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SECTOR IN-DEPTH
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NPL securitisations – Italy

Continued high Euribor would further erode NPL deal performance

Summary

Non-performing loans (NPLs) transactions we rate with floating-rate coupons have a number of structural protections that mitigate risks stemming from having fixed-rate asset coupons in a rising-rate environment. However, some of those structural protections become less effective when a transaction amortises more slowly than expected. In this paper we discuss the impact of persistently high interest rates on the senior tranches of GACS transactions that are already underperforming and thus vulnerable to interest rate hikes[1]. We focus on GACS transactions because of their structural similarities.

» **Interest rate hedges become less effective when collateral underperforms original business plans**

» **NPL transactions mitigate interest rate risk differently**

» **Spread cap agreements combined with senior note interest rate caps are stronger mitigants to rising rates in case of under-hedging resulting from underperformance of assets**

Interest rate hedges in NPL transactions become less effective when collateral underperforms original business plans

A number of Italian NPL transactions we rate are underperforming their original business plans and thus are vulnerable to further performance erosion in the event interest rates do not recede as we forecast next year.

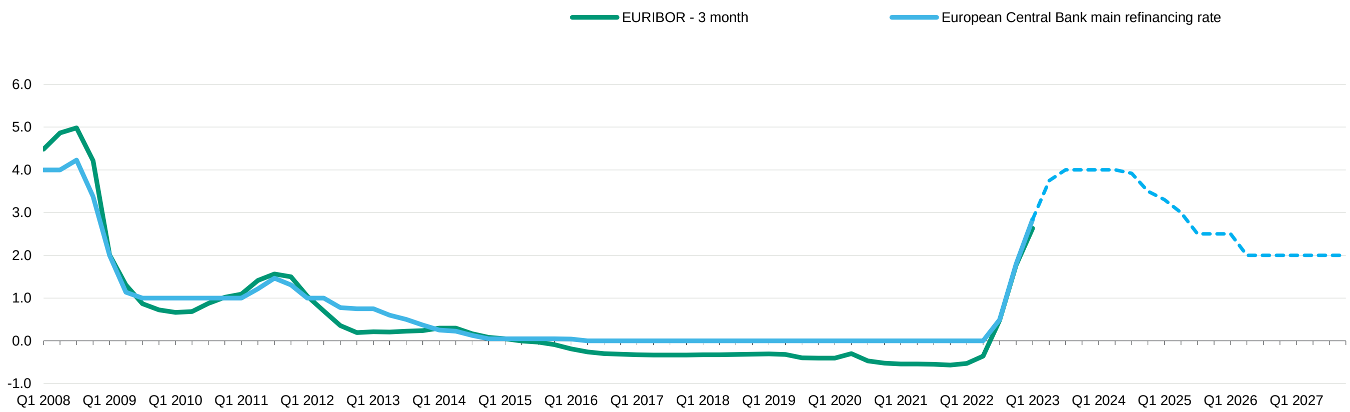
Transactions that are performing according to original business plans are well-equipped to deal with rising interest rates that would otherwise have a negative impact on the transactions due to having assets that pay fixed rates but liabilities that pay floating rates. However, when a transaction amortises slower than anticipated, interest rate risk caps (the notional of which are established based on servicers' collections expectations) become insufficient to cover the increased expenses stemming from (1) rising rates combined with (2) notes' higher-than-anticipated outstanding balances.

As Exhibit 1 shows, Euribor increased substantially over the last year but we forecast it will recede again starting in Q3 2024, thus reducing some of the negative impact of rising rates on unhedged transactions. However, because NPL transactions typically pay semiannual coupons, transaction performance has not yet reflected much of the rate increase.

Exhibit 1

We forecast a decline in the ECB refinancing rate beginning in 2024

Quarterly ECB refinancing rate and Euribor, actual and forecast*



*Dotted lines represent MIS forecasts
Source: Moody's Investors Service

In this report, we focus on GACS transactions because of their structural similarities. However, some of the other Italian non-performing transactions are also underperforming and becoming under-hedged. The negative impact of the increasing Euribor will need to be assessed on a case-by-case basis.

A number of transactions will be under-hedged by their next payment dates

Of the 28 GACS transactions we currently rate for which original senior note is outstanding (out of the 46 issued)[2] seven will be under-hedged by their next interest payment date, with interest rate cap notional amounts on average accounting for just 73% of senior notes' outstanding principal (see Exhibit 2). By the time senior notes become under-hedged, junior notes would be completely unhedged to the extent that they were even covered by the same interest rate caps. Many of GACS transactions' mezzanine tranches are already deferring interest payments because of transactions' weak performance.

Exhibit 2

Rate caps cover an average of 73% of under-hedged GACS transactions' senior outstanding balances

Minimum, maximum and average rate cap coverage for Class A balances among GACS transactions we rate

	Class A cap notional lower than Class A outstanding	Class A cap notional higher than Class A outstanding*	Total
Number of transactions	7	21	28
Average	73%	138%	121%
Minimum	34%	104%	34%
Maximum	95%	187%	187%

* including eight deals with notional referring to both senior and mezzanine notes.
Source: Moody's Investors Service

The scenario analysis below quantifies the negative impact of a persistent high Euribor on the amortization of the senior notes and amount of collections to be used to pay the coupon on the senior notes.

In total, 12 transactions are underperforming initial servicer expectations (in terms of gross collections) by at least 10%, including five by more than 40%. However, of those 12, five will remain fully hedged at least through their next interest payment date.

GACS transactions mitigate interest rate risk differently

Although rate caps are the primary tool GACS transactions use to mitigate interest-rate risk, these caps work in different ways, and issuers sometimes complement them with other mechanisms.

The notional amount of the interest rate cap agreement is defined either as (1) a scheduled absolute amount amortizing over time,[3] or (2) the lower of the relevant class of notes and the scheduled notional amount. Sometimes, the mezzanine note is unhedged, but the structure foresees a partial subordination of interest in the waterfall. Rate caps typically cover only a transaction's senior tranche, but in some cases they cover both the senior and mezzanine tranches, which provides significantly more protection to the senior notes in the event a transaction underperforms. When rate caps do not cover the mezzanine tranche, the Euribor component of the mezzanine note is sometimes subordinate to the reimbursement of the senior note, providing further protection to senior notes.

The interest rate caps may include (1) a flat or increasing strike (see Exhibit 7); or (2) a spread cap combined with an interest rate cap on the notes (see Exhibit 8).

Because of the way caps are structured, some transactions' senior notes will become completely unhedged by 2026, regardless of performance, when the scheduled notional reaches zero, which is typically 8-to-17.5 years (12 years on average) after closing.

In 23 out of 28 GACS transactions, as per their last investor reports, the cap counterparty is making a payment to the issuer.[4]

Spread cap agreements combined with senior note interest rate caps are stronger mitigants to rising rates in case of under-hedging

To illustrate the impact of becoming under-hedged, we created two hypothetical GACS transactions with the two most commonly used rate caps: one with an increasing strike (Deal 1) and one with a spread cap combined with contractual Euribor due on the senior notes being capped in line with the strike of the payer leg of the spread cap (Deal 2). In other words, the cap counterparty is making net payments to the issuer when the Euribor is between the lower and higher band of the interest rate spread cap. When the Euribor is above the higher band, the issuer is unhedged, but no payments are also due to the investors, because the Euribor is also capped at the same level in accordance with structural documentation.

Based on our analysis, all else being equal, a spread cap agreement in combination with interest rate caps is a stronger mitigant to rising interest rates than an increasing strike in the case of under-hedging. This is the case as a lower portion of available funds need to be diverted from reimbursing the senior notes to payment of the senior notes' coupons.

Scenario assumptions

For each hypothetical deal we assume identical capital structures (Exhibits 3 and 4), 40% underperformance (meaning portfolios for which net collections are around 60% of initial expectations per original business plans), and mezzanine interest deferral triggers set at 90% of collections per original business plans.

Finally, we consider floating rate senior notes (as per GACS decree[5]) and a 6-month Euribor equal to the historical value up to the deals' 10th payment dates, and 4% afterwards, comparable to the ECB reference rate in 2008 Q1 and Q2.

Exhibit 3
Hypothetical GACS transaction capital structure*

Tranche	Coupon	Size/GBV	Size (M)
Senior	Euribor 6M + 70bps	22.0%	220.0
Mezzanine	Euribor 6M + 800bps	3.0%	30.0
Junior	Euribor 6M + 1200bps	1.0%	10.0

*Both Class A and B coupons are floored at zero, giving benefit to negative interest rates and first payment dates as of 31 December 2018
Source: Moody's Investors Service

Exhibit 4
Hypothetical GACS fee and cash reserve assumptions

GBV (M)	GACS fee 1-3 years	GACS fee 4-5 years	GACS fee 6-7 years	GACS fee 8+ years	Cash Reserve Amount	Cash Reserve Interest
1000	70 bps	185 bps	325 bps	125 bps	4.00% of Class Senior	1.00%

Source: Moody's Investors Service

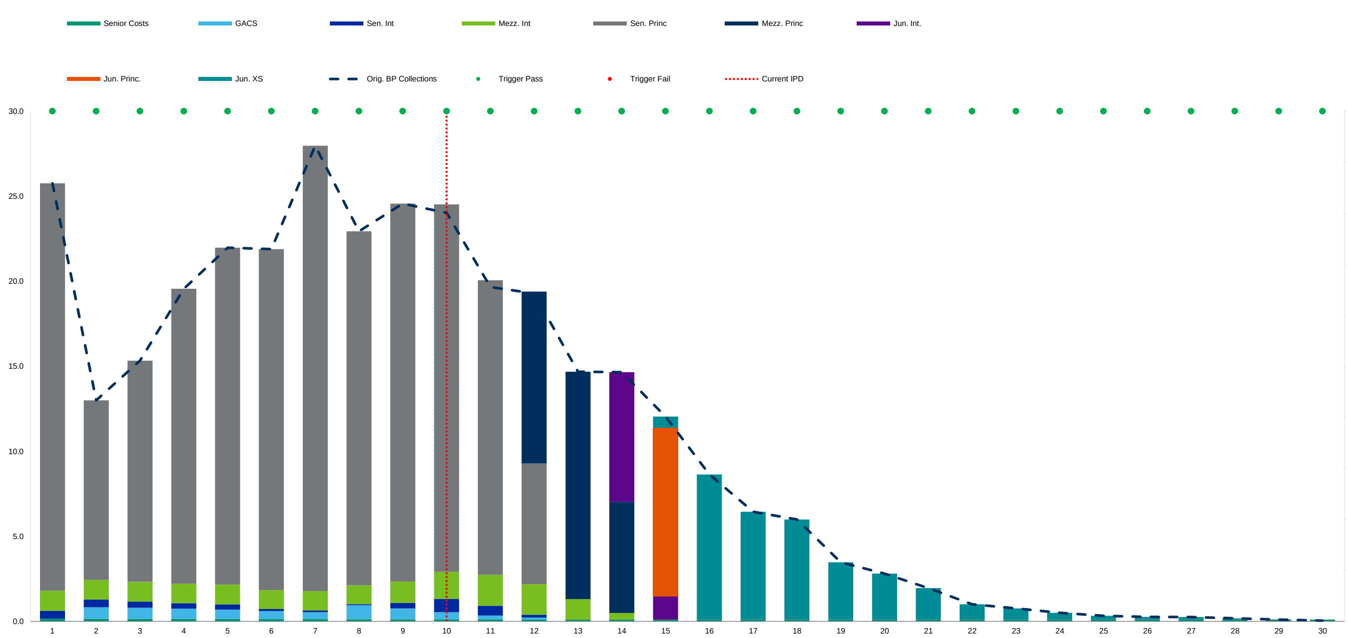
Key takeaways of our analysis include:

» Both deals' senior notes become under-hedged 10 semesters after closing, becoming more severely under-hedged every payment period until the senior note is fully unhedged upon the swap agreement's termination (see Exhibit 7 and 8).

» From Period 10 onwards, a significant portion of both deals' available funds is diverted from reimbursing the senior notes to payment of the senior notes' coupons (Exhibit 10 and 11). However, Deal 1 (46% of net collections) diverts more than Deal 2 (23%) by Period 20.

For comparison purposes with Exhibit 9, Exhibit 5 below shows the waterfall application assuming performance in line with the original business plan for all collection periods. In this scenario, the senior notes are always fully hedged, senior notes are fully repaid in period 12 and mezzanine notes are fully repaid shortly afterwards.

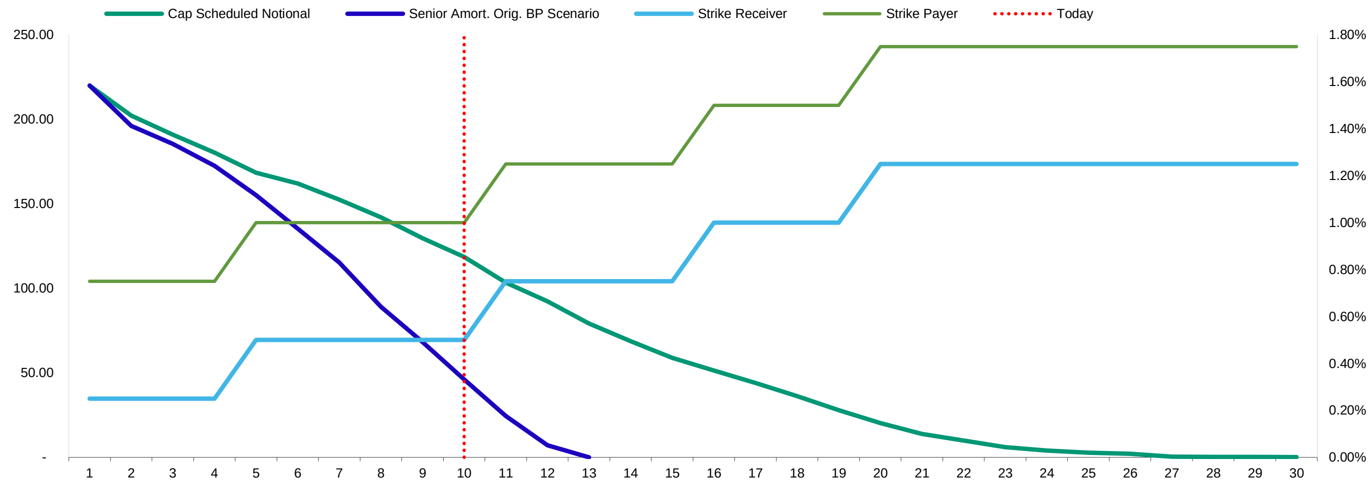
Exhibit 5
Waterfall application in line with servicer's initial expectations*



Only Deal 1's waterfall is showed, but Deal 2's waterfall varies only marginally in this scenario.
Source: Moody's Investors Service

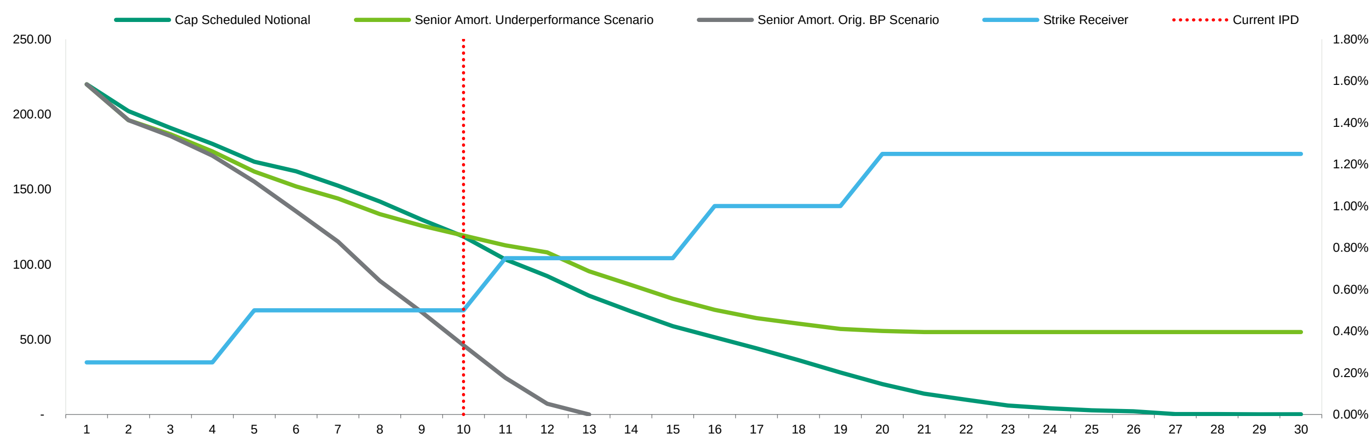
Both structures also benefit from a cap with the notional amount decreasing over time, with the notional amount corresponding with senior notes outstanding only at the first payment date (Exhibit 6). We assume an increasing interest rate cap strike (light blue) for Deal 1 and a spread cap with a band for Deal 2 (light blue for the receiver strikes, and light green for the payer strikes), as Exhibit 6 shows. In other words, in Deal 2 the issuer will receive payments from the cap counterparty if Euribor is between the two strikes. The higher strike corresponds to the cap applied to the Euribor component of the senior note coupon.

Exhibit 6
Deal 1 and 2 cap scheduled notional amounts and strikes*



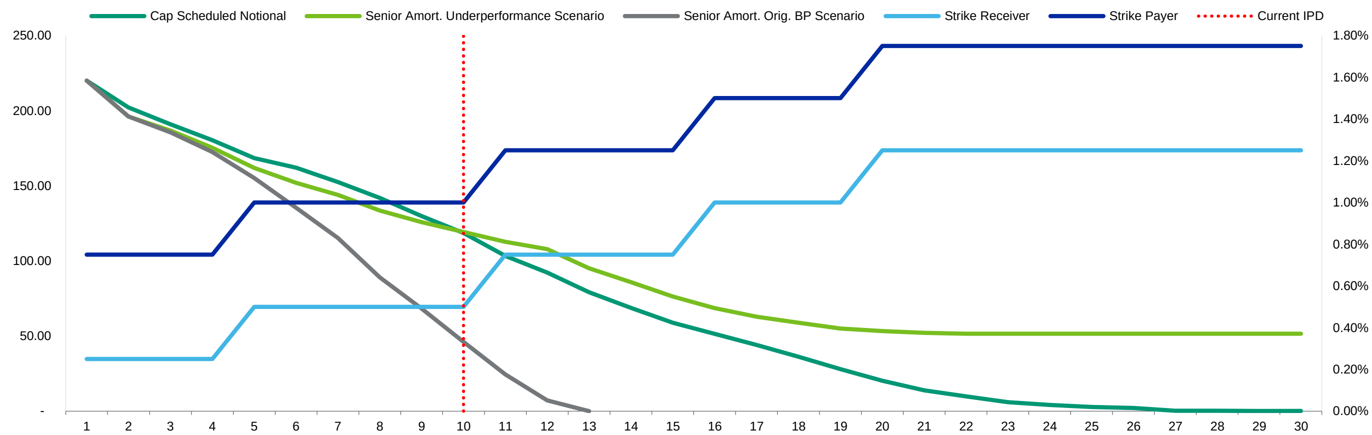
*Deal 1 and 2 share the same receiver strikes. The payer strikes apply only to Deal 2.
Source: Moody's Investors Service

Exhibit 7
Deal 1: Senior note amortisation under strong and weak performance compared with notional balance



Source: Moody's Investors Service

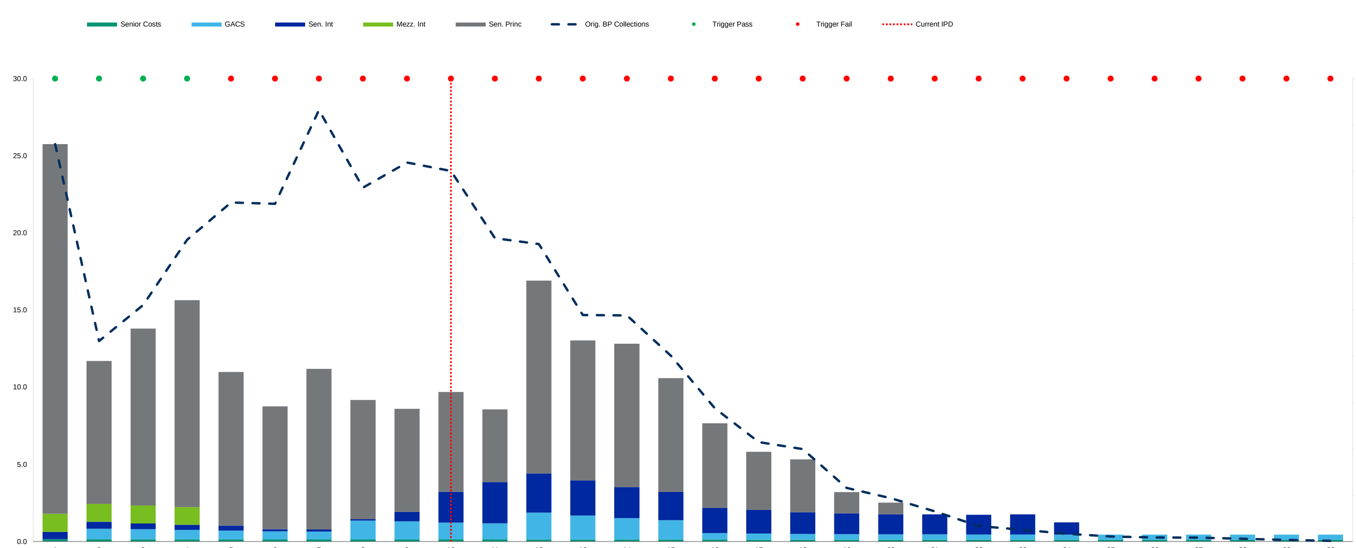
Exhibit 8
Deal 2: Senior note amortisation under strong and weak performance compared with notional balance



Source: Moody's Investors Service

In our hypothetical scenario of 40% underperformance, senior notes take longer to repay compared to the scenario of performance in line with the original business plan as Exhibit 9 below shows compared to Exhibit 5.

Exhibit 9
Deal 1 waterfall application with 40% underperformance and no senior note cap



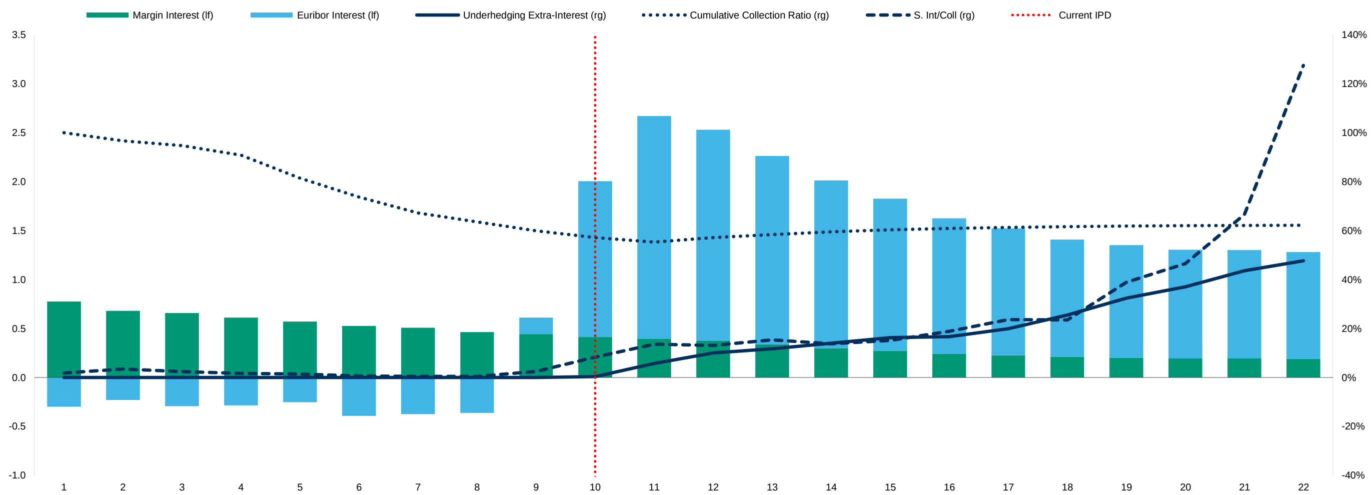
* Showing Deal 1 cashflows as worst case scenario
Source: Moody's Investors Service

Both deals benefited from negative interest rates up to the 8th pay period, reducing the final coupon due to investors, but still resulting in a positive coupon.

Interest due to noteholders gradually increased as Euribor turned positive, starting in the 9th pay period and eventually reaching 4% by the 10th pay period (Exhibit 10 and 11). However, the Euribor component of interest expenses grows more for Deal 1 (totaling €2.3 million by the 11th pay period compared with €0.7 million for Deal 2). By the 20th pay period, the percentage of net collections required to pay the senior interest is 46% in Deal 1 compared to 23% in Deal 2; meaning the spread cap agreement is a stronger mitigant to rising interest rates in the event of under-hedging.

Exhibit 10

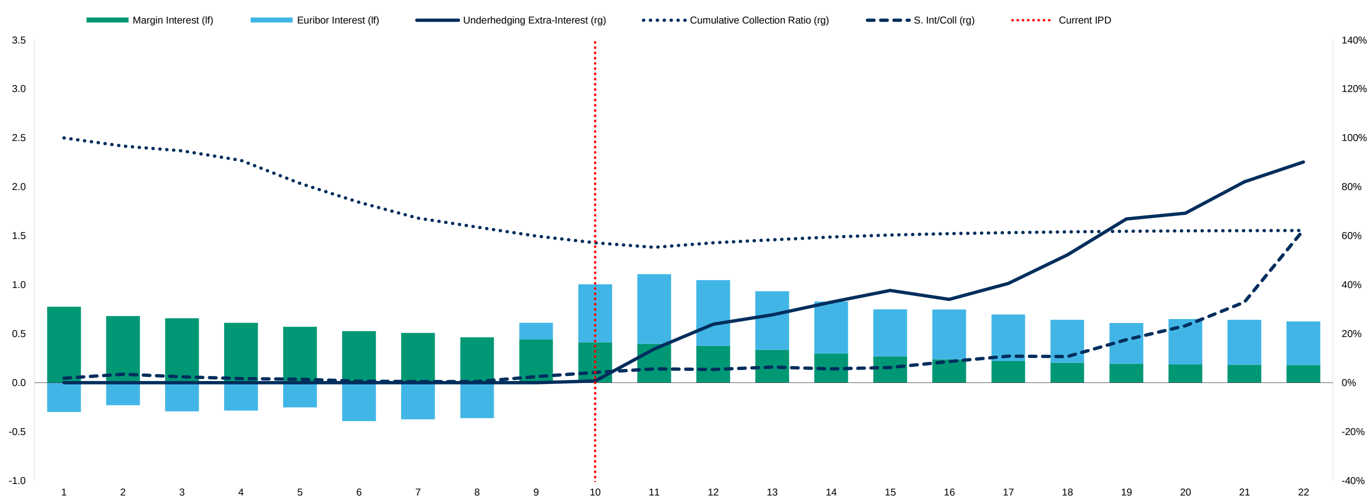
Deal 1: Collections needed to pay senior interest grow over time



Bars (left axis) show the absolute amount due as senior interest.
Dashed line (right axis) represents the proportion of senior interest due as a percentage of the actual collections.
Continuous line (right axis) shows the proportion of the variable component component of the coupon due on the notes (indexed on Euribor) not hedged by the cap agreement.
Dotted line (right axis) represents our assumption on the cumulative collection ratio.
Source: Moody's Investors Service

Exhibit 11

Deal 2: Collections needed to pay senior interest are lower, but still grow over time



Bars (left axis) show the absolute amount due as senior interest. Until the 8th payment date, the note benefits from the negative interest rate.
From the 10th payment date, the Euribor component is the main component of the senior interest.
Dashed line (right axis) represents the proportion of senior interest due and the actual collections.
Continuous line (right axis) shows the proportion of the variable component component of the coupon due on the notes (indexed on Euribor) not hedged by the cap agreement.
Dotted line represents (right axis) our assumption on the cumulative collection ratio.
Source: Moody's Investors Service

Endnotes

1 Although GACS transactions' senior tranches are fully guaranteed by the Italian government, we do not consider any potential benefit from the guarantee in our analysis.

2 Relazione sull'andamento delle operazioni assistite dalla garanzia dello stato sulla cartolarizzazione delle sofferenze (GACS) e sugli obiettivi di performance collegati all'esercizio finanziario 2021, MEF 2022

3 The amortization of this amount is typically driven by the expected collections according to the servicer's original business plan

4 The cap counterparties in the Italian NPL transactions are highly rated banks. The key cap counterparties are J.P. Morgan Securities AG (Aa1(cr)/P-1(cr)), Banco Santander SA (A2(cr)/P-1(cr)), Intesa SanPaolo S.p.A. (Baa1(cr)/P-2(cr)), and Unicredit Bank AG (A1(cr)/P-1(cr)).

5 The GACS decree has been later amended.

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