

## Credit Notes: The nuts and bolts of bank debt securities

The post-Global Financial Crisis period has seen considerable regulatory changes that have reshaped the size and composition of bank debt securities in both the USD and EUR IG markets and recent stress within the US and European banking systems has put the sector under the spotlight. With this backdrop in mind, we provide an overview of the stock of EUR and USD-denominated bank debt securities, highlighting the differences across currencies and jurisdictions. Broadly speaking, bank debt capital can be placed into four distinct categories.

- **Senior Preferred bonds:** Akin to Senior Unsecured corporate debt, this category is the highest seniority level and has no conversion trigger to equity.
- **Senior Non-Preferred/Bail-in bonds:** This category is junior to Senior Preferred capital and converts to equity based on regulatory triggers.
- **Subordinated Tier 2 bonds:** This is the most junior IG index-eligible bank capital category. These bonds are also bail-in securities, which may or may not carry an embedded call option.
- **Additional Tier 1 bonds:** The most junior debt in the capital structure. It includes Contingent Convertibles (CoCos) as well as junior subordinated bonds. These securities are callable and convert to equity or are written down when a bank's Common Equity Tier 1 (CET1) ratio falls below a pre-determined threshold.

We start with a discussion on the composition of the first three categories and then zoom in on the Additional Tier 1 (AT1) bond market.

### The IG market: A more pronounced skew towards Senior Non-Preferred bonds among US banks

Exhibits 1 and 2 provide the composition of the EUR and USD IG bond markets by bond seniority level. Both markets have seen significant growth in the share of Senior Non-Preferred bonds over the last few years, but one key difference stands out: the composition of the USD market is more skewed towards Senior Non-Preferred bonds. They account for 79% of the overall market, up from 57% in 2017, while Senior Preferred bonds only make up 6% of the overall market, down from 27% in 2017. In the EUR market, the amount outstanding of Senior Non-Preferred bonds has increased from €130 billion in 2017 to €475 billion today (57% of the entire stock). On the other hand, both Senior Preferred and Subordinated Tier 2 (T2s) have maintained close to the same notional outstanding over the period, but their share in the overall market has dramatically declined, from

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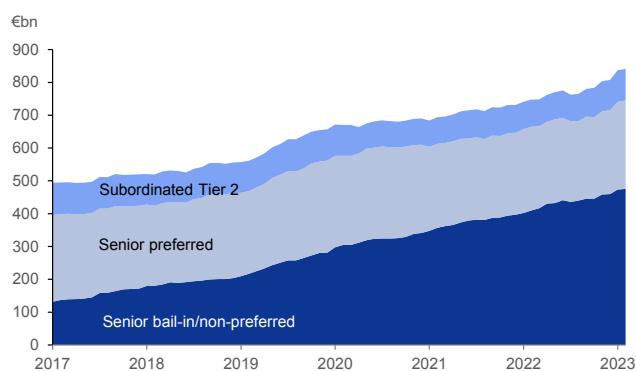
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a combined 73% in 2017 to 43% today.

Across jurisdictions, there are some notable differences to highlight in the senior part of the capital structure. As shown in Exhibits 3 and 4, US-domiciled money center banks have virtually no Senior Preferred bonds outstanding, irrespective of the currency of issuance (USD or EUR). By contrast, European banks account for 70% and 36% of the overall stock of EUR and USD-denominated Senior Preferred bonds, respectively. Interestingly, US Regional banks, which have been ground-zero for the current US banking stress, are the second largest subgroup of issuers of USD-denominated Senior Preferred bonds, at 33%. However, this is the smallest category of USD IG bank debt capital with less notional outstanding than even Subordinated Tier 2s. For context, US Regionals account for less than 9% of index-eligible notional outstanding when combining all seniority levels in the USD market. Lastly, there is a strong home bias vis-a-vis Subordinated Tier 2 bonds among US-domiciled banks, which have the entirety of their T2 debt capital in the USD market (Exhibit 4).

#### Exhibit 1: Senior non-preferred debt has been the favored choice of capital for Bank issuance in the EUR IG market

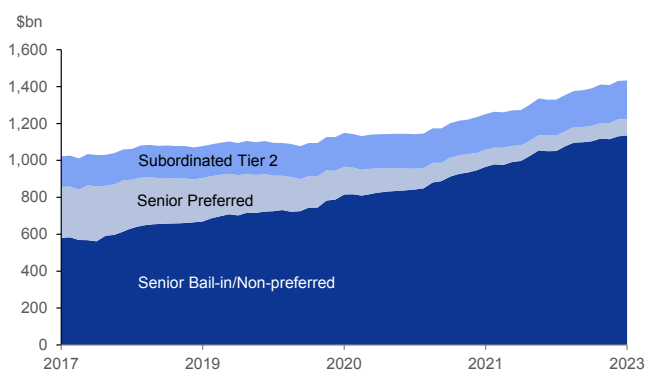
Index notional outstanding of the iBoxx EUR IG Banking sector by bond type



Source: iBoxx, Goldman Sachs Global Investment Research

#### Exhibit 2: The USD IG Banking sector is even more heavily tilted toward senior non-preferred/bail-in bonds

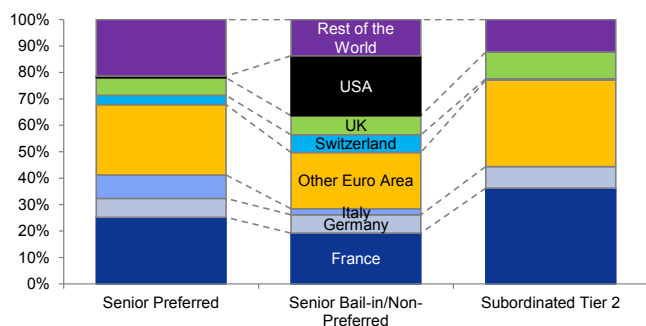
Index notional outstanding of the iBoxx USD IG Banking sector by bond type



Source: iBoxx, Goldman Sachs Global Investment Research

#### Exhibit 3: The EUR IG Banks sector by issuer domicile

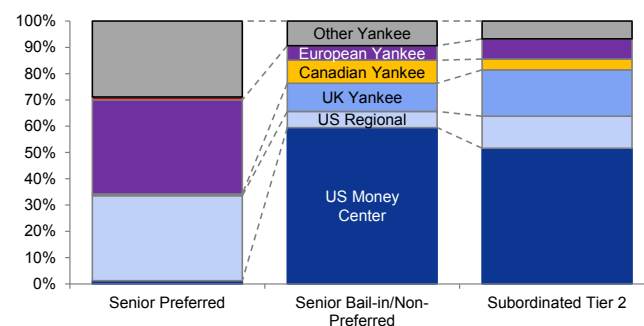
Composition of ultimate parent country by type



Source: iBoxx, Bloomberg, Goldman Sachs Global Investment Research

#### Exhibit 4: US money center banks dominate the USD IG Banking sector index

Share of index notional by seniority and issuer type



Source: iBoxx, Bloomberg, Goldman Sachs Global Investment Research

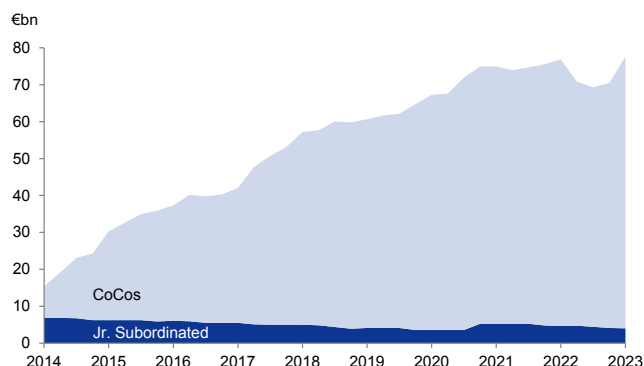
### Additional Tier 1s: A regulatory-driven split

Although Additional Tier 1 securities (AT1s) are all issued with the stated goal of being used to meet Basel III capital requirements, not all AT1s are the same. There are two broad groups into which these securities fall: Contingent Convertibles (CoCos) and Junior Subordinated debt. The main difference between the two is that CoCos have mechanical triggers at a given CET1 threshold, while Junior Subordinated AT1s are bail-in securities.

While the market for AT1s, and CoCos in particular, has only come into existence during the past decade, its growth has started to hit the speed limit in the EUR market. Exhibit 5 shows that the EUR notional outstanding of AT1s has been essentially range-bound since late 2019, before ticking up in 1Q2023, helped along by January's elevated banking sector issuance. Exhibit 6 highlights that the USD AT1 market has been growing at a faster pace than its EUR counterpart, almost entirely due to CoCos, but that this growth has started to slow recently.

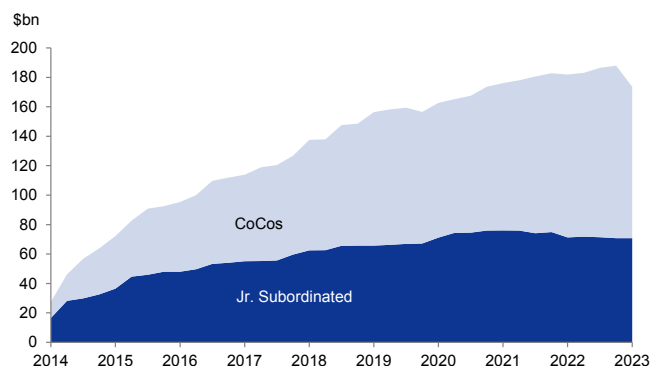
By our estimates, the EUR and USD AT1 markets currently have €77.6 billion and \$173.6 billion in face value outstanding, respectively, with Exhibit 7 showing that 95% (€73.6 billion) of EUR AT1s are CoCos compared to 60% (\$102.8 billion) for their USD counterparts. These figures are exclusive of Credit Suisse's AT1s, of which the firm did not have any outstanding in the EUR market. This difference in CoCo shares between the two markets is the result of the US regulatory framework, which does not permit US-domiciled issuers to raise CoCo capital, insisting instead on a Junior Subordinated bail-in structure for their AT1 securities.

**Exhibit 5: The EUR AT1 market currently has €77.6 billion in total face value outstanding...**



Source: Bloomberg, Goldman Sachs Global Investment Research

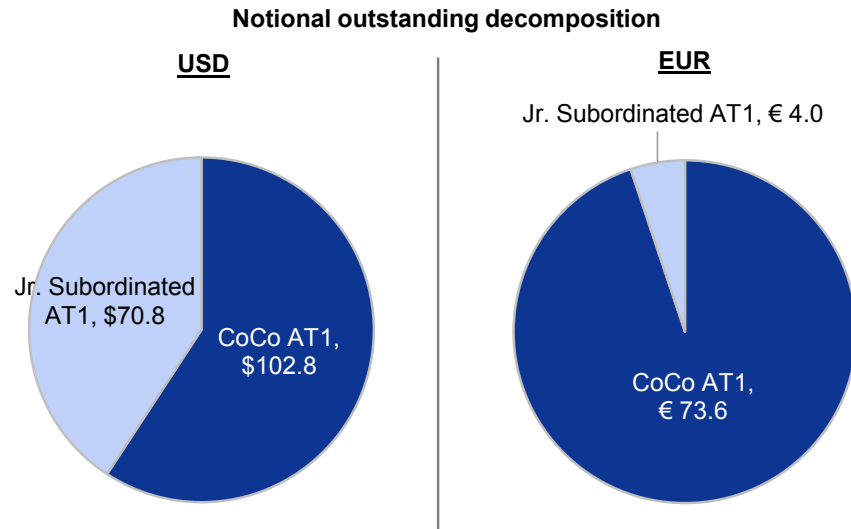
**Exhibit 6: ...while USD AT1 markets has \$173.6 billion in total face value outstanding**



Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 7: The EUR AT1 market is predominately made-up of CoCos, while the USD AT1 market is more evenly split between Jr. Sub and CoCos**

The share of notional outstanding of USD and EUR AT1s by type.

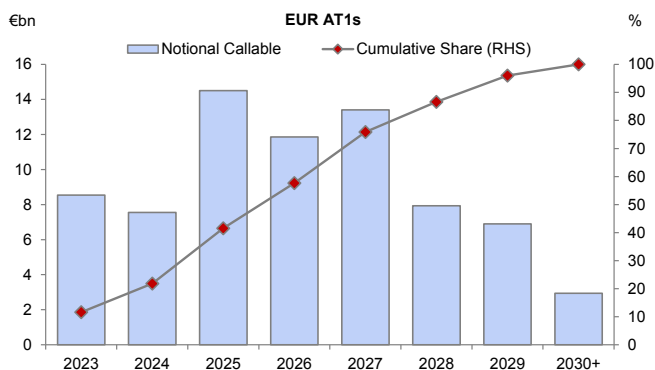


Source: Bloomberg, Goldman Sachs Global Investment Research

While AT1s do not have set maturity dates, they can be called by the issuer after an initial “no-call” period. In effect, if these securities are not called on their next possible call date it is because the issuer determines it to be more economical to keep the securities outstanding. That said, there can be a reputational cost to an issuer for extending their AT1s. We estimate that across the EUR and USD there is a combined \$181.5 billion of CoCo AT1 notional outstanding at today’s exchange rate, and 26% of the overall stock have their next call date prior to year-end 2024 with nearly half of all notional callable by the end of 2025. Exhibits 8 and 9 break down the notional outstanding for EUR and USD CoCo AT1s, respectively, and show the cumulative share that is callable in each market over time.

**Exhibit 8: Roughly 42% of EUR-denominated CoCo AT1 bonds are callable before the end of 2025...**

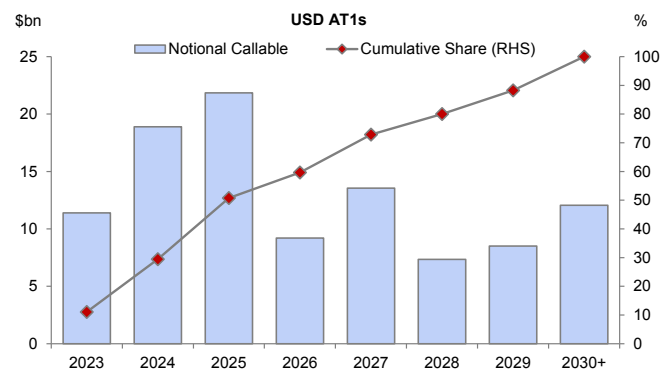
The notional value outstanding of EUR AT1s by their next call year as of March 20, 2023



Source: Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 9: ...As well as 51% of USD CoCo AT1s**

The notional value outstanding of USD AT1s by their next call year as of March 20, 2023; Credit Suisse is excluded



Source: Bloomberg, Goldman Sachs Global Investment Research

# Disclosure Appendix

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