



## GLOBAL PROJECT BONDS MARKET OVERVIEW

### Recently closed transactions

#### DISTRIBUTED GENERATION

- **Enpal GmbH:** €345MM of debt funding composed of €275MM senior private placement and €70MM subordinated mezzanine loan provided by institutional investors. The company will use proceeds to fund the construction of more than 15,000 residential rooftop solar and energy storage systems across Germany. (Sponsor: HV Capital and SoftBank)
- **GoodLeap Sustainable Home Solutions Trust 2021-5:** \$302MM in a green solar ABS backing a pool of 8,920 solar loans for residential customers in the United States. The transaction comprised of 3 tranches rated A, BBB, BB, by Kroll, S&P and Fitch – highlighting RAs comfort in the asset. The notes priced with coupons of 2.310%, 2.560%, 3.500%, respectively. (Originator: GoodLeap)
- **Sunnova Helios VII Issuer 2021-C:** \$156MM in a green solar ABS backing a pool of 3,766 solar loans for residential customers in the United States. The transaction comprised of 3 tranches rated AA-, A-, BBB- by Kroll and priced with coupons of 2.030%, 2.330%, 2.630%, respectively. (Originator: Sunnova)

#### ENERGY

- **Glenmont Partners:** €36MM in a green solar ABS backing a Spanish PV plant with 20MW of installed capacity. The transaction comprised of a €29MM class A senior tranche and €7MM class B junior tranche used to refinance two mini-perm loans. The transaction is one of the first ever ABS completed in the renewable energy sector in Spain. (Sponsor: Nuveen)
- **West of Devers:** \$605MM 30-year private placement to upgrade a transmission project in Southern California. The project upgrade boosted transmission capacity from renewable and battery energy storage sources to 4,800 MW, from a previous 1,600 MW. (Sponsor: Axium Infrastructure)
- **Alfa Desarrollo:** \$1.1BN 30-year 144A / Reg S senior secured notes backing the acquisition of 900km of transmission lines and 27 substations in Chile. The notes were rated Baa3 by Moody's and priced with a coupon of 4.550%. (Sponsors: APG and Elecnor)
- **Ibereolica Wind:** €70MM 12-year private placement senior secured notes refinancing eight operational wind projects on the Spanish Iberian Peninsula. The bonds were issued on the Frankfurt Stock Exchange. (Sponsor: Ibereolica Renovables)
- **EWE:** €675MM 10-year junior private placement to refinance HoldCo debt backing Ardian Infrastructure's investment in German utility EWE. The deal was priced in the 200bps-250bps range. (Sponsor: Ardian Infrastructure)
- **GETEC:** €295MM 8-year private placement to refinance some of its debt. New notes were priced below 200bps, similar to the existing ones. The proceeds will mostly be used to refinance capex lines drawn since the nearly €900MM refinancing closed two years ago. Overall leverage remained unchanged at c.5.3 times its EBITDA (Sponsor: EQT Infrastructure)
- **Portuguese Biomass Plant:** €41MM 12-year private placement senior secured notes to finance the development and construction of a biomass plant in central Portugal. The 25-year plant will process 300,000 tons of biomass annually and will produce 10 MW of capacity. (Sponsor: Sonae Capital)
- **Foz do Rio Claro Energia:** \$109MM 7-year Real-denominated private placement notes to refinance a 68 MW hydroelectric dam in Brazil. Notes will yield DI interbank interest rate plus 1.700%. (Sponsor: Alupar)

#### INFRASTRUCTURE

- **B247:** €167MM private placement, part of a Vinci debt package, to finance the B247 federal highway PPP in Germany. The availability-based project involves the 30-year design, build, finance and maintenance of 22km of road between the cities of Mühlhausen and Bad Langensalza. (Sponsor: Vinci)
- **Brazil Lighting PPP:** \$166MM 11-year 144A / Reg S senior secured notes guaranteed by the US International Development Finance Corporation. The proceeds are to finance the installation and operation of public lighting infrastructure in Rio de Janeiro under a PPP. There is a 20-year PPP concession with the Municipality of Rio de Janeiro and the Sponsor. The bonds will be Real-denominated but will settle in US dollars. (Sponsor: Rio Smart Lighting)

#### EMEA TRANSACTION SPOTLIGHT:

##### EWE

- **The Issuer:** EWE, a German utility, based in Oldenburg - Lower Saxony - is primarily owned by the local government. The infrastructure business, which includes about 94,000km of electricity and 63,000km of gas distribution networks, is the largest contributor to EWE's core earnings – generating €294MM of operating EBIT last year.
- **The Transaction:**
  - ✓ Ardian Infrastructure bought a 26% stake in the Oldenburg-headquartered utility last year which was financed with a five-year bank loan. It has been refinanced with €675MM 10-year junior private placement.
  - ✓ The deal was priced in the 200bps-250bps range for a subordinated structure

#### AMERICA TRANSACTION SPOTLIGHT:

##### Brazil Lighting PPP

- **The Issuer:** Rio Smart Lighting, rated Aa1 / AA+, is a concession affiliated with Puerto Ricos' High-Trend International that provides platforms, technology and implementation services to municipalities. The company recently won a 20-year PPP concession from the Municipality of Rio de Janeiro to deliver public lighting and smart city services, including, cameras, WiFi and traffic lights.
- **The Transaction:**
  - ✓ The Real \$925MM (USD \$166MM) 11-year 144A / Reg S senior secured note is guaranteed by the US International Development Finance Corporation, which is backed by a \$267MM investment guarantee.
  - ✓ Rio Smart Lighting will be responsible for O&M.

Sources: Crédit Agricole CIB, Bloomberg, PFI, JGlobal.



## GLOBAL PROJECT BONDS MARKET OVERVIEW

### Primary Issuances

DISTRIBUTED GENERATION										
Issuer	Geography	Currency *	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
Enpal GmbH	EMEA	EUR	345	Oct-21	--	--	--	--	--	
GoodLeap Sustainable Home Solutions Trust 2021-5	NAm	USD	302	Oct-21	27	6 / 6 / 5	2.310% / 2.560% / 3.500%	IntS + 95 bps / 115 bps / 270 bps	A / BBB / BB (Kroll, S&P, Fitch)	
Sunnova Helios VI Issuer LLC, Series 2021-C	NAm	USD	156	Oct-21	27	5 / 5 / 5	2.030% / 2.330% / 2.630%	IntS + 80 bps / 110 bps / 140 bps	AA- / A- / BBB- (Kroll)	
Sunrun Demeter Issuer 2021-2	NAm	USD	532	Sep-21	36		2.270% / 4.560%	IntS + 120 bps / Retained	A- / BB- (Kroll)	

ENERGY										
Issuer	Geography	Currency*	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
Glenmont Partners	EMEA	EUR	36	Oct-21	--	--	--	--	--	
West of Devers	NAm	USD	605	Oct-21	30	--	--	--	--	
Alfa Desarrollo	LatAm	USD	1,100	Oct-21	30	--	4.550%	--	Baa3 / -- / --	
Iberolica Wind	EMEA	EUR	70	Oct-21	12	--	--	--	--	
EWE	EMEA	EUR	675	Sep-21	10	--	--	200 – 250 bps	-- / -- / --	
GETEC	EMEA	EUR	300	Oct-21	--	--	--	<200	-- / -- / --	
Portuguese Biomass Plant	EMEA	EUR	41	Oct-21	12	--	--	--	--	
Foz do Rio Claro Energia	LatAm	BRL	109	Oct-21	7	--	DI + 1.700%	--	--	
Generadora Metropolitana Holdings SA	LatAm	USD	405	Sep-21	--	--	--	--	--	
Oyfjelllet Wind	EMEA	EUR	235	Sep-21	24	--	2.100%	--	--	
Cheniere Energy Partners	NAm	USD	1,200	Sep-21	10	--	3.250%	--	Ba2 / BB / BB+	
Invenergy	LatAm	USD	56	Sep-21	--	--	--	--	--	
Amprion	EMEA	EUR	80	Sep-21	12	--	--	m/s+58bps	Baa1 / -- / BBB+	
Q-Energy	EMEA	EUR	43	Sep-21	--	--	--	--	-- / -- / --	
Gas Natural Acu	LatAm	BRL	1,800	Aug-21	18	--	--	592	--	
Goldman Sachs Renewable Power	NAm	USD	598	Aug-21	--	--	--	170	NAIC-2 (BBB-)	
TransCameron Pipeline	NAm	USD	2,500	Aug-21	18 / 20	--	3.875% / 4.125%	--	Ba3 / -- / --	

INFRASTRUCTURE										
Issuer	Geography	Currency *	Size (MM)	Date	Tenor	WAL	Pricing	Spread at Issuance	Ratings (Moody's / S&P / Fitch)	
B247 (Vinci)	EMEA	EUR	167	Oct-21	30	--	--	--	-- / -- / --	
Brazil Lighting PPP	LatAm	BRL	925	Oct-21	11	--	--	--	--	
Empresa de Transporte de Pasajeros Metro	LatAm	USD	650	Sep-21	40	--	3.693%	175bps	A / A- / --	
Aeropuerto Internacional de Tocumen	LatAm	USD	1,855	Aug-21	20 / 40	--	4.000% / 5.125%	--	Baa2 / BBB / --	
Seattle Arena Co	NAm	USD	600	Aug-21	25	17	--	--	NAIC-2 (BBB-)	
Evos	EMEA	EUR	465	Aug-21	10	--	NC	--	-- / -- / --	
Bayfront Infrastructure Capital Securitization	APAC	USD	401	Jun-21	23	--	1.363% / 1.413% / 2.01277% / 2.51277% / 3.56277%	--	Class A SU / Class A / Class B / Class C / Class D	



FY 2020 Global Project Bond League Tables (Source: PFI)

#	Lead Manager	(\$MM)	# deals
1	MUFG	4.953	32
2	Citi	3.879	17
3	Crédit Agricole	3.211	18
4	JP Morgan	3.109	18
5	BNP Paribas	2.565	13
6	RBC	2.409	11
7	Societe Generale	2.300	16
8	HSBC	2.145	11
9	Goldman Sachs	2.089	10
10	BofA	2.081	13

FY 2020 EMEA Project Bond League Tables (Source: PFI)

#	Lead Manager	(\$MM)	# deals
1	Crédit Agricole	2.790	14
2	BNP Paribas	2.370	11
3	Société Générale	1.865	11
4	HSBC	1.263	3
5	MUFG	1.227	5
6	Citi	1.088	4
7	JP Morgan	1.036	7
8	Santander	1.005	8
9	Unicredit	888	6
10	Mizuho	611	2

\* Currency of issuance

Sources: Crédit Agricole CIB, Bloomberg, PFI, IJGlobal.



## GLOBAL BOND MARKET OVERVIEW

### Market update October 2021

#### EUR Bond Corporate Market

- With €306BN launched since the beginning of the year, 2021 remains slower than the record year of 2020 (-25% ytd). The month of October has been rather quiet, largely due to the blackout periods, with €22.7BN priced.
- Transactions are receiving strong support from investors, c.3.1x oversubscribed, which allows issuers to compress spread vs IPTs by 23bps on average, and pricing with very limited NIPs of c.11bps.
- On the back of solid demand, recent observations suggest the ultra long end of the curve has been vastly reopened, as illustrated by **Thermo Fisher Scientific (Baa1/BBB+)** which launched a 30-year bond.

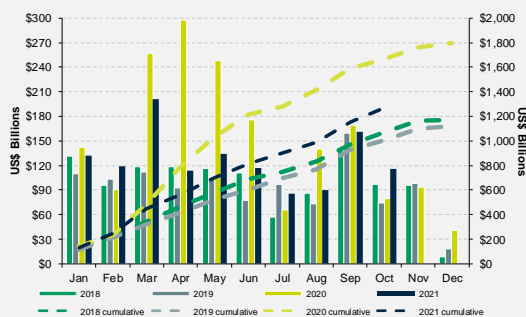
#### Key Recent Transactions

- ✓ **Hera (Baa2/BBB+)**: the Italian utility announced a €500MM (no grow) 12.5-year Inaugural Sustainability Linked bond with IPTs of m/s+95bps area, after conducting a roadshow. The issuer also announced a tender offer on its €500MM 2.375% Notes due 2024, €400MM 0.875% Notes due 2026, €500MM 0.875% Notes due 2027 and €700MM 5.200% Notes due 2028. As the order book reached €1.8BN, guidance was given at m/s+75bps area. Final terms were set at m/s+70bps and the transaction was 3.8x oversubscribed. **CACIB acted as an Active Bookrunner on this landmark transaction.**
- ✓ **Nederlandse Gasunie (A1/AA-)**: the Dutch utility successfully completed its inaugural Sustainability Linked bond issue : a €300MM (no grow) 15-year bond with IPTs of m/s+65bps area. The guidance was given at m/s+40-45bps. The final terms were set at m/s+38bps, implying a -1bp new issue premium. **CACIB acted as a Joint Bookrunner on this landmark transaction.**

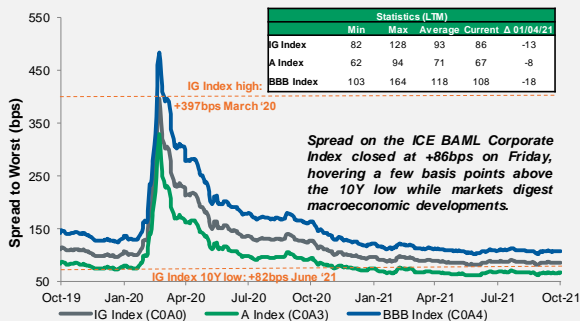
#### US Investment Grade Public Corporate Bond Market

- October volumes finished at ~\$116BN, beating the highest monthly estimate of \$101BN.
- At \$1.27Trln, YTD 2021 issuance volumes remain ~30% ahead of YTD 2019, but ~25% behind the same period in 2020.
- Even with two potential market-moving events: (1) the FOMC meeting and (2) the October jobs report, syndicate desks are looking for \$25BN in ex-SSA issuance to price, and expect \$98BN to price across November.
- Treasuries followed in lockstep with equities. After hitting the highest levels since March the prior week, Treasury yields have retreated back into a lower range. The 10Y closed at 1.56% on Friday afternoon vs 1.70% the week prior. Notably, the Treasury yield curve inverted between 20Ys and 30Ys for the first time since the government re-introduced the 20Y maturity in 2020.
- On the economic front, Q3 real GDP growth slowed sharply to a 2.0% annual rate (vs 2.6% expected) from 6.7% growth in Q2.
- Initial jobless claims declined for a fourth straight week to reach another pandemic-era low of 281k from 291k in the week prior.
- President Biden unveiled a framework for a \$1.75Trln (vs the initial \$3.5Trln price tag) social spending deal after lengthy negotiations.

#### US\$ Investment Grade Issuance Trends (\$ billions)



#### Investment-Grade Index (Spread)



#### USPP Market Highlight

- YTD volumes remain at a 10-year record high level with over \$61.4BN USPP issued.
- Since the beginning of the year, 199 transactions in 390 tranches were issued vs. 251 transactions in 494 tranches last year.
- Cross-boarder transactions YTD account for 34% of USPP volumes, while 2020 ended at 29%.
- With \$17.1BN issued YTD, Energy issuances account for 28% of the total 2021 USPP volumes while the infrastructure sector represents 10% with \$6.0BN.





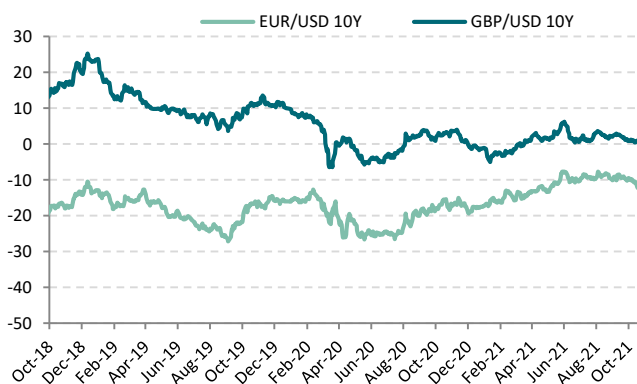
## MACROECONOMIC ENVIRONMENT

- Central banks are globally adopting a more hawkish tone because of uncertainty over the duration of the inflation overshoot. Last week, markets got the confirmation that the ECB will end the PEPP by March 2022. The impact on spreads is likely to remain limited as the ECB will remain a significant buyer of corporate bonds for an extended period of time.
- Even if concerns around stagflation were likely exaggerated at the end of Q3, market participants still think that the backdrop has become less supportive for risky assets and will remain uncertain for some time: supply chain and labor market disruptions are not easing significantly yet, posing longer upside risks for the inflation outlook and downside risks for the economic momentum.
- Around the world, energy prices have reached record levels. In Europe, gas and electricity prices have already gone through the roof before winter. In the US, gas prices have reached multiyear-high and oil is well above average. In China, coal price is putting Chinese recovery at risk. WTI is above the 80\$/bbl threshold. These worldwide energy and commodities shortages will weigh on inflation, even though inflation is still expected to be slowing down in the course of next year.
- The FOMC delivered its November 3<sup>rd</sup> statement revealing its plan to slow its asset purchase program starting in November and December by \$15BN per month. Powell emphasized the focus on the meeting wasn't on interest rates, but rather on tapering. The Fed maintained their stance on inflation and the labor-market, stating current elevated prices are attributed to supply chain bottlenecks, shortages and demand. The U.S. Central Bank stated it will continue to gauge monetary policy and use its tools if needed.

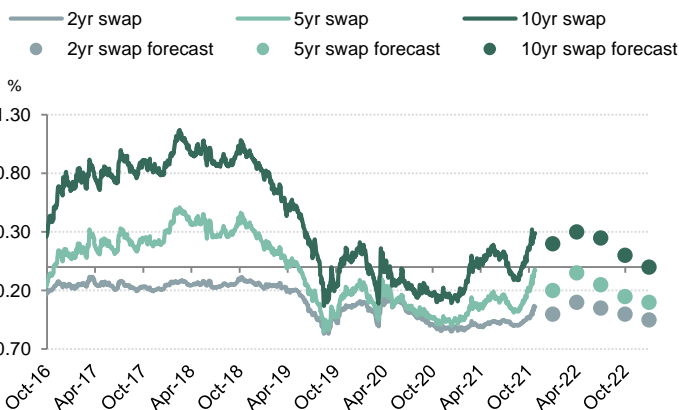
### Swap rates

	EUR	MtM Var (%)	USD	MtM Var (%)	GBP	MtM Var (%)
3Y	-0.21%	-41.9%	0.92%	38.5%	1.16%	47.5%
5Y	-0.03%	-82.5%	1.26%	20.7%	1.20%	29.9%
7Y	0.10%	-256.3%	1.47%	14.8%	1.22%	21.4%
10Y	0.27%	98.9%	1.64%	10.8%	1.27%	16.5%
12Y	0.36%	44.6%	1.72%	9.5%	1.28%	13.4%
15Y	0.45%	20.1%	1.79%	8.3%	1.29%	10.8%
20Y	0.51%	7.2%	1.85%	7.2%	1.27%	7.9%

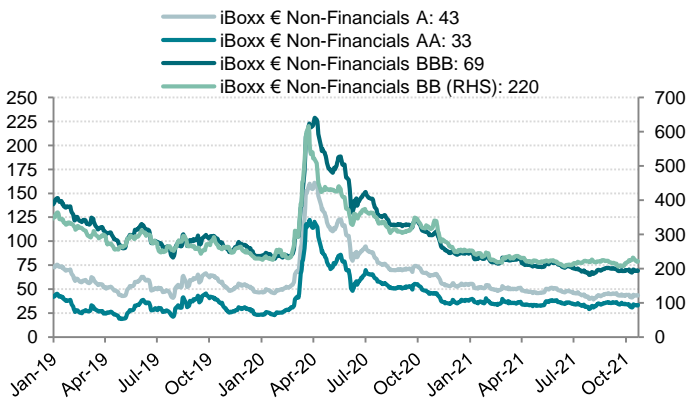
### 10Y basis swap evolution



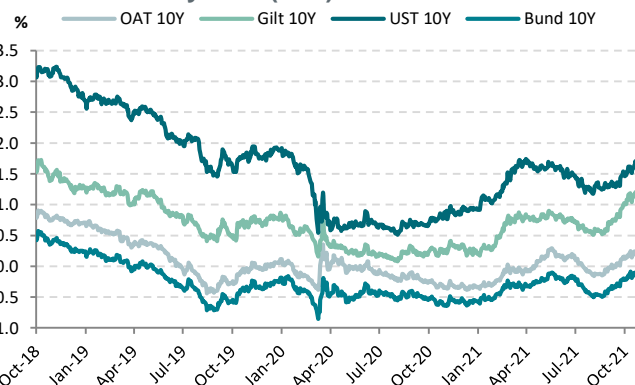
### EUR swap rates (historic and forward levels)



### Credit spread evolutions (EUR)



### Government yields (10Y)



### Main upcoming events

Events / Data	Expected impact
3-Nov Fed Monetary Meeting	Upside risks for short term rates if the Fed does not clearly disconnect the tapering and the interest rate lift-off
30-Nov Eurozone CPI inflation	Hawkish ECB speakers comments could tighten the EUR financing conditions
15-Dec Fed monetary meeting (+updated dot-plot)	Further upward revision of inflation projections for 2023-2023 above 2% could lead to higher USD rates at the front-end and support the USD

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Sources: Bloomberg, Crédit Agricole CIB.



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