23		
5	Mizuho	3,403	17		
6	Crédit Agricole	2,707	20		
7	Societe Generale	1,917	8		
8	RBC	1,860	11		
9	Santander	1,820	24		
10	Barclays	1,795	10		

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





- January & February 2020 -



# **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)
Janauba Transmissora de Energia Eletrica	LatAm	BRL	575	Feb-20	25	-	4.830%	-	-
Hohe See and Albatros Offshore Wind Farms	EMEA	EUR	511	Feb-20	12			-	BBB+ (Scope)
Atlantica Yield Plc	EMEA	EUR	290	Feb-20	6	Bullet	1.960%	m/s +216 bps	BBB-
Q-Energy	EMEA	EUR	342	20-Feb	21	-			/ AA /
Teréga SAS	EMEA	EUR	400	20-Feb	8		0.625%	90 bps	Baa3 / /
Bishop Hill Energy LLC	NAm	USD	252	Jan-20	17	8	3.260%	180 bps	/ BBB- /
Adani Transmission Ltd	APac	USD	310	Jan-20	30	16	5.200%		/ BBB- /
ReNew Power Renewable Portfolio	APac	USD	450	Jan-20	7	6	5.875%		/ BB- / BB-
Hull Hydro Portfolio	NAm	USD	124	Jan-20	16		3.500-3.750%		BBB- (Kroll)
Hong Phong 1A Solar	APac	VND	12,500,000 / 400,000,000	Jan-20	15	-	/ 7.500%		/ AA /
Green Genius	EMEA	EUR	30	20-Jan					
Valfortec	EMEA	EUR	52	20-Jan	21	-	2.500%		
Loiste Group	EMEA	EUR	300	20-Jan	15				
Caruna	EMEA	EUR	150	19-Dec	15 / 18		2.000%		

INFRASTRUCTURE									
Issuer	Geography	Currency	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)
Q-Park	EMEA	EUR	1,455	20-Feb	5/6/7		1.500% / / 2.000%	/ Euribor + 200 bps /	/ BB- /
Parkdema	EMEA	EUR	27	20-Feb	6				
TransJamaica Highway Ltd	LatAm	USD	225	Feb-20	16	11	5.750%	Jamaican Sovereign + 150 bps	/ B+ / BB-
Sydney Airport	APac	USD / EUR / AUD	52 / 50 / 220 / 100 / 120	Feb-20	15/15/20/20/30	Bullets	2.830% / 1.060% / 3.280% / 3.280% / 3.530%	120 bps /	Baa1 / BBB+ /
Empark Aparcamientos y Servicios	EMEA	EUR	100 / 475	Jan-20	7/8		/ 1.875%	Euribor + 200 bps /	Ba3 / /
Adra (Tai) Cyfyngedig	EMEA	GBP	50 / 25	Jan-20	33 / 32		3.170%	-	NAIC-1





- January & February 2020 -



### **GLOBAL BOND MARKET OVERVIEW**

Market update January & February 2019

#### **EUR Bond Corporate Market**

- Markets have been very active since the yearly reopening: €61.4BN priced on the EUR Corporate public market and €34.2BN priced in February i.e. 8% above the amount issued over February 2019. Investors appetite was very strong. The average over-subscription rate was 3.8x which allowed issuers to tighten significantly their spreads versus IPTs: 29 bps in average. On the back of this strong environment, new issuers were priced at limited new issue premium of 0/1bp in average across all 2020 issuances. Tenors widened and the average maturity for February was 8.9 years (versus 7.3 years in February 2019). However, the recent uncertainty brought by the Coronavirus epidemic froze the market and no transaction have been priced since the 25th of February.
- The first ECB 2020 meeting held on the 23<sup>rd</sup> of January did not bring significant news: the interest rates remain unchanged at -0.5% and the ECB will continue to buy €20BN of assets per month unless there is a significant improvement in the economy. Despite the risks surrounding the economic outlook due to the Coronavirus epidemic, Christine Lagarde downplayed the chances of the ECB providing an imminent response as the outbreak was not yet at a stage where it would require a monetary policy reaction. Yet, depending on the evolution of the situation, the ECB could react to the pressure on the economy and further its rate cut. CACIB research team anticipates an ECB easing in June: (1) cutting the deposit rate by 10 bps and (2) raising the issue and issuer limit in the PSPP, making clear that it intends to continue QE2 for a very long time.

#### **Key Transactions**

On February 5, French luxury company LVMH (A1 / A+) launched a jumbo dual currency transaction for €7.5BN and £1.55BN to finance the acquisition of Tiffany & Co for \$16.2BN. The transaction was issued in 7 tranches: €1.75BN in 2-year notes, €1.25BN in 4-year notes, €1.25BN in 6-year notes, €1.5BN in 11-year notes, £0.7BN in 3-year notes and £0.85BN in 7-year notes. On the back of a strong orderbook, final terms were set as follows: 3mE+13 bps, m/s+22 bps, m/s+27 bps, m/s+33 bps, m/s+37 bps on the Euro tranches and G+55 bps and G+75 bps on the Sterling leg. CACIB acted as Joint Global Coordinator on this transaction.

#### **US Investment Grade Public Corporate Bond Market**

- After a very good month of January with \$141.9BN in issuances (29% ahead of 2019), lack of supply left February issuance at \$91BN, below estimates, and diminished the lead over 2019 YTD issuance now standing 11% ahead at \$234BN.
- While funding conditions had an incredibly strong start this year (low rates/tight spreads), the rout has blown out spreads by ~20% while rates have rallied to historic lows. This will transfer pricing leverage from issuers to investors.
- The coronavirus impact on broader markets and macro-sentiment has taken its toll on the primary markets. Volatility relegated issuers to the sidelines during the last week of February, marking the first (non-seasonal) no-issuance week since 2008. With several borrows having stood down last week and with many already targeting next week, supply could pick-up quickly once volatility settles.
- Market volatility due to coronavirus pandemic fears pushed the CDX back up toward its 2-year average.
- With the continuous spread of the coronavirus outside China and with more companies warning of downwardly revised 2020 profit forecasts, the global market suffered its worst week since 2008 financial crisis. Fear over the economic fallout from the spreading coronavirus sent stocks down to a 7th consecutive loss and turned equities negative on-the-year. At the time of writing Friday, the Dow was down over 4,000 points (14%) on-the-week at 24,990.32, while the S&P was down over 450 points (14%) at 2885.38.
- US Treasuries spiked in demand as investors moved to safe assets. Yields set new all-time lows with the 10-year UST trading at 1.155% at time of writing vs 1.471% the prior Friday, while the 30-year UST was at 1.661% vs 1.915% the prior Friday.

#### **Transaction Highlight**

Toyota Motor Credit Corp ( Aa3 / AA-) issued \$2.5BN in FRNs, 5-year and 10-year senior notes, with the 10-year designated as "green" notes. This represents the first green issuance in US\$ for the auto sector. With the combined orderbook topping out at \$6.8BN, concession was pegged as ~4/5 bps. Credit Agricole advised Toyota on the green structuring considerations, and served as Active Joint Bookrunner on the transaction.

		Statistic:	s (YTD)		
	Min	Max	Average	Current	Δ 01/02/20
IG Index	97	134	116	119	20
A Index	73	104	89	91	16
BBB Index	124	171	150	152	24



#### **USPP Market Highlight**

- \$6.0BN has been issued in private placements year-to-date with \$2.6BN and \$3.4BN issued in January and February respectively. It resulted in a 16% volume decrease from last year, due to a slower month of February.
- 43 issues by 26 issuers YTD vs. 71 issues by 28 issuers last year.
- 57% of YTD issuances of USPP were domestic, following last year trend.
- Energy and Infrastructure (including transportation) issuances have been accounting for 60% of the total YTD issuance, with Energy accounting for 35% of the YTD issuances and Infrastructure 21%.





- January & February 2020 -



# **EMEA BOND MARKET OVERVIEW**

### **EMEA** market – Public secondary levels

Sources: Crédit Agricole CIB, Bloomberg

Pricing date	ENERGY									
24/10/2017   21 Rete Gas   Italy   Baa2   BBB   2027   730   1,608%   98   0,66	Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM
21/02/2017       21   22   23   24   25   24   25   24   25   25   26   26   26   26   26   26	04/09/2018	2i Rete Gas	Italy	Baa2	BBB	2025	500	2,195%	72	0,32
09/01/2020   E.ON   Germany   Baa2   BBB   2030   500   0,750%   82   0,63	24/10/2017	2i Rete Gas	Italy	Baa2	BBB	2027	730	1,608%	98	0,66
0901/2020  E.ON   Germany   Baa2   BBB   2023   750   0.000%   39   -0.06	21/02/2017	2i Rete Gas	Italy	Baa2	BBB	2026	435	1,750%	82	0,46
Bana	09/01/2020	E.ON	Germany	Baa2	BBB	2030	500	0,750%	82	0,63
31/10/2019   E.ON   Germany   Baa2   BBB   2031   500   0,625%   85   0,71	09/01/2020	E.ON	Germany	Baa2	BBB	2023	750	0,000%	39	-0,06
15/05/2017   E.ON   Germany   Baa2   BBB   2029   750   1,625%   70   0,45	03/12/2019	E.ON	Germany	Baa2	BBB	2022	500	0,000%	31	-0,16
D2/12/2019   EDF	31/10/2019	E.ON	Germany	Baa2	BBB	2031	500	0,625%	85	0,71
26/11/2019   EDF	15/05/2017	E.ON	Germany	Baa2	BBB	2029	750	1,625%	70	0,45
13/01/2020   EDP	02/12/2019		France	A3	A-	2049	1 250	2,000%	160	1,72
20/06/2018   EDP	26/11/2019		France			Perpetual	500	3,000%	268	2,37
30/01/2020   Elenia Finance   Finland   NR   BBB+   2027   500   0,375%   57   0,21	13/01/2020	EDP	Portugal	Ba2	BB	2080	750	1,700%	231	1,91
16/01/2020   Eni			Portugal			2026		1,625%	69	0,31
D7/10/2019   Eni	30/01/2020	Elenia Finance	Finland	NR	BBB+	2027	500	0,375%	57	0,21
08/09/2017         Eni         Italy         Baa1         BBB+         2025         650         1,000%         43         0,02           27/11/2019         FCC Servicios Medioambiente         Spain         NR         BBB-(Fitch)         2026         500         1,661%         130         0,95           27/11/2019         FCC Servicios Medioambiente         Spain         NR         BBB-(Fitch)         2023         600         0,815%         56         0,10           28/09/2017         Fluxys Belgium         Belgium         NR         NR         2032         50         2,375%         152         1,42           28/09/2017         Fluxys Belgium         Belgium         NR         NR         2027         300         1,750%         140         1,07           27/11/2019         Gas Network Ireland         Ireland         A3         A         2024         300         0,125%         32         -0,10           02/12/2019         Italgas         Italy         Baa2         BBB+         2031         500         1,000%         82         0,70           11/09/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2029         750         1,625%         66	16/01/2020	Eni	Italy	Baa1	A-	2030	1 000	0,625%	72	0,51
27/11/2019   FCC Servicios Medioambiente   Spain   NR   BBB-(Fitch)   2026   500   1,661%   130   0,95	07/10/2019	Eni	Italy	Baa1	A-	2034	750	1,000%	86	0,84
27/11/2019   FCC Servicios Medioambiente   Spain   NR   BBB-(Fitch)   2023   600   0,815%   56   0,10	08/09/2017	Eni	Italy	Baa1	BBB+	2025	650	1,000%	43	0,02
28/09/2017         Fluxys Belgium         Belgium         NR         NR         2032         50         2,375%         152         1,42           28/09/2017         Fluxys Belgium         Belgium         NR         NR         2027         300         1,750%         140         1,07           27/11/2019         Gas Network Ireland         Ireland         A3         A         2024         300         0,125%         32         -0,10           02/12/2019         Italgas         Italy         Baa2         BBB+         2031         500         1,000%         82         0,70           11/09/2017         Italgas         Italy         Baa2         BBB+         2029         750         1,625%         66         0,40           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2029         300         2,250%         125         1,00           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2029         300         2,250%         125         1,00           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2025         300         1,375%         71         0,3		FCC Servicios Medioambiente			BBB-(Fitch)			1,661%		
28/09/2017   Fluxys Belgium   Belgium   NR   NR   2027   300   1,750%   140   1,07	27/11/2019	FCC Servicios Medioambiente	Spain	NR	BBB-(Fitch)	2023	600	0,815%	56	0,10
27/11/2019   Gas Network Ireland   Ireland   A3   A   2024   300   0,125%   32   -0,10	28/09/2017	Fluxys Belgium	Belgium			2032	50	2,375%	152	1,42
02/12/2019         Italgas         Italy         Baa2         BBB+         2031         500         1,000%         82         0,70           11/09/2017         Italgas         Italy         Baa2         BBB+         2029         750         1,625%         66         0,40           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2029         300         2,250%         125         1,00           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2025         300         1,375%         71         0,30           13/01/2020         National Grid         UK         A3         A-         2025         500         0,190%         32         -0,10           28/08/2019         National Grid         UK         Baa3         BBB         2082         750         2,125%         198         1,65           28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03	28/09/2017	Fluxys Belgium	Belgium	NR	NR	2027	300	1,750%	140	1,07
11/09/2017   Italgas   Italy   Baa2   BBB+   2029   750   1,625%   66   0,40	27/11/2019	Gas Network Ireland	Ireland	A3	Α	2024	300	0,125%	32	-0,10
05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2029         300         2,250%         125         1,00           05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2025         300         1,375%         71         0,30           13/01/2020         National Grid         UK         A3         A-         2025         500         0,190%         32         -0,10           28/08/2019         National Grid         UK         Baa3         BBB         2082         750         2,125%         198         1,65           28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62	02/12/2019	Italgas	Italy	Baa2	BBB+	2031	500	1,000%	82	0,70
05/04/2017         Madrilena Red de Gas Finance         Spain         NR         BBB         2025         300         1,375%         71         0,30           13/01/2020         National Grid         UK         A3         A-         2025         500         0,190%         32         -0,10           28/08/2019         National Grid         UK         Baa3         BBB         2082         750         2,125%         198         1,65           28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020	11/09/2017	Italgas	Italy	Baa2	BBB+	2029	750	1,625%	66	0,40
13/01/2020         National Grid         UK         A3         A-         2025         500         0,190%         32         -0,10           28/08/2019         National Grid         UK         Baa3         BBB         2082         750         2,125%         198         1,65           28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019	05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2029	300	2,250%	125	1,00
28/08/2019         National Grid         UK         Baa3         BBB         2082         750         2,125%         198         1,65           28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58	05/04/2017	Madrilena Red de Gas Finance	Spain	NR	BBB	2025	300	1,375%	71	0,30
28/08/2019         National Grid         UK         Baa3         BBB         2079         500         1,625%         174         1,31           05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58		National Grid						0,190%		
05/07/2017         National Grid         UK         Baa1         BBB+         2024         500         1,000%         47         0,03           09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58		National Grid								
09/01/2020         Red Electrica         Spain         A- (Fitch)         A-         2028         700         0,375%         35         0,06           20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58	28/08/2019	National Grid	UK	Baa3	BBB	2079	500	1,625%	174	1,31
20/09/2018         RTE         France         NR         A         2038         500         2,125%         55         0,62           20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58	05/07/2017	National Grid	UK	Baa1	BBB+	2024	500	1,000%	47	0,03
20/09/2018         RTE         France         NR         A         2030         500         1,500%         46         0,26           08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58	09/01/2020	Red Electrica	Spain	A- (Fitch)	A-	2028	700	0,375%	35	0,06
08/01/2020         Veolia Environnement         France         Baa1         BBB         2031         500         0,664%         60         0,43           29/08/2019         Vier Gas Transport         Germany         NR         A-         2034         500         0,500%         61         0,58			France		Α			2,125%		
29/08/2019 Vier Gas Transport Germany NR A- 2034 500 0,500% 61 0,58	20/09/2018	RTE	France	NR	Α	2030	500	1,500%	46	0,26
		Veolia Environnement	France		BBB			0,664%		
17/09/2018 Vier Gas Transport Germany NR A- 2028 500 1,500% 39 0,11	29/08/2019	Vier Gas Transport	Germany		A-			0,500%	61	
	17/09/2018	Vier Gas Transport	Germany	NR	A-	2028	500	1,500%	39	0,11

Pricing date	Issuer	Country	Moody's	S&P	Maturity	Size	Coupon	Bid I Spread	Bid YTM
30/01/2020	Abertis	Spain	BBB(Fitch)	BBB-	2028	600	1.250%	170	1,40
03/07/2019	Abertis	Spain	NR	BBB	2029	600	1,625%	189	1,65
03/07/2019	Abertis	Spain	NR	BBB	2025	700	0,625%	127	0,87
02/11/2016	Abertis	Spain	NR	BBB	2027	500	1,000%	146	1,12
01/06/2017	Aeroporti Di Roma	Italy	Baa1	BBB+	2027	500	1,625%	145	1,11
18/03/2015	Alpha Trains	Luxembourg	Baa2	NR	2025	350	2,064%	116	0,76
11/06/2019	Aeroports de Paris	France	NR	A+	2034	800	1,125%	48	0,43
04/10/2018	Aeroports de Paris	France	NR	A+	2038	500	2,125%	61	0,67
06/12/2017	Aeroports de Paris	France	NR	A+	2027	500	1,000%	39	0,07
15/07/2015	Aeroports de Paris	France	NR	A+	2023	500	1,500%	30	-0,17
03/05/2017	Brisa	Portugal	Baa3	NR	2027	300	2,375%	103	0,70
10/01/2020	APRR	France	A-(Fitch)	A-	2023	500	0,000%	17	-0,30
10/01/2019	APRR	France	NR	A-	2028	500	1,250%	42	0,20
14/11/2018	APRR	France	NR	A-	2030	500	1,500%	42	0,20
31/05/2017	APRR	France	Baa2	A-	2032	500	1,625%	53	0,40
16/11/2016	APRR	France	Baa2	A-	2027	500	1,250%	32	-0,04
16/11/2016	APRR	France	Baa2	A-	2031	500	1,875%	48	0,30
15/02/2019	ASF	France	A3	A-	2031	1 000	1,375%	55	0,38
21/06/2018	ASF	France	A3	A-	2028	700	1,375%	35	0,06
10/01/2018	ASF	France	A3	A-	2030	1 000	1,375%	49	0,27
05/01/2017	ASF	France	A3	A-	2027	1 000	1,250%	35	0,00
04/05/2016	ASF	France	A3	A-	2026	500	1,000%	38	-0,01
09/10/2014	Infra Park (Indigo)	France	NR	BBB	2025	650	2,125%	48	0,07
12/07/2017	Infra Park (Indigo)	France	NR	BBB	2037	125	2,951%	123	1,26
19/06/2019	Indigo (tap)	France	NR	BBB	2028	100	1,625%	77	0,46
01/12/2017	Tank & Rast	Germany	Baa3	BBB-	2027	300	2,375%	181	1,50
26/04/2017	Brussels Airport	Belgium	Aa1	NR	2024	300	1,000%	54	0,10
05/03/2019	Heathrow Funding	UK	NR	A-	2034	650	1,875%	138	1,34
28/06/2017	Heathrow Funding	UK	NR	A-	2032	500	1,875%	117	1,07
28/08/2019	Hochtief	Germany	NR	BBB	2031	250	1,250%	121	1,06
28/08/2019	Hochtief	Germany	NR	BBB	2027	500	0,500%	80	0,47
26/06/2018	Hochtief	Germany	NR	BBB	2025	500	1,750%	76	0,35
28/06/2019	IAG	UK	Baa3	BBB	2027	500	1,500%	190	1,58
28/06/2019	IAG	UK	Baa3	BBB	2023	500	0,500%	115	0,70
07/02/2020	SBB	Sweden	BBB- (Fitch)	BBB-	2027	750	1,000%	126	0,93
23/01/2020	SBB	Sweden	BB (Fitch)	BB	Perpetual	500	2,624%	302	2,61
20/02/2020	Teréga SAS	France	Baa3	NR	2028	400	0,625%	94	0,64
11/01/2019	Vinci	France	A3	A-	2029	950	1,650%	49	0,22
18/09/2018	Vinci	France	A3	A-	2030	1 000	1,750%	49	0,30







- January & February 2020 -



#### MACROECONOMIC ENVIRONMENT

- The new coronavirus, COVID-19 that emerged in Wuhan, China in December has already killed more than 3,000 people and put the entire world on edge. Despite travel restrictions and the lock down of several cities in China and recently in Italy, the virus spread to 65 countries. The World Health Organization has not declared the coronavirus outbreak a pandemic but markets appear to have already decided and risk sentiment remains fragile. World markets experienced their worst day in two years the 24th of February as panic spread to Western markets following worrying announcements in Italy. The CAC40 fell by 3.94%, its worst performance since 2016 and the S&P fell by 3.4%. Volatility in the markets was very high: the Cboe Vix measuring volatility reached the level of 32, its highest since December 2018. Regarding the economic activity, situation is affecting both the supply side (supply chain disturbed) and the demand side, mainly tourism, travel and leisure, which implies a high risk on PMIs over the coming weeks or even months. Despite the easing of tensions between China and the US with the phase one trade deal signed on January 15th, Chinese GDP growth in the first quarter is expected to be only 3% down from 6% in the last quarter of 2019 due to the Coronavirus.
- The official exit of the United Kingdom from the European Union took place the 31st of January, after 3 years of tense and uncertain negotiations between the two parties. Prime Minister Boris Johnson declared that he no longer wants to comply with the European Union's rules on competition, aid, social protection or environmental policies. Michel Barnier responded to these statements by saying that under such conditions no free trade agreement could be concluded with the European Union. Boris Johnson recently said he was prepared to break off all dialogue with the European Union if the negotiations do not progress before June and to prepare a hard Brexit under WTO terms. The Prime Minister refused to commit to an impact assessment of a Brexit with an agreement similar to Canada's. A 2018 study estimated that a deal under Canada's terms would cost Canada 5% growth over the next 15 years and a deal under the WTO terms would cost 8% growth over the same period.

#### Swap rates (as of February 29<sup>th</sup>, 2020)

EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
-0,42%	29,6%	0,95%	-32,8%	0,55%	-12,1%
-0,37%	46,3%	0,98%	-30,4%	0,57%	-12,1%
-0,31%	87,8%	1,03%	-28,9%	0,59%	-12,3%
-0,18%	17900,0%	1,12%	-27,3%	0,63%	-13,0%
-0,10%	-192,7%	1,17%	-26,5%	0,66%	-13,1%
0,01%	-95,4%	1,22%	-25,7%	0,70%	-13,2%
0,12%	-67,7%	1,28%	-25,0%	0,73%	-13,3%
	-0,42% -0,37% -0,31% -0,18% -0,10% 0,01%	EUR Var (%) -0,42% 29,6% -0,37% 46,3% -0,31% 87,8% -0,18% 17900,0% -0,10% -192,7% 0,01% -95,4%	EUR         Var (%)         USD           -0,42%         29,6%         0,95%           -0,37%         46,3%         0,98%           -0,31%         87,8%         1,03%           -0,18%         17900,0%         1,12%           -0,10%         -192,7%         1,17%           0,01%         -95,4%         1,22%	EUR         Var (%)         USD         Var (%)           -0,42%         29,6%         0,95%         -32,8%           -0,37%         46,3%         0,98%         -30,4%           -0,31%         87,8%         1,03%         -28,9%           -0,18%         17900,0%         1,12%         -27,3%           -0,10%         -192,7%         1,17%         -26,5%           0,01%         -95,4%         1,22%         -25,7%	EUR Var (%) USD Var (%) GBP  -0,42% 29,6% 0,95% -32,8% 0,55%  -0,37% 46,3% 0,98% -30,4% 0,57%  -0,31% 87,8% 1,03% -28,9% 0,59%  -0,18% 17900,0% 1,12% -27,3% 0,63%  -0,10% -192,7% 1,17% -26,5% 0,66%  0,01% -95,4% 1,22% -25,7% 0,70%

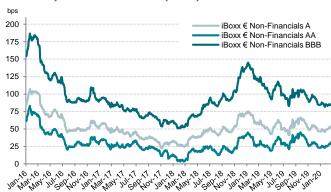
#### Government yields (10Y)



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



#### Credit spread evolutions (EUR)



### 10Y basis swap evolution



#### Main upcoming events

		Expected impact
6-Mar OPEC+	meeting	Would lead to prospects for stable oil prices (~60 USD/bl)
	neeting (+updated ctions)	Lower EUR rates and EUR
18-Mar Fed meeting+	'dot-plot' update	Lower ST USD rates and USD

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







- January & February 2020 -



#### **DISCLAIMER**

This material has been prepared by a member of the Front Office department of Crédit Agricole Corporate and Investment Bank or one of its affiliates (collectively "Crédit Agricole CIB"). Front Office personnel are not part of the research department and this material does not constitute "Investment Recommendations" as defined under the Market Abuse Regulations (MAR). It does not constitute research as considered by the Markets in Financial Instruments Directive II. This material is provided for information purposes only. It is not to be construed as a solicitation or an offer to buy or sell any financial instruments and has no regard to the specific investment objectives, financial situation or particular needs of any recipient. It is not intended to provide legal, tax, accounting or other advice and recipients should obtain specific professional advice from their own legal, tax, accounting or other appropriate professional advisers before embarking on any course of action. The information in this material is based on publicly available information and although it has been compiled or obtained from sources believed to be reliable, such information has not been independently verified and no guarantee, representation or warranty, express or implied, is made as to its accuracy, completeness or correctness. This material may contain information from third parties. Crédit Agricole CIB has not independently verified the accuracy of such third-party information and shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with the use of or reliance on this information. Information in this material is subject to change without notice. Crédit Agricole CIB is under no obligation to update information previously provided to recipients. Crédit Agricole CIB is also under no obligation to continue to provide recipients with the information contained in this material and may at any time in its sole discretion stop providing such information. Investments in financial instruments carry significant risk, including the possible loss of the principal amount invested. This material is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Any prices provided herein (other than those that are identified as being historical) are indicative only and do not represent firm quotes as to either price or size. Financial instruments denominated in a foreign currency are subject to exchange rate fluctuations, which may have an adverse effect on the price or value of an investment in such products. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party without the prior express written permission of Crédit Agricole CIB. This material is not directed at, or intended for distribution to or use by, any person or entity domiciled or resident in any jurisdiction where such distribution, publication, availability or use would be contrary to applicable laws or regulations of such jurisdictions. No liability is accepted by Crédit Agricole CIB for any damages, losses or costs (whether direct, indirect or consequential) that may arise from any use of this material.

**United States of America:** The delivery of this material to any person in the United States shall not be deemed a recommendation to effect any transactions in any security mentioned herein or an endorsement of any opinion expressed herein. Recipients of this material in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting Crédit Agricole Securities (USA), Inc., the U.S. Broker-Dealer affiliate of Crédit Agricole CIB and a member of the Financial Industry Regulatory Authority (FINRA) and the Securities and Exchange Commission (SEC).

**United Kingdom:** Crédit Agricole Corporate and Investment Bank is authorised by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and supervised by the European Central Bank (ECB), the ACPR and the Autorité des Marchés Financiers (AMF) in France and subject to limited regulation by the Financial Conduct Authority and the Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and the Prudential Regulation Authority are available from us on request. Crédit Agricole Corporate and Investment Bank is registered in England & Wales (registered number: FC008194) and incorporated in France. Registered office: 12 Place des Etats-Unis / CS 70052 / 92547 Montrouge Cedex / France.

© 2020, CRÉDIT AGRICOLE CORPORATE AND INVESTMENT BANK. All rights reserved.