17) ASSETS HELD FOR SALE

Assets held for sale (€10 million) relate to a 6% share in the associate company Senfluga, reclassified following the agreements signed by the shareholders of Senfluga for the sale of a 10% stake in it, proportional to the stake held by each shareholder. In conformity with the provisions of IFRS 5 "Non-current assets Held for Sale and Discontinued Operations", the above-mentioned stake was recorded under assets held for sale and valued at the lower of the book value and the fair value, excluding any sales costs. The completion of the transaction, subject to the approval of the Greek regulator, took place on 13 January 2020, following a payment of €16 million (€10 million as Snam's share), pegged at the values of the transaction concluded by Snam in December 2018. Following the above-mentioned sale, the percentage of Snam's equity investment in the capital of Senfluga is 54%.

18) SHORT-TERM FINANCIAL LIABILITIES, LONG-TERM FINANCIAL LIABILITIES AND SHORT-TERM PORTIONS OF LONG-TERM FINANCIAL LIABILITIES

Short-term financial liabilities, amounting to €2,456 million (€1,976 million at 31 December 2018), and *long-term financial liabilities*, including short-term portions of long-term liabilities totalling €12,318 million (€11,444 million at 31 December 2018), break down as follows:

	31.12.2018					31.12.2019				
		Long-term financial liabilities					Long-term financial liabilities			
(millions of €)	**Short-term financial liabilities**	**Short-term portion**	**Long-term portion maturing within 5 years**	**Long-term portion maturing in more than 5 years**	**Total long-term portion**	**Short-term financial liabilities**	**Short-term portion**	**Long-term portion maturing within 5 years**	**Long-term portion maturing in more than 5 years**	**Total long-term portion**
Bonds		913	4,408	3,125	7,533		**1,439**	**3,800**	**3,809**	**7,609**
Bank loans	1,751	744	1,175	1,079	2,254	**455**	**230**	**1,798**	**1,221**	**3,019**
Euro Commercial Paper - ECP	225					**2,001**				
Lease liabilities							**6**	**11**	**4**	**15**
	1,976	**1,657**	**5,583**	**4,204**	**9,787**	**2,456**	**1,675**	**5,609**	**5,034**	**10,643**

Short-term financial liabilities

Short-term financial liabilities, standing at €2,456 million (€1,976 million at 31 December 2018) mainly relate to the use of floating rate uncommitted bank lines of credit (€450 million) and the issuing of unsecured short-term bonds (Euro Commercial Papers) issued by the money market and placed with institutional investors (€2,001 million). The increase compared with 31 December 2018 of €480 million is mainly due to the issuing of Euro Commercial Papers (€1,775 million) partly offset by the lower net use of lines of credit (-€1,301 million).
There are no short-term financial liabilities denominated in currencies other than the euro.
The weighted average interest rate on short-term financial liabilities was -0.11% (-0.04% for 2018).
The market value of short-term financial liabilities is the same as their book value.

Long-term financial liabilities and short-term portions of long-term financial liabilities

Long-term financial liabilities, including the short-term portion of long-term liabilities, amounted to €12,318 million (€11,444 million at 31 December 2018). The breakdown of bond loans (€9,048 million), indicating the issuing company, the year of issue, the currency, the average interest rate and the maturity, is provided in the following table.

(millions of €)

Issuing company	Issued (year)	Currency	Nominal amount	Adjust-ments (a)	Balance at 31.12.2019	Rate (%)	Maturity (year)
Euro Medium Term Notes (EMTN)							
SNAM S.p.A. (b) (c) (d) (e)	2012	€	602	6	608	5.25	2022
SNAM S.p.A. (b) (c) (d) (f)	2012	€	526	16	542	3.5	2020
SNAM S.p.A. (c) (d) (e)	2013	€	259	8	267	3.375	2021
SNAM S.p.A. (c) (d) (e)	2014	€	390	9	399	3.25	2024
SNAM S.p.A. (c) (d) (e) (g)	2014	€	246	4	250	1.5	2023
SNAM S.p.A. (c) (d) (e) (h)	2015	€	195	(17)	178	1.375	2023
SNAM S.p.A.	2016	€	1,250	(5)	1,245	0.875	2026
SNAM S.p.A.	2016	€	500	(1)	499		2020
SNAM S.p.A. (e)	2017	€	393	3	396	1.25	2025
SNAM S.p.A. (i)	2017	€	300		300	0.641	2022
SNAM S.p.A. (i)	2017	€	350		350	0.836	2024
SNAM S.p.A.	2017	€	650	(2)	648	1.375	2027
SNAM S.p.A. (i)	2018	€	350		350	0.212	2020
SNAM S.p.A. (l) (e)	2018	€	595	(3)	592	1.00	2023
SNAM S.p.A.	2019	€	500	(2)	498	1.25	2025
SNAM S.p.A. (i)	2019	€	250		250	1.625	2030
SNAM S.p.A.	2019	€	700	(5)	695		2024
SNAM S.p.A.	2019	€	600	(11)	589	1.00	2034
			8,656		**8,656**		
Convertible bonds							
SNAM S.p.A.	2017	€	400	(8)	392		2022
			9,056	**(8)**	**9,048**		

(a) Includes: (i) issue commission/discount; (ii) accrued interest
(b) Bond loans subject to the 2016 liability management operation.
(c) Bond loans subject to the 2017 liability management operation.
(d) Bond loans subject to the 2018 liability management operation.
(e) Bond loans subject to the 2019 liability management operation.
(f) Bond loan subject to reopening in September 2013 for an incremental amount of €500 million, with the same interest rate and maturity as the original placement.
(g) Bond loan subject to reopening in January 2015 for an incremental amount of €250 million, with the same interest rate and maturity as the original placement.
(h) Bond loans subject to the 2015 liability management operation.
(i) Floating-rate bond, converted into fixed-rate through an IRS hedging derivative.
(l) Bond loan subject to reopening in November 2018 for an incremental amount of €300 million, with the same interest rate and maturity as the original placement.

Bond loans (€9,048 million) rose by €602 million compared with 31 December 2018 mainly following the issuing of: (i) the Climate Action Bond, for a nominal amount of €500 million, fixed rate with a maturity date of 28 August 2025; (ii) a Private Placement of a nominal amount of €250 million, fixed rate with a maturity date of 7 January 2030; (iii) a dual tranche bone with a nominal amount of, respectively, €700 and €600 million, making a total of €1.3 billion, fixed rate with maturity dates, respectively of 12 May 2024 and 12 September 2034. These changes were partly offset by: (i) by the repayment of a fixed rate bond maturing on 18 January 2019, for a nominal amount of €519 million; (ii) the repayment of a fixed rate bond loan maturing on 24 April 2019, of a nominal amount of €225 million; (iii) the repayment of a JPY 10 billion bond maturing on 25 October 2019 of a nominal amount of €83 million; (iv) the repurchase on the market of fixed-rate bonds for a total nominal value of €597 million with an average coupon of 1.3% and a residual duration of approximately 3.9 years. The total disbursement resulting from the buy back of securities as part of the Liability Management transaction, concluded in December 2019 stood at €626 million[25], including the fees paid to intermediaries and accrued interest (€5 million in total).

Payables for bank loans (€3,704 million) relate to term loans, of which €1,669 million concern European Investment Bank (EIB) funding.

There are no other long-term bank loans denominated in currencies other than the euro.

The weighted average interest rate on bank loans used (excluding loan contracts with the EIB) was 0.2%[26] (0.3% for 2018).

There were no breaches of loan agreements as at the reporting date.

The market value of long term financial debts, including the short-term portion totals €12,755 million[27] (€11,564 million at 31 December 2018).

Snam also has unused committed credit lines totalling €3.2 billion.

Financial covenants and negative pledge commitments

At 31 December 2019 Snam had unsecured bilateral and syndicated loan agreements in place with banks and other lending institutions, with the exception of some bank loans (totalling €25.9 million) relating to two subsidiaries that entered the scope of consolidation in November 2019[28].

Some of these agreements include, inter alia, compliance with typical international practice commitments, some of which are subject to specific materiality thresholds, such as, for example: (i) negative pledge commitments pursuant to which Snam and its subsidiaries are subject to limitations concerning the pledging of real property rights or other restrictions on all or part of the respective assets, shares or merchandise; (ii) pari passu and change-of-control clauses; (iii) limitations on certain extraordinary transactions that the Company and its subsidiaries may carry out; and (iv) limits on the debt of subsidiaries.

Failure to comply with these covenants, and the occurrence of other events such as cross-default events could result in Snam's failure to comply and, possibly, trigger the early repayment of the related loan. Exclusively for the EIB loans, the lender has the option to request additional guarantees if Snam's credit rating is lower than BBB (Standard & Poor's/ Fitch Ratings Limited) or Baa2 (Moody's) for at least two of the three ratings agencies.

The occurrence of one or more of the aforementioned scenarios could have negative effects on Snam Group's operations, results, balance sheet and cash flow, resulting in additional costs and/or liquidity issues.

At 31 December 2019, the financial debt subject to these restrictive clauses amounted to approximately €3.2 billion.

Bonds issued by Snam as at 31 December 2019, with a nominal value of €9.1 billion, mainly referred to securities issued under the Euro Medium Term Notes programme. The covenants established for the programme's securities are typical of international market practice and consist of, inter alia, negative pledge and pari passu clauses. Specifically, under the negative pledge clause, Snam and its material subsidiaries are subject to limitations to pledging or maintaining encumbrances on all or part of their assets or proceeds to guarantee present or future debt, unless this is explicitly permitted.

25 For more information on the operation, see the section "Snam in 2019 – Summary data and information - Main events" in the Directors' Report.
26 It excludes the depreciation of the upfront fees.
27 It includes bonds, whose value is estimated on the basis of the market listings at 31 December 2019, and financial liabilities to banks, all at floating rate, whose corresponding market value is taken as the nominal repayment value.

28 These loans were repaid in January 2020.

Breakdown of net financial debt

The breakdown of net financial debt, showing related-party transactions, is provided in the following table:

	31.12.2018			31.12.2019		
(millions of €)	Current	Non-current	Total	Current	Non-current	Total
A. Cash and cash equivalents	1,872		1,872	2,851		2,851
B. Securities available for sale and held to maturity						
C. Cash (A + B)	1,872		1,872	2,851		2,851
D. Short-term financial receivables						
E. Short-term financial liabilities to banks	1,751		1,751	455		455
F. Long-term financial liabilities to banks	744	2,254	2,998	230	3,019	3,249
G. Bonds	913	7,533	8,446	1,439	7,609	9,048
H. Short-term financial liabilities to related parties						
I. Long-term financial liabilities to related parties						
L. Other short-term financial liabilities	225		225	2,001		2,001
M. Other long-term financial liabilities (*)				6	15	21
N. Gross financial debt (E + F + G + H + I + L + M)	3,633	9,787	13,420	4,131	10,643	14,774
O. Net financial debt (N - C - D)	1,761	9,787	11,548	1,280	10,643	11,923

(*) The value includes financial payables for leased assets recorded pursuant to IFRS 16 "Leasing".

Reconciliation of net financial debt

In compliance with the provisions of IAS 7 "Statement of Cash Flows", we provide below the cash and non-cash changes to liabilities arising from financing activities and to assets included in net financial debt.

(millions of €)	31.12.2018	Cash flow changes	Changes without effects on cash flows			31.12.2019
			Impact of IFRS 16	Foreign Exchange difference	Change in scope of consolida-tion	
Cash and cash equivalents (*)	1,872	979				**2,851**
Liquidity and financial receivables	**1,872**	**979**				**2,851**
Short-term financial debt	1,976	478			2	**2,456**
Long-term financial liabilities (**)	11,444	807		3	43	**12,297**
Lease liabilities		(6)	25		2	**21**
Gross financial debt	**13,420**	**1,285**	**25**	**3**	**47**	**14,774**
Net financial debt	**11,548**	**306**	**25**	**3**	**47**	**11,923**

(*) Including cash and cash equivalents from the change in the scope of consolidation.
(**) Includes the current portion of long-term financial liabilities.

19) TRADE PAYABLES AND OTHER PAYABLES

Trade payables and other payables, which amount to €1,801 million (€1,768 million at 31 December 2018) comprise the following:

(millions of €)	31.12.2018	31.12.2019
Trade payables	491	**487**
Payables for investments	337	**320**
Other payables	940	**994**
	1,768	**1,801**

Trade payables of €487 million (€491 million at 31 December 2018) relate mainly to the natural gas transportation (€350 million, including €253 million relating to gas balancing activities), storage (€26 million) and regasification (€8 million) business segments.
Payables for investment activities of €320 million (€337 million at 31 December 2018) relate mainly to the natural gas transportation (€253 million) and storage (€38 million) business segments.

Other payables of €994 million (€940 million at 31 December 2018) break down as follows:

(millions of €)	31.12.2018	31.12.2019
Other payables		
- Payables to the Energy and Environmental Services Fund (CSEA)	570	**597**
- Interim dividend	298	**313**
- Payables to employees	32	**35**
- Payables to pension and social security institutions	19	**19**
- Consultants and professionals	8	**8**
- Other	13	**22**
	940	**994**

Payables to the CSEA (€597 million) essentially refer to ancillary tariff components applied to users of the transportation service, to be returned to the system.
The interim dividend (€313 million) refers to the payable to shareholders following the 2019 interim dividend of €0.095 per share, approved on 13 November 2019. The interim dividend was paid from 22 January 2020.
Note 35 - "Related-party transactions" contains information about payables due to related parties.
The fair value measurement of trade and other payables has no material impact given the short period of time between when the payable arises and its due date and the contractual terms and conditions.

20) OTHER CURRENT AND NON-CURRENT LIABILITIES

Other current liabilities, amounting to €97 million (€86 million at 31 December 2018), and *other non-current liabilities*, amounting to €213 million (€437 million at 31 December 2018), break down as follows:

	31.12.2018			31.12.2019		
(millions of €)	Current	Non-current	Total	Current	Non-current	Total
Liabilities from regulated activities	38	351	389	**49**	**98**	**147**
Market value of derivative financial instruments	7	26	33	**7**	**56**	**63**
Other liabilities	41	60	101	**41**	**59**	**100**
- Security deposits		46	46		**47**	**47**
- Prepaid revenue and income	29	6	35	**26**	**6**	**32**
- Prepaid contributions for connecting to the transportation network		6	6		**6**	**6**
- Other	12	2	14	**15**		**15**
	86	**437**	**523**	**97**	**213**	**310**

Liabilities from regulated activities, amounting to €147 million (€389 million at 31 December 2018), relate to:

- the transportation business segment (€118 million) following the penalties charged to users who have exceeded the committed capacity. The current and non-current portions amount to €49 million and €69 million respectively (€37 million and €322 million at 31 December 2018). The significant reduction compared with 31 December 2018 is due to the settlement of the previous tariff entries made in July 2019;
- the storage business segment (29 million) following the fees for the balancing and stock replenishment, to be returned to users of the service in accordance with the provisions of resolution 50/06 of the Authority corresponding entirely to the non-current portion (€1 and €29 million, respectively for the current portion and non-current portion at 31 December 2018).

The market value of derivatives at 31 December 2019 is as follows:

	31.12.2018			31.12.2019		
(millions of €)	**Current**	**Non-current**	**Total**	**Current**	**Non-current**	**Total**
Other assets	**4**		**4**			
Cash flow hedging derivatives:						
- Fair value exchange rate hedging derivatives	4		4			
Other liabilities	**(7)**	**(26)**	**(33)**	**(7)**	**(56)**	**(63)**
Cash flow hedging derivatives:						
- Fair value interest rate hedging derivatives	(6)	(26)	(32)	**(6)**	**(56)**	**(62)**
- Accrued expenses on derivatives	(1)		(1)	**(1)**		**(1)**

The liabilities arising from measurement at market value of the derivative financial instruments used as cash flow hedges (€63 million) refer to:

- two derivative Interest Rate Swap “Forward Start” contracts with Mandatory Early Termination, stipulated in July 2017 and August 2018 to cover the risk of interest rate fluctuations of long-term bond issues scheduled for 2020 and 2021, of nominal total value of €500 million and a total market value of €43 million;
- an Interest Rate Swap derivative, stipulated in August 2017, with a market value of €11 million. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from a long-term bond issue of €350 million. The 7 year bond has a maturity of 2 August 2024 and variable rate linked to 3 month Euribor + 40 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.436%;

- an Interest Rate Swap derivative, stipulated in February 2017, with a market value of €3 million. The IRS agreement is used to hedge against interest rate fluctuations following a long-term bond issue worth €300 million. The loan, which has a duration of five years and matures on 21 February 2022, pays a variable interest rate linked to 3 month Euribor plus 60 bps. The IRS has converted the floating-rate liability into an equivalent fixed-rate liability with reference rate of 0.0408%;
- an Interest Rate Swap derivative, stipulated in July 2018, with a market value of €2 million. The IRS is used to hedge against the fluctuation risk of a 50% portion of the floating rate term loan of €500 million. The 3-year term loan, has a maturity of 31 October 2021 and variable rate linked to 3 month Euribor + 45 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.0570%;
- an Interest Rate Swap derivative, stipulated in July 2018, with a market value of €2 million. The IRS is used to hedge against the fluctuation risk of the interest rate resulting from a floating rate term loan of €150 million. The 5-year term loan has a maturity of 31 July 2022 and variable rate linked to 3 month Euribor + 58 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 0.1250%;
- an Interest Rate Swap derivative, stipulated in December 2015, with a market value of €1 million. The IRS is used to hedge against the fluctuation risk of the interest rate resulting from a floating rate term loan of €9 million. The 13-year term loan, has a maturity of 30 June 2028 and variable rate linked to 6 month Euribor. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 1.04%;
- an Interest Rate Swap derivative, stipulated in December 2018, with a market value of €1 million. The IRS is used to hedge against the fluctuation risk of the remaining 50% portion of the floating rate term loan of €500 million. The 3-year term loan, has a maturity of 31 October 2021 and variable rate linked to 3 month Euribor + 45 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of - 0.0440%;
- an Interest Rate Swap derivative, stipulated in August 2013, with a market value of less than €1 million. The IRS is used to hedge against the fluctuation risk of the interest rate resulting from a floating rate term loan of €1 million. The loan, has a maturity of 30 June 2028 and variable rate linked to 6 month Euribor. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of 2.16%;
- an Interest Rate Swap derivative, stipulated in January 2018, with a market value of less than €1 million. The IRS is used to hedge against the fluctuation risk of the fair value of a fixed rate liability resulting from a long-term bond issue of €350 million. The 2 year bond has a maturity of 29 January 2020 and variable rate linked to 3 month Euribor + 40 bps. Through the derivative contract, the floating rate liability is converted into an equivalent fixed rate liability with a benchmark rate of -0.1878%.

The main characteristics of the derivatives in question are summarised in the tables below:

Interest rate Swap - Forward Start

Type of derivative (millions of €)	Contract start date	Maturity date	Early extinguis-hment date	Residual term (years)	Snam pays	Snam receives	Nominal value at 31.12.2018	Nominal value at 31.12.2019	Market value at 31.12.2018	Market value at 31.12.2019
IRS - Forward start (*)	30/10/19	30/10/26	30/01/20	6.8	1.1805%	Euribor 6m	250		(9)	
IRS - Forward start	29/10/20	29/10/27	29/01/21	7.8	1.4225%	Euribor 6m	250	**250**	(8)	**(23)**
IRS - Forward start	15/04/21	15/04/28	15/07/21	8.3	1.3130%	Euribor 6m	250	**250**	(5)	**(20)**

(*) Derivate closed on 24 May 2019.

Interest rate Swap

Type of derivative (millions of €)	Contract start date	Maturity date	Residual term (years)	Snam pays	Snam receives	Nominal value at 31.12.2018	Nominal value at 31.12.2019	Market value at 31.12.2018	Market value at 31.12.2019
Interest Rate Swap	02/08/17	02/08/24	4.6	0.4360%	Euribor 3m	350	**350**	(5)	**(11)**
Interest Rate Swap	21/02/17	21/02/22	2.1	0.0408%	Euribor 3m	300	**300**	(2)	**(3)**
Interest Rate Swap	30/07/18	31/10/21	1.8	0.0570%	Euribor 3m	250	**250**	(2)	**(2)**
Interest Rate Swap	31/07/18	31/07/22	2.6	0.1250%	Euribor 3m	150	**150**	(1)	**(2)**
Interest Rate Swap	31/10/18	31/10/21	1.8	-0.0440%	Euribor 3m	250	**250**	(1)	**(1)**
Interest Rate Swap (*)	31/12/15	30/06/28	8.5	1.0400%	Euribor 3m	10	**9**		**(1)**
Interest Rate Swap (*)	07/08/13	30/06/28	8.5	2.1600%	Euribor 3m	1	**1**		
Interest Rate Swap	29/01/18	29/01/20	0.1	-0.1878%	Euribor 3m	350	**350**		

(*) Derivative contracts from the change in the scope of consolidation.

The fair value of hedging derivatives and their classification as a current or non-current asset/liability have been determined using generally accepted financial measurement models and market parameters at the end of the year.
Information on the risks being hedged by the derivatives and on policies adopted by the Company to hedge against these risks is provided in Note 26 - "Guarantees, commitments and risks - Management of financial risks".
Other liabilities of €100 million (€101 million at 31 December 2018) mainly include: (i) the security deposits (€47 million; €46 million at 31 December 2018) paid as collateral by the users of the balancing service, pursuant to resolution ARG/gas 45/11 (ii) the liabilities for prepaid revenue and income (€32 million) essentially regarding the prepaid income to TAP for the presentation of design services rendered (€21 million corresponding entirely to the current portion) and the prepaid fee for the concession to use the fibre optic cables given to a telecommunications operator (€8 million, including €2 million as the current portion and €6 million as the non-current portion).

21) PROVISIONS FOR RISKS AND CHARGES

Provisions for risks and charges, which amount to €713 million (€665 million at 31 December 2018) are analysed in the table below:

	31.12.2018						
(millions of €)	**Opening balance**	**Provisions**	**Increases due to passing of time**	**Utilisations**		**Other changes**	**Final balance**
				against charges	**for excess**		
Provision for site dismantlement and restoration	610		11	(6)		(8)	**607**
Provision for litigation	16	6		(1)	(2)		**19**
Provision for tax litigation	10			(3)	(1)		**6**
Other provisions	41	20		(26)	(2)		**33**
	677	**26**	**11**	**(36)**	**(5)**	**(8)**	**665**

	31.12.2019						
(millions of €)	**Opening balance**	**Provisions**	**Increases due to passing of time**	**Utilisations**		**Other changes**	**Final balance**
				against charges	**for excess**		
Provision for site dismantlement and restoration	607		7	(9)		42	**647**
Provision for litigation	19	3			(4)		**18**
Provision for tax litigation	6	1			(1)		**6**
Other provisions	33	21		(12)			**42**
	665	**25**	**7**	**(21)**	**(5)**	**42**	**713**

The provision of €647 million for site dismantling and restoration (€607 million at 31 December 2018) includes the estimated (discounted) costs that will be incurred for the removal of facilities and the restoration of sites in the natural gas storage[29] (€518 million) and transportation (€124 million) business segments.
The discounting for the site dismantling and restoration provision was carried out using the corresponding to the euro area Corporate Bond returns with an "AA" rating. The rate thus determined was between 0.62% and 1.09%. Disbursements relating to the dismantling and restoration operations will be incurred over a time horizon covering the next 42 years.
The other changes (€42 million) refer to the estimated change as a result of the anticipated reduction in discounting rates partly absorbed by the downgrading of the estimated site dismantling and restoration costs that mainly refer to the storage business segment.
The provision for litigation (€18 million; €19 million as at 31 December 2018) included costs which the Company has estimated it will incur for existing lawsuits.
The risk provision for tax disputes (€6 million; the same at 31 December 2018) contains the estimate of the probable expenses in the event of levying of assessments and pursuant to tax disputes.

29 The costs refer to the estimated expenses for the removal of the connection works to the Livorno LNG regasification terminal - OLT Offshore LNG Toscana.

Other provision for risks and charges (€42 million; €33 million at 31 December 2018) mainly involve the expenses that the insurance company Gruppo Gasrule Insurance DAC expects to incur following insured claims (€18 million) and the redundancy package fund (€13 million).
In accordance with ESMA Recommendation 2015/1608 of 27 October 2015, the effects on provisions of risks and charges arising from a reasonably possible change to the discount rate used at year-end are shown below.

The sensitivity[30] of the discount rate represents the change in the value of the actuarial liability obtained using the end-of-year valuation data, changing the discount rate without any change in the other assumptions.

(millions of €)	Change in discount rate	
Effect on the net obligation at 31.12.2019	**Reduction of 10%**	**Increase of 10%**
Provision for site dismantlement and restoration	12	(12)

22) PROVISIONS FOR EMPLOYEE BENEFITS

Provisions for employee benefits, amounting to €46 million (€64 million at 31 December 2018), can be broken down as follows:

(millions of €)	31.12.2018	31.12.2019
Employee severance pay (TFR)	26	**25**
Supplemental healthcare provision for company executives of Eni (FISDE)	3	**4**
Isopensione provision	25	**12**
Other employee benefit provisions	10	**5**
	64	**46**

The provision for employee severance pay (TFR), governed by Article 2120 of the Italian Civil Code, represents the estimated liability determined on the basis of actuarial procedures for the amount to be paid to employees at the time that the employment is terminated. The principal amount of the benefit is equal to the sum of portions of the allocation calculated on compensation items paid during the employment and revalued until the time that such relationship is terminated. Due to the legislative changes introduced from 1 January 2007 for companies with more than 50 employees, a significant part of severance pay to be accrued is classified as a defined-contribution plan since the company's only obligation is to pay the contributions to the pension funds or to INPS. Liabilities related to severance pay pre-dating 1 January 2007 remain a defined-benefit plan to be valued using actuarial methods (€25 million; €26 million at 31 December 2018).

30 For the purposes of sensitivity, only provisions for risks and charges showing a significant accretion discount were taken into account.

The supplementary healthcare provision for Company executives of Eni (FISDE) of €4 million (€3 million at 31 December 2018) includes the estimate of costs (determined on an actuarial basis) related to contributions benefiting current[31] and retired executives.
FISDE provides financial supplementary healthcare benefits to Eni Group executives[32] and retired executives whose most recent contract of employment was as an executive with the Eni Group. FISDE is funded through the payment of: (i) contributions from member companies; (ii) contributions from individual members for themselves and their immediate family; and (iii) ad hoc contributions for specific benefits. The amount of the liability and the healthcare cost are determined on the basis, as an approximation of the estimated healthcare expenses paid by the fund, of the contributions paid by the company in favour of pensioners.
The early retirement fund (€12 million) refers to expenses incumbent upon the employer from application of the implementation agreement, relating to the early retirement instrument for employees regulated pursuant to Article 4 paragraphs 1 - 7 of Law 92/2012 (the "Fornero Law").
Other provisions for employee benefits (€5 million, €10 million at 31 December 2018) refer to the long-term benefits associated with seniority bonuses (€3 million), deferred monetary incentive plans (IMD) and long-term monetary incentive plans (ILT) (€2 million in total).
Deferred monetary incentive plans are allocated to executives who have met the goals set out in the year preceding the allocation year, and allocate a basic incentive that is disbursed after three years and varies according to the performance achieved by the Company during the course of the three-year period following the time of the allocation. The benefit is provisioned when Snam's commitment to the employee arises. The estimate is subject to revision in future periods, based on the final accounting and updates to profit forecasts (above or below target).
The long-term monetary incentive plans, involve the granting and payment, of a variable monetary bonus tied to a measure of company performance. Obtaining the benefit depends on the achievement of certain future performance levels and is conditional on the beneficiary remaining with the Company for the three-year period following the allocation (the "vesting period"). This benefit is allocated pro rata over the three-year period depending on the final performance parameters.
From 2017, in place of the long-term monetary incentive plans (IMD and ILT) a new share-based long-term incentive plan (share ILT) was introduced[33], the recipients of which was extended in 2018.
Seniority bonuses are benefits paid upon reaching a minimum service period at the company and are paid in kind in the form of goods and/or services.

31 For executives in service, contributions are calculated from the year in which the employee retires and refer to the years of service provided.
32 The fund provides the same benefits for Snam Group executives.
33 For more information on the characteristics of this plan, refer to the "Other information" paragraph of the Directors' Report.

The composition of and changes in employee benefit provisions, determined by applying actuarial methods, are as follows[34]:

	31.12.2018					31.12.2019				
(millions of €)	**TFR**	**FISDE**	**Isopensione provision**	**Other provisions**	**Total**	**TFR**	**FISDE**	**Isopensione provision**	**Other provisions**	**Total**
Current value of the obligation at the start of the year	**30**	**3**	**13**	**12**	**58**	**26**	**3**	**25**	**10**	**64**
Current cost			15	2	17		**1**	**(6)**		**(5)**
Cost in interest						**1**				**1**
Revaluations/ (Impairment losses):	(1)		1			**1**		**(1)**	**(1)**	**(1)**
- Actuarial (gains) and losses resulting from changes in the financial assumptions										
- Effect of past experience	(1)		1			**1**		**(1)**	**(1)**	**(1)**
Benefits paid	(3)		(4)	(4)	(11)	**(3)**		**(6)**	**(4)**	**(13)**
Change in scope of consolidation										
Current value of the obligation at the end of the year	**26**	**3**	**25**	**10**	**64**	**25**	**4**	**12**	**5**	**46**

Costs for defined-benefit plans recognised under other components of comprehensive income are broken down in the following table:

	31.12.2018			31.12.2019		
(millions of €)	**TFR**	**Isopensione provision**	**Total**	**TFR**	**Isopensione provision**	**Total**
Effect of past experience	(1)	1		**1**	**(1)**	
	(1)	1		**1**	**(1)**	

34 The table also provides a reconciliation of liabilities recorded for employee benefit provisions.

The main actuarial assumptions used to determine liabilities at the end of the year and to calculate the cost for the following year are indicated in the table below:

	31.12.2018			31.12.2019		
(millions of €)	**TFR**	**FISDE**	**Other provisions**	**TFR**	**FISDE**	**Other provisions**
Discount rate (%)	1.6	1.6	0.1-1.6	**0.9**	**0.9**	**0.9**
Inflation rate (%) (*)	1.5	1.5	1.5	**0.9**	**0.9**	**0.9**

(*) With regard to the other provisions, the rate relates only to seniority bonuses.

The discount rate adopted was determined by considering the yields on bonds issued by Eurozone companies with AA ratings.
The employee benefit plans recognised by Snam are subject, in particular, to interest rate risk, in the sense that a change in the discount rate could result in a significant change in the liability.

The table below illustrates the effects of a reasonably possible[35] change in the discount rate at the end of the year.

The sensitivity of the discount rate represents the change in the value of the actuarial liability obtained using the end-of-year valuation data, changing the discount rate by a certain number of basis points, without any change in the other assumptions.

(millions of €)	**Change in discount rate**	
Effect on the net obligation at 31.12.2018	**Reduction of 0.5%**	**Increase of 0.5%**
Employee severance pay (TFR)	1	(1)
FISDE	1	(1)

The maturity profile of the obligations for employee benefit plans is shown in the following table:

	31.12.2018					31.12.2019				
(millions of €)	**TFR**	**FISDE**	**Isopensione provision**	**Other provisions**	**Total**	**TFR**	**FISDE**	**Isopensione provision**	**Other provisions**	**Total**
Within the next year	1		8	5	14	**2**		**4**	**2**	**8**
Within five years	5		17	3	25	**6**		**2**		**8**
Between five and ten years	9			1	10	**9**	**1**		**1**	**11**
Beyond 10 years	11	3		1	15	**8**	**3**	**6**	**2**	**19**
	26	**3**	**25**	**10**	**64**	**25**	**4**	**12**	**5**	**46**

35 Any changes relating to mortality do not have a significant effect on the liability.

The weighted average maturity of obligations for employee benefit plans is shown below:

	31.12.2018				31.12.2019			
	TFR	FISDE	Isopensione provision	Other provisions	TFR	FISDE	Isopensione provision	Other provisions
Weighted average maturity (years)	10	22	2	4	**9**	**23**	**1**	**6**

23) DEFERRED TAX LIABILITIES

Deferred tax liabilities of €548 million (€541 million at 31 December 2018) are stated net of prepaid tax assets that can be offset of €442 million (€407 million at 31 December 2018).

There are no prepaid tax assets which cannot be offset.

(millions of €)	31.12.2018	Provisions	Utilisations	Other changes	Change in scope of consolidation	31.12.2019
Deferred tax liabilities	541	2	(16)	12	9	**548**
Prepaid tax assets	(407)	(39)	27	(22)	(1)	**(442)**
	134	**(37)**	**11**	**(10)**	**8**	**106**

Deferred tax liabilities and prepaid tax assets break down as follows, based on the most significant temporary differences:

	31.12.2019								
(millions of €)	**Opening balance**	**Provisions**	**Utilisations**	**Significant impacts on share-holders' equity**	**Other changes**	**Change in scope of consolida-tion**	**Final balance**	**Of which: IRES**	**Of which: IRAP**
Deferred tax liabilities	**541**	**2**	**(16)**		**12**	**9**	**548**	***531***	***17***
Depreciation and amortisation exclusively for tax purposes	422		(14)				408	*408*	
Site dismantlement and restoration	80	2			12		94	*80*	*14*
Revaluation of property, plant and equipment	19					2	21	*19*	*2*
Capitalisation of financial expenses	7						7	*6*	*1*
Impairment losses on receivables in excess of tax deductibility	3						3	*3*	
Other temporary differences	10		(2)			7	15	*15*	
Prepaid tax assets	**(407)**	**(39)**	**27**	**(10)**	**(12)**	**(1)**	**(442)**	***(404)***	***(38)***
Site dismantlement and restoration	(169)	(3)	2		(12)		(182)	*(155)*	*(27)*
Non-deductible amortisation and depreciation	(129)	(27)	5				(151)	*(149)*	*(2)*
Provision for risks and charges and other non-deductible provisions	(57)	(5)	11				(51)	*(47)*	*(4)*
Non-repayable and contractual grants	(20)						(20)	*(17)*	*(3)*
Employee benefits	(15)	(2)	7				(10)	*(9)*	*(1)*
Other temporary differences	(17)	(2)	2	(10)		(1)	(28)	*(27)*	*(1)*
Net deferred tax liabilities	**134**	**(37)**	**11**	**(10)**	**0**	**8**	**106**	***127***	***(21)***

Prepaid tax assets and deferred tax liabilities are considered to be long term. Note 32 "Income taxes" provides information about taxes for the year.

24) SHAREHOLDERS' EQUITY

Shareholders' equity, which amounts to €6,258 million (€5,985 million at 31 December 2018) breaks down as follows:

(millions of €)	31.12.2018	31.12.2019
Share capital	2,736	**2,736**
Share premium reserve	1,021	**746**
Legal reserve	547	**547**
Other reserves	67	**64**
Fair value reserve of minority interests	1	**5**
Retained earnings	2,286	**2,513**
Net profit for the year	960	**1,090**
Less:		
- Consolidation reserve	(674)	**(674)**
- Negative reserve for treasury shares in the portfolio	(625)	**(389)**
- Reserve for fair value of cash flow hedging derivatives net of tax effect	(28)	**(62)**
- Reserve for defined-benefit plans for employees net of tax effect	(8)	**(8)**
- Interim dividend	(298)	**(313)**
Shareholders' equity held by Snam's shareholders	**5,985**	**6,255**
Shareholders' equity attributable to third parties		**3**
Total shareholders' equity	**5,985**	**6,258**

Below is a breakdown of the shareholders' equity of Snam at 31 December 2019.

Share capital

The share capital at 31 December 2019 consisted of 3,394,840,916 shares without nominal value (3,469,038,579 at 31 December 2018), with a total value of €2,735,670,475.56 (unchanged from 31 December 2018). The reduction is due to the cancellation of 74,197,663 treasury shares in the portfolio with no nominal value, with no share capital reduction, approved by the Snam Shareholders' Meeting, held in extraordinary session on 2 April 2019 and completed on 17 April 2019.

Share premium reserve

The share premium reserve at 31 December 2019 totalled €746 million (€1,021 million at 31 December 2018). The reduction of €275 million is due to the use of part of the reserve following the cancellation of 74,197,663 treasury shares in the portfolio with no share capital reduction, approved by the Extraordinary Shareholders' Meeting held on 2 April 2019 and completed on 17 April 2019.

Legal reserve

The legal reserve stood at €547 million at 31 December 2019 (unchanged from 31 December 2018).

Other reserves

Other reserves of €64 million (€67 million at 31 December 2018) mainly refer to the effects resulting from the valuation of investments using the equity method.

Retained earnings

Retained earnings totalled €2,513 million (€2,286 million at 31 December 2018). The increase of €227 million was mainly due to the allocation of the 2018 residual profit.

Consolidation reserve

The negative consolidation reserve of €674 million (unchanged from 31 December 2018) includes the value derived from the difference between the acquisition cost of the Italgas and Stogit equity investments (€1,597 million, including the additional transaction expenses and price adjustment following the agreements reached at transaction closing) and the relative shareholders' equity attributable to the Group on the transaction completion date (€923 million).

Negative reserve for treasury shares in the portfolio

The negative reserve for treasury shares in the portfolio includes the purchase cost, net of uses, of 102,412,920treasury shares, equal to 3.02% of the share capital (168,197,663 shares at 31 December 2018), for an amount of €389 million (€625 million at 31 December 2018). The reduction of €236 million is mainly due to the cancellation of 74,197,663 treasury shares in the portfolio, approved by the Snam Shareholders' Meeting on 2 April 2019, partly offset by the buy back of 8,412,920 shares to execute the new buy back programme launched on 16 December 2019.
Detailed information on treasury shares and long-term share-based incentive plans are shown in the "Other information" section of Directors' Report, to which reference should be made.

Reserve for fair value of cash flow hedging derivatives net of tax effect

The fair value reserve for cash flow hedge financial instruments (-€62 million at 31 December 2019; -€28 million at 31 December 2018 net of tax effects) includes the fair value measurement of derivative instruments, 6 Interest Rate Swaps (IRF) and 2 Forward start Interest Rate Swaps, illustrated in Note 20 "Other current and non-current liabilities".

The changes in the reserve during the course of the year are shown below:

(millions of €)	Gross reserve	Tax effect	Net reserve
Reserve at 31.12.2018	**(37)**	**9**	**(28)**
Changes in 2019	(44)	10	(34)
Reserve at 31.12.2019	**(81)**	**19**	**(62)**

Reserve for defined-benefit plans for employees net of tax effect

At 31 December 2019, the reserve for remeasurement of employee benefit plans of -€8 million (unchanged from 31 December 2018) included actuarial losses, net of the relative tax effect, recognised under other components of comprehensive income pursuant to IAS 19.

Interim dividend

The 2019 interim dividend of €313 million, of €0.095 per share, was approved on 13 November 2019 by the Board of Directors pursuant to Article 2433-bis, paragraph 5 of the Italian Civil Code. The interim dividend was paid out as of 22 January 2020, with an ex-coupon date of 20 January 2020 and a record date of 21 January 2020.

Dividends

On 2 April 2019, the Snam S.p.A. Shareholders' Meeting approved the distribution of the 2018 ordinary dividend of €0.2263 per share, including €0.095 per share for an amount of €298 million already distributed by way of an interim dividend. The balance of the dividend of €0.1358 per share, for a sum of €448 million, was paid from 26 June 2019, with an ex-dividend date of 24 June 2019 and a record date of 25 June 2019.
In its meeting of 18 March 2020, the Board of Directors proposed to the Shareholders' Meeting convened for 28 April 2020 the distribution of an ordinary dividend of € 0.2376 per share, of which €0.095 per share, for an amount of €313 million, was already distributed as the interim dividend. The dividend of € 0.1426 per share will be paid out from 24 June 2020, with an ex-coupon date of 22 June 2020 and a record date of 23 June 2020.

25) BUSINESS COMBINATIONS

TEA Servizi

On 11 November 2019, the acquisition of TEA Servizi was completed through the subsidiary Asset Company 4 S.r.l., for a total value of €8 million. TEA is one of the main Italian companies operating in the energy efficiency sector, as an Energy Service Company (ESCO), with over 200 customers which include major national and international companies and 950 thousand energy efficiency certificates.
The operation is a Business combination in conformity with IFRS 3, Business combinations. To this end, on the date that control was acquired, the individual assets acquired and the liabilities assumed were recognized at the relative fair values, as provisional accounting separate from goodwill.

The accounting effects of the business combination, in accordance with the provisions of IFRS 3 - "Business combinations", are summarised below:

(millions of €)	Values after assignment of fair value
Fair value of the consideration	7
Fair value of contingent consideration (earn out)	1
Total net assets identifiable at fair value	7
Goodwill	**1**

The calculation of the business combination consideration included the current value of the contractually-due earn out on achieving the specific operating results.

The main values of the assets and liabilities of TEA at the acquisition date are summarised below:

(millions of €)	Values after assignment of fair value
Current assets	3
Non-current assets	9
Goodwill	1
Assets acquired	**13**
Current liabilities	1
Short-term financial liabilities	-
Long-term financial liabilities	2
Non-current liabilities	2
Liabilities acquired	**5**
Shareholders' equity acquired	**8**

The goodwill of €1 million was calculated as the difference between the fair value of the consideration and the fair value of the net assets acquired.
From the acquisition date (November 2019), TEA's contribution to revenues and net consolidated earnings was less than €1 million.

Renerwaste

On 20 November 2019 Snam, through the new subsidiary Snam 4 Environment, completed the acquisition of a share of around 83% of Renerwaste, one of the leading companies in Italy operating in the biogas and biomethane infrastructures, for a value of around €46 million (including €16 million by way of repayment of existing shareholder loans and €30 million by way of a contractual consideration). The transaction, entirely funded through equity, includes the possibility of Snam, acquiring the remaining minority interest of around 17% of the share capital owned by Ecopartner from June 2020. The contract includes put and call options on the interests of minority shareholders expiring in 2020. The operations of Renerwaste, which owns three plants[36]) and currently generate annual revenues of more than €20 million and employ around 50 people.
The operation is a Business combination in conformity with IFRS 3, Business combinations. To this end, on the date that control was acquired, the individual assets acquired and the liabilities assumed were recognized at the relative fair values, as provisional accounting separate from goodwill.
At the acquisition date, on the basis of the terms of the contract governing the exercise of the cross put and call options on the interests of minority shareholders (equal to 17%), the transaction was accounted for as if Snam had acquired control over 100% of Renerwaste, without therefore recognising the interests of minority shareholders.
The present value of expected payments if the options are exercised was included in the determination of the consideration of the business combination including the earn out under the above option (roughly €6 million).

The accounting effects of the business combination, in accordance with the provisions of IFRS 3 - "Business combinations", are summarised below:

(millions of €)	**Values after assignment of fair value**
Fair value of the consideration	30
Fair value of minority interests put/call option	6
Total net assets identifiable at fair value	28
Goodwill	**8**

36 Based on the contractual arrangements, when certain conditions are verified, Snam has the right, by 2022, to buy two SPVs to which permits for the construction of another two plants will be granted to.

The main values of the assets and liabilities of Renerwaste at the acquisition date are summarised below:

(millions of €)	Values after assignment of fair value
Current assets	15
Non-current assets (*)	90
Goodwill	8
Assets acquired	**113**
Current liabilities	24
Short-term financial liabilities	2
Long-term financial liabilities	43
Deferred tax liabilities	8
Liabilities acquired	**77**
Shareholders' equity acquired	**36**

(*) Non-current assets include, among intangible fixed assets, multi-year concessions for three waste management plants.

Goodwill (€8 million) was calculated as the difference between the fair value of the consideration, including the financial component relating to the option to purchase the interests of minority shareholders and the fair value of the net assets acquired.
From the acquisition date (end of November 2019), Renerwaste's contribution to net consolidated earnings was less than €1 million. With reference to revenues, the contribution amounted to €4 million.

If the business combination had been effective from 1 January 2019, Renerwaste's contribution to the Group's net result would have been an insignificant amount.

26) GUARANTEES, COMMITMENTS AND RISKS

Guarantees, commitments and risks, amounting to €4,467 million (€5,950 million at 31 December 2018) comprise:

(millions of €)	31.12.2018	31.12.2019
Guarantees given:	**1,262**	**1,230**
In the interest of subsidiaries	69	**101**
In the interest of associates	1,193	**1,129**
- *of which TAP*	*1,129*	***1,129***
Commitments and risks:		
Commitments	**2,021**	**1,126**
Commitments for the purchase of goods and services (*)	1,691	**892**
Commitments in associates (**)	324	**234**
- *of which TAP*	*324*	***234***
Other	6	
Risks	**2,667**	**2,111**
Third-party assets on deposit	2,609	**2,073**
Compensation and litigation	58	**38**
	5,950	**4,467**

(*) The value for 2019 includes legally-binding orders at 31 December 2019.
(**) The value shown in the table refers to the residual commitment.

Guarantees given

Guarantees given in the interest of subsidiaries (€101 million; €69 million at 31 December 2018) essentially relate to: (i) indemnities issued in favour of third-parties to guarantee the execution of works (€33 million); (ii) bank guarantees in favour of the INPS to guarantee fulfilment of the obligations undertaken under the scope of performances associated with early retirement, regulated by Article 4, paragraph 1-7 of Law 92/2012 - Fornero Law (€22 million); (iii) guarantees given in favour of the Revenue Agency in the interest of the subsidiaries Stogit, GNL and Snam4Mobility (€41 million).
The guarantees given in the interest of associates (€1,129 million; €1,193 million at 31 December 2018) refer to the guarantee given in the interest of TAP relating to the project loan for the construction of the pipeline (for more information, refer to the next paragraph "Commitments, guarantees and pledges - TAP").

Commitments

Commitments for the purchase of goods and services (€892 million; €1,691 million at 31 December 2018) involve the commitments undertaken with suppliers for the purchase of tangible assets and the provision of services relating to investment projects in process.
Commitments in associates (€234 million, €324 million at 31 December 2018) refer to the commitment undertaken by Snam S.p.A. with regard to TAP by way of the shareholding owned (for more information, refer to the next paragraph "Commitments, guarantees and pledges - TAP").

Commitments, guarantees and pledges - TAP

Commitments in associates (€234 million) refer to Snam S.p.A.'s residual commitment, as a shareholder and in relation to the project loan for the construction of the pipeline by way of the shareholding owned, equal to 20%, with regard to Trans Adriatic Pipeline AG (TAP).

The commitment relates to the total costs of the project, including the financial expense in the realisation of the work resulting from the loan agreement, concluded by TAP, in December 2018. Note that following the finalisation of the project financing for TAP, around 75% of the cost of the project will be funded by lending institutions.
Base on the project funding concluded, Snam S.p.A.'s commitment to TAP could gradually be reduced as a result of the provision to TAP of loans by lending institutions.
In the phase relating to the construction and start-up of the plant, the loan agreement of the associate TAP will be, inter alia, accompanied by a debt service guarantee up to a maximum Snam pro rata amount of €1,129 million.
At 31 December 2019 the effective value of the guarantee relating to the above loan stood at around €654 million. The guarantee will be released when certain requirements agreed with the lending institutions are verified, including, specifically, the completion and start-up of the plant.
When the project is realised, during operation, another support mechanism is planned by shareholders to repay the loan, the debt payment undertaking, which will be activated when certain, specific conditions occur. The structure of the project financing concluded for TAP includes several limitations for shareholders for transactions of this type, including: (i) a restriction on the possibility of TAP shares being freely available according to certain time frames; (ii) the pledging of the shares owned by Snam in TOP in favour of the lenders for the entire duration of the loan.

Risks

Risks related to third-party assets on deposit, equal to €2,111 million (€2,609 million at 31 December 2018) relate to approximately 9 billion cubic metres of natural gas deposited in the storage plants by customers of the service. This amount was determined by applying the estimated unit repurchase cost[37] of approximately €0.23 per standard cubic metre (€0.32 per standard cubic metre at 31 December 2018) to the quantities of gas deposited.
Risks concerning compensation and litigation amounting to €38 million (€58 million at 31 December 2018) relate to possible (but not probable) claims for compensation arising from ongoing litigation, with a low probability that the pertinent economic risk will arise.

FINANCIAL RISK MANAGEMENT

Introduction

The main corporate financial risks identified, monitored and, where specified below, managed by Snam are as follows:

- risk arising from exposure to fluctuations in interest and exchange rates;
- credit risk arising from the possibility of counterparty default;
- liquidity risk arising from not having sufficient funds to meet short-term financial commitments;
- rating risk;
- debt covenant and default risk.

There follows a description of Snam's policies and principles for the management and control of financial risks. In accordance with IFRS 7 - "Financial instruments: additional information", there are also descriptions of the nature and size of the risks resulting from such financial instruments. Information on other risks affecting the company's business (natural gas price risk, operational risk and risks specific to the segment in which Snam operates) can be found in the "Elements of risk and uncertainty" section of the Directors' Report.

Interest rate change risk

Interest rate change risk is associated with fluctuations in interest rates affecting the market value of the Company's financial assets and liabilities and its net financial expense. Snam aims to optimise interest rate risk while pursuing its financial objectives.
The Snam Group has adopted a centralised organisational model. In accordance with this model, Snam's various departments access the financial markets and use funds to cover financial requirements, in compliance with approved objectives, ensuring that the risk profile stays within defined limits.
At 31 December 2019, the Snam Group used external financial resources in the form of bonds and bilateral and syndicated loans with banks and other financial institutions, in the form of medium- to long-term loans and bank credit lines at interest rates indexed to the reference market rates, in particular the Europe Interbank Offered Rate (Euribor), and at fixed rates.

37 Value calculated on the basis of the CCI Tariff, or the wholesale price established by the ARERA every quarter.

The exposure to interest rate change risk at 31 December 2019 was approximately 24% of the total exposure of the Group (22% at 31 December 2018). At 31 December 2019 Snam has Interest Rate Swaps (IRS) amounting to €1,660 million in total, that refer to hedges for the entire notional amount under three floating rate bond loans of €1 billion in total due in 2020, 2022 and 2024, respectively, and on floating rate bilateral loans for a total of €660 million due in 2021, 2023 and 2028.
The IRS derivative contracts are used to convert floating rate loans to fixed rate loans.
At 31 December 2019, Snam had IRS Forward Starting derivatives of a notional amount totalling €500 million, maturing in the medium to long-term, for highly probable future financial liabilities to be undertaken up to 2021 for coverage of financial requirements.

The effects on shareholders' equity and net profit at 31 December 2019 are shown below, assuming a hypothetical change in the interest rate basis points of +/-10% actually applied during the course of the year:

(millions of €)	31.12.2019			
	Profit for the period		Shareholders' equity	
	Interest +10 bps	Interest -10 bps	Interest +10 bps	Interest -10 bps
Floating-rate loans				
Effect of interest rate change	(5)	5		
Floating-rate loans converted by IRSs into fixed-rate loans				
Effect of interest rate change on the fair value of hedging derivatives pursuant to IAS 39 – effective portion (*)			7	(7)
Effect on pre-tax profit	(5)	5	7	(7)
Tax effect	1	(1)	(2)	2
	(4)	4	5	(5)

(*) The change in the interest rate has no effect on profit and loss. Therefore the change in the fair value of the derivative contracts following the decrease in the interest rates affects equity only.

Though the Snam Group has an active risk management policy, the rise in interest rates relating to floating-rate debt not hedged against interest rate risk could have negative effects on Snam Group's operations, balance sheet and cash flow.

Exchange rate risk

Snam's exposure to exchange rate risk relates to both transaction risk and translation risk. Transaction risk is generated by the conversion of commercial or financial receivables (payables) into currencies other than the functional currency and is caused by the impact of unfavourable exchange rate fluctuations between the time that the transaction is carried out and the time it is settled (collection/payment).

Translation risk relates to fluctuations in the exchange rates of currencies other than the consolidation currency (the euro), which can result in changes to consolidated shareholders' equity. Snam's risk management system aims to minimise transaction risk through measures such as the use of derivatives. It cannot be ruled out that significant future changes in exchange rates may generate negative effects on Snam Group's operations, balance sheet and cash flow, irrespective of the policies for hedging the risk resulting from exchange rate fluctuations through the financial instruments on the market put in place by Snam.
There is a EUR/GBP exchange rate risk with regard to Snam's investment in the associate Interconnector UK. Snam, however, believes that this risk should be considered as limited, given the low historical volatility of the EUR/GBP exchange rate, also taking into consideration the recent increase in volatility following Brexit. With reference to Snam's investment in the associate TAP, there is a EUR/CHF exchange rate risk on the equity cash calls based on the contractual commitments undertaken by shareholders. The latter are limited in terms of amount following the positive conclusion of the project financing. This risk is adequately hedged through the use of forward contracts.

Credit risk

Credit risk is the Company's exposure to potential losses arising from counterparties failing to fulfil their obligations. Default or delayed payment of fees may have a negative impact on the economic results and the financial balance of Snam. For the risk of non-compliance by the counterparty concerning contracts of a commercial nature, the credit management for credit recovery and any disputes are handled by the business units and the centralised Snam departments. Snam, as far as regulated activities, which current represent almost all activities, are concerned, provides its business services to around 200 operators in the gas sector, with 10 operators representing approximately 70% of the entire market (Eni, Edison and Enel Global Trading hold the top three spots). The rules for client access to the services offered are established by the Authorities and set out in the Network Codes. For each type of service, these documents explain the rules regulating the rights and obligations of the parties involved in selling and providing said services and contain contractual conditions, which significantly reduce the risk of non-compliance by the clients. The Codes contain guarantees to be provided to cover the obligations undertaken. In certain cases, if the customer has a credit rating issued by leading international organisation, the issuing of these guarantees can be mitigated. The regulations also contain specific clauses which guarantee the neutrality of the entity in charge of balancing, an activity carried out from 1 December 2011 by Snam Rete Gas as the major transportation company. Specifically, the current balancing rules require Snam, on the basis of criteria of financial merit, mainly operates in buying and selling on the GME balancing platform to guarantee the necessary resources for the safe and efficient movement of gas from the injection points to the withdrawal points in order to guarantee the constant equilibrium of the network. The above framework also requires Snam to have recourse to the storage resources of functional users to cover the imbalances of the system and related economic regulation.
Snam's maximum exposure to credit risk as at 31 December 2019 is represented by the book value of the financial assets recorded in the consolidated financial statements of the Snam Group as at 31 December 2019.
As shown in Note 9 - "Trade and other receivables", overdue and non-impaired receivables at 31 December 2019 amounted to €132 million (€117 million at 31 December 2018) and related chiefly to the storage segment (€77 million), mainly in relation to VAT invoiced to users for the use of strategic gas wrongfully withdrawn in 2010 and 2011, and to various receivables from public administrations.
Approximately 39% of trade receivables (55% as at 31 December 2018) were with extremely reliable clients, including Eni, which represents 16% of total trade receivables (22% as at 31 December 2018).
The current context characterised by the expansion of contagion from COVID-19, together with the macro economic context it is creating, could cause a financial stress situation with regard to both some customers and some suppliers or a slowdown in activities that could have an impact on Snam's assets and/or liabilities. With reference to the development of energy transition activities, similarly a slowdown in activities and a similar context risk is predicted, with possible repercussions on collection and payments activities, which currently represent an extremely limited amount compared with the entire scope of the Snam Group.

Liquidity risk

Liquidity risk is the risk that new financial resources may not be available (funding liquidity risk) or that the Company may be unable to convert assets into cash on the market (asset liquidity risk), meaning that it cannot meet its payment commitments. This may affect profit or loss should the Company be obliged to incur extra costs to meet its commitments or, in extreme cases, lead to insolvency and threaten the Company's future as a going concern.
Snam's risk management objective aims to establish a financial structure that, in line with the business objectives, ensures sufficient liquidity for the Group, minimising the relative opportunity cost and maintaining a balance in terms of the duration and composition of the debt.
The financial market is characterized by a continuous growth of sources of financing for companies able to improve the environmental impact of their investments. The interest of the investors is linked and subordinated to the ability of the companies themselves to achieve certain objectives in terms of environmental sustainability.

About the correct management of liquidity risk, the diversification of funding sources also through the use of sustainable finance instruments is therefore crucial to guarantee companies wide access to financial markets at competitive costs, with consequent positive effects on the economic situation, equity and financial position of the companies themselves.
Similarly, for Snam, the failure to achieve certain KPIs in the ESG area, within the general objective of the Group to make its business more sustainable in the medium-long term, could lead to higher financing costs or to the lack of access to some sources of funding.
The mitigation of this risk passes through Snam's extreme attention to ESG issues, traditionally a relevant and structured part of the corporate strategy.
In line with this approach, in 2018 Snam finalized the transformation into syndicated credit lines of €3.2 billion into sustainable loans, the third largest sustainable loan signed in the world and the first by a gas utility. This loan provides for bonus/malus mechanisms based on the achievement of certain KPIs in the ESG (Environment, Social, Governance) area. In addition, in February 2019 Snam issued its first 500 million euros Climate Action bond, a bond aimed at financing investments in the area of environmental sustainability.
As shown in the "Interest rate risk" section, the Company had access to a wide range of funding sources through the credit system and the capital markets (bilateral contracts, pool financing with major domestic and international banks, loan contracts with the European Investment Bank and EIB and bonds and commercial papers).
Snam's objective is to maintain a debt structure that is balanced in composition between bonds and bank credit, and the availability of usable committed bank credit lines, in line with its business profile and the regulatory environment in which Snam operates.

At 31 December 2019, Snam had unused committed long-term credit lines worth approximately €3.2 billion. In addition, at the same date, Snam has a Euro Medium Term Notes programme (EMTN), worth a maximum total nominal amount of €11 billion, used around €8.7 billion[38], and a Euro Commercial Paper Programme (ECP), worth a maximum total nominal amount of €2 billion, fully used at 31 December 2019.
Snam's cash and cash equivalents mainly refer to short-term liquidity transactions, with a maturity of less than three months, with a bank with a high credit standing as well as to bank deposits.
Although the Snam Group has relations with diverse counterparties with a high credit standing, based on the management policy and ongoing monitoring of their credit risk, the default of a counterparty or the difficulty to liquidate assets on the market could have negative effects on the Snam Group's operations, results balance sheet and cash flow.

Rating risk

With reference to rating risk, Snam's long term rating is equal to: (i) Baa2 with stable outlook, confirmed on 27 September 2019 by Moody's Investor Services; (ii) BBB+ with negative outlook, confirmed on 17 January 2020 by Standard & Poor's Global Rating ("S&P"); (iii) BBB+ with stable outlook, confirmed on 19 December 2019 by Fitch Ratings ("Fitch").
Snam's long-term rating by Moody's, Standard & Poor's and Fitch is a notch higher than that of Italian sovereign debt. Based on the methodology adopted by Moody's and S&P, the downgrade of one notch from the current rating of the Republic of Italy would lead to a corresponding reduction of Snam's current rating.
The company's short-term rating, used as part of Snam's Commercial Paper programme, is P-2 for Moody's, A-2 for S&P and F2 for Fitch.
Any downgrades in the rating assigned to the Snam Group, could limit the possibility of accessing the capital markets and increase the cost of raising funds and/or refinancing existing debt, with negative effects on Snam Group's operations, results, balance sheet and cash flow.

38 It should be noted that the convertible bond issued in March 2017, for a value of €400 million, is not part of the EMTN programme.

Risk of default and debt covenants

Default risk is the possibility that when certain circumstances occur, the lender may enact contractual protections that may result in the early repayment of the loan, thus generating a potential liquidity risk.
At 31 December 2019 Snam had unsecured bilateral and syndicated loan agreements in place with banks and other lending institutions, with the exception of some bank loans (totalling €25.9 million) relating to two subsidiaries that entered the scope of consolidation in November 2019[39].
Some of these agreements include, inter alia, compliance with typical international practice commitments, some of which are subject to specific materiality thresholds, such as, for example: (i) negative pledge commitments pursuant to which Snam and its subsidiaries are subject to limitations concerning the pledging of real property rights or other restrictions on all or part of the respective assets, shares or merchandise; (ii) pari passu and change-of-control clauses; (iii) limitations on certain extraordinary transactions that the Company and its subsidiaries may carry out; and (iv) limits on the debt of subsidiaries.
The bonds issued by Snam as at 31 December 2019 provide for compliance with covenants that reflect international market practices regarding, *inter alia*, negative pledge and pari passu clauses.
Failure to meet these covenants, and the occurrence of other events, for example cross-default events, may result in Snam's failure to comply and could trigger the early repayment of the relative loan.
Exclusively for the EIB loans, the lender has the option to request additional guarantees, if Snam's rating is lower than BBB (Standard & Poor's/Fitch) or Baa2 (Moody's) for at least two of the three rating agencies.
The occurrence of one or more of the aforementioned scenarios could have negative effects on Snam Group's operations, results, balance sheet and cash flow, resulting in additional costs and/or liquidity issues. There are no covenants among these commitments that involve compliance with ratios of an economic and/or financial nature.

39 These loans were repaid in January 2020.

Future payments for financial liabilities, trade and other payables

The table below shows the repayment plan contractually established in relation to the financial payables, including interest payments and other liabilities connected to derivative instruments:

	Future flows				Maturity				
(millions of €)	**31.12.2018**	**31.12.2019**	**Share within 12 months**	**Share after 12 months**	**2021**	**2022**	**2023**	**2024**	**Oltre**
Bank loans	4,747	**3,704**	**685**	**3,019**	1,282	94	305	117	1,221
Bonds (*)	8,422	**9,056**	**1,376**	**7,680**	259	1,302	1,037	1,440	3,642
Euro Commercial Paper - ECP	225	**2,000**	**2,000**						
Lease liabilities		**21**	**6**	**15**	4	4	2	1	4
Interest on loans (*)	754	**772**	**140**	**632**	124	109	82	71	246
Financial liabilities	**14,148**	**15,553**	**4,207**	**11,346**	**1,669**	**1,509**	**1,426**	**1,629**	**5,113**
Forward start derivative instruments (**)	47	**48**		**48**	48				
Derivative liabilities	**47**	**48**		**48**	**48**				
	14,195	**15,601**	**4,207**	**11,394**	**1,717**	**1,509**	**1,426**	**1,629**	**5,113**

(*) Future payments include the cash flow generated by hedging derivatives.
(**) The future payments are calculated as at the Mandatory Early Termination Date.

With reference to the payment terms for trade and other payables, please see Note 19 “Trade payables and other payables”.

Other information on financial instruments

With reference to the categories covered by IFRS 9 “Financial instruments”, note that, with the exception of the valuation of derivative agreements and minority investments, financial assets and liabilities, depending on the characteristics of the instrument and the business management adopted for their management, entirely come under the financial instruments valued through the amortised cost method.

The book value of financial instruments and their relative effects on results and on equity can be analysed as follows:

	Book value		Income/Expense recognised in the income statement		Other components of comprehensive income (a)	
(millions of €)	**Balance at 31.12.2018**	**Balance at 31.12.2019**	**Balance at 31.12.2018**	**Balance at 31.12.2019**	**Balance at 31.12.2018**	**Balance at 31.12.2019**
Financial instruments measured at amortised cost						
Trade and other receivables (b)	1,341	**1,380**	5	**35**		
Financial receivables (c)	11	**3**	8			
Trade and other payables (b)	1,814	**1,848**				
Financial payables (c)	13,420	**14,774**	(237)	**(200)**		
Financial instruments measured at fair value						
Net assets (liabilities) for hedging derivatives (c)	(29)	**(63)**	(2)	**(1)**	(20)	**(34)**
Other financial assets valued at the FVOCI						
Minority interests	40	**39**	2	**2**	1	**4**

(a) Net of tax effect.
(b) The effects on the income statement are recorded under "Purchases, services and other costs".
(c) The effects on the income statement are recorded under "Financial income/(expense)".

Market value of financial instruments

Below is the classification of financial assets and liabilities measured at fair value in the statement of financial position in accordance with the fair value hierarchy defined on the basis of the significance of the inputs used in the measurement process. More specifically, in accordance with the characteristics of the inputs used for measurement, the fair value hierarchy comprises the following levels:

a) level 1: prices quoted (and not amended) on active markets for the same financial assets or liabilities;
b) level 2: measurements made on the basis of inputs differing from the quoted prices referred to in the previous point, which, for the assets/liabilities submitted for measurement, are directly (prices) or indirectly (price derivatives) observable;
c) level 3: inputs not based on observable market data.

In relation to the above, the classification of activities and liabilities measured at fair value in the statement of financial position according to the fair value hierarchy concerned: (i) derivative financial instruments at 31 December 2019 classified at level 2 and recorded in Note 19 "Other current and non-current liabilities" (€63 million); (ii) the minority interest in Adriatic LNG, valued at the FVTOCI, classified at level 3 and illustrated in Note 16 "Other investments" (€39 million).

DISPUTES AND OTHER MEASURES

Snam is involved in civil, administrative and criminal cases and legal actions related to its normal business activities. According to the information currently available and considering the existing risks, Snam believes that these proceedings and actions will not have material adverse effects.
The following is a summary of the most significant proceedings; unless indicated otherwise, no allocation has been made for the litigation described below because the Company believes it improbable that these proceedings will have an unfavourable outcome or because the amount of the allocation cannot be reliably estimated.

Criminal disputes

Snam Rete Gas S.p.A. - Tresana incident
The public prosecutor at the Massa district court initiated criminal proceedings in relation to an incident that occurred on 18 January 2012 in the Municipality of Tresana regarding an explosion that took place during maintenance work carried out by a subcontractor. After committal to trial was ordered by the preliminary hearing judge, the trial began on 23 June 2015. At the hearing of 15 September 2017, the district court of Massa acquitted all the defendants of the offences charged against them due to lack of evidence. On 12 January 2018, the Public Prosecutor filed an appeal. On 17 April 2019, the Genoa Court of Appeal confirmed the first instance judgement with a ruling. Therefore, there was total acquittal for manslaughter because of the lack of evidence and the case did not proceed for alleged violations of accident prevention regulations for the duration of the terms of the law.

Snam Rete Gas S.p.A. - Pineto incident
On 6 March 2015 in Mutignano landslide affected 10 metres of the San Benedetto Del Tronto-Chieti section of the Ravenna-Chieti pipeline, causing it to break with the consequent escape of gas, with a subsequent fire due an electricity pylon collapsing at the same time.
With regard to this event, the Public Prosecutor at the Court of Teramo immediately opened an investigation into negligence associated with the forest fire. Upon completion, the Prosecutor requested the Snam Rete Gas technicians and technical managers be brought to court. The preliminary hearing judge set a date of 3 October 2018. At the first main hearing on 10 January 2019, the presiding member of the bench asked the defence and the Public Prosecutor to comment on moving the proceedings to a single judge proficient in this issue. The parties referred to the decision of the Court, which after a short period in council chambers, passed the proceedings onto a competent single judge. The first hearing was adjourned to April 2020.

Snam Rete Gas S.p.A. - Sestino (AR) incident
The public prosecutor at the Court of Arezzo initiated criminal proceedings in relation to the incident that took place on 19 November 2015 in the town of Sestino (AR), involving a gas leak on a section of piping. On 26 November 2015, a one-time notice of technical investigation was served which indicated that certain directors and managers, including those who served in the past, are included in the list of parties under investigation. The Public Prosecutor has appointed its own technical consultants. The investigating magistrate, following the request of the Public Prosecutor, definitively closed the proceedings.

IES Biogas - criminal offence conviction

On 2 November 2018 a criminal offence conviction was issued by the Court of Venice, with regard to an IES Biogas executive following the workplace accident that took place on 29 September 2016 involving a company employee, during the maintenance of a silo agitator. On 16 November 2018, a notice of opposition was filed against the criminal offence conviction, which requested the definition of the proceedings in the form of the simplified and shortened ruling. At the hearing on 25 September 2019, the judge, accepting the adjournment request submitted by both the defence team of the accused and the injured party, adjourning the hearing and arranging the examination of the witness that requested from Company in the notice of opposition. A date is yet to be set for the hearing.

Autorità di Regolazione per Energia Reti e Ambiente - ARERA

Snam Rete Gas S.p.A. Investigation into violations on the subject of natural gas metering with regard to Snam Rete Gas S.p.A and request for information

Through Resolution VIS 97/11, notified on 15 November 2011, the ARERA started proceedings to look into whether there were any violations with regard to natural gas metering, relating to alleged irregularities in gas metering with reference to 45 systems owned by the distributor; through Resolution 431/2012/S/Gas the proceedings were brought together with other proceedings involving said events contested by the company launched with regard to the distributor involved.
Snam Rete Gas S.p.A. has submitted proposals in relation to the alleged conduct. By means of Resolution 332/2015/S/gas, the ARERA declared the proposals to be inadmissible, on the grounds that they would not be adequate to restore the alignment of interests existing before the alleged violations or to eliminate any immediate and direct consequences of these violations.
Upon completion of the investigation on 20 October 2017, the ARERA notified the results to Snam Rete Gas, which confirmed the charges made when the proceedings were initiated. The company has requested time for it to formulate its own defence and, to this end, a hearing was called before the board of the Authority on 1 March 2018 during which the defence brief was submitted. After the proceedings, the Authority, although accepting some of the Company's arguments deemed relevant from the perspective of the quantification of the fine, imposed an administrative monetary fine on Snam Rete Gas, through resolution 206/2018/S/gas of 5 April 2018, of €880 thousand. Though it paid the pecuniary fine, the Company has appealed Resolution 206/2018/S/gas before the Regional Administrative Court of Milan. The hearing date remains to be set.

Snam Rete Gas S.p.A. - Resolution 608/2015/R/gas - Proceedings to determine the share of costs arising from outstanding receivables owing to the gas balancing supervisor

Upon completion of the proceedings initiated with Resolution 145/2013/R/gas to determine the share of costs arising from outstanding receivables owing to the gas balancing supervisor, relating to the period 1 December 2011 - 23 October 2012, in relation to three cases which had previously been investigated, with Resolution 608/2015/R/gas, the ARERA closed the proceedings deciding not to pay the share of the outstanding receivables in relation to which the specific case was the object of the investigation, for the total sum of approximately €130 million (including VAT).

The Company, believing that the conditions existed for paying the share of expenses resulting from receivables not collected and subject to the proceedings in question, challenged resolution 608/2015/R/gas before the Regional Administrative Court of Milan, which with its ruling 942/2017, published on 21 April 2017, partially admitted the appeal submitted by Snam Rete Gas as it ruled in favour of payment of all or part of the expenses from uncollected receivables in relation to certain of the items in the investigation. The decision made by the Regional Administrative Court was then recently confirmed by the Council of State in its ruling no. 1630/2020, published on 05 March 2020[40]. As a result of these rulings, the Company has obtained recognition of an amount of approximately €40 million (including VAT). An accrual had been made to the provision for impairment losses on receivables, partially released in profit and loss statement following the sentence, in relation to the costs in question.

Snam Rete Gas S.p.A. - Resolution 9/2014/S/gas – "Launch of punitive proceedings against Snam Rete Gas S.p.A. for non-compliance with Resolution 292/2013/R/gas"

With Resolution 9/2014/S/gas the ARERA launched punitive proceedings against Snam Rete Gas S.p.A. for non-compliance with Resolution 292/2013/R/gas. The proceedings aim to ascertain whether or not delays exist in provisions relating to the enactment of amendments to the Network Code established by Resolution 292/2013/R/gas, with regard to settlement. Upon conclusion of the proceedings, with its resolution 853/2017/S/gas, the Authority sentenced Snam Rete Gas to pay a pecuniary fine of €95 thousand since, although it accepted a part of the Company's arguments which were significant insofar as determining the amount of the fine, it considered that the Company was late in complying with Resolution 292/2013/R/Gas.
Though it paid the pecuniary fine, the Company has appealed Resolution 853/2017/S/gas before the Regional Administrative Court of Milan. The hearing date remains to be set.

Snam Rete Gas S.p.A. - Resolution 250/2015/R/gas, published on 1 June 2015 regarding the: "Adoption of measures on the odorising of gas for domestic use and similar for end users connected directly to the natural gas transportation networks"

Through Resolution 250/2015/R/gas, following the ruling of the Milan regional administrative court, the ARERA amended Article 5 of Resolution 602/2013/R/gas dealing with the obligation of transportation companies to odorise gas for end users connected directly to the transportation network, which, taking into account the categories of use indicated in the TISG, do not use the gas delivered for merely technological purposes. In this regard, the ARERA ordered that the transportation companies shall complete the implementation of the adaptation plans by 31 January 2017, after carrying out a survey of the redelivery points involved (by 31 July 2015) and sending the ARERA the adaptation plan (by 30 November 2015), to be updated every six months, with the description of the technical solution identified.
Snam Rete Gas has appealed against the above resolution believing that the deadline for implementing the plan can only be decided after the survey.
Having carried out the survey, when sending the plan and the subsequent updates Snam Rete Gas once again found that the deadline set by the ARERA with its Resolution 484/2016/E/gas was unreasonable. Consequently, in the appeal with which Snam Rete Gas challenged Resolution 250/2015/R/gas, it also included an appeal for further grounds against Resolution 484/2016/E/gas asking for the resolutions challenged to be suspended.
The request was accepted by the Council of State. Following the hearing that was held on 16 January 2019, through ruling no. 869 of 17 April 2019, the Milan Regional Administrative Court accepted the appeal submitted by Snam Rete Gas declaring the unlawfulness of the deadline set by the Authority because it was clearly unreasonable as it does not take into account the complexity of the activities to be carried out by the transportation company and the need to collaborate with end users on whom the burden of guaranteeing the use of gas in safe conditions for the workers involved weighs.
Note that through the Ministerial Decree of 18 May 2018 the Minister for Economic Development placed the responsibility of guaranteeing the use of gas in safe conditions on the end users directly connected to the natural gas transportation network, where there is domestic or similar use of gas, even only in part, if combined with technological uses. Following the functional activities to the implementation of the Decree, the end users demonstrated that they guaranteed the safe use of the gas in accordance with the methods laid down by said Decree.
As part of the Consultation Document (DCO 203/2019/R/Gas) as preparation for the revision of the regulation on the transportation service quality, the ARERA demonstrated it's intention to: (i) confirm the regulatory framework pursuant to the above Resolution 250/2015/R/Gas without setting a deadline by which the Plan has to be implemented; and (ii) promoting a regulatory amendment aimed at coordinating the regulation with the above-mentioned Ministerial Decree. Following on from what the DCO anticipates, through Resolution 554/2019/R/gas, the Authority confirmed the previous regulatory regime (the obligation of the

40 For more information, refer to the next paragraphs "Recovering receivables from certain users of the transportation and balancing system".

transportation company to take responsibility for the odorising) thereby putting forward the issue of coordination with the obligations imposed by the Decree. While waiting for a possible amendment to the regulation, as it is impossible to implement both regulatory provisions and taking into consideration the specific powers awarded to the Minister on the issue of odorising, on 21 February 2020 Snam Rete Gas challenged Resolution 554/2019/R/gas through an appeal lodged on 21 February 2020. The company proceeded to write down part of the related plants.

Snam Rete Gas S.p.A. Determination DSAI/69/2017/gas – Initiation of proceedings for imposition of punitive and prescriptive measures regarding the safety of the natural gas transportation system

With its resolution 58/2017/E/Gas, the Authority closed the additional investigation order pursuant to Resolution 299/2015/E/gas in relation to 69 emergency events that took place on the Snam Rete Gas network. The resolution mentioned certain critical issues that were discovered during the investigation, in relation to which Snam Rete Gas provided the necessary clarifications. Through the later Determination DSAI/69/2017/gas it decided to launch punitive proceedings believing that, following the clarifications provided by Snam Rete Gas, there were still critical issues with regard to the registration methods of the results of surveillance activities and the possibility of verifying the information and data recorded relating to said activities. As part of the investigation the Company sent the documents and information requested by the Authority through the Determination in order to document the implementation of the changes to the information systems functional to overcoming the above-mentioned critical issues. Through Resolution 146/2018/E/gas the Authority arranged an inspection, later carried out on 25-26 September 2018, during this the information contained in the documentation previously sent by the Company was verified. On 19 September 2019, the ARERA announced the results of the investigation which confirmed what was stated previously and documented by the Company with regard to termination of the conduct in the proceedings. Following the results of the investigation, the Company filed a statement of defence and was heard, on 26 November 2019, before the Authority's Board. Lastly, through Resolution 1/2020/S/Gas, the Authority deemed the challenges to the results of the investigation formulated by the company as part of the decision-making stage as having foundation, arranged the closure of the punitive proceedings as there were no grounds for the contested violations in the provision for launching proceedings.

Tax disputes

TEP Energy Solution - Formal notice of assessment

On 14 December 2018, TEP Energy Solution S.r.l. received a notice of tax assessment limited to the 1 January 2013-31 December 2013 tax period. The notice of tax assessment was the result of a tax audit of the company that began on 27 September 2018 to verify its compliance with tax law requirements applicable to income tax, VAT and other duties. The audit was spurred by a more extensive investigation launched by the Milan Public Prosecutor's Office into a system of tax fraud based on issuing and using invoices for objectively and subjectively non-existent transactions in connection with energy certificate trading. Based on the findings of the tax audit, on 21 January 2019, TEP Energy Solution received a notice of tax assessment for the 1 January 2014-31 December 2014 tax period and TEP REAL ESTATE received one for the 2013 and 2014 tax years. The findings mainly refer to the alleged non-deductibility of VAT. Following notification of the notices of tax assessment, the company lodged defence briefs with the tax authorities and requested a hearing with the same tax office in order to clarify and explain the facts set out in the notices of tax assessment for a correct reconstruction of events. During the hearing with the tax authorities, the possibility of settling the notices of tax assessment arose, which would entail assessments with the taxpayer's acceptance and partial dismissal of the notices.
Later, on 30 July 2019, the Revenue Agency and TEP signed separate deeds of acceptance to settle the above-mentioned notices of tax assessment, following which the Company paid the agreed amounts, while enforcing the contractual guarantees released by vendors in favour of Snam when it acquired control of the company from the latter (which took place in May 2018). Alongside the hearing with the Tax Authority discussions were initiated with the Public Prosecutor who, on 3 October 2019, filed a motion to dismiss, for which the decision of the preliminary magistrate is being awaited.

Snam Rete Gas S.p.A. - IMU/TASI - northern Italy municipalities

The municipalities of northern Italy sent Snam Rete Gas 17 assessment notices for IMU/TASI for the years 2013, 2014 and 2015, which follow on from requests for information for land registry purposes pursuant to Article 1, paragraph 693 of Law 147/2013. The Company has made an allocation to the provision for risks and charges.

Stogit S.p.A. - IMU

The Municipality of Bordolano served Stogit S.p.A. with notices of assessment for IMU property tax for the years 2012, 2013 and 2014.
The notices come to a total of around €560 thousand (including taxes, penalties and interest). Through ruling no. 130/5/2019, the Cremona Provincial Tax Court confirmed the tax liability for the years 2012 and 2013, deferring the assessment for 2014 to a later hearing.
In the light of the above-mentioned rulings, the Company will use the provision previously allocated, releasing the excess amount.

GNL Italia S.p.A. - Local duties

The municipality of Porto Venere advised of assessment notices for TARSU/TARI for the years from 2012 to 2017 and for IMU for the year 2013, totalling €578 thousand in all. GNL Italia S.p.A. settled the dispute with the municipality by paying a sum of €184 thousand.

Recovering receivables from certain users of the transportation and balancing system

The balancing service ensures that the network is safe and that costs are correctly allocated between the market operators. Balancing has both a physical and a commercial purpose. The physical balancing of the system consists of the set of operations through which the Dispatching department of Snam Rete Gas controls flow parameters (capacity and pressure) in real time in order to ensure that gas can move safely and efficiently from injection points to withdrawal points at all times. Commercial balancing consists of the activities required to correctly schedule, account for and allocate the transported gas, as well as the fee system that encourages users to maintain a balance between the volumes they inject into and withdraw from the network.

Pursuant to the current balancing regime, which was introduced by Resolution ARG/gas 45/11 and came into effect on 1 December 2011, in its role as Balancing Supervisor, Snam Rete Gas must ensure that it procures the quantities of gas required to balance the system and offered on the market by users through a dedicated platform of the Energy Market Operator, and, accordingly, it must financially settle the imbalances of individual users by buying and selling gas on the basis of a benchmark unit price (the "principle of economic merit"). The Company must also ensure that it recovers sums owed for the settlement of imbalances from any defaulting users.

Unpaid receivables relating to the period from 1 December 2011 to 23 October 2012

The initial regulation laid down by the Authority with Resolution ARG/gas 155/11 stated that users had to provide specific guarantees to cover their exposure and, where Snam Rete Gas had performed its duties diligently and had not been able to recover the costs related to provision of the service, these costs would have been recovered through a special fee determined by the Authority.
Through its subsequent Resolution 351/2012/R/gas[41], the Authority ordered the application of the variable unit fee CVBL to cover uncollected receivables, and the payment of the expenses to be recovered in monthly instalments of up to €6 million over a minimum of 36 months.
The Authority subsequently opened an exploratory investigation into balancing service provision methods for the period 1 December 2011 - 23 October 2012[42]. The investigation was closed by Resolution 144/2013/E/gas of 5 April 2013. On the same date, the Authority: (i) opened proceedings to determine the share of costs arising from uncollected receivables owing to the gas balancing supervisor for the period 1 December 2011 - 23 October 2012; and (ii) opened six proceedings aimed at establishing whether there have been violations regarding the natural gas balancing service.

41 The aforementioned resolution was annulled pursuant to the ruling 1587/2014 of the Regional Administrative Court of Milan insofar as the obligation of Users to pay the CVBL consideration of €0.001/Scm with effect from 1 October 2012. Moreover, with the subsequent Resolution 372/2014/R/gas the coefficient was redefined at the same amount of €0.001/Scm.
42 The time period set for the preliminary investigation which was initially limited to 1 December 2011-31 May 2012, was subsequently extended to 23 October 2012.

With regard to the preliminary investigation discussed in point (i) above, the proceedings were closed by means of Resolution 608/2015/R/gas, with which the Authority decided not to pay a share of the uncollected receivables in relation to specific cases analysed in the preliminary investigation, in any case subject to Snam Rete Gas's right to withhold the receivables relating to the income statement entries on balancing, possibly already recuperated. The Company appealed Resolution 608/2015/R/gas, before the Regional Administrative Court of Milan, which partially admitted the appeal submitted by the Company with ruling 942/2017; this was in turn partially appealed by the Company and the Authority. The ruling was then confirmed through the ruling of the Council of State 1630/2020. published on 5 March 2020. As a result of these rulings, the Company has obtained, through CSEA, a recognition of an amount of approximately €40 million (including VAT).
During the above-mentioned investigation period, Snam Rete Gas, having terminated the transportation contracts of the six users involved in the aforementioned proceedings since they either defaulted on payments or failed to comply with the balancing obligations set forth in the industry regulations and the Network Code, initiated steps to recover the receivables relating to balancing and transport items. Specifically, the competent judicial authorities issued 11 provisional executive orders, of which six related to receivables arising from the balancing service and five to receivables arising from the transportation service[43]. Having received these orders, Snam Rete Gas initiated the executive proceedings, which resulted in the recovery of negligible amounts of the overall debt of the Users, partly because of the bankruptcy procedures under way at all of these Users.

In particular, at present:

- five Users were declared bankrupt. With regard to all five Users, Snam Rete Gas obtained measures for admission to the list of creditors for the receivable owed, plus interest; as part of these proceedings, a proposal for arrangement with creditors was submitted and approved by the majority of the creditors;
- one User has requested to be admitted to the arrangement with creditors and the Court Authorities have issued a ruling endorsing the arrangement[44].

Unpaid receivables after 23 October 2012

In 2013, two further transport contracts were terminated and Snam Rete Gas initiated injunction proceedings. It obtained three payment orders, of which two for receivables relating to the balancing service and one for the transport service. Both Users appealed, with the relative rulings rejecting the claims and consolidating the securities acquired by Snam Rete Gas. The executive procedures that were initiated resulted in a negligible recovery of amounts when compared to the overall amounts due from the Users which were then declared bankrupt. Snam Rete Gas regularly submitted its claims in the respective arrangements with creditors.
In 2014, a further transport contract was terminated and Snam Rete Gas initiated provisional executive procedures for recovery of the receivables, one relating to balancing services and the other to transport services. The User was declared bankrupt and Snam Rete Gas was admitted to the current list of creditors for the entire debt due, plus interest.

Finally, in 2015 a further transportation contract was terminated and Snam Rete Gas initiated debt recovery measures, securing two provisional executive injunctions against the User, one for the balancing service and the other for the transport service. Moreover, the User was recently declared bankrupt and Snam Rete Gas has regularly submitted its claims for the arrangements with creditors.
Snam Rete Gas, as stated in the provisional executive injunctions issued by the Court, has engaged in proper conduct and complied with the provisions of the transportation contract, the Network Code and, more generally, the applicable legislation.

43 The users in question have appealed against some of these injunctions. Specifically, as well as requesting the suspension of the provisional enforceability and the revocation and/or declaration as null and void of the injunctions themselves, three users have submitted counterclaims requesting that Snam Rete Gas be ordered to compensate them for alleged damage suffered. The oppositions were declared null and void, with the resulting lapse of the demand and the passage into judgment of the injunction decrees.
44 In respect of the approval provision, a claim was brought before the Court of Appeal of Turin, and – in respect to the confirmation procedure adopted by the same Court – the appeal was brought before the Court of Cassation.

Lastly, we note that on 12 February 2016 the Public Prosecutor at the Court of Milan ordered the urgent preventive seizure of the moveable and fixed assets belonging to companies and attributable in various guises to the above-mentioned five Users. In May 2017, the investigation was concluded and the investigated parties were charged with the being involved in a criminal association and committing aggravated fraud against Snam Rete Gas. In September 2018, both Snam Rete Gas and Stogit were notified, as the injured parties, of the preliminary hearing set for 19 December 2018 before the Court of Milan. At that hearing the judge accepted SRG joining the proceedings as a civil party and adjourned it until 11 April 2019.
These criminal proceedings resulted in the formal complaint report (and subsequent supplementary reports) filed by Snam Rete Gas, as offended party, in October 2012 for the crimes of falsehood and aggravated fraud.

Recovering receivables from users of the storage system

Withdrawals made from strategic storage by three users, invoiced by Stogit and not replenished by the user under the terms specified by the Storage Code

Following withdrawals from strategic storage made by a User in November and December 2010, Stogit asked for and obtained an injunction with regard to the sums due that the user failed to pay. The provisional enforceability was confirmed during the opposition launched by the opposing party. The appropriate executive actions were launched as a result.
Following the withdrawals and the failure to replenish the strategic gas in the initial months of 2011 as well, Stogit requested and obtained a second provisional executive injunction for the further sums accrued.
Urgent proceedings were also launched for the replenishment of all the gas unlawfully withdrawn, concluding with the conviction of the debtor, with the subsequent application for injunctive relief also being rejected.
In 2012 the above user together with another two users (who also defaulted with regard to Stogit) were added to the proceedings for an arrangement with creditors, in which Stogit formally transmitted and documented the amounts of its receivables with these users.
Moreover, following the sub-proceedings to dismiss the arrangement, the Court of Asti declared two of the above-mentioned users bankrupt. In both cases, Stogit promptly filed a proof of claim and its receivables were admitted in full.
However, the procedure for an arrangement with creditors is continuing with regard to the third user, which was appealed by one of the creditors. The Court of Appeal of Turin issued a ruling, confirming the approval of the arrangement with creditors. An appeal brought by the aforementioned creditor is currently pending before the Court of Cassation.

Withdrawals made from strategic storage by a user, invoiced by Stogit and not replenished by the User under the terms specified by the Storage Code, ascribable to the 2010-2011 and 2011-2012 thermal years

Stogit filed with the Civil Court of Milan for a payment injunction provisionally enforceable against one User pursuant to Article 186-*ter*.
At present, following the partial restitution of gas in the wake of legal action brought, Stogit is still owed approximately 23.6 million SCM.
Stogit has therefore taken the appropriate actions.
The Court of Rome then declared the User bankrupt and Stogit submitted its claim, which was accepted.

Withdrawals made from strategic storage by a User, invoiced by Stogit and not replenished by the User under the terms specified by the Storage Code, relating to October and November 2011

Stogit filed with the Civil Court of Milan for a provisionally enforceable payment injunction.
While the proceedings were ongoing, the Court of Rome declared the User bankrupt. Consequently, the Civil Court of Milan declared the case interrupted and Stogit submitted its claim, which was accepted.
At present, following the partial restitution of gas in the wake of legal action brought because of improper withdrawals, Stogit is still owed approximately 56.0 million SCM.

Emissions Trading

1 January 2013 was the start of the third regulatory period (2013-2020) of the Emission Trading System (ETS), the greenhouse gas emission allowance system governed by Legislative Decree 30 of 13 March 2013, as amended, and transposing Directive 2009/29/EC. The reduction of CO_2 emissions comes under the objectives set by the European Union in the 2020 Climate and Energy Package, approved in 2009, which involves reducing greenhouse gas emissions by 20% (compared with 1990 levels) by 2020, increasing the share of energy produced from renewable sources by 20% and improving energy efficiency by 20%.
There are 22 Snam Group plants subject to the Emissions Trading regulation, 13 of which are Snam Rete Gas compression plants, 8 Stogit storage facilities and the GNL Italian regasification plant.
In 2019 the free allocation for the Snam Group was 201,910 quotas, taking into consideration the 19,525 quotas allocated for 2018 and 2019 to the new gas compression plants of Minerbio and Sergnano. Not taking these quotas into consideration, the free allocation would have been reduced by 10 % compared with 2018, as a result of the gradually decreasing allocation of free quotas by the competent national authority, planned for the third regulatory period by Article 10 bis of Directive 2009/29/CE.
In 2019, carbon dioxide emissions of the Snam Group facilities covered by the ETS were overall greater than the emission permits allocated. In view of around 0.609 million tonnes of carbon dioxide emitted into the atmosphere, around 0.202 million tonnes were allocated, resulting in a 0.407 million-tonne deficit.

Other commitments and risks

The other unevaluated commitments and risks are:

Commitments arising from the contract for the acquisition of Stogit from Eni

At 31 December 2019 the residual commitments resulting from the above agreements involve hedging mechanisms to keep the risks and/or benefits that may derive from the following pertaining to Eni: (i) the possible exploitation of the gas owned by Stogit at the time of the transfer of the shares other than that recognised by the Italian Regulatory Authority for Energy, Networks and the Environment (ARERA) in the case of its sale, or partial sale, if certain quantities were to become no longer instrumental to the regulated concessions and therefore available for sale; (ii) the possible sale of the storage capacity which should be freely available on a negotiable basis rather than a regulated basis, or the transfer of concessions held by Stogit at the time of the share transfer that may become dedicated to mainly storage activities which are no longer regulated.

Commitments arising from the contract through which Edison acquired Terminale GNL Adriatico S.r.l.

The price determined for the acquisition of Terminale GNL Adriatico S.r.l. is subject to adjustment mechanisms based on commitments made when the transaction was completed, which were also intended to apply after the date of execution.
As at 31 December 2019, the commitment arising from the aforementioned agreement refers to the hedging mechanisms established to maintain the risks and/or benefits arising from conclusion of new contracts for usage of the terminal capacity under Edison.

Commitments arising from the TEP Energy Solution S.r.l. purchase contract

The price determined for the acquisition of TEP Energy Solution S.r.l. is subject to adjustment mechanisms based on the contractual commitments undertaken and intended to operate even after the execution date.
At 31 December 2019, the commitment resulting from the above agreement involves hedging mechanisms based on the economic results achieved by TEP in the financial years 2018-2020, to be settled contractually in cash for a sum which cannot, in any event, exceed €2.5 million.

Commitments arising from the Renerwaste S.r.l. purchase contract

Based on the contractual agreements, upon the occurrence of certain conditions, by 2022, Snam has the right to acquire two SPVs to which authorizations will be granted for the construction of two further plants for the production of Biogas/Biomethane.