

The Forensic Carbon Accountant: Snam SpA SLB

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Snam, an Italian gas transport and storage company, has issued several ESG-labelled bonds in the last few years. Its recent deal in February 2024 comprised one green bond and one Sustainability-Linked Bond (SLB), which was reportedly well received by the market.[1]

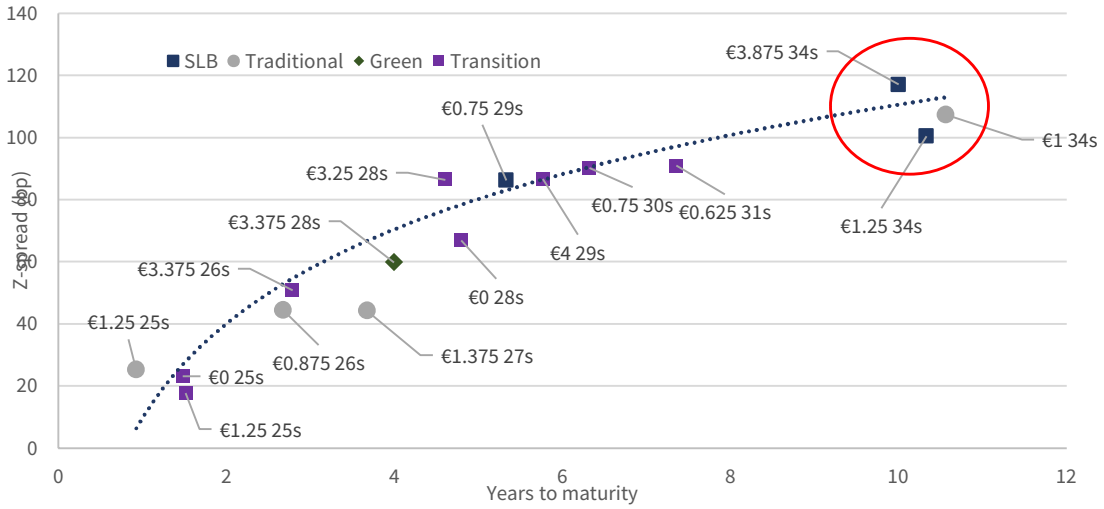
Snam's use of ESG-labelled debt shows a commitment to investor dialogue on sustainability. SLBs in particular offer a chance to increase transparency and accountability around transition targets.

However, "what you don't measure, you can't manage".[2] Snam's Scope 3 emissions reporting, referenced in the latest SLB, does not include emissions from transported gas. This denies investors a full picture of the environmental impact of its business.

We analyse its bonds, and provide the following conclusions for investors:

- Snam's recent SLB builds on its earlier issuance. The Scope 1 + 2 emissions target is less ambitious, calibrated from a baseline in 2022; however, it includes a target on reported Scope 3 emissions.
- Snam's emissions reporting does not include the emissions from its transported gas, estimated at over 60x its reported emissions. This limits transparency into the full impact and transition plans for its business.
- Current pricing suggests the market is assigning value to the step-up option on Snam's legacy 10y SLB, which is tighter than an equivalent vanilla bond. Its most recent SLB is currently pricing wider than the curve, despite the extra Scope 3 emissions target, and may offer value for investors.

Figure 1. Snam bond spreads. Source: Bloomberg, accessed 22 Feb 2024.



[1] "Snam steps away from transition bonds with green, SLB deal", Environmental Finance, 13 Feb 2024.

[2] Generally attributed to Austrian-American management consultant Peter Drucker.

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Introduction

Snam SPA (ticker SRGIM), an Italian gas transport and storage company, issued a dual tranche labelled bond deal on 12 Feb 2024,[3] covered under the same Sustainable Finance Framework (SFF).[4]

One was its first green bond, €0.5bn with 4y maturity with proceeds designated for green infrastructure, green gases, green buildings and energy efficiency. The other was its third Sustainability-Linked Bond (SLB), €1bn with 10y maturity and KPIs linked to reducing Scope 1, 2 and 3 emissions. The overall deal was reported as over 4x oversubscribed.[3]

Prior to this, Snam issued eight transition bonds and two SLBs under an earlier transition bond framework,[5] and SFF.[6] For full details of the outstanding bonds please see Table 3 in the Appendix.

Snam emissions

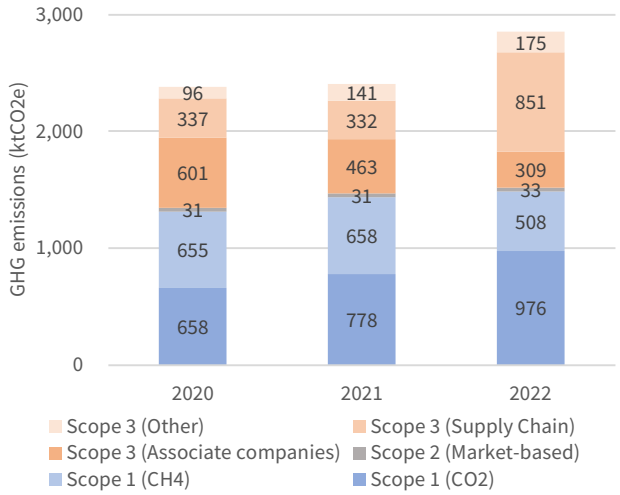
Figure 2 shows Snam's reported emissions for Scope 1, 2 and 3.

In Scope 1 (direct emissions), the main sources are gas leaks from its pipelines, and gas burnt to fuel the compressors that propel gas along the pipelines. In 2022, Scope 1 represented 52% of reported emissions.

Snam's direct reporting associates the majority of Scope 3 emissions with its associate companies and supply chain.

Note, emissions have been rising year-on-year, in virtually all categories.

Figure 2. Snam reported emissions. Source: Snam.



Emissions of transported gas

When trying to break down Snam's Scope 3 emissions, more details are given in its 2019 CDP disclosure (as shown in Table 1 overleaf).[7] 68% is attributed to investments, 18% to purchased goods and services and 10% to fuel and energy-related activities.

Snam's reported Scope 3 emissions do not include the emissions generated when the gas it transports and stores is burnt. There does seem to be a lack of consensus on how to disclose emissions associated with transported product for European Transmission System Operators

[3] "Snam: successfully launched 1.5 billion euros sustainable financing", Snam, 12 Feb 2024.
[4] "Sustainable finance framework 2024", Snam, 9 Feb 2024.
[5] "Transition bond framework", Snam, 9 Jun 2020.
[6] "Sustainable finance framework 2021", Snam, 29 Nov 2021.
[7] CDP, formerly the Carbon Disclosure Project, is an NGO supporting environmental impact disclosure. Please see "Snam S.P.A – Climate Change 2023", CDP, accessed 21 Feb 2024.

(TSOs). For oil & gas producers, for example, equivalent emissions are disclosed under Scope 3 Category 11 'Use of sold products'. This category is not calculated for Snam.

In the CDP disclosure Snam argues: *"With reference to the Scope 3 category 'Use of sold products' Snam is responsible for the management of the infrastructure. However, we are not a gas distributor, since we do not purchase or sell gas, we do not have any contact with the final users or any commercial contact with gas producers."*

Table 1. Snam CDP 2019 disclosure. Source: CDP.

Category	Description	Scope 3 emissions (tCO2e)
1	Purchased goods and Services	42,545
2	Capital goods	174,510
3	Fuel and energy-related activities (not in Scope 1 + 2)	94,037
4	Upstream transportation and distribution	1,486
5	Waste generated in operations	901
6	Business travel	5,181
7	Employee commuting	2,111
8	Upstream leased assets	199
9	Downstream transportation and distribution	not calculated
10	Processing of sold products	not calculated
11	Use of sold products	not calculated
12	End of life of sold products	not calculated
13	Downstream leased assets	not calculated
14	Franchises	not calculated
15	Investments	666,665

Updated guidance from CDP in Jan 2022 detailed the 'Throughput Method': *"Companies which handle oil and gas products but do not own the products themselves should calculate their Scope 3 category 11 emissions based on the throughput of these products through their operations."*[8] We would hope updated CDP disclosure for Snam will include such figures, even if not included in the SLB targets.

The Institute for Energy Economics and Financial Analysis (IEEFA) estimated that the downstream emissions of combusting Snam's transported gas was 143 $MtCO_2e$ in 2019,[9] around 144x its reported Scope 3 emissions in 2019. Snam's injected gas volume in 2022 was +0.04% compared to 2019, [10] and so this is still a good estimate of the emissions of its transported gas. Using 2022 numbers, this represents over 60x its reported emissions.

Not giving investors oversight of these emissions means there can be no transparency around its transition from fossil gas to more sustainable alternatives.

Snam transition plan

Snam's transition plan as detailed in its 2024 SFF covers Scope 1, 2 and 3 emissions. Scope 1 + 2 emissions have reduction targets to 2027, 2030 and 2032, and Scope 3 emissions have targets to 2030 and 2032. This is considered aligned with the generic SBTi methodology,[11] and has been assessed by Moody's and assigned a NZ-3 score.[12]

[8] "CDP Technical note: Guidance method for estimating of Scope 3 category 11 emissions for oil and gas companies", CDP, updated 21 Jan 2022.
[9] P10 of "Hiding in Plain Sight – European Gas Pipeline Companies' Greenhouse Gas Emissions", IEEFA, Dec 2020.
[10] P19 of "Climate Change Report 2022", Snam, accessed 23 Feb 2024.
[11] "Carbon neutrality and Net Zero", Snam, accessed 22 Feb 2024.
[12] "Net Zero Assessment", Moody's Investor Services, 7 Feb 2024.

The Moody's Net Zero Alignment (NZA) assessment is a new framework for scoring transition plans, linked to IEA pathways for broad categories. It notes the omission of emissions coming from transported gas, and therefore *"the limited visibility over the long-term decline of the transport of natural gas currently at the heart of Snam's business."*[12] This drives a reduced score for GHG Governance, which results in a one-notch lower overall score.

In general, transition for midstream operators, such as Snam, has not been as highly scrutinised as for upstream producers. The Science Based Targets iniative (SBTi), an NGO offering validation of transition plans, has not finalised its overall oil & gas methodology,[13] and it is unclear that midstream operators will even be covered in this framework.[14]

Preparing its infrastructure for H_2 and green gases is mentioned as an objective in Snam's Climate Change Report,[10] as are investments in Carbon Capture Use and Storage (CCUS). Snam commits to follow the Ten-Year Network Development Plan (TYNDP) from the European Network of Transmissions Operators for Gas (ENTSOG) of which Snam is a member. These scenarios are reported to have been developed in accordance with the Paris Agreement, and mention a reduction of emissions of 55% from 1990 to 2030.

However, we do not see a firm target set by Snam on shifting the contents of its pipelines and storage vessels away from fossil gas. We agree with IEEFA's earlier analysis that the company cannot claim to be net zero without this transition.[9]

Snam SpA Sustainability-Linked Financing Framework

Snam's first framework, issued in 2021, had three KPIs; KPI1 to reduce natural gas emissions (i.e. leaks), KPI2 to reduce Scope 1 + 2 emissions, and KPI3 to reduce Scope 3 emissions in four reported categories. KPI1 and 2 were used in its first two SLBs.

Snam's second framework, issued in 2024, had four KPIs; KPI2 to reduce natural gas emissions (i.e. leaks), KPI2 to reduce Scope 1 + 2 emissions, KPI3 to reduce Scope 3 emissions in nine reported categories and KPI4 to increase women in management roles. Targets for KPI1, KPI2 and KPI3 have been updated to reflect a baseline move to 2022, and increased coverage of Scope 3 emissions. KPI2 and 3 were used in the latest SLB.

Outstanding SLBs

Table 2 shows Snam's outstanding SLBs alongside their Sustainability Performance Targets (SPTs); the first two were issued until its 2021 SFF, and the most recent under the 2024 SFF.

The two SFF share one KPI, Scope 1 + 2 emissions. In the updated framework, the targets were re-baselined from 2018 to 2022. This results in two bonds' exposure to the same KPI but with different targets.

The 1.25% 34s will pay 25bp for three years if Scope 1 + 2 emissions do not fall by 50% from 2018 to 2030. The original baseline was re-stated in 2023.[16] Combining these documents, we calculate an absolute target in 2030 of 789.5 $ktCO_2e$.

The recently issued bond, the 3.875% 34s will pay 25bp for three years if Scope 1 + 2 emissions do not fall by 40% from 2022 to 2030. This corresponds to an absolute target of 911 $ktCO_2e$, which is

[13] "What is the SBTi's policy on fossil fuel companies?", SBTi, accessed 22 Feb 2024.
[14] As reported on p3 of "Decarbonising Gas Networks (Part 1): Snam", Carbon Tracker, 8 Feb 2024.

15% higher. Note this bond will also pay a one-off 25bp premium at maturity if the Scope 3 target, to reduce by 35% in 2032, is not met. It is a positive development to see Scope 3 emissions targets included in an SLB.[1,15]

Table 2. Snam outstanding SLBs. Source: Bloomberg, accessed 21 Feb 2024.

Description	ISIN	Maturity	SFF	SPT1	SPT2	Max cumulative non-discounted step	Amount Outstanding (€bn)
SRGIM €0.75 29s	XS2433211310	20-Jun-29	2021	-40% Scope 1+2 in 2027 (2018 baseline)	55% Natural Gas emissions in 2025 (2019 baseline)	0.75%	0.85
SRGIM €1.25 34s	XS2433226854	20-Jun-34	2021	-50% Scope 1+2 in 2030 (2018 baseline)	n/a	0.75%	0.65
SRGIM €3.875 34s	XS2767499945	19-Feb-34	2024	-40% Scope 1+2 in 2030 (2022 baseline)	-35% Scope 3 in 2032 (2022 baseline)	1.00%	1.00

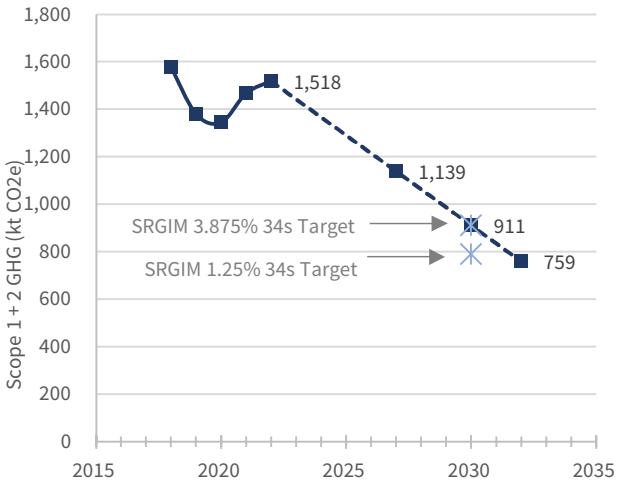
It is rare to see two bonds, with a similar maturity, the same KPI and observation date, but a different target. This gives an opportunity to observe market pricing on the structures.

KPI2 performance

Figure 3 shows historic figures for Scope 1 + 2 emissions, the KPI that has been used for every bond. The reporting on this by Snam is inconsistent, with historic figures varying in every document. We have used the 2022 Annual Report (with market-based Scope 2 emissions) for 2020/2021/2022 data and the 2021 Annual Report for 2019 data. The 2018 figure (the baseline for the 2021 SLFF) was restated in Jul 2023 and verified by ISS ESG, so we have used this.[16]

Both 2034 SLBs have targets on this KPI in 2030. The targets are linked to separate baselines, but our calculations show that the earlier target, used for the 1.25% 2034 target, is more aggressive.

Figure 3. Snam Scope 1 + 2 emissions historic figures and targets. Source: Snam 2021 and 2022 Annual Report, 2024 SFF and 2021 SFF baseline restatement letter.



The trend from 2018 to 2022 is a small overall reduction but with significant volatility. To achieve the targets a shift in trajectory is needed, towards material reductions.

Market pricing

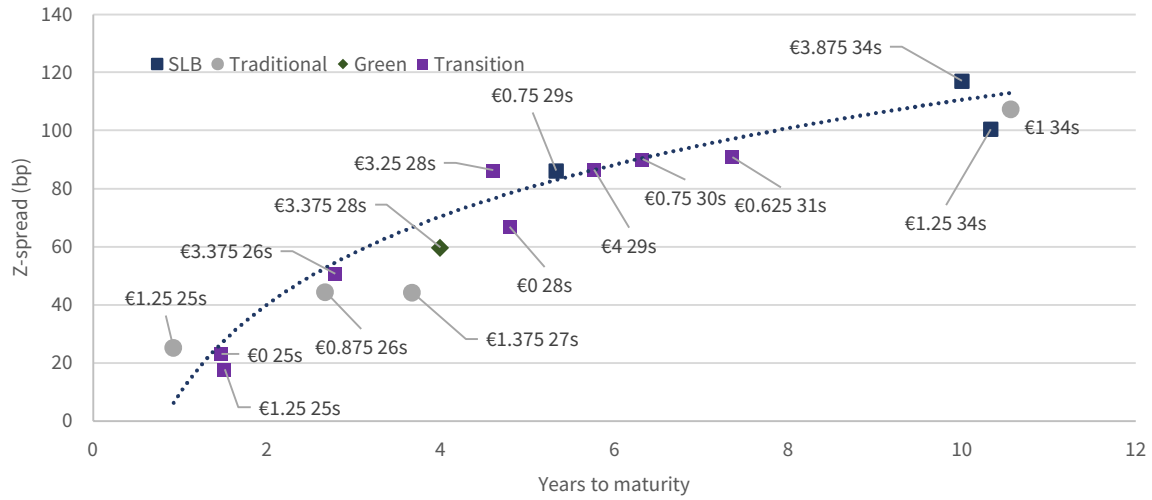
Figure 4 (overleaf) shows current market levels for the outstanding Snam bonds. The new SLB (3.875% 34s) is pricing just under 20bp wider than the old SLB (1.25% 34s). New bonds are often priced with a New Issue Premium (NIP), i.e. they pay a more generous spread to encourage

[15] For some other examples of SLBs using Scope 3 targets please see "Sustainability-Linked Bonds bumper week", AFII, 11 Sep 2023 and "Carrefour: 1 SLB, 2 KPIS, 3 Scopes of emissions included", AFII, 2 May 2023.
[16] Please see "Confirmation Letter", ISS ESG, 21 Jul 2023.

investors to buy the bonds. This bond was priced on 12 Feb 2024, and we would expect such a premium to dissipate quickly.

The new SLB has a less ambitious target, which means it is more likely to be achieved, and therefore less likely to pay a step-up coupon. Nevertheless, it also has a second KPI, with a potential premium payment of 0.25%, which also seems not to be valued by the market.

Figure 4. Snam bond spreads. Source: Bloomberg, accessed 22 Feb 2024.



SLB option pricing

If an investor has a chance of receiving a step-up coupon in the future, they should rationally accept a lower spread in the present. This difference represents the discounted probability-weighted step-up.[17] As Figure 2 and Figure 3 show, Snam's current emissions trend is upwards. The SPTs for 2034 bonds are in 2030/2032, so there is an opportunity for a trajectory shift, but so far there is limited evidence that the proposed emissions reduction strategies will achieve the desired results.

The market spreads for SLBs, compared to non-Sustainability-Linked debt, can show how investors are valuing these step-ups, and how likely the market believes the targets are to be missed.

The 1.25% 34s has the most ambitious Scope 1 + 2 target. If we consider a 75% probability of this being missed, the option is worth 5bp running, and this may explain the pricing difference compared to the 1% 34s, a traditional bond.

The pricing of the new bond, the 3.875% 34s, is hard to explain through option pricing. It has an extra KPI linked to the Scope 3 target, and while its Scope 1 + 2 target is 15% higher, it would still require a significant shift in emissions trajectory.

In summary, the old 10y SLB, the 1.25% 34s, by trading tight to a comparable vanilla bond, implies the market is valuing the step-up option, and believes the target to be ambitious. The new 10y SLB, the 3.875% 34s, has less ambitious targets, but this is not enough to explain its wide spread. This bond offers value given recent emissions trends from Snam suggest a trajectory shift is needed to achieve its reduction targets.

[17] For full details please see "An option pricing approach for Sustainability-Linked Bonds", AFII, 8 Nov 2022.

Conclusions

Snam, a European gas pipeline operator, is a frequent issuer of ESG-labelled bonds, bringing its first green and third SLB in early Feb 2024. The new SLB builds on its earlier financing framework with updated targets, and a Scope 3-linked KPI.

Snam's emissions reporting does not include the emissions from its transported gas, estimated as over 60x its reported emissions. While Snam may not have direct influence over this activity, by not reporting the figures investors are denied transparency into the full impact of Snam's business. By not setting targets to reduce its fossil gas transport and storage, Snam is not enabling a complete transition.

Current market pricing suggest investors are valuing the option of its legacy 10y SLB, which is trading tighter than an equivalant vanilla bond. This bond has a Scope 1 + 2 target which is more ambitious that the most recently issued security.

The new SLB is pricing with a wide spread, despite its (slightly less) ambitious target still representing a significant trajectory shift on Snam's direct emissions, and a new target on reported Scope 3 emissions.

Appendix – Snam outstanding bonds

Table 3. Outstanding Snam bonds. Source: Bloomberg, accessed 22 Feb 2024.

Description	ISIN	Issue Date	Maturity	Bond Type	Currency	Amount Outstanding (bn)
SRGIM €0.875 26s	XS1505573482	25-Oct-16	25-Oct-26	Vanilla	EUR	1.25
SRGIM €1.25 25s	XS1555402145	25-Jan-17	25-Jan-25	Vanilla	EUR	0.27
SRGIM €Float 24s	XS1657785538	02-Aug-17	02-Aug-24	Vanilla	EUR	0.11
SRGIM €1.375 27s	XS1700721464	25-Oct-17	25-Oct-27	Vanilla	EUR	0.55
SRGIM €1.25 25s	XS1957442541	28-Feb-19	28-Aug-25	Transition	EUR	0.50
SRGIM €1.625 30s	XS2005658781	07-Jun-19	07-Jan-30	Vanilla	EUR	0.25
SRGIM €0 24s	XS2051660335	12-Sep-19	12-May-24	Vanilla	EUR	0.70
SRGIM €1 34s	XS2051660509	12-Sep-19	12-Sep-34	Vanilla	EUR	0.60
SRGIM €0.75 30s	XS2190256706	17-Jun-20	17-Jun-30	Transition	EUR	0.75
SRGIM €0 28s	XS2268340010	07-Dec-20	07-Dec-28	Transition	EUR	0.60
SRGIM €0 25s	XS2300208928	15-Feb-21	15-Aug-25	Transition	EUR	0.50
SRGIM €0.625 31s	XS2358231798	30-Jun-21	30-Jun-31	Transition	EUR	0.50
SRGIM €0.75 29s	XS2433211310	20-Jan-22	20-Jun-29	SLB	EUR	0.85
SRGIM €1.25 34s	XS2433226854	20-Jan-22	20-Jun-34	SLB	EUR	0.65
SRGIM €3.375 26s	XS2562879192	05-Dec-22	05-Dec-26	Transition	EUR	0.30
SRGIM €3.25 28s	XS2693301124	29-Sep-23	29-Sep-28	Transition	EUR	0.50
SRGIM €4 29s	XS2725959683	27-Nov-23	27-Nov-29	Transition	EUR	0.65
SRGIM €3.375 28s	XS2767499275	19-Feb-24	19-Feb-28	Green	EUR	0.50
SRGIM €3.875 34s	XS2767499945	19-Feb-24	19-Feb-34	SLB	EUR	1.00

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