

Green Bonds Review

July 2022

Q2-22: RepowerEU: financing the (accelerating) energy transition in Europe

New green & sustainable bonds issuance by currencies & sectors

- We consider green, social, sustainability and sustainability-linked bonds as “green & sustainable” (G&S) in the entire document.
- **New G&S bond issuance declined again in Q2-22 vs Q2-21 for the 2nd consecutive quarter (-14%).**
- Green issuance has proved dynamic in Q2-22 (+16%), mainly led by sovereign, supnationals and agencies. Social and SLB formats have been lagging, the latter being impacted by a sharp reduction in corporate issuance overall.
- As expected, gross supply of sovereign & EU G-bonds increased significantly in Q2-22, to €29bn. The EU itself raised €13.5bn via its green issuance while the French Treasury issued the first ever Green linkers.
- ESG Covered Bond Supply reached a new record this quarter, totalling €7bn. In terms of execution dynamics, ESG covered bonds benefited from a stronger investor demand than Conventional peers and lower spread compression from IPT.

G&S bonds in primary markets

- Although G&S NIPs have been increasing on the back of the market repricing, it is worth noticing that they are significantly lower for BBB-rated G&S than for their conventional counterparts.

Greenium: the recent trends

- **The Greenium has slightly expanded in the € corporate market during Q2-22 (0.5 pb on average), to almost 4 bp, and is close to its record level currently.**
- Green, sustainability and Social bonds display Greenium in the range of 6 to 8 bp, while SLBs are actually trading wider than their conventional counterparts.
- Greeniums of Bunds tightened marginally during Q2-22, in a very volatile market context. Surprisingly, Green OATs proved more resilient than nominal OATs on the long-end with a 3-4bp outperformance vs. swap.

What's next?

- Q3-22 supply should remain sizeable in the govies + EU space, approaching €24bn. The EU will remain the biggest green bond issuer in H2 with up to €17bn on the offer given its €50bn target for the semester. Belgium is expected to launch a new 15Y-25Y, while Italy should start reopening its G-bonds program this quarter.

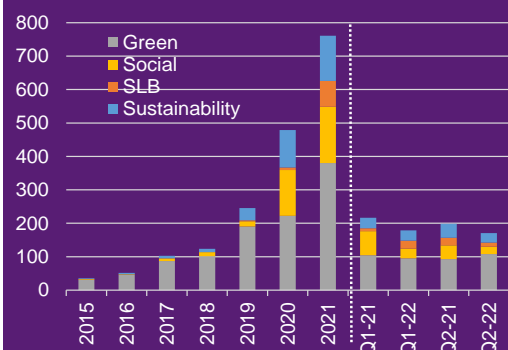
Food-for-thought



- Is the G&S market ready to absorb the financing needs coming from the accelerated energy transition ?
- What does the acceleration in the energy transition mean for the supply from the EU in GSS format?



New issuance (€bn-eq) by type of ESG bonds



Sources : Bloomberg, Natixis

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Focus on Repower EU and energy transition in Europe

- Last May 18, the European Commission (EC) responded to Russia's aggression against Ukraine through the announcement of its RepowerEU package aimed at fully ending EU's dependency on Russian gas imports as early as 2027.
- To this end, RepowerEU features a sequenced approach, with:
 - A clear short-term focus on energy security, through diversification of energy supplies to the widest possible extent, including development of additional gas import facilities and partial displacement of gas plants by coal plants in the electricity sector, and
 - In the medium and long terms, a marked intensification of the various energy transition measures under development in the EU through EC's Fit For 55 (FF55) climate package unveiled in July 2021. RepowerEU extensively raises some of the targets embedded in FF55 in the fields of energy efficiency and production and uses of renewable energy sources: renewable power, renewable hydrogen and biomethane.
- (For more details on RepowerEU and its overlap with EU's climate policies, please refer to Natixis CIB Research's recent ad hoc study: [EU's climate policy: the great acceleration?](#))
- CapEx-wise, Repower EU induces considerable additional investments compared to those underlying EU's decarbonization plan in FF55, i.e. +€300bn by 2030, +€210bn by 2027.

G1: Main measures from the RePowerEU plan

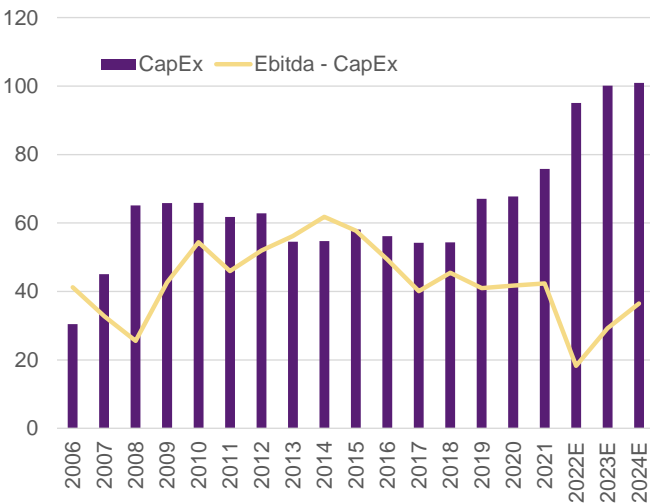
Timing	Measure(s)	Bcm (in 2030)	€bn investments (2022-2030)
FF55 savings by 2030	Total of all FF55 measures	116	NC
ST preparedness	Diversification of gas supplies using existing infra. (LNG terminals & pipelines)	60	
	Delayed phase-out & increased operating hours for coal	24	2
	Abandoned nuclear phase-out	7	0
	Fuel switch in the residential and service sectors	9	
	EU Save: demand measures	10*	**
MT preparedness (until 2027)	New LNG infra. and pipeline corridors	0	10
	Additional investments in the power grid / storage / PV / wind	21*	125
	Biomass in power gen	1	2
	Energy efficiency and heat pumps	37	56
	Sustainable biomethane	17	37
LT preparedness (by 2027 & beyond)	Reduced use in industry	12	41
	Renewable hydrogen (domestic & imported)	27	27
	Total	310	300

*bcm figures followed by an asterisk are provided for information but not included in the total / ** investment cost included in investments for other power technologies & infrastructures

Sources: EC, Natixis

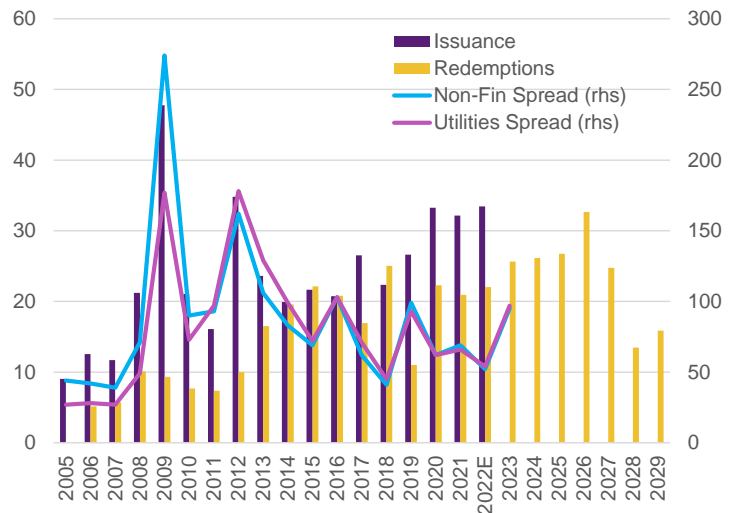
- **The scale of these additional investments raises a financing issue:** will the players involved (eg mostly European Utilities) be able to raise the funds necessary to carry out these investments? Will the market itself be able to absorb these expected additional flows of emissions?
- **European Utilities have already started to engage in substantial increase in capex plans for the years ahead, largely on the back of increasing investments needed in the fields of renewable energies** (that's particularly the case for some companies such as Enel and Iberdrola for instance). As shown on chart G2 below left, the total CapEx is expected to grow by 30% over the next two years vs an already high 2021 in terms of CapEx (record high), to more than €100bn for the top 24 Utility companies in Europe.
- **As expected, Ebitda growth will not be enough to offset the expected spike in CapEx, the required energy transition will necessarily lead to a substantial increase in €-denominated from Utilities**, towards €45-50bn a year from the 30-35bn regime we have experienced since 2020 (see chart G3 below right). The good news is that most of those bonds should be in G&S formats, knowing that i/ a 15bn increase in €-denominated issuance per year on those G&S markets represents a 5% increase in total €-denominated yearly issuance vs today's levels, ii/ the total outstanding of €-denominated G&S market has been growing at a much faster speed over the recent years, without any signs of demand shortage.

G2: Trend in Ebitda and Capex for European Utilities (€bn)



Sources: Market data, Natixis

G3: €-denominated issuance from Utilities and spreads vs swap

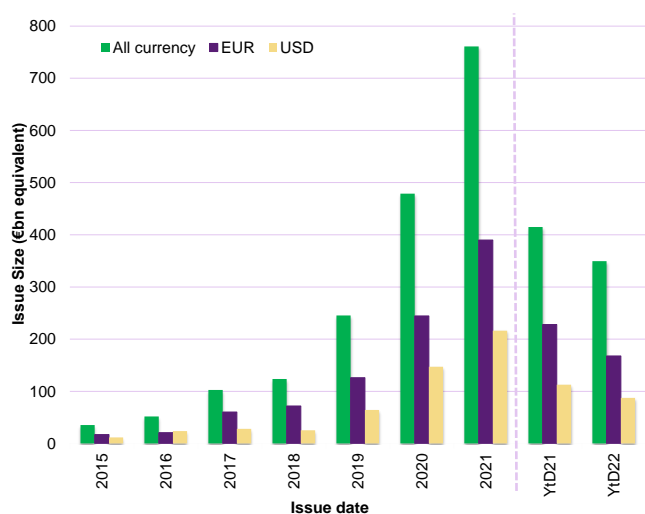


Sources: Bloomberg, Cortex Dealogic, Natixis

G&S bonds: trends in new issuance and outstanding

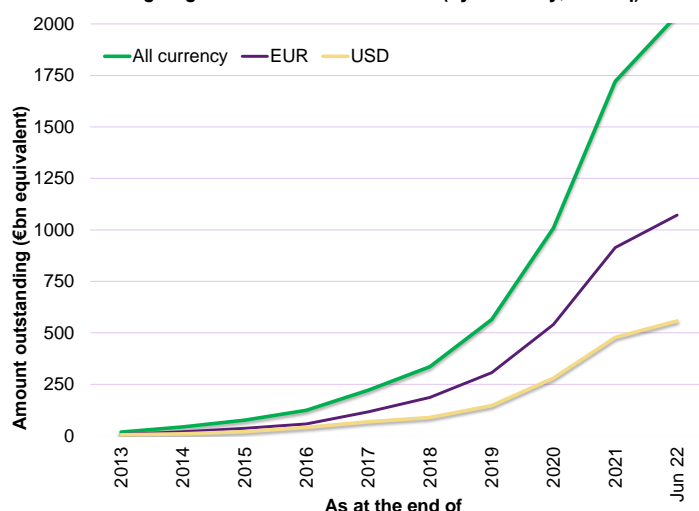
- **New G&S bond issuance declined again in Q2-22 vs Q2-21 for the 2nd consecutive quarter (-14%), although slightly less than in Q1-22.** Only the JPY G&S market is up in terms of issuance in Q2-22, while the USD G&S market has been more impacted by the reduction in issuance than the €-denominated one.
- **On the other hand, the total outstanding of G&S bonds (graph G6) continues to increase** although at a slower pace: it has reached **2trn €-eq end Q2-22, an 8% increase vs Q1-22 levels**. In €-denominated format, the total G&S outstanding has exceeded €1trn and represents 52% of the total G&S outstanding, followed by USD (27%), GBP (3.6%) and JPY and SEK formats (2.6% each).
- Although the overall G&S issuance volumes have been declining significantly, Green issuance only has proved dynamic in Q2-22 (+16%), mainly led by sovereign, supranationals and agencies. Social and SLB formats have been lagging, the former driven by more Green issuance from SSAs, while the latter has been impacted by a sharp reduction in corporate issuance overall.
- **After supranationals and France, Germany is now the 3rd biggest country of domicile for G&S bond outstanding, ahead of the US. China now ranks 6th ahead of Spain** after registering the 3rd biggest increase in total G&S outstanding in H1-22 (35bn €-eq.), with a noticeable expansion of corporates (the majority of which came from the Utility sector with CNY G&S issuance).

G4: Green & sustainable bond issuance (by currency, €bn equivalent)



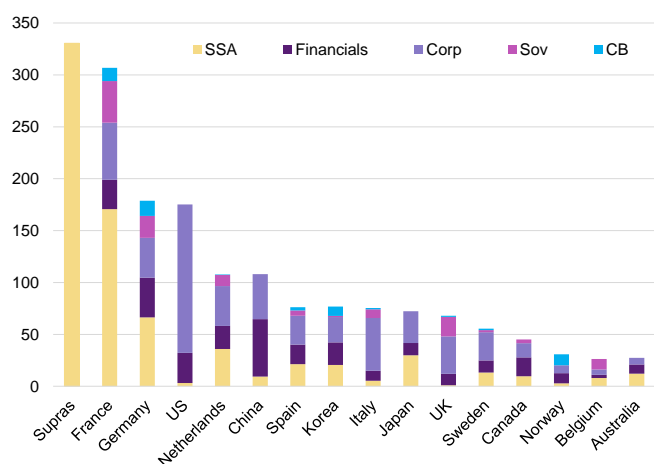
Sources : Bloomberg, Natixis

G5: Outstanding of green & sustainable bonds (by currency, €bn eq)



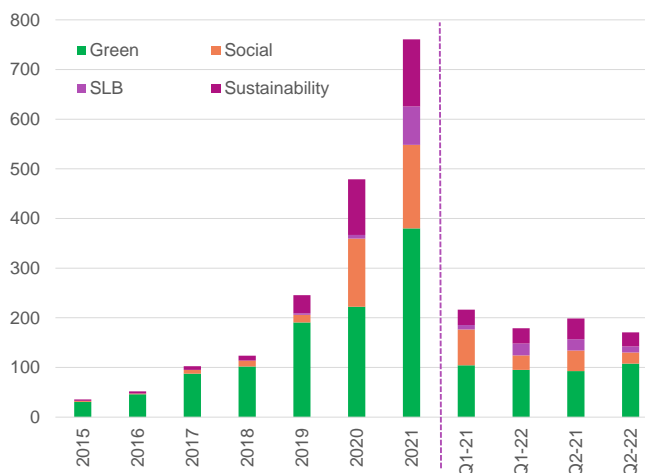
Sources : Bloomberg, Natixis

G6: G&S total outstanding by country of domicile and sector (€bn eq.)



Sources : Bloomberg, Natixis

G7: Green & sustainable bonds issuance by type (all currencies, €bn equivalent)

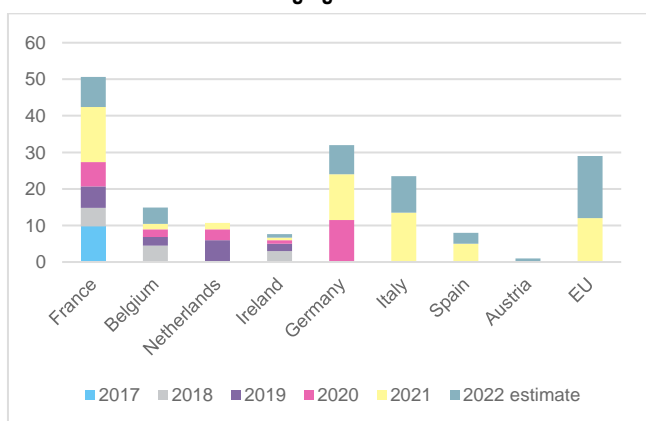


Sources : Bloomberg, Natixis

Focus on Green € sovereign bonds & the EU

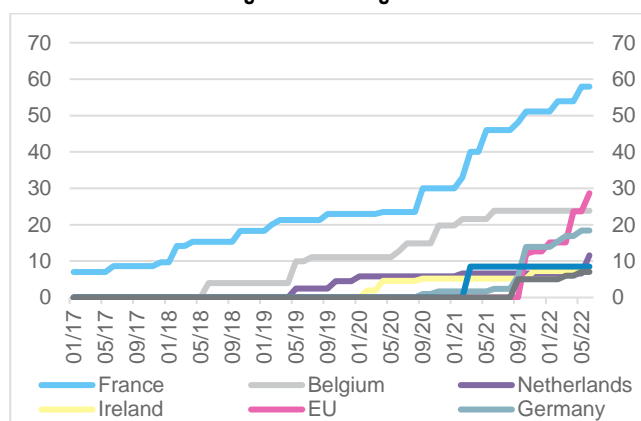
- As expected, gross supply of Green sovereign & EU bonds picked up quite significantly during Q2 with **€29bn of issuance**, a record high for a given quarter, and after only €9bn during Q1. Out of the €90bn of green supply we expect for this year, €33bn has been raised so far by the end of June which means that **gross supply will have to increase substantially during H2 2022**.
- Looking back at Q2, the **European Union** has been the key issuer during this quarter and is likely to keep its first rank as the biggest green bonds issuers in the quarter to come given its **€50bn global issuance target for H2**. Implicitly, it means that the Institution will be raising up to **€17bn** via Green bonds before the end of the year and therefore is likely to launch **2 new Green bonds**.
- France** reached another milestone by issuing the first inflation-linked Green bond ever. Indexed to the European HCPI (ex- tobacco), the Green OAT€i 0.1% 25 7/38 was a clear success with €27bn orders book of which €4bn were allocated. Out of the €15bn to be raised this year, the AFT has been issuing 6.8bn so far. The new green bond being a linker, the remaining €8bn of supply are likely to be concentrated a bit more on the Green OAT 0.5% 6/44 which will be reopened as early as July 7th by the Treasury.
- Among the other noteworthy mentions for this quarter on the supply side, we note the issuance of the **first Green RAGB 5/49** (4bn raised) and the **tap of the Green DSL 1/40 for €5bn**. While the Austrian Treasury may decide to tap its new bond before the end of the year (€1bn), the **DSTA**, with its June operation, **completed its Green bond issuance** program for this year.
- About **expected supply for Q3**, activity should be concentrated other 4 issuers: 1/ the **EU** of course with taps and a new Green bond, 2/ **Belgium** which is likely to issue a new 15Y-25Y Green bond in September, 3/ **France** and finally 4/ **Italy** which did not tap its Green BTP 4/45 even once this year. All in all, Q3 gross supply is expected to be around €24bn, slightly lower than the €29bn we had during Q2.
- German greeniums tightened marginally** during Q2, Green Bunds suffering a bit from their lower liquidity and wider bid-offer spreads. Greeniums on the 8/30 & 8/31 lost a couple of tenths of bp and are now trading around 2bp as illustrated in the chart below. **Green OATs** behaved differently and managed to **outperform nominal OAT** as illustrated by the 3-4bp tightening of the OAT 44 vs. 45 or OAT 39 vs 38 ASW spreads since April.

G8: Current Eurozone sovereign greenbond market



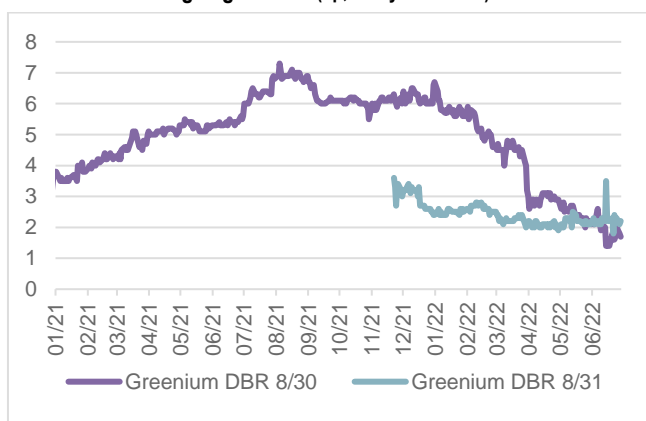
Source: Bloomberg, Natixis

G9: Evolution of the outstanding of eurozone green bonds



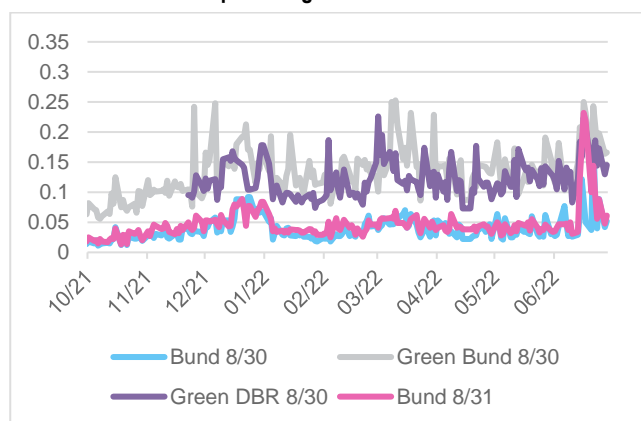
Source: Bloomberg, Natixis

G10: Euro sovereigns greenium (bp, mid yields used)



Source: Bloomberg, Natixis

G11: Green bond issuance in percentage of total EZ issuances

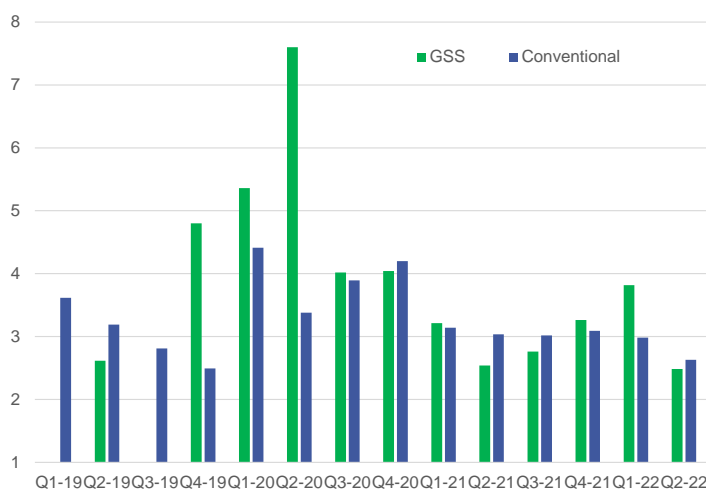


Sources: Bloomberg, Natixis

Focus on €-denominated A-rated Corporate debt

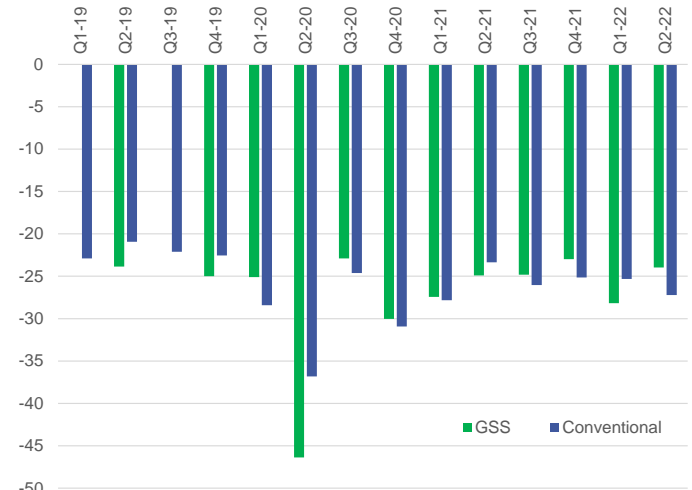
- **Oversubscription rates indicate the magnitude of investor appetite for bonds at the time of their issuance.** While the investors' appetite for G&S bonds in this category significantly exceeded their demand for comparable conventional bonds between Q4-19 and Q2-20, both G&S and conventional bonds in this category were, on average, similar since Q3-20, except for Q1-22 (see chart G13).
- **Spread compression between the time of the IPT and the time of pricing is closely related to oversubscription rates.** As part of the pricing process, bonds experience spread tightening. Stronger investor demand for a bond (reflected in higher oversubscription rates) results in a higher spread compression between the time of the IPT and the time of pricing. Euro-denominated G&S A-rated corporate bonds evolve at a lower spread compression versus the IPT than their conventional peers in Q2-22, in line with the trend observed in oversubscription rate (see chart G14).
- **New issuance premium (NIP) refers to the extra yield received by the buyer (paid for by the seller) for a newly issued bond relative to how other bonds from the same issuer trade in the secondary market at the time a new bond is priced.** To calculate NIPs, we built z-spread curves for each issuer in our sample and interpolated the secondary curve on the maturity of the newly issued bond.
- **Average NIPs exhibited by G&S €-denominated A-rated Corporate debt have been lower** than the NIP displayed by similar bonds in a conventional format from Q4-20 to Q1-22. This has not been the case however in Q2-22 (see chart G15), although market repricing phases actually explain part of that situation (reopening of primary market usually done with ESG bonds, but higher NIP too). **Several NIPs of G&S were particularly high, such as:** 7-year TenneT Green displayed NIP of 21bp and 9-year Prologis Green displayed NIP of 18 bp.
- Finally, **A-rated corporate newly issued G&S bonds in Q2-22 performed better than their conventional counterparts in the secondary market.**

G12: Oversubscription: G&S vs Conventional Bonds



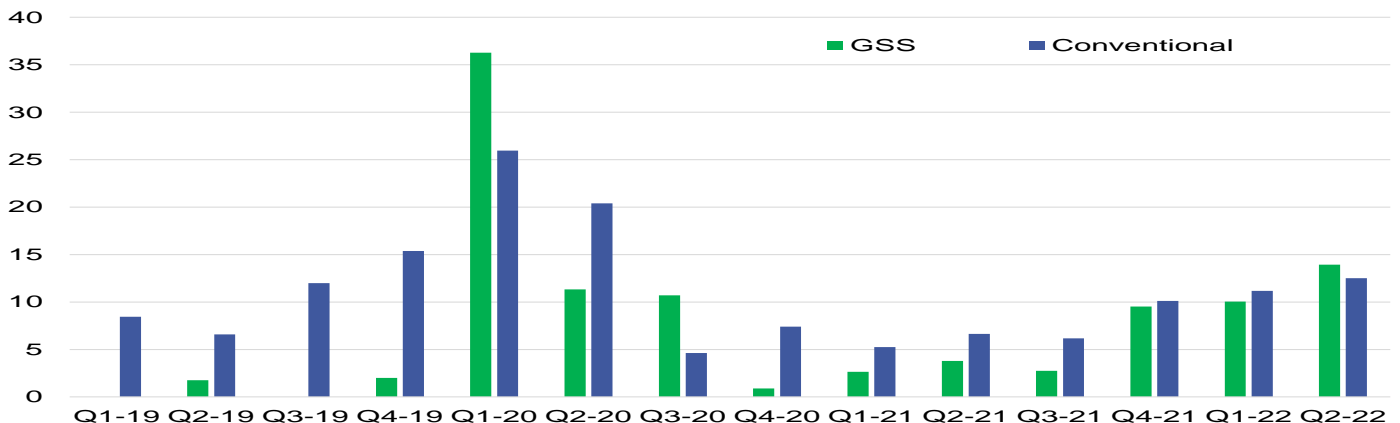
Sources: Bloomberg, Natixis

G13: Spread – IPT: G&S vs Conventional Bonds



Sources: Bloomberg, Natixis

G14: New issuance premium (NIP): G&S vs Conventional Bonds

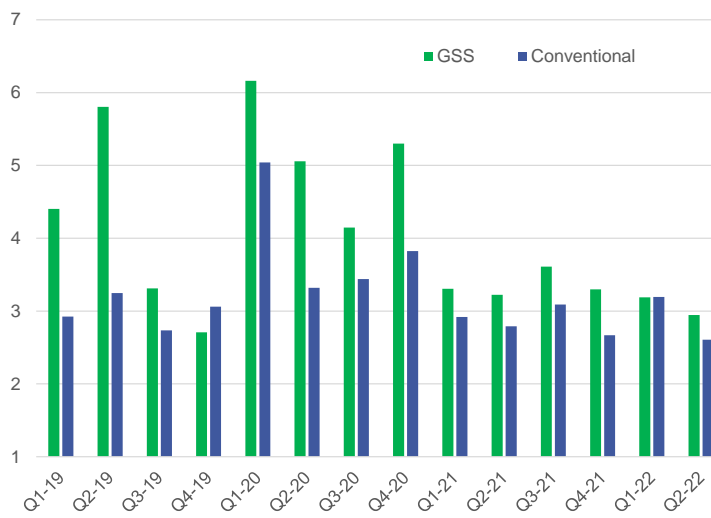


Sources: Bloomberg, Natixis

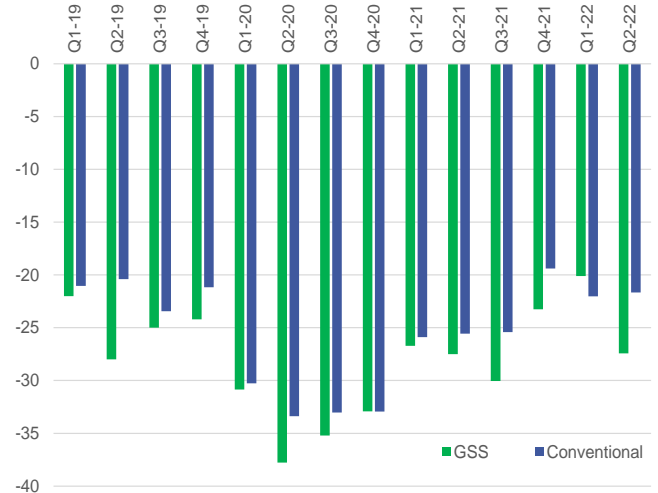
Focus on €-denominated BBB-rated Corporate debt

- Investor appetite for G&S BBB-rated corporate debt far exceeds their demand for similar conventional bonds as G&S bonds in this category exhibit, on average, a higher oversubscription rate in all quarters but Q4-19. It was the case again in Q2-22, particularly for 5-year VW Green (4.3x oversubscribed) and 10-year Orange (5.6x oversubscribed).
- Illustrating the strong investor appetite, Euro-denominated G&S BBB-rated corporate bonds evolve at a much higher spread compression versus the IPT than their conventional peers in Q2-22 (see chart G17).
- G&S bonds in this category are consistently displayed a lower NIP than conventional bonds except in Q1-22. Interestingly, the average NIP has stabilized for BBB G&S new bonds in Q2-22 (albeit at high levels of 15bp), while the NIPs have continued to increase for conventional bonds (see chart G18) to more than 20bp. The highly oversubscribed above mentioned 5-year VW Green displayed NIP of 9bp and the 10-year Orange Green displayed NIP of 13bp.
- Finally, BBB-rated corporate newly issued G&S bonds in Q2-22 performed worse than their conventional counterparts in the secondary market: the average spread vs swap has widened by 10pb for the former following the first 20 days post issuance and by 7 bp after 30 days, while the average spread vs swap of conventional BBBs has tightened by 2bp after 20 and 30 days.

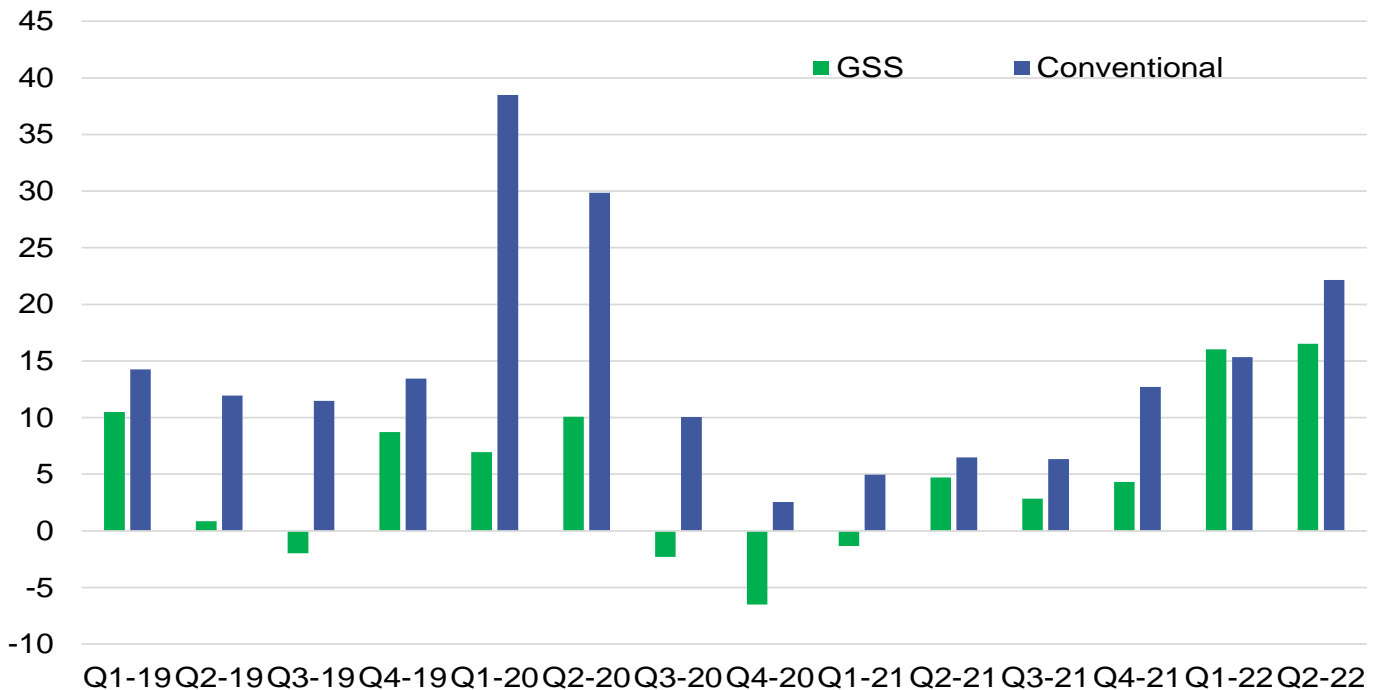
G15: Oversubscription: G&S vs Conventional Bonds



G16: Spread – IPT: G&S vs Conventional Bonds



G17: New issuance premium (NIP): G&S vs Conventional Bonds

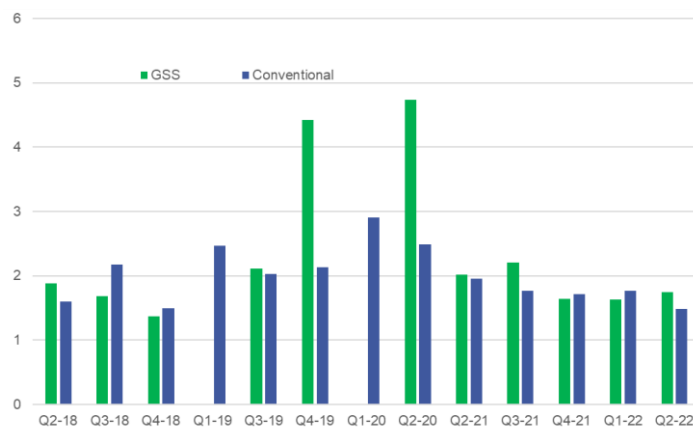


Sources: Bloomberg, Natixis

Focus on €-denominated Senior Preferred Financial debt

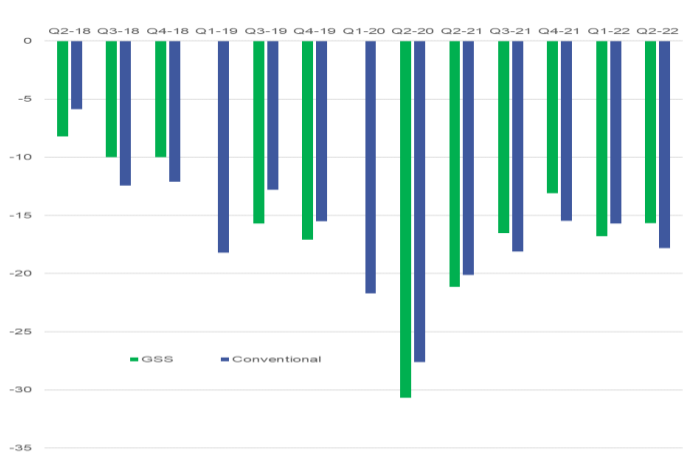
- After a record of issuance (€5.15bn) during the first quarter of 2022, only €2.25bn were issued in Q2-22. This is the lowest level of issuance since Q1-20.
- This quarter, subscription rates on average were higher than their conventional peers (BTC 1.75x for ESG vs 1.5x for conventional bonds). The difference in oversubscription rates between G&S and conventional bond format in this category has become particularly pronounced throughout 2020 and much more attenuated throughout 2021.
- €-denominated G&S Senior Preferred Financial bonds experience, on average, slightly lower spread compression versus the IPT than their conventional peers. During this quarter, ESG issuances tightened by c. 16bp vs 18bp for their conventional peers. This was also the case in Q3-21 and Q4-21.
- G&S NIPs reached their highest levels since 2018 to 17.6bp to attract investors. For example, SBAB Bank AB issued a 3.5Y with a NIP of 14bp compared to 1bp for a 5Y issued in January 2022. Conventional bonds offered a slightly higher NIP than G&S bonds (18.3bp vs 17.6bp respectively).

G18: Oversubscription: G&S vs Conventional Bonds



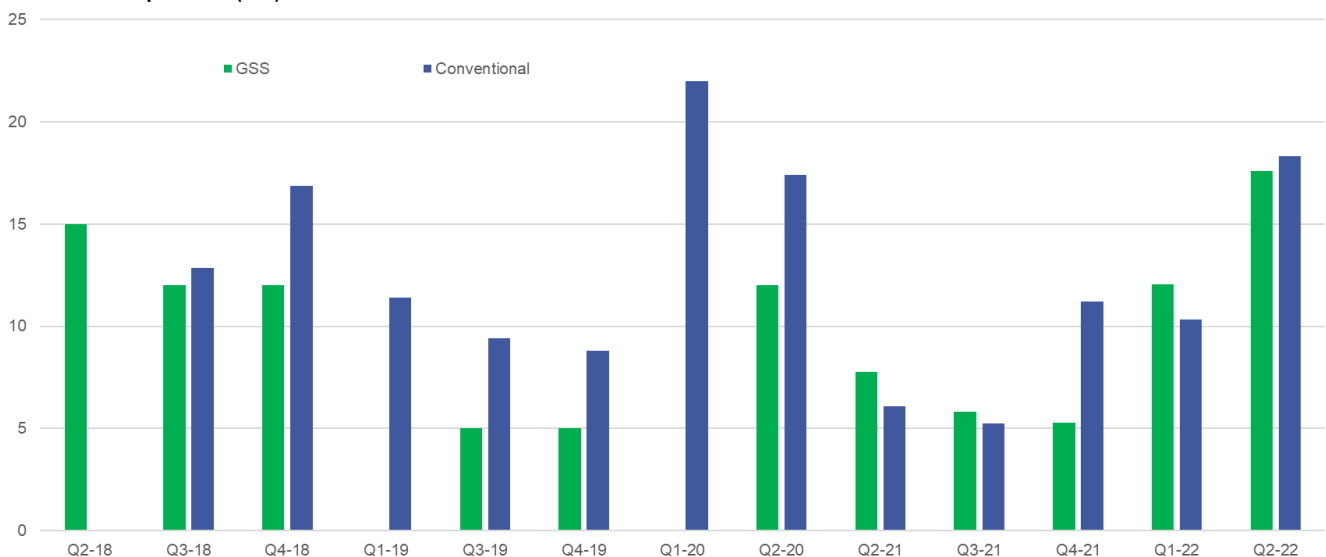
Sources: Bloomberg, Natixis

G19: Spread – IPT: G&S vs Conventional Bonds



Sources: Bloomberg, Natixis

G20: New issuance premium (NIP): G&S vs Conventional Bonds

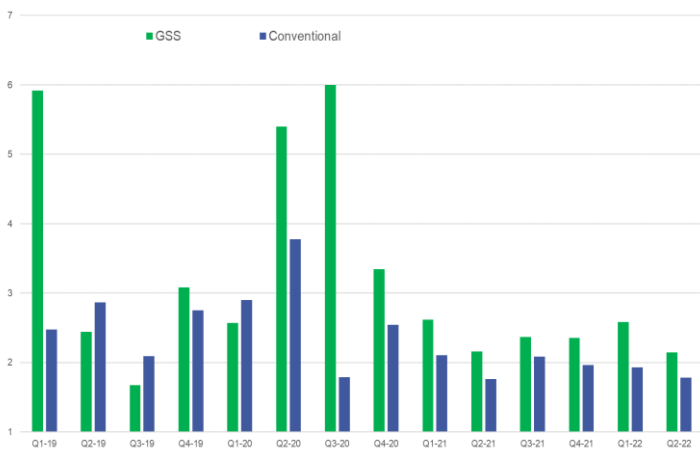


Sources: Bloomberg, Natixis

Focus on €-denominated Senior Non-Preferred Financial debt

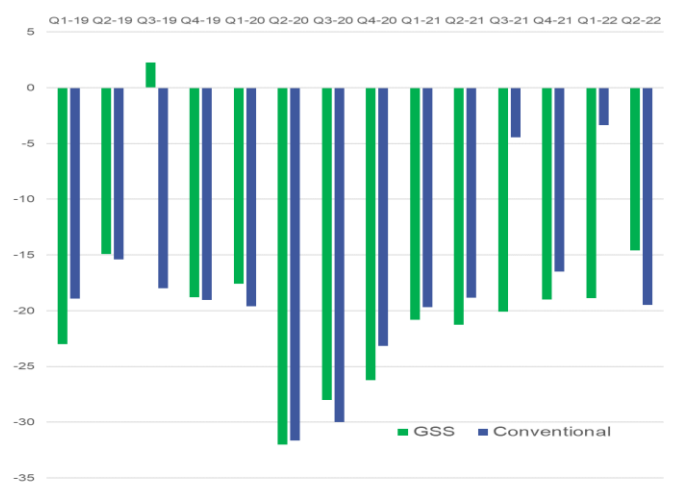
- Like senior preferred debts, **ESG Senior non-preferred registered a low level of issuances (€3.75bn) compared to last quarter (€7.6bn)**. Dutch banks were particularly active on this segment with a share of 53% of ESG deals.
- Investors' appetite for G&S bond format in this category consistently exceeds their demand for comparable conventional bonds since Q1-20**, as shown by quarterly average oversubscription rates for both G&S and conventional bond formats (**BTC 2.15x vs 1.8x for conventional bonds**). On May 17th, Deutsche Bank attracted a strong interest with an orderbook of €3bn for its 6Y €500m non-preferred green bond. The deal benefited from a BTC of 6x.
- Trends in average spread compression versus the IPT in this category are heterogeneous over time. In Q2-22, G&S issuances achieved lower average spread compression versus the IPT than their conventional peers** (14.6bp for ESG bonds vs 19.5bp for conventional bonds).
- Average NIP stood at a high level in line with the last quarter, but we observed a slightly lower NIP for ESG bonds (c.17bp) than for conventional bonds (c.20bp).

G21: Oversubscription: G&S vs Conventional Bonds



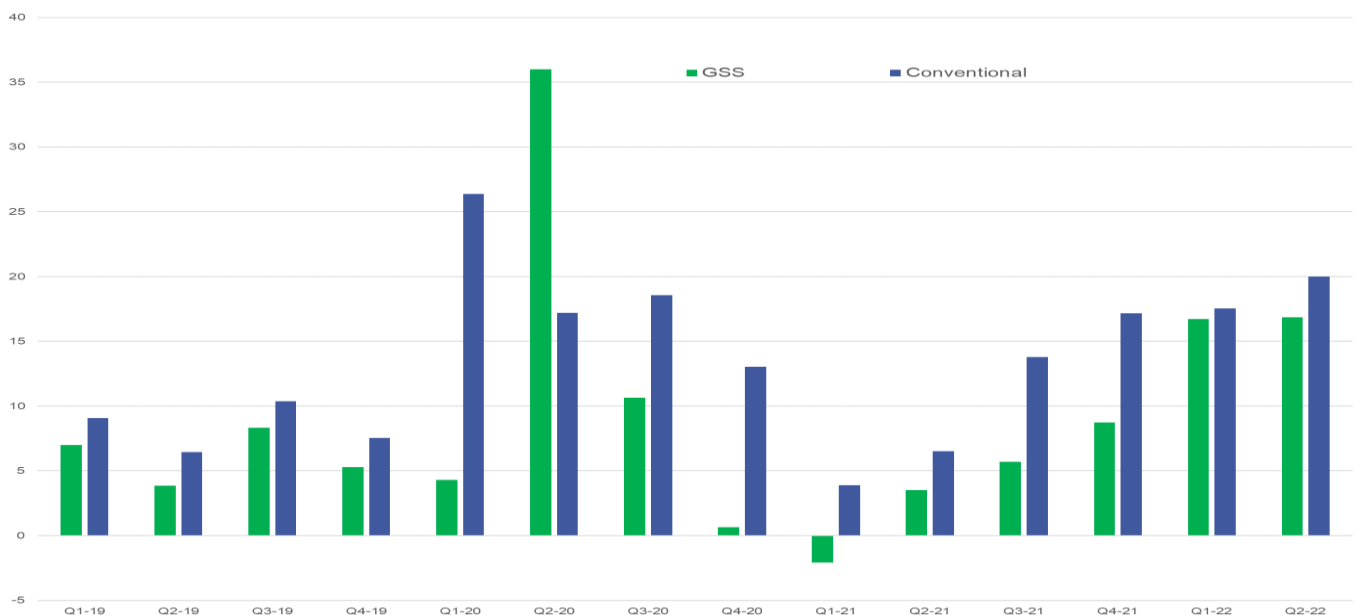
Sources: Bloomberg, Natixis

G22: Spread – IPT: G&S vs Conventional Bonds



Sources: Bloomberg, Natixis

G23: New issuance premium (NIP): G&S vs Conventional Bonds

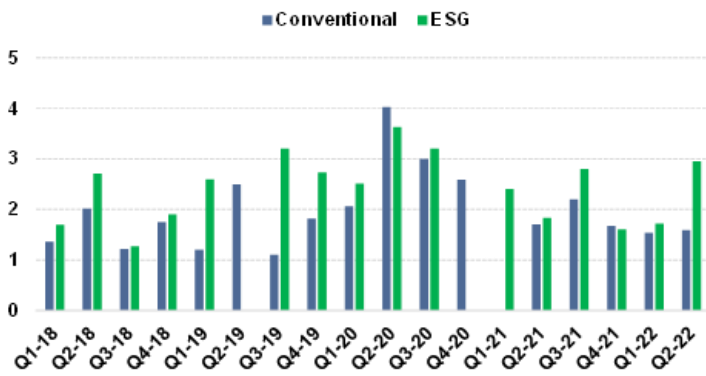


Sources: Bloomberg, Natixis

Focus on €-denominated Covered bonds

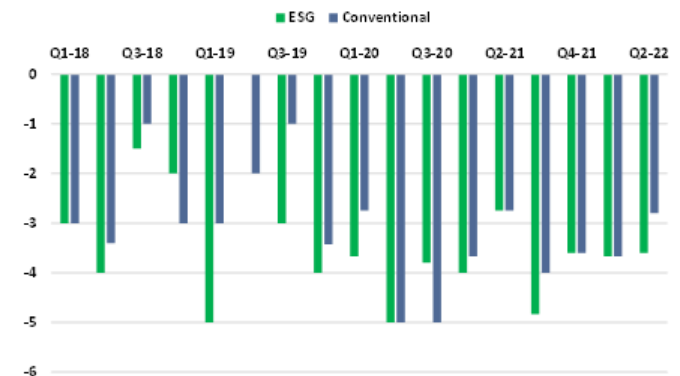
- ESG covered bond issuances reached a record this quarter with a total volume of €7bn, increasing by 56% compared to Q1-2021 and by nearly 80% compared to Q1-2022. Their share in the covered bond market increased to represent 16.9% vs 5% in Q1-22.
- 11 ESG covered bond transactions came into the market this quarter, two of them were inaugural: **Bayern LB** issued its first green Mortgage Pfandbrief with a 10Y maturity, €500m at ms+8bp. and **PKO Bank Hipoteczny** priced its inaugural euro green covered bond : a 3.5Y €500bn at ms+36bp. The net proceeds of the first deal will refinance a railroad project whereas the second transaction will be used to finance and refinance green residential mortgages in Poland.
- By country, the largest **ESG issuers in terms of outstanding issue volume are in France (29%)**, followed by Germany (23%) and Norway (17%). Norway represents 17% of the ESG market while only seizing a 4% market share of the global covered bond market, just as South Korea represents 13% of the ESG market but has only issued ESG covered bonds. As a result, key covered bond players such as Canada are still absent from the ESG segment.
- ESG covered bonds have shown stronger outcomes in the primary executions compared to their conventional peers. With an average subscription ratio of 2.8x, investor demand for ESG covered bonds **strongly strengthened compared to the previous quarter (1.7x)**, while demand for conventional covered bonds stabilized (1.5x). That said, spread compression at launch remained stable compared to the previous quarters for covered bonds (3.7 bp on average) but decreased for conventional covered bonds. Regarding the new issue concession, ESG covered bonds offered on average a similar NIP compared to the previous quarter (c. 3bp on average). Conventional covered bonds however offered a significantly higher NIP (over 4bp on average).
- In terms of performance, **ESG covered bonds (30 days post issuance) performed the same way than conventional covered bonds after launch (0.58bp vs 0.61bp respectively)**.

G24: Average BTC: G&S vs Conventional Bonds



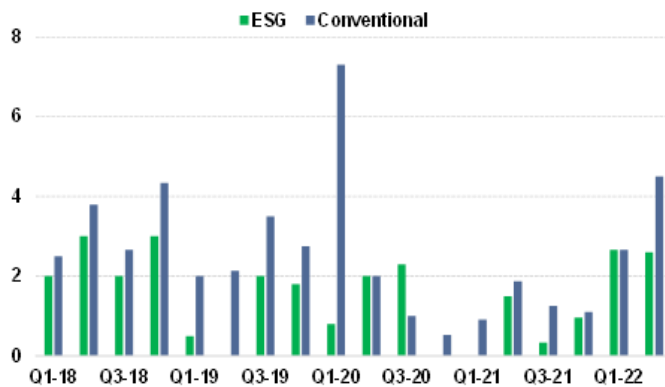
Sources: Bloomberg, Natixis

G25: Spread – IPT: G&S vs Conventional Bonds



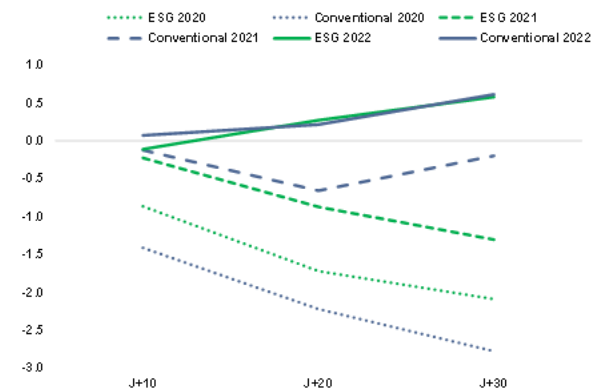
Sources: Bloomberg, Natixis

G26: New issuance premium (NIP): G&S vs Conventional Bonds



Sources: Bloomberg, Natixis

G27: Performance of new issues (1 month): G&S vs Conventional Bonds

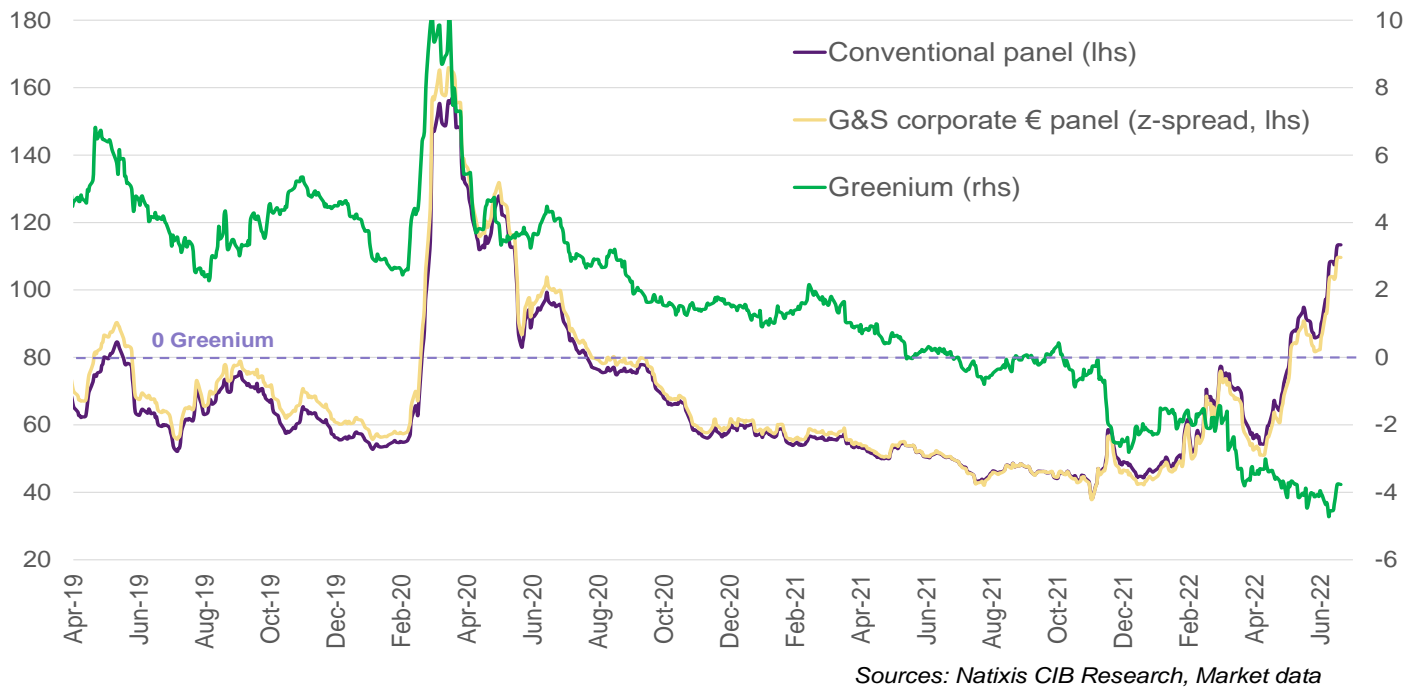


Sources: Bloomberg, Natixis

Focus on Corporate Greenium

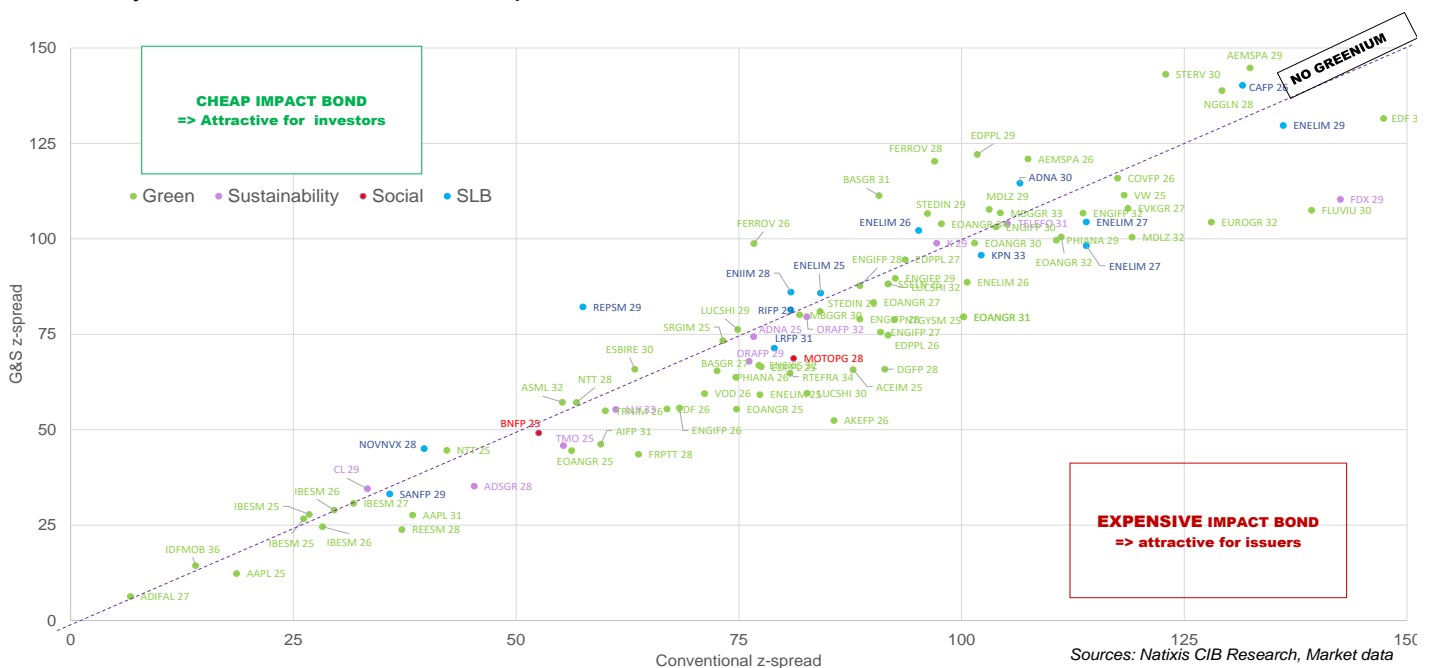
- The Greenium has slightly expanded in the € corporate market during Q2-22 (0.5 pb on average), to almost 4 bp, and is close to its record level currently.

G28: New issuance premium (NIP): G&S vs Conventional Bonds



- 65% of secondary market Greenium are negative (i.e. G&S Bonds trading tighter than their conventional counterparts) for corporate bonds in €. Green, sustainability and Social bonds display Greenium in the range of 6 to 8 bp, while SLBs are actually trading wider than their conventional counterparts (by 2bp on average). This is particularly the case for those SLBs issued by Repsm, Tscoln, Aemspa and Lxsg (see chart below).

G29: Secondary Market Greenium in €-denominated corporate non-financial bonds



Sources: Bloomberg, Natixis

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