

Pemex LT
HR AAA
Stable Outlook

PEMEX ST
HR+1

Pemex LT
Global:
HR BBB+ (G)
Stable Outlook

LOCAL
ISSUANCES
HR AAA
Stable Outlook

GLOBAL
ISSUANCES
HR BBB+ (G)
Stable Outlook

2022
HR AAA
Stable Outlook

2023
HR AAA
Stable Outlook

2024
HR AAA
Stable Outlook



Heinz Cederborg
Corporates / ABS Sr. Executive Director
Lead Analyst
heinz.cederborg@hrratings.com



Jesús Pineda
Corporates Manager
jesus.pineda@hrratings.com



Elizabeth Martínez
Corporates Manager
elizabeth.martinez@hrratings.com

HR Ratings ratified its HR AAA rating with Stable Outlook for Pemex and six of its issuances, as well as the HR+1 rating. It also ratified the HR BBB+ (G) Rating with Stable Outlook for Pemex and 31 issuances.

The ratification of Pemex (and/or the Company) ratings and current issuances is based on Mexico's sovereign rating which was ratified on a global scale on April 30, 2024. In our opinion this is due to the de facto sovereign status of the Company's debt since Pemex receives support from the Federal Government by means of contributions for debt service payments, capital investments and tax support. The importance of Pemex as a source of revenue for Mexico was also considered.

Total Pemex revenues in 2023 fell 27.8% annually due to lower average oil prices worldwide, a factor that could not be offset by higher sales volumes. The Company's total debt decreased 14.2%, mainly due to exchange rate behavior (-1.6% YoY in dollars, closing at US\$106.1mm) while net debt decreased 14.9% YoY (-2.3% YoY in dollars, closing at US\$104.4mm), which is in line with the strategy to maintain net debt close to zero.

It should be noted that the current Pemex rating and outlook depend on Mexico's sovereign rating, which is currently HR BBB+ (G), so any change in the latter will impact the Company's rating.



Assumptions and Results (Amounts in billions of pesos)

Fiscal Year	Reported		Base Scenario			Stress Scenario			Weighted Avg.		Degree of Stress
	2022	2023	2024	2025	2026	2024	2025	2026	Base	Stress	
Total Revenue	2,383	1,720	1,500	1,564	1,530	1,315	1,296	1,222	1,525	1,289	-15.4%
EBITDA	661	298	328	353	357	249	255	220	342	244	-28.5%
EBITDA Margin	27.7%	17.3%	21.9%	22.6%	23.4%	18.9%	19.7%	18.0%	22.4%	18.9%	-346.953
Free Cash Flow	394	94	283	280	278	22	172	170	281	96	-65.8%
Debt Service	619	583	594	261	377	599	295	445	452	479	6.0%
Total Debt	2,091	1,795	1,734	1,727	1,684	1,740	1,977	2,141	1,721	1,894	10.1%
Net Debt	1,916	1,660	1,604	1,552	1,496	1,639	1,864	2,030	1,566	1,787	14.1%
DSCR	0.6x	0.2x	0.5x	1.1x	0.7x	0.0x	0.6x	0.4x	n.a.	n.a.	n.a.
DSCR with Cash	0.8x	0.3x	0.6x	1.3x	1.0x	0.2x	0.7x	0.5x	n.a.	n.a.	n.a.
Net Debt to FCF	4.9	17.6	5.7	5.5	5.4	75.4	10.8	12.0	n.a.	n.a.	n.a.
MALC	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	n.a.	n.a.	n.a.

Source: HR Ratings based on its projections and Company's historical information.

Historical Performance vs. Forecasting

- Total Sales Performance.** In 2023, the Company's total revenues amounted to P\$1,720mm, 27.8% less than the previous year but 23.7% above our base scenario. The decrease is mainly explained by lower international crude oil prices, which could not be offset by higher sales volumes.
- Crude Oil Production.** In 2023, hydrocarbon production, including partners and condensates, amounted to 1,885 thousand barrels per day (Mbd) (+4.9% vs. 1,796Mbd in 2022). Production growth was bolstered by strategies designed to incorporate new fields. We highlight that the Company reported a restitution rate of 103.6% of its production in 2023, which is in line with the restitution objectives established in the 2023-2027 Business Plan.
- Debt Levels.** The Company had total debt of P\$1,795mm at the end of 2023, equivalent to a 14.2% reduction over debt recorded at the end of 2022. This reduction is associated with the lower exchange rate and the fact that the debt was paid with Federal Government funds. This debt reduction is in line with the strategy of maintaining net debt close to zero.

Future Assumptions

- Mexican crude oil export mix Prices.** We estimated an average Mexican crude oil mix export price of US\$75.4 pb in 2024, reflecting an increase of 5.8% YoY compared to 2023 (US\$71.2 bp). Our projections consider an average price for the Mexican crude oil export mix of US\$71.5 pb for 2024-2026.
- Crude Oil Production.** With respect to total crude oil production, including partner and condensate production, we expect the Company to reach average levels of 1,898Mbd by 2024-2026 (vs. 1,875Mbd in 2023).
- Debt Levels.** We estimate Pemex's Net Debt to reach P\$1,604mm in 2024, P\$1,552mm in 2025 and P\$1,496mm in 2026 (vs. P\$1,660mm in 2023). This is in line with the strategy of maintaining net debt close to zero.



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Factors that Could Affect the Rating

- **Reduction in Federal Government Support.** In the event of a change in the relationship between Pemex and the Federal Government, which demonstrates that the Company's debt is no longer supported by the Federal Government, the Company's rating could be modified.
- **Mexican Sovereign Debt.** Any change, positive or negative, in Mexico's sovereign rating and outlook would be directly reflected in the Pemex global rating since HR Ratings considers Pemex debt to have a de facto guarantee from the Federal Government.



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Description of the Issuer

Petróleos Mexicanos (Pemex and/or the Company) is a State Production Company founded on June 7, 1938, by means of a Decree issued by the Congress of the Union. Pemex currently has three operating units: (i) Pemex Exploration and Production, which explores for and extracts oil and hydrocarbons in Mexico, (ii) Pemex Industrial Transformation, which focuses on the refining, transformation, processing, importing, exporting and marketing of hydrocarbons, petroleum products, natural gas and petrochemicals and (iii) Pemex Logistics, which provides transportation and storage services for hydrocarbons, petroleum products and petrochemicals, and other services, including movements by pipeline as well as maritime and overland transport.

Relevant Events

Reduction in Rate of Shared Utility Right (DUC, acronym in Spanish)

In November 2023, the 2024 Tax Year Federal Revenue Act was published in which it was agreed to reduce the rate of the Shared Utility Right (DUC) for 2024 to 30.0% (vs. 40.0% previously). The rate has been gradually reduced during the current administration from a level of 65.0% (2019).

Federal Government Support

As in our previous reports, HR Ratings considers that Federal Government support for Pemex finances and projects endorses the opinion that the Company's debt maintains the same risk level as Mexico's sovereign debt. In addition to the DUC rate decrease indicated above, the Company received P\$167mm in funding from the Federal Government in 2023 (vs. P\$188mm in 2022). It is important to highlight the fact that the Federal Government made contributions of approximately P\$869mm from 2019 to 2023. These funds have been allocated to debt repayment, partial financing of investments and refinery maintenance. In addition to the above, the Ministry of Finance and Public Credit (SHCP) granted tax benefits for approximately P\$138mm in 2020 and 2021, and benefits for P\$91mm in 2023.

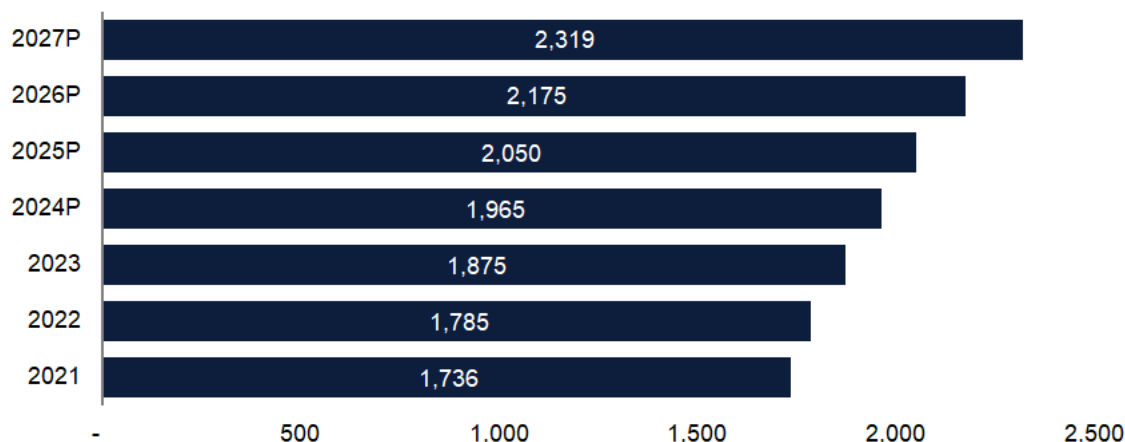
Results Analysis

Production Volume and Reserves

In 2023, liquid hydrocarbon production amounted to 1,885Mbd (+4.9% vs. 1,796Mbd in 2022). This figure incorporates partners' production of 21Mbd and condensates without considering gas liquids. Crude oil production (with partners) amounted to 1,875Mbd in 2023 (+5.1% vs. 1,785Mbd in 2022) while heavy crude oil accounted for 51.7% of production (vs. 52.3% in 2022), light oil accounted for 24.6% (vs. 28.2% in 2022), and super light oil accounted for 8.4% (vs. 14.0% in 2022). This increased production is mainly explained by the strategy of incorporating new fields in Quesqui, Tupilco Profundo, Ixachi, Itta, Pokche, Mulach, Teekit, Teca and Koban, in addition to completing wells in operating fields such as Ayatsil, Yaxche, Teotleco, Samaria and Bedel. Figure 1 shows historical crude oil production as well as production estimates established in the 2023-2027 Business Plan.



Figure 1. Annual Crude Oil Production (Figures in thousands of barrels per day)



Source: HR Ratings based on information reported by the Company.
 Projected figures based on Pemex Business Plan 2023-2027.

Natural gas production, excluding nitrogen, averaged 4,060 million cubic feet per day (MMcf/d) in 2023 (+3.0% vs. 3,941 MMcf/d in 2022). This growth is mainly explained by an increase in the production of gas not associated with crude oil, which amounted to 1,911 MMcf/d (+57.6% vs. 1,212 MMcf/d in 2022) based on an increased contribution from high gas-oil ratio wells in the Quesqui and Ixachi fields. Associated gas amounted to 2,149 MMcf/d (-21.2% vs. 2,728 MMcf/d in 2022) with this decrease being associated with the reclassification of the type of hydrocarbons in the Quesqui field.

As of January 1, 2023, Pemex maintains proven reserves (1P¹) of 7,460 million barrels of crude oil equivalent (MMbpce), compared to 7,429 MMbpce as of January 1, 2022. Considering proven plus probable reserves (2P²) and proven plus probable plus possible reserves (3P³), total reserves amounted to 19,166 MMbpce, which is equivalent to a decrease of 805 MMbpce with respect to the previous period (19,970 MMbpce in 2022). Regarding the restitution of 1P reserves, the Company achieved a restitution rate of 103.6% of its production, with profit in line with the restitution objectives established in the 2023-2027 Business Plan.

¹ Proven reserves (1P) are estimated quantities of crude oil, natural gas and natural gas liquids from known deposits, which are shown with reasonable certainty by geoscientific data to be commercially recoverable in future years. They have a probability of commercial extraction of at least 90%.

² Proven plus probable reserves (2P) are unproven reserves that, based on analyses of geological and deposit engineering information, are likely to be at least 50.0% commercially recoverable.

³ Proven plus probable plus possible (3P) reserves account for volumes of hydrocarbons for which geological and engineering information suggests their commercial recovery is less likely than that of probable reserves. There is a probability of at least 10.0% that the volume recovered would be equal to or greater than the 3P estimate.



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Figure 2. Proven Reserves and Restitution of Reserves (Figures in MMbpce)

	Reserves 1P ¹	Production ²	Restitution Rate		Reserves 3P ^{***}	Years 3P
			Reserves 1P ^{**}	Years 1P		
2012	13,810	1,358	101.0%	10.2	43,837	32.3
2013	13,867	1,353	104.2%	10.2	44,529	32.9
2014	13,437	1,333	67.8%	10.1	42,157	31.6
2015	13,017	1,291	67.5%	10.1	37,404	29.0
2016 ^{****}	9,632	1,193	-132.0%	8.1	22,223	18.6
2017	8,562	1,113	3.8%	7.7	22,149	19.9
2018	7,695	1,002	13.5%	7.7	21,089	21.0
2019	7,010	915	25.2%	7.7	20,453	22.3
2020	7,216	855	124.1%	8.4	19,535	22.9
2021	7,437	852	125.8%	8.7	20,386	23.9
2022	7,429	842	99.0%	8.8	19,970	23.7
2023	7,460	874	103.6%	8.5	19,166	21.9

Source: HR Ratings based on information reported by the Company.

¹Proved reserves at the beginning of each year.

²Production at the beginning of each year.

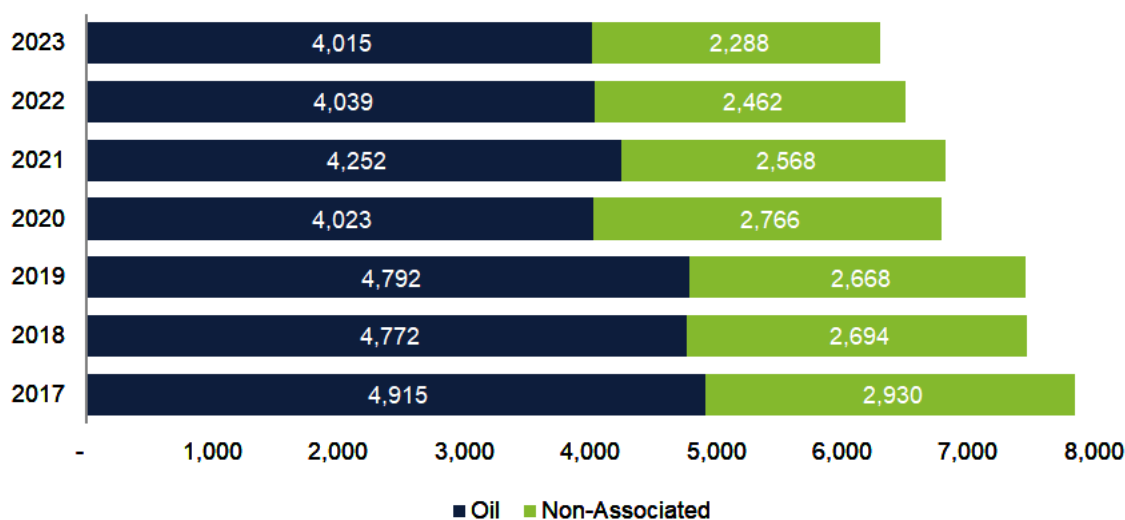
^{**}Percentage of proved reserves.

^{***}Includes proven probable and possible reserves at the beginning of each year.

^{****} As of 2016 only reserves assigned to Pemex in Round Zero are included.

In 2023, the Company operated an average of 6,303 wells (-3.0% vs. 6,501 wells in 2022). Of the total number of wells, 63.7% were crude oil wells (vs. 62.1% in 2022), while the remaining 36.3% (vs. 37.9% in 2022) corresponded to non-associated gas wells. The reduction in operating wells is due to compression equipment failures in the South Region and gas conditioning process equipment failures in the Ixachi field. As part of the strategy to guarantee hydrocarbon production, the number of wells completed in 2023 amounted to 222 (+10.4% vs. 201 wells in 2022), comprising 161 development wells⁴ (vs. 162 wells in 2022) and 61 exploration⁵ wells (vs. 39 wells in 2022). Figure 3 shows the evolution of Pemex's average number of wells.

Figure 3. Evolution of average operating wells



Source: HR Ratings based on information reported by the Company.

⁴ Well drilled and completed in proven zone of a field for crude oil and/or gas production.

⁵ Drilling performed in an area where there is no oil and/or gas production currently but where oil exploration studies establish the probability of hydrocarbon presence.



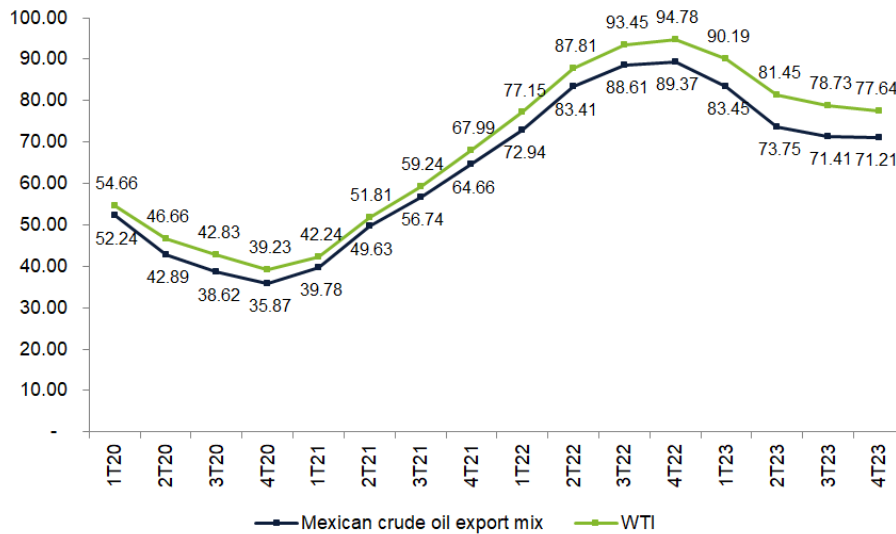
International Price for Mexican crude oil export mix

In 2023, West Texas Intermediate (WTI) reported an average price of US\$77.64 per barrel (pb) (-18.1% vs. US\$94.78 pb in 2022). Similarly, the Mexican crude oil export mix decreased by 20.5%, from an average price of US\$89.24 in 2022 to US\$70.98 in 2023.

It should be noted that over the last two years, the Russia-Saudi Arabia trade war has led to a significant drop in international crude oil prices, leading the Organization of the Petroleum Exporting Countries (OPEC) to enter into an agreement to cut production and stabilize the market in April 2020. These measures were counteracted by the declaration of the COVID-19 pandemic, for which containment measures collapsed energy demand causing global economic activity to plummet. This resulted in a drop in crude oil prices following the saturation of storage capacity.

As a result of the economic recovery that began in the second half of 2020, prices recovered and continued to rise in 2021. However, Russia's invasion of Ukraine in early 2022 created considerable uncertainty about Russian energy supplies on the international market, causing crude oil prices to rise in 2022. Since 1Q23, there has been a drop in the average price of oil, mainly due to the economic slowdown and restrictive monetary policies from central banks worldwide. This trend has continued due to a perceived increase in global oil supply coupled with weakening demand and deteriorating global economic expectations.

Figure 4. Evolution and Comparison between the Mexican crude oil export mix and WTI Prices



Source: HR Ratings based on information published by the National Hydrocarbons Commission and EIA.



Total Revenue

In 2023, Pemex reported total revenue of P\$1,720mm, a decrease of 27.8% compared to the previous year (P\$2,383mm in 2022) and 23.7% above our base scenario of P\$1,390mm. This was the result of the drop in international crude oil prices that could not be compensated by sales volumes. The following are the Company's most significant operating profits in both areas.

Figure 5. Domestic Demand, Export Volume and Export Price

	2019	2020	2021	2022	2023	Var. 2023 vs. 2022
Total crude oil production (mbd)***	1,678	1,660	1,687	1,686	1,588	(5.8%)
Exports (mbd)	1,104	1,120	1,018	953	1,033	8.4%
To refineries (mbd)	592	590	712	816	792	(2.9%)
Others* (mbd)	(18)	(50)	(43)	(83)	(236)	183.5%
Vol. of crude oil sales (mbd) in Mexico*** (mbd)	1,371	1,064	1,105	1,323	1,312	(0.8%)
Gasolines and Diesel (mbd)	1,015	789	781	974	940	(3.5%)
Other Products (mbd)	356	276	324	349	373	6.9%
Fuel oil	76	55	78	68	75	9.6%
LP Gas	153	145	152	159	166	4.4%
Other	127	75	94	121	132	8.7%
Vol. of Petrochemicals Sales (mt) in Mexico***	823	653	576	565	585	3.5%
Average Mexican Crude Oil Mix Price (US\$/b)	\$56.0	\$35.9	\$64.7	\$89.4	\$71.2	(20.3%)
WTI Average Price (US\$/b)	\$56.9	\$39.2	\$68.0	\$94.8	\$77.6	(18.1%)
Import P. Price (US\$/mpc) Natural Gas (US\$/mpc)	\$3.0	\$2.5	\$6.6	\$7.0	\$3.3	(53.3%)
Oil Implicit P. Price (US\$/b)**	\$79.3	\$55.4	\$83.4	\$114.3	\$106.7	(6.7%)
FX Exchange Rate Average	\$19.3	\$21.6	\$20.3	\$20.1	\$17.6	(12.3%)

Source: HR Ratings based on information provided by the Company and Banxico.

Definitions: mbd = million barrels per day, Mt = thousands of tons, mpcd = million cubic feet per day.

* Includes volume to chemical plants, packaging, inventory movement and statistical differences.

** Estimated value based on reported sales amount and volume.

***Average figures

Domestic sales fell 20.5% YoY to close at P\$949mm (vs. P\$1,193mm in 2022 and +6.3% vs. P\$893mm in the base scenario). This was mainly the result of a general decline in world hydrocarbon prices, which was reflected in lower gasoline, fuel oil, diesel, liquefied gas, and gasoline prices, as shown in Figure 7.

There was a 0.8% annual decrease in domestic sales volume for petroleum products, automotive gasoline volume was 653Mbd (-2.6% YoY vs. 670Mbd in 2022) and diesel was 287Mbd (-5.7% YoY) due to lower national demand and consumption. Nevertheless, based on public information, the Company increased its market share with respect to gasoline and diesel, with 86.8% and 76.2% (vs. 81.9% and 70.6% in 2022, respectively). Furthermore, the volume of liquefied petroleum gas (LP gas) reflected a 4.4% annual increase, closing at 166Mbd (vs. 159Mbd in 2022). Jet fuel volumes increased 3.3% YoY to close at 91Mbd (vs. 88Mbd in 2022), driven by continued demand from the air transport sector. Finally, fuel oil volume increased 9.6% year-over-year due to higher demand at refineries.



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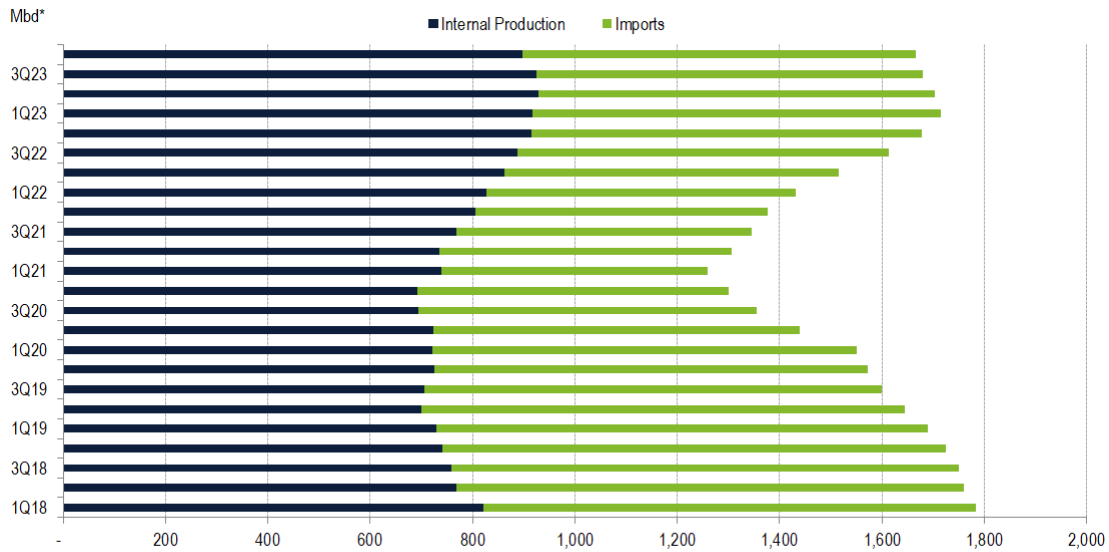


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Figure 6. Domestic Production and Imports



Source: HR Ratings based on information published by Pemex.

* Mbd = thousands of barrels per day.

Export sales amounted to P\$768mm in 2023 (-28.5% vs. P\$1,073mm in 2022 and vs. P\$491mm in our estimates) and were negatively impacted by the Mexican crude oil mix price drop. The above offset the increase reported in export sales volume, where crude oil volume reached 1,025Mbd (+7.5% vs. 953Mbd in 2022) and petroleum product volume closed at 192Mbd (+0.1% YoY). Finally, service revenue related to hydrocarbon, petroleum, petrochemical and other transportation and storage services fell 31.4% YoY to close at P\$4mm (-41.3% vs. P\$6mm in the base scenario).



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Figure 7. Revenue, Volume and Price

	2018	2019	2020	2021	2022	2023	Change 2023 vs. 2022
Domestic Sales	980,560	807,020	503,712	762,115	1,192,714	948,667	(20.5%)
Petroleum products	906,726	760,416	465,871	687,578	1,110,091	900,356	(18.9%)
<i>Automotive gasoline</i>	511,319	445,162	283,645	409,889	610,713	490,974	(19.6%)
<i>Fuel oil</i>	42,559	28,003	8,466	19,165	21,070	22,346	6.1%
<i>Diesel</i>	233,544	193,587	110,084	140,008	303,199	223,210	(26.4%)
<i>Liquefied petroleum gas (LP Gas)</i>	52,057	32,203	30,804	59,625	65,708	40,066	(39.0%)
<i>Turbosine</i>	56,718	55,487	20,073	41,455	94,277	68,630	(27.2%)
<i>Others</i>	10,529	5,973	12,800	17,435	15,125	55,130	264.5%
Petrochemicals (Mt)	22,880	17,858	15,044	21,059	25,123	24,717	(1.6%)
Dry gas (MMpcd)	50,954	28,746	22,798	53,478	57,500	23,593	(59.0%)
Export sales	691,887	585,842	445,234	728,541	1,073,425	767,552	(28.5%)
Crude oil and condensates	513,218	430,385	315,132	483,061	631,924	480,153	(24.0%)
Dry gas	23	31	10	18	27	9	(66.8%)
Petroleum products**	172,978	150,721	126,643	238,371	435,971	284,909	(34.6%)
Petrochemicals	5,669	4,705	3,450	7,090	5,503	2,480	(54.9%)
Service Income	8,673	9,109	4,715	4,973	5,385	3,696	(31.4%)
Incentive to automotive fuels	0	0	0	0	111,864	23	(100.0%)
Total Revenues	1,681,119	1,401,971	953,662	1,495,629	2,383,388	1,719,938	(27.8%)
Sales volume in the country							
Petroleum products (Mbd)	1,479	1,364	1,064	1,105	1,323	1,313	(0.8%)
<i>Automotive gasoline</i>	764	720	571	575	670	653	(2.6%)
<i>Fuel oil</i>	105	76	55	78	68	75	9.6%
<i>Diesel</i>	331	293	217	206	304	287	(5.7%)
<i>Liquefied petroleum gas (LP Gas)</i>	164	151	145	152	159	166	4.4%
<i>Turbosine</i>	86	83	39	62	88	91	3.3%
<i>Others</i>	30	39	36	32	33	41	22.9%
Petrochemicals (Mt)	3,749	3,304	2,617	2,257	2,259	2,129	(5.8%)
Dry gas (MMpcd)	2,064	1,604	1,314	1,171	1,125	1,191	5.8%
Export volumes							
Crude oil (Mbd)	1,184	1,103	1,120	1,018	953	1,025	7.5%
<i>Mayan</i>	1,153	1,099	980	837	664	589	(11.3%)
<i>Isthmus</i>	31	4	140	181	289	420	45.3%
<i>Olmeac</i>	0	0	0	0	0	15	NA
Dry gas (MMpcd)	1.4	1.3	1.0	0.8	0.7	0.7	(1.4%)
Petroleum products (Mbd)***	129	107	129	164	192	192	0.1%
<i>Fuel oil</i>	91	63	101	153	178	184	3.1%
<i>Naphtha</i>	36	32	13	6	8	6	(28.7%)
<i>Others</i>	2	11	15	3	4	2	(49.0%)
Petrochemicals (Mt)	68	72	40	110	18	8	(58.8%)
Implicit Prices							
In the country							
Petroleum products (P\$ per liter)	10.6	9.6	7.5	10.7	14.5	11.8	(18.2%)
<i>Automotive gasoline</i>	11.5	10.7	8.6	12.3	15.7	13.0	(17.5%)
<i>Fuel oil</i>	7.0	6.3	2.6	4.2	5.3	5.1	(3.3%)
<i>Diesel</i>	12.1	11.4	8.7	11.7	17.2	13.4	(21.9%)
<i>Liquefied petroleum gas (LP Gas)</i>	5.5	3.7	3.7	6.8	7.1	4.2	(41.6%)
<i>Turbosine</i>	11.4	11.5	8.9	11.5	18.5	13.1	(29.6%)
<i>Others</i>	6.1	2.6	6.1	9.3	7.8	23.2	196.7%
Dry gas (P\$ per MMpcd)	67.6	49.1	47.5	125.2	140.0	54.3	(61.2%)
Export							
Crude oil (US\$ per barrel)	61.8	55.5	35.7	63.9	90.5	72.8	(19.5%)

Source: HR Ratings based on information reported by Pemex.

Note: Figures presented for 2023 are not audited.

* Figures in billions of Mexican pesos, except where indicated.

** Considering Deer Park

*** Excluding Deer Park



EBITDA⁶ and EBITDA Margin

In 2023, Pemex EBITDA was P\$298mm (vs. P\$661mm in 2022). Costs also decreased 20.3%⁷ in line with the drop in sales due to the decrease in the cost of fuels for resale, specifically gasoline, diesel, and natural gas. The Company has continued with its equipment maintenance strategy to maintain production levels, resulting in continued maintenance costs that have affected gross margin levels. We therefore saw a gross margin of 27.8% in 2023 (vs. 34.6% in 2022).

It is important to note that both the reported drop in the cost of products for resale and the reduction in fees and taxes (for hydrocarbon extraction and exploration) are related to the decrease in the Average Mexican crude oil price in 2023.

General expenditure, which comprises administration, distribution, transportation, and sale expenses increased 9.3% in 2023 to reach P\$180mm (vs. P\$165mm in 2022). This expenditure represented 10.5% of Total Revenue (vs. 6.9% in 2022) leading to an EBITDA margin of 17.3% in 2023 (vs. 27.7% in 2022).

Adjusted Free Cash Flow (AFCF)

In 2023, Pemex had an AFCF of P\$94mm (vs. P\$394mm in 2022 and vs. P\$99mm in the base scenario). As can be seen in Figure 8, the AFCF figure was mainly impacted by lower EBITDA levels (-P\$363mm), higher working capital requirements and the foreign exchange effect on cash reported.

With respect to working capital, there was a net positive change of P\$19mm (vs. P\$25mm in 2022) with a notable higher cash flow from suppliers, registering P\$45mm (vs. P\$17mm in 2022). The Company reported a lower cash flow in the other liabilities account, for which HR Ratings has no further details.

With respect to taxes paid, the Company reported payment of P\$80mm (vs. P\$367mm in 2022). Although the rate applicable to Shared Utility Right (DUC) was 40% for 2023, as in 2022, there was a decrease mainly due to a lower Average Mexican crude oil price. However, it is important to note that the Company recognized deferred tax benefits due to a decrease in the DUC rate in 3Q23 and 4Q23. A special adjustment was made when calculating AFCF that considered the estimated additional tax level the Federal Government charges Pemex when compared to any other company in Mexico, allowing for more standardized metrics when compared to other corporates.

More specifically, the Company recorded a 100.2% year-over-year decrease in total taxes and fees reported in 4Q23. The foregoing is based on the decree dated February 13, 2024, which granted a tax credit equivalent to 100.0% of the DUC for October, November, and December 2023 (January 2024 was also included).

Finally, we considered a maintenance CAPEX provision for 100.0% of the depreciation expenditure reported in the Income Statement.

⁶ Estimated by HR Ratings.

⁷ Cost of sales does not include impairment loss or reversal of impairment.



Figure 8. Adjusted Free Cash Flow (Amounts in billions of Mexican pesos)

	Observed as of:			Forecasted	
	2022	2023	Var.	2023	Var.
EBITDA	661	298	(363)	311	(13)
Other Cash Flow From Income	38	83	45	17	65
Accounts Receivable	(6)	(5)	1	27	(32)
Inventories	(35)	(2)	34	16	(18)
Other Assets	(56)	(88)	(32)	5	(93)
Suppliers	17	45	28	128	(84)
Other Liabilities	105	69	(36)	56	13
Working Capital	25	19	(6)	232	(213)
Taxes	(367)	(80)	287	(280)	200
Liabilities	(11)	(8)	3	(11)	3
Maintenance Capex	(146)	(147)	(0)	(324)	177
FX Change in cash	(7)	(14)	(7)	0	(14)
Special Adjustments	201	(58)	(259)	154	(211)
Flujo libre de efectivo	394	94	(300)	99	(5)

Source: HR Ratings based on information from the Company.

Note: Figures presented for 2023 are not audited.

Debt Profile and Funding

At the end of 2023, total Pemex debt was reduced by 14.2%, closing at P\$1,795mm. It is important to note that this debt reduction was mainly due to exchange rate fluctuations, which decreased in dollars by 1.6% YoY (US\$106.1mm⁸ in 2023 vs. US\$107.7mm in 2022). In 2023, Pemex obtained loans through financial institutions for a total of P\$881mm, with total principal payments of P\$979mm, recording P\$97mm in net amortizations.

⁸ Total debt amounts to US\$101.9mm without considering the liability for monetization of Federal Government promissory notes (vs. US\$102.6mm in 2022).



Figure 9. Total Debt Structure as of 4Q23

	2018	2019	2020	2021	2022	2023	Change 2023 vs. 2022
Total Debt	2,082	1,983	2,259	2,250	2,091	1,795	(14.2%)
Short Term Debt	9.2%	12.4%	17.3%	21.9%	22.3%	26.6%	432.4bps
Long Term Debt	90.8%	87.6%	82.7%	78.1%	77.7%	73.4%	(432.4bps)
Total Debt by Denomination							
U.S. Dollars	66.1%	67.4%	70.0%	71.3%	71.7%	71.2%	(53.4bps)
Mexican Pesos and UDIs	13.1%	13.3%	11.4%	12.8%	16.8%	19.5%	275.4bps
Other Denominations	20.7%	19.3%	18.6%	15.9%	11.5%	9.3%	(222.0bps)
Total Debt by Rate							
Fixed Rate	84.7%	87.4%	86.8%	80.0%	80.0%	79.6%	(43.2bps)
Variable Rate	15.3%	12.6%	13.2%	20.0%	20.0%	20.4%	43.2bps
Cash and cash equivalents	82	61	40	77	64	69	7.0%
Net Debt	2,000	1,923	2,219	2,173	2,027	1,726	(14.9%)

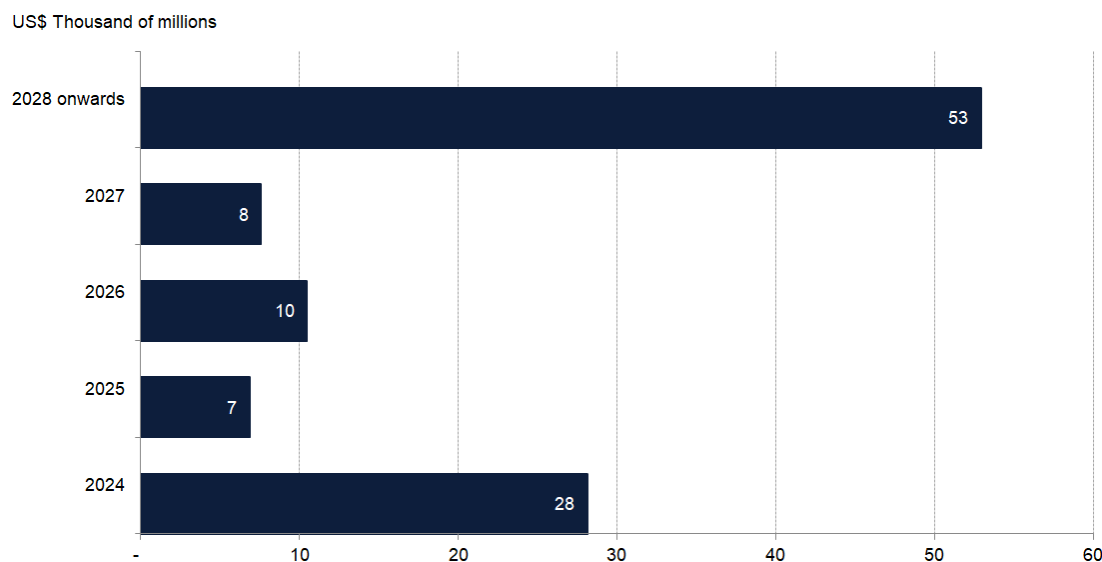
Source: HR Ratings based on information published by Pemex.

Note: Figures presented for 2023 are not audited.

* Figures in billions of Mexican pesos (bn), except where mentioned.

With respect to the debt structure, 79.6% is at fixed rates with the three main currencies being U.S. Dollars (71.2% of the total), Mexican Pesos (17.3%), and Euros (8.2%) with the remaining 3.4% being Pounds Sterling, Yen and UDIs. The average maturity of Pemex's debt was 9.3 years at the end of 2023 versus 9.6 years in 2022. However, approximately 26.6% of the Company's total debt is short-term and 50.1% of the total debt will be amortized between 2024 and 2027.

Figure 10. Total Debt Amortization Schedule as of 4Q23*



Source: HR Ratings based on information published by Pemex.

* Figures in billions of dollars, considering revolving credit and other liabilities.

In November 2023, Pemex, together with Pemex Comercio Internacional (PMI), finalized the renewal of revolving credit lines as well as a loan in dollars, representing total refinancing of US\$8,341m. The following is a list of the different amounts and maturities of said refinancing:



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- PMI US\$1,500m revolving credit line maturing in November 2026.
- Pemex Revolving Credit Line for US\$4,572m with US\$1,064m maturing in June 2024 and US\$3,508m in November 2026.
- Pemex loan for US\$2,218m with US\$768m maturing in June 2024 and US\$1,500m in November 2026.

Considering cash and cash equivalents, as well as Federal Government Promissory Notes, Pemex Net Debt as of 4Q23 fell 13.3% YoY, closing at P\$1,660mm (vs. P\$1,916mm in 2022). This reduction is in line with the Company's strategy of maintaining a net debt close to zero with Federal Government Support. It is important to note that the Company has revolving credit lines of up to US\$6.9mm and P\$20.5mm, of which ~US\$230m are available.

Finally, when considering lower AFCF levels for 2023, DSCR, DSCR with Cash and Years of Payment Net Debt to AFCF metrics deteriorated year-over-year by closing at 0.2x, 0.3x and 17.6 years respectively (vs. 0.6x, 0.8x and 4.9 years in 2022).

Hedging Instruments

For 2024, the SHCP established within the Federal Revenue Act (LIF, acronym in Spanish) an average price for the Mexican oil mix of US\$56.7 pb (vs. US\$68.7 pb in 2023). According to SHCP's Annual Financing Plan for 2024, oil hedging will continue, and this will ensure the receipt of oil revenue if the price of hydrocarbons falls.

During 2023, Pemex's oil hedging strategy protected approximately 30% of total estimated exposure for the year. This strategy consisted of the purchase of monthly put spreads which covered up to five dollars below the price established in the 2023 LIF. As a result of crude oil price variations, the hedge paid around US\$90.8m during the year.



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Scenario Analysis

In accordance with the applicable methodology, HR Ratings analyzed the income reported by the Company and the expected scenarios for the forecast periods from 2024 to 2026 using base and stress estimates. This is based on an evaluation of our main metrics of analysis related to the strength of debt payment capacity. A comparison of the main assumptions and expected results for both scenarios is given below.

Base Scenario

Prices and Production

We estimate an average Mexican Mix export price of US\$75.4 pb in 2024 using a base scenario, reflecting an increase of 5.8% YoY compared to 2023 (US\$71.2 pb). It is important to note that Mexican Mix price projections are in line with expectations within the international hydrocarbon market, demonstrating a direct relationship with changes in the WTI reference price which we expect to continue to trend upward in 2024. We estimate an average WTI price of US\$80.5 pb in 2024 and an average price of US\$76.5 pb for the 2024-2026 period. Our base scenario reflects higher crude oil prices for 2024 due to geopolitical tensions in the Middle East as well as greater dynamism in China's manufacturing activity. It is also important to note that in March 2024 OPEC agreed to extend crude oil production cuts until 2Q24, so international prices are expected to trend upwards. Finally, our projections consider an average price for the Mexican Mix of US\$71.5 pb for 2024-2026. (vs US\$71.2 pb in 2023).

Figure 11. Domestic Demand, Export Volume and Export Price

						Base Scenario			CAGR
	2019	2020	2021	2022	2023	2024P	2025P	2026P	23-26
Vol. of crude production (mbd)***	1,678	1,660	1,687	1,686	1,588	1,562	1,605	1,645	1.2%
Exports (mbd)	1,104	1,120	1,018	953	1,033	826	723	715	(11.5%)
To refineries (mbd)	592	590	712	816	792	901	1,066	1,109	11.9%
Others** (mbd)	(18)	(50)	(43)	(83)	(236)	(164)	(184)	(180)	(8.8%)
Vol. of crude oil sales (mbd) in Mexico*** (mbd)	1,371	1,064	1,105	1,323	1,312	1,362	1,401	1,439	3.1%
Gasoline and Diesel (mbd)	1,015	789	781	974	940	973	995	1,018	2.7%
Other Products (mbd)	356	276	324	349	373	389	405	421	4.2%
Fuel oil	76	55	78	68	75	78	80	83	3.3%
LP Gas	153	145	152	159	166	171	176	182	3.0%
Other	127	75	94	121	132	140	149	157	6.1%
Vol. of Petrochemicals Sales (mt) in Mexico***	823	653	576	565	585	540	546	551	(2.0%)
Average Mexican Mix Price (US\$/b)	\$56.0	\$35.9	\$64.7	\$89.4	\$71.2	\$75.4	\$72.2	\$67.0	(2.0%)
WTI Average Price (US\$/b)	\$56.9	\$39.2	\$68.0	\$94.8	\$77.6	\$80.5	\$76.9	\$72.2	(2.4%)
Import P. Price (US\$/mpc) Natural Gas (US\$/mpc)	\$3.0	\$2.5	\$6.6	\$7.0	\$3.3	\$3.1	\$2.9	\$2.8	(5.3%)
Implicit P. Oil Price (US\$/b)***	\$79.3	\$55.4	\$83.4	\$114.3	\$106.7	\$112.0	\$113.3	\$104.9	(0.6%)
Average Estimated Exchange Rate	\$19.3	\$21.6	\$20.3	\$20.1	\$17.6	\$17.6	\$18.8	\$19.4	3.3%

Source: HR Ratings based on information provided by the Company and Banxico.

Definitions: mbd = million barrels per day, Mt = thousands of tons, mpcd = million cubic feet per day.

** Includes volume to chemical plants, packaging, inventory movement and statistical differences.

*** Estimated value based on reported sales amount and volume. Includes production of partners and excludes Condensates.

***Average figures



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With respect to total crude oil production, including partner production and excluding condensates, we expect the Company to achieve average levels of 1,604Mbd by 2024-2026 (vs. 1,588Mbd in 2023). This would reflect the Company's exploration and production strategy where the objective is prioritizing the accelerated development of new fields to counteract natural field depletion. The main fields with the greatest current production growth potential include Maloob Saab and Ayatsil in the northeast marine region, Quesqui and Tupilco Profundo in the south; Xanab, Yaxche, Onel, Pokche, Mulach and Itta in the southwest marine region and Ixachi in the north.

In terms of petroleum products sales volume, we estimate continued growth (CAGR₂₃₋₂₆ of 3.1%) mainly as a result of the infrastructure rehabilitation program (implemented since September 2019) and corrective and preventive maintenance works aimed at recovering National Refining System (NRS) capacity and increasing its utilization level, as established in the PNP 2023-2027 (Business Plan). Our estimates also incorporate a higher processed volume as a result of waste utilization at the Tula (4Q24) and Salina Cruz (4Q25) refineries where the Company is seeking to gradually reduce fuel oil production while increasing gasoline and diesel production. Finally, according to publicly available Company information, the Olmeca refinery at Dos Bocas is expected to commence operations in 2024 with a capacity of 340Mbd.

Revenue

We estimate a CAGR of -3.8% in Total Revenue for 2023-2026, therefore expecting the Company to report revenue of P\$1,530mm in 2026 (vs. P\$1,720mm in 2023). The above is mainly the result of a sustained drop in export sales (CAGR₂₃₋₂₆ of -18.8%).

As can be seen in Figure 12, we expect domestic revenue to report 8.0% growth by 2024 as a result of higher sales volume due to greater dynamism in the main industries served. Our estimates also reflect the Company's prominent position in the petroleum products markets (market share in 2023 of 86.8% for gasoline, 76.2% for diesel, 100% for gasoline and 62.1% for LP gas). We therefore expect these revenues to represent on average 71.2% of total revenues by 2023-2026. (vs. 55.2% in 2022).

We still expect export revenue to continue to drop during the forecast period, reflecting the self-sufficiency strategy implemented by the Federal Government which is still pursuing energy independence. As a result, we expect an 11.5% decrease in crude oil export volume (CAGR₂₃₋₂₆).



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Figure 12. Revenue Breakdown (Base scenario)

	Reported		Base Scenario			Annual Change			CAGR
	2022	2023	2024P	2025P	2026P	2024P	2025P	2026P	2023-2026
Net Sales	2,383	1,720	1,500	1,564	1,530	-12.8%	4.3%	-2.2%	-3.8%
Domestic	1,193	949	1,025	1,132	1,116	8.0%	10.5%	-1.4%	5.6%
Export	1,073	768	471	428	410	-38.6%	-9.1%	-4.2%	-18.8%
Revenues from services	5	4	4	4	4	4.5%	4.5%	4.5%	4.5%
Incentive to automotive fuels	112	0	0	0	0	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

Source: HR Ratings based on information from the Company. Projections made as of 1Q24.

* Figures in billions of Mexican pesos.

EBITDA and Adjusted Free Cash Flow (AFCF)

Using the base scenario, we estimate Pemex will reach P\$328mm in 2024, P\$353mm in 2025 and P\$357mm in 2026 (vs. P\$298mm in 2023), with an average EBITDA margin of 22.6% for 2024-2026 (vs. 17.3% in 2023). These operating profits reflect higher expected crude oil production levels allowing for greater fixed cost and expense absorption, efficiencies, and stability in refining costs, as well as CAPEX investment results that have been earmarked for more profitable projects. Finally, an average Adjusted EBITDA margin (eliminating the effect of pensions) of 30.9% is projected for the 2023-2026 period, compared to 24.3% in 2023.

Regarding AFCF generation, Pemex is estimated to reach P\$283mm in 2024, P\$280mm in 2025 and P\$278mm in 2026. As can be seen in Figure 13, this would mainly be driven by expected EBITDA growth, lower tax payments, as well as net working capital in line with Pemex's revenue estimates and operating activities.

For taxes paid, our scenarios include an expected reduction in the DUC rate from 40% to 30% in 2024. However, it is important to note that a special adjustment was made when calculating AFCF that considered the estimated additional tax level the Federal Government charges Pemex when compared to any other company in Mexico, allowing for more standardized metrics in corporate terms.

Finally, our scenarios consider a maintenance CAPEX provision for 100.0% of the depreciation expenditure reported in the Income Statement.



Figure 13. Adjusted Free Cash Flow (Base scenario) (Amounts in billions of Mexican pesos)

	Observados al		Proyectado			Variación Anual		
	2022	2023	2024P	2025P	2026P	2024P	2025P	2026P
EBITDA	661	298	328	353	357	30	25	4
Other Cash Flow From Income	38	83	2	2	2	(81)	0	0
Accounts Receivable	(6)	(5)	16	(3)	1	21	(19)	5
Inventories	(35)	(2)	11	1	11	12	(10)	10
Other Assets	(56)	(88)	(10)	(10)	(10)	79	(0)	(0)
Suppliers	17	45	4	4	(30)	(41)	0	(34)
Other Liabilities	105	69	122	132	142	53	10	10
Working Capital	25	19	143	124	115	124	(19)	(9)
Taxes	(367)	(80)	(169)	(193)	(195)	(89)	(24)	(2)
Liabilities	(11)	(8)	(8)	(8)	(8)	0	0	0
Maintenance Capex	(146)	(147)	(146)	(152)	(156)	0	(6)	(4)
FX Change in cash	(7)	(14)	0	0	0	14	0	0
Special Adjustments	201	(58)	133	153	162	191	20	9
Flujo libre de efectivo	394	94	283	280	278	189	(3)	(2)

Source: HR Ratings based on information from the Company.

Indebtedness

Using this scenario, the Company's total debt is estimated to amount to P\$1,734mm in 2024, P\$1,727mm in 2025 and P\$1,684mm in 2026, compared to the P\$1,795mm reported at the end of 2023. It should be noted that we expect Pemex to maintain significant exposure to debt denominated in other currencies which could have an impact due to the revaluation of such liabilities.

During the forecast period (2024-2026), we estimate that the Company will incur a debt of P\$602mm with total amortizations of P\$911mm, reflecting a net amortization of P\$309mm for 2024-2026. With respect to our cost of debt estimates, we expect an average of 7.7% for 2024-2026 (vs. 7.9% in 2023). When considering our AFCF estimates, we expect the Company to have a DSCR and DSCR with Initial Cash for 2024-2026 of 0.8x and 1.0x, respectively (vs. 0.2x and 0.3x in 2023, respectively).

As previously indicated, implementation of the Company's financing strategy is expected to continue with the SHCP in order to maintain net debt close to zero. We estimate Pemex's Net Debt to amount to P\$1,604mm in 2024, P\$1,552mm in 2025 and P\$1,496mm in 2026 (vs. P\$1,660mm in 2023). As a result of decreasing net debt estimates for the forecast period, our baseline scenario reflects a Net Debt Years to AFCF ratio of 5.5 years for 2024-2026. In addition, our scenarios include Federal Government support from capital injections totaling P\$587mm for 2024-2026.



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Figure 14. Evolution of Net Debt (Base scenario) (Amounts in billions of pesos)

	Reported		Base Scenario		
	2022	2023	2024P	2025P	2026P
FCF	394	94	283	280	278
Investment**	(254)	(145)	(112)	(74)	(89)
Net interest on debt	(127)	(117)	(116)	(115)	(111)
Change in equity	219	212	246	163	177
Other cash flow movements***	(194)	72	(133)	(153)	(162)
Change in cash before financing	38	116	168	100	94
New net financing	(43)	(97)	(173)	(55)	(81)
Change in cash	(5)	19	(5)	45	13
New net financing	(43)	(97)	(173)	(55)	(81)
Other movements in debt****	(115)	(199)	112	48	38
Change in gross debt	(158)	(297)	(61)	(7)	(43)
Change in net debt	(145)	(255)	(56)	(52)	(56)
Gross Debt	2,091	1,795	1,734	1,727	1,684
Net Debt	1,916	1,660	1,604	1,552	1,496

Source: HR Ratings based on information from the Company. Projections made as of 1Q24.

**Investing activities excluding interest earned.

***Includes special adjustment to FCF for payment of taxes.

****Includes foreign exchange fluctuation.

Stress Scenario

The HR Ratings stress scenario considers an unfavorable environment for the Company in which it would not be possible to reach operating levels estimated for the next few years. Greater pressure on margins, as well as on the different metrics considered by HR Ratings, is also expected.

- Adjustments were made to the Mexican Mix price in the stress scenario, estimating a deterioration in the average price of the Mexican Mix to US\$71.6 pb in 2024 (-5.0% vs. US\$75.4 pb in the base scenario for the same period). The average price for the 2024-2026 forecast period is estimated at US\$67.9 pb (compared to US\$71.5 pb in the base scenario for the same period). In addition to average price deterioration, we incorporated lower oil production, resulting in total sales levels of P\$1,314m in 2024, P\$1,296mm in 2025 and P\$1,221mm in 2026. This results in a weighted difference of 15.4% for revenue between the two scenarios.
- We estimate that EBITDA margin will be affected by a lower absorption of fixed costs and expenditure due to a lower revenue generation from crude oil sales. We therefore assume that the Company would achieve an EBITDA of P\$220mm in 2026 (vs. P\$357mm in the base scenario for the same period) and an average EBITDA margin of 18.9% from 2024 to 2026 (vs. 22.6% in the base scenario for the same period).
- As part of the decrease in EBITDA generation and continued working capital pressures, we project that the Company would report an FCF of P\$170mm in 2026 (vs. P\$278m in the base scenario for the same period). This represents a cumulative drop of 56.8% between the two scenarios.
- In terms of debt, we assume that the Company would need to incur additional debt to cover the working capital requirements associated with its operations and to maintain its liquidity levels. This would result in Net Debt levels of P\$2,030mm in 2026 (vs. P\$1,496mm in the base scenario for the same period).
- Considering the above factors, we project DSCR metrics to average 0.3x from 2024 to 2026 (vs. 0.8x in the base scenario for the same period). The DSCR with cash metrics would maintain an average of 0.4x for the same period (vs. 1.0x in the base scenario from 2024 to 2026).



- Finally, we estimate years of payment metrics to average 32.7 years from 2024 to 2026 (vs. 5.5 years in the base scenario for the same period).



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Evaluation of ESG Factors

The purpose of the assessment is to incorporate the impact of environmental, social and governance (ESG) factors on the Company's credit quality in the credit rating. The following are the main points considered using the ESG perspective included in the 2023-2027 PNP and the 2022 Pemex Sustainability Report.

It is important to note that the Sustainability Plan focuses on the most material issues and is structured using five pillars: i) GHG emissions and energy transition, ii) the Environment, iii) Operational Safety, iv) People and Social Value, and v) Corporate Responsibility and Transparency. These pillars incorporate various strategies aligned with United Nations (UN) Sustainable Development Goals (SDGs). It should also be noted that in 2022, the creation of the Pemex Sustainability Committee was approved as part of its commitment to promote strategies in the areas of transparency, accountability and environmental, social and governance responsibility.

Environmental Factor

Physical Risks

The Company is exposed to certain factors such as global warming and the intensity and frequency of certain climate change-related extreme weather phenomena which could affect Pemex oil facilities and activities. The identification and implementation of climate adaptation measures serve to avoid or significantly reduce exposure to these physical risks. A qualitative climate risk analysis was performed in 2023 for various systems such as the Fortín-Maltrata pipeline. Similarly, rehabilitation work was performed on the piles of the Salina Cruz Storage and Port Services Terminal pier, drainage was rehabilitated at the Madero Refinery, and the trajectory of the Poza Rica-Huauchinango pipeline was modified.

Transition Risks

Pemex could be subject to changes in emissions and market policies, which include greater impacts, efficiency standards, and mechanisms for fixing emissions, among others. These measures could increase Pemex operating and maintenance costs, increase product prices and even shift consumer demand to lower-carbon energy products. As part of the above, the 2023-2027 Business Plan includes projects and initiatives focused on reducing transition risks which include reducing Greenhouse Gas (GHG) emissions and improving energy performance.

Greenhouse Gas Emissions

The Company has identified that gas flaring and stationary combustion processes represent the greatest opportunities for emission reductions along its chain. Pemex reported that Scope 1 emissions decreased 6.3% in extraction and production processes, 55% in gas processing, and 3.5% in the refining process from 2022 to 2023. This is mainly due to a reduction in compression system failures, an increase in sour gas sweetening capacity and increased critical equipment maintenance, among others. It is important to note that the Company maintains a target to indicate decreases of 61.0%, 60.0% and 40.0% in extraction and production, gas processing and refining emissions intensity, respectively, by 2030 over its base year (2021). Additional goals were also established, including a minimum level of gas utilization in Extraction and Production (E&P) as well as zero routine flaring of gas in E&P processes by 2030. Finally, the goal is to achieve net zero Scope 1 and 2 emissions by 2050.



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It is important to note that the Company also aims to reduce sulfur oxide (SOx) emissions at gas processing centers. The goal is to achieve a 90.0% reduction of these emissions by 2030, taking 2021 as the reference year.

Water Use

As part of its strategies to reduce and mitigate environmental impact, the Company aims to reduce raw water consumption, which includes reducing the water use ratio by 2030 (with respect to 2021) in industrial transformation processes including the following: 39.0% in refineries, 42.0% in gas processing centers, 76.0% in ethane derivatives, 50.0% in methanol and aromatics production and 9.0% in ammonia production. Similarly, Pemex has the goal of doubling water reuse levels in refineries to 56.4mm m³.

Energy Performance

This line includes various strategies such as maintenance of energy management systems, efficient energy control systems for equipment and processes, implementation of cross-cutting energy efficiency projects, and strengthening of rational energy use. In this regard, investments were made in 2022 to improve operation of the National Refining System (NRS) as well as the treatment, compression and distribution of both associated gas and refining gas, thereby achieving reductions in the emission intensity indexes for the exploration, production, and gas processing segments.

Social Factor

Industrial Safety and Occupational Health

The objective of this category is to reduce safety risks in processes and improve occupational health as well as to prevent personnel and industrial accidents. During 2022, activities were performed to reactivate the Pemex-SSPA⁹ System, which seeks to increase safety in the following processes: i) Process Technology, ii) Process Risk Analysis, iii) Operating Procedures and Safe Practices (OPSP), iv) Technology Change Management (TCM), v) Pre-Startup Safety Review (PSSR) and finally vi) Mechanical Integrity (MI). The risk management program was implemented and evaluated in 94 facilities (90% of those scheduled) from which 42 facilities met acceptable risk levels with controls and tolerable risk levels by the end of 2022. Similarly, 33.0% of gaps detected with an Intolerable (A) and Undesirable (B) Risk Level were addressed.

⁹ Occupational Health, Safety and Environmental Protection (OHS&E)



Contractor Evaluation

Due to the nature of Pemex operations, on numerous occasions the support of specialized contractors is required to perform the Company's own activities, including maintenance. The Company performs contractor supervision activities throughout the year, assessing compliance with SSPA requirements in the work performed by Transformación Industriales contractors by means of specific annexes. The Company has a register of secure contractors which is considered when entering into agreements or alliances. Seven contractors had accidents in 2022, and this will prevent them from entering into future agreements for at least one year.

Workforce composition

At the end of December 2022, the total number of employees of Pemex and its subsidiaries was 137,428, of which 71.4% are men (vs. 71.8% in 2021) and 28.6% women (vs. 28.2% in 2021). Approximately 80.0% of personnel are permanent employees and 20.0% are temporary employees, while 82.0% are unionized personnel and 18.0% are non-union personnel. In terms of workforce composition at the management level, 80.0% of positions are occupied by men and the remaining 20.0% by women (vs. 82.0% and 18.0% respectively in 2021).

Training and Development

The Company has a workforce training and development plan implemented through various training programs: classroom, remote, hybrid and online, which include courses, workshops, diploma courses, in-house learning resources, and conferences. A training plan is implemented using these resources which involves men and women in professional and operational positions. At the end of 2022, the average number of training hours per employee was 15.6 (vs. 12.3 hours in 2021).

Community Impact

The Company seeks to strengthen its commitment and social responsibility with the communities where hydrocarbon production, transformation, transportation, and commercialization activities are performed. Pemex therefore encourages closer ties with communities to guarantee social acceptance of its oil activities through ongoing dialogue, negotiation, attention, and transparency. This process is called Social License to Operate (SLO). In 2022, 29 social problems were addressed, 10 from previous years and 19 new cases.

Governance Factor

Pemex corporate structure is supported by the Board of Administration (CAPEMEX), which is the supreme management body responsible for defining the policies, guidelines and strategic vision of Pemex and its subsidiaries. In accordance with the Pemex Act, the Board is comprised of ten members: the head of the Ministry of Energy, the head of the Ministry of Finance and Public Credit, three board members from the Federal Government and five independent board members who are appointed by the President and ratified by the Senate. In 2022, CAPEMEX held 18 meetings in which 147 agreements were reached.

The Board of Administration has six auxiliary committees as follows: Audit Committee, Human Resources and Compensation Committee, Strategy and Investments Committee, Procurement, Leasing, Works and Services Committee, External Business Committee and Sustainability Committee.



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As part of the evaluation process, the Business Plan Evaluation and Profit Monitoring Report is presented to the Audit Committee on a quarterly basis, with the review and monitoring of the progress and profits in the established indicators. At the same time, a self-evaluation of the Business Plan is performed to review compliance with objectives and goals. The Company maintains an internal control system based on the guidelines of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), which aims to ensure the effectiveness and efficiency of controls in operations, financial information reliability and compliance with applicable regulations.

It is important to note that there are several entities responsible for auditing the Company's activities, which include the following: the Audit Committee, internal and external auditing, and the Superior Audit Office of the Federation (ASF). The Company currently has financial statements audited by KPMG for the 2022 tax year, which maintain a favorable opinion on the financial position of Petróleos Mexicanos in accordance with International Financial Reporting Standards.



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Appendix - Glossary

Base Scenario: Balance Sheet (Amounts in millions of pesos)

	2021*	2022*	2023	2024F	2025F	2026F
TOTAL ASSETS	2,052,098	2,245,558	2,395,847	2,449,233	2,542,499	2,602,607
Short-Term Assets	458,394	527,895	547,056	525,124	581,976	592,374
Cash and Equivalents	76,506	64,415	68,907	64,344	109,488	122,234
Government Bonds	1,253	46,526	28,637	28,637	28,637	28,637
Accounts Receivable from Clients	101,259	107,117	112,257	96,390	99,447	97,985
Other Accounts Receivable	177,138	167,763	210,141	218,673	227,552	236,792
Inventories	86,113	126,018	113,590	103,006	102,207	91,485
Other Short-Term Assets	16,125	16,056	13,525	14,074	14,645	15,240
Long-Term Assets	1,593,704	1,717,663	1,848,791	1,924,109	1,960,522	2,010,233
Investments in Non-Consolidated Entities	2,255	2,044	1,818	2,198	2,590	2,993
Plant, Property and Equipment	1,274,533	1,368,751	1,510,933	1,585,440	1,621,013	1,669,854
Intangible Assets	0	7,101	1,410	1,410	1,410	1,410
Other Intangible Assets	0	7,101	1,410	1,410	1,410	1,410
Deferred Taxes	92,256	171,633	225,151	225,151	225,151	225,151
Other Long-Term Assets	224,661	168,135	109,478	109,909	110,358	110,825
Government Bonds	111,248	64,987	36,675	36,675	36,675	36,675
Unallocated wells	20,016	22,924	18,940	18,940	18,940	18,940
Prepaid Expenses and Other Assets	39,113	30,703	10,620	11,051	11,500	11,967
Right of Use Assets	54,283	49,521	43,243	43,243	43,243	43,243
TOTAL LIABILITIES	4,222,099	4,014,380	3,949,331	4,012,631	4,139,680	4,207,639
Short-Term Liabilities	922,648	929,737	1,121,243	798,350	928,508	835,614
Short-Term Debt	492,284	465,948	477,423	145,692	266,358	197,611
Suppliers	264,056	282,245	359,760	363,409	367,524	337,804
Taxes Payable	112,754	70,813	150,219	151,424	152,639	153,864
Other Short-Term Liabilities	53,555	110,731	133,841	137,825	141,987	146,335
Other Accounts Payable	32,016	81,808	89,062	93,046	97,208	101,556
ST Lease Liabilities	7,903	6,680	8,284	8,284	8,284	8,284
Financial Derivative Instruments	13,636	22,242	36,495	36,495	36,495	36,495
Long-Term Liabilities	3,299,451	3,084,643	2,828,088	3,214,281	3,211,172	3,372,025
Long-Term Debt	1,757,412	1,625,516	1,317,249	1,587,995	1,460,187	1,486,099
Deferred Taxes	3,341	6,865	6,653	4,982	3,075	1,147
Other Long Term Liabilities	1,538,697	1,452,262	1,504,186	1,621,304	1,747,909	1,884,778
LT Lease Liabilities	51,449	44,451	33,629	33,629	33,629	33,629
Provisions***	103,177	100,924	98,098	102,081	106,226	110,539
Financial Derivative Instruments	1,384,072	1,306,887	1,372,459	1,485,594	1,608,054	1,740,610
EQUITY	(2,170,001)	(1,768,822)	(1,553,484)	(1,563,397)	(1,597,181)	(1,605,032)
Non-controlling Interest	129	(289)	(205)	(166)	(137)	(110)
Contributed Capital, Cumulative Earnings & Other	372	125	(157)	(205)	(166)	(137)
Current Earnings	(244)	(414)	(48)	38	29	28
Majority Equity	(2,170,129)	(1,768,534)	(1,553,279)	(1,563,231)	(1,597,044)	(1,604,922)
Contributed Capital	885,016	1,096,323	1,262,938	1,509,322	1,672,562	1,849,922
Cumulative Earnings and Others	(2,760,613)	(2,965,269)	(2,926,210)	(2,816,217)	(3,072,553)	(3,269,606)
Current Earnings	(294,532)	100,412	109,993	(256,336)	(197,053)	(185,238)
Total Debt	2,249,696	2,091,464	1,794,672	1,733,687	1,726,545	1,683,710
Net Debt	2,060,688	1,915,536	1,660,453	1,604,031	1,551,745	1,496,164
Days Sales Outstanding	23	20	23	23	23	23
Days Inventories Outstanding	31	33	36	33	33	33
Days Suppliers Outstanding	97	60	85	96	96	96

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

**Mainly derivatives, but also includes assets held by PEMEX and to be distributed in the various rounds.

***Provision for plugging expenses, environmental protection and lawsuits in process.

**** The calculation of net debt includes Federal Government Promissory Notes.



Base Scenario: Income Statement (Amounts in millions of Mexican pesos)

	2021*	2022*	2023	2024F	2025F	2026F
Total Revenue	1,495,629	2,383,388	1,719,938	1,499,973	1,564,350	1,530,371
Domestic	762,115	1,192,714	948,667	1,024,977	1,132,174	1,115,855
Exports	728,541	1,073,425	767,552	471,134	428,139	410,298
Services	4,973	5,385	3,696	3,862	4,036	4,218
Incentive for automotive fuels	0	111,864	23	0	0	0
Cost of Goods Sold	925,765	1,557,856	1,241,732	988,938	1,025,691	984,548
Gross Profit	569,864	825,532	478,206	511,036	538,659	545,823
Operating Expenses	159,585	164,639	179,882	182,685	185,533	188,426
EBITDA	410,279	660,893	298,324	328,351	353,126	357,397
Depreciation and Amortization	140,156	146,252	146,719	146,457	152,128	155,995
Depreciation	140,156	146,252	146,719	146,457	152,128	155,995
Impairment (Revaluation) of Properties	7,827	83,538	(10,498)	37,615	38,744	39,906
Operating Income Before Other	262,296	431,103	162,103	144,279	162,254	161,496
Net Other Income and Other Expenses	(33,369)	14,356	1,543	1,836	2,141	2,364
Other Income	(33,369)	14,356	1,543	1,836	2,141	2,364
Operating Income After Other	228,928	445,459	163,646	146,115	164,395	163,860
Interest Income	28,907	27,228	18,210	18,206	18,147	18,627
Other Financial Income	0	0	10,110	0	0	0
Interest Expenses	164,572	159,684	151,792	134,289	133,345	129,303
Other Financial Expenses and Lease Interests	25,224	22,863	9,437	7,744	7,744	7,744
Net Financial Income	(160,889)	(155,319)	(132,909)	(123,828)	(122,942)	(118,420)
Foreign Exchange Net Result	(45,675)	129,690	238,225	(111,829)	(48,210)	(38,251)
Integral Financing Result	(206,564)	(25,629)	105,316	(235,656)	(171,152)	(156,671)
Earnings after Integral Financial Result	22,364	419,830	268,962	(89,541)	(6,757)	7,189
Income from Non-Consolidated Entities	(9,791)	349	369	380	392	403
Earnings before Taxes and duties	12,572	420,179	269,331	(89,161)	(6,365)	7,592
Taxes and duties	307,348	320,181	159,386	167,136	190,658	192,802
Current Taxes	306,827	391,420	209,635	168,808	192,565	194,730
Deferred Taxes	521	(71,239)	(50,249)	(1,671)	(1,907)	(1,928)
Net Income (loss)	(294,776)	99,998	109,945	(256,298)	(197,024)	(185,210)
Non-controlling interest	(244)	(414)	(48)	38	29	28
Controlling Interest	(294,532)	100,412	109,993	(256,336)	(197,053)	(185,238)
Change in Sales	56.8%	59.4%	-27.8%	-12.8%	4.3%	-2.2%
Gross Margin	38.1%	34.6%	27.8%	34.1%	34.4%	35.7%
EBITDA Margin	27.4%	27.7%	17.3%	21.9%	22.6%	23.4%
Effective Tax Rate	2444.7%	76.2%	59.2%	-187.5%	-2995.2%	2539.5%
Net Sales to PP&E	1.2	1.7	1.1	0.9	1.0	0.9
ROCE	21.8%	31.7%	12.2%	9.9%	10.8%	10.4%
Cost of Debt	7.2%	7.4%	7.9%	7.7%	7.7%	7.6%
Return on Financial Assets	21.0%	13.6%	9.6%	10.4%	9.4%	8.6%

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

EBITDA Analysis	2021*	2022*	2023	2024F	2025F	2026F
IEPS Tax						
Adjusted Sales with IEPS	1,495,629	2,383,388	1,719,938	1,499,973	1,564,350	1,530,371
EBITDA (2)	410,279	660,893	298,324	328,351	353,126	357,397
Net cost of employee benefits (Pensions)	140,215	129,334	139,054	143,225	147,522	151,948
Leases in Depreciation and Interest (IFRS 16)	27,990	26,778	19,958	19,958	19,958	19,958
Adjusted EBITDA (4)	522,504	763,448	417,419	451,618	480,690	489,387
Impairment Loss (Reversal) on Impairment of Properties	7,827	83,538	(10,498)	37,615	38,744	39,906
Adjusted EBITDA with Impairment on Properties	514,677	679,910	427,918	414,002	441,947	449,481
Adjusted EBITDA Margin	34.9%	32.0%	24.3%	30.1%	30.7%	32.0%

(1) Cost of sales and operating expenses shown differ from those reported by the Company because HR Ratings deducts the depreciation of each line based on our distribution estimates.

(2) Includes valuation adjustment for impairment of unused wells, which are not cash outflows/inflows and maintain their counterpart in cash flow.

(3) Includes gain on well plugging discount rate.



Base Scenario: Cash Flow Statement (Amounts in millions of pesos)

	2021*	2022*	2023	2024F	2025F	2026F
OPERATING ACTIVITIES						
Earnings (Loss) before Taxes	12,572	420,179	269,331	(89,161)	(6,365)	7,592
Other Cash Expenses	0	(10,383)	0	0	0	0
Non-cash charges	0	(10,383)	0	0	0	0
Depreciation	140,243	146,252	144,005	146,457	152,128	155,995
Profit (loss) from sale of fixed asset	47,300	22,452	11,107	0	0	0
Impairment of properties, plant and equipment	7,827	83,538	(10,498)	37,615	38,744	39,906
Income from non-consolidated subsidiaries and affiliates	3,088	(349)	(369)	(380)	(392)	(403)
Interest Income	(28,907)	(27,228)	(18,210)	(18,206)	(18,147)	(18,627)
Other Investment activity related charges	26,317	24,861	38,605	0	0	0
Total Investment Related Charges	195,868	249,526	164,639	165,486	172,334	176,872
Interest expense	164,572	159,684	151,792	134,289	133,345	129,303
Loss (Gain) from foreign exchange fluctuations	44,485	(128,545)	(221,800)	111,829	48,210	38,251
Lease Interests and Others	17,792	8,324	17,082	7,744	7,744	7,744
Total Charges related to Financial Activities	226,849	39,463	(52,926)	253,862	189,299	175,297
Cash Flow from P&L before Taxes	435,289	698,785	381,043	330,187	355,267	359,761
Decrease (Increase) in Account Receivables	(11,995)	(5,858)	(5,140)	15,867	(3,057)	1,462
Decrease (Increase) in Inventories	(7,961)	(35,219)	(1,628)	10,584	799	10,721
Decr. (Incr.) in Other Assets	(36,413)	(56,232)	(88,313)	(9,513)	(9,899)	(10,301)
Increase (Decrease) in Suppliers	(5,614)	16,790	44,777	3,649	4,115	(29,720)
Increase (Decrease) in Other Liabilities	75,378	105,045	68,990	122,307	131,983	142,442
Net total change in working capital	13,394	24,526	18,686	142,895	123,940	114,604
Taxes on earnings paid or returned	(259,448)	(366,673)	(79,582)	(168,808)	(192,565)	(194,730)
Cash flow generated by operations	(246,054)	(342,147)	(60,896)	(25,913)	(68,625)	(80,126)
Net cash flow from operating activities	189,235	356,638	320,148	304,274	286,643	279,635
INVESTING ACTIVITIES						
Net investment in Plant & Equipment	(209,592)	(305,335)	(260,657)	(258,579)	(226,445)	(244,742)
Investment in Intangible Assets	(25,814)	(35,136)	(35,088)	0	0	0
Business Acquisition	0	(30,012)	0	0	0	0
Interest Income	28,907	27,228	18,210	18,206	18,147	18,627
Lending to third parties	4,400	0	0	0	0	0
Other Assets	(60,136)	(29,679)	4,055	0	0	0
Net cash flow from investing activities	(262,236)	(372,935)	(273,480)	(240,374)	(208,298)	(226,116)
Cash needs related to financing activities	(73,000)	(16,297)	46,668	63,900	78,345	53,519
FINANCING ACTIVITIES						
Loans obtained from financial institutions	1,636,217	1,064,179	881,401	326,478	90,340	185,272
Amortization of loans	(1,707,582)	(1,107,159)	(978,855)	(499,291)	(145,692)	(266,358)
Interest paid	(157,257)	(153,957)	(135,417)	(134,289)	(133,345)	(129,303)
Lease Interest Paid	(11,268)	(10,637)	(7,744)	(7,744)	(7,744)	(7,744)
Third party Financing	(239,890)	(207,573)	(240,614)	(314,847)	(196,441)	(218,132)
Increase (decrease) in equity	339,269	218,762	166,615	246,384	163,240	177,359
Contributions for Future Capital Increases	0	0	45,850	0	0	0
Own Financing	339,269	218,762	212,465	246,384	163,240	177,359
Net cash flow from financing activities	99,380	11,189	(28,149)	(68,463)	(33,200)	(40,773)
Net Increase (decrease) in cash and cash equivalents	26,379	(5,108)	18,519	(4,563)	45,144	12,746
Effect of change in cash value from FX	10,137	(6,984)	(14,026)	0	0	0
Cash and cash equiv. at the beginning of the period	39,990	76,506	64,414	68,907	64,344	109,488
Cash and cash equivalents at the end of the period	76,506	64,414	68,907	64,344	109,488	122,234
Maintenance CAPEX	(140,156)	(146,252)	(146,719)	(146,457)	(152,128)	(155,995)
Special Adjustments	280,367	201,158	(57,507)	133,245	153,157	162,004
Free Cash Flow	328,316	393,923	94,152	283,319	279,928	277,899
Debt Amortization	1,707,582	1,107,159	978,855	499,291	145,692	266,358
Refinancing and Voluntary Prepayment	(1,316,484)	(614,876)	(512,907)	(21,868)	0	0
Net Debt Amortization	391,097	492,284	465,948	477,423	145,692	266,358
Net Interest Payment	128,350	126,729	117,206	116,084	115,198	110,676
Debt Service	519,447	619,012	583,154	593,507	260,890	377,034
DSCR	0.6	0.6	0.2	0.5	1.1	0.7
Cash and Equivalents at the Beginning of Period	39,990	76,506	64,414	68,907	64,344	109,488
DSCR with Cash	0.7	0.8	0.3	0.6	1.3	1.0
Net Debt to FCF	6.3	4.9	17.6	5.7	5.5	5.4
Net Debt to EBITDA	5.0	2.9	5.6	4.9	4.4	4.2

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

	2021*	2022*	2023	2024F	2025F	2026F
Adjusted Free Cash Flow						
Net Cash Flows from Operating Activities.	189,235	356,638	320,148	304,274	286,643	279,635
Income Taxes Paid or Refunded	259,448	366,673	79,582	168,808	192,565	194,730
Difference in Changes in Cash and Cash Equiv.	10,137	(6,984)	(14,026)	0	0	0
Lease Liabilities	(11,268)	(10,637)	(7,744)	(7,744)	(7,744)	(7,744)
Maintenance Capex	(140,156)	(146,252)	(146,719)	(146,457)	(152,128)	(155,995)
Adjusted Cash Flows before Taxes	307,396	559,438	231,241	318,881	319,336	310,626
Taxes	20,920	(165,515)	(137,089)	(35,563)	(39,407)	(32,727)
Adjusted Free Cash Flow (FLEA)	328,316	393,923	94,152	283,319	279,928	277,899



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Stress Scenario: Balance Sheet (Amounts in millions of pesos)

	2021*	2022*	2023	2024F	2025F	2026F
TOTAL ASSETS	2,052,098	2,245,558	2,395,847	2,404,284	2,475,180	2,510,629
Short-Term Assets	458,394	527,895	547,056	480,174	514,657	500,396
Cash and Equivalents	76,506	64,415	68,907	36,298	47,462	46,293
Government Bonds	1,253	46,526	28,637	28,637	28,637	28,637
Accounts Receivable from Clients	101,259	107,117	112,257	86,468	89,485	84,622
Other Accounts Receivable	177,138	167,763	210,141	218,673	227,552	236,792
Inventories	86,113	126,018	113,590	96,024	106,876	88,812
Other Short-Term Assets	16,125	16,056	13,525	14,074	14,645	15,240
Long-Term Assets	1,593,704	1,717,663	1,848,791	1,924,109	1,960,522	2,010,233
Investments in Non-Consolidated Entities	2,255	2,044	1,818	2,198	2,590	2,993
Plant, Property and Equipment	1,274,533	1,368,751	1,510,933	1,585,440	1,621,013	1,669,854
Intangible Assets	0	0	1,410	1,410	1,410	1,410
Other Intangible Assets	0	0	1,410	1,410	1,410	1,410
Deferred Taxes	92,256	171,633	225,151	225,151	225,151	225,151
Other Long-Term Assets	224,661	175,236	109,478	109,909	110,358	110,825
Government Bonds	111,248	64,987	36,675	36,675	36,675	36,675
Unallocated wells	20,016	30,025	18,940	18,940	18,940	18,940
Prepaid Expenses and Other Assets	39,113	30,703	10,620	11,051	11,500	11,967
Right of Use Assets	54,283	49,521	43,243	43,243	43,243	43,243
TOTAL LIABILITIES	4,222,099	4,014,380	3,949,331	3,918,399	4,261,161	4,522,789
Short-Term Liabilities	922,648	929,737	1,121,243	729,781	856,998	782,844
Short-Term Debt	492,284	465,948	477,423	165,986	299,057	247,583
Suppliers	264,056	282,245	359,760	274,547	263,315	235,063
Taxes Payable	112,754	70,813	150,219	151,424	152,639	153,864
Other Short-Term Liabilities	53,555	110,731	133,841	137,825	141,987	146,335
Other Accounts Payable	32,016	81,808	89,062	93,046	97,208	101,556
ST Lease Liabilities	7,903	6,680	8,284	8,284	8,284	8,284
Financial Derivative Instruments	13,636	22,242	36,495	36,495	36,495	36,495
Long-Term Liabilities	3,299,451	3,084,643	2,828,088	3,188,617	3,404,163	3,739,944
Long-Term Debt	1,757,412	1,625,516	1,317,249	1,574,357	1,678,145	1,893,864
Deferred Taxes	3,341	6,865	6,653	4,574	3,161	1,819
Other Long Term Liabilities	1,538,697	1,452,262	1,504,186	1,609,686	1,722,857	1,844,261
LT Lease Liabilities	51,449	44,451	33,629	33,629	33,629	33,629
Provisions***	103,177	100,924	98,098	102,081	106,226	110,539
Financial Derivative Instruments	1,384,072	1,306,887	1,372,459	1,473,976	1,583,003	1,700,093
EQUITY	(2,170,001)	(1,768,822)	(1,553,484)	(1,514,115)	(1,785,982)	(2,012,159)
Non-controlling Interest	129	(289)	(205)	(193)	(144)	(97)
Contributed Capital, Cumulative Earnings & Other	372	125	(157)	(205)	(193)	(144)
Current Earnings	(244)	(414)	(48)	12	49	47
Majority Equity	(2,170,129)	(1,768,534)	(1,553,279)	(1,513,923)	(1,785,838)	(2,012,062)
Contributed Capital	885,016	1,096,323	1,262,938	1,382,938	1,437,938	1,527,938
Cumulative Earnings and Others	(2,760,613)	(2,965,269)	(2,926,210)	(2,816,217)	(2,896,861)	(3,223,776)
Current Earnings	(294,532)	100,412	109,993	(80,643)	(326,915)	(316,224)
Total Debt	2,249,696	2,091,464	1,794,672	1,740,343	1,977,202	2,141,447
Net Debt	2,060,688	1,915,536	1,660,453	1,638,734	1,864,428	2,029,842
Days Sales Outstanding	23	20	23	24	25	25
Days Inventories Outstanding	31	33	36	35	36	36
Days Suppliers Outstanding	97	60	85	90	90	90

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

**Mainly derivatives, but also includes assets held by PEMEX and to be distributed in the various rounds.

***Provision for plugging expenses, environmental protection and lawsuits in process.

**** The calculation of net debt includes Federal Government Promissory Notes.



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Stress Scenario: Income Statement (Amounts in millions of Mexican pesos)

	2021*	2022*	2023	2024F	2025F	2026F
Total Revenue	1,495,629	2,383,388	1,719,938	1,314,613	1,296,268	1,221,822
Domestic	762,115	1,192,714	948,667	969,786	996,838	953,843
Exports	728,541	1,073,425	767,552	341,020	295,509	263,940
Services	4,973	5,385	3,696	3,807	3,921	4,039
Incentive for automotive fuels	0	111,864	23	0	0	0
Cost of Goods Sold	925,765	1,557,856	1,241,732	881,504	852,215	808,460
Gross Profit	569,864	825,532	478,206	433,110	444,054	413,361
Operating Expenses	159,585	164,639	179,882	184,414	189,060	193,824
EBITDA	410,279	660,893	298,324	248,696	254,993	219,537
Depreciation and Amortization	140,156	146,252	146,719	146,457	152,128	155,995
Depreciation	140,156	146,252	146,719	146,457	152,128	155,995
Impairment (Revaluation) of Properties	7,827	83,538	(10,498)	37,615	38,744	39,906
Operating Income Before Other	262,296	431,103	162,103	64,624	64,121	23,636
Net Other Income and Other Expenses	(33,369)	14,356	1,543	1,836	2,141	2,364
Other Income	(33,369)	14,356	1,543	1,836	2,141	2,364
Operating Income After Other	228,928	445,459	163,646	66,460	66,262	26,000
Interest Income	28,907	27,228	18,210	16,265	16,047	13,230
Other Financial Income	0	0	10,110	0	0	0
Interest Expenses	164,572	159,684	151,792	137,570	145,060	159,361
Other Financial Expenses and Lease Interests	25,224	22,863	9,437	7,744	7,744	7,744
Net Financial Income	(160,889)	(155,319)	(132,909)	(129,049)	(136,757)	(153,875)
Foreign Exchange Net Result	(45,675)	129,690	238,225	189,532	(115,444)	(54,497)
Integral Financing Result	(206,564)	(25,629)	105,316	60,484	(252,202)	(208,372)
Earnings after Integral Financial Result	22,364	419,830	268,962	126,943	(185,939)	(182,373)
Income from Non-Consolidated Entities	(9,791)	349	369	380	392	403
Earnings before Taxes and duties	12,572	420,179	269,331	127,324	(185,548)	(181,969)
Taxes and duties	307,348	320,181	159,386	207,955	141,319	134,208
Current Taxes	306,827	391,420	209,635	210,035	142,732	135,550
Deferred Taxes	521	(71,239)	(50,249)	(2,080)	(1,413)	(1,342)
Net Income (loss)	(294,776)	99,998	109,945	(80,632)	(326,867)	(316,177)
Non-controlling interest	(244)	(414)	(48)	12	49	47
Controlling Interest	(294,532)	100,412	109,993	(80,643)	(326,915)	(316,224)
Change in Sales	56.8%	59.4%	-27.8%	-23.6%	-1.4%	-5.7%
Gross Margin	38.1%	34.6%	27.8%	32.9%	34.3%	33.8%
EBITDA Margin	27.4%	27.7%	17.3%	18.9%	19.7%	18.0%
Effective Tax Rate	2444.7%	76.2%	59.2%	163.3%	-76.2%	-73.8%
Net Sales to PP&E	1.2	1.7	1.1	0.8	0.8	0.7
ROCE	21.8%	31.7%	12.2%	4.4%	4.1%	1.5%
Cost of Debt	7.2%	7.4%	7.9%	7.9%	7.9%	7.8%
Return on Financial Assets	21.0%	13.6%	9.6%	10.9%	10.1%	8.3%

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

EBITDA Analysis	2021*	2022*	2023	2024F	2025F	2026F
IEPS Tax						
Adjusted Sales with IEPS	1,495,629	2,383,388	1,719,938	1,314,613	1,296,268	1,221,822
EBITDA (2)	410,279	660,893	298,324	248,696	254,993	219,537
Net cost of employee benefits (Pensions)	140,215	129,334	139,054	143,225	147,522	151,948
Leases in Depreciation and Interest (IFRS 16)	27,990	26,778	19,958	19,958	19,958	19,958
Adjusted EBITDA (4)	522,504	763,448	417,419	371,963	382,557	351,527
Impairment Loss (Reversal) on Impairment of Properties	7,827	83,538	(10,498)	37,615	38,744	39,906
Adjusted EBITDA with Impairment on Properties	514,677	679,910	427,918	334,347	343,813	311,621
Adjusted EBITDA Margin	34.9%	32.0%	24.3%	28.3%	29.5%	28.8%

(1) Cost of sales and operating expenses shown differ from those reported by the Company because HR Ratings deducts the depreciation of each line based on our distribution estimates.

(2) Includes valuation adjustment for impairment of unused wells, which are not cash outflows/inflows and maintain their counterpart in cash flow.

(3) Includes gain on well plugging discount rate.



Stress Scenario: Cash Flow Statement (Amounts in millions of pesos)

	2021*	2022*	2023	2024F	2025F	2026F
OPERATING ACTIVITIES						
Earnings (Loss) before Taxes	12,572	420,179	269,331	127,324	(185,548)	(181,969)
Other Cash Expenses	0	(10,383)	0	0	0	0
Non-cash charges	0	(10,383)	0	0	0	0
Depreciation	140,243	146,252	144,005	146,457	152,128	155,995
Profit (loss) from sale of fixed asset	47,300	22,452	11,107	0	0	0
Impairment of properties, plant and equipment	7,827	83,538	(10,498)	37,615	38,744	39,906
Income from non-consolidated subsidiaries and affiliates	3,088	(349)	(369)	(380)	(392)	(403)
Interest Income	(28,907)	(27,228)	(18,210)	(16,265)	(16,047)	(13,230)
Other Investment activity related charges	26,317	24,861	38,605	0	0	0
Total Investment Related Charges	195,868	249,526	164,639	167,427	174,434	182,268
Interest expense	164,572	159,684	151,792	137,570	145,060	159,361
Loss (Gain) from foreign exchange fluctuations	44,485	(128,545)	(221,800)	(189,532)	115,444	54,497
Lease Interests and Others	17,792	8,324	17,082	7,744	7,744	7,744
Total Charges related to Financial Activities	226,849	39,463	(52,926)	(44,218)	268,248	221,602
Cash Flow from P&L before Taxes	435,289	698,785	381,043	250,532	257,134	221,901
Decrease (Increase) in Account Receivables	(11,995)	(5,858)	(5,140)	25,789	(3,017)	4,862
Decrease (Increase) in Inventories	(7,961)	(35,219)	(1,628)	17,565	(10,852)	18,064
Decr. (Incr.) in Other Assets	(36,413)	(56,232)	(88,313)	(9,513)	(9,899)	(10,301)
Increase (Decrease) in Suppliers	(5,614)	16,790	44,777	(85,213)	(11,231)	(28,253)
Increase (Decrease) in Other Liabilities	75,378	105,045	68,990	110,690	118,548	126,977
Net total change in working capital	13,394	24,526	18,686	59,318	83,550	111,350
Taxes on earnings paid or returned	(259,448)	(366,673)	(79,582)	(210,035)	(142,732)	(135,550)
Cash flow generated by operations	(246,054)	(342,147)	(60,896)	(150,717)	(59,182)	(24,200)
Net cash flow from operating activities	189,235	356,638	320,148	99,815	197,952	197,701
INVESTING ACTIVITIES						
Net investment in Plant & Equipment	(209,592)	(305,335)	(260,657)	(258,579)	(226,445)	(244,742)
Investment in Intangible Assets	(25,814)	(35,136)	(35,088)	0	0	0
Business Acquisition	0	(30,012)	0	0	0	0
Interest Income	28,907	27,228	18,210	16,265	16,047	13,230
Lending to third parties	4,400	0	0	0	0	0
Other Assets	(60,136)	(29,679)	4,055	0	0	0
Net cash flow from investing activities	(262,236)	(372,935)	(273,480)	(242,314)	(210,398)	(231,512)
Cash needs related to financing activities	(73,000)	(16,297)	46,668	(142,499)	(12,446)	(33,811)
FINANCING ACTIVITIES						
Loans obtained from financial institutions	1,636,217	1,064,179	881,401	645,951	287,400	408,804
Amortization of loans	(1,707,582)	(1,107,159)	(978,855)	(510,748)	(165,986)	(299,057)
Interest paid	(157,257)	(153,957)	(135,417)	(137,570)	(145,060)	(159,361)
Lease Interest Paid	(11,268)	(10,637)	(7,744)	(7,744)	(7,744)	(7,744)
Third party Financing	(239,890)	(207,573)	(240,614)	(10,111)	(31,390)	(57,357)
Increase (decrease) in equity	339,269	218,762	166,615	120,000	55,000	90,000
Contributions for Future Capital Increases	0	0	45,850	0	0	0
Own Financing	339,269	218,762	212,465	120,000	55,000	90,000
Net cash flow from financing activities	99,380	11,189	(28,149)	109,889	23,610	32,643
Net Increase (decrease) in cash and cash equivalents	26,379	(5,108)	18,519	(32,609)	11,164	(1,169)
Effect of change in cash value from FX	10,137	(6,984)	(14,026)	0	0	0
Cash and cash equiv. at the beginning of the period	39,990	76,506	64,414	68,907	36,298	47,462
Cash and cash equivalents at the end of the period	76,506	64,414	68,907	36,298	47,462	46,293
Maintenance CAPEX	(140,156)	(146,252)	(146,719)	(146,457)	(152,128)	(155,995)
Special Adjustments	280,367	201,158	(57,507)	76,113	133,757	135,550
Free Cash Flow	328,316	393,923	94,152	21,727	171,837	169,512
Debt Amortization	1,707,582	1,107,159	978,855	510,748	165,986	299,057
Refinancing and Voluntary Prepayment	(1,316,484)	(614,876)	(512,907)	(33,325)	0	0
Net Debt Amortization	391,097	492,284	465,948	477,423	165,986	299,057
Net Interest Payment	128,350	126,729	117,206	121,305	129,013	146,131
Debt Service	519,447	619,012	583,154	598,728	294,999	445,188
DSCR	0.6	0.6	0.2	0.0	0.6	0.4
Cash and Equivalents at the Beginning of Period	39,990	76,506	64,414	68,907	36,298	47,462
DSCR with Cash	0.7	0.8	0.3	0.2	0.7	0.5
Net Debt to FCF	6.3	4.9	17.6	75.4	10.8	12.0
Net Debt to EBITDA	5.0	2.9	5.6	6.6	7.3	9.2

Source: HR Ratings projections based on information reported by the Company. Projections beginning in 1Q24.

* Financial Statements audited by KPMG, in accordance with IFRS.

	2021*	2022*	2023	2024F	2025F	2026F
Adjusted Free Cash Flow						
Net Cash Flows from Operating Activities.	189,235	356,638	320,148	99,815	197,952	197,701
Income Taxes Paid or Refunded	259,448	366,673	79,582	210,035	142,732	135,550
Difference in Changes in Cash and Cash Equiv.	10,137	(6,984)	(14,026)	0	0	0
Lease Liabilities	(11,268)	(10,637)	(7,744)	(7,744)	(7,744)	(7,744)
Maintenance Capex	(140,156)	(146,252)	(146,719)	(146,457)	(152,128)	(155,995)
Adjusted Cash Flows before Taxes	307,396	559,438	231,241	155,649	180,812	169,512
Taxes	20,920	(165,515)	(137,089)	(133,922)	(8,975)	0
Adjusted Free Cash Flow (FLEA)	328,316	393,923	94,152	21,727	171,837	169,512



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Glossary

Free Cash Flow (FCF). Is defined as cash flow from operating activities plus working capital requirements less a provision for maintenance capex plus dividends received, if any, less paid taxes and less charges for leasing contracts, including both amortization and interest. The calculation may include a Special Adjustment consideration if certain components of the listed accounts are regarded as not being appropriate for the measure (e.g., nonrecurrent, non-operational in nature.). The measure is based on a calendar year basis.

Debt Service Coverage Ratio (DSCR). Is defined as FCF divided by Debt Service. Debt Service for the purpose of this metric is defined as net cash interest expense (interest expense less interest income) plus obligatory debt amortization. Pre-payments are excluded as are payments from Excess Cash Flow Sweep (ECFS) covenants. Certain refinancing of debt may also be excluded from the debt service calculation. Capitalized interest from credit agreements originally contemplating such interest is also excluded. Capitalized interest from forced debt restructuring will not be excluded. Debt service is measured on calendar year basis.

DSCR with Cash. This is the same as the previous metric with the exception that cash at the end of the previous calendar year is added to FCF, as is any cash reserved exclusively for the debt being rated.

Years of Payment is defined as net debt divided by FCF.

Marketable Assets to Liabilities Coefficient. This measures HR Ratings' estimate of the market value of the rated entity's assets to the book value of its liabilities. Goodwill that is the result of LBO operations is given a zero value. Other goodwill is based on HR Ratings estimates.

These metrics have the following weights in the determination of our quantitative preliminary rating:

Metric Weights

DSCR	20%
DSCR with cash	20%
Yrs. of PMT.	40%
MALC	20%

The rating period for this report consists of five calendar year periods, consisting of two historical and three projected periods. The periods are defined as follows with their respective weights.

Period Weights

t-1:	13%
t ₀ :	17%
t ₁ :	35%
t ₂ :	20%



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t₃: 15%

Majority Amortization is defined as an entity with medium-term loans, possibly with insignificant regular amortizations, and a large remaining balance payment at the end of the loan period, commonly known as bullet or balloon loans.

HR Ratings elaborates two forecast scenarios: Base and Stress. For rating purposes each full scenario includes the same two historical periods as well as their respective forecast scenarios. The Base scenario is weighted at 65% and the Stress at 35%.



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**Supplementary information in compliance with section V, paragraph A), of Annex 1 of the
General Provisions Applicable to Security Rating Agencies**

Methodologies used for the analysis*	Corporate Debt Credit Risk Evaluation, February 2024 General Methodological Criteria, January 2023 Sovereign Debt Methodology, May 2017
Previous Rating	<p>Pemex LT: HR AAA with Stable Outlook PEMEX ST: HR+1 Pemex LT Global: HR BBB+ (G) with Stable Outlook PEMEX 12U: HR AAA with Stable Outlook PEMEX 13-2: HR AAA with Stable Outlook PEMEX 14U: HR AAA with Stable Outlook PEMEX 14-2: HR AAA with Stable Outlook PEMEX 15U: HR AAA with Stable Outlook PEMEX 19: HR AAA with Stable Outlook PEMEX 14-2 (G): HR BBB+ (G) with Stable Outlook PEMEX 15U (G): HR BBB+ (G) with Stable Outlook PEMEX 4.875% NOTES DUE 2028: HR BBB+ (G) with Stable Outlook PEMEX 3.750% NOTES DUE 2025: HR BBB+ (G) with Stable Outlook PEMEX 6.5% BONDS DUE 2027: HR BBB+ (G) with Stable Outlook PEMEX 6.75% BONDS DUE 2047: HR BBB+ (G) with Stable Outlook PEMEX 5.35% NOTES DUE 2028: HR BBB+ (G) with Stable Outlook PEMEX 6.35% NOTES DUE 2048: HR BBB+ (G) with Stable Outlook PEMEX NOTES DUE 2025: HR BBB+ (G) with Stable Outlook PEMEX NOTES DUE 2029: HR BBB+ (G) with Stable Outlook PEMEX 6.49% NOTES DUE 2027: HR BBB+ (G) with Stable Outlook PEMEX 6.84% NOTES DUE 2030: HR BBB+ (G) with Stable Outlook PEMEX 7.69% BONDS DUE 2050: HR BBB+ (G) with Stable Outlook PEMEX 6.500% NOTES DUE 2029: HR BBB+ (G) with Stable Outlook PEMEX 2,250m EUR: HR BBB+ (G) with Stable Outlook PEMEX 9.5% NOTES DUE 2027: HR BBB+ (G) with Stable Outlook PEMEX 4.25% NOTES DUE 2025: HR BBB+ (G) with Stable Outlook PEMEX 4.5% NOTES DUE 2026: HR BBB+ (G) with Stable Outlook PEMEX 5.95% NOTES DUE 2031: HR BBB+ (G) with Stable Outlook PEMEX 6.875% NOTES DUE 2026: HR BBB+ (G) with Stable Outlook PEMEX 6.625% NOTES DUE 2035: HR BBB+ (G) with Stable Outlook PEMEX 6.625% NOTES DUE 2038: HR BBB+ (G) with Stable Outlook PEMEX 6.5% NOTES DUE 2041: HR BBB+ (G) with Stable Outlook PEMEX 5.5% NOTES DUE 2044: HR BBB+ (G) with Stable Outlook PEMEX 6.375% NOTES DUE 2045: HR BBB+ (G) with Stable Outlook PEMEX 5.625% NOTES DUE 2046: HR BBB+ (G) with Stable Outlook PEMEX 6.95% NOTES DUE 2060: HR BBB+ (G) with Stable Outlook PEMEX 6.625% NOTES DUE PERP/CALL: HR BBB+ (G) with Stable Outlook PEMEX 6.875% NOTES DUE 2025: HR BBB+ (G) with Stable Outlook PEMEX 10.000% NOTES DUE 2033 (REGS): HR BBB+ (G) with Stable Outlook PEMEX 10.000% NOTES DUE 2033 (144A): HR BBB+ (G) with Stable Outlook</p>
Date of last rating action	April 28, 2023
Period covered by the financial information used by HR Ratings to issue this rating.	1Q11-4Q23
List of sources of information used, including information provided by third parties.	Financial and operating information reported by PEMEX, Company presentations and BOD Audited Financial Statements (2015-2017) and by KPMG (2018-2022). 2023 annual internal information reported by Pemex.
Ratings issued by other Rating Agencies that were used by HR Ratings (if applicable)	n.a.
For the issuance or follow up on this rating, HR Ratings considered mechanisms to align incentives between the originator, servicer and guarantor and the potential purchasers of such securities (if any).	n.a.
Ratings for these securities issued by other rating agencies (if any)	n.a.



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*For further information regarding this methodology(ies), please visit <https://hrratings.com/methodology/>

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Media Contact

comunicaciones@hrratings.com



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